



Overview Document

Annual Return 2002-03

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Executive Summary

1.1 Creation of Scottish Water

Scottish Water commenced trading on 1 April 2002 following the enactment of the Water Industry (Scotland) Act 2002 in March 2002. Scottish Water was created to benefit customers through improved customer service, greater scope for efficiency and the harmonisation of tariffs across Scotland. The June 2003 annual return gives the most up-to-date information on company performance following Scottish Water's first year of operation.

Scottish Water has taken its first steps to transform the water industry in Scotland. The improvements in outputs for customers are described in more detail throughout this overview document:

1.2 Customer Service

1.2.1 Customer Service Satisfaction and Service Indicators

Scottish Water closely monitors the needs, expectations and experiences of its customers through adhoc and tracking surveys through this period of transition.

The most recent results of our quarterly **Household OMNIBUS** (base 1018 households) show that for the second consecutive quarter there has been an increase in overall satisfaction levels with the services provided by Scottish Water (from 76% in December 2002 to 77% in March 2003). Perceived value for money for the services provided to our customers and their perceptions of our service levels compared to their electricity suppliers has also increased.

In its first year of operation Scottish Water has made an overall improvement in customer service as demonstrated overleaf. Notable highlights include the improvement in billing contacts against a backdrop of 50,000 more billing enquiries than 2001/02. A similar improvement should be noted in telephone calls answered where again the improvement is in the context of 160,000 more calls to Scottish Water.

The following table shows the performance indicator, the aggregated performance of the three predecessor authorities in 2001-02 and the performance of Scottish Water in 2002-03.

Customer Service Indicators	2001-02	2002-03
	%	%
DG2 Properties at risk of low pressure	0.32	0.62
DG3 Properties subject to unplanned interruptions of 12 hours or more	0.17	0.12
DG5 Properties subject to sewer flooding incidents	0.015*	0.032
DG5 Properties at risk of sewer flooding once in 10 years	0.012*	0.023
DG5 Properties at risk of sewer flooding twice in 10 years	0.028*	0.023
DG6 Billing contacts responded to within 10 days	91.1	94.8
DG7 Written complaints responded to within 10 days	99.2	97.8
DG9 Telephone calls answered within 30 seconds	88.4	93.4

* For 2001-02 North of Scotland Water were unable provide data for the number of properties at risk of flooding or the number of sewer flooding incidents due to overloaded sewers.

1.2.2 Review of Annual Schemes of Charges

In December 2001 the three water authorities developed individual schemes of charges for the operating year 2002/03, with the likely creation of Scottish Water in mind, to generate revenue in line with the revenue caps shown in the Strategic Review of Charges. The schemes of charges, which were approved by the individual boards, took initial steps towards the harmonisation of all charges across Scotland, but continued to reflect the different approaches to charges taken by each of the authorities.

When Scottish Water came into being in April 2002, the three regional schemes of charges were implemented.

Household charges in West increased by 9.9% and in East by 8.4%, while those in North remained unchanged at £350 for a band D property with both water and waste water services.

Business customers saw fixed charges increase in all areas more quickly than volumetric rates. As a result small volume metered customers saw proportionately bigger percentage increases than larger volume customers.

Surface Water drainage charges in East increased by 71% while the phased introduction of volumetric wastewater charges and reduced RV based charges continued in North and West.

For 2003/04 household charges in East & West increased by a further 9.9% with North again remaining at £350 and all business charges have been harmonised. Further increases in fixed charges for metered customers and the introduction of fixed charges for unmeasured customers in North and West have had disproportionate impacts on small volume metered business properties and small rateable value unmeasured business customers.

In East, where fixed charges were already at a high level, the main cause of customer dissatisfaction is in relation to rateable value based surface water charges which increased by 192%.

The result of harmonising business charges in a single year has attracted the attention of politicians, customer and business groups as well as extensive media interest. Business charges are now much more transparent than previously, which has enabled more direct comparison with England & Wales. The much greater difference between Scotland and England / Wales in business charges than household charges is resulting in a number of parties now querying the sufficiency of unmeasured household charges.

Looking ahead to 2004/05, Scottish Water would like to minimise the disruption to the bills of business customers and are keen to work closely with the WIC tariffs team, to facilitate this. One of the main avenues for exploration is the appropriateness of charges for unmeasured households.

1.3 Water Quality

The first year of Scottish Water presented a number of significant challenges that affected the public perception of water quality, namely the Glasgow Cryptosporidium Incident, North Ayrshire Dirty Water Incident and Carrbridge loss of supply. A number of severe weather events also presented a significant challenge to some of Scottish Water's assets and without the dedication of Scottish Water operational staff further incidents may have occurred. Significant investment is still required in the asset stock, especially in the old NoSW area to upgrade water treatment facilities to provide more robust treatment that can cope with the variable raw water quality that can be supplied to the works.

As part of the ongoing investment to achieve the Quality and Standards II outputs, Scottish Water has delivered:

- a rationalisation of water supply zones from 504 to 489;
- a reduction in the number of undertakings for THM from 164 to 150;
- a reduction in the number of undertakings for other parameters from 53 to 42; and
- improvements in water quality from the report year 2001 to the report year 2002 as follows:

The following tables highlight improvements in water quality from the report year 2001 to the report year 2002 based on regulation samples.

Parameter	2001 % age compliance	2002 % age compliance
Total Faecal Coliforms	99.72	99.82
Total Coliforms	99.44	99.85
Overall Water Quality	99.28	99.36

Parameter	Exceedences in 2001	Exceedences in 2002	% improvement
Colour	388	151	61%
Aluminium	59	35	41%
Iron	451	261	42%
Manganese	39	36	8%
Lead	27	16	41%
Trihalomethanes	791	575	27%

The outputs from Scottish Water's investment in Water Quality are described in more detail in section 2.2.1.

1.4 Wastewater compliance

Scottish Water inherited a position of having 78 continuous discharges (excluding PFI) that were failing to meet their consent standards. Over the year this number has been reduced to 60 (excluding PFI). A total of 34 unsatisfactory Combined Sewer Overflows (uCSOs) have also been removed.

A large number of coastal wastewater treatment projects were completed including Eyemouth WWTW, Kirkwall WWTW, Montrose WWTW and Tomatin WWTW. In the 2002 bathing season 31 out of Scotland's 60 designated bathing waters achieved the mandatory bathing water quality standard. 24 of these achieved the more stringent guideline standard with only 4 waters where discharges from networks and treatment works may impact, failing to meet the requirements of the directive.

Scottish Water has removed 34 properties from the "At Risk of Flooding" register and 143 properties have been connected to the public sewer system.

The outputs from Scottish Water's investment in Wastewater compliance are described more fully in section 2.2.2.

1.5 Efficiency

Scottish Water has analysed its efficiency position for 2002/03 using the WIC econometric models and data as presented in this return. Including PFI costs Scottish Water has made a net reduction in residual of £16.66m between 2001/02 and 2002/03. The details movement in modelled costs are described in section 5.1.2.

The efficiency score has been calculated as per the WICs Cost of Performance Report and shows a score of 151 in 2002/03 which shows positive movement from the 163 position in 2001/02.

1.6 Looking Forward

1.6.1 Short Term 2003-2006

Section 7 details more fully how the £200m Spend to Save allowance has been allocated across staff severance, capital investment outwith Q&SII and Transformation. The governance of the £200m is also discussed along with the list of Schemes that will transform the efficiency of the business.

The transformation programme is designed to give the optimum pace of change given the need to:

- improve customer service, water quality and environmental compliance;
- rationalise business functions, invest in enabling activities and transform working practices to create a step change in efficiency to enable the necessary reduction in operating costs;
- work in co-operation with the Trade Unions and employees through the Scottish Water Council as being the most effective way to gain employee support for sustainable change, and
- to seek staff redundancies initially through Voluntary Severance only.

1.6.2 Long Term 2006-2014

Scottish Water has embarked on detailed research, data gathering and analysis to provide the WIC with a comprehensive view of the major issues that Scottish Water will face in the next Strategic Review of Charges. Scottish Water expects to be in a position to provide well founded forecasts of revenues, costs, investment, efficiency, maintenance, quality enhancements, service improvements and its financial position in the period 2006-2014.

In particular 4 areas of research and analysis will be completed by the June 2004 Return:

- special factors which contribute to Scottish Water's higher operating costs;
- estimate of the scope for further efficiency;
- the outcome of process benchmarking studies; and
- sub-company modelling.

Scottish Water is keen to understand the WIC's programme for the overall Strategic Review of Charges. Scottish Water is particularly keen to understand when further submissions such as the draft and final business plans for Scottish Water will be required to support the setting of the revenue cap and associated efficiency analysis for the next review period.

1.7 Adequacy of Asset Stock

Scottish Water believes that the way in which asset data is submitted in the H tables does not adequately reflect the true condition and performance of the asset stock.

The WIC tables, where asset condition and performance is recorded, work at a sub-asset level and record costs on the basis of equivalent asset replacement costs. While the individual sub assets are graded on their condition and performance, this does not capture the overall performance of the works and whether it is actually "fit for purpose". This has led to a misleading picture of Scottish Water assets.

The inconsistent manner in which the former Water Authorities prepared their regulatory asset returns also has resulted in a misleading picture. For example the operating information gathered by Scottish Water on asset performance (e.g. number of bursts) indicates that, in particular, the former West Authority significantly overstated the condition and performance of their asset stock. Scottish Water also believes that the estimated level of leakage of 47.6% of distribution input, which is significantly higher than England and Wales, is a further indicator of Scottish Water's relatively poor asset condition.

Since Scottish Water's submission in May 2003 in connection with the Strategic Business Plan, further comparative analysis has been undertaken between wastewater treatment works site level performance issues and sub-asset condition and performance grading. The grades held at sub-asset level in the single asset inventory were averaged to give single works level condition and performance grades. The general picture emerging is that the sub-asset grades are not representative of the known problems, as much of the legacy data is old and in need of updating. This is detailed further in section 7.0.

Scottish Water will continue to investigate the issue of true asset performance and condition not being adequately reflected within the regulatory tables that are returned annually.

Scottish Water is keen to work with the WIC to examine the appropriateness of the H tables in particular with a view to potentially amending these prior to the June return 2004. This would seem to be a vital exercise to ensure that the return information in June 2004 is as accurate as possible to act as a baseline for the next strategic review of charges.

2. Introduction

In July 2002, Scottish Water submitted a Consolidated Annual Return that was produced by merging the data from the three predecessor Water Authorities, using the prescribed WIC methodology.¹

The June Return 2003 is the return of annual information, for Scottish Water's first full year of operation for the period 1 April 2002 to 31 March 2003.

In contrast to the consolidated return produced in July 2002, this annual return has fewer missing data cells and has been produced using consistent methodologies and a single interpretation of the WIC definitions. As a result, this return is considered to be much more robust however, direct comparisons with last year's information could be misleading.²

Within the Scottish Water's individual business functions, there are now clear lines of responsibility for annual return information and greater consistency with information submitted during the year, especially within the Assets, Finance and Customer Service directorates.

2.1 Data Quality

To improve the quality of data used by Scottish Water and reported in this annual return, a number of initiatives were put in place during 2002/03. Working under the control and governance of Scottish Water's Transformation Programme, four key projects were fundamental in improving data or at least, setting the framework for improvements throughout this review period, up to 2006.

The Business Critical Data (BCD) project led to the creation of a key set of data for Scottish Water's decision making. This had successfully been used for the predecessor authorities and enabled data providers to focus on areas for improvement. This project is a key enabler for Scottish Water's WIC Action Plans.

A summary of Business Critical Data and the movement in confidence grades are listed over:

¹ As requested by WIC, where data was missing from one or more authorities, a 'zero' was entered in the tables with a confidence grade of 'M' (missing). Details of the lines affected were submitted last year and are appended in appendix A.

² As instructed by WIC, the 'previous year' columns have not been completed on the tables

Business Critical Data Items	CG 2002	CG 2003
Customer Satisfaction Rating		
Number of written complaints (Billing and non-billing)	B2	B2
Number of enquiries (Billing and non-billing)	B2	B2
Number of GSS payments	B2	A1
% Written complaints with replies in 10 days (Billing and non-billing)	B2	B2
% Telephone calls answered within 30 seconds (CCC and Billing)	B2	A1
% Telephone calls abandoned (CCC and Billing)	A2	A1
Number of properties affected by internal sewer flooding	B4	B3
Number of properties affected by unplanned interruptions > 12 hours excluding trunk mains	B4	B3
WQ 1000		
% Bacteriological compliance for all regulatory samples		
Number of Events		
Number of successful prosecutions (Scottish Water)		
Number of undertakings and relaxations in place	A3	B2
Number of non-compliant waste water works		
Number of bathing water failures primarily as a result of our discharges		
Investment Programme quality outputs met		
Profit before interest and tax	B2	A1
Revenue	B2	A1
Base Opex	B2	A1
Capex	A1	A1
Opex saving		
Cashflow inflow (outflow)	B2	A1
Household Customers - Collection Performance		
Overdue Debtor days - Business Customers	B2	B2
Number of employees (FTEs at year end)	B3	B2
Gross Payroll costs against SBP targets		
Absence levels progress against target (% days lost in year to date)		
H&S enforcement orders/ reportable incidents/ non-reportable incidents/ near misses		
Expenditure by function		
Controllable expenditure by function		
Operating costs by asset		
Average pumping head - water	C4	C4
Average pumping head - waste water	D4	D4
Treatment input to distribution	B4	B4
Waste water loads/ volumes	B3	B2
Sludge loads/ method of disposal	B3	B3
Leakage	C5	C4
Raw water input from sources	B4	B4
Properties with low pressure	C5	C4
Infiltration		
Properties at risk of flooding	M	B4
Numbers of assets by type	C4-B4	C3-B3
Length of mains	B2	B2
Length of sewers	B3	B3
Consents		
Area of sewerage districts	B2	A1
Restrictions to supply (Hosepipe bans)	B2	A1
Population (Summer)	C5	B3
Non-domestic demand	B2	B2

Linked to this is the development of a *Corporate Data Warehouse* that will, in time, be the single source for key data within Scottish Water, with data quality controls in place. At present, the laboratory information from the LIMS system feeds through this warehouse.

As part of the development of a *Work & Asset Management System (WAMS)* for Scottish Water, a new single asset inventory was completed at the end of March 2003, consolidating data from the legacy authorities' systems.

The *Asset Data Improvement Project*, which is programmed up to March 2006, is addressing the data gaps from the predecessor authorities. Particular areas being addressed by this project include:

- focusing on what information is important and what is unnecessary;
- encouraging staff to consider the cost of collecting and maintaining data vs the benefit derived;
- knowledge sharing;
- reducing multiple data production and handling;
- increasing use of corporate information systems.

- assisting in the delivery of WIC Action Plans;
- data collection, cleansing and verification, primarily for the asset inventory and the GIS;
- surveys of E&M assets, to fill data gaps and allow maintenance plans to be developed;
- data gap filling and verification prioritised towards areas of Q&S 3 potential investment; and
- co-ordinating site surveys to reduce costs.

As a result of the above initiatives, the data in this year's return is more robust than the consolidated submission in July 2002 and is more representative of the position of Scottish Water after one full year of operation.

3. Outputs Achieved for Customers and the Environment

3.1 Levels of Service to Customers by DG1-9 and WIC5

In England and Wales Ofwat measures the levels of service to customers provided by the water and sewerage companies by using the following eight measures:

DG2 – Properties at risk of low pressure.

DG3 – Properties subject to unplanned supply interruptions of 12 hours or more.

DG4 – Population subject to hosepipe bans.

DG5 – Properties subject to sewer flooding incidents and properties at risk of flooding.

DG6 – Billing contacts not responded to within 5 days.

DG7 – Written complaints not responded to within 10 days.

DG8 – Bills not based on meter readings

DG9 – Received telephone calls not answered within 30 seconds.

DG4 and DG8 are not relevant to Scottish Water but the other six indicators can be used to measure the company's performance in its first full year of operation.

3.1.1 DG2 Properties at risk of low pressure

This indicator shows the number of connected properties that have received, and are likely to continue to receive, pressure below the reference level when demand for water is not abnormal. The reference level of service is defined as 10 metres head of pressure at a boundary stop tap with a flow of 9 litres per minute. As it is impractical to measure the pressure and flow at every customer's property an alternative reference level of 15 metres head of pressure in the distribution main supplying the property can be used.

In 2001-02 Scottish Water's three predecessor authorities reported 7,607 properties receiving pressure/flow below the reference level. This was broken down as 5,062 in the North, 1,526 in the East and 1,019 in the West. This corresponded to 0.32% of connected properties in Scotland. In 2002-03 Scottish Water's information on properties subject to low pressure has improved and consequently the number of properties reported has increased to 14,942 properties below the reference level or 0.62% of connected properties.

3.1.2 DG3 Supply interruptions

This indicator shows the number of properties experiencing interruptions to their supply of greater than 12 hours that are the responsibility of the water company, but are not planned and or pre-warned.

In 2001-02 Scottish Water's three predecessor authorities reported that 4,044 properties, or 0.17% of properties, had experienced unplanned interruptions due to non-trunk mains. In 2002-03 Scottish Water's figure improved to 2,942 properties or 0.12% of connected properties.

3.1.3 DG5 Flooding from sewers

This indicator examines company performance in respect of internal sewage flooding of properties. Companies are assessed on the risk of sewer flooding once in 10 years and twice in 10 years. Companies are also assessed on the number of properties affected by sewer flooding incidents.

In terms of properties at risk of sewer flooding it is difficult to draw a complete picture for Scotland in 2001-02. WoSWA reported 240 properties at risk twice in 10 years and 221 at risk once in 10 years. ESW reported 396 properties at risk twice in 10 years and 44 at risk once in 10 years. However NoSWA was unable to report any figures. In 2002-03 Scottish

Water has reported 499 properties at risk twice in 10 years and 515 at risk once in 10 years. Therefore 1,014 properties or 0.046% of connected properties are at risk of sewer flooding.

For the number of properties actually flooded during the year in 2001-02 ESW reported 53, WoSWA reported 423 and NoSWA reported 60 although it was unable to report on properties flooded due to overloaded sewers. This gave a total in Scotland of 334 or 0.015% of connected properties.

In 2002-03 Scottish Water reported 710 properties or 0.032% of connected properties affected by sewer flooding. The increase in reported properties is due to a combination of improved data on properties subject to sewer flooding and the occurrence of 3 extreme weather events last year (1 in 100 year storm events) which due to weaknesses in the sewerage system subjected more properties to sewer flooding last year.

3.1.4 DG6 Billing contacts

This indicator shows the total number of written and billing contacts received and how quickly they are dealt with. In England and Wales the standard for replying is within 5 working days but in Scotland it is 10 working days.

A billing contact is any enquiry regarding a bill – for example, an account query, change of address, request for alternative payment arrangements – which is not a complaint.

In 2001-02 Scottish Water's three predecessor authorities received 188,662 billing contacts of which 171,873 or 91.1% were responded to within 10 days. In 2002-03 Scottish Water received 233,555 billing contacts of which 221,410 or 94.8% were responded to within 10 days. Therefore despite receiving almost 50,000 more billing enquiries Scottish Water increased its performance by 3.7%.

3.1.5 DG7 Written complaints

This indicator shows the total number of written complaints received and how many were dealt with in 10 working days. A written complaint is any letter that draws attention to any service provided by the company that falls short of the expectation of the correspondent.

In 2001-02 Scottish Water's three predecessor authorities received 8,307 written complaints. Of these 8,243 or 99.2% were answered within 10 working days. In 2002-03 Scottish Water received less written complaints from its customers. 8,131 were received of which 7,954 or 97.8% were answered within 10 working days.

Although the percentage of responses meeting the Guaranteed Minimum Standard decreased in 02-03 compared to 01-02 it should be noted that the figures are adversely affected by the performance in the first 6 months of Scottish Water. From October 02 to March 03 Scottish Water responded to 99.6% of all written complaints within 10 days. This performance would be rated as good by Ofwat and would be better than the 01-02 average in England and Wales, which was 99.3%.

3.1.6 DG9 Ease of telephone contact

This indicator identifies the ease with which a customer can make contact with a company. The indicator monitors incoming telephone traffic on principal advertised customer contact numbers and looks at the number of calls answered within 30 seconds.

In 2001-02 Scottish Water's three predecessor authorities answered 733,150 calls on their customer contact lines. Of these 647,986 or 88.4% were answered within 30 seconds. In 2002-03 Scottish Water answered 895,791 calls of which 836,471 or 93.4% were answered within 30 seconds. Therefore despite receiving over 160,000 more calls, Scottish Water increased answering performance by 5%.

3.1.7 Summary

The following table shows the performance indicator, the aggregated performance of the three predecessor authorities in 2001-02 and the performance of Scottish Water in 2002-03.

Customer Service Indicator	2001-02	2002-03
	%	%
DG2 Properties at risk of low pressure	0.32	0.62
DG3 Properties subject to unplanned interruptions of 12 hours or more	0.17	0.12
DG5 Properties subject to sewer flooding incidents	0.015*	0.032
DG5 Properties at risk of sewer flooding once in 10 years	0.012*	0.023
DG5 Properties at risk of sewer flooding twice in 10 years	0.028*	0.023
DG6 Billing contacts responded to within 10 days	91.1	94.8
DG7 Written complaints responded to within 10 days	99.2	97.8
DG9 Telephone calls answered within 30 seconds	88.4	93.4

* For 2001-02 North of Scotland Water were unable provide data for the number of properties at risk of flooding or the number of sewer flooding incidents due to overloaded sewers.

3.2 Maintaining Drinking Water Quality and Environmental Compliance

3.2.1 Water Quality Compliance during 2002

As part of the ongoing investment programme the number of water supply zones has been reduced from 504 to 489. This is as a result of a number of pipeline schemes being completed during the report year allowing assets to be decommissioned as part of ongoing rationalisation.

While the data in Table C1 suggests that overall water quality has deteriorated **it should be noted that there has been change in the current year on reporting of water quality failures.** Under the current Water Supply (Water Quality) (Scotland) Regulations 1990 failures were previously reported against Prescribed Concentration Value (PCV) or the relaxed value as granted by the Scottish Executive, whichever was the higher. In the current year, in recognition of the removal from the Regulations of Relaxations, all failures are measured against the PCV giving a truer picture of overall water quality. As a result of this the number of zones failing for a number of parameters show a significant increase over the report year.

Compliance within the Regulations is measured as a percentage of failures against the number of samples taken. This removes the possibility that one failing sample in a zone results in a failing zone and gives a truer measure of overall performance.

Using this measure of compliance there has been a slight improvement in Microbiological compliance during the report year and an improvement in a number of key parameters.

The following tables highlights improvements in water quality from 2001 – 2002 based on regulation samples:

Parameter	2001 % age compliance	2002 % age compliance
Total Faecal Coliforms	99.72	99.82
Total Coliforms	99.44	99.85
Overall Water Quality	99.28	99.36

Parameter	Exceedences in 2001	Exceedences in 2002	% improvement
Colour	388	151	61%
Aluminium	59	35	41%
Iron	451	261	42%
Manganese	39	36	8%
Lead	27	16	41%
Trihalomethanes	791	575	27%

As part of the ongoing identification of the scale of lead in distribution the survey work has now been completed. As a result, the number of supply zones that have undertakings to meet the 25 µg/l standard has increased from 93 in 2001 to 149 in 2002.

During the current reporting year progress has been made in delivery of projects to address the key quality drivers under the Drinking Water Directive, namely THMs (C3.10) and other parameters (C3.13). The number of undertakings for THM has been reduced from 164 to 150 and the number of undertakings for other parameters reduced from 53 to 42.

The investment programme is phased to improve water quality during the Quality & Standards II period with significant investment to be delivered by the end of 2003 to comply with the introduction of the new regulations.

Delivery highlights during the first year of Scottish Water include:

- Auchneel WTW – improved at a cost of £5.6m to achieve compliance with lead and trihalomethane (THM) standards.
- Kyle of Lochalsh – Now complies with the standards for THM following expenditure of £2.5m. This scheme will also allow improvements to be made to surrounding supply zones through by enabling mains extensions.
- Achiltibuie Water Supply – improved to comply with the requirements of the Cryptosporidium Direction 2000 following an investment of £1.4m which also improved THM compliance.
- Inverness WTW – provides new treatment facilities to meet two undertakings relating to cryptosporidium as well as colour, manganese and aluminium standards, with an expenditure of £17m.

3.2.2 Environmental Compliance during 2002

Scottish Water inherited a position of having 78 continuous discharges (excluding PFI) that were failing to meet their consent standards. Over the year this number has been reduced to 60 (excluding PFI). A total of 34 unsatisfactory Combined Sewer Overflows (uCSOs) have also been removed.

Highlights include: 4 projects in the South West area delivered improvements to 4 uCSOs for compliance with Urban Wastewater Treatment Directive (Inland Waters) for a total expenditure of £490k. A number of large coastal wastewater treatment projects were completed during the year including :

- Eyemouth WWTW – a new works providing improved levels of treatment to a population equivalent of 70,000, at an investment of £9.4m.
- Kirkwall WWTW, Outfall & Hatston Sewer – providing secondary treatment to a population equivalent of 15,700, at an investment of £10.2m.

- Montrose WWTW – providing treatment for a population equivalent of 42,000, through investment of £16.2m.
- Tomatin WWTW – completed to comply with the Freshwater Fisheries Directive whilst removing 1 continuous discharge through investment of £0.38m.

In addition to the completion of these new wastewater treatment works improvement works have been carried out on existing works to improve compliance. Highlights include:

- Biggar WWTW Outfall, Pumping Station & Rising Main – removing an unsatisfactory continuous discharge from a population equivalent of 2800 at a cost of £1.3m.
- Maybole Relief Sewer – eliminating 6 unsatisfactory intermittent discharges from a population equivalent of 6300 for a capital investment of £1.1m.

During the bathing season of 2002, thirty-one out of Scotland's sixty designated bathing waters achieved the mandatory bathing water quality standard. Twenty-four of these achieved the more stringent guideline standard with only five waters failing to meet the requirements of the directive. Discharges from Scottish Water's waste water treatment or collection systems may have impacted upon four out of five of the failed bathing waters in some way. There are no Scottish Water discharges at the fifth site, Etrick Bay. There are four other Bathing Waters with no significant sewage discharges. These are:

- Southernness, Sandyhills, Brighthouse Bay, Carrick Bay

The four failing bathing waters that may have been impacted by Scottish Water discharges are:

- Rockcliffe, Peterhead, Cruden Bay and Arbroath.

Scottish Water has prioritised work at these bathing waters to ensure that improvements are in place prior to the beginning of bathing season 2003 as shown below.

- **Rockcliffe-** a temporary Ultra Violet Disinfection plant is currently being added to the waste water treatment works at Rockcliffe. Studies have shown that the other Scottish Water asset in this area, Kippford septic tank, does not impact on the bathing water.
- **Peterhead Lido-** a Combined Sewer Overflow improvement plan has been completed. Event monitoring and recording has been installed.
- **Cruden Bay-** improvements at Cruden Waste Water Treatment Works and Combined Sewer Overflows have been completed.
- **Arbroath-** catchment investigations have been undertaken and illegal cross-connections removed from the surface water system. SEPA monitoring has recently highlighted further illegal cross-connections. A specialist contractor has been engaged to find these so that they can be removed.

Scottish Water is also progressing investment at 23 other Bathing Waters to further reduce the risk of standards being compromised by Scottish Water's discharges. This investment is programmed for completion by Bathing Season 2004 however where appropriate interim solutions have been put in place for this bathing season.

Wastewater Base & Growth

There have been a total of 45 projects delivered in this category with 34 properties being removed from the At Risk of Flooding Register and 143 properties have been connected to the public sewer system. Highlights include:

- Alloa West Sewers – removing 8 properties from the At Risk of Flooding Register, increasing the system capacity by 25MI/d and providing new connections to 2692 dwellings, following an investment of £3.1m;

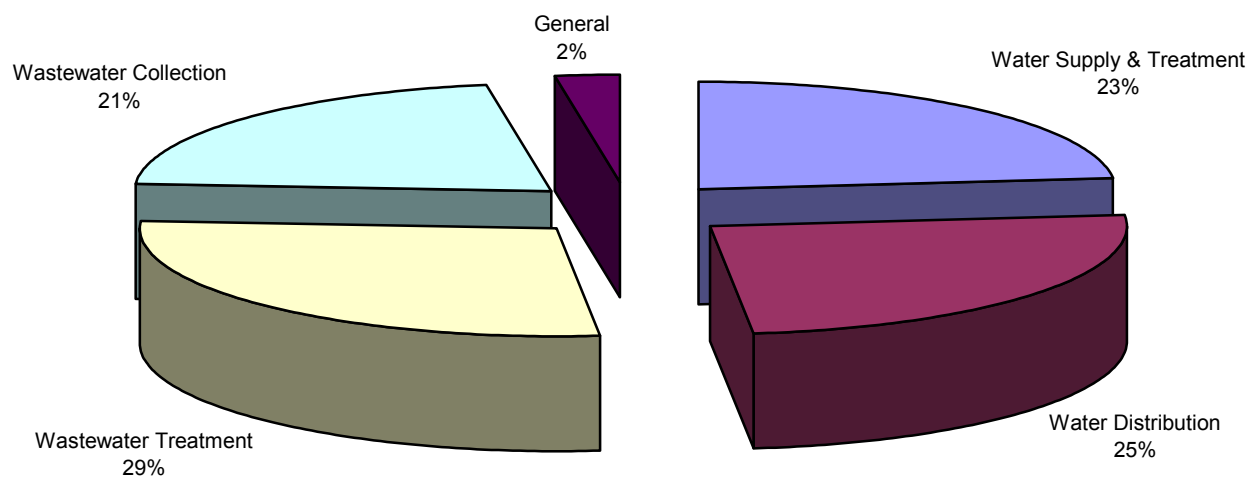
- Stirling Lovers Walk Pumping Station abandonment is the final phase of the Stirling Riverside programme ensuring improvement to the River Forth and removes 1 uCSO, and also providing new connections to 2000 dwellings, at a cost of £3.9m;
- Milton Herma Street – removing 2 properties from the At Risk of Flooding Register at a capital expenditure of £208k; and
- Beeches Road Farm Road – removing 1 property from the At Risk of Flooding Register at a capital expenditure of £92k.

3.3 Scottish Water Capital Programme

Scottish Water has worked with WIC and the Quality Regulators to agree the WIC 18 baseline programme for monitoring for this review period, along with jointly developing a substitution mechanism to cope with additional priorities arising up to 2005/06.

In 2002/03 Scottish Water chose to invest £353m in capital projects rather than the WIC target of £450m. This was to ensure that only projects which were legally committed or had legislative drivers proceeded and that all other asset related projects could gain maximum procurement efficiencies by being delivered by the joint venture company Scottish Water Solutions.

Scottish Water delivered an extensive capital investment programme during the financial year 2002/03, investing £353m in capital schemes against a target of £350m. A split by function is given below.



Part of this investment, enabled the development of strategic studies, feasibility studies, design and contract documentation for projects that will deliver outputs during the period 2003/04 and 2005/06 and into the Quality and Standards III period.

In total some 600 named projects and sub- projects at various stages of development were progressed during the year. This investment included the Integrated Network Management System (INMS) and Drainage Area Planning (DAP) projects.

A number of projects, were committed in the year which will deliver outputs in the future, a predominant example being the Loch Katrine Water Supply Scheme some other highlights are:

Waste Water, Collection & Environmental Water Quality Committed 02/03

- Linwood & Johnstone WWTW's Rationalisation
- Millport ST Facilities
- Inveraray ST Facilities
- Moray Coast PPP 2003 Variation
- Bonnybridge Phase 2 WWTW
- Aberdeen Kings Link CSO
- Larkhall

Water Treatment, distribution & Drinking Water Quality Committed 02/03

- Invercarnie Membrane
- Afton WTW Refurbishment
- Ullapool WWTP & CSOs
- Turiff WTW
- Mainland Augmentation

4. Financial Performance

Scottish Water is obliged to meet three financial objectives set by Scottish Ministers:

1. discharge its functions, with a view to achieving an operating surplus³ giving a return on its deemed capital value⁴ of not less than 6%. The rate of return achieved in the current financial year was 7.3%;
2. achieve the finance target set by the Government as part of the resource accounting and budgetary approach to managing public finances (RAB) . The target for Scottish Water in 2002/3 was to operate within a RAB score of £202.3m, being the excess of capitalised expenditure over profit before interest and tax. Performance was £21.7m better than target at £180.6m.
3. Scottish Water must also ensure that its revenue is sufficient to cover costs. The surplus after tax for the year was £34.9m.

The achievement of these key objectives over the financial year has been dependent on Scottish Water raising sufficient revenue from customer charges while aiming towards the efficiency targets set by the WIC.

Turnover

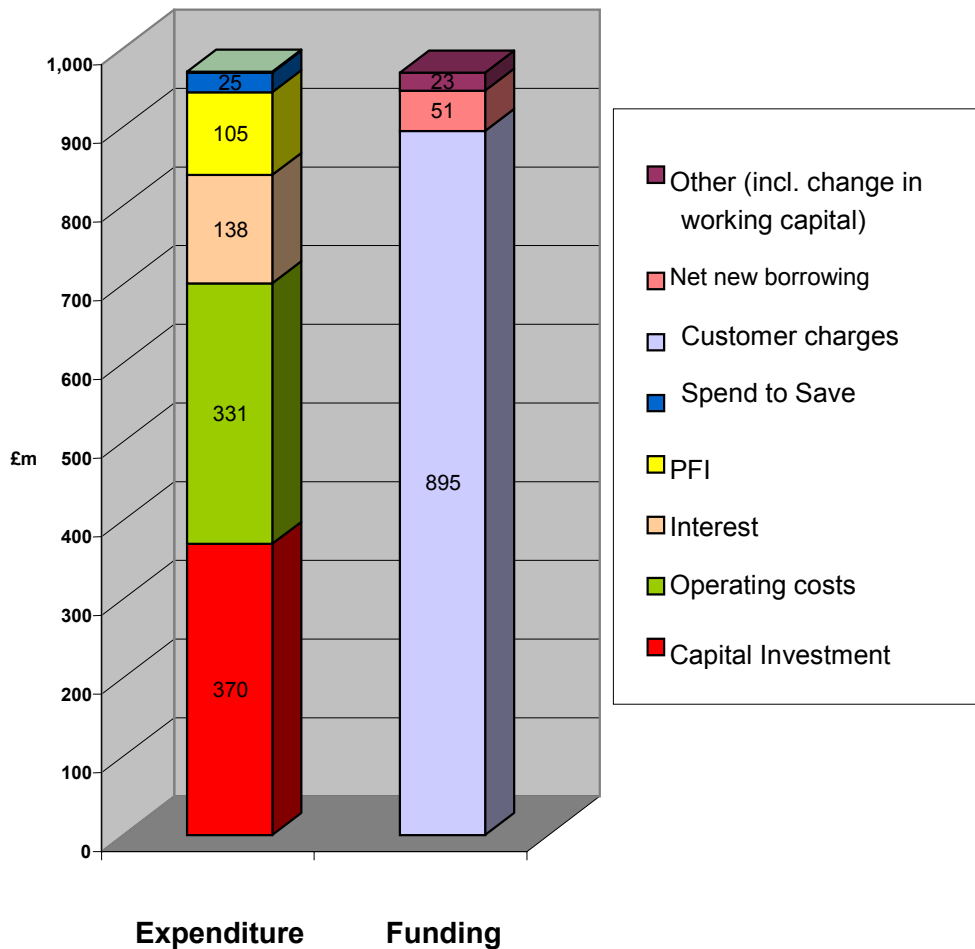
Turnover for the year was £895.3m and comprised core business turnover of £874.5m and a £20.8m turnover from other services. Core business turnover was within the revenue cap of £887.8m, with water services providing £421.6m (48%), and wastewater services £452.9m (52%). 60% of total turnover came from charges to household customers. Commercial and trade effluent income accounted for 38% of total turnover with the remaining 2% coming from the provision of other services, generally non-core.

The graph below highlights the key sources of funding and how these were applied to Scottish Water's activities. All of the revenue raised from customers, together with the £51.1m of net new loans, was used to finance Scottish Water's operational activities and capital investment programme. The profit before tax of £51.4m was fully reinvested in the business to enable the delivery of the capital investment programme.

³ The operating surplus is comprised of the current cost surplus for the year and all other gains or losses in respect of net operating assets.

⁴ The 'deemed capital value' is the capital value at the beginning of the year, along with the average level of investment in net operating assets during the year.

Expenditure and Funding for the year ended 31 March 2003



Operating Costs

Operating costs before depreciation and PFI charges were £330.8m. This was approximately £30m lower in real terms than the comparable costs for the three former water authorities in 2001/2. There were no atypical costs in 2002/03 operating costs.

Staff costs constituted 46% of total operating costs for the report year, at £150.9m. Costs were £1.8m lower than budget and £1.1m lower than forecast. The average number of people employed by Scottish Water over the year was 5,007 (fte) a reduction of 641 from the average level employed by the former water authorities. The number of people employed at the end of the year, after taking account of the 335 leavers on 31 March reduced to 4,592 a reduction of 604 over the year.

Other operating costs were £3.3m below budget and £1.1m less than forecast at £179.9m, despite the additional costs associated with increased 'other income'.

Exceptional costs

Exceptional costs totalled £24.6m and related to restructuring and transformation cost undertaken as part of the £200m Spend to Save programme, 'allowed for', by the WIC in his Strategic Review of Charges.

Depreciation

Depreciation, including infrastructure maintenance charges, was £245.1m reflecting the increased investment in infrastructure and non-infrastructure assets. These costs will continue to rise as a consequence of Scottish Water's significant capital investment programme to improve the quality, reliability and efficiency of service provision.

PFI Costs

PFI costs for the year were £105.4m, £1.5m below budget, but in line with the forecast at £105.4m. These costs reflect provision for outstanding claims and an indicative assessment for business rates. Expenditure by project is analysed below:

This table has been excised as the information would be prejudicial to Scottish Water's ongoing management of the contracts.

The most significant areas of cost overruns were experienced on the Tay & Aberdeen projects, which have just completed their first year of operations. Base flow levels at both these projects have been higher than expected, compounded by higher than average rainfall during the year. Further information excised due to commercial confidentiality of PFI contracts.

Capital Investment

At 31 March 2003, capital expenditure was £369.7m; £19.9m higher than budget, however, this included £16.9m of capitalised Spend To Save projects. Quality & Standards II expenditure was £2.8m ahead of budget at £352.8m. Overall, 86% of the capital investment programme was funded by customer revenue through net cash flow from operating activities and 14% was funded from new borrowings. Own work capitalised was in line with 2001/02 in real terms, although the percentage of salary costs capitalised remain low compared to the English & Welsh plcs.

Customer Debt

Household income cash collection was 0.5% better than forecast which equated to £2.6m of cash collected. During the year gross debt for commercial customers reduced £15.3m.

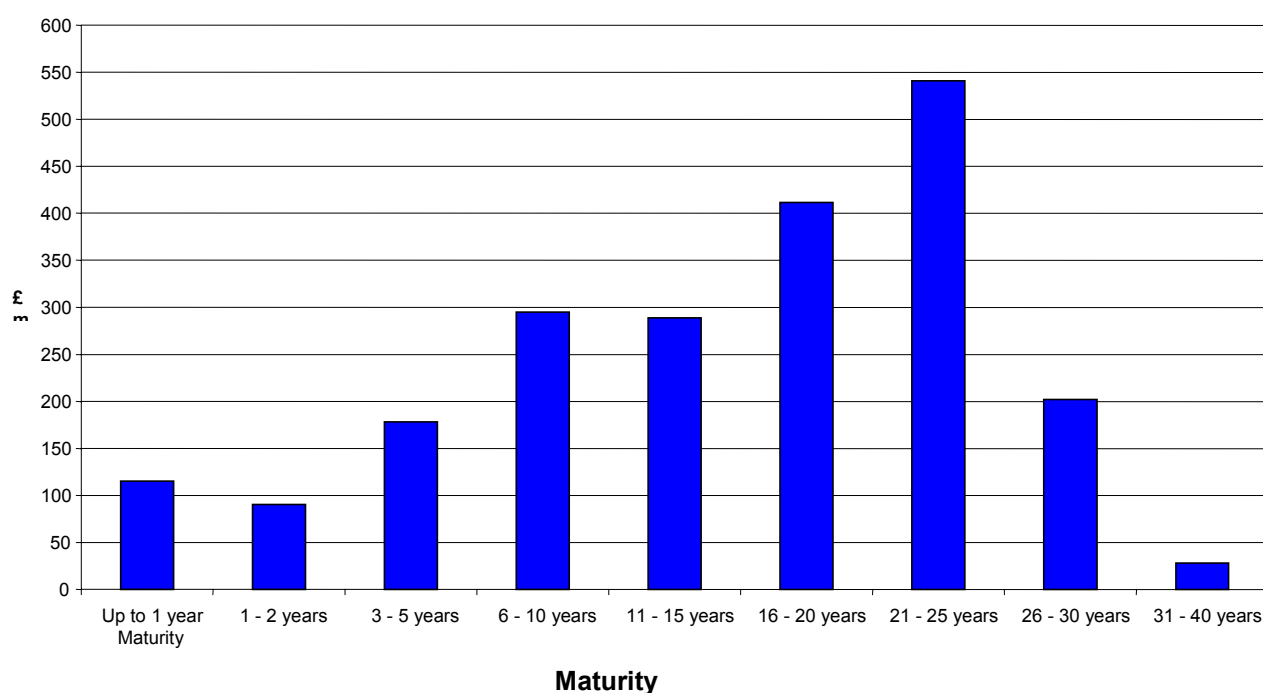
The bad debt charge for household income has been calculated as a percentage of turnover, based on the collection history of the Councils for each of the previous three authorities. This has resulted in a charge for the year of £29.9m, compared to a budget of £32.0m, reflecting the improved collection performance of £2.6m in the current year. The commercial element of the charge was calculated using percentages of aged debt, which generated a charge for the year of £7.1m, that was in line with the full year budget and forecast.

Finance Costs

Scottish Water inherited £2,097.8m of net debt with a weighted average interest cost of 6.61%. During the year net debt increased by £51.3m to £2,149.1m. This increase was due to £140m of new long-term loans at an average interest cost of 4.08%; partially offset by a £74.4m repayment of long-term loans and £14.5m net repayment of short term loans. Net interest payable during the year was £137.6m.

The maturity profile of the loans outstanding at 31 March 2003 is set out below:

Maturity Analysis as at 31 March 2003



Pensions

Under the Financial Reporting Standard No. 17 "Retirement Benefits" a snapshot is taken of pension fund assets and liabilities at a specific point in time. Movements in equity markets and discount rates create volatility in the calculation of scheme assets and liabilities. At 31 March 2003, after taking account of deferred taxation, there was a shortfall of assets over respective liabilities of £145.5m, reflecting the downturn in equity markets, low discount rates and increased pension liabilities.

The employer contribution rates, set by the funds' actuaries, will increase Scottish Water's average contribution, as a percentage of salary, from 14.3% to 16.6% by March 2006. However, in light of the uncertainty of future financial conditions, the financial position of pension funds will be monitored, if required by means of actuarial interim funding reviews, in the period up to the next triennial valuation in 2005.

Scottish Water notes that Ofwat has stated that the cost of contributions to protect future pensions ".....is a cost of the business that customers will have to fund through price limits"⁵. Scottish Water is keen to understand WIC's view on passing the increased cost of contribution through to customers.

⁵ BBC Today Programme

5. Efficiency

5.1 Opex Efficiency

Scottish Water delivered significant opex efficiencies in the financial year 2002/03. The following sections present Scottish Water's own analysis of the efficiency gains and explanation of the key movements

5.1.1 Econometric Modelling Results- 2002/03

Scottish Water has analysed its efficiency position for the financial year 2002/03 using the WIC econometric models and data as presented within the annual return. Scottish Water consider this to be a fair representation of its current performance, however dialogue with WIC staff on this analysis would be welcomed to ensure that WIC and Scottish Water have a shared understanding of Scottish Water's efficiency position.

In the assessment of Scottish Water's efficiency position, we have undertaken the following analysis:

- comparison of actual and predicted operating costs, residuals and assessment of modelled efficiency gains/losses; and
- calculation of Scottish Water's efficiency score;

Table 1 presents a breakdown of modelled operating costs (including PFI costs) for 2002/03 and the comparable performance of the combined water authorities in 2001/02.

Table 1 – Modelled Operating Costs 2002/03 (including PFI costs) ⁶

Model	Actual Costs £m	Predicted Costs £m	Actual Costs £m	Predicted Costs £m	Residuals £m		Movement In Residuals £m
	2001/02	2001/02	2002/03	2002/03	2001/2	2002/3	
Water Resources & Treatment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	-xx.xx
Water Distribution	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	x.x	-xx.xx
Power	x.xx	x.xx	x.xx	x.xx	x.xx	x.xx	x.xx
Business Activities	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	x.xx
Water sub-total	xxx.xx	xxx.xx	xxx.xx	xxx.xx	xx.xx	xx.xx	-xx.xx
Sewer Network	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	-x.xx
Large Treatment Works	xx.xx	xx.xx	Xx	xx.xx	x.xx	xx.xx	xx.xx
Small Treatment Works	xx.x	xx.xx	xx.xx	xx.xx	x.xx	x.xx	x.xx
Sludge Treatment & Disposal	xx.xx	xx.xx	xx.xx	xx.x	x.xx	x.xx	-x.xx
Business Activities	xx.xx	xx.xx	xx.xx	xx.x	x.xx	xx.xx	x.xx
Sewerage sub-total	xxx.xx	xx.x	xxx.x	xxx.xx	xx.xx	xx.xx	xx.xx
Total Residual	xxx.xxx	xxx.xx	xxx.xx	xxx.xx	xxx.xxx	xx.xx	-xx.xxx

Including PFI costs Scottish Water made a net reduction in residual of £XX.XXm between 2001/02 and 2002/03.

⁶ There may be marginal variation in totals due to rounding error.

5.1.2 Details of movements in modelled costs

Water Resources and Treatment

The modelled costs have reduced from £XX.XXm to £XX.XXm primarily as a result of the reduction in bulk supply costs. The predicted costs for this model have increased by £X.XXm to £XX.XXm as a result of the number of sources increasing due to a consistent Scottish Water approach to the classification. The amount of water being taken from rivers also increased following a review of the definitions. The biggest change has been to classify Loch Lomond as a river sources as it is closer in definition to a river than a reservoir. The distribution input remains virtually unchanged.

Scottish Water would welcome the opportunity to review the classification of sources specified by WIC in the Annual Return. The current split (reservoirs; lochs, burns and spring intakes; river abstractions and boreholes) was devised to provide Scottish Water with an increased allowance through modeling to take account of the unique issues of operating in an upland rural area. The WIC models used in the econometric models remain unchanged from the OFWAT models. Scottish Water feels it may be penalised by the WIC methodology; not only are we not receiving any additional allowance for these difficult sources, we are losing the allowance that we would receive if we were operating under the OFWAT regime and classifying the burns as rivers.

Water Distribution

The actual costs reduced by £XX.XXm to £XX.XXm. The only significant change is to the proportion of mains over 300mm, which has increased slightly because of better data.

Power

The predicted costs for power have reduced from £X.XXm to £X.XXm as a direct result of the pumping head reducing from 42m to 36m. Scottish Water is now reporting the lowest pumping head figure in Britain. Actual modelled costs have remained broadly static over the same period.

The model is intended to represent the total power costs of the water service activity company, not just the power required to lift water. Scottish Water believes that this model operates to the detriment of companies with very lower pumping heads (such as Scottish Water) as it does not make sufficient allowance for other water related power costs such as power/lighting used on water treatment.

Business Activities

The cost of operating business activities has increased slightly within the year. The number of billed properties has also reduced slightly having the effect of increasing the residual by £X.XXm.

Sewer Network

The sewer length has been reported including the extra 10,000km of sewers that Scottish Water operates over and above the requirements in place on the companies in England and Wales. This proves an additional predicted allowance of £X.XXm. Scottish Water is undertaking a study to look at the actual cost of providing this service and it is expected to be in excess of the allowance provided by the models.

Wastewater Treatment Works

The loads reported at wastewater treatment works has reduced by more than 10%. The main cause of this is the method of measurement, in England and Wales the companies generally use a theoretical load based on a count of the number of people connected plus the maximum load for each industrial customer. Scottish Water has used the measured load, this invariably gives a lower value, as the theoretical method provides a peak loading value whereas the measured load picks up the average load received at the works.

Large Works (Including PFI)

The actual costs have increased from £XX.XXm to £XX.XXm, this is primarily due to the number of PFI schemes coming into service during 2002/03.

Small works

The cost of operating the small works has reduced from £XX.XXm to £XX.XXm, this is as a result of better cost allocation between the different works types.

Sludge Treatment and Disposal

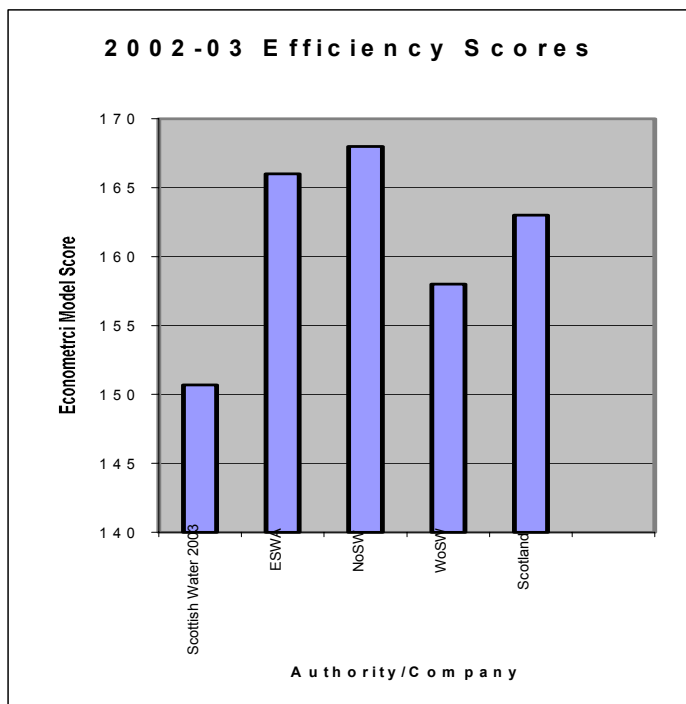
Predicted functional expenditure has increased from £XX.XXm to £XX.Xm due to improved records of sludge collected and the disposal routes. The actual sludge costs have remained static, even after an increase in PFI operating costs by £X.XXm. Work is ongoing for this activity to improve reporting for 2003/04

Business Activities

The cost of operating business activities has increased slightly within the year. The number of billed properties has also reduced slightly having the effect of increasing the residual by £X.XXm.

Overall, the wastewater models indicate an efficiency reduction; of £X.XXm. The net position is £XX.XXm reduction in Scottish Water's residual, since 2001-02.

There was a significant rise in PFI functional expenditure, including Scottish Water's own costs, from £XX.Xm to £XX.Xm. This is as a result of the first full year operation of Dalmuir and Daldowie and also upgrading treatment processes at Buckie, Lossiemouth and Inverclyde.



5.1.3 Reconciliation of Model to Audited Accounts 2002-03

Scottish Water has reconciled all econometric modelling to the audited accounts. This reconciliation is presented below:

Table 2- Reconciliation of Modelled Operating Costs to Audited Accounts 2002/3

	Scottish Water 2002-03	
Audited opex	707,098	
Less depreciation:	(106,253)	
Less infrastructure depreciation	(140,000)	
		<u>460,845</u>
Modelled opex -Table E1	149,518	
Table E2	170,692	
		320,210
SEPA	5,900	
Local Authority Rates	25,861	
Third Party	20,382	
Exceptionals	24,646	
PPP	63,851	
		<u>140,640</u>
		<u>460,850</u>

5.1.4 Calculation of Efficiency Score

An initial summary analysis of Scottish Water efficiency score on the basis of our Annual Return submission, and as per the *WIC Costs and Performance Report, Feb 2003*, is shown in the graph below. Scottish Water's score is **151**. This compares favourably with the previously published scores for Scotland of **163**,⁷ and 166, 168 and 158 for East, North & West authorities respectively, **in 2001-02**. Scottish water intends to carry out further comparative analysis in the future, which will help to target areas of the business which require further efficiencies to be made.

5.1.5 Procurement Efficiencies

During 2002/03 Scottish Water made a number of savings through the improved procurement of materials and services. The savings spanned across energy, purchase of equipment, renegotiation of agency and IT maintenance contracts, and the purchase and reduction in use of chemicals, all resulting in savings of circa £5million.

5.1.6 Voluntary Severance

The voluntary severance scheme has led to 627 people leaving the business during the financial year, this is approximately 11% of the staff who transferred to Scottish Water from the predecessor authorities.

5.1.7 Property Rationalisation

Property disposals totalled £2.6m. Properties acquired during the report year, included a new Scottish Water Office built in Inverness, which cost £1.95m.

5.2 Capital Efficiency

5.2.1 Cost Base

The cost base data submitted in the J Tables of this return demonstrate that Scottish Water has made further capital efficiencies throughout 2002/03 in terms of capital procurement.

Data quality has also improved in the cost base due to more up to date data being used for some items and information being available on Sewage Pumping Stations, which was unavailable last year.

A summary of the efficiencies made this year is shown below:

Water Infrastructure - Efficiencies were achieved for all completed categories (except Nominal Bore 150mm Suburban roads), ranging from 1.16% to 13.02%

Sewerage Infrastructure - Efficiencies were achieved for all completed categories (except Nominal Bore 300mm Suburban roads), ranging from 1.38% to 23.55%

These both demonstrate that the term contracts being used by Scottish Water are still providing efficiencies, through continued scrutiny, improvement and renegotiations.

Water non-infrastructure - Efficiencies were achieved for 'New WTW type SW1' of 7.49% to 9.74% and for 'New filtration system at WTW 10 MLD' of 12.42%. However, for 'New filtration system at WTW 30 MLD', the negative efficiency shown is primarily due to changes in the components used in the cost base model this year.

⁷ Table 3.3 2001-02 efficiency Scores, WIC Costs & Performance Report, 2002-03

Sewerage non-infrastructure - Year on year efficiencies for pumping stations cannot be demonstrated due to data not being submitted last year but Scottish Water now have a baseline for future comparisons.

For all of the sewage treatment categories (except for additional secondary treatment), efficiencies ranging from 2.00% to 15.96% have been achieved. The 41.76% efficiency shown for 'Reconstructing a preliminary stage of a STW 25000 pe' is as a result of an error in the inlet works M&E model last year. Again, this year's figure will be used as the baseline.

6. Spend to Save

6.1 Introduction

A sum of £200million has been included in the revenue cap recognising that investment is required to reduce operating expenditure where economically viable.

Spend to save is being used to achieve business efficiencies and transform business performance, particularly where a positive payback can be generated by March 2006.

Scottish Water is using spend to save to fund three principal business activities:

- Staff Severance - Scottish Water's Voluntary Release Scheme was formally launched on 1st April 2003. The scheme is generating significant interest and an appropriate allocation has been set aside for anticipated take up of the scheme;
- Capital Investment outwith Quality and Standards II - A number of projects have approval for funding through our *Capital Investment (outwith quality and standards)* area of activity. Typically, but not exclusively, these projects will introduce automation at our plants leading to opex efficiencies; and
- Transformation - Scottish Water's Transformation Programme is targetted to deliver significant financial and non-financial benefits across all areas of the business including Customer Service, Asset Operations and Business Support.

It is anticipated that the allocation of funding between these activities may change throughout the business plan period but this will not exceed the overall spend to save allowance.

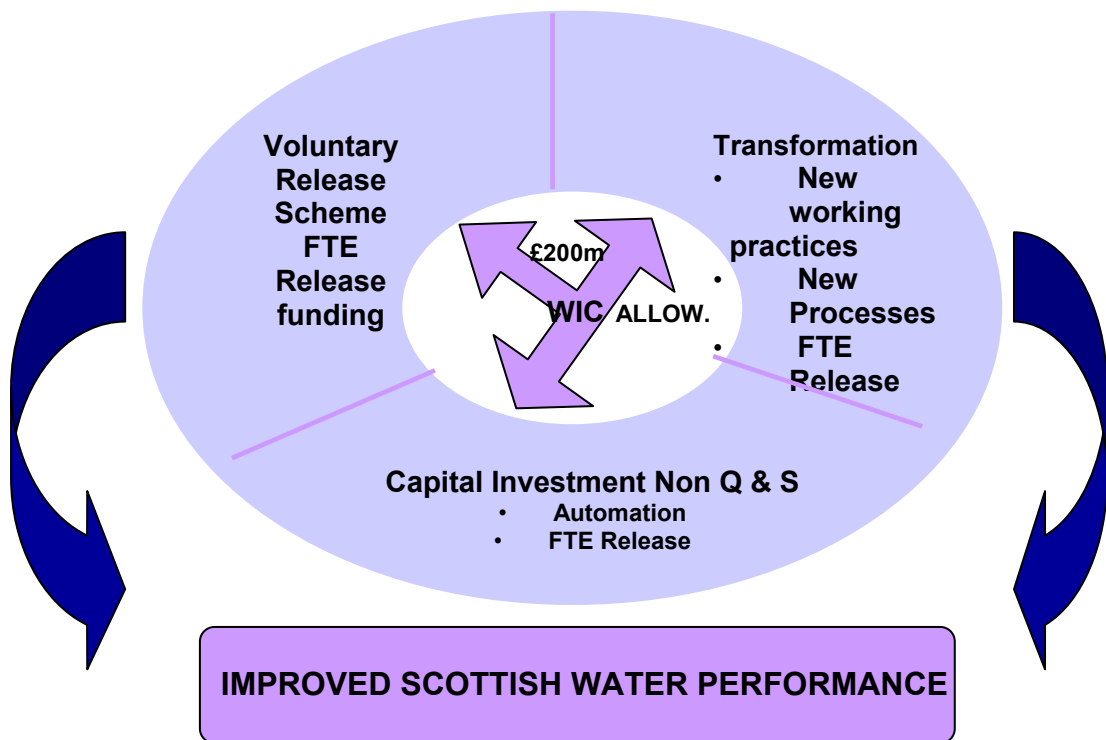
This funding will facilitate the real reduction in base operating costs as set out in Scottish Water's Strategic Business Plan i.e.

	2002/03	2003/04	2004/05	2005/06
Efficiency Improvement		- £31m	- £66m	- £102m
Base Operating Cost	£322m	£291m	£256m	£220m

The overall payback therefore falls into the two to three year period required.

6.2 Overall Management of Spend to Save

Spend to Save is being managed across the principal business activities to maximise benefit in terms of opex efficiencies and improved customer service.



Scottish Water aims to ensure that value for money is achieved by challenging the delivery of project benefits and closely monitoring its associated expenditure.

In addition to regular monthly reporting on the principal spend to save activities, a 'gatekeeper role' has been established with representatives from the Transformation Programme, Regulation & Strategy, Finance and Human Resources to manage the allowance and report to the Director of Finance on a quarterly basis.

The key elements being managed at this level are:

- Interfaces between the 3 business activities (e.g. FTE release)
- Development of guidelines, consistent processes and controls e.g.
 - Approved business case (with payback for financial benefit projects)
 - Cost control – financial framework leading to sound financial decisions
 - Key controls that are predictive in nature
 - Project closure with on going benefits monitoring
 - Audit Process (self-audit and from SW's internal audit function)
- Budget reallocation for maximum benefit

The following sections outline the key processes in place for each principal activity and provide further detail for each area.

6.3 Voluntary Severance

A new Voluntary Release Scheme was introduced on 1st April 2003. This scheme has been designed to offer compensation under two categories – those employees aged under 50 and those over 50. The new scheme has enhanced the package for under 50s.

The specific processes and controls around this key area are;

- **VR1** - Formal application by employee to receive an estimate of the payments due under the VR programme (no commitment at this stage)
- **VR2** - General Manager approval to releasing employee
- **Risk Assessment** – To determine the impact on working time regulations, certification and training, and corporate applications.

Additional information supporting the monthly RAB return is as follows:

Table has been removed due to confidentiality of voluntary severance data.

The changes that have or will be implemented to sustain the FTE release cut across all directorates and include:

- business activities centralised for economies of scale e.g. laboratory, call centre,
- new organisational structures;
- consolidated of systems;
- new working practices (e.g. direct to site, lone person working);
- cessation of non value added activities; and
- rationalisation of accounting services.

6.3 Capital Investment (outwith quality and standards)

The Scottish Water spend to save investment programme includes a £40m allocation for investment in capital projects designed to reducing operating costs. Schemes identified to date fall into the following broad categories:

- energy efficiency and management;
- process Automation;
- telemetry;
- asset Rationalisation;
- infiltration (PFI);
- efficient Plant;
- IT; and
- other.

The management of this programme is undertaken in the following way:

Spend to Save Project Appraisal

The three former Water Authorities all initiated spend to save programmes and project appraisal procedures prior to the creation of Scottish Water. Prior to the creation of Scottish Water this work was reviewed and a single Scottish Water project appraisal procedure was put in place to manage projects on a consistent basis. A copy of the procedures can be supplied if required.

The key features of these procedures are:

- Control gates at Capex 1 – Project Initiation)
Capex 2 – Preferred Option)

- Capex 3 – Project Target Cost) All as per major capital
- Capex 4 – Project Variance) schemes
- Assessment of financial & non-financial benefits)
- Risk assessment for delivery of savings.)

Monthly Financial Monitoring

The spend to save programme is monitored on a monthly basis, using Scottish Water's Capital Investment Monitoring System. The key information captured on a monthly basis includes:

- Spend to date
- Estimated outturn costs
- Project stage
- Estimated completion dates
- Estimated savings
- Estimated payback.

Post Project Appraisal

On completion each scheme is put through a post project appraisal. This procedure compares original estimates with actual outturns.

Benefits Tracking Procedure

On completion, projects move into the benefits tracking phase. Scottish Water has a single benefits tracking procedure which covers both transformation projects and non Q&S capital investment. A copy of the procedure can be supplied if required.

Spend to Save Capital Investment Programme

The projects have been categorised into types and are summarised below:

Category	No of Projects at Stage							Spend to date 02-03 £	Estimated Outturn (£K)	Anticipated Annual Savings by 05/06 (£K)
	Capex 1	Capex 2	Capex 3	Construction/ Ongoing	Complete	Abandoned	On hold / delayed			
Energy	16	5	0	0	4	0	1	1,378,286	10,282	2,196
Treatment Process Automation	2	2	0	1	4	3	9	1,045,762	8,094	1,549
Telemetry	1	0	1	2	3	0	0	965,505	936	1,094
Leakage	0	0	0	0	2	0	0	2,896,995	2,688	433
Asset Rationalisation	0	0	0	1	4	0	1	277,444	220	487
Infiltration (PFI)	0	0	2	1	7	0	0	1,049,436	697	635
Efficient Plant (eg lighting, pumps etc)	5	0	3	6	11	2	3	1,212,242	6,765	1,406
IT	0	0	0	4	3	2	2	1,209,267	273	1,669
Other	4	0	0	1	4	1	0	1,522,525	1508	545

6.4 Transformation Programme

The projects forming the Transformation Programme were agreed in June 2002 by the executive management team using the following selection process:

Panel 1 – confirmed the scope of transformation in terms of its strategic direction, targets and timing, and confirmed the options to be developed;

Panel 2 – agreed which initiatives to pursue and fully understood the objectives of each initiative along with the resources required; and

Panel 3 – projects prioritised and transformation programme finalised including costs and resources. Proposed savings were compared with the efficiency targets, taking account of risk.

Each project was reviewed against a series of filters to test the criticality of the project to achieving Scottish Water's strategic aims. (A copy of the filters is included in Appendix 2.)

In August the programme with 50+ projects was fully mobilised and a Transformation Programme Steering Group was established (including the Chief Executive and Directors) to review programme outputs and challenge these against Scottish Water's performance results. Project leaders were appointed and inducted into the programme through an initial one-day training session.

As part of the mobilisation the programme governance was signed off. The governance of the programme includes key controls and processes that are managed by the Programme Office;

- scoping document produced for each project setting out objectives of the project, scope, benefits, costs, deliverables;
- project plan in support of the above scoping document;
- monthly progress reporting introduced incorporating milestones, risks and dependencies; and
- tracking mechanism for benefits delivery with:
 - Baseline benefits, costs, FTE release and internal resource required
 - Predicators developed for profiling future costs and benefits
 - Process to validate savings
- financial control framework;
- programme risk register, linked to Scottish Water's strategic business plan;
- change request process; and
- post project reviews (formal closure procedure).

The 2002/03 expenditure incurred by the 50+ projects and the benefits associated with this expenditure is summarised as follows: **Information excised due to political sensitivity.**

6.5 Summary

A summary of the top 6 projects and the transformation programme and milestones is attached in Appendix 3.

Scottish Water aims to effectively manage this allowance by constantly reviewing our performance against spend levels and by continually challenging the overall programme of activities to ensure that value for money is being delivered.

Processes have been put in place to incorporate feedback from projects to ensure prioritisation is reviewed, to eliminate any potential overlaps and to closely monitor anticipated outcomes.

7.0 Adequacy of Asset Stock

Scottish Water believes that the way in which asset data is submitted in the H tables does not adequately reflect the true condition and performance of the asset stock.

The WIC tables, where asset condition and performance is recorded, work at a sub-asset level and record costs on the basis of equivalent asset replacement costs. While the individual sub assets are graded on their condition and performance, this does not capture the overall performance of the works and whether it is actually “fit for purpose”. This has led to a misleading picture of Scottish Water assets.

In the May submission to WIC in connection with the Strategic Business Plan, this was highlighted with reference to the inherited investment deficiency in water treatment (with corresponding cost and performance consequences) being reflected in the 308 undertakings and 682 relaxations in water supply. It was also highlighted that the prop-up costs of operating these works are high until capital investment catches up. At works where there is no headroom there is a greater need for manual intervention to maintain asset performance and maintain compliance. There is little scope to manage this differently until capital investment is implemented.

Similarly the inconsistent manner in which the former Water Authorities prepared their regulatory asset returns has resulted in a misleading picture. For example the operating information gathered by Scottish Water on asset performance (e.g. number of bursts) indicates that, in particular, the former West Authority significantly overstated the condition and performance of their asset stock. Scottish Water also believes that the estimated level of leakage of 47.6% of distribution input, which is significantly higher than England and Wales, is a further indicator of Scottish Water’s relatively poor asset condition.

Since Scottish Water’s submission in May 2003 in connection with the Strategic Business Plan, further comparative analysis has been undertaken between wastewater treatment works site level performance issues and sub-asset condition and performance grading. The grades held at sub-asset level in the single asset inventory were averaged to give single works level condition and performance grades. The general picture emerging is that the sub-asset grades are not representative of the known problems, as much of the legacy data is old and in need of updating.

At 31 March 2003 60 works were listed, as failing current SEPA consent conditions. This list of failing works is as agreed with SEPA. The average condition / performance of these works is 2.2 / 2.4. Many of these assets have major ongoing Q&S II Capital Investment driven by legislative requirements.

Analysis of the 60 works listed identifies 11 of these assets where the current project planned expenditure is substantially in excess of the total Civil and M&E EARC. The difference in values ranges from plus £50,000 to plus £10m.

Further detailed analysis of asset condition and performance data, relative to legislative compliance and levels of service investment drivers (e.g. 86 works on the High Risk register including 19 works with Enforcement Notices), also demonstrates additional sites where the difference between current EARC and the actual required investment costs is substantial. This is due to the current EARCs in Table H not accounting for wastewater treatment works where replacement of the existing asset is not the requisite solution to meet serviceability requirements.

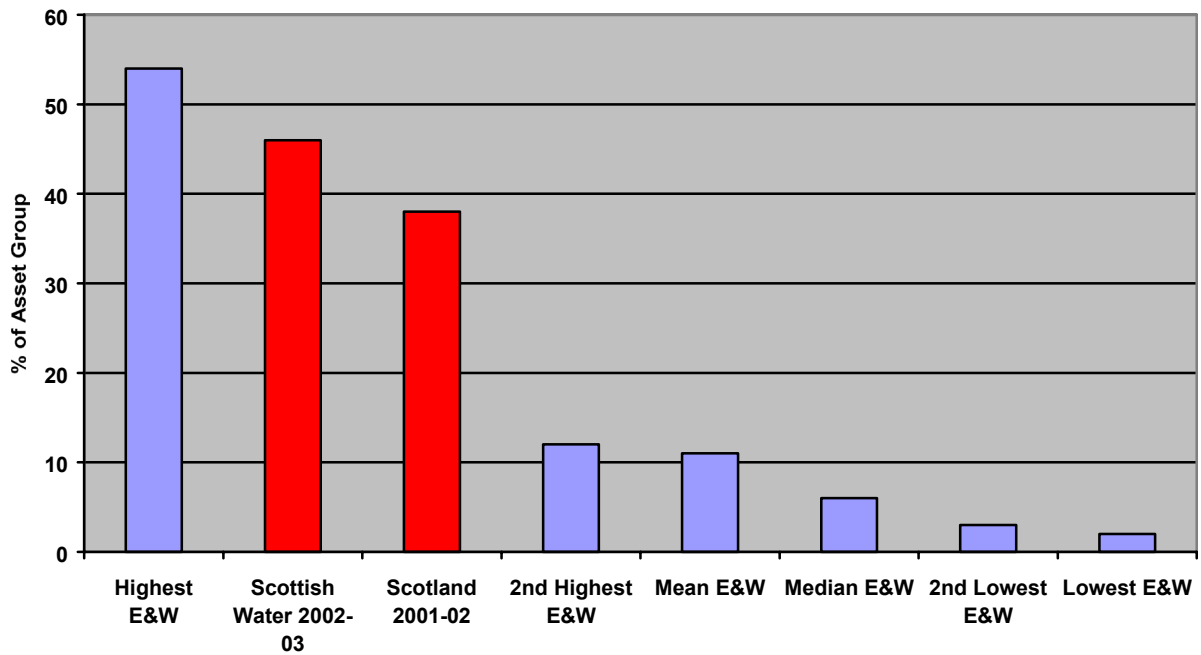
A comparative analysis of the % asset type in condition 4 and 5, in Scotland versus England & Wales, as per the WIC analysis⁸, has been carried out on the current asset inventory as reported in the H tables. The results from this are tabled overleaf.

⁸ Investment and Asset Management Report 2000-02, pages 20, 21

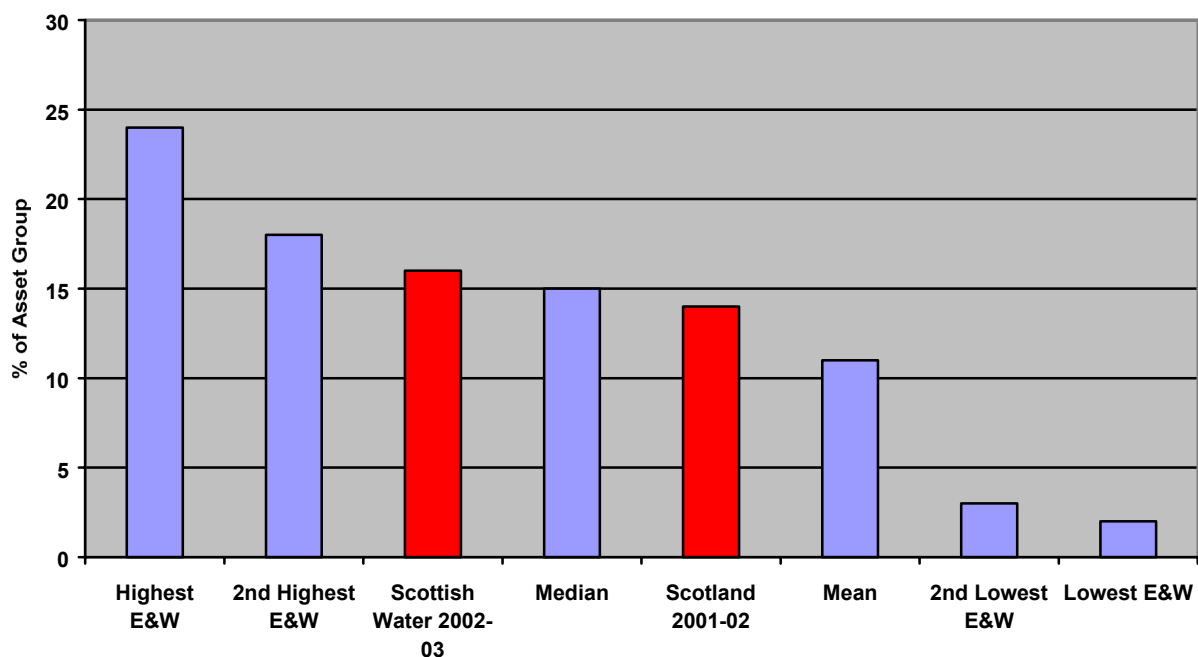
This analysis demonstrates that:

- Scottish Water’s water mains and sewers are in significantly poorer condition than the average condition of water mains in England & Wales;
- the condition of Scottish Water’s Wastewater treatment works is poorer than the average condition in England & Wales; and
- the condition of Scottish Water’s Water Treatment Works is no worse than the average condition in England & Wales.

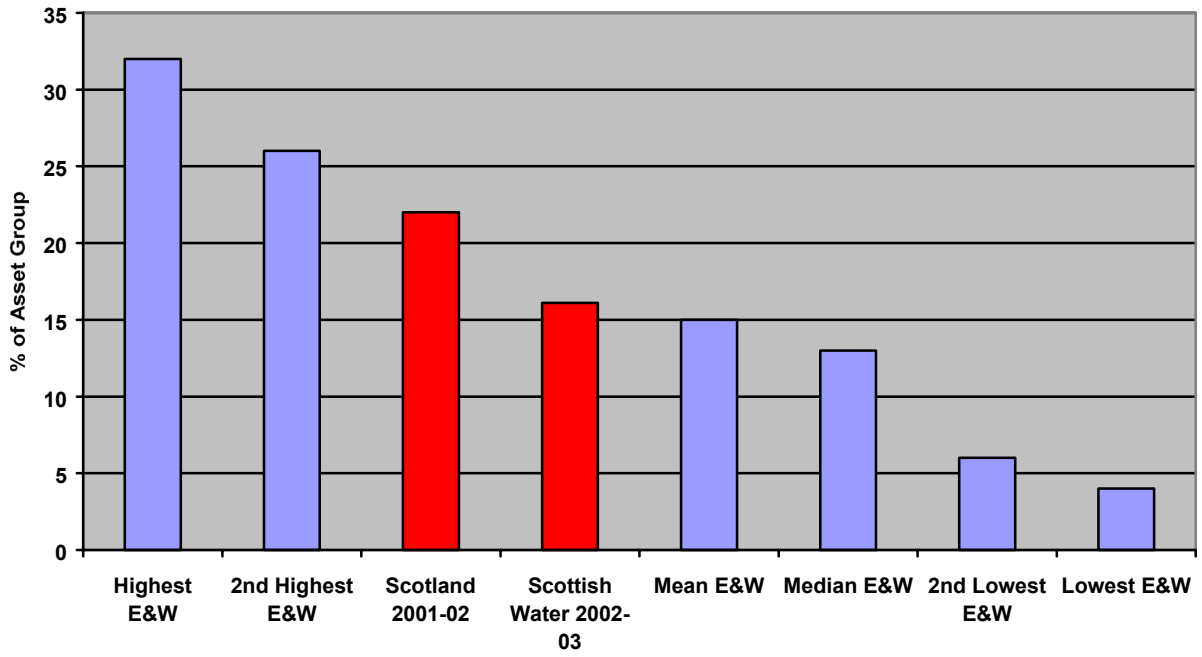
Water Mains



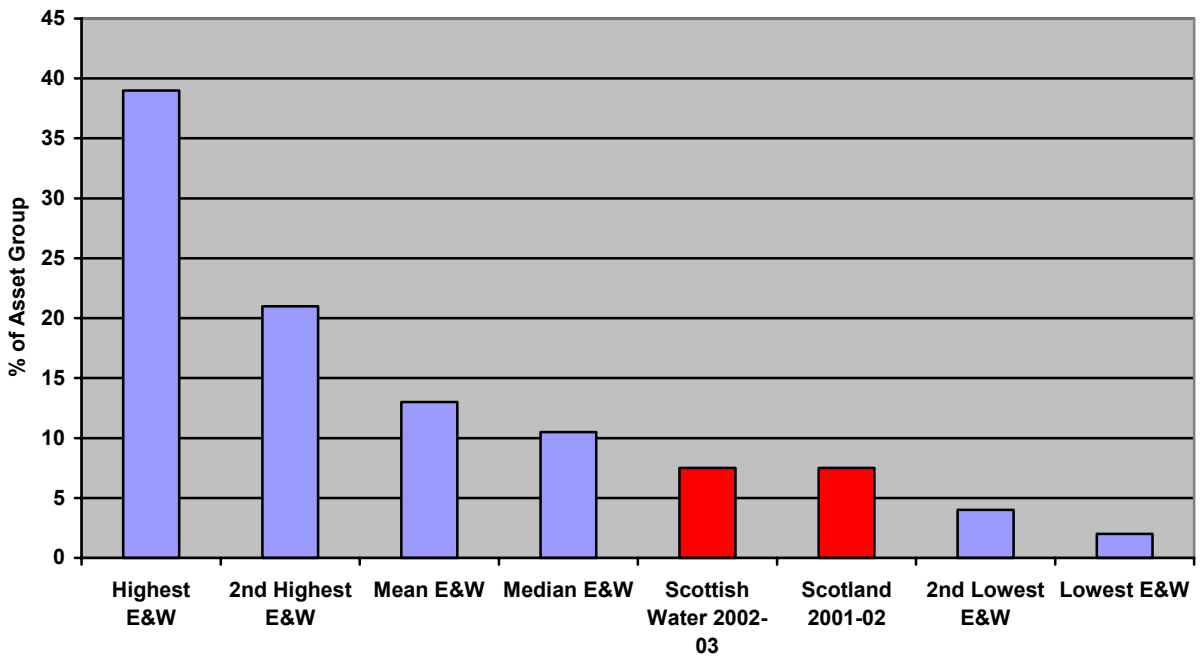
Sewers



Wastewater Treatment Works



Water Treatment Works



It is worth noting that Scottish Water's data for underground assets is of better quality than the above ground assets which have not been surveyed since the late 1990's. Below ground data is generated by recognised statistical extrapolation methods from those assets which do have data. There are in fact less gaps in above ground data, which is derived from a mix of site surveys and desktop assessments. Where above ground asset data gaps do exist, they are filled by data reflecting the known data profile.

Both gradings quoted in the tables stand and are subject to improvement activity. For infrastructure the confidence grade of C reflects the methodology. That methodology involves extrapolation based on auditable processes, feeding from multiple databases. For non-infrastructure the confidence grade B reflects the fact that there is now a single corporate asset inventory. That Asset Inventory source is not yet graded A, because the data comes from the three different legacy authority systems and work continues to establish consistency. Table H commentaries explain further.

However, Scottish Water questions this analytical approach as it concentrates on condition only rather than performance. Scottish Water will continue to investigate the issue of true asset performance and condition not being adequately reflected within the regulatory tables that are returned annually.

Scottish Water is in discussion with WRc about commissioning an independent review of asset condition and performance across Scotland.

Scottish Water is keen to work with the WIC to examine the appropriateness of the H tables in particular with a view to potentially amending these prior to the June return 2004. This would seem to be a vital exercise to ensure that the return information in June 2004 is as accurate as possible to act as a baseline for the next strategic review of charges.

8.0 Competition

Non Core Activities

The water industry within the UK has offered and delivered a wide range of commercial services for many years. On privatisation within England & Wales there was a spate of diversification into a wider range of non-core services. A number of those diversified services have since been abandoned although many have continued to develop and provide valuable additional revenue streams for both the core utility and the holding companies.

It is against that backdrop that Scottish Water's non-core strategy needs to be considered. In particular, the Scottish Water strategy is based on controlled development, customer service benefit and revenue generation. This is a clear distinction between the approach within Scottish Water and that of the industry in England & Wales.

It should also be noted that Scottish Water has been empowered to "engage in any activity that it considers is consistent with the economic, efficient, and effective exercise of its core functions". Furthermore, the decision to engage in any non-core activity is subject to the Scottish Water (General Powers) Directions 2002 which sets out a range of 'Permitted Activities' as detailed below:

Permitted Activities

The provision of water or waste water laboratory and other scientific services.

The design, construction, management and operation of water or waste water facilities for any purpose other than pursuant to the core functions of Scottish Water.

The provision of waste management, collection or disposal services.

The provision of advisory or consultancy services relating to the production, distribution, treatment or provision of water or the collection, treatment, transmission and disposal of waste water.

The provision of arrangements for the repair, maintenance, replacement and renewal of assets and infrastructure belonging to any person.

The provision of services intended to promote a reduction in the consumption of water and production of waste.

Carrying out anything which is calculated to facilitate, conducive or incidental to the discharge of any of the core functions of Scottish Water and any activity permitted in terms of paragraphs 1 to 6 above.

The commissioning or support (where by financial means or otherwise) of research which is relevant to or related to any of Scottish Water's core functions or any of the activities permitted in terms of paragraphs 1 to 7 above:

Information excised due to commercial sensitivity.