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A Tables – Base Information

Table A1 Connected and Billed Properties

General Comments

Property numbers are for the report year as at 30 September 2006.

The confidence grades applied on Table A1 reflect the fact that household numbers are sourced from local council returns and have therefore been allocated as B2, and that the non-household (and measured households) data has been directly sourced from our corporate systems which have been subject to review throughout the report year and as such have been allocated a confidence grade of A2.

Household properties (connected and billed)
The reporting methodology remains unchanged from last year's Return which was based on 2004 WIC 4 data. This is due to the fact that the 2005/06 WIC 4 reports from the councils had reporting problems relating to the changes in discount status and were not suitable for use in the Annual Return. The 2006/07 WIC 4 report was completed at the mid-year and, again, this still included reports that had not correctly addressed the changes in discount status. Therefore, the data for these lines have been sourced from the 2004 Annual Return, based on the last correct WIC 4 reports of 2004, and updated with new household growth from the Council Tax Base for September 2006. New households are all taken as connected to the water and waste water networks.

Discounts
For the report year, there was a change in discount policy. Discounts for second home and long-term vacant households have been removed to fund a new discount of up to 25% for households where an occupant is in receipt of Council Tax benefit but where the household receives no other discount on water and sewerage charges. Although this has been accounted for, the effects are only seen in the number of band D equivalents as reported in the P tables.

Comparison with Final Determination forecasts

Forecasts as at March 2006 (households)	2005/06	2006/07 Report Year	Change	2007/08 Forecast	Change
Total number of billed properties (Final Determination, Appendix 10)	2,201,360	2,216,768	15,408	2,232,287	15,519
Number of exempt properties	60,463	61,913	1,450	63,327	1,414
Total household properties taking services (unmeasured)	2,261,823	2,278,681	16,858	2,295,614	16,933

In the Final Determination, the number of billed households (excluding exempt) was expected to increase by about 15,500 for the report year and next year. Adding our own estimates for exempt properties, the expected increase was about 17,000 for each year, as shown in the table above. However, the increase has been greater than forecast, with growth in billed properties of 21,480. The growth in connected properties is different to the growth in billed properties as we are now billing properties that were, in the past, connected but not billed. This is explained in the table below.

Line ref.		2005/06	2006/07 Report year	Change
A1.1	Unmeasured household billed properties - potable water (including exempt)	2,266,226	2,287,706	21,480
P1.49	Number of void properties	56,899	54,708	-2,191
A1.6	Unmeasured household connected properties	2,323,125	2,342,414	19,289

Non-household properties (connected and billed)

Line ref.	Water services - non-household	2005/06	2006/07 Report year	*Change*
P2.1	*Unmeasured properties paying standard charges*	*45311*	*44584*	*-727*
P2.4	*Exempt properties*	*2427*	*4531*	*2104*
A1.3	Unmeasured non-household billed properties - potable water (including exempt)	47738	49115	1377
A1.4	Measured billed properties	80299	79271	*-1028*
	Total non-household properties taking services	**128037**	**128386**	***349***
P2.5	Void unmeasured properties	7738	7665	*-73*
P4.17	Void measured properties	3056	3832	*776*
A1.8+A1.9	Total non-household properties recorded	138831	139883	*1052*

The recorded number of non-household properties taking water services increased by 349 to 128,386. 2,104 properties that are exempt from charges were added to our systems during the year because of work done to cleanse our records and to identify and allocate exempt properties, while the number of properties paying charges for unmeasured and measured services decreased by 727 and 1,028 respectively. We recorded an additional 703 void properties during the year.

A1.1-1.5 Billed Properties - Water

A1.1 (and A1.12): The number of billed and exempt unmeasured household properties has increased by 21,480 reflecting growth indicated by Councils in the Ctaxbase report.

Line ref.	Annual return (households)	Report Yr -1	Report Yr	Growth	Report Yr +1	Growth
P1.37	Total number of billed properties	2,205,319	2,219,412	14,093	2,234,144	14,732
P1.48	Number of exempt properties	60,907	68,294	7,387	70,795	2,501
A1.1	Total billed unmeasured households	2,266,226	2,287,706	21,480	2,304,940	17,234

For the report year, comparison of the table above with the table on the previous page shows that the increase reported in the number of billed households (not including exempts) of 14,093, sourced from the Ctaxbase, is slightly lower than anticipated in the Final Determination. However, the number of exempt properties increased by 7,387, significantly greater than forecast, this was primarily due to activities by councils in 2005/06 in relation to student exemptions. The number of exempt properties shown in 2005/06 was artificially low due to the activity of the councils to identify the impact of the student population and the level of exempt properties and this has now been addressed and is shown in the higher number of exempts in the report year. For report year +1, the increase in billed and exempt properties sourced from General Register Office for Scotland (GROS) projections is about 17,000, in line with the Final Determination.

The data concerning unmeasured household numbers provided for the Annual Return come directly from council reports and are reasonably robust.

A1.2 Measured household billed properties.

This year Scottish Water split into Scottish Water (wholesale) and Scottish Water Business Stream (retail). As part of the retail separation, it was necessary to make arrangements for billing of measured household customers on behalf of Scottish Water. A full audit and flagging of appropriate metered household customers was carried out. This brought to light customers who had not been flagged in our inventory as measured households but which were nonetheless charged on the measured household tariffs. We have corrected these records and added flags into the billing system. This accounts for the increase in measured households.

A1.3 Unmeasured non-household billed properties

Unmeasured Water

Line ref.		2005/06	2006/07 Report year	*Change*	Change
P2.1	Unmeasured properties paying standard charges	45,311	44,584	*-727*	*-1.60%*
P2.4	Exempt properties	2,427	4,531	*2,104*	*86.69%*
A1.3	Unmeasured non-household billed properties - potable water (including exempt)	47,738	49,115	*1,377*	*2.88%*
P2.5	Void unmeasured properties	7,738	7,665	*-73*	*-0.94%*
A1.8	Unmeasured non-household connected properties	55,476	56,780	*1,304*	*2.35%*

The reported increase in unmeasured non-household billed properties of 1,377 is a combination of an increase of 2,104 in zero-billed (exempt) customers and a real reduction of 727 billable customers. The increase in zero-billed (exempt) customers has arisen because we have consolidated our policies across former water authority to make our billing procedures consistent in relation to non-billable customers, such as churches, which are exempt from payment. The new policy is to bring all former non-billable customers onto the system and issue bills accordingly, even where those bills are for zero payment.

For the report year +1 we forecast no change to the number of unmeasured non-household billed properties.

A1.4 Measured non-household billed properties.

The decrease of 1,028 in the report year for the number of measured non-household billed properties from 80,299 to 79,271 is a reflection of business activity and has not been affected by any change in policies or procedures. For the report year +1 the forecast increase in the number of measured non-household billed properties is the net growth of 500 non-household properties consistent with the Final Determination's assumption for new development.

A1.6-11 Connected Properties - Water

A1.7 Measured household connected properties.

The reported numbers of connected measured household properties (line A1.7) are identical to those for billed measured household properties (line A1.2). We believe that there are no such properties connected to our networks that we do not bill.

A1.8 Unmeasured non-household connected properties.

The increase in unmeasured non-household connected properties of 1,304 is caused predominantly by the change in policy described under line A1.3 above, whereby we have brought onto our systems customers in some regions of Scotland that were previously not billed at all but are now issued with zero-value bills. Many of these customers were not previously recorded as connected to our system .

For the report year +1, we estimate no change in the number of unmeasured non-household customers, consistent with line A1.3.

A1.9 Measured non-household connected properties.

The decrease of 252 in measured non-household connected properties is a reflection of normal business activity of businesses closing and/or moving between premises and has not been affected by any change in policies or procedures. The reduction of 1,028 reported in line A1.4 for billed non-household measured properties is as a result of the reduction of 252 properties mentioned above, along with 776 properties now being correctly reported as voids. These were billed with zero bills in the past.

For the report year +1, the increase in the number of measured non-household billed properties is 500, consistent with line A1.4 above.

A1.12-16 Billed Properties – Foul Sewage

A1.12 Unmeasured household billed properties.
The growth of 21,480 unmeasured billed households is explained in the commentary for line A1.1 above.

A1.13 Measured household billed properties.
The reported increase of 9 measured household properties, billed for foul sewage, arose through the review of such properties described under line A1.2 above. Of the 114 properties that were not previously flagged as billed for water, only 9 were found to be provided with foul sewage services. We do not forecast any change to the number of such customers in the report year +1.

A1.14 Unmeasured non-household billed properties (including exempt).

Our records of properties exempt from charges, but which for which we now issue bills with zero value, were updated during the report year, leading to the increase from 2,472 to 4,468 in the recorded number of such properties in line P6.4. This is explained under line A1.3 above. The number of unmeasured billed customers has decreased by 594 in the reported period. The table below provides a reconciliation for this.

Unmeasured Waste water

Line ref.		2005/06	2006/07 Report year	*Change*	Change
P6.1	Unmeasured properties paying standard charges	41,554	40,960	*-594*	*-1.43%*
P6.4	Exempt properties	2,472	4,468	*1,996*	*80.74%*
A1.14	Unmeasured non-household billed properties (including exempt)	44,026	45,428	*1,402*	*3.18%*
P6.5	Void unmeasured properties	9,302	9,410	*108*	*1.16%*
A1.19	Unmeasured non-household connected properties	53,328	54,838	*1,510*	*2.83%*

A1.15 Measured non-household billed properties.

Measured - Waste water

Line ref.		2005/06	2006/07 Report year	*Change*	Change
A1.15	Measured non-household billed properties (including exempt)	58,936	58,445	*-491*	*-0.83%*
P8.17	Void measured properties	2,587	3,209	*622*	*24.04%*
A1.20	Measured non-household connected properties	61,523	61,654	*131*	*0.21%*

The decrease of 491 in measured non-household connected properties is a reflection of normal business activity of businesses closing and/or moving between premises and has not been affected by any change in policies or procedures. This contrasts with the increase in connected properties, which is impacted by the increased number of voids identified as being previously absent from our records.

A1.17-22 Connected Properties – Foul Sewage

A1.18 Measured household connected properties.
The increase of 9 properties is consistent with the increase in billed properties explained under line A1.13 above.

A1.19 Unmeasured non-household connected properties.
In addition to the increase of 1,402 billed properties explained under line A1.14 above, there were 108 additional void properties recorded during the year.

A1.20 Measured non-household connected properties.
Offsetting the decrease of 491 billed properties explained under line A1.15 above, there were 622 additional void properties recorded during the year, giving a net increase of 131 connected properties.

A1.23-29 Billed Properties – Surface Drainage

A1.23 There were no unmeasured households (including exempt) that were not billed for property drainage last year or this year.

A1.24 Measured household billed properties not billed for property drainage.
The increase of 7 properties arose through the audit of measured household properties, described under line A1.2 above.

A1.27 There were no household properties billed for surface drainage last year or this year.

A1.28 Non-household properties, billed for surface drainage only.
The increase in the number of properties, billed for surface drainage only, reflects work carried out by our debt recovery teams which identified properties for which drainage from the property (as opposed to the land surrounding the property) does not enter our sewerage networks.

A1.30-35 Connected Properties – Surface Drainage

These data lines were not included in previous returns and are therefore presented here for the first time, showing a total of 2,387,021 properties connected for surface drainage.

A1.36-39 Trade Effluent

A1.37 The number of connected properties is reported for the first time at 3,352. The difference between lines A1.37 and A1.36 is the number of consented properties which are either not discharging or have closed. We do not have data to show which of these are still open but are now paying non-domestic wastewater charges, and which are closed.

A1.38 The total BOD load receiving secondary treatment has increased significantly to 31,221t. However, this is because of the inclusion of the loads to PPP plants in this year's return. In last year's return, line A4.25 provided details of loads treated at secondary plants excluding PPP owned and operated plants. The load receiving secondary treatment at non PPP plants for the report year is 17,666t, which is comparable with line A4.25 for last year of 16,663t.

A1.39 Likewise, the total COD load receiving secondary treatment has increased significantly to 71,428t, for the same reason. In last year's return, line A4.26 provided details of loads treated at secondary plants excluding PPP owned and operated plants. The load receiving secondary treatment at non PPP plants for the report year is 32,208t, which is comparable with line A4.25 for last year of 32,994t.

With the exception of the inclusion of loads to PPP plants, the method of reporting remains the same as in previous years and the confidence grade remains at A2.

The report used to generate these lines includes all discharge points whether they discharge for one or 365 days in the reporting period. There may be some over-reporting of both volumes and loads, but the majority of companies which begin or cease trading in a year tend to be small.

Table A2 Population, Volumes and Loads

A2.1 - A2.9 Summary – Population

Population

Our methodology is unchanged from last year and as such the confidence grades remain at B2.

In last year's Annual Return, 2002 based population projections were updated with 2004 based population projections to 2024. Since then, mid-year population estimates for 2005 were published by the General Register Office for Scotland (GROS) and, although they continue to show an increase in population for 2005, the increase is less than that predicted in the 2004 projections. This has been reflected in the numbers reported this year, with a reduction in population of 4,000 for the report year compared with our forecasts in last year's Annual Return.

Last year, we derived the household occupancy rate by taking the GROS 2002-based private household population projections and dividing by the reported number of occupied households. This gave a forecast occupancy rate of 2.13 people per household for 2006/07. The occupancy rate was then applied to occupied households with water and waste services to get a population figure for each. Since then, the GROS has produced 2004-based occupied household population projections and these have been used in a similar manner to get an updated occupancy rate of 2.17 for the current report year. This, coupled with an increase in occupied households with water and waste water reported in table A1, has the effect of increasing the population of unmeasured households by 28,900 for the report year.

Similarly an increase in the number of households with a meter, coupled with the increase in occupancy rate has had the effect of increasing the population of measured household properties.

A2.1 & A2.6: The reported winter population has increased by 10,510 reflecting growth indicated by the General Register Office for Scotland (GROS) in its 2004 based population projections (updated with its 2005 mid-year estimate).

A2.2 & A2.7: To determine the summer population, we have used a new data set from Yell.com to identify properties that offer accommodation to visitors and we applied the average bed space supplied by Visit Scotland. In this way we derived the summer visitor numbers as 257,340. This is an increase of 17,650 from last year (239,690).

A2.3 & A2.8 The population of unmeasured household properties connected to our networks has increased by 28,900 for water and 29,354 for wastewater, reflecting an increased occupancy rate.

A2.4 The population of measured household properties taking water services has increased by 249, reflecting the increase of 114 in the number of measured household properties reported in line A1.2.

A2.10-19 Water Balance

Lines A2.10 and A2.11 report 'water treated at own works to own customers' and 'distribution input treated water'. These are both reported identically as 2,295.9 Ml/d because we do not supply treated water to any party other than direct customers of Scottish Water (wholesale) supplied through our water distribution networks.

Distribution Input (DI) has reduced from 2,332 Ml/d to 2,296 Ml/d principally due to reduced total leakage.

We have commissioned a project to improve our collection and analysis of DI data. This project is undertaking site investigations, validating metering arrangements, and may lead to more

automated reporting. It is therefore very likely that our reported DI will change as this project progresses.

DI is being reported with a C4 confidence grade. Data sources are the same as in previous years.

A2.12
Unmeasured household volume of water delivered has increased from 852 Ml/d to 892 Ml/d, principally because of the uplift in unmeasured household per capita consumption (PCC) from 139.1 to 147.7 l/hd/d and an increase in unmeasured household population from 4,838,679 to 4,867,579. The increased volume attributed to the change in the PCC has been partially offset by a reduction in Underground Supply Pipe and Internal Plumbing Losses volumes per property.

The uplift in PCC is a result of using the recorded rise in PCC of three English and Welsh comparator companies from 1999 to 2007 and the recalculation of the Scottish Water 1999 reported PCC to represent more accurately the annual average.

The 1999 Domestic Water Consumption Study report[1] by the three former Scottish water authorities, Research Consultancy Services and RPS Water Services established PCC at 139.1 l/hd/d. The recalculation to represent more accurately the whole year 1999 annual average, based on the 1999 study undertaken in two months, gives an uplift to 142.0 l/hd/d. A further uplift to 147.7 l/hd/d has been applied to take account of the change in PCC over the 7-year period since 1999 including the impact of the hot, dry mid-summer months of 2006

We are currently establishing a continuous unmeasured household PCC monitor. This is due to commence reporting during 2007. This best practice monitor will accurately measure PCC including monthly variations and seasonal trends.

Unmeasured household volume of water delivered is being reported with confidence grade C4. Data sources are the same as in previous years.

A2.13 & A2.15
A2.13 Measured household volume of water delivered has increased from 0.25 Ml/d to 0.33 Ml/d. This is principally because of the reported increase of measured household properties (line A1.2) from 481 to 595.

A2.15 Measured non-household volume of water delivered.
Although the number of customers has decreased, the volume of water delivered has increased and the percentage meter under-registration has also increased.

Data sources are the same as in previous years. A2.13 and A2.15 are again being reported with confidence grade A2.

A2.14
Unmeasured non-household volume of water delivered.
This is primarily due to a change in methodology to estimate consumption from rateable value to WIC sector banding. Some of the increase can also be attributed to the increase in customers from 47,738 to 49,115..

In 2005/06, the volume of water delivered was calculated using the rateable value of unmeasured non-household customers. The volume applied was 37.3 m^3 per £'000 of rateable value (37.3 = 1,000 x 2.55p (per £RV) / 68.3p (per m^3)).

In the report year, we have calculated the volume of water delivered using the following methodology:

[1] Ref. Domestic Water Consumption Study 1999

1. Non-household properties with measured consumption are allocated into sectors according to their WIC code. There are 41 WIC sub-sector bands with WIC codes.
2. Within each sub sector band, measured non-household properties are divided into ten size bands using rateable value as a proxy for scale, thus creating 410 sub-groups.
3. For each of the 410 sub-groups, the rateable value of each measured non-household property is plotted against its billed volume. A best fit line is derived to give a trend within each sub-group.
4. The result is a best fit trend line for each of the 410 sub-groups within the 41 WIC sectors.
5. An estimated consumption is calculated for each non-household using its rateable value and the appropriate WIC code sub-group trend line.
6. All estimated unmeasured consumptions are summed together to give the total estimated water consumption for unmeasured non-households

Supply pipe leakage was added to this value to give unmeasured non-household volume of water delivered.

The WIC code methodology led to an increase in reported water delivered of 13.93 Ml/d.

Although our methodology has changed, the data sources (principally Hi-Affinity) remain unchanged and the confidence grade is therefore C4.

A2.18 & A2.19
A2.18 Leakage – distribution losses have decreased from 953 Ml/d to 855 Ml/d. This is due to leakage reduction through Scottish Water's leakage strategy and methodology changes in key water balance components and are again being reported as confidence grade D4.

A2.19 The reconciliation of the water balance components to measured distribution input (which is the gap between the figures reported using the top-down and bottom-up methodologies for reporting leakage) was 8.5% in 2005/06 and is 7.4% in the report year (2006/07). This trend towards closer reconciliation is due to increased accuracy in 'bottom-up' leakage from increased DMA property coverage and will be further improved during 2007/08. Reportable DMA property coverage (eg DMAs that are at category 1 operating status and suitable for reporting purposes) has increased to 49%. As DMA coverage continues to increase, the reconciliation is forecast to continue to improve.

Overall water balance is again reported as confidence grade C4. This reflects the WIC reporting requirement that reliability band be assigned based on the reconciliation, by percentage of DI, of the 'bottom up' and 'top down' leakage. The AR07 reconciliation is 7.4% giving reliability band C. Accuracy band 4 reflects the accuracy of the components of the water balance which contribute to this line.

A2.20 Water Delivered Non-Potable

Volume of non-potable water delivered.
The increase in the volume of non-potable water delivered is principally due to one additional customer being identified as a consequence of the water operational area water balance activities which were carried out as part of the Economic Level of Leakage (ELL) work stream.

Confidence grade is again reported as C5 as the largest non-potable customer is on an un-metered supply and therefore the actual volume is estimated.

A2.21-38 Water Delivered Components

A2.21 & A2.22
Scottish Water has no bulk supply imports or bulk supply exports so these are again reported as 0 Ml/d at confidence grade N.

A2.30
For reporting and comparison purposes, the most reliable leakage estimate currently available to Scottish Water remains that based on the Integrated Flow Method which is:

Total leakage = DI - Water delivered and water not delivered except leakage

Total leakage has reduced from 1104.05 Ml/d in 2005/06 to 1003.82 Ml/d in the report year. This has been achieved by the following:

- Introduction of improved and more extensive active leakage control i.e. reduced find and fix times, supported by increasing DMA coverage; and
- Methodology changes in water balance components, principally a change in the PCC applied to unmeasured households along with a change in the methodology for deriving the consumption of unmeasured non-households.

These are explained under lines A2.12 and A2.14 above.

In recent years the trend in total leakage reduction (reported using the integrated flow method) can be seen below.

Report year	Leakage (Ml/d)
2003/04	1146
2004/05	1139
2005/06	1104
2006/07	1004

The trend of total leakage reduction is forecast to continue as more extensive active leakage control is supported by increasing DMA coverage and more robust data is used in more robust water balance component calculation methodologies.

For the 2007/08 Annual Return the total losses will be calculated based on the leakage levels in the DMAs.

Because the total leakage is calculated as the residual of the water balance, the confidence grade is determined by the confidence grades of the other components of the water balance.

A2.37 & A2.38
A2.37: We have derived meter under registration from the average of that in England and Wales as set out in 'OFWAT Security of Supply, Leakage and Water Efficiency 2005-06 report'. Using this data source, we have calculated that household meter under-registration has increased from 0.008 Ml/d to 0.010 Ml/d.. This represents an increase in meter under-registration from 3.1% to 3.2%.

Likewise, we used the Ofwat report to calculate the non-household meter under registration, which has increased from 18.74 Ml/d to 20.14 Ml/d. This represents an increase from 4.5% to 4.8%.

Scottish Water does not undertake routine meter calibration and therefore we do not currently have company specific meter under-registration figures. This is because the bulk of our meters (over 99%) are mechanical meters that are calibrated at the time of manufacture and are accurate upon installation. These meters cannot thereafter be calibrated in-situ and if broken or known to be under-recording they need to be replaced. During the period 2002-2005, all meters >40mm were assessed and 2,500 were right-sized so we have confidence that these right-sized meters will be reading accurately. Our current approach to maintaining meters is that meters are only changed or

replaced after customers have informed us that bills are incorrect or problems with meters have caused disruption to water supplies.

A2.39-45 Sewage Volumes

The confidence grades applied on Table A1 reflect the fact that household numbers are sourced from local council returns and have therefore been allocated as C4, and that the non-household (and measured households) data has been directly sourced from our corporate systems which have been subject to review throughout the report year and as such have been allocated a confidence grade of A2, for measures services and B3 for unmeasured services.

A2.39
Unmeasured household volume (including exempt) has increased from 618.17 Ml/d to 660.51 Ml/d. This increase of 6.8% in the waste volume is a result of the 6.18% change in the PCC model and the increase in the population reported in the year.

A2.41
Unmeasured non-household foul volume (including exempt)..

The number of properties connected to our sewer networks has increased as explained under lines A1.12 – A1.22. The increase in the foul volume reported is a consequence of the increase in the number of connected properties.

A2.42
Measured non-household foul volume.

The total volume of waste from measured non-household foul volume has increased by 7.5% compared with the prior year, reflecting the increase in the number of metered properties that have been added to the network.

This trend is expected to continue as more customers move to a metered service.

A2.43
Trade effluent volume.
One major discharger closed in the reporting period, resulting in a reduction in volume of approximately 6Ml/d. This reduction has been partly offset by increases from other dischargers.

A2.45
The reported volume of septic tank waste has increased from 17.77 Ml to 29.66 Ml. This is a result of a change to our procedures in the prior year (2005/06) for arranging for removal of septic tank waste. The new system and process took longer to establish than was expected, resulting in a backlog in 2005/06 and lower volumes removed. The reported volume is expected to remain at the level reported this year for future years.

The confidence grade of B3 reflects the accuracy of the data source and the methodology used this year.

A2.46-60 Sewage Load (BOD/yr)

Lines 2.46 to Lines 2.54 are new lines requested this year and the confidence grades relates calculations and derivations used.

A2.46 – 47

The household load reported is based on household occupancy multiplied by 60g per head per day.

A2.48 – 49
The non-household load is derived as 300g/m^3 applied to the volumes of sewage reported in lines A2.41 and A2.42.

A2.52 – 54

The reported septic tank loads (lines A2.52 and A2.53) are derived by applying an assumed load of 6,543g/m^3 to the volumes removed from private and public septic tanks respectively.

A2.56 The average settled COD concentration used to calculate Trade Effluent charges continues to be 350mg/l

A2.57 The average suspended solids concentration used to calculate Trade Effluent charges continues to be 250mg/l

The method of reporting remains unchanged from 2005/06.

A2.58-59
The confidence grade applied reflects the fact that calculations are used.

A2.58
Equivalent population served (resident).
The significant change in the population is due to a change in the definition, which now specifically includes PPP Works. To comply with the new definition this population equivalent includes the PPP works but does not include any load from non-resident population.

The figure in A2.58 is the total load divided by 60g, which equates to the equivalent population.

A2.59
Equivalent population served (resident)(numerical consents) has increased. The significant change in the population is due to a change in the definition, which now specifically includes PPP Works.

The figure in A2.59 is the total load divided by 60g which equates to the equivalent population (representing works that have a numerical consent).

A2.60
A2.60 Total load receiving treatment through PPP treatment works.

The load has decreased from the prior year because some large industrial sites closed during the year. This is most significant at the Levenmouth Works, where a paper mill has been removed from the network. Our methodology for calculating the total load is reflected in the B3 confidence grade applied.

A2.61-62 Sewage Sludge Disposal

The reported mass of sewage sludge disposal has increased by 96.78 ttds to 123.559 ttds in the report year. This increase is as a result of the inclusion of the PPP sludge. This year, we used reported disposal data from our Gemini system for almost all sites, rather than relying solely on theoretical data from the sludge model. At two sites (Girvan and Cumnock) theoretical outputs from the sludge model were used because not all of the sludge produced was measured, hence the confidence grade applied.

The mass disposed to farmland (conventional) has reduced by one third compared with last year, principally because we now use the reported values from Dalderse, rather than theoretical values derived from the sludge model. There have been other significant reductions in the mass of sewage sludge disposed of to composting and land reclamation.

Table B1 Restrictions on Water Use

B1.1-1.3 Restrictions on Water Use

This year we continued to provide unconstrained services with 0% of the population affected by hosepipe bans.

Table B2 Pressure and Interruptions

General Comments
The overall number of low pressure properties has reduced by 40% to 7,772 from the 12,995 reported in AR06 predominantly due to field work performed through the year to confirm the pressure of water supplied to properties on the register. Properties have also been added to the register through the field work and customer contacts. A number of properties have been removed through capital investment and changes to operational practice.

We have developed and commissioned a new corporate application for our low pressure register. This enables us to capture information from multiple sources, including customer contacts and field work, to identify the unique address of each property with inadequate pressure. The new system is now operational and is being used to track each report of low pressure and its resolution.

B2.1-10 Properties receiving pressure/flow below reference level

During 2006/07, while the new system was being developed, we retained the former process and system to record and report the number of properties at risk of receiving low pressure, as in previous years.

During the year, we embarked upon a major programme of field work to measure the pressure at sites thought to be at risk of low pressure in 150 Water Supply Zones (WSZ) containing about 11,000 properties from the register. This work led to the removal of 6,776 properties from the register and the addition of 1,727 properties to the register.

The trend in the data shows low pressure properties decreasing predominantly through the major programme of field work. Further decreases in the numbers are expected this coming year through capital investment.

163 properties were removed from the register because they were in areas that have benefited from capital investment to improve the networks, principally through mains rehabilitation. These properties are no longer at risk of receiving inadequate pressure.

120 properties were removed from the register following permanent changes to our operational procedures, principally adjustments to valves controlling zones within networks, such that pressures are consistently above the reference level for these properties.

The reported figure of 7,772 properties receiving low pressure contains 951 properties that are within 10.5m of the bottom water level of the supplying service reservoir. These properties are therefore compliant with service standards as required in our Guaranteed Standards Scheme for household customers. This should be taken into account when comparisons are made with other water companies.

The confidence grade of C4 for line B2.2 was reported on AR06 and has remained valid in this Return.

B2.10
The 23 properties that have been excluded from B2.9 are broken down as:

Customer Side Issue	9
Main Leak - Now Fixed	6
Property level >than 10.5m	7
Sort Duration to maintenance	1
Total	23

B2.11-B2.25 Properties affected by planned and unplanned interruptions

General comments
We have made a number of changes to the way we work, to reduce the number of unplanned interruptions to customers that last more than six hours. We have a new focus on our OPA performance and staff throughout Scottish Water are aware of the effect that their performance has on the service received by customers and on the OPA score. We have put in place new processes and procedures to ensure a consistent approach across Scotland and prompt reporting of the root cause of major interruptions.

One change in operating procedures was to attend to all 'water risings' (reports of water coming to the surface) within 7 days, compared with the previous policy of 14 days. Another significant action was the pressure reducing valve replacement programme, which was carried out in many parts of Scotland to reduce more consistently the pressure in the networks where it was unnecessarily high, and thereby reduce the probability of pipes bursting.

We had completed the rollout of the new IMS (Integrated Mobile Solution) system by April 2006. This gave our staff a mobile device which holds the allocation of jobs and allows them to input the interruption information on the hand held device on site during or after an interruption. This information is collated in the central IMS database and downloaded daily into the Interruption to Supply worksheet. In August 2006, the IMS system was improved to tighten the controls on the inputting of data, validating more information at source through software changes that prevented illogical, incomplete or highly exceptional reports from being submitted. After this implementation, there was an increased level of complete and consistent information. Our administrators have since reviewed all major incidents prior to August 2006 and, where necessary, sought verification from field staff. This has enabled us to present a confidence grade of B3 for the interruptions data relating to the report year as a whole.

We still have contingency arrangements that allow staff to fill out old style interruptions forms on paper in circumstances when IMS cannot be used to input the data. These paper forms are passed to a local administrator who validates and inputs the data onto the Interruption to Supply worksheet.

The Interruption to Supply worksheet is governed by a change control process which means that all changes to information are strictly controlled via one access route and anyone wanting to make a change to data that has already been submitted is required to fill out a form outlining the change requested. The change forms are now kept securely to enable a full audit trail to be maintained.

Outlined below is a summary of the major unplanned incidents for this year (i.e. more than 1000 properties affected).

		Interruption Banding			
Incident	Date	>3 <6 hrs	>6 <12 hrs	>12 hrs <24 hrs	Grand Total
AREA SUPPLIED FROM GREENHILL SR, NEWMAINS.CLELLAND,NEWARTHILL	25/07/2006	8000		2200	10200
Inverness Incident - Hilton, Lochardil, Kinmylies, Crown & Raigmore	05/11/2006	5076			5076
Pilmuir Street, Dunfermline	01/10/2006		5000		5000
Balgeddie Pumping Station	20/07/2006	929	1629		2558
Sypies Farm, Crail	06/05/2006	2000			2000
14 Brookfield Crescent, Stranraer, DG9 0HY	21/06/2006		1700		1700
85 SKELMORLIE CASTLE ROAD SKELMORLIE PA17 5AL	07/04/2006	1700			1700
Crossford Village	20/03/2007		1500		1500
Gowkhall Crossford Charlestown	22/11/2006		1400		1400
Pilmuir Farm, Leven	24/09/2006		1368	8	1376
Findhorn Village, Forres	11/07/2006	574	600		1174
FLATS, COLTSWOOD ROAD	14/09/2006		1000		1000
51 Bathgate Road, Blackburn	25/01/2007	1000			1000

The Pilmuir street, Dunfermline incident (5000 properties) was an interruption caused by a third party not working on behalf of Scottish Water.

Our performance in 2006/07 has demonstrated reductions in the number of properties interrupted in every reported time band (3-6 hours; 6-12 hours; 12-24 hours; over 24 hours).

The contributing factors for our improved performance are:

- Improvements to IMS mobile working system.
- Introduction of UITS (Unplanned Interruptions to Supply) champions in each region. These champions, who are also DOMS champions, can take a broad view of network performance and identify changes to working practices that can lead to local improvements in performance.
- Critical stores – Improved replenishment process. Critical sites will have specific local requirements defined within the replenishment process.
- Continuing introduction of Pressure Management Areas.
- Increased activity on leakage detection.

Table B3 and B3a Sewage – Internal Flooding and External Flooding

General Comments

Three of the thirteen OPA measures relate to sewer flooding and our strong focus on OPA performance has led us to make significant improvements in our service to customers, reducing the number of reported incidents of sewer flooding. We have introduced new systems and processes in our customer service system (Promise) in August 2006 that identifies an incident of internal flooding of a property from a sewer with a unique identifier for a Service Request. This ensures that field staff recognise the urgency of the incident and endeavour to respond within two hours. In the past, such service requests were not distinguished from others that related to less urgent incidents, such as external flooding or sewers backing up without overflowing.

Our data capture and recording processes have also been overhauled and we now have much more robust methods of reporting our performance each month. This includes assessing the number of incidents where field staff did not fully complete all the requested information, such as whether a blockage was on a main or a lateral sewer. In these cases, we allocate a number of incidents to categories in the same proportions as the incidents for which we do have full information. This inference of additional incidents has led to an increase in reported numbers for flooding from overloaded sewers but we believe it reflects a more balanced estimate of the most probable performance in the year. It also creates an incentive for regional team leaders to improve the compliance of their teams with full data capture for every incident.

We have also undertaken a major exercise to review our sewer flooding register, correlating it with records from customer contacts and, where necessary, visiting the properties to gather information about historical incidents. This has allowed us to reduce the number of properties on the register while also improving our confidence in the information on that register.

B3.1 Annual Flooding Summary

The number of properties reported in line B3.1 is the same as that reported in line A1.21, for which the derivation is explained in the corresponding commentary.

B3.2-B3.5 Annual Flooding – Overloaded Sewers

The reported number of internal flooding incidents due to sewer overloading has increased this year from 46 to 58, because of our new policy of adding an inferred number of incidents to our records to reflect those incidents where complete information was not gathered by field staff.

A heavy storm occurred over the greater Glasgow area on the 4th and 5th May 2006. This storm led to flooding at a number of properties not previously recorded on the "At Risk" register.

We experienced seven major incidents of very heavy rainfall during the report year which led to internal flooding of properties. We asked the Meteorological Office to analyse these incidents but we have been advised that none of the events met the severe weather criterion of a return period longer than ten years.

B3.5 – We have reported as zero the number of properties for which flooding was limited to uninhabited cellars only. This line is new in the Annual Return and, during 2006/07, we did not collate data in a way that enables us to separate flooding in this area of property from other internal flooding. We collated data in a combined category of unoccupied basements and 'below floor level' (i.e. including where flooding has occurred under the ground floor of a property without a basement) and the number of properties so affected was 45 in 2006/07. We do not know how many of these represent flooding of unoccupied basements and have therefore applied a confidence grade of M.

We have put in place arrangements to allow us to capture this data separately for 2007/08.

B3.6-12 Annual Flooding – Other Causes

Figures reported here relate to flooding caused by blockages or failure of main sewers only. They do not include flooding caused by blockages or failure of lateral sewers.

B3.7 – We have reported as zero the number of properties flooded more than once in ten years for other causes. However, we do not have information about such properties because our flooding register has previously recorded only properties at risk of flooding from overloaded sewers (i.e. not 'other causes'). We have put in place arrangements to begin to capture this information.

B3.11 – As for line B3.5, we report this as zero this year because we have not captured the information relating to uninhabited cellars only. In 2006/07, the number of properties flooded internally due to other causes in cellars or below their floor level was 172. We do not know how many of these represent flooding of unoccupied basements.

The table below shows the incidence of sewer flooding due to other causes that arose because of blockages or failures of lateral sewers. It shows that the improvements in reported performance apply to all types of sewer, not just main sewers. We have recorded a significant reduction in the reported total number of properties flooded due to other causes from 3,438 in 2005/06 to 1,319 in the report year.

Line ref.	Population	Main sewers only		Lateral sewers		Total	
		2005/06	2006/07	2005/06	2006/07	2005/06	2006/07
B3.6	Number of properties flooded in the year	688	475	2750	844	3438	1319
B3.12	Number of flooding incidents in the year	617	185	N/A	475	N/A	660

B3.13- B3.28 Properties on the "At Risk" register

Our register has been established on a corporate satellite application (CSA). During 2006/07, we initiated a review of all properties and areas recorded on the CSA (using information gathered from customer surveys, drainage area studies, site investigations, historic data sources, customer contact records, etc). The review is being undertaken to enable the improvement of information recorded on the CSA and in turn reduce cost inefficiencies in the flood alleviation programme. This has enabled us to report, in conjunction with the authority action undertaken in relation to line B3.20, an overall fall in figures in lines B3.13-15. It is also responsible, in conjunction with incidents that occurred in the report year, for the figure reported in line B3.22 as additions because of better information.

We will introduce further improvements to business systems and processes during 2007/08 and it is likely that such changes will bring new properties onto the “At Risk” Register. The above mentioned review will continue, however, and the overall trend of a net reduction in the figures reported in lines B3.13-15 is expected to continue.

The capital investment costs associated with permanent flood alleviation projects have risen steadily over recent years and significantly so this year. It is expected that this trend will continue as the general practice in recent years has been to undertake the projects that provided the lowest cost / benefit ratio. Operating costs associated with these projects have remained low over recent years.

B3.24-27 Problem solving costs

B3.24-25 Problem solving costs
These figures are derived by totalling the costs of permanent flood alleviation projects undertaken in the report year and dividing this by the number of properties that benefited from these projects. The cost information is extracted from the Capital Investment Management System (CIMS).

B3.26-27 Problem solving costs
These figures are derived by totalling the costs of temporary problem solving measures undertaken in the report year and dividing this by the number of properties that benefited from these measures.

B3.27 – Average cost of temporary problem solving measures (opex)
This figure is reported as zero as the cost of maintaining temporary problem solving measures are minimal and are therefore not quantified or recorded.

Table B3a Sewage – External Flooding

Our systems and processes for capturing and reporting information about external flooding are identical to those described above for internal flooding. The information reported in lines B3a.1 – B3a.10 relate to flooding from all sewers, including lateral sewers.

We record the number of incidents of external flooding but we have no records of the number of discrete areas that have been flooded. We have therefore been unable to complete lines B3a.1, B3a.6 and B3a.7.

AREAS ON THE 1:10, 2:10, 1:20 AT RISK REGISTER

B3a.11-21 At risk summary, problem status, and annual changes

The information used to report these figures is extracted from the Sewer Flooding Register corporate satellite application (CSA). This is the first time that we have reported data for properties at risk of external flooding and so prior comparisons and trends are not available.

B3a22-25 Problem solving costs

B3a.22-23 Problem solving costs
Costs associated with permanent flood alleviation projects are wholly associated with internal flooding reported in lines B3.24-25 in Table B3. Figures reported in these lines are therefore reported as zero.

Table B4 Customer Service

General comments
The reporting of Billing/Charging/Metering enquiries has altered during 2006/07. As a result of retail separation, the numbers are reported separately for Scottish Water and Scottish Water Business Stream. For this report year, we have been provided with information by Scottish Water Business Stream that has enabled us to compile consolidated information.

Our focus on improving our OPA score has helped increase the proportion of customer enquiries that were being dealt with in 5 days. We have put in place more rigorous management procedures to ensure that it is very rare for an enquiry to take longer than 5 days to receive a response.

Our improved performance has resulted in part from a 19% reduction in the total number of enquiries. We believe that this reduction has arisen because, during the reporting year, the method that the billing team used to deal with customers shifted from a reactive type approach to a proactive approach. The billing agents and the debt recovery team now call customers to establish that the correct details and bills are being received. We believe that this catches concerns before they escalate into enquiries from customers.

B4.1-7 Billing/Charging/Metering (BCM) enquiries

These lines detail the response times for all BCM enquires recorded within Customer Service.

B4.1 Total number of enquiries has decreased from 205,480 to 165, 986. This is a result of work carried out in prior years on the billing database to make sure that the customers receive the correct bill and all the additional information required through the billing process.

B4.2 No. dealt with within 5 working days decreased from 191,244 to 164,782. However, this masks the significantly improved performance in which 99.27% of customers that contacted Scottish Water during the reporting year have been dealt with in 5 days, a substantial improvement on the 93.07% reported for 2005/06.

The breakdown between Scottish Water and Scottish Water Business Stream is shown below.

Billing / Charging / Metering Enquiries	Scottish Water	Scottish Water Business Stream	Scottish Water Group
Total number of enquiries	107,246	58,740	**165,986**
No. dealt with within 5 working days	106,285	58,497	**164,782**
No. dealt with in more than 5 but within 10 working days	708	163	**871**
No. dealt with in more than 10 working days	253	80	**333**

B4.8-14 Change of Payment Method (CoPM) enquiries

Overall performance this year
These lines detail the response times for all CoPM enquires recorded within Customer Service. The more rigorous management procedures that have led to the improvement in BCM performance have also led to the improvement in Change of Payment performance.

B4.8 The number of customer contacts that have been dealt with in the reported year (3,107) is significantly lower compared with the prior year (9,820). This is a result of the work carried out both in the current and prior year on the billing database, which has allowed customers to be supplied with the correct information on bills and with additional literature that has reduced the need for customers to contact the call centre.

B4.9 Number dealt with within 5 working days has also decreased from 9,702 to 3,106 but this disguises a very significant improvement in the proportion dealt with within 5 days from 98.8% to 99.97%.

Change of Payment Method Enquiries	Scottish Water	Scottish Water Business Stream	Scottish Water Group
Total number of enquiries	2,331	776	3,107
No. dealt with within 5 working days	2,330	776	3,106
No. dealt with in more than 5 but within 10 working days	0	0	0
No. dealt with in more than 10 working days	1	0	1

B4.15-21 New Written Complaints

Overall performance this year
These lines detail the number of and response times for written complaints recorded within Customer Service. The reduction in the number of letters that have been received in the year reflects reduced investment activity in 2006/07 compared with 2005/06, which can adversely affect customers. In addition, our contact centre has achieved a higher proportion of 'first time resolution' for calls, meaning that fewer customers then submit a written complaint.

B4.15 Total number of written complaints decreased from 7,108 to 6,353. The number of written complaints has decreased from the prior year as a result of a number of factors: the reduced rate of water mains rehabilitation work; more efficient first time resolution by the contact centre; and the reduced number of debt recovery letters being issued by business billing.

B4.15a Total number of written complaint correspondence is reported this year for the first time and was 6,907 in the reporting year. In this reporting year, the number of follow up letters has been reported at line B4.15a. This was not reported in prior years. We only began to record these follow up letters in September. From September to March, a total of 323 follow up letters were received. We have derived the total for the year by applying a pro-rata proportion to the earlier months of the year to give the reported 554 for the year (line B4.15a – line B4.15) and have therefore applied a confidence grade of B4.

B4.17 No. dealt with in more than 10 but within 20 working days increased from 17 to 23. Of the 23 failures, 22 were complaints dealt with by Scottish Water Business Stream.

B4.18 No. dealt with in more than 20 working days is unchanged for the wholesale element, all 58 failures reported relate to Scottish Water Business Stream.

New Written Complaints	Scottish Water	Scottish Water Business Stream	Scottish Water Group
Total number of new written complaints received	6,077	276	6,353
Total number of written complaint correspondence	6,631	276	6,907
Number of items of correspondence/complaints	1.091	1.000	1.087
No. dealt with within 10 working days	6,076	196	6,272
No. dealt with in more than 10 but within 20 working days	1	22	23
No. dealt with in more than 20 working days	0	58	58

B4.22-29 Telephone Contacts

These lines detail all telephone contacts recorded within Customer Service.

The number of calls taken in the year has reduced significantly from last year as a result of the reduced number of emergency calls from vandalism damage , the significant reduction in the number of business contacts concerning bills and partially as a result of the reduced amount of capital investment that has an impact on customers.

B4.29 Total telephone complaints were not included in last year's Return. This year it is reported as 180,028. Compared to the WIC 5 2005/06 the number has reduced significantly down from 244,756 as a result of the above factors

Telephone Contacts	Scottish Water	Scottish Water Business Stream	Scottish Water Group
Total calls received on customer contact lines	705,592	41,777	747,369
Total calls answered on customer contact lines	698,557	41,563	740,120
Total calls answered within 30 seconds on customer contact lines	685,166	41,453	726,619
Total calls answered in more than 30 seconds on customer contact lines	13,391	110	13,501
Average time taken to answer a call on customer contact lines	5.07	3.00	4.96
All lines busy	0	0	0
Total of abandoned calls on customer contact lines	7,035	214	7,249
Total Telephone complaints	180,018	10	180,028

B4.30-40 Private Septic Tank Emptying

During the report year:

- We introduced new processes and systems for managing septic tank emptying;
- We achieved a 25% increase in the reported number of jobs to desludge septic tanks;
- We partially cleared a de-sludging backlog by using contractors;
- We commissioned a new initiative in Argyll to clear a small but acute backlog of de-sludgings;
- We commissioned a customer care initiative to remind customers that a scheduled de-sludging is due for their tank

The following process and systems improvements have been implemented since April 2006 which have improved our ability to report and manage septic tank emptying:

1. An automated link operates every night from Gemini to Hi Affinity for automated billing. This has freed up time and streamlined billing.
2. An exception report from the OMC Continued Improvement Team which lists all daily Hi Affinity transactions and any transactions that were not completed correctly. This has helped to highlight any exceptions quickly.
3. The Gemini-GIS link which allows us to pinpoint the location of a tank on a property.

Line B4.30

Total number of de-sludging requests has risen from a recorded figure of 4,164 last year to 15,695 this year. This figure is much higher because it now includes all de-sludging request types, regardless of the means of arranging the visit. Last year's figure excluded automated scheduled requests which were first set up in Gemini in a previous year. Our reported figures last year therefore only included new contracts, changes to contracts, new unscheduled and urgent cases; the figure of 4,164 was, in effect, a record of customer interaction rather than the number of jobs initiated to empty tanks. This year, we are reporting the number of requests as including repeat orders even where there has been no interaction with the customer.

Line B4.31

The record of de-sludging visits carried out has risen this year from 11,815 to 14,827. The main reasons for this increase are:

- More care in returning job sheets (with this being actively monitored)
- An increase in the work performed. A backlog was noticed during the summer for tanks that should have been emptied at an earlier date.. The planning team began a large campaign to clear the backlog with considerable outsourcing to contractors (for which the numbers are included in the figures reported here). Part of the backlog is still outstanding at the end of the reporting year.
- A major initiative in Argyll. This was begun after it was discovered that many tanks were overdue for emptying. The main reasons for the delay are the geographical difficulties presented by customers living in remote areas. This initiative began on 2nd April and 2000 extra job sheets were dispatched. By the end of the reporting year, at least 1000 have been completed.

Lines B4.33 – 4.34

The numbers of urgent de-sludgings and the total number of unplanned de-sludgings are substantially unchanged from last year. The numbers also include scheduled de-sludgings that have been brought forward due to customer requirements (and sometimes affected by adverse weather conditions).

Lines B4.35 – 4.40

The profile of unplanned de-sludgings carried out over time has changed significantly at its highest and lowest bands. The number of jobs activated between 0 and 10 days has decreased from 55% to 44% (693 to 550); conversely, the number carried out after 30 days has risen from 11% to 22% (144 to 281). The main reason was the increased work this year (including the initiatives mentioned above).

Table B7 Customer Care – GMS Performance – Interruptions to supply

B7.5 & B7.14: We made no automatic payments in the report year.

B7.17 Total amount paid out for GMS failure (unplanned interruptions) for the reported year has decreased from £6,772 to £4,144. The overall reduction in the amount we are obliged to pay for GMS failure is a result of our improved systems and processes for recording details of interruptions that allows more accurately to validate claims from customers.

B7.18 – B7.22 Sewer Flooding

A new process for identifying customers who are entitled to compensation for a sewer flooding incident was established this year. This has increased the number of payments that have been made in the year.

B7.23-27 Request to change method of payment enquiries

A dedicated team has been given responsibility to turn around all requests within five days. This has improved compliance with the five day standard and improved OPA performance resulting in a decrease in GMS failures from 118 to 1.

B7.28-32 Other Billing/Charging/Metering enquiries

The number of customer contacts in the year has decreased significantly as a result of the lower number of debt recovery letters, the issuing of correct bills and the better first time resolution of contacts resulting in a decrease in GMS failures from 3,255 to 333.

B7.29 Number of payments for failure to respond (automatic) has increased from 43 to 146. The number of automatic pavements has increased due to a new reporting process that has been put in place compared with the prior year. The payment is now automatically made to the account once the manager reviews and signs off the payment.

B7.30 Number of payments made from claims for failure to respond has decreased from 137 to 83

B7.32 Total amount paid for GMS failure has increased from £5,128 to £6,988

Wholesale/Retail Split

Other Billing/ Charging / Metering enquires	Scottish Water	Scottish Water Business Stream	Scottish Water Group
Number not dealt with within GMS period	253	80	333
Number of payments for failure to respond (automatic)	101	45	146
Number of payments made from claims for failure to respond	83	0	83
Total number of payments for failure to respond	184	45	229
Total amount paid for GMS failure	6,168	820	6,988

B7.33-37 Written Complaints

Wholesale/Retail Split

Written Complaints	Scottish Water	Scottish Water Business Stream	Scottish Water Group
Number not dealt with within GMS period	1	80	81
Number of payments for failure to respond (automatic)	1	16	17
Number of payments made from claims for failure to respond	0	0	0
Total number of payments for failure to respond	1	16	17
Total amount paid for GMS failure	20	848	868

B7.38-42 Telephone Complaints where written response is requested

We have not changed our method of reporting for telephone contacts where a written response is required and continue to report these as zero.

B7.43-50 Keeping Appointments

The number of appointments made within the GSS period of 24 hours has risen this year from 1,333 to 3,497. This is only the number of appointments given with more than 24 hours notice between the original call and the appointment.

In the WIC5, we have reported the higher total number of 5,174, which includes all appointments, whether or not made within 24 hour GSS notice period.

The reported figure for appointments has risen significantly because we are now including appointments scheduled with both Field Customer Advisors (FCA) and Network Services Operators (NSO). Last year only FCA appointments were included in the figures.

As we have changed the reporting scope to include NSO appointments, we can only compare the number of FCA made appointments with those made last year. The number of FCA appointments reported this year was 613, which indicates a halving of FCA appointments. The main reasons for this were reductions in: billing issues due to retail separation; debt recovery issues on operational activity; and a reduction in rehabilitation work.

The number of failures being reported now includes the number that the Network Services Operators (NSO) failed to meet.

B7.51-52 Ex Gratia Payments Made

B7.52 The total amount paid out in ex-gratia payments has increased from £215,940 to £401,693. The value of payments has increased principally because of a single payment of £147,457 to Thames Water Nevis Ltd for a water pressure value that failed during the year.

Table B8 Other Service Indicators – Water and Sewerage Service

B8.1 Water Service – Distribution

The number of mains bursts per 1,000 km has reduced from 186 to 166. This is principally due to the ongoing capital investment in water mains infrastructure.

However, there is a possibility that the number of reported bursts may increase for later years as a result of the active leakage management programme that is underway.

B8.2-9 Water Service – Water Treatment Works (Turbidity)

Lines B8.2 to 8.9 show data relating to turbidity monitored for regulatory purposes at water treatment works. These lines are a new requirement for this return.

Two data sources are used in the compilation of these lines:

1. Table 2 of DWQR Information Return for 2006. Analytical data for Turbidity monitored for regulatory purposes at water treatment works originates from the Scottish Water Laboratory Information Management System (LIMS). Regulatory data is extracted from LIMS using processes established to enable compliance with the requirements of the DWQR Information Direction. Compilation of these lines requires extraction of the appropriate information i.e. turbidity monitoring at treatment works from this defined regulatory dataset.
2. Distribution Input (DI) data from corporate spreadsheet. This details the volumes of water into supply from treatment works.

The LIMS (analytical) data component of these lines is of high quality, originating from a robust set of processes and systems which are subject to extensive quality control and audit procedures. However, lines 8.3, 8.5, 8.7 and 8.9 are compiled using a combination of the LIMS data and Distribution Input data, so confidence grades for these lines are set on the basis of both sources.

A large amount of data is excluded due to the criteria set. Of the 317 Scottish Water assets reported on, only 54 qualify for inclusion. This is because regulatory monitoring for turbidity at treatment works is based on the volume of water supplied. The higher the volume supplied by the works, the higher the sampling frequency. The 95% data in lines 8.2 to 8.5 therefore only relates to the larger volume treatment works.

B8.10-8.19 Sewerage Service

Data for sewer collapses is taken from WAMS (which records tasks issued to repair squads) and Promise (the customer management system, which records contacts from customers and the resolution of those contacts). This year, the proportion of compliance between records on WAMS and on Promise has increased very significantly from 56% to 83% as a result of improvements to systems and processes, and to compliance with those processes.

The total number of sewer collapses for the reporting year is 2,754 (line B8.10). This is consistent with line E7.14 and includes the collapse of risers. There were 2,748 gravity sewer collapses and 6 rising mains failures.

B8.12 – B8.14: Intermittent discharges

A GIS Harmonisation project carried out during 2006/07 highlighted incorrect or outdated information in the intermittent discharge (ID) asset inventory. The project involved consultation with asset owners with reference to Scottish Water's GIS wastewater infrastructure records and ID asset database, which resulted in a reduction in the overall number of IDs.

Surface water outfalls (SWOs) and dual manholes are not included in the list of structure types in the WIC definition for line B8.13. Therefore, they are not included in the reported number. However, SWOs and dual manholes are in our delivery plan and they are included in line G8.12 (number of IDs improved). To enable reconciliation, they are listed here in Table 1 below. CSO and Combined CSO & EO structure types were reported in line D6.2 in last year's Annual Return. Therefore these structure types have been listed individually in the table to enable a comparison with 2005/06 D6.2 & D6.3 lines.

Component	B8.12 Number (2007) (UIDs)	B8.13 Number (2007) (IDs)
CSO & Combined CSO & EO	769	3088
CSO at WwTW, EO etc.	75	420
SWO	38	45
Dual Manhole	33	46
Total including SWO & Dual Manhole	915	3599
2007 Total	**844**	**3508**

Overhang work from the Q&SII uCSO programme was completed on 35 uCSOs. However, 5 of these were also in the Q&SIII UID programme for remedial work not included in the Q&SII scope and were therefore not removed in the number of uIDs reported in B8.12. 25 uIDs were resolved in the first year of the Q&SIII UID programme, consisting of 13 dual manhole areas and 11 uCSOs and 1 UEO. Combined, the two investment programmes removed 55 UIDs from the total number of unsatisfactory intermittent discharges.

The GIS Harmonisation project carried out during 2006/07 removed around 800 intermittent discharges from the asset inventory due to better information.

As the Q&SII programme approaches completion, the number of uCSOs resolved each year will reduce. Conversely, the number of UIDs resolved next year by the Q&SIII UID programme will increase.

The Scottish Water Combined Sewer Outfall Corporate Satellite Application (CSA) was used as the source for the data on intermittent discharges for this Annual Return. This corporate application holds the most up to date and comprehensive data available. The system links to the corporate asset inventory held in Ellipse (the Work and Asset Management System). Records from the CSO CSA were matched to the output from the recent SW GIS Data Harmonisation exercise to confirm which intermittent discharges exist and are operational. Those confirmed as non-existent were excluded from the final figures. The quality and quantity of the data is continually being improved by Drainage Area Studies (DAS), Operations staff and Area Strategic Planner knowledge.

B8.15-16 (& 19) – Sewer blockages

Blockages – (B8.15-16)

These figures were not extracted last year. The number of blockages is taken from Promise, analysed by resolution code of the service request, with an uplift applied to this figure to take account of missing resolution codes. The figure reported here relates to blockages of all sewer types, main and lateral.

Equipment Failures (B8.19)
We extracted a report from WAMS which gives 27,342 incidents at waste water treatment facilities during the report year. However, this includes incidents that do not necessarily require repair or replacement of any equipment, such as resetting a switch. Conversely, where repairs are required, more than one item of equipment or more than one visit to repair it may be required.

B8.20- B8.37 Sewage Treatment Works performance

The definitions for the performance data to be reported here required information from SEPA concerning the three calendar years 2004, 2005 and 2006. This has been provided for each of the 3 years and has been used in completion of these lines.

Table B9a Security of Supply index - Planned level of service

Security of Supply Index (SOSI)
This is a new table for Scottish Water and the first year that we have published our SOSI. The SOSI is an indicator of the extent to which a company is able to guarantee provision of its planned level of service.

We have made a number of changes to our methodology for determining the supply demand balance. The changes were adopted for our Water Resource Plan 2007 (WRP07) by comparison with WRP06. The changes are:

- Yield data has been re-assessed in 32 WRZs
- In WRP06 the supply demand balance used the dry year annual average daily demand as the critical period for all WRZs. For WRP07, an assessment has been made as to whether the average or peak week daily demand is most appropriate to represent the dry year critical period. In the absence of any specific data or analysis, an uplift factor of 3% has been applied to the demand data to represent the effect of a dry year on demand.
- The number of WRZ reported this year has increased from 233 to 239. This is due to the dis-aggregation of Central Scotland into 11 WRZs. Three WRZs were also removed to form part of existing zones

The SOSI measure is used in England and Wales (E&W) to assess a company's security of supply to its customers but also to track changes in the service offered to customers over time.

Table B9.a (planned level of service) and Table B9.c (critical period level of service) have been completed and are consistent with our Water Resource Plan 2007 submission.

Table B9b Security of Supply index - Reference level of service

Table B9.b (reference level of service) has not been completed. A common reference Level of Service was adopted in E&W based on Ofwat Report: 1997 Reassessment of Water Company Yield. In the timescale available, we are not able to model this reference Level of Service which would require significant re-working of all our yield estimates (>500 sources).

Table B9c Security of Supply index - Critical period level of service

Our SOSI is currently negative (-26.3), implying that we have insufficient water resources. Indeed, our analysis shows that only 37% of the population is in surplus and the apparent implication is that 63% of the population is at risk of supply shortage. Nonetheless, it should be noted that the standard Supply Demand Balance methodology that we have applied results in the use of a number of uplift factors (outage, headroom and dry year demand allowance). Therefore, we do not consider the 41% of the population in Scotland which we calculate to have <-10% deficit to be at significant risk. Our opinion is that our focus for the coming year should be on the 22% of the population with >-10% supply deficit.

D Tables – Base Information

Tables D1-D3 Workload Commissioned Assets

Tables D1-D3 record assets replaced or refurbished and new and enhanced assets commissioned in the Report Year 2006-07. These are based on Scottish Water's approved investment programme to meet requirements of legislative driven quality improvements, enhanced level of service ministerial outputs and capital maintenance to ensure that the necessary level of service is maintained. The assets commissioned relate to projects from the Q&S2 Conclusion and Q&SIII Programmes.

Tables D1-D3 were calculated in previous years from Tables G5 and G6. The format of the G tables has changed since last year, and asset data is not reported in G5 and G6 and the asset data reported in D1 to D3 is directly input to the tables from aggregation of the project level data to the appropriate asset type, size band and financial fields.

Commissioned assets have been analysed and allocated to either 'asset replacement' or 'new and enhanced' as appropriate. Asset data on completed projects was obtained from Project Managers in Scottish Water Solutions and Capital Investment Delivery. They provided details of the assets commissioned through an Asset Data Capture Form for Tables D1-D3. Support Services data was obtained on individual proformas appropriate to the asset type. Financial information on project capital expenditure has been reconciled with the corporate financial management system.

New mains and sewers adopted through Developer Services projects are reported at the full value based on Developer Services estimate of total costs and not on the reasonable cost contributions paid to the developers. Data was provided at development site level on the new mains, sewers and pump stations.

Mains and sewer rehab lengths and size band diameters were provided with the associated financial costs in rehab proformas by Capital Investment Delivery (CID). The lengths reported are the lengths in the year although the projects may be continuing in 2007-08 and the financial investment associated relates to 2006-07, unless there had been expenditure in prior years against which no assets had been reported.

Data on changes to assets resulting from reactive work undertaken by Customer Operations was provided by Finance. Due to changes in the recording systems for work orders for reactive maintenance, there were significant gaps in the data provided and there has been inconsistency in recording details or work progressed across the different operational areas. This has resulted in under-reporting on the assets commissioned. The financial investment reported relates to the assets which could be identified. The data provided by Reactive Operations was incomplete in relation to lengths of main recorded in WAMS.

We recognise the need to amend the process for recording reactive maintenance and we have taken steps to improve reporting for future years. Further steps may include changes to the WAMS process to ensure that the Ellipse codes are captured for non-infrastructure assets. Finance is amending its process for capitalisation of mains and sewer replacement to ensure that lengths and diameters are recorded.

Work to meet the requirements of the Security and Emergency Measures Direction has been reported as enhancement of the assets in Table D1.

The DSEAR programme assets commissioned are reported as refurbishment of the assets in replacement table D2.

Investment on air valves which was not undertaken as part of the mains rehab programme is reported against line D1.18 in the replacement table in D1 in size band 0. Investment in manholes

which was not associated with the mains rehab programme is reported against D1.18 in size band 1. Investment in street furniture, including chamber covers, is reported in D1.18 in size band 2.

Investment in manholes which was not associated with the sewer rehab programme is reported in D2.20 in size band 0 and street furniture including chamber covers is reported in size band 1.

D3.9 and D3.29 report on the telemetry outstations which have been commissioned through the telemetry programme and outstations specifically identified in the asset data returns from project managers. However, a number of replaced or upgraded telemetry outstations will have been included within the refurbishment or upgrading of assets which have been included in Tables D1 and D2.

D3.13 and D3.33 include laboratory equipment and investment undertaken at tenanted houses, including upgrades to the private water supplies.

The need to amend the process for recording reactive maintenance has been identified. This may require changes to the WAMS process to ensure that the Ellipse codes are captured for non-infrastructure assets. Finance is amending its process for capitalisation of mains and sewer replacement to ensure that lengths and diameters are recorded.

The asset data on named projects being delivered by Scottish Water Solutions and Capital Investment Delivery was provided through proformas which used the current Ellipse data and are of similar quality to previous years.

Table D5 Activities – Water Service

D5.1-11 Mains – Asset Balance

Lines D5.1-D5.11 reports the water mains asset balance at 31/03/2007 and the number of communication pipes replaced in the Report Year.

The closing balance for water mains is 276km higher than the 46,942 km reported in line H3.4 of the Annual return in 2005/06 for potable water mains.

D5.2 and D5.3 Mains renewed and mains relined
The total length of mains renewed and relined is consistent with line D1.17 which reports the mains replaced as part of the Capital Investment Delivery Q&S3 Mains Rehabilitation Programme in 2006-07, lengths replaced by Reactive Operations capital maintenance lines, lengths carried over to 2006-07 on the Q&S2 SWS Mains Rehabilitation Programme and lengths from named projects.

D5.4 Mains cleaned (total)
The length reported has been derived from the length of flushing specified in ‘cleansed’ WAMS work orders.

D5.5 Distribution mains cleaned for quality
The length reported has been derived from the length reported against routine flushing codes and routine swabbing codes as these works are carried out for water quality reasons. The confidence grade for D5.4 and D5.5 is low as the WAMS report is reliant on the length being recorded in the Works Description field and this is not consistently recorded.

D5.6 New mains
The length of new mains is taken from line D1.47. This is a combination of the lengths adopted by Developer Services for new developments and lengths delivered as part of Q&S2 projects.

D5.7 Mains abandoned
The length of mains abandoned has been taken from GIS reporting as 70km plus the length of mains renewed from 5.2 above.

D5.7a Other changes
The length reported is the balance to bring the total changes in the year in line with the closing balance reported in D5.8. This balancing term will include the lag in updating GIS with new mains and other changes to the network.

D5.8 Total length of mains (closing balance)
The total length reported is consistent with line H3.4.

D5.9 Lead communication pipes replaced – quality
We have no records of lead pipes replaced at the request of customers in 2006-07. We have therefore reported lead pipes replaced against line D5.10.

D5.10 Lead communication pipes replaced - maintenance or other
465 lead communication pipes have been reported as replaced through the Reactive Operations capital maintenance lines and CID Mains Rehabilitation Programme.

D5.11 Communication pipes replaced – other
1,450 communication pipes have been replaced as part of the mains rehabilitation programme being progressed by Capital Investment Delivery and through work undertaken as part of the Reactive Operations capital maintenance lines.

D5.12-18 Water Resource Planning

Although a number of additional district metered areas were created during the year, the total number created was less than was forecast in the June 2006 return. A further proposed 1,064 district meter areas will be created by 31 March 2008.

The figures for the report year have been obtained from corporate reporting systems, principally Perform Spatial Plus.

D5.17 This is a new line, which shows the percentage of total connections covered by valid district metered areas. We derive this information from our records of the total number of communication pipes. This derivation relies on extracts from the corporate address server (CAS), the works and asset management system (WAMS) and the Laboratory Information Management system (LIMS).

D5.16 The total percentage of population covered by valid district metered areas rose to 71% in the report year. We expect this increase to continue.

Table D6 Activities – Waste water Service

D6.1-13 Critical/Non-Critical Sewers

Lines D6.1-D6.13 reports changes to critical and non-critical sewers in the Report Year.

The total length of critical sewer recorded has increased by 17km and the length of non-critical sewer recorded has increased by 116km from 2005/06.

D6.1 Total length of sewers - opening balance
The opening balance is taken from AR06 line E7.8.

D6.2 Total length of critical sewer - opening balance
The opening balance is taken from AR06 line E7.13.

D6.3 New critical sewers added during the year
22km of new sewers are reported in line D2.31 and comprise new sewers from Q&S2 wastewater quality projects, Q&S2 and Q&S3 flooding projects and Q&S3 Developer Services projects.

D6.4 Critical sewers inspected by CCTV or man entry during the year
62.4km of inspections were recorded in the Report Year. These are made up of 39.2km WAMS CCTV, 3.9km by Framework Contractors, 19.1km of Q&S2 CCTV surveys following completion of sewer rehabilitation projects and 0.2km of man entry inspection recorded on WAMS. The confidence grade is low as the data extracted from WAMS is dependent on the length and link to critical sewers being recorded.

D6.5 Critical sewers – renovated
There were no sewer renovations in the report year.

D6.6 Critical sewers – replaced
8.5km of sewer replacement is reported in line D2.1 from the CID Q&S3 infrastructure programme.

D6.7 Abandoned "critical" sewers
7.2km of abandoned sewer is reported from GIS.

D6.7a Other changes to "critical" sewers
This line reports the balance between the changes reported through the lines above to bring the total in line with the closing balance reported in D6.8 and in line E7.13.

D6.9 New "non-critical" sewers
105.5km of new sewers are reported in line D2.32. These are principally new sewers through the Q&S3 Developer Services programme and new sewers from Q&S2 wastewater quality projects.

D6.10 "Non-critical" sewers – renovated
There were no sewer renovations in the report year.

D6.11 "Non-critical" sewers – replaced
4.2km of sewer replacement is reported in line D2.2 from Reactive Operations sewer rehabilitation projects and from wastewater quality projects.

D6.12 Abandoned "non-critical" sewers
8km of abandoned sewer is reported from GIS.

D6.12a Other changes to "non-critical" sewers
This line reports the balance between the changes reported through the lines above to bring the total in line with the closing balance reported in D6.13and in line E7.8.

D6.14-19 Studies

D6.15 The Q&S3a programme is still being developed. For the report year, this line has been taken as the number of sewage drainage areas for which a study is being undertaken.

D6.16 A number of studies have been started, including ones covering Elgin, Forres and Rothes for the Moray Flood Alleviation project. Others are still ongoing as part of the Strategic Studies.

D6.17 – D6.19 We have taken these lines to refer to studies completed for the current investment period (Q&S3a), and therefore report it as zero. If this were taken as the number of studies completed since the start of the previous investment period this number would increase to 135.

Table D7 and D8 Capital Maintenance Expenditure

D7 reports capital maintenance investment on wastewater assets and D8 reports capital maintenance investment on water assets. With the exception of Management and General, the investment is reported against operational areas.

We have completed these tables to show the expenditure in each of the four former operational areas:

Area1 – North West
Area 2 – North East
Area 3 – South East
Area 4 – South West

Scottish Water reorganised into eight operational regions during the report year but the information presented in this table relates to the allocation to the former area boundaries.

Each project is assigned to one of the eight new operational areas and to a Unitary Authority in the Capital Investment Monitoring System. Where the project covers more than one operational area, it is flagged as Scottish Water Wide. The Unitary Authorities map to the former operational areas with the exceptions of Moray and Argyll & Bute. For these Unitary Authorities historic data or investigation of individual projects has been used for Moray and Argyll & Bute to attach the assets to the correct areas. Where projects were in the old operational areas and are now flagged as Scottish Water Wide as they span more than one new operational area, they are reported against the original area. The remaining Scottish Water Wide projects have been split equally across the four areas.

The financial values reported in D7 and D8 are based on the percentage of capital maintenance allocated to projects. The split between D7 and D8 groupings has been calculated from analysis of Q&S2 and Q&S3 programme groups and individual project names to assign spend in 2006-07.

The data for each section of D7 and D8 is based on allocating projects to one of the D7 and D8 groupings with information improvement projects allocated to water or sewerage infrastructure or non-infrastructure where this can be identified.

As D7 and D8 are new tables this year, the collection of asset data from Capex approvals had not been undertaken and the asset data for reporting assets commissioned in the report year did not cover projects with capital maintenance expenditure which would not achieve beneficial use in the Report Year.

D7.37 and D8.28 - Management and General includes all support services. The telemetry outstations have been allocated to water and wastewater by the Telemetry Programme Leader where the projects are delivering both. The other non-operational assets have been allocated to water and wastewater. The investment on fleet, IT, and offices/depots/control centres have been split 50/50 for reporting in D7.37 and D8.28. The SWS Share Account has SM3 and WM3 drivers and therefore is split between D7.37 and D8.28.

In future years, all projects will be allocated to the eight operational areas or to Scottish Water Wide.

The confidence grades reported are C3 due to the allocation being based on programme grouping and /or project names as the data required for these new tables had not been collected at project level.

E Tables – Operating Costs and Efficiency

General Comments

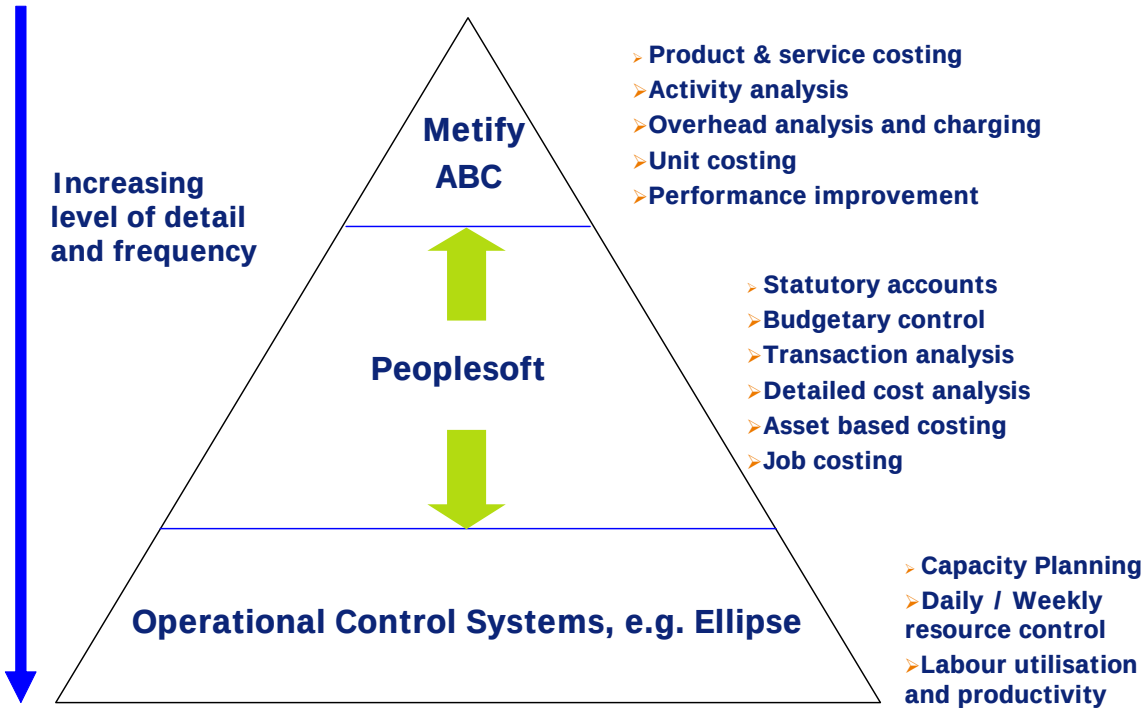
Methodology & Cost Allocation

Cost analysis in E Tables (E1, 2, 4, 6-10) was prepared using reports from Scottish Water's Activity Based Management (ABM) systems.

Activity Based Management (ABM) provides analysis of the costs of key activities and processes, and links these to the factors that cause or drive our level of cost. This allows us to develop an understanding of the full cost of providing services, either internally within Scottish Water, or to our external customers.

Scottish Water has built an ABM toolkit founded upon consistent principles which apply across some key, core systems and processes.

Activity Based Management data (financial and non financial) is captured in various source corporate systems. The key systems which provide ABM analysis for E Tables are:



System	ABM Process Overview
Ellipse Works & Asset Management System	Ellipse is used to hold Scottish Water's Asset Inventory and to manage operational activity by individual job (work order), activity and asset. Time spent working on work orders is captured in Ellipse via timesheets, integrated mobile devices or laptops. Material issued to jobs from Stock is also captured by work order.

Time and materials are then costed and interfaced to the Peoplesoft Financial System on a daily basis.

See Overview diagram below.

Peoplesoft Financial & Procurement System

Peoplesoft is Scottish Water's primary financial and procurement system. The key modules utilised by Scottish Water are Procurement, Accounts payable, Projects, General Ledger & Fixed Assets.

Accounting separation within the Scottish Water Group has been enabled within Peoplesoft.

Business Units are the highest level entity in Peoplesoft and are used to securely separate data and access to data and processes. Separate Business Units have been used to separate Scottish Water Business Stream from Scottish Water, and in turn Scottish Water Solutions. Cross-business unit transactions can only be made via inter-company invoicing.

Within Scottish Water, capture of activity based information within Peoplesoft has been maximised through the set up our coding structure, systems and processes.

Cost codes have been set up within Peoplesoft to capture and sub-analyse costs by:

- Individual work order
- Individual asset
- Each capital or non regulated project
- Each support department
- Expense subjective (account)

All costs are held in Peoplesoft, and costed either directly through Peoplesoft Procurement or operational costing through the Ellipse-Peoplesoft interface.

Peoplesoft, therefore, provides comprehensive costing analysis, on a monthly basis, of the costs directly attributable (including some key support activity recharges) to each team, asset, zone, project, service and job.

Metify Activity Based Costing (ABC) System

Metify is an ABC system structured around Scottish Water's key (c.300) activities. ABC is run periodically (typically half-yearly) to cover all profit and loss expenditure.

Peoplesoft feeds total expenditure directly into Metify.

Where activity splits have already been captured, e.g. Ellipse effort by activity / asset, these are also fed directly into Metify.

Costs are analysed by activity, and for each activity a non financial driver is captured. The non financial driver is the measurable factor which drives activity cost, or the level of resource consumption. In Metify these drivers are used to allocate costs to services.

Output from Metify provides analysis of the full cost of services. These services have been structured to match E & M Table activity classifications, and therefore Metify output directly feeds these tables.

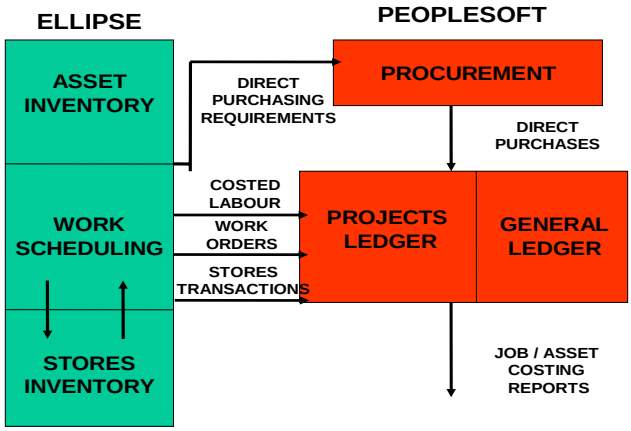
Non financial driver data is collected from a variety of corporate systems and input to Metify.

Driver Data Systems

Examples of systems and drivers are:

- LIMS – Lab tests processed and Samples taken
- Oracle CRM – Customer calls and written contacts
- Gemini – Waste movements
- Ellipse – Number of jobs, man hours, stores issues, etc.
- Hi Affinity – Number of invoices, reminders, etc.
- Peoplesoft – Number of invoices, purchase orders

Ellipse / Peoplesoft Integration



Cost Allocation

Costs are captured or allocated in line with Regulatory Accounting Rules.

Transfers between Separate Entity Associates

Transfers between separate legal entities (Scottish Water, Scottish Water Solutions Limited and Scottish Water Business Stream Limited) are invoiced between the various entities, in accordance with specified Service Agreement prices or Contracts. The prices in these agreements are in accordance with Regulatory Accounting Rules on Transfer Pricing, and prices reflect the full cost of providing the service to the entity. Activity Based Management output has been used extensively in determining the costs which should be included in transfer prices.

Transfers to Non Regulated Activities

Within Scottish Water, Non Regulated activity is separately reported in a Non Regulated ledger tree. Non regulated costs are either directly captured and reported in the Non Regulated ledger tree, or are allocated to Non Regulated through cost recharges.

Direct capture occurs where the function is wholly classified as Non Regulated, e.g. Business Development. Where Non regulated activities are undertaken by Core resources, cost recharges are made.

Operational Staff working on Non Regulated activities, e.g. Aquatrine and Non Domestic Septic Tank Emptying, charge costs to Non regulated through Ellipse work orders as described in the methodology section.

Other direct staff such as SW Contracting charge costs via timesheets, or in the case of contractors directly, to individual projects. Each of these projects is classified as either Regulated or Non Regulated, and cost recharges between Regulated and Non Regulated are made accordingly.

Support Cost recharges for Fleet, IT and Property are transferred on a regular basis, to reflect actual consumption of support costs. A further cost recharge is made on top of this, to cover areas, which are not regularly recharged. These recharges are made on the basis of half-yearly ABC analysis.

Capitalisation Policy

Scottish Water has applied a consistent policy to capitalisation and ensures compliance with UK Generally Accepted Accounting Practices (UKGAAP). The main points of the policy are:

- Fixed assets are tangible items for the delivery of services and the provision of support activities. Assets are utilised by Scottish Water for a number of years and are not for resale.
- Tangible fixed assets have physical substance and are held for use in the production or supply of goods and services. Capital assets are expected to generate future revenue for the company or are used in the business and are not for resale.
- Tangible fixed assets, whether purchased or constructed, are recorded at cost. Cost comprises all directly attributable costs, including internal costs, such as the cost of time spent on the construction of the asset by project engineers/ planners, which are incremental to the delivery of the Scottish Water capital expenditure programme. Cost does not include any allocation of administrative or general overheads and specifically excludes abnormal costs relating to, for example, inefficiencies, wastage and costs associated with operational problems encountered after asset commissioning.

- Costs associated with a start-up or commissioning period are capitalised but *only* where the asset is available for use but *incapable* of operating at normal levels without such a period of commissioning.

The capitalisation policy provides guidance notes and examples on distinguishing between operational and capital expenditure. With specific reference to expenditure relating to reactive and leakage activities, specific definitions and examples are included in the capitalisation policy. In addition, specific controls are in place to review expenditure relating to reactive and leakage activities.

Reactive Capital Expenditure

In general terms, infrastructure reactive maintenance activities can be capitalised where there is replacement of discrete lengths of mains or sewers, usually no less than 3 metres. The work must represent a permanent solution to a fault or deficiency in the network. Costs associated with clearing blockages or the use of a collar on a burst main are not capitalised but are charged to opex.

Reactive non infrastructure capital expenditure includes the replacement of an asset at the end of its useful life such as pumps, filters, screen. In addition, costs associated with a complete asset overhaul, the results of which extend the asset life for a number of years can be capitalised under either reactive or planned capital expenditure. Expenditure relating to the repair or replacement of a component of an asset, eg the replacement of a bearing, are not capitalised but charged to opex.

Expenditure on Leakage

Expenditure on leakage is predominantly allocated to operational expenditure since much of the activity relates to either operational intervention or investigative work. However, the replacement of discrete lengths of mains, usually no less than 3 metres, installation of valves and meters are capitalised.

Wholesale Cost Allocation by WICS Activity

Scottish Water's coding structure follows Regulatory Activity classifications, i.e. Water Treatment, Water Distribution, etc. by individual asset.

The majority of operational costs are directly captured against the individual assets, either by direct charging, e.g. Power, Chemicals, or through Ellipse work orders as described in the Methodology section, e.g. labour costs. In 2006/7 80% of costs directly attributable to wholesale assets were charged to assets. The shortfall against 100% was due to some gaps in labour costing. These gaps are addressed, for the purposes of regulatory reporting, via activity analysis undertaken with team leaders.

Support Cost recharges for Fleet, IT and Property are transferred to teams on a regular basis, to reflect actual consumption of support costs.

ABC then calculates the fully allocated costs of wholesale activities, including all support activity costs.

Trading Results & Reconciliation

On the 1st November 2006 Scottish Water Business Stream Limited (SWBS) commenced trading. SWBS is a fully owned subsidiary of Scottish Water. Scottish Water produces group consolidated accounts incorporating the results of SWBS.

E & M Table financials are produced for Scottish Water company only, excluding SWBS.

To aid E & M Table year-on-year comparison, the table below summarises Scottish Water group consolidated results and Scottish Water company results.

Table below revised

	SW Regulated group			SW Company		
	SW Group Regulated	Less SWBS	TOTAL SW Core	SW Core	Non regulated	TOTAL SW & SWBS
	£m	£m	£m	£m	£m	£m
Operating Costs	256.5		**256.5**	256.5	28.5	**284.9**
SWBS	7.0	-7.0	**0.0**			**0.0**
Opex	**263.5**	**-7.0**	**256.5**	**256.5**	**28.5**	**284.9**
PFI	125.6		**125.6**	125.6	0.0	**125.6**
IMC	88.0		**88.0**	88.0	0.0	**88.0**
Depreciation	137.4	-0.3	**137.1**	137.1	-0.2	**136.9**
Amort PFI	1.6		**1.6**	1.6	0.0	**1.6**
Gain on assets	-1.4		**-1.4**	-1.4	0.0	**-1.4**
Grant Amortisation	-1.1		**-1.1**	-1.1	0.0	**-1.1**
Expenditure	**613.6**	**-7.3**	**606.3**	**606.3**	**28.3**	**634.6**

E & M Tables include the costs of Scottish Water (Core/regulated) and Scottish Water (Non Regulated). The costs of business retail activity from November 2006 to March 2007 undertaken by SWBS are not reported in Scottish Water's E or M tables.

Scottish Water company results are summarised and reconciled below, to E tables and the regulatory account tables M18 (W & WW) tables.

	SW Company TOTAL	Difference	M Tables TOTAL	Difference M - E	E Tables TOTAL	E1	E2	E3a
	£m	£m	£m	£m	£m			
Operating Costs	**284.9**		**282.8**		**282.8**	160.3	122.6	0.0
SWBS	**0.0**							
Opex	**284.9**	**2.1**	**282.8**	**0.0**	**282.8**	**160.3**	**122.6**	**0.0**
PFI	**125.6**	**-2.2**	**127.8**	**0.0**	**127.8**	0.0	0.0	127.8
IMC	**88.0**	**0.0**	**88.0**	**0.1**	**87.9**	54.4	33.5	0.0
Depreciation	**136.9**		**137.3**		**137.3**	61.7	75.6	0.0
Amort PFI	**1.6**	**-0.1**	**0.0**	**-0.1**	**0.0**			
Gain on assets	**-1.4**		**0.0**		**0.0**			
Grant Amortisation	**-1.1**		**-1.2**		**-1.1**	-0.7	-0.4	0.0
Expenditure	**634.6**	**-0.1**	**634.7**	**0.0**	**634.7**	**275.6**	**231.3**	**127.8**

The difference in the table above net to £0.1m and is due to rounding. The line differences are table presentation differences explained as follows:

- £2.2m difference is due to transfer of costs from Customer Operations for Intersite Sludge Tankering from Scottish Water wastewater treatment works to PFI works (£1.7m), terminal pumping station costs pumping to PFI works (£0.4m) and support costs for the PFI team (£0.1m).
- £0.1m difference between E Tables and M Tables is due to Non Regulated IMC depreciation included in Third Party depreciation (depreciation line) in E Tables.

Scottish Water's statutory accounts reconcile to the M & E Table results.

	£m	£m
Expenditure per E Tables		634.7
Statutory Accounts		
Cost of Sales	549.7	
Admin Expenses	97.9	
Expenditure per statutory accounts		647.6
Less SWBS		-7.3
Less FRS 17 adjustment		-5.6
Total Expenditure		634.7

Trading Results

From a Regulatory cost perspective, nominal operating costs (i.e. excluding depreciation, PFI charges, FRS 17 pension charges and costs associated with non regulated activities) increased by £4.5m to £263.5m compared to £259.0m in 2005/06. However, on a like-for-like basis Group regulated operating costs reduced by £1.5m, a real reduction of 5.2%. The table below summarises this movement:

	2006/07 £m	**2005/06 £m**	**Mvt fav/(adv) £m**	**Mvt fav/(adv) %**
Group Regulated operating costs	**263.5**	**259.0**	**-4.5**	**-1.7%**
CMA "a typical"	-1.5		1.5	
Bad debt provision release "a typical"	6.0		-6.0	
Separation costs	-1.4		1.4	
Leakage	-5.5		5.5	
Additional new opex	-3.6		3.6	
Like-for-like costs	**257.5**	**259.0**	**1.5**	**0.6%**

The like-for-like operating costs for 2006/07 of £257.5m include absorption of a £5.8m, or 27% increase in power costs to £27.3m.

Total operating expenditure excluding exceptional items (E1.20+E2.19-E1.17-E2.16), reduced by £19.1m to £282.8m (as detailed below).

	2006/07 £m	**2005/06** £m	**Variance** £m
Total operating costs – Water E1.20	160.253	185.892	25.639
Total operating costs – Waste E2.19	122.587	119.787	-2.800
Exceptional costs – Water E1.17	0.000	-2.684	-2.684
Exceptional costs – Waste E2.16	0.000	-2.200	-2.200
	282.840	**300.795**	**17.955**
Adjustment for incorrect transfer of costs to PFI		1.173	1.173
	282.840	**301.968**	**19.128**

There have been some significant cost movements between 2005/6 and 2006/7 due to significant changes in activity levels. The main cost movements are summarised in the table below.

The movements which have been classified as atypical are:

- CMA set up costs under costs of regulation £1.5m
- Bad Debt provision release in the year £(6.0)m

These atypical movements are included in the analysis below:

	£m
Activity reductions	
Reduction in Non Regulated expenditure mainly due to switch in Contracting workload to internal capital work	(22.3)
Transfer of Retail business activity to SWBS (including bad debt)	(5.6)
	(27.9)
Activity Increases	
Operating costs associated with new assets	3.6
Leakage detection and repair costs	5.5
Business restructure (mainly VR costs)	3.9
Increase in standby and call out payments to improve customer service	0.6
Market opening and wholesale revenue management	1.4
WIC Fees (including £1.5m *Atypical* for CMA set up)	2.2
	17.2
Cost Savings	
Headcount reductions	(2.5)
IT expenditure reductions	(0.6)
Transport efficiencies due to improved processes	(2.1)
Reduced level of re-instatements	(2.8)
Other efficiencies	(6.5)
Bad Debt reduction (£6.0m *Atypical*)	(9.7)
	(24.4)
Cost Increases	
Increase in power tariffs	5.8
Inflationary increase to staff salaries, 3% in April2006, and by an average of 1% in October 2006, plus reduction in staff pay differential	4.4
SEPA CAR charges imposed on Abstraction	1.9
Sludge transport and disposal cost increases as a result of changes in sludge regulations	0.3
Chemical price increases	0.4
Local authority rates increases	0.7
Insurance costs increase due to a few abnormal incidents that led to significant third party claims.	2.3
	15.8
Total	**(19.1)**

Functional Expenditure

Total functional expenditure (lines E1.10 & E2.09) increased by £11.5m (7.6%) from 2005/06 (as detailed below).

Analysis of functional expenditure –

	2006/07	2005/06	Variance
	£m	£m	£m
Total functional costs – Water E1.10	86.759	82.508	-4.251
Total functional costs – Waste E2.09	76.811	69.560	-7.251
	163.570	**152.068**	**-11.502**

Direct employment costs (E1.1 & E2.1) increased by £1.9m (3.5%) from 2005/06 to £55.2m, generated mainly by an inflationary and performance pay increases (3.5%). The average headcount employed during the year was 3587 including 132 staff transferred to SWBS. Consolidated SW including SWBS headcount has reduced from 05/06 by 106 (2.9%).

Within direct employment costs, the additional costs of delivering improved customer service; mainly leakage reduction (£2.1m), impact of new investment (£0.5m) and callout and standby (£0.6m); have been absorbed, offset by headcount reductions.

Direct power costs (E1.2 & E2.2) increased by £6.0m to £27.1m (28%), due, in the main, to increased tariffs following the expiry in November 2006 of the fixed price contract held with Scottish Power. Additional operating costs as a result of capital investment account for £1.0m of the increase, and additional pumping costs due to dry weather account for £0.5m of the increase.

Hired and contracted costs (E1.3 & E2.3) have increased by £1.2m (7.6%) to £16.3m. Water Service costs increased by £0.7m due, in part, to increased leakage detection and repair activity (£0.5m). Sludge disposal costs increased by £0.3m, primarily due to increases in the landfill tax liability, combined with an increase in gate prices at landfill sites and increased transportation costs. These increases have been partly offset by reduced contractor spend enabled through improved contractor management processes, and bringing certain activities in-house.

Spend on materials and consumables (E1.4 & E2.4) increased by £1.1m (9.2%) to £13.6m. Chemical price rises, dry summer and impact of new investment have contributed to chemical costs increasing by £0.6m. Increased R&M activity accounts for the majority of the remaining increase.

SEPA costs (E1.5 & E2.5) increased by £2m (28.1%) to £9.0m. This increase is due to introduction of CAR (Controlled Activity Regulation) charges, which are applied for water abstraction, and a 2.7% inflationary increase.

Other direct costs (E1.7 & E2.6) increased by £2.8m to £7.5m. Insurance costs increased by £2.3m due to a few abnormal incidents that led to significant third party claims.

General and Support costs (E1.9 & E2.8) reduced by £3.4m to £34.8m, the main movements being:

- restructuring costs charged to functional expenditure (primarily VR) £2.3m, offset by
- reductions in support activity expenditure (IT £0.9m, Finance £0.3m & Facilities £0.3m)
- reduced level of re-instatements £2.8m.

Business activities

Total business activities spend (E1.14 & E2.13) have increased by £0.1m from 2005/06 (as detailed below).

	2006/07	2005/06	Variance
	£m	£m	£m
Customer services (E1.11 & E2.10)	22.537	25.715	3.178
Scientific services (E1.12 & E2.11)	13.088	11.645	-1.443
Other business activities (E1.13 & E2.12)	6.536	4.723	-1.813
Total business activities (E1.14 & E2.13)	**42.161**	**42.083**	**-0.078**

Customer service costs have decreased, primarily as a result of business retail activity transferring to SWBS (£3.7m) and cost savings (£0.6m). However, costs have also increased due to increased market separation and wholesale revenue management activity (£0.7m) and inflationary increases between April 2006 and 1st November 2006 (£0.3m).

Scientific Services have increased by £1.4m. Overall numbers of sample visits and tests analysed have not moved significantly. However, the volumes of capital project samples and tests have decreased from 2005/6, with corresponding increases in regulated sampling (+5.5% samples, and +3.5% tests from capital to regulated). This adds £0.2m into Scientific Services previously charged to Capital. The other main increases are:

- Pay inflation (£0.3m)
- Increased environmental and sustainability activity (£0.3m)
- Central bonus and restructuring accrual, previously not charged to Scientific Services (£0.5m)

Other Business Activities have increased by £1.8m. WICS and related fees have increased by £2.3m from 05/06, including an atypical cost increase of £1.5m, being the contribution to the set up of the Central Market Authority. Wastewater quality regulation effort has reduced, partly offset by increased internal regulatory liaison on market separation, transfer pricing and wholesale charging.

Rates

Local authority rates (E1.15 & E2.14) increased by £0.9m (3.4%) from 2005/06 mostly due to a 6% increase in the charge for Water undertakings, offset by a reduction in uniform business rates.

Doubtful debts

Doubtful debt costs (E1.16 & E2.15) reduced by £11.6m to £16.7m, as detailed below.

Table moved from below

	2006/07	2005/06	Variance
	Charge	Charge	
Domestic	16.1	23.4	7.3
Non-domestic	0.6	4.9	4.3
	16.7	**28.3**	**11.6**

The transfer of business retail activity to SWBS means that only 7 months doubtful debt charge has been accounted for by Scottish Water this year for commercial customers. This accounts for £1.9m of the reduction year on year.

The domestic bad debt charge reflects an atypical release of bad debt provision in the year of £6.0m

The remaining reduction of £3.7m is due to improved Domestic and Non Domestic cash collection and reduction in aged debt during the year.

Third party costs

Third party costs (E1.19 & E2.18) have been allocated between core and non core in accordance with Regulatory Accounting definitions.

Third party costs consist of:

	2006/07	2005/06	Variance
	£m	£m	£m
Non Regulated activities	27.576	49.928	22.352
Core third party services	5.358	3.024	-2.334
	32.934	**52.952**	**20.018**

The decrease in Third Party services is primarily due to a switch in SW Contracting workload from third party services for SWS to in-house capital work (£26.4m) offset by increases in Business Development activity (£7.0m) and improved capture of third party activity costs (£2.3m). In particular with regard to water connections.

Capital maintenance

Capital maintenance costs (E1.30 & E2.29) reduced by £27.4m primarily because of a reduction in the assessed long term cost of maintaining the infrastructure assets which reduced by £22.0m, in line with the delivery plan.

Water/Wastewater Split of Costs

The proportion of functional expenditure to water activities was broadly consistent at 53% in 2006/07 and 54% in 2005/06, as detailed in the table below.

	2006/07	2006/07	2005/06	2005/6
	£m	%	£m	%
E1.10 Water	86.759	53.0%	82.508	54.3%
E2.9 Wastewater	76.811	47.0%	69.560	45.7%
	163.570	100.0%	152.068	100.0%

Of the £11.5m increase in the year, £7.3m or 63% of the increased costs were in Wastewater. Increases occurred in wastewater as detailed below:-

- £1.6m (7.1%) increase in employment costs from 2005/06, reflecting the inflationary and performance increases, plus movement of staff into wastewater activities to take choke removal / jetting activity in-house.
- £4.0m (38.9%) increase in power costs is primarily due to increased tariff rates applied, new operating costs (£0.5m), and improved coding of power to pumping station assets, switching costs from water to wastewater.
- £0.4m (3.8%) increase in hired & contracted costs. This was due to Sludge disposal costs increased by £0.3m, primarily due to increases in the landfill tax liability, combined with an increase in gate prices at landfill sites and increased transportation costs. Increased R&M activity and Risk Based Maintenance (RBM) activity in treatment (£0.5m) was offset by reduced contractor spend enabled through improved contractor management processes, and bringing jetting and choke removal activities in-house.
- £0.2m (9%) increase in materials and consumables, partly due to new operating costs.
- £0.3m (4.4%) increase in SEPA Charges, mainly due to inflation increase.
- £0.9m (49.3%) increase in other direct costs is mainly due to increased insurance claims and transport costs associated with single man working to clear chokes and jet sewers.
- £0.2m reduction in general and support costs. Costs have reduced due to support function cost reductions (£0.9m) and reduced levels of re-instatements (£1.2m). These reductions have been partly offset by improved analysis of Asset Management time

between water and wastewater. This increased wastewater by £1.2m. Furthermore, restructuring costs of £0.9m (mainly VR) have been charged to wastewater.

The remainder of the £11.5m increase in the year, was in water activities (£4.2m). These increases occurred as detailed below:-

- £0.3m (0.9%) increase in employment costs from 2005/06. This reflects the inflationary and performance increases (£1.1m), increased leakage activity (£2.1m), new operating costs of (£0.5m). These increases have been offset by: movement of staff into wastewater activities to take choke removal / jetting activity in-house (£0.5m), improved capture of non regulated / third party activity costs (£0.2m), increased reactive capital (£0.2m). The remainder of the reduction (£2.5m) is due to headcount reductions and movement of staff onto wastewater activities.
- £2.0m (18.3%) increase in power costs is primarily due to increased tariff rates applied, new operating costs (£0.5m), additional pumping due to dry weather (£0.6m). These increases have been partly offset by reduced pumping at Loch Katrine (£0.2m) and improved coding of power to pumping station assets, switching costs from water to wastewater.
- £0.8m (14.1%) increase in hired and contracted costs is due, in the main, to increased leakage activity (£0.5m) and increased repair and maintenance activity (RBM, equipment repairs, re-instatements, mains repairs, borehole maintenance in dry weather)
- £0.9m (9.2%) increase in materials and consumables is due to: chemical price increases (£0.4m), increased dosing due to algae problems caused by dry weather (£0.2m), new operating costs (£0.2m) and increased repair and maintenance activity (£0.1m).
- £1.7m (470%) increase in SEPA charges due to the introduction of CAR (Controlled Activity Regulation) charges, which are applied for water abstraction, in addition to a 2.7% inflationary increase.
- £1.9m (64.4%) increase in other direct costs is primarily due to increased insurance claims including a major burst in Liberton, Edinburgh (£0.5m).
- £3.3m (14.5%) reduction in general and support costs. Costs have decreased due to improved time capture and analysis of the Asset Management team between water and wastewater. This reduced water costs by £1.3m. Reduced levels of re-instatements £1.5m generated the remainder of the saving, in addition to support function cost reductions (mainly IT £0.6m). These reductions have been partly offset by restructuring costs of £1.1m (mainly VR) charged to water.

Table E1 Activity Based Costing - Water Service

E1.0-10 Service Analysis - Water: Direct Costs

Table 1a

Water Resources & Treatment E1.10

	Total £m
Functional expenditure:	
2006/07	43.187
2005/06	38.613
	-4.574

Water resources and treatment costs increased by £4.6m in 2006/07 compared with 2005/06. This increase occurred as follows:

- £0.3m (2.6%) increase in employment costs from 2005/06. This reflects the inflationary and performance increases (£0.4m), new operating costs (£0.5m). These increases have been partly offset by headcount reductions and movement of staff onto wastewater activities.
- £1.9m (32.3%) increase in power costs is primarily due to increased tariff rates applied, new operating costs (£0.2m), additional pumping due to dry weather (£0.6m). These increases have been partly offset by reduced pumping at Loch Katrine (£0.2m) and improved coding of distribution power costs.
- £0.5m (18.5%) increase in hired and contracted costs is due, in the main, to increased repair and maintenance activity (RBM, equipment repairs and borehole maintenance in dry weather)
- £0.7m (8.3%) increase in materials and consumables is due to: chemical price increases (£0.4m), increased dosing due to algae problems caused by dry weather (£0.2m) and new operating costs (£0.2m).
- £1.7m (538%) increase in SEPA charges due to the introduction of CAR (Controlled Activity Regulation) charges, which are applied for water abstraction, in addition to a 2.7% inflationary increase.
- £0.5m (6.6%) reduction in general and support costs. Costs have decreased due to improved analysis of Asset Management time between water and wastewater, and support function cost reductions. These reductions have been partly offset by restructuring costs (mainly VR) charged to water resources and treatment.

Further detail at table 4 below

Water Distribution E1.10

	Total £m
Functional expenditure:	
2006/07	43.572
2005/06	43.895
	0.323

Water distribution costs reduced by £0.3m (0.7%), from 2005/06. This is analysed as follows:-

- £3.5m Increase in leakage activity
- £0.7m increase in employment costs - inflation and performance increases
- £0.1m increase in power costs as a result of tariff increases (£0.7m) and new opex (£0.3m) offset by improved power coding (£0.9m) from water distribution to wastewater collection (£0.6m) and water resources and treatment (£0.3m).
- £1.8m increase in other direct costs increase due to increased insurance claims and resulting liabilities.
- Headcount reduction and transfer of staff to wastewater collection activity (£3.7m)
- Reduction of £2.7m in general and support costs. Costs have decreased due to improved analysis of Asset Management time between water and wastewater. This reduced water distribution by £0.6m. Reduced levels of re-instatements £1.5m generated the remainder of the saving, in addition to support function cost reductions (mainly IT & Finance £0.5m). These reductions have been partly offset by restructuring costs (£0.8m) (mainly VR) charged to water.

E1.11-20 Operating Expenditure

E1.11 - Customer Service costs allocated to water have reduced by £1.9m to £11.1m compared with 2005/06. Customer service costs have decreased, primarily as a result of business retail activity transferring to Scottish Water Business Stream (£2.1m) and cost

savings (£0.3m). However, costs have also increased due to increased market separation and wholesale revenue management activity (£0.3m) and inflationary increases between April 2006 and 1st November 2006 (£0.2m)

E1.12 - Scientific Services costs allocated to water have increased by £1.5m (16.2%) to £10.9m compared with 2005/06. The main causes of this were:

- Pay inflation (£0.2m)
- Increased environmental and sustainability activity (£0.2m)
- Increased PCV breach management activity (£0.1m)
- Central bonus and restructuring accrual, previously not charged to Scientific Services (£0.4m)
- Shift in sample visits from Capital and Wastewater to Water (Water sample visits: 2005/6 77.9%, 2006/7 80%) £0.1m
- Shift in tests (weighted for analysis cost) from Capital and Wastewater to Water (Water tests analysed: 2005/6 75.9%, 2006/7 81.3%) £0.3m

E1.13 - Other business activities allocated to water have increased by £1.4m to £3.3m compared to 2005/06. The main driver for this was an increase in payments to WICS, predominately CMA set up costs.

E1.15 - Local Authority Rates for water increased by £1m (6.0%) to £18.2m compared to 05/06. This was due to an increase in poundage applied to the rateable value for the water undertaking.

E1.16 - Doubtful debts allocated to water reduced by £5.3m to £8.0m, partly as a result of transfer of business retail activity to SWBS (£0.8m), partly due to an atypical release of bad debt provision (£2.9m) and partly due to improved cash collection and reduction in aged debt on domestic and non domestic customers (£1.6m).

E1.19 - Third party opex has reduced by £24.9m, primarily due to mains rehabilitation work now being completed in-house . Last year work was done by SWS and sub-contracted to SW Contracting.

E1.21-22 Reactive and Planned Maintenance (included in Opex)

Reactive and Planned Maintenance (included in Opex). This has increased by £1.6m on infrastructure and £0.6m on non-infrastructure

E1.23-30 Capital Maintenance

E1.23-30 - Depreciation is allocated between water and wastewater based on the asset information held in the fixed asset register. For other assets including IT, plant, machinery, vehicles and property, the total depreciation from the fixed asset register is allocated across all business activities (including other business activities) using ABM cost driver data, such as IT application users.

Confidence Grades – Confidence grades on Table E1 remain consistent with 2005/6, with improvements on some lines (noted below).

Direct costs are, in the main, captured in the core corporate financial system, with labour costing feeds from the core corporate works management system. A high proportion of direct costs are captured by asset, hence the A2 confidence grade. There have been improvements in the quality of direct cost capture during the year, particularly in power, which mean accuracy has improved, but not yet to the A1 band.

Employment cost, or labour cost analysis has improved since 2005/6, by way of direct cost capture, but also with improvements in the ABM process, whereby team time analysis is taken direct from the corporate works management system, and only supplemented where gaps exist.

In order to achieve A1 accuracy, Scottish Water would need to increase the level of direct cost capture further still, and build in more accurate and tested allocations of cost where direct cost capture does not provide splits by regulatory classification, e.g. single power meter at a dual function asset.

General & Support costs and Operating expenditure are generally allocated to regulatory activities on the basis of underlying activity and cost driver analysis. Accuracy depends primarily on the quality of cost driver data. During the year there have been some specific improvements to driver data, which have improved the quality of cost allocation – most notably IT data. However, overall improvements have not been considered sufficient to merit a change from A2 to A1. The confidence grade on Third Party Services – Opex (E1.19) has moved from A3 to A2 to reflect improved direct cost capture and better cost allocation to Non Regulated and other third party activity.

The improvement in Reactive and Planned Maintenance analysis from D3 to A3 reflects the use of ABM, fed directly from Works Management analysis, for this activity analysis.

Capital Maintenance costs are generated directly from the Fixed Asset Register. An improvement from A3 to A2 reflects the increased proportion of depreciation captured directly by asset. The only element of capital maintenance which requires significant cost allocation is support asset depreciation, e.g. IT, Fleet, Property. Support asset depreciation is allocated to regulatory activities on the basis of underlying activities and cost driver data. IT depreciation forms the majority of support asset depreciation. Improvements in IT cost driver data have enabled the improvement in business activities depreciation from A3 to A2.

Table E2 Activity Based Costing - Waste Water Service

E2.0-9 Service Analysis - Waste Water : Direct Costs

Table 2a

Sewerage E2.9

	NW	NE	SE	SW	Total
	£m	£m	£m	£m	£m
Functional expenditure:					
2006/07	5.799	8.766	6.238	11.990	32.793
2005/06	5.655	8.261	5.585	11.347	30.848
	-0.144	**-0.505**	**-0.653**	**-0.643**	**-1.945**

These increases occurred as detailed below:-

- Due to a change in re-definition of terminal pumping stations, a number of terminal pumping stations have been re-classified under treatment rather than sewerage, in line with regulatory accounting guidelines. This causes a year on year movement from sewerage to wastewater treatment. The transfer to treatment this year is:
    - £0.3m employment costs (£0.1m NW, £0.1m NE)
    - £0.6m power costs (£0.3m NW, £0.2m NE, £0.1m SW)
    - £0.2m hired and contracted (£0.1m NW, £0.1m NE)
    - £0.1m materials and consumables

      Total £1.2m

£0.8m of this total is reported in table E2 under wastewater treatment. The remainder (£0.4m) relates to PFI works and is reported in E3.

- £1.5m (13.7%) increase in employment costs from 2005/06, reflecting the inflationary and performance increases (£0.5m), movement of staff into wastewater activities to take choke removal / jetting activity in-house (£0.4m – SW), increased call out and standby to improve customer service (£0.3m) and transfer of terminal pumping station maintenance costs from sewerage to wastewater treatment activities (£0.3m).
- £0.9m (21.5%) increase in power costs is primarily due to increased tariff rates applied, new operating costs, and improved coding of power to pumping station assets, switching costs from water to wastewater (mainly SE). These increases have been partly offset by £0.6m transfer of terminal pumping station costs (NW & NE).
- £0.5m (11.9%) decrease in hired & contracted costs due to reduced contractor spend (£0.8m) enabled through improved contractor management processes, and bringing jetting and choke removal activities in-house (mainly SW/SE), as well as transfer of terminal pumping station costs of £0.2m. These decreases have been partly offset by increased re-instatement costs (mainly NE).
- £0.1m (9.9%) decrease in materials and consumables, partly due to reduction in use of chemicals at wastewater pumping stations (SW).
- £0.2m (18.0%) increase in SEPA Charges, mainly due to inflation increase, new opex and revised consents.
- £0.8m (69.3%) increase in other direct costs is mainly due to increased insurance claims (all) and transport set up costs (fitting out vans) for single man working to clear chokes and jet sewers (SW).
- £0.8m (9.4%) decrease in general and support costs to £7.8m. Costs have decreased due to support function cost reductions and reduced levels of re-instatements £1.8m. Reductions have been partly offset by cost increases due to improved analysis of Asset Management time between water and wastewater. This increased sewerage by £0.8m. Furthermore, restructuring costs of £0.4m (mainly VR) have been charged to wastewater.

Sewage Treatment E2.9

Sewage treatment costs increased by £4.8m from 2005/6 as outlined below.

	Total
	£m
Functional expenditure:	
2006/07	34.845
2005/06	30.014
	-4.831

- £0.3m (3.6%) increase in employment costs from 2005/06 to £9.5m, reflecting the inflationary and performance increases, transfer of terminal pumping station costs from sewerage, and new operating costs, partly offset by efficiencies.
- £2.7m (38.9%) increase in power costs to £8.4m is primarily due to increased tariff rates applied (£1.8m), new operating costs (£0.5m), terminal pumping station costs transferred from sewerage (£0.4m).
- £0.5m (27.8%) increase in hired & contracted costs to £2.5m, due to increased R&M activity and Risk Based Maintenance (RBM) activity in treatment (£0.4m), terminal pumping station costs transferred from sewerage (£0.1m).
- £0.2m (10.2%) increase in materials and consumables to £1.8m, partly due to new operating costs offset by improved coding of sludge treatment costs.
- £0.1m increase in other direct costs to £0.8m.
- £0.8m increase in general and support costs to £6.3m. Costs have increased due to improved analysis of Asset Management time between water and wastewater. This

increased wastewater by £0.4m. Furthermore, restructuring costs of £0.5m (mainly VR) have been charged to wastewater. These increases have been partly offset by support function cost reductions.

Sludge Treatment E2.9

Sludge treatment costs have increased by £0.5m from 2005/6 as outlined below:

	Total £m
Functional expenditure:	
2006/07	9.173
2005/06	8.698
	-0.475

- £0.2m (9.1%) reduction in employment costs to £2.3m due to headcount reductions.
- £0.4m (48.5%) increase in power to £0.9m due to tariff increases, increased cost of treating sludge disposed to farmland enhanced, and improved capture of sludge treatment costs at wastewater treatment works
- £0.3m (27.8%) increase in hired & contracted costs to £3.6m. This was primarily due to increases in the landfill tax liability, combined with an increase in gate prices at landfill sites and increased transportation costs, and new operating costs.
- Better allocation of costs to sludge treatment of £0.2m are offset by a £0.2m reduction to general and support costs.

E2.10-19 Operating Expenditure

E2.10 - Customer Service costs allocated to wastewater have reduced by £1.3m to £11.5m compared with 2005/06. Customer service costs have decreased, primarily as a result of business retail activity transferring to SWBS (£1.6m) and cost savings (£0.3m). However, costs have also increased due to increased market separation and wholesale revenue management activity (£0.4m) and inflationary increases between April 2006 and 1st November 2006 (£0.2m).

E2.11 - Scientific Services costs allocated to wastewater have reduced by £0.1m to £2.2m compared with 2005/06. The main causes of this were:

- Increased environmental and sustainability activity (£0.2m)
- Reduced wastewater quality management activity (£0.3m)
- Central bonus and restructuring accrual, previously not charged to Scientific Services (£0.1m).

E2.12 - Other business activities costs have increased by £0.4m to £3.3m, primarily due to WICS fee increase (CMA set up) offset by reduced wastewater quality regulation activity.

E2.14 - Local Authority rates for waste water operational assets were captured directly at asset level in the general ledger. Costs charged to waste water reduced by £0.1m (1.3%).

E2.15 - Doubtful debts allocated to wastewater reduced by £6.3m, partly as a result of transfer of business retail activity to SWBS (£1.1m), partly because of an atypical bad debt provision release (£3.1m) and partly due to improved cash collection and reduction in aged debt on domestic and non domestic customers (£2.1m).

E2.20-21 Reactive and Planned Maintenance (included in Opex)

This has reduced by £0.4m on infrastructure and increased by £1.0 on non-infrastructure.

E2.22-29 Capital Maintenance

E2.22-29 - Depreciation is allocated between water and wastewater based on the asset information held in the fixed asset register. For other assets including IT, plant, machinery, vehicles and property, the total depreciation from the fixed asset register is allocated across all business activities (including other business activities) using ABM cost driver data.

There has been a shift in the infrastructure charge from water to wastewater. The infrastructure charge for 2006/07 is £88m with £54.5m, 62%, being attributed to water and £33.5m, 38%, being attributed to wastewater. This split is supported by the analysis of actual infrastructure expenditure in the 2002-07 period. The analysis of actual base infrastructure reclassifications in the 2002 to 2007 period generates the same percentage split of water and wastewater.

Confidence Grades – Confidence grades on Table E2 remain consistent with 2005/6, with improvements on some lines (noted below).

Direct costs are, in the main, captured in the core corporate financial system, with labour costing feeds from the core corporate works management system. A high proportion of direct costs are captured by asset, hence the A2 confidence grade. There have been improvements in the quality of direct cost capture during the year, particularly in power, which mean accuracy has improved, but not yet to the A1 band.

Employment cost, or labour cost analysis has improved since 2005/6, by way of direct cost capture, but also with improvements in the ABM process, whereby team time analysis is taken direct from the corporate works management system, and only supplemented where gaps exist.

In order to achieve A1 accuracy, Scottish Water would need to increase the level of direct cost capture further still, and build in more accurate and tested allocations of cost where direct cost capture does not provide splits by regulatory classification, e.g. single power meter at a dual function asset.

General & Support costs and Operating expenditure are generally allocated to regulatory activities on the basis of underlying activity and cost driver analysis. Accuracy depends primarily on the quality of cost driver data. During the year there have been some specific improvements to driver data, which have improved the quality of cost allocation – most notably IT data. However, overall improvements have not been considered sufficient to merit a change from A2 to A1. The confidence grade on Third Party Services – Opex (E1.19) has moved from A3 to A2 to reflect improved direct cost capture and better cost allocation to Non Regulated and other third party activity.

The improvement in Reactive and Planned Maintenance analysis from D3 to A3 reflects the use of ABM, fed directly from Works Management analysis, for this activity analysis.

Capital Maintenance costs are generated directly from the Fixed Asset Register. An improvement from A3 to A2 reflects the increased proportion of depreciation captured directly by asset. The only element of capital maintenance which requires significant cost allocation is support asset depreciation, e.g. IT, Fleet, Property. Support asset depreciation is allocated to regulatory activities on the basis of underlying activities and cost driver data. IT depreciation forms the majority of support asset depreciation. Improvements in IT cost driver data have enabled the improvement in business activities depreciation from A3 to A2.

Table E3 and E3a PPP project analysis

Table E3 provides details of the 21 PPP wastewater treatment works that are managed under 9 separate PPP Concession agreements.

The following works form part of each scheme:

PPP Scheme	Wastewater Treatment Works *
Highland	Fort William, Inverness
Tay	Hatton
Aberdeen	Fraserburgh, Peterhead, Nigg, Persley
Moray Coast	Lossiemouth, Buckie, Banff/Macduff
AVSE	Seafield, Newbridge, East Calder, Blackburn, Whitburn
Levenmouth	Levenmouth
Dalmuir	Dalmuir
Daldowie	Daldowie sludge treatment centre
MSI	Meadowhead, Stevenston, Inverclyde

* Daldowie is a sludge treatment centre only.

E3.0-6 Project data

E3.1-2 Annual average resident/non-resident connected population

E3.2 The annual average non resident connected population has fallen by approximately 7,500. This fall is due to the slight change in the methodology for calculating the non resident population this year.

E3.3 Population equivalent of total load received

The population equivalent of total load received has fallen by approximately 204,000. The population equivalent for approximately half of the works has stayed relatively stable (Peterhead, Fraserburgh, Lossiemouth, Buckie, Banff/Macduff, Newbridge, East Calder, Blackburn and Whitburn). The population equivalent at five works has increased (Fort William, Inverness, Hatton, Nigg and Persley) with the population equivalent at the others reducing in line with the reduction in resident population.

E3.4-8 Scope of works

E3.4 Sewerage

Fort William	includes incoming sewer and four pumping stations.
Inverness	includes a major pumping station and associated pumping mains/gravity sewer.
Hatton	includes extensive pumping mains and pumping stations.
Nigg	includes incoming sewer and six pumping stations.
Persley	includes short section of incoming sewer
Peterhead	includes short section of incoming sewer
Fraserburgh	includes short section of incoming sewer and one terminal pumping station.
Moray Coast	includes extensive pumping mains and pumping stations.
Seafield	includes the Esk valley trunk sewerage network, a number of storm water works with overflow and seven sewage pumping stations.
Newbridge	includes short section of incoming sewer, a storm water works with overflow and two pumping stations.
Whitburn	includes one terminal pumping station
Levenmouth	includes eight pumping stations and associated rising mains and sewers.
Daldowie	Includes one pumping station and pumping main
Inverclyde	Includes one outfall

E3.5 Sewage Treatment - Only Daldowie does not include sewage treatment – it is exclusively a sludge treatment centre.

E3.6 Sludge Treatment

Permanent sludge treatment facilities

Inverness	Indigenous sludge, imports from Fort William, plus Scottish Water imports
Hatton	Indigenous sludge plus Scottish Water imports
Nigg	Indigenous sludge, imports from Persley, Peterhead, Fraserburgh, plus Scottish Water imports
Lossiemouth	Indigenous sludge, imports from Buckie, Banff MacDuff, plus Scottish Water imports
Seafield	Indigenous sludge, occasional imports from Newbridge, East Calder, Blackburn, Whitburn, plus Scottish Water imports
Newbridge	Indigenous sludge, imports from East Calder, Blackburn, Whitburn, plus Scottish Water imports
Daldowie	receives sludge from Dalmuir and Scottish Water wastewater treatment works (Shieldhall, Paisley, Dalmarnock and Erskine) by sludge pipeline, and from SW tankered imports
Meadowhead	Indigenous sludge, plus imports from Stevenston and Inverclyde
Levenmouth	Indigenous sludge, plus Scottish Water imports*

*Scottish Water did not import any sludge to Levenmouth during 2006-07.

Temporary sludge treatment facilities

The following sites do not have a permanent sludge treatment centre but temporary sludge treatment facilities were deployed on site for a limited period.

East Calder	sludge dewatering, exported as cake
Peterhead	sludge dewatering and lime stabilisation, exported as cake

E3.7 Terminal Pumping Station - means a pumping station that is the final point on the forward flow path from a sewerage network into a wastewater treatment works and may include both pumping of all/partial 'Flow to Full Treatment' (FFT) flows or stormwater flows to storm tanks and/or storm outfalls. The terminal pumping station may form part of the sewerage network (i.e. be remote from the WTP) or may be associated with a wastewater treatment works depending on actual location and power supply source. It is not a combined pumping station or a stormwater pumping station.

The following works include incoming terminal pumping stations. Maximum capacity (l/s) of terminal pumping station, excluding standby capacity, is given in brackets:

Fort William	Caol Transfer (118 l/s), Fort William WwTW(590 l/s).
Inverness	Allanfearn WwTW(50 l/s).
Hatton	South Balmossie (1,406 l/s), West Haven (110 l/s), Inchcape Park(241 l/s).
Nigg	Nigg WwTW (6,300 l/s).
Fraserburgh	Fraserburgh Inlet (195 l/s).
Lossiemouth	Duffus Junction (33 l/s), Moycroft (300 l/s).
Buckie	Nook (84 l/s), Shipyard (70l/s), Buckie WwTW (13 l/s).
Banff MacDuff	Craigfauld (552l/s), Banff MacDuff WwTW (222 l/s).
Seafield	A proportion of total flow is delivered via Marine Esplanade Terminal PS (1420 l/s).
Newbridge	A proportion of total flow is delivered via the Ratho Sewer Terminal PS (196 l/s).
Whitburn	A proportion of total flow is delivered via the Harrison Sewer Terminal PS (45 l/s).
Levenmouth	All flow delivered via terminal pumping stations; Methil M2 (125 l/s), Leven (212 l/s), Buckhaven (133 l/s), Levenmouth WwTW inlet FFT flows (1,650 l/s), Levenmouth WwTW inlet storm flows (2,347 l/s).

Whitburn terminal pumping station pump details are for new pumps due to be installed 2007 to replace temporary pumps of similar overall capacity.

E3.8 Other - No plants in this category.

E3.9-14 Sewage treatment - effluent consent standard

E3.9-13 Effluent consent standards - Data obtained from CAR consents.

The following works do not include any of the defined sanitary determinants within the CAR consents and therefore a value of 0N has been applied:

Nigg
Peterhead
Fraserburgh
Lossiemouth
Buckie
Banff MacDuff

Where effluent consent standard includes both a lower tier and upper tier condition, the lower tier condition is given in the return.

Newbridge – Current CAR consent effective from 29 September 2006.

E3.9 Suspended solids consent.

Newbridge	New SS consent from 29 September 2006. SS condition consists only of a 100 mg/l upper tier limit. There is no lower tier SS limit.
Inverclyde	SS consent was not reported in 05/06 by mistake.

E3.10 BOD consent

Persley	05/06 reported UWWTD consent by mistake.
Lossiemouth	There is no CAR BOD consent, 05/06 reported UWWTD consent by mistake.
Buckie	There is no CAR BOD consent, 05/06 reported UWWTD consent by mistake.
Levenmouth	05/06 reported UWWTD consent by mistake.
Inverclyde	BOD consent was not reported in 05/06 by mistake.

E3.11 COD consent

Lossiemouth	There is no CAR COD consent, 05/06 reported UWWTD consent by mistake.
Buckie	There is no CAR COD consent, 05/06 reported UWWTD consent by mistake.

E3.12 Ammonia consent

Newbridge	New ammonia limit from 29 September 2006. Limit prior to 29 September 2006 was 5 mg/l.
Dalmuir	Ammonia consent was not reported in 05/06 by mistake.

E3.13 Phosphate consent – CAR consent at Newbridge, East Calder, Blackburn and Whitburn is expressed as; 'Mean concentration of total phosphorous of any series of composite samples taken at regular but randomised intervals in any period of 12 months

shall not exceed 0.5 mg/l.' Phosphate consent at these sites was not reported in 05/06 by mistake.

E3.14 Compliance with effluent consent standards – Single Compliance percentage for BOD, COD, SS, Ammonia, and Phosphate is reported for each works, based on the total number of CAR sample results and exceedances (upper and lower tier) for sanitary determinands (to the exclusion of other parameters that may be included in the SEPA consent). UWWTD results are not considered within this calculation.

Percentage compliance is calculated as:

(1-(total number of failures/total number of samples)) x 100

A number of works do not include any of the defined sanitary determinands within the CAR consents. Therefore a value of 0N has been applied. The sites are Nigg, Peterhead, Fraserburgh, Lossiemouth, Buckie and Banff/Macduff.

CAR compliance period commenced 1 April 2006. The SEPA Annual Compliance Report for period ending 31 December 2006 has been taken as the definitive data source, provided by our Regulator, and as such a Confidence Grade of A1 has been assigned. For Newbridge, East Calder, Blackburn and Whitburn SEPA have not reported any samples taken or results returned for total phosphorous consent condition under CAR within the SEPA Annual Compliance Report. The report also does not report any BOD samples taken at Inverclyde.

Compliance calculated under this methodology may cause conflicts with Table C4 (C4.19) "Number of discharges confirmed as failing", which considers all SEPA consent parameters.

E3.15-21 Treatment works category

Information contained in these lines is extracted from the project agreements and is given a confidence grade of A1.

E3.15 Primary

E3.16 Secondary activated sludge - Includes all plants except Blackburn.

E3.17 Secondary biological - Blackburn**.**

E3.18 Tertiary A1

East Calder	Nitrifying filters.
Whitburn	Nitrifying filters.

E3.19 Tertiary A2

Inverness	UV disinfection.
Persley	UV disinfection.
Faserburgh	UV disinfection.
Banff MacDuff	UV disinfection.
Seafield	UV disinfection, plus chemical (peracetic acid) contact tank used on an intermittent basis depending on flow.
Levenmouth	Chemically enhanced settlement process plus UV disinfection.
Newbridge	Low head loss sand filters
East Calder	Low head loss sand filters
Whitburn	Low head loss sand filters
Meadowhead	Biofors tertiary filter

E3.20 Tertiary B1 - No plants in this category.

E3.21 Tertiary B2

Blackburn	Low head loss sand filters

E3.22-32 Sewerage Data
Includes all sewerage (sewers, pumping stations, rising mans, outfalls and long sea outfalls)

Data sources: Concessions Agreements, Operators O&M manuals, Operators asset inventories, SW GIS system, as built drawings, SEPA consents.

Pump capacity (kW) obtained from motor drive rating, not the pump duty point.

SW GIS currently being updated to include as built records of new sewer constructed by PFI Co.

As a result of the number of data sources, we have applied a B3 confidence grade.

E3.22 Total length of sewer – Length of outfalls is included in data unless noted otherwise in commentary. Where terminal pumping stations are located remote from a wastewater treatment works, the length of rising main connecting the terminal pumping station and wastewater treatment works is included.

Daldowie pumping main is now included in E3.22. The pumping main was laid under Clause 3(a) of the Sewerage Scotland Act 1968 “Construct a Public Sewer”.

E3.23 Total length of critical sewer – Unless stated otherwise, all PPP sewers (including relief sewers and rising mains) including CSO outfalls are deemed to be critical. In previous years all sewers were reported as critical.

Leven PS rising main to storm tank and return drain not deemed to be a 'critical sewer'.

E3.24 Number of pumping stations – includes stormwater, combined and terminal pumping stations. Interstage and final effluent pumping stations forming part of a wastewater treatment plant are not included.

E3.25 Capacity of pumping stations (m3/d) - includes stormwater, combined and terminal pumping stations. Maximum flow pumped forward per day. This excludes capacity of standby pumps.

E3.26 Capacity of pumping stations (kw) - includes stormwater and combined pumping stations, but not terminal pumping stations. Includes capacity of standby pumps.

E3.27 Number of combined pumping stations - Combined pumping station means a network wastewater pumping station containing a pump or pumps transferring wastewater forward within the downstream sewerage network. The transferred wastewater flow rate from the combined pumping station is the “FFT” rate, the generally accepted term used in design and SEPA consents. For the sake of clarity, where stormwater storage tank returns are pumped back into the sewerage system for onward flow, this shall be classed as a combined pumping station (as such flows become part of ‘FFT’). This does not include terminal pumping stations.

The following combined pumping stations are included:

Fort William	Blar Mhor, Caol No1
Inverness	Longman
Hatton	Riverside, KGV, Stannergate, West Ferry, Broughty Castle, Fort Street, Gray Street
Nigg	Downies, Portlethen Village, Newtonhill Clifftop, Portlethen South, Portlethen North
Lossiemouth	Burghead, Cummingston, Hopeman
Buckie	Portgordon West, Portgordon East, Seatown, Cluny, Cullen East, Portknockie, Findochty, Portessie

Banff/MacDuff	Whitehills, Whitehills Harbour, Inverboyndie, Scotstown, Castlehill Park, Union Road, Bankhead
Seafield	Wallyford Transfer, Wallyford SWW, Portobello SWW, Harelaw SWW, Dalkeith SWW, Mayshade SWW,
Newbridge	Broxburn SWW.
Levenmouth	Methil M1.

Mayshade: pumping station comprises a separate duty/standby pump set in two separate storm tanks. As only one duty pump operates at any one time (i.e. storm tank 1 emptied before commencing emptying of storm tank 2) these four pumps have been entered as a single combined pumping station on a 1 duty/3 standby basis.

The following terminal pumping stations were previously reported as combined pumping stations:
Fort William – Caol Transfer, Fort William WwTW
Inverness – Allanfearn WwTW
Hatton – South Balmossie, Westhaven, Inchcape
Lossiemouth – Duffus Junction, Moycroft
Buckie – Nook, Shipyard, Buckie WwTW
Banff MacDuff – Craigfauld, Banff MacDuff WwTW
Seafield – Marine Esplanade (Seafield WwTW inlet)
Newbridge – Ratho (Newbridge WwTW inlet)
Levenmouth – Buckhaven, Leven, Roundall, Levenmouth Inlet
Fraserburgh – Fraserburgh WwTW Inlet

E3.28 Capacity of combined pumping stations (m^3/d) - Maximum flow pumped forward per day. This excludes capacity of standby pumps.

E3.29 Number of stormwater pumping stations - stormwater pumping station means a network wastewater pumping station containing a pump or pumps transferring wastewater, containing stormwater, to a stormwater storage tank or storm overflow. The stormwater pumping station transfers wastewater in excess of "FFT", which is the generally accepted term used in design and SEPA consents. For the sake of clarity, the function of the stormwater pumping station is to prevent and/or limit surcharging of the upstream sewerage system.

The following stormwater pumping stations are included:

Inverness	Longman
Hatton	Riverside, KGV, Stannergate, Westhaven, Broughty Castle, Inchcape Park
Lossiemouth	Moycroft
Buckie	Portessie
Banff MacDuff	Bankhead
Levenmouth	Leven, Roundall

E3.30 Capacity of stormwater pumping stations (m^3/d) – Maximum flow pumped forward per day. This excludes capacity of standby pumps.

E3.31 Number of combined sewer overflows &
E3.32 Number of combined sewer overflows (screened) - CSOs that overflow within the sewerage system rather than to an outfall discharging direct to the environment are not included.

The following CSOs are included:

Fort William	Caol No1, Caol Transfer
Inverness	Longman, Allanfearn Inlet
Hatton	Riverside, KGV, Stannergate, South Balmossie, Westhaven, Broughty Castle, Inchcape Park, Panmurefield/Balmossie Mill
Nigg	Downies, Portlethen Village, Newtonhill Clifftop, Portlethen North, Nigg
Fraserburgh	Fraserburgh Inlet
Lossiemouth	Burghead, Cummingston, Hopeman, Moycroft
Buckie	Portgordon West, Portgordon East, Seatown, Cluny, Nook, Cullen East, Portknockie, Findochty, Portessie, Shipyard
Banff MacDuff	Whitehills, Whitehills Harbour, Inverboyndie, Scotstown, Castlehill Park, Union Road, Bankhead, Craigfauld
Seafield	Wallyford, Dalkeith, Hardengreen, Harelaw, Haveral Wood, Middlemills, Newbattle, Newtongrange, Suttieslea
Newbridge	Broxburn
Levenmouth	Buckhaven, Methil M2 CSO2, Methil CSO1, Leven, Roundall

Seafield - Dalkeith SWW consists of two separate screen overflows on two separate legs of the sewer which combine at the SWW. As each screened overflow is located on the same site and feeds one common storm water tank and outfall, this overflow has been recorded as a single CSO. Suttieslea: 'Copa Sac', (equivalent to 6 mm screen), provided on outfall from storm tank.

Levenmouth - Methil CSO1 and Methil M2 CSO2 discharge into a common outfall.

E3.33-40 Sludge Treatment and Disposal Data - The quantities reported are the total sludge treated at the sludge treatment facilities (both from permanent and temporary) including the sludge destroyed through the treatment process. This is in accordance with the methodology used in England & Wales.

The information is based on PPP Company records of sludge disposed to the appropriate route, except Allanfearn where the information comes from Scottish Water operations (North West) and has therefore been allocated a confidence grade of B4..

Table E3a

This table requires operating costs for each scheme. As actual data is not available all costs have been extracted from the financial model. Where the financial model does not split costs the following has been assumed:

- Works with a Sludge Centre: 72 % Treatment Costs, 28% Sludge Costs
- All other works: 80% Treatment, 20% Sludge Costs. These sludge costs have been taken forward to the appropriate sludge centre, e.g. Fort William sludge costs appear against Inverness sludge centre.

E3a.1, 8, 16 Estimated Direct Operating Costs

Estimated annual direct operating costs are based on the Concessionaire's financial model adjusted for actual inflation.

Where the model identified Rates and SEPA charges, these have been deducted, otherwise actual charges were deducted.

No adjustments were made at Daldowie (rates only), MSI and AVSE as charges are paid by Scottish Water and are not included in the financial model. At Dalmuir Scottish Water pays the charges but amounts are also included in the model, therefore an adjustment to the

model costs was made (rates and SEPA charges included in the model are refunded to Scottish Water).

Note that actual costs are not known and could vary considerably from the financial model. A confidence grade of D6 has therefore been used.

E3a.2, 9, 17 Rates paid by the PPP Contractor

These are based on the rateable value and poundage published on the government website (www.saa.gov.uk). Rates paid by Scottish Water are also included and are based on actual charges for the year (Dalmuir, Daldowie, MSI, AVSE).

The confidence grade for total rates paid for each site is A2, but because rates have to be split to take account of the sewerage, treatment and sludge elements, a lower confidence grade has been applied.

Site	E3a.2 N	E3a.9 T	E3a.17 S	Comment
Fort William	N	B3	N	no sludge centre, sludge cost moved to Inverness
Inverness	N	B3	B3	cost distribution is estimated
Tay	N	B3	B3	cost distribution is estimated, based on the Financial Model
Nigg	N	B3	B3	cost distribution is estimated, based on the Financial Model
Persley	N	B3	N	no sludge centre, sludge cost moved to Nigg
Peterhead	N	B3	N	no sludge centre, sludge cost moved to Nigg
Fraserburgh	N	B3	N	no sludge centre, sludge cost moved to Nigg
Lossiemouth	N	B3	B3	cost distribution is estimated, based on the Financial Model
Buckie	N	B3	N	no sludge centre at works, sludge cost moved to Lossiemouth
Banff MacDuff	N	B3	N	no sludge centre at works, sludge cost moved to Lossiemouth
Seafield	N	B3	B3	cost distribution is estimated, based on the Financial Model
Newbridge	N	B3	B3	cost distribution is estimated, based on the Financial Model
East Calder	N	B3	N	No sewerage and no sludge centre at works, sludge cost moved to Newbridge
Blackburn	N	B3	N	No sewerage and no sludge centre at works, sludge cost moved to Newbridge
Whitburn	N	B3	N	no sludge centre at works, sludge cost moved to Newbridge
Levenmouth	N	B3	B3	cost distribution is estimated,
Dalmuir	N	B3	N	No sewerage and no sludge centre at works
Daldowie	N	N	A2	sludge treatment only
Meadowhead	N	B3	B3	cost distribution is estimated
Stevenston	N	B3	N	No sewerage and no sludge centre at works, sludge cost moved to Meadowhead
Inverclyde	N	B3	N	no sludge centre at works, sludge cost moved to Meadowhead

E3a.3, 10, 18 SEPA charges paid by the PPP Contractor

These are based on SEPA charges for 03/04 (which were provided by the PPP Cos) increased by 20.4% (SEPA charges paid by Scottish Water increased by about 20.4% from 03/04 to 06/07)

Confidence grade for total charges for each site is A2, but because SEPA fees have to be split to take account of the sewerage, treatment and sludge elements the following confidence grades have been assigned:

Site	E3a.3 N	E3a.10 T	E3a.18 S	Comment
Fort William	A2	A2	N	Split provided by PFI Co, No cost against sludge as no sludge centre
Inverness	A2	B3	BX	PFI Co didn't provide split cost for Treatment and Sludge, no cost allocated to sludge
Tay	A2	B3	BX	PFI Co didn't provide split cost for Treatment and Sludge, no cost allocated to sludge
Nigg	BX	B3	BX	No split from PFI Co, allocated all cost to Treatment
Persley	BX	A2	N	No split from PFI Co, allocated all cost to Treatment,no sludge centre at works
Peterhead	BX	A2	N	No split from PFI Co, allocated all cost to Treatment,no sludge centre at works
Fraserburgh	BX	B3	N	no sludge centre at works, network cost not known but very small
Lossiemouth	A2	B3	BX	PFI Co didn't provide split cost for Treatment and Sludge, no cost allocated to sludge
Buckie	A2	A2	N	Split provided by PFI Co, No cost against sludge as no sludge centre
Banff MacDuff	A2	A2	N	Split provided by PFI Co, No cost against sludge as no sludge centre
Seafield	N	A2	A2	No network cost, treatment + sludge cost provided by PFI Co
Newbridge	N	A2	A2	No network cost, treatment + sludge cost provided by PFI Co
East Calder	N	A2	N	No sewerage and no sludge centre at works
Blackburn	N	A2	N	No sewerage and no sludge centre at works
Whitburn	N	A2	N	No network cost, no sludge centre at works
Levenmouth	A2	B3	BX	PFI Co didn't provide split cost for Treatment and Sludge, no cost allocated to sludge
Dalmuir	N	N	N	SEPA fees paid by SW
Daldowie	N	N	A2	sludge treatment only
Meadowhead	N	N	N	SEPA fees paid by SW
Stevenston	N	N	N	SEPA fees paid by SW
Inverclyde	N	N	N	SEPA fees paid by SW

E3a.4, 11, 19, 23 Total Direct Cost

The confidence grade for total direct cost is D6 as per E3a.1, 8 and 16 (Estimated direct operating cost) as this is the most significant element of total direct cost.

E3a.5, 12, 20 Scottish Water General and Support Expenditure

This includes advisors and legal costs, power, rent and insurance etc. and the cost of the Scottish Water PPP department that deals with PPP schemes which have been allocated to projects based on opex. Costs are as per the Profit &Loss statement in the accounts.

The confidence grade for total charges is A1, but because Scottish Water PPP department costs have to be split across all sites and all charges have to be split to take account of the sewerage, treatment and sludge elements the following confidence grades have been assigned:

Site	E3a.5 N	E3a.12 T	E3a.20 S	Comment
Fort William	BX	B4	N	Network cost very small, no sludge centre at works
Inverness	B4	B4	B4	
Tay	B4	B4	B4	
Nigg	B4	B4	B4	
Persley	BX	B4	N	Network cost very small, no sludge centre at works
Peterhead	BX	B4	N	Network cost very small, no sludge centre at works
Fraserburgh	BX	B4	N	Network cost very small, no cost against sludge as no sludge centre
Lossiemouth	B4	B4	B4	
Buckie	B4	B4	N	no sludge centre at works
Banff MacDuff	B4	B4	N	no sludge centre at works
Seafield	B4	B4	B4	
Newbridge	BX	B4	B4	Network cost very small
East Calder	N	B4	N	No sewerage and no sludge centre at works
Blackburn	N	B4	N	No sewerage and no sludge centre at works
Whitburn	BX	B4	N	Network cost very small, no sludge centre at works
Levenmouth	B4	B4	B4	
Dalmuir	N	B4	N	No sewerage and no sludge centre at works
Daldowie	N	N	B4	sludge treatment only
Meadowhead	N	B4	B4	No sewerage
Stevenston	N	B4	N	No sewerage and no sludge centre at works
Inverclyde	BX	B4	N	Network cost very small, no cost against sludge as no sludge centre

The costs of transporting Scottish Water sludge to PPP works is included under Scottish Water General and Support Expenditure (E3a.20) as the sludge volumes disposed are reported in table E3. The cost in 2006/7 was £1.66m compared to £1.72m in 2005/6.

Due to a change in definition of terminal pumping stations, a number of terminal pumping stations have been re-classified under treatment rather than sewerage, in line with regulatory accounting guidelines. This has caused the inclusion of £0.41m of terminal pumping costs to be included in PPP works, as some of these pumping stations pump to PPP works.

E3a.6, 13, 21 Scottish Water SEPA Charges

With the exception of Dalmuir and MSI, all standard SEPA charges are met by the Concessionaire and are included in the tariff rates. At Nigg, Scottish Water meet the additional SEPA charges associated with 2 parameters as detailed in the contract. Costs are as per the Profit &Loss statement in the accounts.

Confidence grade for total charges for each site is A1, but because SEPA fees have to be split to take account of the sewerage, treatment and sludge elements the following confidence grades have been assigned:

Site	E3a.6 N	E3a.13 T	E3a.21 S	Comment
Fort William	N	N	N	SEPA charges paid by PFI Co
Inverness	N	N	N	SEPA charges paid by PFI Co
Tay	N	N	N	SEPA charges paid by PFI Co
Nigg	N	A2	N	Treatment cost only (exotics)
Persley	N	N	N	SEPA charges paid by PFI Co
Peterhead	N	N	N	SEPA charges paid by PFI Co
Fraserburgh	N	N	N	SEPA charges paid by PFI Co
Lossiemouth	N	N	N	SEPA charges paid by PFI Co
Buckie	N	N	N	SEPA charges paid by PFI Co
Banff MacDuff	N	N	N	SEPA charges paid by PFI Co
Seafield	N	N	N	SEPA charges paid by PFI Co
Newbridge	N	N	N	SEPA charges paid by PFI Co
East Calder	N	N	N	SEPA charges paid by PFI Co
Blackburn	N	N	N	SEPA charges paid by PFI Co
Whitburn	N	N	N	SEPA charges paid by PFI Co
Levenmouth	N	N	N	SEPA charges paid by PFI Co
Dalmuir	N	A2	N	No sewerage and no sludge centre at works
Daldowie	N	N	N	SEPA charges paid by PFI Co
Meadowhead	BX	B3	BX	No split from PFI Co, allocated all cost to Treatment
Stevenston	N	A2	N	No sewerage and no sludge centre at works
Inverclyde	BX	A2	N	No sludge centre at works

E3a.7, 14, 22 Total sewerage cost, total sewage treatment cost, total sludge treatment costs and disposal cost - Confidence grade is D6 as per E3a.1, 8 and 16 (estimated direct operating Cost) as this is the most significant element of the cost.

E3a.15 Estimated terminal pumping cost - At all schemes the terminal pumping station costs are met by the Concessionaire and are included in the tariff rates. Accordingly, there is no data.

E3a.24 Total Scottish Water cost – The confidence grade for total charges is A1, but because Scottish Water PPP department costs have to be split across all sites a confidence grade of B3 has been allocated.

Site	06/07	05/06	Variance	Comment
Ft William	0.007	0.006	0.001	
Inverness	0.252	0.142	0.110	Includes £0.186m of sludge tankering costs
Hatton	0.225	0.198	0.027	Includes £0.089m of sludge tankering costs, £.023m Terminal pumping costs
Nigg	3.282	0.427	2.855	includes for Stonehaven: £1.8m Advance Works, £0.6m power infrastructure costs, £0.1m legal fees, £0.4m sludge tankering costs
Persley	0.010	0.010	0.000	
Peterhead	0.018	0.017	0.001	
Fraserburgh	0.006	0.006	0.000	
Lossiemouth	0.233	0.366	-0.133	Included £0.161m sludge tankering costs 05/06 includes higher cost for Moycroft
Buckie	0.008	0.007	0.001	
Banff/Macduff	0.011	0.032	-0.021	05/06 includes road re-instatement costs £0.02m
Seafield	0.401	0.458	-0.057	Includes £0.177m sludge tankering costs No consultants fees in 06/07
Newbridge	0.016	0.051	-0.035	
East Calder	0.006	0.006	0.000	
Blackburn	0.003	0.003	0.000	
Whitburn	0.004	0.004	0.000	
Levenmouth	0.045	0.163	-0.118	
Dalmuir	0.504	0.475	0.029	06/07 includes consultants fees £0.02m (odour surveys)
Daldowie	0.781	1.017	-0.236	Includes £0.648m Sludge tankering costs Lower legal fees in 06/07 (WID)
Meadowhead	0.505	0.337	0.168	06/07 includes legal and consultants fees £0.02m (trade effluent issues) , plus terminal pumping costs of £0.292m
Stevenston	0.106	0.097	0.008	
Inverclyde	0.114	0.023	0.091	Includes terminal pumping costs of £0.088m
TOTAL	**6.537**	**3.845**	**2.692**	

The costs of transporting Scottish Water sludge to PPP works is included under Scottish Water General and Support Expenditure (E3a.20) as the sludge volumes disposed are reported in table E3. The cost in 2006/7 was £1.66m compared to £1.72m in 2005/6.

Due to a change in definition of terminal pumping stations, a number of terminal pumping stations have been re-classified under treatment rather than sewerage, in line with regulatory accounting guidelines. This has caused the inclusion of £0.41m of terminal pumping costs to be included in PPP works.

E3a.25 Total operating cost – The confidence grade for total operating cost is D6 as per E3a.23 total direct cost, as this is the most significant element of total operating cost.

E3a.26 Annual charge - The annual charge is based on the service fees for the year, contingencies and rates (including rebates). Expenditure is taken from the Profit & Loss statement in the accounts.

The confidence grade for the AVSE schemes is B3 as the charges are based on the total AVSE flows. There is no separate charge for each scheme.

Site	06/07	05/06	Variance	Comment
Ft William	2.810	2.913	-0.102	lower flows
Inverness	5.531	4.705	0.827	higher flows
Hatton	15.496	18.914	-3.417	lower flows, agreement on infiltration variation mechanism released £2.2m, release of £1.0m provision on KGV claim
Nigg	11.010	8.962	2.048	lower flows, includes £2.25m for Stonehaven development costs
Persley	2.191	2.353	-0.162	lower flows
Peterhead	1.829	2.276	-0.448	lower flows, 05/06 includes £0.25m for herring season costs
Fraserburgh	2.066	2.022	0.045	lower flows
Lossiemouth	4.192	4.447	-0.255	05/06 includes additional provision for uncapped flows £0.1m, £0.1m Moycroft costs, higher rebasing provision £0.15m
Buckie	3.298	3.386	-0.088	05/06 includes additional provision for uncapped flows £0.06m
Banff/Macduff	3.265	3.035	0.230	05/06 includes additional provision for uncapped flows £0.06m, and provision for infiltration rebasing -£0.15m
Seafield	15.157	15.022	0.134	release of sludge-to-sewer provision (AVSE total £0.5m), sludge rebate £0.7m less than 05/06 (AVSE total)
Newbridge	2.173	2.157	0.016	
East Calder	1.245	1.238	0.007	
Blackburn	0.620	0.612	0.009	
Whitburn	0.790	0.782	0.008	
Levenmouth	15.864	10.613	5.251	high inflation, high flows, claims provision £4.7m, release of accrual for reconciliation £1.2
Dalmuir	7.062	6.847	0.216	includes provision for blower upgrade £0.075m
Daldowie	13.122	15.672	-2.550	lower sludge production -£0.5m; includes release of £1.5m following settlement of claims, ops re-charge £0.3m, 05/06 incl £0.6m claims
Meadowhead	6.953	6.215	0.739	includes provision for claim £0.3m, £0.65m PADR costs, release of claims provision £0.3m
Stevenston	3.560	2.848	0.712	includes provision for claim £0.6m
Inverclyde	3.029	2.996	0.033	
TOTAL	**121.264**	**118.014**	**3.250**	

E3a.27 Public sector capital equivalent values – values were derived from the base model incorporated in a report to the Transport and Environment Committee on 21 June 2001, adjusted for inflation. At Daldowie the PPP cost was used in the absence of a PSCE value, similarly for Levenmouth and AVSE the values have been taken from the 01/02 WIC return.

E3a.28 Contract period - The period quoted is the Contract Period as defined in the Contract.

E3a.29 Contract end date - Contract end date is as defined in the Contract.

Table E4 Water Explanatory Factors - Resources and Treatment

E4.1-5 Source Types

There was a net reduction of 165 sources used from 2005/06 to 2006/07. This reduction has arisen principally because of revised guidance from the Commission about the definition of a source.

In its guidance for the E tables, the Commission has now made clear that it requires the number of water sources to be quantified as the number of independent raw water supplies to a treatment works. The Commission gives examples this year, including: "If a treatment works receives water from three boreholes on one site, this would be classed as one source". In the past, we have enumerated independent sources, regardless of whether they all feed the same treatment works. Now we have combined our records such that a group of water sources, from which the raw water is combined to provide a single feed to a water treatment works, is counted as a single source.

Overall distribution input (DI) has dropped by 1.6% from 2,332 to 2,296 Ml/d. The cause of this reduction is explained in the commentary for table A2. Scottish Water did not have any bulk water exports or imports during the year.

Changes to the physical assets in operation over the year are broken down as follows:

2005/06 number of sources	**568**
Tributaries removed	**0**
Incorrect/ No longer used	**-10**
Reductions due to WTW closures 2006/07	**-18**
Additional due to site audits/ new information	**+5**
2006/07 No. of sources (under the old definition)	=545
Changes because of definition change	**-165**
2006/07 No. of sources (under the new definition)	=380

The distribution input and the breakdown by source type and area is comparable with last year. The total distribution input reduced from 2,332 to 2,296 Ml/d.

Our confidence in the reported number of sources is B2 because we extract the details from our asset inventory which does not identify whether a source is a direct or indirect supply.

As last year, we have completed columns 110 – 180 by assuming that, where multiple sources feed a WTW, the total average daily output comes only from the primary source, where DI is consistent with that reported in Table A2. The primary source is therefore allocated 100% of the DI and all other sources are allocated 0. This will improve over the next few years as the measurement and monitoring programme under the Q&S III investment driver WR5 is currently producing a Monitoring Plan for each Operational Licence with the aim of installing the necessary measuring equipment to measure abstraction volumes.

E4.6 to E4.7: Scottish Water does not have any raw water exports and correspondingly an A1 confidence grade has been entered for this line

E4.8 to E4.12*:* There are minor changes to the proportion of distribution input reported by source type.

E4.13 Peak demand - peak to average ratio

Line E4.13 reports the ratio A:B, where A = average daily volume into supply in the peak seven day period in the peak year (of the preceding five years); and B = average daily volume of water into supply in that year.

The peak year of the last five was 2003/04. In that year, the average daily volume put into supply in the peak seven day period was 2,455 Ml/d. The average (non-peak) daily volume put into supply in that year AR04 was 2,386 Ml/d. Therefore, the peak to average ratio is 1.03.

E4.14 Average pumping head - resources and treatment

The average pumping head for resources and treatment has decreased for this reporting year from 23.76m to 21.00m.

We have improved our calculation in two ways:

1) we have acquired a greater proportion of reliable data on flow and lift from site surveys;
2) we have adopted a better method of inferring flow or lift information where we do not have direct data, by using the electricity consumption of the site as a proxy for the work done.

For the report year, 66% of the sites, which account for 88% of the work done (flow multiplied by lift), use flow and lift data collected from site surveys or measured values or both.

In 2005/06, we reported all pumps that had missing data for flow or lift as having the average flow or lift of sites of the same size band and region. For the report year, we have endeavoured to acquire information about the electricity consumption of the site and to use this as an estimate of the work done to lift water at that site, and hence an estimate of the product of the lift and flow for the pump sets. Where we have been unable to acquire reliable data on electricity consumption, we have reverted to the method used last year of assuming the average lift or average flow for pumps of the same size band in the same region.

We have used this survey and the measured data to demonstrate that there is a strong correlation between work done and the electricity consumed. We therefore have reasonable confidence in using electricity consumption as a single explanatory factor for pumping head for the sites where we have no other information.

We have recognised the new clarity provided in the definition by the Commission for the inclusion of pumping as part of the treatment process and the pumping of process water into the overall pumping head calculation. We are unable to include this type of pumping in the overall pumping head calculation for this reporting year because we have insufficient data. It is therefore likely that we are under-reporting our pumping head, although we cannot estimate the extent of this under reporting.

The changes from the 2005/06 value are due to the following:

- Changes in the flow and lift data gathered for this year.
- Reduction in the number of pumping sites.
- Improvements in our methodology for inferring information where we do not know explicitly the head generated by a pump, using information about electricity consumption at the site.

The table below shows the change in pumping head and the number of pumps between 2005/06 and 2006/07

	Pumping Head, m	Number of Pumps
2005/06 Average Pumping Head	23.76	120
Removed pumps	**-6.07**	**-14**
Additions	**+1.15**	**+28**
Pumps reclassified as Resource and Treatment	**+2.85**	**+18**
Pumps reclassified as Distribution	**0**	**0**
Flow/Lift data gathered this year that supersedes historic data	**-0.68**	
2006/07 Average Pumping Head	21.00	152

The confidence grade this year is C4, the same as in 2005/06. This is because our derivation uses the Distribution Input as the denominator which has a confidence grade of C4, along with the lack of a full dataset and the fact that extrapolation has been used in some instances.

E4.15-19 Functional costs by operational area

During the report year, Scottish Water moved from 4 operational areas to 8 new operational regions to improve the service provided to customers and to improve operational efficiency. Therefore, as agreed with the Commission, this Return has been completed on the basis of the 4 former operational areas of NW, NE, SE and SW. However, going forward, future Returns will be based on the 8 new regions and will no longer be reported of the 4 former operational areas.

	NW	NE	SE	SW	Total
	£m	£m	£m	£m	£m
Functional expenditure:					
2006/07	11.607	8.936	7.593	15.051	43.187
2005/06	10.017	7.661	6.604	14.331	38.613
	-1.590	**-1.275**	**-0.989**	**-0.720**	**-4.574**

Water resources and treatment costs increased by £4.6m in 2006/07 compared with 2005/06. This increase occurred as follows:

Movement	**NW**	**NE**	**SE**	**SW**	**TOTAL**
	£m	£m	£m	£m	£m
Employment Costs Inflation	-0.1	-0.1	-0.1	-0.1	-0.4
New Opex	-0.4	0.0	0.0	-0.5	-0.9
Dry weather - additional pumping / chemicals	-0.1	-0.5	-0.1	-0.1	-0.8
Power tariff increases	-0.2	-0.4	-0.2	-0.3	-1.1
Chemical price increases	-0.2	0.0	-0.1	-0.1	-0.4
Increased hired and contracted	-0.1	-0.1	-0.2	-0.1	-0.5
SEPA CAR charges	-0.4	-0.3	-0.3	-0.7	-1.7
General & Support	-0.1	0.1	0.1	0.4	0.5
Efficiencies / shift in service	0.0	0.0	0.0	0.8	0.8
	-1.6	**-1.3**	**-0.9**	**-0.7**	**-4.5**

Water resources and treatment costs are analysed by process type for the first time this year:-

Process Type	2006/07 £m
Simple Disinfection	2.100
W1	0.336
W2	4.320
W3	30.395
W4	6.035
	43.187

Analysis of water treatment works costs by size band:-

Size band	2006/07 £m
<=1 Ml/d	5.796
>1 to <=2.5 Ml/d	2.707
>2.5 to <=5 Ml/d	3.656
>5 to <=10 Ml/d	3.410
>10 to <=25 Ml/d	8.220
>25 to <=50 Ml/d	7.619
>50 to <=100 Ml/d	5.605
>100 to <=175 Ml/d	3.332
>175 Ml/d	2.842
	43.187

To allow comparison, previous years tables have been included

Small treatment works (£m)	NW £m	NE £m	SE £m	SW £m	TOTAL £m
2006/07	10.536	2.554	4.562	6.137	23.789
2005/06	8.436	1.687	3.438	4.760	18.321
	-2.100	**-0.867**	**-1.124**	**-1.377**	**-5.468**

Large treatment works (£m)	NW £m	NE £m	SE £m	SW £m	TOTAL £m
2006/07	1.071	6.381	3.031	8.915	19.398
2005/06	1.581	5.973	3.168	9.572	20.294
	0.510	**-0.408**	**0.137**	**0.657**	**0.896**

Total treatment works (£m)	NW £m	NE £m	SE £m	SW £m	TOTAL £m
2006/07	11.607	8.936	7.593	15.051	43.187
2005/06	10.017	7.661	6.604	14.331	38.613
	-1.590	**-1.274**	**-0.989**	**-0.721**	**-4.574**

Costs which are directly attributable to abstraction and treatment are charged to the specific asset cost code in Peoplesoft, either via direct charging, or Ellipse timesheets or work orders. Of the £43.2m total resource and treatment costs, £37.1m (£39.8m less £2.8m distribution costs) of costs (86%) have been charged to assets.

The additional costs have been allocated to Water Resources and Treatment through ABM support activity allocation, e.g. stores based on number of issues, IT applications based on number of users, etc. Therefore, support costs are allocated on a resource consumed basis. However, many of these costs are not specific to an asset, they are generally attributable to

an employee. It follows that the majority of these support costs should be allocated to the activities the employees have been doing.

Therefore the allocation of support costs to asset categories within the Water Resources and Treatment total has followed the staff activity analysis. This represents a change from last year when support costs were allocated to asset categories based on works design capacity. This would have had the effect of overstating the cost of large works and understating the cost of small works.

This change in cost allocation has the effect of moving £2.6m from large works to small works compared to 2005/6 (NE £0.5m, NW £0.6m, SE £0.7m, SW £0.8m).

On a like-for-like basis the increases would have been:

	Actual Movement	Prior year Re-statement	Like-for-like movement
Large Works	+£0.9m	- £2.6m	- £1.7m
Small Works	- £5.5m	+£2.6m	- £2.9m
Total	**- £4.6m**	**-**	**- £4.6m**

The main increases on large works are power (£0.9m) and SEPA CAR charges (£0.7m).

The main increases on small works are SEPA CAR charges (£1.0m), Power (£1.0m) and new opex and chemicals (£0.4m).

Confidence Grades – Confidence grades on Table E4 are consistent with grades in E1 and related commentary.

Direct costs are, in the main, captured in the core corporate financial system, with labour costing feeds from the core corporate works management system. A high proportion of direct costs are captured by asset, hence the A2 confidence grade. A smaller proportion of costs – mainly general and support costs – remains to be allocated to works by means other than direct capture. Following analysis of these residual general and support costs, Scottish Water feels that it now has a more appropriate allocation basis to asset.

Employment cost, or labour cost analysis has improved since 2005/6, by way of direct cost capture, but also with improvements in the ABM process, whereby team time analysis is taken direct from the corporate works management system, and only supplemented where gaps exist.

E4.20-26 Water Treatment Works by Process Type

There were 14 fewer Water Treatment Works in operation during 2006/07 than in 2005/06 with 319 in operation during the year (down from 333). The consistency of the 319 reported here with the 307 operational WTW reported in the commentary to lines H2.1 – H2.8 is demonstrated in the table below. Table H reports operational status as at 31 March 2007, whereas Table E reports all WTW that provided water into supply at any time during the report year.

Operational WTW at 31/3/2007 reported in commentary to lines H2.1 – H2.8	305
Emergency and 'work in progress WTW at 31/3/2007 reported in commentary to lines H2.1 – H2.8	+2
Total WTW reported in Table H2, excluding redundant and decommissioned	**307**
WTW closed during the report year	+14
WTW not feeding directly into supply	-2
Total WTW reported in line E4.25	**319**

The two WTW reported in Table H (but not in this Table E), because they operate only as partial water treatment works and do not feed directly into supply, are Flex and Lintrathen Head works.

The reported breakdown of WTW by process type has changed significantly because of the change in guidance in the definition of the classifications. The table overleaf shows the guidance for this year from the Commission for Table E (and the definitions for Table H). We noted the inconsistency in the categorisations and sought further guidance from the Commission, who advised us that, in the event of inconsistency the Table E definition should prevail. We have therefore adopted the Table E guidance for completing Table H (and allocated all W4 assets into category SW3 or GW3 for Table H).

WTW classifications

E tables (guidance document)			**H tables (definitions document)**	
	Category	**Example**	**Category**	**Definition**
SD	Works providing simple disinfection only	• Marginal chlorination	SW0 and GW0	Simple disinfection with no physical treatment
W1	Simple disinfection plus simple physical treatment only	• Rapid gravity filtration • Slow sand filtration • Pressure filtration	SW1 and GW1	Simple disinfection (e.g. marginal chlorination) plus simple physical treatment only (e.g. filtration and disinfection).
W2	Single stage complex physical or chemical treatment	• Super chlorination • Coagulation • Flocculation • Biofiltration • pH correction • Orthophosphate dosing • Softening • Membrane filtration	SW2 and GW2	Single stage complex physical or chemical treatment (e.g. super chlorination, flocculation or biofiltration) but excluding nitrate or pesticide removal, plumbosolvency treatment (e.g. GAC, orthophosphate dosing or ion exchange).
W3	More than one stage of complex treatment; but excluding processes in W4.		SW3 and GW3	More than one stage of complex treatment including nitrate or pesticide removal, plumbosolvency treatment (e.g. GAC, orthophosphate dosing or ion exchange).
W4	This category is intended to capture processes with very high operating costs.	• Ozone addition • Activated carbon / pesticide removal • UV treatment • Arsenic removal • Nitrate removal		

The changes in classification from 2005/06 to 2006/07 are summarised in the table below:

Classification Changes	2006 AR Classification									
2007 AR Classification	sd	W1	W2	W3	W4	Grand Total – moved to new category	Moved from old category	Other changes	2006 total	2007 total
Sd		2				**2**	-18	-4	86	66
W1						**0**	-53	-6	77	18
W2	2	11				**13**	-42	-4	66	33
W3	11	10	34			**55**	-10	0	104	149
W4	5	30	8	10		**53**	0	0	0	53
Grand Total - moved from old category	**18**	**53**	**42**	**10**		**123**	**-123**	**-14**	**333**	**319**

The largest changes have been to WTWs classified as W3 and W4 where there are now 149 and 53 respectively, whereas previously there were 104 and none respectively. The greatest reduction has been in the number of W1s, which has reduced by 59.

This guidance is more specific than in the past and we have therefore reviewed the allocation of our WTWs to WIC type. 39% of our WTW (123 out of 319) have changed classification as a result. Processes such as pH correction and flocculation were all previously deemed to be normal treatment processes but are now classified differently. Principal reallocations were:

- WTWs with an Inverness Filter (activated carbon treatment) and pH treatment are now classified as W4;
- WTWs with Sand / GAC filtration are now classified as W4;
- WTWs with membrane filtration have changed to W2 (or W3 if combined with pH treatment)
- WTWs with Dynasand have changed to W1 (or W2 if combined with pH treatment).

There were no changes to the systems, process or methodology for the reporting of Water Treatment Works by size band. As before, we used an extract from Ellipse to identify the peak hydraulic capacity of each works and thereby allocated the works to a size band.

E4.28-39 Water Treatment Works by Size Band

The only changes to the numbers of WTW by size band have arisen as a result of WTW becoming non-operational in 2006/07. The only exception was one WTW that we reassessed down from the 2.5 - 5 Ml/d band into the 1 – 2.5 Ml/d band.

All 14 WTW no longer operational in 2006/07 were <= 5 Ml/d, of which 10 were <= 1ML/d. These 10 were all in the North West area and have been mained out to larger regional schemes to improve efficiency or water quality. All WTW > 5Ml/d operational during 2005/06 continued to operate during 2006/07.

Table E6 Water Distribution

E6.0-7 Area data

E6.0 - Scottish Water had four operational areas (North West, North East, South East and South West) at the start of the report year.

The North West operational area has a very low population density due in part to the number of sparsely populated islands it serves and is rural in nature. The South West has the highest population density of the four operational areas and is more urban in nature but is still not as densely populated as the average company in England and Wales. The South East and North East are predominantly rural areas.

E6.1 The annual average resident connected population reported in line E6.1 is consistent with the total reported winter population in line A2.1.

Our methodology for allocating the population to the four areas is the same as last year. We use population figures provided by the unitary authorities and projected GRO population estimates. Most unitary authorities are contained wholly within one operational area. However, three unitary authority areas (Argyll & Bute, Falkirk and Moray) cover more than one Scottish Water operational area. For these authority areas, we overlaid Ordnance Survey address points within the unitary authority boundaries on our operational area boundaries to assign address points to an operational area. Populations were then assigned to operational areas based on the split of address points.

E6.2 The number of connected properties reported in line E6.2 is consistent with the total reported in line A1.10. The changes in each of the four operational areas are shown in the table below:

The commentaries for lines A1.6 to A1.9 contain the details of the changes to the number of connected properties.

For unmeasured household properties, we used the methodology described in E6.1 above to allocate households from unitary authorities to operational areas. For all other property types, the data from the corporate billing system (Hi-affinity) was allocated a spatial reference and then linked to the four areas.

E6.3 The volume of water delivered to households reported in line E6.3 is consistent with the total reported in line A2.12.

The commentaries for lines A2.12 and A2.13 contain the details of the changes to the volume of water delivered. The reported increase arises principally from the increase in the assumed per capita consumption from 139.1 l/hd/day to 147.7 l/hd/day. This is partially offset by a reduction in assumed supply pipe leakage.

E6.4 The volume of water delivered to non-households reported in line E6.4 is consistent with the sum of lines A2.14 and A2.15.

There has been no change in the methodology from last year for allocating the volume of water delivered to measured non-domestic properties.

The volume of unmeasured non-household water delivered was allocated to the four areas by taking the volume reported in A2.15 and allocating that volume of water delivered in the same proportions as the estimated unmeasured volumes held in Scottish Water's billing system.

The commentaries for lines A2.14 and A2.15 contain the details of the changes we have made to our methodology for deriving the consumption of unmeasured non-household properties.

As the measured non-domestic data has been sourced from Scottish Water's billing system, the data has been spatially referenced to postcode level by mapping the corporate address point file to the addresses held within Hi-Affinity. Postcode boundaries together with water operational area (WOA) boundaries taken from the corporate GIS enabled the derivation of the number and associated water volumes delivered to non-domestic properties.

E6.5 This is the total geographical area within each of Scottish Water's four operational areas, as calculated on the corporate GIS. These boundaries are unchanged since the previous submission.

E6.6 The number of water quality regulation zones in the report year is 354, a reduction of 20 from 2005/06. The water quality regulation zones have been rationalised following the completion of a number of projects under Q&S II. The majority of consolidation is in the North West, although minor segregation has occurred in the North East and South West.

E6.7-11 Functional Cost

	NW	NE	SE	SW	Total
	£m	£m	£m	£m	£m
Functional expenditure:					
2006/07	7.726	10.643	8.329	16.874	43.572
2005/06	8.012	9.877	8.161	17.845	43.895
	0.286	**-0.766**	**-0.168**	**0.971**	**0.323**

Water distribution costs reduced by £0.3m (0.7%), from 2005/06. These can be analysed as follows:-

Movement	**NW**	**NE**	**SE**	**SW**	**TOTAL**
	£m	£m	£m	£m	£m
Increased Leakage Activity	-0.6	-1.3	-0.4	-1.2	-3.5
Employment Costs Inflation	-0.2	-0.2	-0.1	-0.2	-0.7
Power Tariff Increases	-0.1	-0.2	-0.1	-0.4	-0.8
New Opex				-0.3	-0.3
Insurance Claims	-0.2	-0.1	-0.4	-1.1	-1.8
Asset Management Shift to wastewater	0.1	0.1	0.1	0.2	0.5
Reduced re-instatement levels	0.1	0.4	0.4	0.7	1.6
Restructuring costs	-0.2	-0.1	-0.2	-0.3	-0.8
Other efficiencies and transfers to other services	1.4	0.7	0.5	3.5	6.1
	0.3	**-0.7**	**-0.2**	**0.9**	**0.3**

Confidence Grades – Confidence grades on Table E6 are consistent with grades in E1 and related commentary.

Direct costs are, in the main, captured in the core corporate financial system, with labour costing feeds from the core corporate works management system. A high proportion of direct costs are captured by asset or zone, hence the A2 confidence grade.

Employment cost, or labour cost analysis has improved since 2005/6, by way of direct cost capture, but also with improvements in the ABM process, whereby team time analysis is taken direct from the corporate works management system, and only supplemented where gaps exist.

Scottish Water has slightly lower confidence levels on Network cost analysis than treatment cost analysis. This is due to lower levels of direct cost capture on Networks.

E6.12-21 Water Mains Data

E6.12-15 These lines are new to Table E so there is no comparison for this year's reported figures.

E6.16 The total length of potable mains has increased for this reporting year from 46,942km to 47,218km. This overall slight increase in length is due to a combination of new pipes being

connected and improvement of information from legacy projects which has been entered onto Scottish Water's corporate GIS.

E6.17 The total length of unlined iron mains has decreased for this reporting year from 16,307km to 14,210km. This overall fall is due to the entry of rehabilitation work onto Scottish Water's corporate GIS, which was carried out in Q&S2. The data improvement initiatives performed this year have accounted for the significant reduction in unlined iron mains.

E6.18 The total length of potable mains greater than 300mm has increased for this reporting year from 5,230km to 5,261km. The figure reported in the table is lower than would be used in the econometric models, as the econometric models do not include mains of 300 to 320mm diameter.

While the process of allocating mains to operating areas has not changed since AR06, we have improved our analysis through the allocation of higher proportions of pipe to areas, leaving less to be allocated by default.

The overall slight increase in length of 0.6% is due to a combination of new pipes being connected and improvement of information from legacy projects which has been entered onto Scottish Water's corporate GIS.

E6.19 The total number of bursts has decreased in this reporting year from 8,713 to 7,822. There has been no change in methodology,

The process of reporting mains bursts has improved through 2006/07 due to more frequent reporting of burst numbers and consequent data cleansing exercises.

We report here the number of repairs qualifying as mains bursts, rather than the number of bursts occurring on mains.

E6.20 The reported leakage levels in each of the four areas of Scottish Water have fallen.

In addition to actual leakage reductions this year, there have also been changes to the methodology for:

- The Per Capita Consumption value
- The method of determining the volume of water delivered for unmeasured non-households

These changes are described in the commentary for line A2.30

Given that some of the water balance components are calculated at a Scottish Water wide level (e.g. Water Taken Unbilled, Per Capita Consumption) there is some uncertainty in the allocation of these components to the four regions.

E6.21 The number of properties reported for low pressure in each of the four areas of Scottish Water has fallen. These figures are consistent with the total figure reported in line B2.9. The commentary for that line explains the reasons for the large reduction.

E6.22-25 Pumping Stations

E6.22 The total number of water pumping stations within the distribution system has decreased for this reporting year from 560 to 507.

The number of pumping stations has changed due to the results of site surveys, changes to the method of supply and as a result of the GIS harmonisation project. The table below

shows the change in the number of pumping stations recorded in the corporate asset inventory (Ellipse) as being operational during this year.

	Number of Pumps
2005/06 Number of pumps	560
Pumps removed	**-73**
Pumps added	**+38**
Reclassified as Distribution pumps instead of Resource & Treatment pumps	**0**
Reclassified as Resource and Treatment pumps instead of Distribution pumps	**-18**
2006/07 Number of pumps	507

E6.23 Scottish Water's estimated total capacity of pumping stations has fallen largely due to the removal of 73 pumping sites from the list of sites but also a further 18 pumping sites have been reclassified as Resource and Treatment sites.

Changes in the design capacities held in the corporate asset inventory have increased the overall design capacity by 13,204 m3/d. There have been 38 pumping sites added to the list, accounting for an increase of 361,702 m3/d

E6.24 The total capacity of booster pumping in kilowatts has decreased for this reporting year from 52,851kW to 28,452 kW.

The large fall in the capacity of booster pumping stations is due to data improvement through site surveys carried out this year. There have been 73 pumping sites removed from the list of sites and a further 18 pumping sites reclassified as Resource and Treatment sites. This has had the effect of reducing the design capacity of the Distribution pumping sites.

The site surveys have markedly improved the coverage of known capacities. This year 26 of the 507 pump sites did not have a kW rating. This compares with the 201 of the 560 pump sites not having a kW rating last year.

E6.25 The total average pumping head for distribution pumping stations has decreased in this reporting year from 38.39 to 34.13m.

We have improved our methodology for estimating the pumping head. This is described in the commentary for line E4.14.
79% of the distribution pumping sites, which account for 94% of the work done (flow multiplied by lift), use flow and lift data collected from site surveys and/or measured values.

The table below shows the change in pumping head and the number of pumps between 2005/06 and 2006/07

	Pumping Head (m)	Number of Pumps
2005/06 Average Pumping Head	**38.39**	**560**
Removed pumps	**-11.05**	**-73**
Additions	**+10.70**	**+38**
Pumps reclassified as Distribution	**0**	**0**
Pumps reclassified as Resource and Treatment	**-2.85**	**-18**
Flow/Lift data gathered this year that supersedes historic data	**-1.66**	
2006/07 Average Pumping Head	34.13	507

The confidence grade this year is C4, the same as in 2005/06. This is because our derivation uses the Distribution Input as the denominator which has a confidence grade of C4, along with the lack of a full dataset and the fact that extrapolation has been used in some instances.

E6.26-29 Service Reservoirs & Water Towers

There was an increase from 2005/06 to 2006/07 of 1 service reservoir and 6 water towers. The total capacity of service reservoirs was reduced by 178 Ml but the total capacity of water towers increased by 4.6Ml.

Although on balance there was only one additional service reservoir reported this year, this is a result of 34 new service reservoirs and 6 service reservoirs that were re-commissioned during the year being offset by the decommissioning of 31 service reservoirs and the reclassification of 8 service reservoirs as water towers. The vast majority of service reservoirs commissioned and decommissioned were in the North West and North East.

The increase from 22 to 28 water towers reported was because 2 water towers were decommissioned during the previous year (both in the North West region) and 8 service reservoirs were reclassified as water towers.

The 2 water towers decommissioned had relatively small capacities (0.06 Ml in total) and did not have any noticeable effect on the overall capacity of water towers.

Table E7 Wastewater Explanatory Factors – Sewerage & Sewage Treatment Area

E7.0-7 Area Data

E7.1 The annual average resident connected population reported in line E7.1 is consistent with the total reported winter population in line A2.8. Our methodology for allocating the population to the four areas is the same as last year and is the same as we use to derive the population served with water services. This is described in the commentary for Line E6.1. To determine the population served by wastewater services in each operational area, we allocate the address points within our wastewater boundaries.

E7.2 The reported non-resident connected population is down slightly in all four areas with an overall decrease of 23,173.

Tourist population this year has been determined on the basis of average bed spaces multiplied by monthly occupancy factor. In previous years, we adjusted this value to correspond with the total bed space nights figure supplied by Visit Scotland.

E7.3 Volume of sewage collected (daily average) increased by circa 500 Ml/d.

The Volume of Sewage collected has been calculated as the flow which arrives in a Scottish Water sewer (of any type) from any source e.g. rainfall, infiltration, domestic use, industrial use, tidal flows and connected watercourses. The approach used is the same as that in 2005/06. The approach has been applied consistently across Scotland and uses data sets for rainfall, connected properties and sewered areas consistent with the wastewater element of the Annual Return.

The flow has been calculated in two parts, the dry weather flow and the storm flow.

Dry Weather Flow: A factor has been established which relates the number of connected properties to the amount of sewer flow in periods without rainfall. To establish this figure a number of recordings of flows were analysed with a known connected property count to

establish a range of flow per connected property factors. These factors were averaged and applied to all sewered areas to establish a total dry weather flow contribution per sewered area.

Storm Flow: The storm flow element was calculated by using existing sewer models to establish a relationship between rainfall depth, area of the sewered area and the amount of run-off generated. A selection of models was used and an average value of run-off per millimetre rainfall per hectare of sewered area was established. This was then applied to each sewered area to establish a total storm flow contribution per sewered area.

The total sewage collected was calculated (dry weather plus storm flows) for each sewered area and a total for each operational area calculated.

This figure includes all flows which are collected by the wastewater network but does not necessarily relate to the flows which arrive at treatment sites as some flows will be lost to overflows and other flows collected by storm sewers will be discharged without treatment.

Volume of sewage has increased which correlates to the increase in rainfall.

A low confidence grade is attached to this line to reflect the limited sample set which is used to derive the relationships.

E7.4 Total connected properties have increased slightly to a Scottish Water total of 2,379,638 (an increase of 21,569). This is consistent with the figure reported in line A1.21.

The total connected properties have been assessed using a consistent database used throughout the Annual Return. The assessment of connected properties has been made by assigning the properties from the Ordnance Survey Address Point database as connected, if they fall within a sewered area boundary. This summary of the numbers within each operational area is made by summing the connected properties in each sewered area according to which operational area they are within. This method relies on the sewered areas to determine connectivity. These boundaries require to be updated to reflect new development on the periphery of the networks and in some areas are missing. The degree to which this undercounts the connected properties is off-set to some extent by the fact that not all properties within a sewered area will be connected to the sewerage network (served by private septic tanks for example). The net result of this is an undercount of the connected properties but the extent of this is small and is therefore reflected in the assigned confidence grade.

The increase in the reported total connected properties in Scotland is due mainly to new property developments throughout Scotland.

E7.5 Area of sewerage district has changed very slightly with an overall increase of 7km^2 across Scotland.

Area of sewerage district has changed as a result of extracting a new set of boundaries from the corporate GIS. Previously this had been simplified to speed up processing. However, this year we managed the process to allow enough time for a fuller analysis.

The confidence grade of A1 reflects the fact the boundaries were taken from the corporate GIS.

E7.6 Drained area has increased slightly in all four areas with an overall increase of 13 km^2 due to new housing and commercial developments throughout Scotland.

A number of minor alterations to some of the sewered area boundaries were undertaken this year to gain a better count of connected properties. However, it remains the case that further

improvement is required to improve the assessment of connected properties and to reflect the addition of developments on the periphery of the sewerage networks and to address sewered areas which are currently missing from a number of small networks.

E7.7 Annual precipitation increased significantly over the last year in all four areas with an average increase of 400mm to an overall average of 1731mm. From the rainfall data there appears to have been an increase in winter rainfall but a decrease in rainfall for some of the summer months.

As with the 2005/06 Return, figures for annual precipitation have been sourced from the Centre for Ecology and Hydrology (CEH) in its publications Hydrological Summary for the United Kingdom. The data was transferred from the CEH reporting boundaries to Scottish Water's sewered areas and averaged across each operational area. The CEH data is based upon rain gauge data collected by the Met Office. The confidence grade assigned this year reflects the lack of a Scottish Water corporate data source (an external source is used) and the method by which the external data was applied to the individual sewered areas in each operational area.

E7.8 - 14 Sewerage Data

E7.8 The total length of sewers has increased in this reporting year from 48,951km to 49,067km.

The small increase in total length of 0.2% is due to the infrastructure inventory improvement programme on the corporate GIS data. The effect of this programme is to bring onto the inventory missing asset stock and attributes of sewers surveyed previously.

The net increase of 116 km masks a reduction in lateral sewer length of 178km, offset by an increase in main sewer stock of 294 km.

The continuation of the manhole data input from the backlog of survey data will raise the asset stock further.

E7.9 The overall length of lateral sewers has decreased in this reporting year from 15,935km to 15,745km.

The number of connected premises and their allocation to operating areas has changed, leading to a change in calculated asset stock and area ratio.

The reported lateral sewer inventory has dropped by 1.19%. Apportionment by area has changed by 9% in the North East and North West areas. The calculation of inventory relies on the served premises reported.

Unit lengths of lateral sewer are derived from a 2004 survey and checked for order in 2006 by desk study. The figure uses dwellings and premises rather than Ordnance Survey property seeds. The statistical sample size is not large enough for high confidence. As the figure is derived from estimates of premises and dwellings served from council records, then the confidence value is dependent on this figure.

E7.10 The overall length of combined sewers has increased in this reporting year from 17,280km to 17,310km.

Apportionment by area has changed by 0.3% in the North East, North West and South East areas and 0.04% in South West.

Sewers are constructed as separate foul and storm sewers for new builds, and so the increase in the reported length of combined sewers has arisen from a combination of legacy records being entered to the corporate system and outfall pipe construction.

E7.11 The total length of separate storm sewers has increased in this reporting year from 7,956 to 8,083km.

Apportionment by area has changed by over 3% in the North East, though North West and South East areas rise by 1% and 0.5% in South West.

E7.12 We report 798 km as the overall length of sewers greater than 1000mm for the report year, an increase from 781 km last year from a combination of the input of legacy data and Q&S2 record upload.

E7.13 The overall length of critical sewers is reported at 10,837km for this period.

The rise in reported inventory over the previous return is 26km. Apportionment by area changes less than 0.5% in any area.

The figure is derived from Table H4 analysis of a recorded inventory with known gaps.

The classification of critical sewers uses the WRc methodology for asset size, material, depth and proximity to particular features.

E7.14 The total number of sewer collapses in the report year is 2754, an increase of 11.6% over 2005/06.

Apportionment by area gives changes from an increase of 19% in South East to a drop of 15% in the North East.

The total number and their apportionment derives from the WAMS record and is linked to PROMISE for debrief data of sewer type and location improvements.

Sewer collapses with indistinct location constitute 5% and are allocated by proportion as in previous years.

E7.15-23 Pumping Stations

E7.15 Scottish Water is reporting 1839 waste water pumping stations which is an increase from the 1831 reported last year.

The method of determining the number of pumping stations is the same as last year.

The table below shows the change in the number of pumping stations recorded in the corporate asset inventory (Ellipse) as being operational during this year.

	No. of Stations
2005/06	**1831**
Decommissioned stations	**-77**
Additions	**+85**
2006/07	1839

The number of pumping stations is based on the number of sites held in the corporate asset inventory. The overall figure may be slightly low as a few minor pumping stations constructed and adopted as part of new developments are not yet full reported in the inventory. Because of this, the confidence grade remains B3 as last year.

E7.16 Scottish Water is reporting a total capacity of 12,516,404 m3/d for waste water pumping stations which is a decrease on the value reported last year of 14,867,615 m3/d.

This change in the total capacity is due to changes in design kW ratings of the pumping stations recorded in the corporate asset inventory as a result of site surveys. This has therefore altered the values used to estimate the capacity of pumping stations where there was no record.

The methodology used to determine the capacity of pumping stations is the same as last year. The design capacity of the pumping station is used as a surrogate for the actual capacity.

The change in the design kW ratings of pumping stations due to site surveys has altered the average values of capacity by size band used to estimated the missing data.

E7.16a Scottish Water is reporting a design capacity of 73,528 kW which is an increase of 2,738 kW from the 70,790 kW reported last year.

This year 133 of the pumps did not have a kW rating. This compares with the 304 pumps sites not having a kW rating last year. This improved coverage is due to the site surveys.

E7.17 Scottish Water is reporting an average pumping head of 20.66m which is an increase on the reported value last year of 15m.

For this year where data was unable to be collected for sites, the data has been estimated using the average value for pumps of the same size band.

The pumping head calculation in 2006/07 uses the total volume of sewerage collected as the denominator of the pumping head formula.

The increase in the pumping head is due to the following changes:

- Changes in the design kW ratings of the pumping stations recorded in the corporate asset inventory due to site surveys.
- Changes in the methodology used to replace data not recorded. Last year the value for work done was estimated. This year the values for flow and lift were estimated independently of each other to allow for data that has been gathered over the year to be used.
- Changes in the value of flow used as the denominator in the pumping head calculation. Last year the denominator was the flow through the pumps; this year it is the volume of sewerage collected.
- 42% of the pumping stations have lift data (an increase from the 12% last year).
- 12% of the pumping stations have flow data.

Given the level of confidence in the data collected, the volume of data collected (as mentioned above) and the fact that the denominator in the equation is the volume of sewage collected which has a C4 confidence grade. A confidence grade of C5 has been used for the apportioned head (by operational area) and C4 for the aggregate head.

E7.18 Scottish Water is reporting 1,070 combined waste water pumping stations which is a decrease from the 1,147 reported last year.

The overall methodology for determining the number of pumping stations is the same as last year.

There has been a change in an assumption. Last year it was assumed that where a pump's classification was unknown they were proportionally allocated to the 3 types. This year it has been assumed that none of the pumps with an unknown classification is either a combined or a storm water pump.

The table below shows the change in the number of pumping stations recorded in the corporate asset inventory (Ellipse) as being operational during this year.

	No. of Stations
2005/06	**1,147**
Decommissioned stations	**-40**
Reclassified stations	**-37**
Additions	**0**
2006/07	1,070

The number of pumping stations is based on the number of sites held in the corporate asset inventory. The overall figure is likely to be under reported as a number of minor pumping stations, constructed and adopted as part of new developments, are not yet fully reported in the inventory. Because of this, the confidence grade remains B3 as last year.

E7.19 Scottish Water is reporting a total capacity of combined waste water pumping stations of 8,815,555 m3/d.

The methodology used to determine the capacity of pumping stations is the same as last year. The design capacity of the pumping station is a surrogate for the actual capacity.

This change in the total capacity is due to changes in design kW ratings of the pumping stations recorded in the corporate asset inventory as a result of the site surveys. This has therefore altered the values used to estimate the capacity of pumping stations where there was no record.

23% of the combined waste water pumping stations had their design capacities recorded in the corporate asset inventory during the report year, where there was previously no record.

There remains a level of uncertainty in the design capacities recorded in the asset inventory as some values are historic values, hence the confidence grade of C4. It is expected that many of the figures included in the asset inventory are the average pump design capacities rather than the required peak capacity of the installation.

E7.20 Scottish Water is reporting 38 storm water pumping stations which is a decrease from the 42 reported last year.

The overall methodology for determining the number of pumping stations is the same as last year.

There has been a change in an assumption. Last year it was assumed that where a pump's classification was unknown they were proportionally allocated to the 3 types. This year it has been assumed that none of the pumps with an unknown classification is either a combined or a storm water pump.

The table below shows the change in the number of pumping stations recorded in the corporate asset inventory (Ellipse) as being operational during this year.

	No. of Stations
2005/06	**42**
Decommissioned	**-2**

stations	
Reclassified stations	**-2**
Additions	**0**
2006/07	38

The number of pumping stations is based on the number of sites held in the corporate asset inventory.

E7.21 Scottish Water is reporting a total capacity of storm water pumping stations of 559,372 m3/d.

The methodology used to determine the capacity of pumping stations is the same as last year: The design capacity of the pump station is used as a surrogate for the actual capacity hence the confidence grade of C4.

This change in the total capacity is due to

- Changes in design kW ratings of the pumping stations recorded in the corporate asset inventory as a result of to site surveys. This has therefore altered the values used to estimate the capacity of pumping stations where there was no record.
- Removal of 4 pumps from the list of storm water pumping stations.

E7.22 & E7.23 The total number of 4,375 CSOs reported in line E7.22 is consistent with the 4,791 CSOs and emergency overflows reported in line H4.4 because only 4,375 of these are from the sewerage system. The remainder are overflows designed to spill to protect treatment works.

There has been no change in assessment methodology for total inventory.

Phase 1 of Ellipse/GIS harmonisation has been carried out, increasing confidence in the Ellipse inventory from which the CSO register takes its information.

This rise in reported CSOs in sewer systems is 475 over 2005/06. These increases are mainly in the South East and South West.

There is a reduction of 50 in the number of screened CSOs reported. The reported reduction is due both to acquisition of new data and to the harmonisation of out GIS and Ellipse systems, eliminating duplicate data which together improves data confidence.

The figures are now derived with greater confidence with real data being reported. Only two CSOs are not classified by location in the sewer system. 75 CSOs are not classified in the GIS off-inventory adjustment to specify whether they are satisfactory.

E7.24-25 Sewage treatment works

The WTW sludge imports that are included in the total load at WWTW were taken to be the same as those for 2005/06.

The loads for two of the components (sludge return liquors and WWTW sludge) have been estimated by using last year's figures and adjusting them to take account of the fall in sludge production.

The total load has increased by 1% (2,248 kg BOD per day).

Some of the components of this total load have reduced (e.g. trade effluent) and others (e.g. population) have increased leading to a small net increase in the total load. Some of the data sources contributing to the determination of the loads are non corporate sources (or are

themselves determined from non-corporate sources such as population) and contribute to some uncertainty in the reported numbers which is reflected in the B3 confidence grade.

Table E8 Waste water Explanatory Factors - Sewage Treatment Works

E8.1-10: Treatment categories

E8.1- E8.8 The total number of sewage treatment works has increased by 8 to 1963. The additional works were installed on discharges that until now were untreated.

The large reduction in the primary work loads are mainly because two works, Lerwick and Stornoway, were upgraded this year. The load for the sea unscreened works has increased due to the inclusion of privately treated waste discharged to a Scottish Water sea outfall.

E8.21 – E8.30 Compliance

Overall compliance for each treatment category is > 80%

Percentage compliance has been calculated on the basis of SEPA results. The methodology is the same as last year and, in the case of two-tier consents, all failures have been counted, not just upper-tier failures. Works that are not sampled are not included in the averaging process for individual treatment categories and size bands. The sampling period is the calendar year 2006.

Where the cells in this section are listed as 0 and A1 confidence grade, this means that no works in that category and size band has been sampled.

E8.29-30 - The compliance figures for works with ammonia consent conditions generally reflect the decrease discussed above, but this is a small sample of works and deviations from the general pattern tend to be exaggerated.

E8.31-42 Costs

Costs which are directly attributable to treatment are charged to the specific asset cost code in Peoplesoft, either via direct charging, or Ellipse timesheets or work orders. Of the £34.8m total wastewater treatment costs, £30.3m (£32.5m less £3.4m sludge costs plus £1.2m terminal pumping) of costs (87%) have been charged to assets.

The additional costs have been allocated to Wastewater Treatment through ABM support activity allocation, e.g. stores based on number of issues, IT applications based on number of users, etc. Therefore, support costs are allocated on a resource consumed basis. However, many of these costs are not specific to an asset, they are generally attributable to an employee. It follows that the majority of these support costs should be allocated to the activities the employees have been doing.

Therefore the allocation of support costs to asset categories within the Wastewater Treatment total has followed the staff activity analysis. This represents a change from last year when support costs were allocated to asset categories based on works load. This would have had the effect of overstating the cost of large works and understating the cost of small works.

This change in cost allocation has the effect of moving £0.9m from large works to small works compared to 2005/6 as follows:

	Septic tanks	Primary	Secondary	Tertiary	Sea Outfalls	Total
Change	£m	£m	£m	£m	£m	£m
Large			-0.913	-0.021		-0.934
Small	0.037	0.210	0.152	0.529	0.006	0.934
	0.037	**0.210**	**-0.761**	**0.508**	**0.006**	**0.000**

The costs of treating and disposing of sludge are contained within Table E10 Sludge Treatment and Disposal.

Analysis of sewage treatment costs by size band:-

	Septic tanks	Primary	Secondary	Tertiary	Sea Outfalls	Total
Small treatment works	£m	£m	£m	£m	£m	£m
2006/07	2.219	1.068	13.337	3.331	0.746	20.701
2005/06	1.927	0.751	11.143	2.616	0.613	17.050
	0.293	**0.317**	**2.194**	**0.715**	**0.134**	**3.652**

	Septic tanks	Primary	Secondary	Tertiary	Sea Outfalls	Total
Large treatment works	£m	£m	£m	£m	£m	£m
2006/07	0.000	0.000	6.968	0.917	0.003	7.889
2005/06	0.000	0.000	6.785	0.800	0.000	7.585
	0.000	**0.000**	**0.183**	**0.117**	**0.003**	**0.304**

	Septic tanks	Primary	Secondary	Tertiary	Sea Outfalls	Total
General and support costs	£m	£m	£m	£m	£m	£m
2006/07	0.330	0.213	4.584	1.003	0.125	6.255
2005/06	0.371	0.142	4.070	0.732	0.066	5.380
	-0.041	**0.072**	**0.514**	**0.271**	**0.059**	**0.875**

	Septic tanks	Primary	Secondary	Tertiary	Sea Outfalls	Total
Total treatment works	£m	£m	£m	£m	£m	£m
2006/07	2.549	1.281	24.888	5.252	0.875	34.845
2005/06	2.297	0.893	21.997	4.149	0.678	30.014
	0.252	**0.388**	**2.891**	**1.103**	**0.196**	**4.831**

Small treatment works direct costs increased by £3.7m.

The main increases on small works were Power (£2.4m) and Employment Costs (£1.0m).

Large treatment works direct costs increased by £0.3m

The main increase on large works was power (£0.4m).

Confidence Grades – Confidence grades on Table E8 are consistent with grades in E2 and related commentary.

Direct costs are, in the main, captured in the core corporate financial system, with labour costing feeds from the core corporate works management system. A high proportion of direct costs are captured by asset, hence the A2 confidence grade. A smaller proportion of costs – mainly general and support costs – remains to be allocated to works by means other than direct capture. Following analysis of these residual general and support costs, Scottish Water feels that it now has a more appropriate allocation basis to asset.

Employment cost, or labour cost analysis has improved since 2005/6, by way of direct cost capture, but also with improvements in the ABM process, whereby team time analysis is taken direct from the corporate works management system, and only supplemented where gaps exist.

Table E9 Large Sewage Treatment Works Information Database

E9.0 Name

There are 21 large non-PPP sewage treatment works, which is one fewer than last year. Ironmill Bay is no longer classified as a large sewage treatment works due to reallocation of sewered areas from Ironmill Bay to Dunfermline reflected in Dunfermline's increased population equivalent of total load received.

There is a slight decrease in the population equivalent of total load received at large sewage treatment works of 2%. This is within the reporting accuracy and is not considered to be significant. The population equivalent has been assessed from the load received on the basis of 60 gBOD/head/day.

E9.2 - E9.7 Compliance

Figures are the lower consent values taken directly from the discharge consent document as issued by SEPA. Where a parameter is not included in the discharge consent, this is indicated by a confidence grade of A1. In general the lower tier consent figure has been given. At Allers, Carbarns and Hamilton there are no two-tier values for suspended solids, and in these cases the instantaneous figure is given.

The percentage compliance has been calculated on SEPA compliance data using the number of sanitary determinants (BOD, SS, ammonia and phosphate) analysed for and counting all failures at works with two-tier consents. Compliance is reported as calendar year. SEPA report compliance on a monthly basis.

E9.2 Suspended solids consent

13 sites have increased their suspended solid consents to 100 mg/l. All other sites remained as they were.

E9.3 BOD consent

7 sites have increased their BOD consents; all other sites remained as they were.

E9.4 COD consents are all still 125mg/l.

E9.5 There are new ammonia standards at Erskine and Stirling, and the one at Dalmarnock has been eased by 7 mg/l. The standard at Philipshill has been tightened and the one at Dalderse has been withdrawn. All other sites remained as they were.

E9.6 Phosphate consent

The N confidence grade has been applied as there is no phosphate consent at the sites noted.

E9.7 9 sites have increased their compliance with effluent consent standards, whereas 7 sites have reduced their compliance with effluent consent standards.

E9.8-14 Treatment Works Categories - This information is held in the Ellipse corporate database. There have been no changes since last year.

E9.15-19 Works cost

Analysis of functional costs for large sewage treatment works:-

	2006/07	2005/06	Variance
	£m	£m	£m
Daldowie	0.869	0.764	-0.105
Galashiels	0.124	0.163	0.040
Tertiary treatment	**0.993**	**0.927**	**-0.066**
Allers	0.205	0.193	-0.012
Alloa	0.162	0.234	0.072
Ardoch	0.385	0.280	-0.105
Bo'ness	0.194	0.140	-0.053
Carbarns	0.280	0.247	-0.033
Dalderse	0.323	0.482	0.159
Dalmarnock	0.852	0.985	0.133
Dunfermline	0.308	0.237	-0.072
Dunnswood	0.283	0.232	-0.051
Erskine	0.319	0.253	-0.065
Hamilton	0.239	0.299	0.060
Iron Mill Bay	n/a	0.170	0.170
Kinnel Kerse	0.386	0.384	-0.002
Kirkcaldy	0.608	0.499	-0.108
Laighpark	0.818	0.836	0.017
Perth City	0.273	0.268	-0.005
Phillipshill	0.170	0.296	0.127
Shieldhall	1.681	1.556	-0.126
Stirling	0.236	0.250	0.013
Troqueer	0.248	0.310	0.062
Secondary treatment	**7.971**	**8.151**	**0.180**
Total large treatment works	**8.964**	**9.078**	**0.115**

The number of treatment plants classified as large works has reduced by one due to the reclassification of Iron Mill Bay to a small treatment works.

The functional costs have reduced by £0.1m (1.3%) which is partly due to change of allocation basis for support activities, which offsets increased power, chemicals and material costs.

Confidence Grades – Confidence grades on Table E9 are consistent with grades in E2 & 8 and related commentary.

Direct costs are, in the main, captured in the core corporate financial system, with labour costing feeds from the core corporate works management system. A high proportion of direct costs are captured by asset, hence the A2 confidence grade. A smaller proportion of costs – mainly general and support costs – remains to be allocated to works by means other than direct capture. Following analysis of these residual general and support costs, Scottish Water feels that it now has a more appropriate allocation basis to asset.

Employment cost, or labour cost analysis has improved since 2005/6, by way of direct cost capture, but also with improvements in the ABM process, whereby team time analysis is taken direct from the corporate works management system, and only supplemented where gaps exist.

Estimated terminal pumping station costs are graded slightly lower in confidence than treatment costs, as terminal pumps (as defined) sit in networks or are costed as part of the treatment works.

Table E10 Waste water Explanatory Factors - Sludge Treatment and Disposal

Scottish Water incurs costs associated with the transportation of sludge from its own sewage treatment works to PPP sludge treatment centres (£1.8m).These costs have been reported within E3a.20 with the corresponding sludge loads reported in E3.

E10.1-2 Sludge Volumes

Just over half of the works to treatment centre routes were taken from the Scottish Water Sludge model. The remainder were allocated to a sludge treatment centre on a geographic basis, e.g. all of the works on Shetland were taken as going to Lerwick.

There have been two significant movements in disposal routes. Farm land advanced has approximately doubled in movement and there is a corresponding fall of more than 50% in the reported value in land reclamation. This is due to the loss of land available for land reclamation.

There has been an additional new route classified in the 'other' disposal route. This is sludge being disposed from Seafield sludge treatment centre to be used on industrial crops. The industrial crop that is being grown is oil seed rape used to produce bio diesel.

At almost all of the sites Gemini data was used rather than theoretical values from the sludge model. At two sites (Girvan and Cumnock) theoretical outputs from the sludge model were used as not all of the sludge produced was measured.

The split of using theoretical and actual data has led to the application of a C3 confidence grade.

E10.3-11 Sludge Treatment and Disposal Costs

The allocation of sludge treatment and disposal costs by disposal route relies on robust sludge movement data linked to financial data. Scottish Water links sludge movement data from the Gemini waste management system to ABM costs to produce E10 cost analysis.

Analysis of sludge treatment costs by disposal route:-

	2006/07 £m	**2005/06** £m	**Variance** £m
Farmland:			
Untreated	0.000	0.000	0.000
Conventional	1.669	2.341	-0.672
Advanced	4.622	0.797	3.824
Landfill	1.079	1.783	-0.704
Incineration	0.000	0.000	0.000
Composted	0.156	0.329	-0.174
Land reclamation	1.648	3.447	-1.799
Other	0.000	0.000	0.000
Total	**9.173**	**8.698**	**0.475**

Sludge treatment costs increased by £0.5m from 2005/06. The change in costs by route has been affected by 2 main factors:

- Loss of land available for disposal to land reclamation, and increase in disposal to farmland advanced. This increases the cost of treating and transporting sludge due to the requirement to lime the sludge. However, this is partly offset by reduced disposal costs
- Increases in landfill tax liability and gate prices at landfill sites

Confidence grades are lower than those in E1b to reflect the levels of allocation that were required.

Confidence Grades – Sludge cost analysis by ultimate disposal route requires analysis of all sludge treatment, tankering and disposal costs by works, linked to intermediate works (where applicable) and ultimate disposal route. Certain costs are clearly captured by works with identified disposal route. However, certain costs are not fully captured directly against sludge. The main areas of difficulty are inter-site sludge tankering and sludge treatment/conditioning at dual function works (sludge/wastewater treatment). Table E10 is completed on the basis of a combination of: ABM analysis, direct cost capture by asset, and Scottish Water sludge model analysis. Confidence grades on Table E10 are lower (B3) than other E Table cost analysis due to these reasons.

Table E11 Management and General

E11.1-4 Employee Numbers

The employee numbers reported in E11 exclude FTE's associated with capital work, third party services and PFI. This ensures consistency with the costs reported in tables E1b and E2b.

The following reconciles E11 staff numbers to the annual accounts for 2006/7 and 2005/6:

E11.5-20 Management and General Assets

E11.5 There has been no change in the reported number of offices for this year's Annual Return.

E11.6 There is no change in total area reported this year. The confidence grade has been allocated a lower accuracy band as the water - wastewater split has been allocated on the basis of pro rata staff numbers which results in a significant change compared with the previous year. This highlights a potential shortcoming in the methodology and as a consequence the confidence grade is lower.

E11.7 There has been no change in the reported number of laboratories for this year's Annual Return.

E11.8 Although there is no change in total area reported this year, a more appropriate reflection of the water - wastewater split has been allocated on the basis of pro rata staff numbers.

E11.9 There has been no change in the reported number of depots for this year's Annual Return, however due to the quality of information held in the different operational areas we have reduced the confidence grade to reflect a higher level of uncertainty with the final number reported. This is being addressed as part of the asset surveys currently being undertaken.

E11.10 An instance of double counting of building area included in last year's return has been removed and therefore due to this correction we have allocated a lower confidence grade than otherwise would be expected.

E11.11 - E11.12 Scottish Water does not have any workshops.

E11.13 – E11.14 There has been no change in the reported number of control centres for this year's Annual return, but as the areas reported have an increased uncertainty we are reporting a lower confidence grade.

E11.15 – The total valuation of vehicles and plant has increased in this reporting year (see commentary for Table H6 support services)

The valuation split between water and wastewater has changed due to a change in the method of allocating the split between the two services. This year's split was based on the same proportional split of employees between water and wastewater.

E11.18 – E11.20 The data for Information systems is the same data used in the production of the Table H6.6 figures.

	2006/07 FTE's	**2005/06** FTE's	**Variance** FTE's
Direct operations	983	1,554	-571
Indirect operations (General and support)	621	288	332
Other (incl hired and contracted)	751	466	284
Total employee numbers per E11	**2,354**	**2,308**	**46**
Staff involved in capital & transformation projects	721	865	-144
Staff associated with PFI	7	7	0
Statutory waste and wastewater services	**3,083**	**3,181**	**-98**
Staff associated with third party activities	240	279	-39
Staff seconded to Scottish Water Solutions	209	233	-24
SWBS Staff	55	0	55
Total FTE's per Statutory Accounts	**3,587**	**3,693**	**-106**

The average number of employees during the year reduced by 106 or 3% to 3,587.

The statutory accounts figures include the employees transferred to Scottish Water Business Stream on 1st November 2006 (132 employees calculated as an average of 55 over 12 months)

Table E11 excludes the employees transferred to Scottish Water Business Stream on 1st November 2006, but includes staff undertaking business retail activity April to November.

Confidence Grades – Employee numbers are taken directly from the payroll system. Confidence grade for absolute employee numbers is A1. However, in Table E11, employee numbers must be split by activity and direct/indirect. These classifications are not held in the payroll system. Employee numbers are split against these classifications on the basis of

ABM employment cost analysis. Confidence grades are assessed as B2, consistent with 2005/6.

Miscellaneous E1&2 Commentary

E table guidance requests commentary on the following 2 items:

Pension Contributions

Scottish Water is a participating employer in three Local Government Pension Schemes (LGPS) – the Strathclyde Pension Fund, the Aberdeen Pension Fund and the Lothian Pension Fund. These funds are administered by Glasgow City Council, Aberdeen City Council and Edinburgh City Council respectively.

The administering authority for each scheme is required to conduct a triennial valuation of the assets and liabilities of each scheme in line with LGPS regulations. The purpose of the valuation is to review the financial position of the fund and specify the employer contribution rates for the next 3 years. The last valuation was carried out as at 31 March 2005 and the next valuation will be carried out as at 31 March 2008 and will set Scottish Water's contribution rate for the three years from financial year 2009/10.

The contribution rate for each fund is based on the current service cost and the funding position of each fund at the valuation date. The average funding level of the 3 schemes at 31/3/05 was 89%. Therefore, the Employer contribution rates shown below include an element to reduce the deficit on each fund.

	04/05	**05/06**	**06/07**
Contribution (%)			
Aberdeen	15.30	15.90	16.50
Edinburgh	17.70	18.90	20.10
Glasgow	14.40	15.00	15.90
Average number of members			
Aberdeen	1,103	1,033	957
Edinburgh	1,053	1,011	997
Glasgow	1,432	1,429	1,393

The average contribution rate has increased from 15.65% in 2004/5 to 16.4% in 2005/6, and 17.32% in 2006/7. In Tables E1 & 2, the increase in contributions has caused a £0.8m increase in pension costs, excluding the effect of salary inflation.

Charitable Donations

There have been no donations to charitable trusts or other funds assisting customers with payment difficulties in the year.

G Tables – Base Information

Table G1 Summary – Water Service

Tables G1 – 6 present Scottish Water's Q&S2 and Q&S3 investment programmes showing the prior years' expenditure, the actual expenditure in the Report Year and forecasts for future years. Scottish Water successfully delivered £413m of investment in line with the revised forecast profile approved by SW Board in August 2006 and ahead of the £404m forecast in the revised Delivery Plan (March 2007 update).

The Q&S2 programme delivered £173m of investment. The forecast outturn is £2,189m including the overhang value of £294m net of contributions. This is the current view of investment required to deliver the Q&S2 service and legislative objectives. The main focus of investment in 2006-07 has been legislative driven quality improvements.

£240m of investment has been delivered this year on the Q&S3 programme, including Completion projects. Expenditure in 2006-07 progressed UID strategic studies and feasibility and design on water and wastewater quality projects. However, capital maintenance investment on infrastructure, non-infrastructure and management and general accounts for 57% of the total.

The total forecast expenditure including the Q&S2 Conclusion Programme remains within the final determination allowance for the 2006-10 period.

The Q&S2 Conclusion Programme is based on Ver 3.6.3 of the WIC 18 Baseline Programme submitted to the Water Industry Commission in September 2006 and is reported at project level in G5. The main focus of investment in 2006-07 has been legislative driven quality improvements. All Q&S3 Development costs and the Q&S3 funded element of the Q&S2 Completion projects are reported in G6 in line with WIC requirements and the quarterly Capital Investment Returns.

The Q&S3 Programme is based on the Table K submission with disaggregation of projects from programme funding lines for capital maintenance and enhanced level of service.

The format for Table G reporting has changed from previous years with all Q&S2 projects reported in G5 and all Q&S3 projects reported in G6.

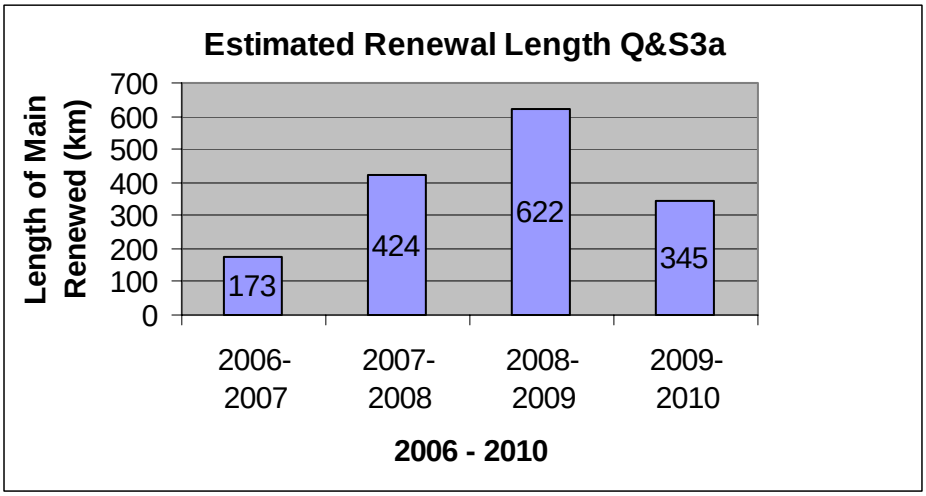
Table G1 Summary Water Service

Where no line comment is given, the data is derived from Tables G3a and G4a or calculated from the drivers in G5 and G6

We are currently developing a methodology for Proportional Allocation of Financial Expenditure to Drivers. This will be applied in future years once the methodology is agreed with the Water Industry Commission.

The MEAV project to re-assess the value of Scottish Water asset stock will be completed in 2007-08 and the effect of Q&S3 projects on SW Gross MEAV will be reviewed on completion of the project. As the scope of the solutions for quality and growth projects becomes more fully developed, the effect will change.

The graph below indicates the Estimated Forecast by year for the Mains Rehabilitation Programme.



The Sewer Rehabilitation Programme is currently being prioritised with 312.8km promoted to the end of March 2007. This equates to 70% of the financial investment for Q&S3a.

Other comments

The Q&S2 Spend to Save and Transformations programmes were completed in 2005-06 and therefore no detail of the programme is included in this year's return. There is no equivalent programme for Q&S3.

The table below shows the 22 projects with a Q&S2 Cs2 Customer Complaint driver which had positive or negative spend totalling £120k in the Report Year.

Project Number	Project Name	Cs2 Driver Value in 2006-07	Benefit to Customer
4065	ALNESS MR	0.000	Reduction in pressure problems, interruptions and improved water quality
4086	CARSE AREA WATER SUPPLY RENEWAL AT KINFAUNS INTERCHANGE	0.016	Reduction in interruptions
4087	A92 DUNDEE TO ARBROATH TRUNK ROAD - ALTERATIONS TO WM	0.028	Reduction in pressure problems, interruptions and improved water quality
4088	CARSE AREA WATER SUPPLY RENEWAL AT GLENDOICK INTERCHANGE	0.000	Reduction in interruptions
4089	GAIRLOCH MAINS RENEWAL (DESIGN)	0.001	Reduction in pressure problems, interruptions and improved water quality
4090	INVERASDALE MAINS RENEWAL (DESIGN)	0.000	Reduction in pressure problems, interruptions and improved water quality
4091	MULBUIE (BLACK ISLE) MAINS RENEWAL (DESIGN)	0.016	Reduction in pressure problems, interruptions and improved water quality
4092	KILCHOAN MAINS RENEWAL	-0.007	Reduction in pressure problems, interruptions and improved water quality
4093	BONAR BRIDGE ZONAL MAINS RENEWAL	0.017	Reduction in pressure problems, interruptions and improved water quality
4097	WATER MAINS RENEWALS 2002 - 2003 - FINDOCHTY	0.000	Reduction in pressure problems, interruptions and improved water quality
4100	STRATHPEFFER (UPPER) MR DESIGN	0.000	Reduction in pressure problems, interruptions and improved water quality
4101	TULLICH MR DESIGN	0.002	Reduction in pressure problems, interruptions and improved water quality
4102	SOUTH HOY AND FLOTTA WMR	-0.001	Reduction in pressure problems, interruptions and improved water quality
4105	GOLSPIE MAINS REPLACEMENT	0.001	Reduction in pressure problems, interruptions and improved water quality
4106	CLAYSIDE (BRORA) WATER MAINS RENEWALS	0.004	Reduction in pressure problems, interruptions and improved water quality
4264	DUNDEE - CLATTO TO JEANFIELD AUGMENTATION	0.000	Reduction in pressure problems, interruptions and improved water quality
5662	GILBERTSON ROAD, LERWICK MR	0.002	Reduction in pressure problems, interruptions and improved water quality
5663	URCHANY (NAIRN) MR DESIGN	0.001	Reduction in pressure problems and interruptions
5664	LOCHINVER MR - DESIGN	-0.002	Reduction in pressure problems, interruptions and improved water quality
5665	BALAGUNLOUNE MR - CONSTRUCTION	0.001	Reduction in pressure problems, interruptions and improved water quality
8745	ELECTROCHLORINATION & CHLORAMINATION AT SANDY LOCH WTW & EELA WTW	0.034	Address odour and taste complaints
9016	Pitcalzean Pump Upgrade	0.010	Improve and maintain steady water pressure and avoid interruptions
	Total	0.120	

G1.1- G1.6 Base Service Provision/Capital Maintenance

G1.1 – Base operating expenditure is calculated from the total operating expenditure (Table E1.20 water opex for AR07) by deducting new opex resulting from capital investment to reflect the total opex had the investment not progressed. We have stated all operational expenditure against Q&S3 and have entered a low confidence grade as a result.

G1.3 - Maintenance non-infrastructure (gross of grants and contributions) is gross value calculated from G5 and G6 as contributions are not credited to the projects

G1.4 - Maintenance non-infrastructure - grants and contributions. There were no grants or contributions to Q&S2 or Q&S3 capital maintenance projects in the Report Year. No forecasts are shown for future years as there are no confirmed grants or contributions.

G1.5 - Maintenance non-infrastructure (net of grants and contributions) is calculated from G1.3 and G1.4 and equals the gross value for both Q&S2 and Q&S3.

G1.7- G1.8 Quality Enhancements

G1.8 – Quality Additional Operating Expenditure
Additional operating expenditure is calculated through the analysis of the proportion of capital spend allocated to quality, enhanced level of service or growth. The value in the Report Year and future years is calculated from the beneficial use (acceptance) date resulting in expenditure being split proportionally across two years depending on where the beneficial use date falls.

G1.9-10 Enhanced Service Levels

G1.10 - Enhanced service additional operating expenditure
Additional operating expenditure is calculated through the analysis of the proportion of capital spend allocated to quality, enhanced level of service or growth. The value in the Report Year and future years is calculated from the actual or forecast beneficial use (acceptance) date resulting in split at project level across two years. For Q&S2, opex impact from the SEMD projects is reported against Enhanced Level of Service although the projects are reported with capital maintenance drivers as there is no place to report opex from capital maintenance projects.

G1.11-12 Growth (Supply/Demand Expenditure)

G1.12 Growth additional operating expenditure
Additional operating expenditure is calculated through the analysis of the proportion of capital spend allocated to quality, enhanced level of service or growth. The value in the Report Year and future years is calculated from the beneficial use (acceptance) date resulting in expenditure being split proportionally across two years depending on where the beneficial use date falls.

G1.13-14 New Outputs/Obligations since the final determination

There are no new outputs/obligations reported in the current return although a number are under discussion with the Quality Regulators.

G1.15-19 Grants and Capital Contributions

Security grants received in 2006-07 are reported against the Q&S2 Programme. The infrastructure charge income is reported as contribution against Q&S3 programme. No future grants or contributions are reported as these are not confirmed.

G1.20 Adopted Assets, Nil Cost Assets

The value reported against Q&S3 relates to our estimated asset value of the water mains adopted after deducting the reasonable cost contributions payable to the developer and C3 confidence grades have been applied as a result.

Effect on operating costs of capital maintenance

Opex relating to Q&S2 capital maintenance projects which cannot be reported in G1 is shown below.

	£m	£m	£m	£m	£m
Maintenance Opex	**Total**	**2006-07**	**2007-08**	**2008-09**	**2009-10**
Water	-0.454	-0.480	-0.001	0.027	0.000

The Opex impact for 2006-07 is a saving of (£0.529m) which is mostly due to a saving of (£0.503m) in the Desktop Infrastructure and Remote Comms project, countered by a £0.049m opex impact from the extended scope in Telemetry projects.

In 2007-08 and 2008-09 there is an increased opex spend of £0.026m due to the saving of (£0.167m) in the Desktop Infrastructure and Remote Comms project being offset by increased spend of £0.068 in the Telemetry projects and £0.125m in other areas of the business.

Table G2 Summary – Wastewater Service

Where no line comment is given, the data is derived from Tables G3b and G4b or calculated from the drivers in G5 and G6. DX confidence grades have been applied as per G1.

G2.1- G2.6 Base Service Provision/Capital Maintenance

G2.1 – Base operating expenditure is calculated from the total operating expenditure (Table E2.19 wastewater opex for AR07) by deducting new opex resulting from capital investment to reflect the total opex had the investment not progressed. We have stated all operational expenditure against Q&S3.

G2.3 Maintenance non-infrastructure (gross of grants and contributions) is calculated from G5 and G6 as contributions have not been credited to the projects

G2.4 - Maintenance non-infrastructure
There were no grants or contributions received for maintenance projects in Q&S2 or Q&S3 in the Report Year. No forecasts are shown for future years as there are no confirmed grants or contributions.

G2.5 - Maintenance non-infrastructure (net of grants and contributions) is the gross value as there were no grants or contributions.

G2.7– G2.8 Quality Enhancements

G2.8 – Quality Additional Operating Expenditure
Additional operating expenditure is calculated through the analysis of the proportion of capital spend allocated to quality, enhanced level of service or growth. The value in the Report Year and future years is calculated from the beneficial use (acceptance) date resulting in expenditure being split proportionally across two years depending on where the beneficial use date falls.

G2.9-10 Enhanced Service Levels

G2.10 - Enhanced service additional operating expenditure

Additional operating expenditure is calculated through the analysis of the proportion of capital spend allocated to quality, enhanced level of service or growth. The value in the Report Year and future years is calculated from the actual or forecast beneficial use (acceptance) date resulting in split at project level across two years. For Q&S2, the opex impact from the DSEAR Programme is reported against Enhanced Level of Service although the capex investment is reported against capital maintenance drivers as there is no place to report opex from capital maintenance projects.

G2.11-12 Growth (Supply/Demand Expenditure)

Additional operating expenditure is calculated through the analysis of the proportion of capital spend allocated to quality, enhanced level of service or growth. The value in the Report Year and future years is calculated from the actual or forecast beneficial use (acceptance) date resulting in split at project level across two years.

G2.13-14 New Outputs/Obligations since the final determination

There are no new outputs/obligations reported in the current return although a number are under discussion with the Quality Regulators.

G2.15-19 Grants and Capital Contributions

Two European Regional Development Fund grants received in 2006-07 are reported against the Q&S2 Programme together with five contributions received towards wastewater quality projects. The infrastructure charge income is reported as contribution against Q&S3 programme. No future grants or contributions are reported as these are not confirmed.

G2.20 Adopted Assets, Nil Cost Assets

The value reported against Q&S3 relates to our estimate of the asset value of the sewers adopted after deducting the reasonable cost contributions payable to the developer and the value of sewers and other wastewater assets adopted in Western Isles less SW contribution to a joint project with Western Isles Council.

Effect on operating costs of capital maintenance

Opex relating to Q&S2 capital maintenance projects which cannot be reported in G2 is shown below.

	£m	£m	£m	£m	£m
Maintenance Opex	**Total**	**2006-07**	**2007-08**	**2008-09**	**2009-10**
Wastewater	0.364	0.184	0.166	0.014	0.000

The Opex impact for 2006-07 showed an increase of £0.184m mostly due to an increase associated with Dalmarnock STW of £0.142m, an increase of £0.011m from the telemetry projects and other smaller increases from other projects.

The following two years show an increase in Opex spend of £0.180m which is mostly due to the extended scope in the telemetry projects which will increase the opex by a total of £0.139m in 2007-08 and 2008-09.

Table G3a Q & S 2 Delivery – Water Service

All cells are calculated from the outputs reported in G5. The negative value reported against G3a.7 is due to the in year movement on the pain/gain share account with SWS in 2006-07.

Table G3b Q & S 2 Delivery – Wastewater Service

All cells are calculated from the outputs reported in G5. The negative value reported against G3b.4 is due to the in year movement on the pain/gain share account with SWS in 2006-07.

Table G4a Q & S 3 Drivers – Water Service

G4a.1 Base operating expenditure is calculated from Water opex reported in Table E1.20 with the value reported in G1.1. DX confidence grades have been added to the forecasts as explained in G1.

G4a.2 – G4a.42 are calculated from the drivers against projects in G6.

G4a.45 – G4a.46 New outputs/obligations since the final determination
There was no investment in the Report Year and no future forecast is reported as there has been no agreement with the Regulators on new outputs/obligations.

Table G4b Q & S 3 Drivers – Wastewater Service

G4b.1 Base operating expenditure is calculated from Wastewater opex reported in Table E2.19 with value reported in G2.1. DX confidence grades have been added to the forecasts as explained in G2. DX confidence grades have been added to the forecasts as explained in G2.

G4b.2 – G4b.48 are calculated from the drivers against projects in G6.

G4b.49 – G4b.50 New outputs/obligations since the final determination
There was no investment in the Report Year and no future forecast is reported as there has been no agreement with the Regulators on new outputs/obligations.

Table G5 Project Analysis Q & S 2 – Actuals & Forecast – Water & Wastewater

Commentary on G5 is column by column.

Column 1 - Project Number – this is the unique number which identifies the project within the capital investment programme and CIMS.

Column 2 – Project Name – this is the title defined by Scottish water and is taken directly from the capital investment programme and CIMS. The only exceptions are the projects which have been rolled to programme groups for reporting and start with ‘400’ numbers.

Column 3 – Water/Wastewater - all projects are shown as water or wastewater except three which are classed as general. These include the SWS Share Account and SW Overheads.

Columns 4 & 5 – Quality and Regulatory Output Sign-off Required – all projects identified within WIC Reporting Database as quality or as requiring sign-off are shown in these columns.

Column 6 – Accountability – all projects are identified as being delivered by Scottish Water, Scottish Water Solutions as part of the Allocated programme or by Scottish Water Solutions as part of the Managed programme.

Columns 7 & 8 – Programme Group and Funding Category – these are reported as held in CIMS.

Column 9 – Q&S1 Project – this reports projects which were part of Q&S1 planned carry-over to Q&S2 and excludes projects which were not included in the original WIC 18 programme.

Columns 10 – 14 Actual Expenditure - the actual expenditure by year is held in CIMS and is reconciled with the corporate financial system.

Column 15 – Q&S2 Period Expenditure – this is the sum of the expenditure from 2002-06 calculated within the WIC Reporting Database.

Column 16 – 06-07 Actual Expenditure - this is the value held in CIMS for the investment in the Report Year and has been reconciled with the corporate financial system.

Columns 17 – 19 – 2007-10 Forecast Expenditure – the future forecasts are held within CIMS.

Column 20 – Post 05-06 Expenditure Total – this is the sum of the actual expenditure in 2006-07 and the forecast expenditure for 2007-10 calculated in WIC Reporting Database.

Column 21 – Q&S2 Project Total – this is the sum of the pre 2002-03 investment, the 2002-06 investment and the forecast for 2006-10.

Columns 22 – 24 – WIC 18 Data – this data is held within the WIC Reporting Database and is as reported in the Q4 Capital Investment Return.

Columns 25 and 26 – Grants and Contributions Infrastructure and Non-infrastructure. This reports the actual or forecast values of grants and contributions received or expected to be received in the Q&S2 programme. A negative risk line is reported against the SW Risk Water project as it is considered that some grants and other contributions may not be received.

Column 27 – Total Changes in operating costs. The information on changes in operating costs has been derived from a number of sources. These include opex costs of existing assets, operational experience and use of manufacturers' data where Scottish Water has limited or no experience of operating certain treatment processes. The impact of new investment take account of changes in staffing levels, rent and rates, power costs, chemicals and other consumables, monitoring and sampling costs. A number of projects are reporting the actual opex which has been released and others are based on the most recent Capex approved value from Capex 4, Capex 3 or Capex 2 approvals. Where the project opex had been revised as part of the Business Planning process in 2005-06, it has retained that value unless there has been subsequent Capex approval.

Column 28 – CIMS Status Code. The project status code is taken from the pre-determined set of codes which reflect the current stage of the project. Progress on projects is updated monthly through CIMS and status codes are adjusted to indicate the milestones which have been achieved. S12 is used where SEPA or DWQR Regulatory Sign-off of outputs on quality projects has been received. As agreed, S4 has been used to identify projects which were stopped prior to construction or were not able to progress to beneficial use. Projects which had a regulatory output in Ver 3.6.3 of the WIC 18 Baseline Programme which is being delivered through a different project are not shown as S4. A number of projects have been confirmed as having received Capex 5 approval but these had not been updated in CIMS at 31 March. These are included with their actual dates in Column 32 but the status code has remained as reported in Q4 CIR. These will be corrected in Q1 CIR.

Columns 29 – 32 – Capex Stages. A number of projects did not receive Capex 2 approval as they went straight from Capex 1 to Capex 3. These are being reported with the Capex 3 approval date. Where projects pre-date the introduction of Capex 5 and have a handover date, the handover date has been reported against Capex 5 dates. Planning approval is only shown where a project has or requires to obtain planning approval.

Columns 33 – 52 Drivers and Driver % Allocation. The Q&S2 Purpose codes from Appendix A of the Table G Guidance documentation are reported against these columns. The proportional allocation between purpose codes is in line with the methodology used in previous years. The

output measures were considered first and a percentage split allocated on the basis of the number of outputs. Where better information was available on the split between outputs, this has been reflected in G5. Investment to meet SEMD and DSEAR requirements are reported against WM2 and SM2 respectively.

Columns 53 – 72 Output and Output % Allocation. The Q&S2 output codes from Appendix A of the Table G Guidance documentation are reported against these columns. Each output has received a % allocation in line with the total number of outputs. Where better information was available on the split between outputs, this has been reflected in G5.

Table G6 Project Analysis Q & S 3 – Actuals & Forecast – Water & Wastewater

Commentary on G6 is column by column.

Column 1 - Project Number – this is the unique number which identifies the project within the capital investment programme and CIMS. A number of WQ projects have been included in Table G which were not in Q4 CIR. These are Opex Red projects (i.e. projects where we have agreed with DWQR that we will endeavour to achieve the output with no capital investment) which have no financial forecasts or Table K budgets but do have WQ outputs

Column 2 – Project Name – this is the title defined by Scottish water and is taken directly from the capital investment programme and CIMS. The only exceptions are the projects which have been rolled to programme groups for reporting and start with 400 numbers.

Column 3 – Water/Wastewater - all projects which can be identified as water or wastewater are shown in this column. A number of Management and General projects are reported as General and show the split between water and wastewater in the driver columns.

Column 4 Technical Expression – projects which form part of the DWQR, SEPA, Scottish Executive or WICS technical expressions are flagged in this column.

Column 5 Accountability – all projects are identified as being delivered by Scottish Water or Scottish Water Solutions. There are no SWS Managed projects in the Q&S3 programme.

Column 6 Programme Group – each project reports the group held in CIMS.

Columns 7 & 8 Project Classification – the first column reports the primary classification as quality, growth, enhanced or base with the second column identifying a number of projects as general where they are delivering base investment but are not flagged as water or wastewater.

Columns 9 – 11 Infra IRE, Non-IRE and Non-Infra Proportions of Projects. The forecast reported against Infra IRE is the proportion of the project based on the allocation to infrastructure maintenance drivers. The forecast against Non-IRE is the proportion of the project allocated to infrastructure, excluding capital maintenance. The forecast against Non-Infra is the proportion of the project allocated to Non-infrastructure drivers.

Column 12 Current Project Status Code - the project status code is taken from the pre-determined set of codes which reflect the current stage of the project. Progress on projects is updated monthly through CIMS and status codes are adjusted to indicate the milestones which have been achieved. S12 is used where SEPA or DWQR Regulatory Sign-off of outputs on quality projects has been received on Q&S2 Completion Projects. S10 has been used where Acceptance has been achieved. Where there is a regulatory output, Acceptance will trigger preparation and submission of the output to the Quality Regulators for sign-off. As agreed, S4 has been used to identify projects which were stopped prior to construction or were not able to progress to beneficial use.

Columns 13 – 16 – Milestone Dates – these are reported from CIMS from March 2007 monitoring. Until the UID strategic and waterbody studies are complete, the requirement for planning approval cannot be assessed and forecast dates will be added where applicable once the individual projects are promoted.

Column 17 – Local Authority – these are reported from CIMS. Projects covering more than one local authority area are reported as Scottish Water Wide.

Columns 18 – 25 – Financial Profiles – the actual expenditure pre 2006-07 and in 2006-07 is held in CIMS and has been reconciled with the corporate financial system. Forecast expenditure on individual projects is held in CIMS. The holding lines hold the balance of funding which has still to be disaggregated. The Capital Maintenance Infrastructure Water Holding line is reporting £5m of expenditure in Q&S3b in error. This forecast should be in 2009-10 and the £5m should have been reported against Q&SIII Risk. To keep the financial programme profiles in line with the values reported in the Q4 CIR, this has not been amended.

Column 26 – Table K Budget Allocation - this data is held within the WIC Reporting Database and is as reported in the Q4 Capital Investment Return. Table K budgets are updated from Capex 3, Capex 4 and Capex 5 approvals.

Columns 27 – 30 - Grants and Contributions Infrastructure and Non-infrastructure. The Infrastructure Charge income received is reported against Infrastructure contributions in the Report Year. No future grants or contributions are reported as these are not confirmed.

Columns 31 – 32 Impact of Project on SW Gross Modern Equivalent Asset Value – the application has been based on methodology applied in Table K pending the MEAV project being completed and individual quality and growth project scopes being fully developed.

Column 32 Impact of Project on Opex – the reported opex is based on Capex 3 approved values, Capex 2 approved values or the baseline opex identified in Table K. Projects which are not progressing have been reduced to zero.

Column 33 – 36 – Proportion of Capital Maintenance Element. The values reported are based on the percentage allocation against capital maintenance for all projects.

Column 37 – Population equivalent released from development constraints where applicable. Values are only reported against projects where the population has been approved by Capex forms.

Column 38 –Regulatory Sign-off Required – all projects identified within Q&SIII Database as requiring sign-off are shown in these columns and this is based on inclusion in one of the Technical Expressions.

Columns 39 – 58 Drivers and Driver % Allocation. The Q&S3 Drivers codes from Appendix B of the Table G Guidance documentation are reported against these columns. The proportional allocation between driver codes is in line with the methodology used in Table K. Where better information was available on the split between drivers, this has been reflected in G6.

Columns 59 – 88 Output and Output % Allocation. The Q&S3 output codes from Appendix B of the Table G Guidance documentation are reported against these columns. The Drinking Water Quality outputs are reported as population equivalent, and EC11 is reported as number of sites made compliant with standards, as per Table K submission.

Table G7 Q & S 2 Output Delivery

G7.1-9 Progress with Q&S 2 Outputs

The Scottish Water target for March 2007 was to deliver 98% of the Q&S2 programme. The delivery of the outputs is summarised in the table below.

Output	Output Description	Unit	Outputs Delivered at March 2007	Revised Targets at March 2007	% Target Delivered
DW_FT	Properties receiving FT provision of water	Nr	408	408	100%
DW_P	Removal of properties from the poor pressure register	Nr	1391	1391	100%
DW_WQ	Drinking Water drivers addressed	Nr	556	599	93%
WM_R (km)	Mains rehabilitated	km	3051	3051	100%
WW_C	Continuous discharges removed	Nr	528	589	90%
WW_FR	Removal of properties from 'at risk' flooding register	Nr	830	829	100%
WW_FT	Properties receiving FT provision of sewerage	Nr	667	667	100%
WW_R (km)	Sewers rehabilitated	km	409	409	100%
WW_UCSO	UCSO's removed	Nr	413	429	96%
					98%

- The targets for DW_WQ have been adjusted to account for outputs which should have been removed (Loch Einich (considered as removed when Blackpark outputs were removed) and the Birds & Habitats Directive where no site had been identified with this driver) and duplicate outputs in the project at Badentinan
- The targets for WW_C have been adjusted to account for assets which do not belong to Scottish Water (Aultbea Last House and Millburn Rd, Inverness)
- The flooding project at Campbeltown could not be delivered so two projects with a total of 24 flooding outputs were accelerated to deliver in 2006-07 to ensure the target was achieved.
- The target for First Time Provision Outputs has been achieved by March 2007 and the completion of the project at Minard will provide an over delivery.
- A total of 88 projects (excluding WIC16) remain to be delivered, 66 of which are forecast to deliver in 2007-08, 19 in 2008-09 and 2 in 2009-10. One project, the Dunoon Sewerage Scheme is currently forecasting delivery after March 2010.

G7.10-12 WIC 16 in progress

This table is a new requirement for AR07. The targets have been based on Version 3.6 of the baseline outputs. A tracker has been established which monitors the status of each project and its progress towards completion.

The Capital Investment Report at March 2007 lists 64 WIC16 projects. The following table reflects the movement in the programme which results in 61 projects being expected to deliver by March 2010.

WIC 16 Projects	
Capital Investment Report	**64**
less redundant	**-2**
Thornhill-WIC16-Community Scotland Dev Constraint	
Ayton	
less earlier removal	**-1**
Oldmeldrum	
less holding lines	**-2**
WIC16 Programme - Strategy Development	
Wic16 Development Constraints And Rural Sewerage Connections	
plus additions	**2**
Corgarff School	
Ythanwells School	
Annual Return	**61**

Of these 61 projects, 50 have been delivered in 2006-07, 8 will be delivered in 2007-08 and 3 will be delivered in 2008-09.

G7.13-17 Progress with quality and Standards 2 sign-off

In total 1088 projects have been completed requiring regulatory sign-off. Of these, 993 have been submitted and 793 signed off. These figures do not include WIC16 projects.

It is expected that the backlog of projects awaiting submission to the Regulators (63 at March 2007) will be resolved by March 2010, with 10% being submitted in 07/08, 40% in 08/09 and 50% in 09/10.

The submission of the delivered projects is assumed to be 3 months after the Beneficial Use date. One project, the Dunoon Sewerage Scheme, is currently forecasting delivery after March 2010 and will be therefore submitted for sign-off after March 2010, together with Loch Ryan Shellfish Improvements which is forecast to deliver in February 2010. In addition, another 15 projects are expected to be signed off after March 2010. Confidence grades for Regulator sign-off and percentage of programme signed-off are low for 2007-08 – 2009-10 as these are dependent on SEPA and DWQR agreeing the outputs have been achieved in line with the profile.

The confidence grades applied reflect the current forecasts for future sign-offs.

Table G8 Q & S 3 Ministerial Objectives and other outputs - Quality

G8.1 Customer Service

G8.1 Number of works where odour problem is addressed
Scottish Water delivered 1 output this year (06/07) as detailed in the delivery plan. The remaining outputs will be delivered as planned.

G8.2-11 Water Quality

This part of the G table records the Improvement to Drinking Water Quality for 1.5m people. There was no previous Table G8 and therefore comparison can only be made with the Business Plan forecasts. The Actual Target for 2006/07 was 0.16m whereas the Actual Total for the Year is 0.4m.

The system of reporting Water Quality Improvements is recorded in the Capital Investment Management System which records the beneficial use date. The data is transferred to a Q&S 3

Tracker which monitors all outputs on a project by project basis. Once the plant has been accepted by SW the relevant proformas are completed and presented to the DWQR for formal sign off.

We are reporting an improvement in Water Quality because of the satisfactory acceptance of the Balmore scheme with a population of 250,000. This scheme was originally programmed to be completed by Jan 2008. However, the outputs were successfully achieved in February 2007.

G8.4 Number of lead pipes removed as a result of customer requests

No annual targets were set, and there are no recorded requests. In the future there is a requirement to review the methodology to ensure that the requests and resulting works are accurately recorded. We are in discussion with the DWQR in respect of the potential allocation of funding to other lead improvements. As a result we have applied a confidence grade of DX

G8.6 – Number of water sources provided with flow monitoring and recording

The Directions require that the following improvements must be made in respect of water resources:

- Provide flow metering and recording at 574 drinking water sources as specified by the regulator.

This objective relates to the WR5 driver[2]:

- WR5 – To demonstrate compliance with water quantity licences for abstractions and all impoundments

This driver relates to the introduction of Water Use Licences for abstractions and impoundments under the Water Environment Water Services (Controlled Activities) Scotland Regulations 2006 and the requirement to monitor daily abstraction and compensation flows to demonstrate licence compliance.

Interpretation of Ministers' Objectives
In Scottish Water's investment plan, Scottish Water, in agreement with SEPA, identified 574 abstraction and impoundment sites where, based on the available information, flow monitoring and recording was to be provided to demonstrate licence compliance.

Output Delivery
Scottish Water identified in the Delivery Plan submission of May 2006 that we would be able to record flows to demonstrate licence compliance covering 140 sources by 31st March 2007 with the remainder being installed in a progressive manner through to 31st March 2009. This profile was based upon a direct conversion of the WR5 projected spend profile into tangible outputs using the best information available at the time and the expectation that guidance on the monitoring requirements being available through discussion and agreement with SEPA.

During 2006, we have reviewed the list of sources originally identified as requiring flow monitoring and recording. As a result of this review, we have identified 119 sources that no longer require flow monitoring and recording due to:

- better knowledge of sites and better asset information; and
- abandonment and planned abandonment of sources due to asset rationalisation.

SEPA's requirements in relation to flow monitoring are now better understood as a result of CAR licences issued in October 2006.

We have also identified 66 sources in addition to the original agreed list of 574 sources that will be operational at the end of 2007 that require flow monitoring and recording to be installed.

[2] Drinking Water Quality & Water Resources – A Final Report for the Scottish Executive by the Quality and Standards Project Board – February 2005

As a result the revised number of sources that require flow monitoring and recording installed to discharge the WR5 driver is 521.

Delivery Progress

During 2006-07 the primary focus has been on identifying the full scope of work required to discharge the driver and commence the detailed site surveys required to progress the project. We are currently working with SEPA on how the scope of the monitoring and recording is to be defined. However, we have already submitted information to SEPA prior to 31st March 2007 relating to the 21 outputs for which we seek sign-off.

As a result, we have identified a revised delivery profile for the WR5 outputs as follows:

Output measure specified in Ministerial Directions	Mar-07	Mar-08	Mar-09	Mar-10
Number of water sources provided with flow monitoring and recording				
ORIGINAL PROFILE	140	403	574	574
Log Down	-119	-119	-119	-119
Log up	0	0	+66	+66
REVISED PROFILE	21	284	521	521

The original profile for this year is 140 outputs but the outputs being claimed are only 21 outputs as described above. We are currently seeking formal sign-off from SEPA.

G8.11 % of population covered with water safety plans

The first batch of Drinking Water Safety Plans, covering 10% of the population has been completed to final draft form.

The methodology is defined within the Drinking Water Safety Plan Guidance Manual. As the plans have been developed, there have been minor modifications made to this manual and to the format of the plans.

The data contained within the plan used mostly corporate data sources, expanded with assessment of specific risks which are identified through audits and workshops.

G8.12-17 Waste-water Quality

G8.12 Number of unsatisfactory intermittent discharges improved

Performance this year has generally been in line with SW's Delivery Plan (May-2006) although some of the UID outputs achieved differ from those identified in the Technical Expression.

During the report year, SW has agreed various methodologies, processes and reporting templates with SEPA and the Commission to support the delivery and sign-off of the SR06 UID Programme.

These include:

- Strategic Studies 'Parallel Process' for Strategic UID Studies
- UID Methodologies & Standards
- Coastal Modelling Methodologies
- WICS 7 Stage Process
- Value Management Methodology for Strategic UID studies
- UID Output Principles (final agreement pending)

All of the above are being implemented where required across the entire SR06 UID Programme.

Forecasts of outputs in future years are based on SW's Revised Delivery Plan (Mar-07 Update) and show a significant delay to that of SW's May 2006 Delivery Plan. This is due to delays in the delivery of the UID Catchment Studies from which the output is used to confirm UIDs' needs and identify solutions, both of which are agreed with SEPA and WICS (where required).

As a large portion of this programme is still in the 'Needs Confirmation and Catchment Strategy/ Solution Development' phases, there is inevitability a level of uncertainty with forecasts of outputs in future years. It should also be noted that the UID Programme outputs may be subject to change as a result of the WICS 7 Stage Process and the Change Process. This position will become more certain during 2007/08 as the UID Catchment studies are completed and agreed with SEPA and WICS (where required).

At this point, although it is known that some changes to the SR06 UID Programme will be required, no changes have been formally agreed with the Regulators (SEPA/WICS). Therefore forecasts in this Annual Return remain based on the 277 UIDs named in the Technical Expression.

G8.13 Number of waste water treatment works' discharges improved to meet new consent requirements
Scottish Water delivered no outputs in the year 06/07, as forecast in the delivery plan. The delivery plan shows 16 outputs to be delivered in 2007/08. However, we now forecast only 14 outputs. This is due to additional impact assessments on the receiving water course, requested by SEPA on two projects, resulting in the projects being now forecasted to be delivered in 2008/09.

G8.14 Number of First Time Provision projects to meet environmental objectives in the Directions
Scottish Water delivered no output this year 2006/07, as forecast in the delivery plan. However due to the removal of 3 projects from the programme by SEPA, the inclusion of statutory surface water and agreement on commercial properties, the programme has slipped resulting in delivery of 8 outputs 2008/09 and 1 output in 2009/10.

G8.15 Number of waste water treatment works upgraded to meet existing consent requirements
Scottish Water delivered no outputs in the year 2006/07, as forecast in the delivery plan. The programme has slipped due to uncertainties over the rules and scope of the programme. The programme will now deliver 7 projects in 2008/09 and the remaining 11 in 2009/10.

G8.16 Number of management and monitoring systems at works to meet IPPC Regulations
Scottish Water delivered no outputs in the year 06/07 due to revised interpretation of the PPC legislation by SEPA, resulting in the removal of the majority of the Water Treatment Works and the Sludge Treatment centres. On-going discussions may result in the removal of all Water Treatment Works and the Sludge Treatment Centres. At present the revised delivery plan is to deliver 1 output in 2007/08.

G8.17 Number of landfill sites contained, monitored and decommissioned
Scottish Water delivered 2 outputs in the year 06/07 as detailed in the delivery plan. The remaining outputs will be delivered as planned.

G8.18-23 Development Constraints

G8.18 – G8.19 Provide strategic capacity at water and waste water treatment works

Our targets for the provision of Strategic Capacity at water and waste water treatment works have been met by a combination of strategic capacity provided by construction and development enabled ahead of future investment. Where investment is planned, Scottish Water has allowed development to proceed either on the understanding that a greater operational risk may result in the short term or, where required, with the agreement of the relevant regulator.

The profile for the delivery of strategic capacity throughout this regulatory period is based on the projections of growth from our growth model. As projects progress through the CAPEX process definitive numbers will be reviewed.

The outputs for strategic capacity delivered at water and waste water treatment works this year have come from a variety of projects across Scotland. Projects have been promoted as growth only and growth delivered as a secondary driver to projects with, for example, quality and capital maintenance drivers.

The output profile will be revisited regularly as project outputs are confirmed through our CAPEX approvals process.

Confidence grades for the information provided falls under a B2 category. Information is held in a number of corporate and stand alone spreadsheets. However, a single source spreadsheet, referred to as the growth tracker, is used as the official source.

Major efforts are underway to rationalise information sources and to identify a single corporate source supported by robust data management and auditing for future years' reports.

G8.23 Properties relieved from development constraint

The figures for properties relieved from development constraint are calculated from the Population Equivalent growth provided at both water and wastewater treatment works divided by the average household occupancy rates. Projected average occupancy rates are published for each local authority in Scotland. The household occupancy rate for the 2010 Scottish average is 2.11. This figure is used for general calculation process. Properties relieved from development constraint are in line with Delivery Plan targets.

G8.24 Introduction of Competition

The target for 2006/07 was to install 4500 meters, given the experience of the pilot phase. Out-turn was 4391 but there were 208 installation proposals which were delayed, beyond 31/03/07, due to a number of factors such as noticing required, and gaining agreement with the customer.

G8.25- G8.26 Additional Capital Maintenance Allowance

G8.25 SEPA priorities for capital maintenance expenditure (£20m)

There were no specific yearly output targets set for this investment other than the 4 year investment value of £20m by 2009/10. SW and SEPA have agreed a methodology for defining qualifying capital maintenance investment. This is predominantly for Wastewater Pumping Station improvements. In addition to agreeing the methodology, SW and SEPA have agreed a Phase 1 list of qualifying projects and these are currently being progressed.

During the report year, SW has developed and agreed with SEPA an investment strategy (methodology and process) for this specific Capital Maintenance – Environmental Additions investment.

This has been the first year of this specific Capital Maintenance – Environmental Additions investment, requiring the development and agreement of an investment strategy prior to the definition of qualifying projects. Following agreement of the investment strategy, a Phase 1 of qualifying projects has been agreed and is being implemented. Significant investment is anticipated during 2007/08. However, this cannot be predicted accurately as the scope and costs of agreed projects remain uncertain (as the majority are still in feasibility/detailed stages of project development) and additional projects, Phase 2, are anticipated to be agreed with SEPA during 2007/08.

G8.26 DWQR priorities for capital maintenance expenditure (£10m)

Discussions are currently under way with the DWQR to agree the programme of spend totalling £10m over the four year period. The forecasts are an indication of the expected profile, but may be adjusted after the programme is agreed.

G8.27-29 Leakage

G8.27 First pass Economic level of leakage estimated and presented to Commission

External consultants have presented their views and proposed approach to ELL determination to Scottish Water. Scottish Water has undertaken an ELL review internally, which included further clarifying data requirements and issues. This work is to be used in scoping the first pass ELL review and inform the consultants to be appointed to assist Scottish Water in determining first pass ELL.

Scottish Water is to appoint consultants to assist in the determination of first pass ELL for submission/agreement with the Commission by the end of December 2007. Currently the scope of the review is being finalised and it has been agreed with the Commission that bi-monthly meetings will be held to monitor progress.

G8.28 DMA coverage to include 96% of connected properties in Scotland

During the year, Scottish Water has established a programme of 33 Work Packages aimed at delivering 96% DMA coverage (by property) by the end of March 2008. By the end of March 2007, DMA coverage (by property) had increased to 70.5%, inline with the programme to 96% coverage.

G8.29 Revised ELL presented to the Commission

Subsequent to first pass ELL determination, Scottish Water will further progress ELL determination with the intention of presenting a revised ELL by the end of December 2008.

G8.30-40 Water Resource Studies

G8.30 - Initial Water Resource Plan submitted to SEPA

This is accepted by SEPA as a stepping stone towards a robust WRP in April 2008 which will be used to underpin our SR10 request for funding in our supply demand balance deficits.

G8.31 Technical studies complete for the 37 water resource zones subject to the Birds & Habitats Directive

We produced a technical studies report covering 37 WRZ with Birds and Habitats Directive (B&HD) Driver by 31 October 2006 demonstrating that further work required in only 11 WRZ. We achieved sign off from SEPA and SNH.

G8.32 Technical studies complete for the 41 water resource zones subject to the Water Framework Directive

Production of detailed Technical Studies reports relating to Water Framework Directive compliance (covering 78 (not just 41) WRZ) to SEPA and WIC (represented by Arup) was completed by 31 March 2007.

G8.33 Detailed Plan available for the work required in each of the 37 zones (Birds and Habitats Directive)
We produced a further detailed scoping document by 30 March 2007 for the aforementioned 11 remaining WRZ where work is required to meet the needs of B&HD.

G8.34 Quantified costs and timescales for the 37 zones where work is straightforward (Birds and Habitats Directive)
It was agreed with SEPA that none of the remaining B&HD zones were "straightforward" and therefore no costs and timescales could be quantified.

G8.35 Agree with DWQR scope and timescales for changes to address drinking water quality issues in the 37 water resource zones subject to the Birds and Habitats Directive
It was agreed in writing with DWQR that there were no changes to the WQ programme at this stage as a result of studying our compliance with B&HD.

G8.36 Flow gauging strategy agreed with SEPA and installation commenced
The Flow Gauging Strategy is to be produced and agreed with SEPA by 30 April 2008. The strategy is currently being delivered through the Implementation Plan and low flow data currently being collected (spot gauging and permanent gauging stations).

Scotland is leading England & Wales and the rest of Europe in the implementation of the Water Framework Directive (WFD). This requires us to study the impact of WFD and deliver within the same four year period. This is an enormous challenge given the uncertainty in the national guidance of this emergent piece of environmental legislation. The Commission recognised this uncertainty and therefore this process is being delivered through the WIC 7-stage process. This has required significant liaison with SEPA and the Commission throughout (being managed by a joint Programme Steering Group).

This is the first year of an entirely new area of investment. The methodologies have been developed in collaboration with SEPA over the last year to enable the production of the technical studies.

Locking down the guidance from SEPA proved to be very difficult due to the emergent nature of WFD and SEPA's need to provide consistency in guidance between various sectors within Scotland and cross-check against the rest of the UK and Europe. Despite this, all the deliverables have been achieved.

G8.41-49 UID Strategic Studies

Delivery of the four named Strategic UID Studies (Portobello, Glasgow, Meadowhead and Stevenston) has progressed in line with the milestone dates set out in our May 2006 Delivery Plan. With the exception of a small area of Glasgow (3 UIDs in the Daldowie South area), Technical Studies were submitted to SEPA and WICS Advisor (Arup) by the due dates. Achievement of these milestones have been acknowledged by SEPA.

It has become apparent during this report year that the milestone dates set down for 'Complete detailed design, receive tenders and present results to WICS & SEPA' were unachievable and it was anticipated that these could be delayed by up to 9 months. The original dates assumed traditional detailed design and then going out to competitive tender. However, by adopting alternative procurement strategies which are currently being developed, SW anticipates that these delays will be significantly reduced.

As stated in the commentary above for Line G8.12, there is inevitability a level of uncertainty with forecasts of some of the future milestone dates e.g. 'Construction complete for all UIDs'. The confidence grades applied reflects the fact that at this time there is a lack of clarity around what

actually requires to be constructed. This will improve as the needs are refined and the value management process is followed confirming catchment strategy and solutions.

G8.50 – 54 Progress with Quality and Standards 3 sign off

The process for submission of outputs for sign-off has been developed with DWQR and SEPA and the first projects have been submitted.

Table G9 Q & S 3 Ministerial Objectives - Serviceability

G9.1- G9.6 Water Serviceability Indicators (Annual Measure)

Data for lines G9.1 – G9.3 table are for the calendar year 2006 and are extracted from the Laboratory Information Management System. There was no previous Table G9 and therefore comparison can only be made with the Delivery Plan forecasts.

The zones in lines G9.1 and G9.2 are regulation water supply zones as defined in The Water Supply (Water Quality)(Scotland) Regulations 2001, i.e. an area designated for the purpose of the Regulations with a population of not more than 100,000 and in which all the premises are supplied for domestic purposes from the same water source or combination of water sources.

The number of zones tested for iron and manganese (lines G9.1 and G9.2) and microbiological failures (line G9.3) has decreased in comparison with 2005 due to rationalisation of water treatment works.

G9.1 % of compliant zones for Iron
The target for 2006 was 87.5% whereas the performance for % of compliant zones for Iron is 87.84%.

G9.2 % of compliant zones for manganese
The target for 2006 was 94% whereas the performance for % of compliant zones for Manganese is 92.43%.

G9.3 Number of microbiological failures at water treatment works
The target for 2006 was 90 whereas the number of microbiological failures at WTW is 70.

G9.7-11 Waste Water Serviceability Indicators (Annual Measure)
The low confidence grades applied to the March 2006 column reflect the reported position in last year's Return and improvement have been made for AR07. It should be noted that the figures used in G9.8 refer to all sewers whereas the figures in the B Tables relate to main sewers only.

G9.10 Number of unsatisfactory intermittent discharges
During the report year, SW has continued to complete the delivery of Q&SII uCSO outputs (25 nr unique to Q&SII) and to commence delivery of Q&SIII UID outputs (25 nr). This has largely been in line with SW's SR06 Delivery Plan (May-06).

Additionally, SW has reviewed the original 867 'baseline position' (Mar-06) for the number of UIDs as the figure was known to be inaccurate. Reasons for change include:

- changes to agreed UID list post setting of baseline figure (Feb-05)
- increase in the number of Q&SII uCSOs overhanging into Q&SIIIa
- exclusion of Dual Manhole UIDs from the determination of the baseline figure

As a result SW is reporting a revised Mar-06 baseline position of 965.

Within this line, we have included Dual Manhole and Unsatisfactory Surface Water Outfall UIDs. This is to be consistent with Line G8.12 'Number of Intermittent Discharges Improved' which includes 19 of these UID outputs. However, it should be noted that within Line B8.12, such UIDs have been specifically excluded by the WICS definitions.

It should also be noted that the Q&SIII UID Programme outputs may be subject to significant change (removals, log ups & log downs) as a result of the WICS 7 Stage Process and the Change Process. This position will become significantly more certain during 07/08 as the UID Catchment studies are completed and agreed with SEPA and WICS (where required). Together with other reasons for changes (e.g. Q&SII uCSO delivery), all future changes to this baseline figure will be tracked and a full audit trail will be available for each change.

Further to the revision of the 'baseline' figure (i.e. Mar-06 position), actual and forecast performance has been determined as follows:

- 06/07: 'baseline' LESS Q&SII uCSO outputs (25 nr*) LESS Q&SIIIa UID outputs (25 nr)
- 07/08 to 09/10: 'previous year' LESS [Q&SII uCSO outputs (X nr*) LESS Q&SIIIa UID outputs (Y nr)

**These are 'unique' overflows that do <u>not</u> also appear in the Q&SIII UID programme. Some overflows can appear in both programmes with the Q&SIII UID having an additional objective to that defined in Q&SII e.g. new quality driver giving rise to further improvements being required.*

At this point, although it is known that some changes to the SR06 UID Programme will be required no changes have been formally agreed with the Regulators (SEPA/WICS). Therefore all forecasts remain based on the 277 UIDs named in the Technical Expression.

G9.11 Number of pollution incidents

During this report year SW continued to record pollution incidents using its own definitions and procedures. Additionally, in Dec 06, SW agreed with SEPA and WICS that 1) in future years, SEPA would report SW's Pollution Incidents performance to WICS; 2) SEPA will utilise pollution incident 'category definitions' that are consistent with those used in England & Wales by the Environment Agency; 3) SW and SEPA would work together to agree new and/or improved processes to aid the robust reporting of pollution incidents arising from SW assets; and 4) SW and SEPA will work closely together during the period Apr 07 to Mar 08 to agree SW's 'baseline' performance for use in future years and this is reflected in the confidence grades applied.

Since Jan 07, E&W definitions for pollution incident categories are being used to classify all pollution incidents. These definitions have been rolled out across both SEPA and SW.

Additionally, SEPA and SW are working together to improve the quality of reporting and recording of pollution incidents within both organisations, including significantly improving the alignment of each others' records such that there is a jointly agreed list of incidents, their categories and their source (cause). SEPA and SW will use the data collated during 2007/08 to define and agree the baseline performance figure for SW and this will then be used as a serviceability target for SW for 2008/09 and 2009/10.

As this is the first year we have produced data for this indicator, no comment can be made on trends. However, it is anticipated that the figure reported for the year 06/07 is likely to be under-reported and it is expected that future years may show the number of incidents as higher than the 524 reported for 2006/07 and the notional target of [555] stated in the Ministerial Directions.

H Tables – Asset Inventory and System Performance

General comments

The H tables present the asset stock of Scottish Water by:

- Asset category (e.g. type of water treatment);
- Design capacity;
- Condition grade;
- Performance grade;

The methodology applied to the analysis of our asset stock remains unchanged from last year. This enables a comparison with previous year's Annual Returns.

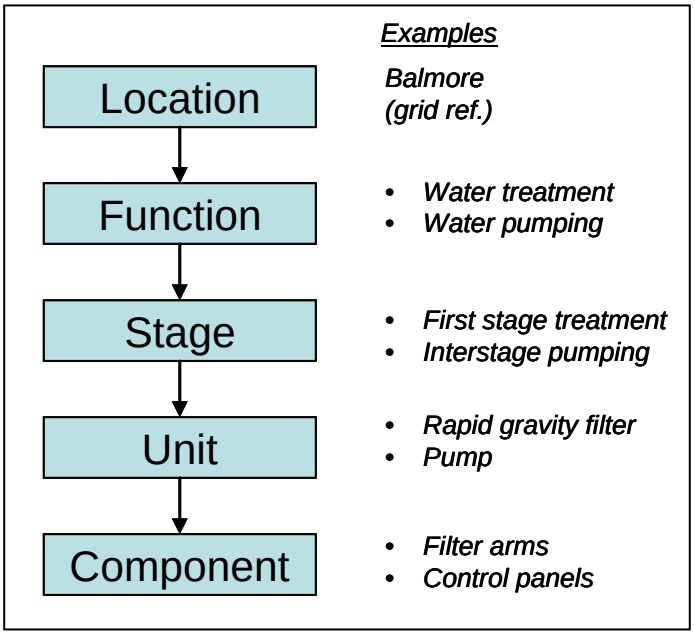
However, the basis of the current valuation Equivalent Asset Replacement Costs (EARCs), will be replaced in Annual Return 2008 by a modern equivalent asset valuation.

Modern Equivalent Asset Valuation

We are currently working on our asset revaluation project which we intend to have completed by 31 December 2007. This will generate a MEAV of the asset inventory as at 31 March 2007. This will allow us to identify the changes in valuations by comparison with the EARC and to explain the change in each category of asset. We will then apply the MEAV methodology for our Annual Return in June 2008, applied to the asset inventory as at 31 March 2008.

Non-infrastructure inventory hierarchy

We clarified and slightly changed the hierarchy of our non-infrastructure inventory during 2006/07. The new structure is shown diagrammatically (below).



Previously, the highest level in the inventory was the "site". We have replaced this with two levels: "location" and "function". This enables our inventory to reflect the arrangement of many of our larger locations which have multiple functions.

Our Balmore location is described as an example. Previously this was held in our inventory as a site of type 'Water Treatment Works'. This disguised the other functions at Balmore of water

pumping and treated water storage. As a result, a simple interrogation of the inventory would have under-reported the number of water pumping stations and service reservoirs. That is why, in previous years, we were obliged to undertake significant manual adjustment of our inventory data for entry into the Annual Return tables.

This year, for the first time, we have been able to report our asset inventory for the Annual Return directly from our corporate systems. The inventory now shows each function separately with its associated stages, units and components.

Costing methodology

Our costing methodology is unchanged from previous years. We derive the gross value of each asset from a costing matrix, dependent on the asset's function and design capacity. The costing is performed at 'Function' level in the asset hierarchy shown above for non-infrastructure assets. The cost matrix has been indexed by the Construction Price Index (COPI) from 2005/06 to 2006/07 (from 151 to 158), an increase of 4.64%. This generates a gross valuation for each non-infrastructure function, and each class of infrastructure asset (water mains, sewers etc.).

Infrastructure assets are presented with their gross valuation only. We do not derive a depreciated (net) value of infrastructure assets.

The net valuation for non-infrastructure assets is derived using the same methodology as previous years. We infer from the condition and performance grade of each unit of each asset (i.e. Unit level in the hierarchy above) a remaining life. The net valuation is derived as a function of the remaining life as a proportion of the design life of the asset. The net valuations of the units are then consolidated and presented in these tables in aggregate, by remaining life, condition and performance grade. The methodology necessarily leads to valuations at unit level, not function level. For example, the civil and electrical components of a water treatment works may have very different asset lives, condition and performance grades. The valuation for the units within that water treatment works will therefore appear as many components within many cells of these H tables. There is no single value of 'remaining life', 'condition grade' or 'performance grade' for that water treatment works.

Inventory improvements during 2006/07

Non infrastructure site surveys

We have recognised that we were hindered in prior years in accurate reporting of our asset inventory because we had no single asset inventory which was routinely used for work management and regulatory reporting.

We have undertaken major initiatives during 2006/07 to remedy the shortcomings of the inventory. In addition to amending the hierarchy (described above) we have surveyed most above-ground sites to provide confidence in the accuracy of the inventory. In this way, we are making the inventory the everyday tool of our planners and work schedulers, such that they will own and maintain the information it contains.

Between September 2006 and March 2007, we surveyed 5,246 operational sites. The survey was undertaken from location level down to unit level as defined in the diagram above. We surveyed:

- all operational water and waste water pumping stations;
- all operational treated water storage facilities;
- all operational secondary disinfection facilities;
- many operational treatment works were surveyed, the remainder having been surveyed three years prior to the 2006/07 project

Separately, we undertook floor area surveys of non-operational buildings to improve the valuations we quote in table H6.

Table H1: Functions surveyed on site

Function type (Ellipse code)	Sites (functions) surveyed 2006/07	Previous surveys in 2003 - 2005
Sewage Pumping Stations (SPS)	1839	
Sewage Treatment Works (STW)	836	104
Sludge Treatment Centres (STC)	21	
Treated Water Storage (TWS)	1576	
Water Pumping – ground water source (GWS), raw water pumping (RWS) and treated water pumping (TWP)	641 (82, 60, 499)	
Water Treatment Works (WTW)	81	226
Secondary Disinfection (SDN)	252	
Total	**5246**	

The 2006/07 project did not survey: raw water aqueducts; dams and impounding reservoirs; raw water intakes; sewer structures; distribution structures and septic tanks.

As a result of the surveys, together with the revisions to the asset hierarchy:

- 158 operational Functions were added to the inventory;
- 97.7% of surveyed Functions now show a design capacity, compared with 50% before the surveys;
- design capacities and other data fields each have confidence grades assigned;
- photographs (and in some cases videos) were taken of all process stages, providing a pictorial audit trail and valuable information for office-based staff;
- simple process diagrams were produced, identifying process stages and units;
- units were assessed for condition and performance grade, in accordance with water industry standard definitions.

The site surveys were undertaken under rigorous quality assurance. We used three principal firms of contractors and assigned each firm to undertake sample checks of the work of the other firms to demonstrate consistent application of the survey manual. The manual was issued to all survey staff as part of their training, and included definitions and sample photographs to indicate different types of asset in each condition grade.

Infrastructure inventory data improvement project

We have also undertaken a major project to fill gaps in our infrastructure inventory, through a combination of:

- searching for archive drawings and then entering the data onto our GIS infrastructure inventory;
- inferring attributes for pipes and sewers (such as size, age, material, condition) where this can be assessed confidently from adjacent assets (such as the age of a housing estate, the age of adjacent pipes and sewers, or the size of the adjoining pipes or sewers);
- undertaking ad hoc surveys to gather information from site (such as for long sea outfalls)

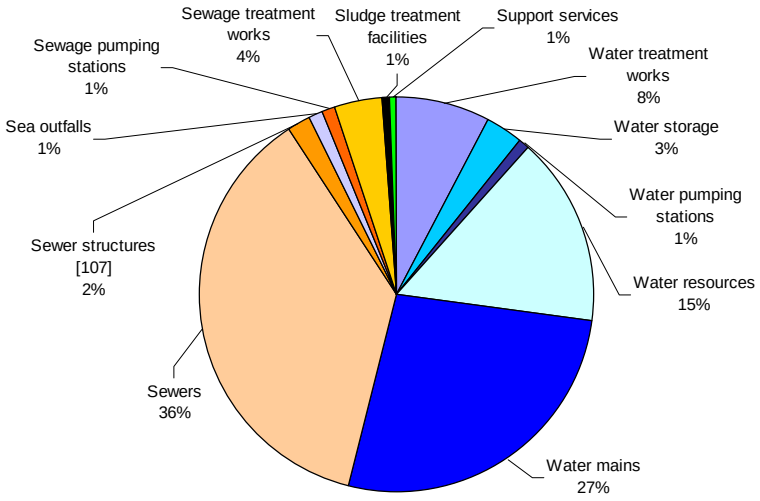
Table H1: Summary

Comparison of gross valuations for 2005/06 and 2006/07

Asset type	2005/06 value (£m)	2006/07 value (£m)	% gross value	Change in year	% change in year
Water treatment works [101]	£ 1,880.20	£ 2,349.01	7.71%	£ 468.81	25%
Water storage [102]	£ 948.80	£ 985.21	3.23%	£ 36.41	4%
Water pumping stations [103]	£ 262.30	£ 219.51	0.72%	-£ 42.80	-16%
Water resources [104]	£ 4,620.60	£ 4,698.04	15.42%	£ 77.44	2%
Water mains [105]	£ 7,712.80	£ 8,129.02	26.69%	£ 416.22	5%
Sewers [106]	£10,721.80	£ 11,323.70	37.17%	£ 601.90	6%
Sewer structures [107]	£ 458.23	£ 538.70	1.77%	£ 80.47	18%
Sea outfalls [108]	£ 370.27	£ 398.26	1.31%	£ 27.99	8%
Sewage pumping stations [109]	£ 289.78	£ 295.07	0.97%	£ 5.29	2%
Sewage treatment works [110]	£ 1,142.71	£ 1,175.44	3.86%	£ 32.72	3%
Sludge treatment facilities [111]	£ 166.81	£ 159.21	0.52%	-£ 7.60	-5%
Support services [112]	£ 183.04	£ 191.70	0.63%	£ 8.66	5%
Total	**£28,757.34**	**£ 30,462.85**	**100%**	**£ 1,705.51**	**6%**

The gross valuation has increased by 6% from £28.8 billion in 2005/06 to £30.5 billion in the report year. The increase is predominantly due to the 4.6% inflation in the construction price index, COPI, together with recategorisation of a number of water treatment works, which is explained in the commentary to table H1.

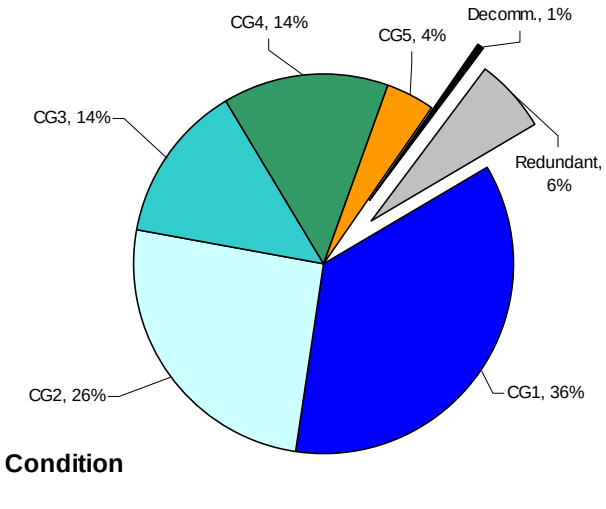
The gross valuation is dominated by the infrastructure assets – sewers and water mains – whose valuations have risen by 6% and 5% respectively because of COPI inflation and the infrastructure data improvements which have augmented the inventory.



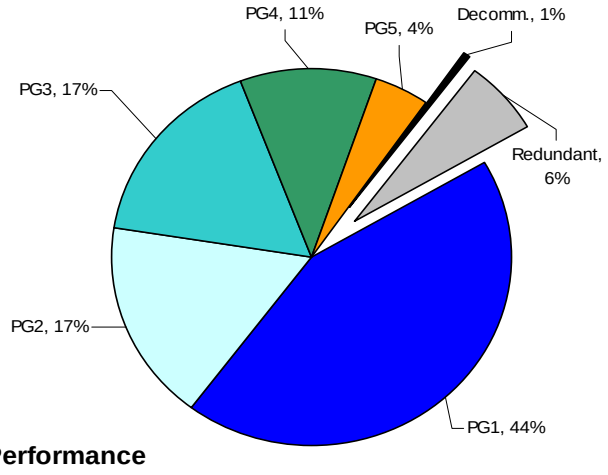
Our methodology, for the report year and for previous years, includes gross valuation of all assets, including redundant and decommissioned assets. When we change to a MEAV methodology next year, these assets will be assigned zero value, because the modern equivalent of a redundant asset is no asset at all. In the report year, however, approximately 7% of the gross valuation relates to redundant and decommissioned assets.

The pie charts below show the proportion of the gross valuation of the assets by condition and performance grade. The proportion that is in the poorest grades, 4 and 5, is 18% and 15% by condition grade and performance grade respectively. This shows a modest improvement from 2005/06 (21% and 15% respectively) mainly as a result of the non-infrastructure asset surveys but also because of some new assets being commissioned.

It should be noted that the 'missing' confidence grade on line H1.8 is due to the cell being locked and should read as D6.



Condition



Performance

Table H2: Water Non Infrastructure

H2.1-2.8: Water Treatment Works

The total number of Water Treatment Works in this reporting year is 534. This is a reduction of 7 from the 541 reported in 2005/06. The number of operational works (including one works held in reserve for emergencies and one under construction) is 307, a reduction of 16 from last year.

Status	2004/05	2005/06	2006/07	Change
Operational	324	316	305	-11
Out of service	0	0	0	0
Emergency	3	3	1	-2
Work In Progress	6	4	1	-3
Total	333	323	307	-16
Redundant	200	210	217	7
Decommissioned	12	8	10	2
Total	**545**	**541**	**534**	**-7**

Although the number of works has not changed significantly, the gross valuation has increased by 25%. This is because we reclassified many works to align with the definitions provided by the Commission. The definitions this year were more specific and gave examples that made clear that the categorisations we had applied in previous years were no longer appropriate.

In our commentary to Table E, we show the guidance for Table E and the definitions for Table H provided by the Commission for this year's Annual Return. We noted the inconsistency in the categorisations and sought further guidance from the Commission, who advised us that, in the event of inconsistency the Table E definition should prevail. We have therefore adopted the Table E guidance for completing Table H (and allocated all W4 assets into category SW3 or GW3 for Table H).

As a result of this new clarity of definition, many assets that were previously reported in types SW1 and SW2 are now reported in type SW3. SW types relate to works that treat surface water; GW types relate to works that treat ground water (e.g. from boreholes). The changes are summarised in the table below, which shows the increase of 97 works classified as SW3 or GW3. Works of type SW3 and GW3 attract a higher valuation than those of lower types.

WTW type	2005/2006	2006/2007	Change
SW0	136	121	-15
SW1	134	82	-52
SW2	86	55	-31
SW3	111	202	91
GW0	59	57	-2
GW1	5	3	-2
GW2	6	4	-2
GW3	4	10	6
Total	**541**	**534**	**-7**

Comparison of reported design capacities from 2005/06 and 2006/07

WTW type	Total design capacity 2005/06 (Ml/day)	Total design capacity 2006/07 (Ml/day)	Change (Ml/day)
SW0	1153.0	697.4	-455.6
SW1	271.5	157.2	-114.3
SW2	1311.1	728.2	-582.9
SW3	1386.9	2661.0	1274.1
GW0	82.9	67.0	-15.9
GW1	13.1	2.1	-11.0
GW2	30.9	68.0	37.2
GW3	12.6	32.4	19.8
Total	**4262.0**	**4413.3**	**151.3**

The table above shows that the total design capacity has increased by 3.5%. Although the total number of Water Treatment Works has reduced, the non-infrastructure site surveys have provided greater confidence in the design capacities of works, leading to an overall increase in reported capacity.

Asset valuation

The asset valuation for the reporting year has risen from £1.880 billion to £2.349 billion. This increase is primarily due to the reclassification of the WTW types, in addition to the 4.6% rise in COPI.

Condition and Performance

The tables below show that the overall percentage of total gross value being banded in condition and performance grades 4 and 5 has reduced since 2005/06.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£178.8m	£150.3m	£144.6m	-£5.7m
10%	8%	6%	-2%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£266.2m	£212.9m	£160.7m	-£52.2m
15%	11%	7%	-4%

H2.9 and 2.10: Water Storage

The total number of Water Storage assets reported in this reporting year is 2,097. This is a reduction of 27 from the 2124 reported in the previous reporting year.

Status	2004/05	2005/6	2006/7	Change
Operational	1612	1555	1519	-36
Out of service	38	32	9	-23
Emergency	5	4	1	-3
Work In Progress	1	2	1	-1
Total	1656	1593	1530	-63
Redundant	506	511	538	27
Decommissioned	23	20	29	9
Total	**2185**	**2124**	**2097**	**-27**

Comparison of reported design capacities from 2005/06 and 2006/07

Water storage type	Total design capacity 2005/06 (Ml)	Total design capacity 2006/07 (Ml)	Change (Ml)
Service reservoirs [209]	4,676.2	4,792.8	116.6
Water towers [210]	43.9	46.8	2.9
Total	**4,720.1**	**4,839.6**	**119.5**

Notwithstanding the reduction of 27 assets, the overall reported design capacity has increased by 2.5%, principally because of the improved information gained from the non-infrastructure site surveys.

Asset valuation

The asset valuation for this reporting year has increased from £948.8million to £985.2million, broadly in line with the rise in COPI.

Condition and Performance

The tables below show that the overall percentage of total gross value being banded in condition and performance grades 4 & 5 has reduced since 2005/06. This reduction results principally from the better information acquired through the non-infrastructure site surveys.

Condition percentage and value in Grade 4 &5

2004/05	2005/06	2006/07	Change
£72.9m	£77.7m	£33.4m	-£44.3m
8%	8%	5%	-3%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£65.4m	£66.4m	£35.9m	-£30.5m
7%	7%	4%	-3%

H2.11-2.13: Water pumping stations

The number of Water Pumping Stations in this reporting year is 1,021. This is a reduction of 14 from 1035 reported in the previous reporting year.

Status	2004/05	2005/6	2006/7	Change
Operational	652	647	640	-7
Out of service	7	7	8	1
Emergency	27	28	19	-9
Work In Progress	1	2	2	0
Total	687	684	669	-15
Redundant	336	336	331	-5
Decommissioned	13	15	21	6
Total	**1036**	**1035**	**1021**	**-14**

Comparison of reported design capacities from 2005/06 and 2006/07

Water pumping type	Total design capacity 2005/06 (kW)	Total design capacity 2006/07 (kW)	Change (kW)
Intake [211]	18,877.7	20,453.8	1576.1
Source [212]	21,970.4	11,415.6	-10,554.8
Booster [213]	47,981.6	34,119.8	-13,861.8
Total	**88,829.7**	**65,989.1**	**-22,840.5**

The table above shows that the total design capacity has reduced by 26%. Although the number of pumping stations has reduced by 14, the main factor which caused the design capacity to reduce was the non-infrastructure site surveys.

Asset valuation

The revised design capacities have led to a 16% reduction in the reported gross valuation for water storage, decreasing from £262.3 million in 2005/06 to £219.5million in the report year.

Condition and Performance

The tables below show that the overall percentage of total gross value being banded in condition and performance grades 4 & 5 has reduced since 2005/06. This reduction results principally from the better information acquired through the non-infrastructure site surveys.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£21.6m	£25.5m	£14.7m	-£10.8m
9%	10%	7%	-3%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£22.1m	£31.1m	£16.3m	-£14.8m
9%	12%	7%	-5%

Table H3: Water Infrastructure

H3.1-3.2: Water Resources – Dams & Impounding Reservoirs, raw water intakes

The total number of Water Resources in this report year is 985. This is a reduction of 38 from the 1,023 in the previous reporting year. In the report year, we sold 25 resources, demolished a further one and reduced the inventory by a further net 12 following our non-infrastructure asset reviews.

We explain in our commentary to the E tables that we have reflected the Commission's newly clarified definitions of a water source for the purposes of that table, which led to a reduction of 165 in the number of sources reported there. However, the definitions for these H tables do not require the same amalgamation of water sources and we present the information here that relates to each water source, regardless of whether a water treatment works is fed by more than one source. Therefore the number of sources stated in lines H3.1 and H3.2 is greater than the number stated in line E4.5

Status	2004/05	2005/06	2006/07	Change
Operational	611	522	516	-6
Out of service	7	6	6	0
Emergency	22	12	12	0
Work In Progress	1	1	1	0
Total	641	541	535	-6
Redundant	428	470	440	-30
Decommissioned	14	12	10	-2
Total	**1083**	**1023**	**985**	**-38**

Comparison of reported design capacities from 2005/06 and 2006/07

Water resource type	Total Yield 2005/06 (Ml/day)	Total Yield 2006/07 (Ml/day)	Change (Ml/day)
Dams and impounding reservoirs [301]	6,070.2	5,886.7	-183.5
Raw water intake (lochs and burns) [302]	5,155.7	4,929.2	- 226.5
Total	11,225.9	10,815.9	-410.0

We did not survey dams and impounding reservoirs, nor raw water intakes. Therefore, our inventory is not fully populated with design capacities. To interpolate for missing data, we grouped the sites by category ([301] or [302] above), then grouped them by region and interpolated capacities for sites where we had no other information. The information relating to water resources is therefore shown with confidence grade C5. Our analysis indicates a reduction in total design capacity of 3.7%, consistent with the reduction in the number of reported sources.

Asset valuation

The asset valuation for the report year has increased from £3,443.6million to £3,472.4million, an increase of £28.8 million. This 1% increase arises mainly from the 4.6% increase in COPI, offset by the reduction in numbers and total capacity of water resources.

Condition and Performance

The tables below show that the overall percentage of total gross value being banded in condition and performance grades 4 & 5 has reduced since 2005/06. This reduction results principally from desktop reviews of the condition and performance grades in the inventory for water resources, at the time of entering data from the site surveys for water treatment works. This improved our ability to interpolate condition and performance grades for water resources in the inventory where none was previously recorded.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£356.3m	£337.7m	£348.6m	£10.9m
9.6%	9.8%	10%	0.2%

performance Percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£238.5m	£132.0m	£124.6m	-£7.4m
6.4%	3.8%	3.6%	-0.2%

H3.3: Water Resources – Raw Water Aqueducts

The total length of Raw Water Aqueducts in this report year is 1,832km. This is a reduction from the 1,905km in 2005/06. This 4% reduction arises principally from the updated records on major aqueduct works on the Katrine project and the reclassification of raw water networks at redundant sites.

Asset valuation

The asset valuation for the report year has increased from £1,177 million to £1,225 million. This increase can be explained by the rise in COPI, partially offset by the reduction in the reported total length of Raw Water Aqueducts.

Condition and Performance

The tables below show that the overall percentage of total gross value being banded in condition and performance grades 4 & 5 has reduced significantly since 2005/06. This reduction results principally from the improved interpolation of missing data.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£430m	£585.9m	£476.1m	-£109.8m
39%	50%	39%	-11%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£469.4m	£429.9m	£347.7m	-£82.2m
42%	37%	28%	-9%

H3.4: Water Mains – Mains Potable

The total length of potable mains in the report year is 47,218km. This is an increase from 46,942km in 2005/06. This 0.6% increase is a result of the infrastructure inventory data improvement project.

Asset valuation

The asset valuation for this reporting year has increased from £6,867.8 million to £7,243.9 million. This 5% increase results from the combination of the rise in COPI and the small increase in the length of potable mains.

Condition and Performance

The tables below show that the overall percentage of total gross value being banded in condition and performance grades 4 & 5 has reduced since 2005/06. This reduction results principally from the improved information generated through the infrastructure inventory data improvement project.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£2,300m	£2,320.8m	£1,934.5m	-£386.3m
36%	34%	27%	-7%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£1,703.5m	£1,222m	£1,316.8m	£94.8m
26%	17.8%	18.2%	0.4%

H3.5: Mains other

Asset Stock

The total length of other mains in the report year is 139.3km. This is a reduction of 1.4km from the 140.7km in 2005/06. This 1% reduction has arisen because a few large industrial sites have been decommissioned, on which the fire mains were previously categorised by us as “Other Mains”.

Asset valuation

The asset valuation for this reporting year has increased from £16.8 million to £17.3 million. This 3% increase arises because the 4.6% rise in COPI is offset by the reduction in the length of other mains.

Condition and Performance

The tables below show that the overall percentage of total gross value banded in condition and performance grades 4 & 5 has reduced by 3% since 2005/06 based on condition grade but increased by 1% based on performance grade.

Condition Percentage and value in Grade 4 & 5

2004/5	2005/6	2006/7	Change
£6.3m	£4.5m	£4.2m	-£0.3m
36%	37%	24%	-3%

Performance Percentage and value in Grade 4 & 5

2004/5	2005/6	2006/7	Change
£8.9m	£6.1m	£6.4m	£0.3m
51%	36%	37%	1%

H3.6: Communications Pipes (Lead)

Asset Stock

The total number of lead communications pipes in the report year is 780,051. This is a decrease of 176,459 from 2005/06. This 18% fall is due to: (a) the updating of the communications pipe inventory to the more recent address point data and age basis for housing stock; (b) the effect of lead surveys (i.e. physical site inspections) which have also reduced the inventory; and (c) our lead replacement scheme, which has replaced customers’ lead communications pipes at their request.

Asset valuation

The asset valuation for the report year has decreased from £387.4 million to £330.6 million. This reduction is consistent with the reduction in the total number of communication pipes lead, offset by the increase in COPI.

Condition and Performance

It can be seen from the tables below that we continue to consider all lead communications pipes to be in condition grade 4 or 5 (because they should be replaced). However, the performance of the pipes is not necessarily poor, although this year we have increased our estimate of the proportion that is in performance grades 4 & 5 to 4% from the 1% we reported last year.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£366.7m	£387.4m	£330.7m	-£56.7m
100%	100%	100%	0%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£1.5m	£2.4m	£12.7m	£10.3m
0.4%	1%	4%	3%

H3.7: Communications Pipes (other)

The total number of other communications pipes (i.e. not lead) in the report year is 1,006,041. This is an increase of 167,300 from the 838,741 in the previous reporting year. This 20% increase is mainly the consequence of the changes in the inventory of lead communications pipes (above). Where we update our inventory to remove a lead communications pipe, we replace it with another material.

Asset valuation

The asset valuation for the report year has increased from £339.7 million to £426.1 million. This 25% increase results from the increase in the reported number of other communications pipes, together with the rise in COPI.

Condition and Performance

The tables below show that the percentage of the value of other communications pipes that are banded in grades 4 & 5 has reduced since 2005/06, consistent with our programme of replacement.

Condition percentage and value in Grade 4 & 5

2004/05	20050/6	2006/07	Change
£46.1m	£60.2m	£50.4m	-£9.8m
15%	18%	12%	-6%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£1.7m	£52.9m	£34.8m	-£18.1m
1%	16%	8%	-7%

H3.8: Water Meters

The total number of water meters in this reporting year is 110,555. This is an increase of 5,701 from the 104,854 in the previous reporting year. This 5.4% increase is mostly due to the programme of meter installation for non-household properties.

Asset valuation

The asset valuation for the report year has increased from £101.1 million to £111.1 million. This 10% increase arises from a combination of the increase in the number of water meters and the rise in COPI.

Table H4: Wastewater Infrastructure

H4.1: Sewers – Critical Sewers

The total length of Critical Sewers in the report year is 10,837km, a marginal increase of 16km from the reported length in 2005/06.

Asset valuation

The asset valuation for the report year has increased from £4,170.4 million to £4,479 million. This increase is principally a result of the rise in COPI.

Condition and Performance

The tables below show that our infrastructure inventory data improvement project has led to a very small reduction in the percentage of critical sewers in condition grades 4 and 5, but to a marginal 2% increase in the proportion in performance grades 4 and 5.

Condition percentage and value in Grade 4 & 5

20040/5	2005/06	2006/07	Change
£804.4m	£395.7m	£393.5m	-£2.2m
18%	9.5%	8.8%	-0.7%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£463.6m	£590.1m	£705.7m	£115.6m
10%	14%	16%	2%

H4.2: Sewers – Non Critical Sewers

The total length of Non Critical Sewers in the report year is 37,286km, an increase of 62km from the 37,224km in 2005/06. This 0.2% increase can be explained by the improvements made though infrastructure inventory data improvement project.

Asset valuation

The asset valuation for this reporting year has increased from £6,398.8 million to £6,676 million. This 4% increase results mainly from the rise in COPI.

Condition and Performance

The tables below show that our infrastructure inventory data improvement project has led to a very small 1% reduction in the percentage of critical sewers in condition grades 4 and 5, but to a 1% increase in the proportion in performance grades 4 and 5.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£1,315.1m	£1,387.1m	£1,412.8m	£25.8m
21%	22%	21%	-1%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£1,290.6m	£1,273.7m	£1,384m	£110.3m
21%	20%	21%	1%

H4.3: Sewers – Sewage and sludge pumping mains

The total length of sewage and sludge pumping mains in the report year is 944km, an increase from the 906km in 2005/06. This 4.1% increase results from the addition to our inventory of information from new site developments, as well as other infrastructure inventory data improvements.

Asset valuation

The asset valuation for the report year has increased from £152.6 million to £168.7 million. This arises from a combination of the increases in COPI and the length of sewage and sludge pumping mains.

Condition and Performance

The tables below show that our infrastructure inventory data improvement project has led to a very small 1% reduction in the percentage of sewage and sludge pumping mains in condition grades 4 and 5, but to a 1% increase in the proportion in performance grades 4 and 5.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£111.9m	£117.4m	£123m	£5.6m
5%	5%	4%	-1%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£13.9m	£22.4m	£26.6m	£4.2m
10%	15%	16%	1%

H4.4 and 4.5: Sewer Structures

The number of combined sewer and emergency overflows in the report year is 4,791, a net increase of 8 from 2005/06. The number of other sewer structures is 312, unchanged from 2005/06.

Asset valuation

The asset valuation for the reporting year has increased from £458.2 million to £538.7 million. This 18% increase is primarily due to the increase of flow rates for combined sewer and emergency overflows which have been improved by the Infrastructure improvement project. The increase in COPI has also had an impact on the valuation.

Condition and Performance

The tables below show that our infrastructure inventory data improvement project has led to a 2% reduction in the percentage of sewer structures in condition grades 4 and 5, but to a 1% increase in the proportion in performance grades 4 and 5.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£54.7m	£59.1m	£60.1m	£1.0m
14%	13%	11%	-2%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£109.5m	£136.2m	£164.6m	£28.5m
27%	30%	31%	1%

H4.6 and 4.7: Sea Outfalls

Our infrastructure inventory data improvement project has enabled us to improve our confidence in the numbers of sea outfalls, creating the changes shown in the table below.

Sea outfall type	2005/2006	2006/2007	Change
Short sea outfall [406]	1,503	1,419	-84
Long sea outfall [407]	31	35	4
Total	**1,534**	**1,454**	**-80**

Asset valuation

The asset valuation for the reporting year has increased from £370.3 million to £398.3 million. This 8% increase arises principally from the addition of 4 long sea outfalls (which are disproportionately expensive by comparison with short sea outfalls), together with the rise in COPI.

Condition and Performance

The tables below show that our infrastructure inventory data improvement project has led to a 2% reduction in the percentage of sea outfalls in condition and performance grades 4 and 5.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£41.6m	£44.2m	£46.2m	£2m
12%	12%	12%	0%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£41.6m	£44.2m	£38.4m	£5.8m
12%	12%	10%	-2%

Table H5: Wastewater Non-Infrastructure

H5.1&5.2: Sewage Pumping Stations

The total number of Sewage Pumping Stations in the report year is 1,879. This is an increase of 12 from 2005/06. 26 new sites were commissioned, 2 decommissioned, 4 demolished and there was a net reduction of 8 sites resulting from our non-infrastructure site surveys. The resultant inventory is summarised in the table below.

Status	2004/05	2005/06	2006/07	Change
Operational	1818	1828	1829	1
Out of service	2	0	4	4
Emergency	0	0	0	0
Work In Progress	0	2	6	4
Total	1820	1830	1839	9
Redundant	29	36	38	2
Decommissioned	1	1	2	1
Total	**1850**	**1867**	**1879**	**12**

Comparison of reported design capacities from 2005/06 and 2006/07

Sewage pumping station type	Total design capacity 2005/06 (kW)	Total design capacity 2006/07 (kW)	Change (kW)
In-line [501]	66,054.1	61,834.3	-4,219.8
Terminal [502]	10,719.6	12,411.5	1,691.9
Total	**76,773.7**	**74,245.8**	**-2,527.9**

The table above shows that the total design capacity has reduced by 3.3%, despite the net increase of 12 pumping stations on the inventory. Our non-infrastructure site surveys included every sewage pumping station and this has allowed us to improve greatly the quality of our information about station capacities. We now have much greater confidence in the reported design capacities.

Asset valuation

The asset valuation for this reporting year has increased from £289.8 million to £295.1 million, an increase of £5.3 million. This 2% increase represents the 4.6% rise in COPI offset by the reduction in the reported total design capacity of sewage pumping stations.

Condition and Performance

The tables below show that our non-infrastructure site surveys led to a 1% reduction in the percentage of sewage pumping stations in condition and performance grades 4 and 5.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£17.7m	£19.4m	£17.6m	-£1.7m
7%	7%	6%	-1%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£23.8m	£27.5m	£24.3m	-£3.2m
9%	9%	8%	-1%

H5.3-5.7: Sewage Treatment Works

Asset Stock

The total number of Sewage Treatment Works in the report year is 2,017, an increase from 2005/06. 19 new sites were commissioned, two sites were transferred to new owners, six demolished and a net 5 were removed from the inventory as a result of our site surveys.

Status	2004/05	2005/6	2006/7	Dif +/-
Operational	1848	1860	1848	-12
Out of service	0	0	6	6
Emergency	0	0	0	0
Total	1848	1860	1854	-6
Redundant	125	141	152	11
Decommissioned	13	10	11	1
Total	**1986**	**2011**	**2017**	**6**

Comparison of Sewage treatment works by type from 2005/06 and 2006/7

The table below shows that there has been an increase in the number of cess & septic tanks, preliminary treatment only works and tertiary treatment only works. There has also been a decrease in the number of primary treatment only works and secondary treatment only works.

Sewage Treatment Works type	2005/6	2006/7	Change
Cess & septic tanks [503]	1322	1340	18
Preliminary treatment only [504]	39	40	1
Primary treatment only [505]	77	66	-11
Secondary treatment only [506]	482	471	-11
Tertiary treatment only [507]	91	100	9
Total	**2011**	**2017**	**6**

Comparison of reported design capacities from 2005/06 and 2006/07

The table below shows that the total design capacity has increased by 4.8%. This is a consequence of the commissioning of 19 new works and the improved data quality resulting from the non-infrastructure site surveys.

Sewage treatment works type	Total design capacity 2005/06 (kg/day)	Total design capacity 2006/07 (kg/day)	Change (kg/day)
Cess and septic tanks [503]	8,376.9	9,087.1	710.2
Preliminary treatment only [504]	36,007.0	37,727.4	1,720.4
Primary treatment only [505]	100,968.0	108,158.6	7,190.6
Secondary treatment only [506]	195,062.6	201,549.4	6,486.7
Tertiary treatment only [507]	34,317.3	36,117.3	1,800.0
Total	**374,731.91**	**392,639.8**	**17,907.9**

Asset valuation

The asset valuation for the report year has increased from £1,142.7 million to £1,175.4 million. Although there has been an increase in the overall number of works and the overall capacity of works, the works that have been added are mainly cess and septic tanks which tend to have lower valuations. The reduction of primary treatment only and secondary treatment only works which tend to have higher values has meant that the overall valuation has only increased by 3%

Condition and Performance

The tables below show that our non-infrastructure site surveys led to a 4% reduction in the percentage of sewage treatment works in condition grades 4 and 5 and to a 6% reduction in the percentage in performance grades 4 and 5.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£169.4m	£145.6m	£98.0m	-£47.5m
16%	13%	8%	-4%

Performance percentage and value in Grade 4 & 5

2004/5	2005/6	2006/7	Change
£181.2m	£195.9m	£128.8m	-£67.1m
17%	17%	11%	-6%

H5.8- 5.13: Sludge treatment facilities

The total number of sludge treatment facilities in the reporting year is 20, a reduction of one site from 2005/06.

Status	2004/05	2005/06	2006/07	Change
Operational	23	21	20	-1
Out of service	0	0	0	0
Emergency	0	0	0	0
Work In Progress	0	0	0	0
Total	23	21	20	-1
Redundant	1	0	0	0
Decommissioned	0	0	0	0
Total	**24**	**21**	**20**	**-1**

Comparison of reported design capacities from 2005/06 and 2006/07

The design capacity of every site was reviewed and verified as part of the non-infrastructure site surveys. This led to an overall 19% reduction in reported design capacity but the dominant reduction arose from the closure of one cake disposal site during the report year.

Sludge treatment facility disposal type	Total design capacity 2005/06 (ttds p.a.)	Total design capacity 2006/07 (ttds p.a.)	Change (ttds p.a.)
Liquid disposal [508]	626.0	378.9	-247.1
Cake disposal [509]	35,659.8	28,980.3	-6,679.5
Compost disposal [510]	-	-	
Dried pellet disposal [511]	-	-	
Ash disposal [512]	-	-	
Other disposal [513]	-	-	
Total	36,285.8	29,359.2	-6,926.6

Asset valuation

The asset valuation for this reporting year has decreased from £166.8 million to £159.2 million. This 5% decrease has arisen because the increase in COPI has been more than offset by the reduction in design capacity of the sludge treatment facilities.

Condition and Performance

The tables below show that our non-infrastructure site surveys led to a 3% reduction in the percentage of sludge treatment facilities in condition grades 4 and 5 and to a 2% reduction in the percentage in performance grades 4 and 5.

Condition percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£4.3m	£11.3m	£6.8m	-£4.5m
3%	7%	4%	-3%

Performance percentage and value in Grade 4 & 5

2004/05	2005/06	2006/07	Change
£8.6m	£10.0m	£6.0m	-£4.0m
7%	6%	4%	-2%

Table H6: Support Services

We have made no change to the reported number or floor space of offices and laboratories, nor to the number of depots and workshops since last year. However, our site surveys have led us to reduce the reported floor area of our one single control centre in Glasgow by 57%.

The net valuation for control centres is lower in the report year than in 2005/06 because the method for calculating the net value has been updated. This year's method uses the condition grade to assume the age of the control centre. We have also updated the asset life category to be 60 years. This has resulted in a more robust net valuation.

For vehicles and plant (line H6.4), we have changed the apportionment between Band 1 (cars and light vans) and Band 2 (Class C vehicles and specialist plant) from those in 2005/06. This is due to a shift to hiring plant rather than replacing old plant, combined with the phased replacement of light vans with new purchases. Overall net values are significantly lower due to an improved data set, incorporating updated vehicle age and framework supplier price data. Accuracy grades have dropped one band due to uncertainties in the price of historical small plant assets.

There are 381 more telemetry outstations (line H6.5) reported this year (a 12% increase). This is due in part to an increase in reported operational sites following the non-infrastructure site surveys, and partly due to reviews of the baseline inventories from both the Works Management System and Open Enterprise.

There are 343 fewer information systems units reported (line H6.6) due largely to a reduction in laptop computers associated with staff reductions at the end of 2005/06. The number of servers has reduced from four to three. These reductions, combined with the reducing costs of IT hardware, have resulted in a slight reduction in gross value. However, the net valuation is significantly lower than last year because many units are now over three-years old. We have reduced the reported confidence grade for this information this year because we have used last year's value for mainframes and we believe that the replacement costs are likely to be materially different now, although we do not know whether they are more or less expensive.

Our valuation of other non-operational assets (line H6.7) is lower in band 1 (other property) due to sales of land and property in the last twelve months. All other bands have increased slightly. A recent land agent valuation has led us to increase our valuation for forestry (band 3). The minor sum shown in Band 2 (livestock) relates to 1,000 sheep.

Section P - Tariff Basket Information

General Comments

Tariffs
The tariff rates that we present in these P tables reflect the Scheme of Charges for the report year (2006/07) relating to charges to end customers. However, for the report year +1 (2007/08), the tariff rates that we present are the wholesale rates applicable to retailers. We have used the wholesale interim Scheme of Charges to derive the wholesale rates shown here.

Revenue
We report revenue in these P tables based on income earned in the report year through tariffs, based on the customer base and rateable value at a single point in time. The reported revenue will therefore differ from the revenue disclosed in the financial tables as these will include the revenue from both in-year billing and prior year accrued revenue.

Table P1 Water Service – Unmeasured Domestic

P1.1-50 Household Properties - billed unmeasured

Connected and billed household properties

The derivation of the household property numbers is explained in the commentary to line A1.1.

P1.38 – P1.46, P5.38 – P5.46
For the report year, there was a change in discount policy. Discounts for second home and long-term vacant households have been removed to fund a new discount of up to 25% for households where an occupant is in receipt of Council Tax benefit but where the household receives no other discount on water and sewerage charges. The effects are seen in the number of band D equivalents reported in lines P1.38 – P1.47 and P5.38 – P5.46.

P1.47, P5.47
The number of band D equivalent properties has decreased by approximately 9,600 to c1,863,000 as expected in last year's annual return. This reflects the introduction of the new discount policy.

P1.48 – P1.50, P5.48 – P5.50
Connected properties are made up of billed, exempt and void properties from lines 37, 48 and 49. Billed properties have increased by circa 14,000, void properties have decreased by circa 2,100 and exempts have increased by circa 7,400 resulting in overall growth for these lines of approximately 19,300.

P1.52, P5.52
Total Revenue has increase by £4.4m as expected in last year's annual return.

No changes have been made to last year's reporting methodology. Our sourcing of information concerning property numbers from the WIC4 returns submitted by local councils is described in the general comments to Table A.

The total number of Band D's and revenue has increased in line with expectations from last year's Annual Return.

Although the figures do not come from our own internal report, WIC4, the majority of household numbers provided for the Annual Return come directly from council reports and as such will be fairly robust.

Table P2 Water Service - Unmeasured Non-Household

P2.1 – 2.6 Non-household Properties – billed on unmeasured basis

The changes in the numbers of non-household properties are described in the commentary to Table A.

P2.7 – 2.8 Rateable Value Base

This part of the P tables details the Rateable Value for unmeasured non-household properties connected for water services as recorded by Scottish Water.

P2.7 Gross RV for properties paying standard charges increased from £418.19m to £421.76m (+0.86%). This is because work has continued on the investigation of rateable values.

P2.8 Net RV for properties receiving relief from charges remains constant at 0. (0%)

Table P3 Water Service - Measured Household

P3.1 – 3.7 Household Properties - billed on measured basis: tariff meters

The increase in the number of measured households is explained in the commentary to line A1.2.

P3.8 – 3.11 Volumes - Measured Household Properties

The increase in volume from 105,726m^3 to 120,450m^3 is principally due to the increase in the number of properties that are now correctly flagged in the billing system as metered households.

Table P4 Water Service - Measured Non-Household

P4.1– 4.18 Non-household tariff meters

Line ref.		2005/06	2006/07 Report year	Change	Change %
P4.1	<=20mm	67832	69424	1592	2.35%
P4.2	>20 <=25mm	10587	9876	-711	-6.72%
P4.3	>25 <= 40mm	1224	1199	-25	-2.04%
P4.4	>40 <= 50mm	1115	1016	-99	-8.88%
P4.5	> 50 <= 80mm	372	302	-70	-18.82%
P4.6	>80 <= 100mm	157	90	-67	-42.68%
P4.7	>100 <= 150mm	61	22	-39	-63.93%
P4.8	>150 <= 200mm	3	3	0	0.00%
P4.9	>200 <= 250mm	1	0	-1	-100.00%
P4.10	>250 <= 300mm	2	2	0	0.00%
P4.11	>300 <= 400mm	0	0	0	
P4.12	> 400 <= 450mm	0	0	0	
P4.13	>450 <= 600mm	0	0	0	
P4.14	Other meters	41	39	-2	-4.88%
P4.15	**Total number of tariff meters**	**81,395**	**81,973**	**578**	**0.71%**

The overall trend in the meter profile has moved away from a mix of larger meters towards smaller meter types reflecting the shift away from heavy industry. The majority of meters that were added to the billing system were 30mm and below. This trend is most notable in the greater than 40mm sizes where significant proportions of meters were decommissioned in the report year. There has been a reduction in the number of meters in each size band over 20mm compared with the prior year.

We expect new business developments to be predominantly small metered properties.

The overall increase in the number of tariff meters in line P4.15 is a result of the work carried out to review billed and void properties and their services. As a result, the number of billed properties in line A1.4 has decreased and the number of properties that are now allocated a tariff meter has increased by 578.

P4.19– 4.29 Water volumes - Measured Non-household Properties

The overall increase from 2005/06 in the reported total volume of measured water to non-households was 0.8%. The distribution of volumes has also changed because of a number of customers moving from Large User Volume Deals (LUVA) to either the standard or non-standard tariff.

Table P7 Wastewater Service - Measured Household

A volume of 11.39m^3 is being reported in line P7.10, which relates to volume from meters with diameters greater than 20mm. This appears inconsistent with lines P7.2 – P7.4, which indicate that there is no measured household with a meter diameter greater than 20mm. However, this apparent discrepancy arises because the volume information in lines P7.8 – P7.11 relates to the full report year, whereas the information in lines P7.2 – P7.4 reflects a single date at the end of P6 (September 2006). One additional property was added after September and this has a meter with diameter greater than 20mm. The volume provided to this household is included in line P7.10.

Table P8 Wastewater Service - Measured Non-Household

P8.1– 8.18 Non-household Tariff Meters

As with the water service, non-household tariff meters for the wastewater service showed an overall trend in the meter profile of moving away from larger meters towards smaller meter types reflecting the shift away from heavy industry. The majority of meters that were added to the billing system were 30mm and smaller. This trend is most notable in the greater than 40mm sizes. There has been no increase in the number of meters in each size band over 40mm compared with the prior year.

The overall increase in the number of meters, for properties with waste water service, from 57,865 to 60,126 is higher than the increase in the number of water meters. This is due in part to new customers being added but is mainly due to the identification of customers receiving a waste water service that were not previously allocated to a waste water tariff.

P8.19-23 Wastewater volumes - Measured Non-Household Properties

Line ref.		2005/06	2006/07 Report year	Change
P8.19	First 23.75m^3 pa - meters of diameter <= 20mm	1,016,438	1,104,831	8.70%
P8.20	Volume over 23.75m^3 pa, meters of diameter <= 20mm	17,691,816	20,622,085	16.56%
P8.21	Volume for other meters, charged at standard tariffs	25,617,893	25,043,796	-2.24%
P8.22	Volume charged at non-standard rate	782,779	1,731,583	121.21%
P8.23	**Total**	**45,108,926**	**48,502,295**	**7.52%**

The overall increase of 7.52% is principally due to the increase in water volume reported under lines P4.19 – P4.29 above, because we assume that 95% of all water taken is returned to the sewer.

Table P9 Wastewater Service - Measured Household

P9.1-50 Property Drainage for Household Properties Billed Measured

P9.37 – Total number of households billed for property drainage has decreased from 208 to 200, this change is described in the Table A commentary.
P9.87 – Total number of households billed for roads drainage has decreased from 213 to 212, this minor change is described in the Table A commentary.

Table P11 Wastewater Service – Trade Effluent

P11.1-4 Trade Effluent Discharges

Table P11 records information about Trade Effluent customers who pay charges at the full published tariff rates.

There has been a reduction in the overall number of customers reported between AR06 and AR07 of 416. This is attributed to 166 discharge points being reverted to non-household waste water charges, and 250 discharge points that were double counted in AR06 due to customer moves. In AR06 we reported on a per customer basis, so if there was one customer at a discharge point in the reporting period, we reported the discharge point once, but if there were two customers, it was reported twice. For AR07, we agreed with the Reporter that, as it was the discharge point which was the revenue stream, we would revert to reporting by discharge point. The overall effect is that there was a net reduction in the number of discharge points billed of 416, and a net reduction of 500 in the numbers paying full charges due to a combination of the above, and a move of 84 from being uncapped to capped, due to changes in strengths and other charging parameters.

Previously the data for populating Tables P11 and P12 was generated by matching financial information from the corporate billing system (HiAffinity) with data from the Trade Effluent billing system (ICMS), and merging the two to produce the WIC52 report. As the WIC52 report is no longer required, the bulk of the data has been sourced from the ICMS system.

In line with comments made by the Reporter concerning the Annual Return 2006, one customer previously reported on table P12 has moved to table P11 (Line P11.2, 8-10,16-18, 23-26, 31-34). This customer's deal ended on 31 March 2007.

The charges we have used for 2007/08 are the wholesale charges as detailed in the draft interim Scheme of Charges as submitted to the Commission on 14 March 2007.

When reporting the availability parameters, we have reported on the availability parameters in force at the end of the reporting period. Whilst this breaks the link between the accounting revenue and the revenue calculation in lines P11.35 to 11.38, assumptions made in the formula (see below) also break this link.

The formulae in lines P11.35-11.38 assume that all discharges are made for the full year, and that all discharges receive full treatment. Neither of these is true, so the calculated revenue (£10.8 million) does not equal the actual revenue generated (£9.72 million).

Table P12 Wastewater Service – Trade Effluent

12.1 – 12.4 Trade Effluent Dischargers

Table P12 records information about Trade Effluent customers whose charges are subject to harmonisation caps or are covered by Agreements.

The number who are charged at published rates but whose charges are capped has increased from 975 for 2005/06 to 1059 for the report year. This is because of changes highlighted in P11 above.

Loads discharged by customers on ‘Agreements’ is requested for the first time. BOD loads are those which have been included in those reported in the A and E tables. Suspended solids loads have been calculated using a similar methodology.

The number of customers charged under ’Agreements’, as opposed to capping, has reduced from 69 in 2005/06 to 54 in the report year. This is primarily due to a reduction in the number of customers covered by the Aberdeen Fish Curers & Merchants Association/Aberdeen Water Users Group Agreement. One large discharge in Fife closed early in the reporting period, resulting in an approximate reduction in volume of 2.5 million m^3.

The charges we have used for 2007/08 are the wholesale charges as detailed in the draft interim Scheme of Charges as submitted to the Commission on 14 March 2007.

We have assumed that income from deals will increase by 3% due to the combination of forecast volumes and price increases at each of the special agreement sites.

As with Table P11, the formulae in cells P12.38-12.41 assume that all discharges are made for the full year, and that all discharges receive full treatment. Neither is true, so the calculated revenue (£11.7 million) does not equal the actual revenue generated (£9.065 million). The revenue reported for deals is correct.