



2004 PERIODIC REVIEW

MONITORING PLAN

for

2005 – 2010

March 2005

DEE VALLEY WATER MONITORING PLAN FOR 2005-10

1. INTRODUCTION

In December 2004, the Director General of Water Services determined the price limits that Dee Valley Water could charge its customers for water for the five years ending 31 March 2010. This decision was based on the comprehensive five-yearly strategic business plan and investment programme prepared by the Company as part of the periodic review process, known as PR04.

For the business plan, the Company has examined all aspects of the business of running Dee Valley Water over the next 15 years and beyond. Full account has been taken of the requirements of the authorities responsible for regulating the water industry, namely the Office of Water Services (Ofwat), Drinking Water Inspectorate (DWI) and Environment Agency (EA), and of the guidance given by the Welsh Assembly Government (WAG) on key issues. The views of Dee Valley Water's customers have also been a major influence on the shaping of the strategy adopted for the business plan. The business plan has been closely scrutinised and challenged by an auditing team led by a chartered engineer, known as the Reporter, who works on behalf of and reports to Ofwat.

This Monitoring Plan is a brief summary of the full business plan for Dee Valley Water. It describes briefly through the following text and the attached tables how the strategy for 2005-10 has evolved, what work will be carried out and what it will mean to customers in terms of services and prices.

The business plan was set out under key headings which together covered the business of a water company. The precise format of the full business plan was prescribed by Ofwat. It is a much more detailed document than this Monitoring Plan, with more technical language in parts. To illustrate the scope of the full business plan, its key components are summarised below, with brief explanations where required:

- **The operating environment** – considering previous performance, key areas of risk and uncertainty now and in the future, and the views of customers.
- **Improving efficiency** – assessing the scope for reducing expenditure through the achievement of efficiency.
- **Maintaining service and serviceability to customers** – setting out how the service that customers receive from their water company and which they consider to be important will be maintained. A major element of this is consideration of the investment that will be required, to repair and replace pipes for example, so that bursts do not interrupt the supply of water to customers.
- **Quality enhancements** – considering how tighter standards for the quality of drinking water will be achieved, through investment for example. Changes in

standards in other areas are also addressed under this heading; environmental issues and security for example.

- **Maintaining the supply/demand balance** – comparing the forecast of water demand by customers against the availability of water resources, and proposing schemes or other actions, if necessary, to minimise the possibility of any shortage.
- **Service enhancements to customers** – identifying any areas of the service that customers receive (water pressure, telephone response, complaint handling etc) where a distinct improvement is required by customers, and what investment is required.
- **Financial projections** – showing how the proposed investments and other expenditures will be financed, and setting out other financial assumptions such as taxation, for example.
- **Customer bill and tariffs** – analysing the prices for the different categories of customer (household/non-households and measured/unmeasured).

In setting the price limits, Ofwat has accepted almost completely the proposed strategy set out in Dee Valley Water's business plan. The only significant difference of opinion has been about the level of expenditure necessary to deliver the strategy. Ofwat's view is that in some areas of the business there is more scope for achieving efficiencies than the Company has identified. The effect of this is that the reduced expenditure allowed through the price limits set by Ofwat will be a challenge for the Company if it is to deliver the agreed strategy in full.

2. **OUR OVERALL STRATEGY FOR 2005-10**

Dee Valley Water is a small independent water-only company. It is the third smallest of the total of 23 water-only and water and sewerage companies. The group holding company has no non-core activities or interests to distract it from its primary purpose of complying with its statutory obligations for supplying water to its customers. This clear, unequivocal purpose dictates the overall strategy around which the Company has constructed its business plan.

The principal element of the strategy set out in the business plan is to restore through maintenance and replacement the condition of the Company's assets: mains, treatment works, reservoirs and the like. The Company is firmly of the view that the actions that are proposed cannot be deferred any longer without the deterioration in condition of some assets adversely affecting service to customers; through interruptions to supply and deteriorating water quality, for example. The maintenance projects identified for 2005-10 account for most of the capital expenditure proposed for that period, and will ensure that the objective of maintaining the service to customers is achieved. The strategy for maintenance investment is explained in Section 5.

The current view agreed with the regulators is that rising standards for drinking water quality and environmental improvements will have virtually no impact on

the Company during 2005-10. Quality enhancement is therefore a negligible element of the Company's strategy. This is explained more fully in Section 3.

Based on the forecast of demand for water from customers and the availability water resources, the Company expects to be able to maintain at least a small margin of safety in the supply/demand balance over the period of the forecast up to 2030. However, whilst reasonable allowance has been made for the uncertainties in the forecast, this is one area of the strategy where the Company is concerned that unforeseen events could affect the sufficiency of water in the future. Although no investment for new resources can be justified for 2005-10, there will still be significant investment under the supply/demand balance heading for installing mains for new customers and for installing optional meters for customers that request them, which are both statutory requirements.

Following a period of gradual improvement in recent years, levels of service to customers have reached a level that surveys show is acceptable to customers and compares favourably with other water companies. Schemes that would achieve step change improvements in levels of service cannot therefore be justified and no investment is proposed under the heading of service enhancements.

Whilst other fundamental matters are given appropriate attention in the Company's business plan, the overriding issue which Ofwat has accepted in full is that maintenance of assets is now paramount.

Due to the volume of work that the strategy entails, prices to Dee Valley Water's customers will have to increase over the period 2005-10, but only slightly. The average increase will be 0.8% per year before inflation, which is significantly less than the average increase of 4.2% for the industry as a whole. The year-on-year changes in average prices, known a "K", are set out in Table 2.

The increases in bills, as discussed in Section 6, are not sufficient to fund the whole of the Company's investment programme. This means that the the Company will need to increase its borrowings significantly in 2006 and 2007. Although some of the borrowings will be repaid in 2010, the Company's borrowings at the end of the five-year period will still be higher than at the commencement of the period. The interest on the borrowings has been taken into account by Ofwat when setting K.

3. OUR COMMITMENTS ON DRINKING WATER QUALITY & ENVIRONMENTAL IMPROVEMENTS

The quality of the drinking water that water companies produce is monitored closely by DWI. Compliance with environmental regulations, the discharges to watercourses for example, is monitored by EA. In both areas, Dee Valley Water's performance has been high. The Company is committed to maintaining this high

level of performance during 2005-10 through the maintenance investment programme and operational activity.

During the consultation period for PR04, WAG provided guidance to Ofwat on which of the various water quality and environmental programmes that DWI and EA had put forward for consideration should be included in water companies' business plans. There are only two quality enhancement issues for Dee Valley Water and their influence on the overall expenditure programme is negligible.

One of the issues relates to the Habitats Directive, which requires the impact of water abstractions on wildlife habitats to be considered on certain rivers. One such river is the Dee, from which Company abstracts water at two locations. The work scheduled for the 2005-10 period is three studies (as indicated in Table 4). Until these studies are completed, any further investment implications of the Habitats Directive for the Company cannot be assessed.

The other issue is not strictly related to water quality or environment improvement, although it is treated under the heading of quality enhancement. In the light of 9/11, there has been much discussion about the "worst case scenario" that water companies should make provision for in their emergency plans. Whilst there is still considerable uncertainty, it is clear that water companies will have to cater for an increased level of risk and threat. WAG's guidance on this issue is not specific and clarification is required. In the meantime, the Company will commission a recovery plan for dealing with the aftermath of a major incident such as the entire loss of a treatment works.

4. OUR COMMITMENTS ON SERVICE TO CUSTOMERS

Recent customer research carried out on behalf of the industry's stakeholders produced the following results from Dee Valley Water's customers:-

- 87% were satisfied with the current levels of service compared to the industry average of 79%
- 71% were satisfied with the value for money of the current levels of service compared to the industry average of 55%.

These results show that the majority of customers have confidence in the services Dee Valley Water has delivered to date. The Company has a record of meeting its commitments set out in its business plans. All outputs set out in the Company's business plan for 1995-2000 were delivered on time. Similarly during the current 2000-05 period, the Company is on target to deliver all its planned and imposed outputs on programme.

The current high levels of service are acceptable to customers and therefore investment for improvements is not justified. The Company's commitment is therefore to maintain service to customers at the same level as at present (as Table 3).

5. OUR COMMITMENTS ON MAINTAINING SERVICEABILITY TO CUSTOMERS

Many aspects of the service that customers receive from the Company are dependent on the performance of its assets. Failure of mains or treatment works can affect customers directly and immediately. The capability of an asset to provide service to customers is termed its “serviceability”.

The challenge is therefore to ensure that the serviceability of assets is maintained adequately and cost-effectively. Because the assets are of varying ages and do not deteriorate at the same rate, the level of maintenance investment is uneven. This is particularly noticeable for a small water company such as Dee Valley Water which has only a few treatment works, for example, and for which costly maintenance work is required intermittently.

Planning the investment needed to maintain assets requires understanding of the condition of the assets, the likelihood of failure and the consequences of failure for customers. When the assets requiring attention have been identified, schemes have to be developed, costs compared and the most cost-effective solution adopted. The Company has put considerable effort into this work in order to produce and justify its asset management plan.

The outcome is a programme of individually defined and justified capital maintenance projects for 2005-10 aimed at assets which represent a high risk of service failure to customers. Associated with this, there will also be increasing operating costs for improving the Company’s knowledge of the performance of its assets. This will improve the asset management process and produce an environment where risks are contained at a managed level at least cost. This programme of capital maintenance on high-risk assets will have to continue through the following five year period.

The main items of work (or “activity”) that will be carried out in 2005-10 are summarised in Table 7. For the asset groups other than pipes and meters, work on an asset is only reported in this table if the project cost will exceed £100,000 and represents at least 10% of the value of the asset. These are the thresholds suggested by Ofwat for reporting in this table. Maintenance projects below these thresholds are not shown in Table 7.

The two main items of maintenance expenditure for 2005-10 are:

- major refurbishment of the Boughton water treatment works that supplies the City of Chester
- replacement of old water mains in poor condition throughout the Company’s area of supply covering Wrexham, Chester and surrounding areas.

The Boughton works is old and much of it is in poor condition. In recent years, maintenance has been carried out in a piecemeal fashion mainly due to the

constraints of available funding. The consequence is that the structural fabric of the works and major process components are now in urgent need of replacement. This work is cannot be deferred any longer and is planned for the early years of the 2005-10 period.

Although water mains last for a long time, they do not last forever. As their condition deteriorates, the frequency of problems such as bursting and discoloured water due to corrosion increases. The Company's studies show that carefully targeted renewal of approximately 8.3km of mains each year is needed in 2005-10 in order that these problems do not increase. The length of mains renewal reported in Table 7 is 9.3km per year. The extra 1km per year is an estimate for the length of mains that will have to be diverted at the request of others, for highway schemes for example. As mains that have to be diverted are only rarely also in poor condition, the extra 1km has little value in maintaining serviceability to customers.

There are two other schemes worthy of mention and reported as significant activities for 2005-10 in Table 7. They are:

- a water transfer scheme requiring a new pumping station and water main to safeguard the supply to customers in Rhydtalog, Treuddyn and Leeswood in case of problems at the reservoir sources that this area relies on
- replacement of the old and leaking Penypalmant service reservoir in Minera.

6. OUR COMMITMENTS ON PRICES

The typical unmeasured household bill, based on the average household rateable value, will increase by £4 (about 3%) to £125 in 2005/06. It will then reduce over the five-year period to £119 in 2009/10, which is £2 lower than the figure for 2004/05.

However, the typical measured household bill, based on the average household consumption, will rise by £8 (about 10%) to £86 in 2005/06. It will then stay approximately constant over the five-year period, reaching £87 in 2009/10.

The reason for the different rate of increase between unmeasured and measured customers is that more of the increase in K is being allocated to measured customers. This is so that measured bills more fairly reflect the additional costs of servicing a measured account, such as meter-reading and maintenance, quarterly billing and collection.

Using an average standing charge, bills for measured business customers will change as follows:

	2004/05	2005/06	2009/10
	£	£	£
Small business using 100m ³ pa	98	103	107
Commercial property using 1,000m ³ pa	700	751	790
Major manufacturer using 200,000m ³ pa	133,791	144,011	151,711

Compared to a K of 5.7% in 2005/06, the increases for commercial customers range from just over 5% for small businesses to 7.6% for a major manufacturer. This reflects the re-balancing referred to above in the context of unmeasured and measured customers. Since the re-balancing affected only the rate per cubic metre, and not the standing charge, the effect is greater for customers with high consumption.

Charges for customers on the large user tariff, using more than 250,000 cubic metres per annum, are expected to follow the trend for major manufacturers as described above.