Chief Inspector's Statement

I am pleased to introduce the 15th annual report by the Inspectorate, which is radically different in design and content from previous reports. When I joined the Inspectorate in April 2003 I asked a lot of questions about our report. Whilst it was clearly valued and widely cited by a diverse readership: ministers, policy makers, the water industry, other regulators, local authorities, researchers, the media and consumers, it was also evident to me that our readers had other information needs that the report at that time was not meeting. Our new report production team are rightly proud of their product but I know they would wish me to mention up front that the list of needs was long and had to be prioritised, so, there is more to come in future years.

About the new style report

I am grateful to local authorities and Water UK for their help in developing the new style report. In January 2005, I wrote to all local authorities seeking their views and 166 out of 376 responded. This substantial feedback confirmed to me that a move to regional reporting of drinking water quality was the way to go. Between January and May 2005 I met regularly with a group of water industry practitioners set up by Water UK to explore the data handling implications of the new style report. Another important driver for change was the coming into force in December 2003 of the new drinking water regulations which effectively reset the baseline for measuring drinking water quality.

To our readers in water companies I make no apology for the fact that information about your company now appears in more than one section of the report - first in the relevant regional section of Part 1 about drinking water quality and secondly in the chapters on our performance (Part 2) and your performance (Part 3). If you also have an interest in drinking water science you will need to read Part 4 and finally, your company's programmes of work for improving drinking water quality are described in Part 5. However, this apparent inconvenience we are causing you has a clear purpose – to report fully on all that you do, each and every day, to deliver safe drinking water to consumers and, to make it obvious that drinking water quality cannot be judged solely by a single compliance number based on the results of tests undertaken in the laboratory.

It is important for me to acknowledge here the support of my counterparts in Scotland and Northern Ireland who share with me the aspiration to report consistently on drinking water quality across the UK. During the year we met regularly to develop a common approach to assessing and reporting on drinking water quality and recently, we formalised our working arrangements in a Memorandum of Understanding (published on our respective websites). Accordingly, this year, I have ceased the practice of publishing a combined report for England and Wales (with a separate report for Wales), instead we have produced a report for England and another for Wales. Making this change was not as simple as it might seem because some water supplies straddle the national border. We have endeavoured to make it clear in each report whenever these subtleties have an impact on the information.

Drinking water quality in 2004

Compliance with drinking water standards is assessed on the basis of zones. In an ideal world, a zone is a geographical area with a population not exceeding 100,000 served by a water supply from one or more sources of similar quality. In reality, particularly in urban areas, where the water supply configuration is complex, a zone is defined more pragmatically as an operational area within a much larger water supply system. Zones are the basic building blocks of the compliance sampling programmes carried out by water companies therefore compliance with drinking water quality standards can be reported either on the basis of a single zone (of interest to a local authority) or on the basis of a group of zones that together represent either a region, a country or a water company.

It is important to understand how risk is embedded in the heart of the regulations. Firstly the larger the population resident in a zone, the higher the number of samples collected in a year. The frequency of sampling also differs for each type of parameter (health-based, aesthetic or indicators of water treatment) and each parameter has a different standard (set with a wide margin of safety). Finally risk is taken into account through sampling location. For parameters that may change as water passes through the distribution system, samples must be collected from consumers' taps (the end of the system), whilst samples for other parameters can be collected from a supply point (the beginning of the system).

Reflecting these risk principles, the method adopted by the Inspectorate for assessing and reporting on compliance with the new drinking water standards is based on zones and is known as Mean Zonal Compliance %. With an eye to my academic audience I have published, in this report, the statistical advice on which the Inspectorate's compliance methodology relies (Annex 3). The approach is similar to that used in previous reports for the Operational Performance Index (OPI). In studying our report, it is important to appreciate that compliance values no longer include the results of tests on samples collected by water companies from water treatment works and service reservoirs. Although still very important and separately reported on, the new regulations recognise that these sampling programmes have a different purpose. This is but one of several reasons why the new regulations reset the baseline for compliance and, as such, comparisons with previous year's figures cannot be made.

I turn now to the very good outcome of the monitoring by water companies of drinking water quality in 2004. For the whole of England, the water companies carried out just over 1.8 million tests and the Mean Zonal Compliance was 99.94%. Of all the parameters sampled for calculating compliance, 11 had no failures. Failures were seen for the other 29 parameters, but for all but three of these Mean Zonal Compliance figures were 99.83% or better. The three lowest figures were for nickel (99.77%), iron (99.60%) and lead (99.53%). However, it is now more meaningful to look at drinking water quality compliance on a regional basis. Here we can see a variation in compliance (99.91% to 99.98%) reflecting that in some parts of the country, some water companies have more to do than others to improve drinking water quality. In the regional sections of the report (Part 1) we give details of the very

few samples not meeting the standards in the form of tables, maps and a commentary which I hope local authorities, in particular, will find helpful. In Part 3 of the report, and new this year, we provide summary tables of all the results of tests in 2004 by parameter (for each water company). We also show Mean Zonal Compliance for the area served by each water company, which ranged from 99.76% to 100% for those companies supplying water to consumers in England.

The new drinking water parameters and standards

In 2003, I reported on the progress made by water companies towards meeting the standards for the new parameters. Now these are in force we can clearly see the benefit of taking an early risk-based approach to the new requirements; across all 26 water companies in 2004, for two out of the six parameters compliance was 100% (benzene, 1-2, dichloroethane) and for the other four it was very high: 99.98% (nitrite at works); 99.95% (bromate); 99.88% (Enterococci) and 99.85% (Clostridia). In the regional sections of the report we show where the very few failures for parameters with a health-based standards occurred together with commentary to reassure local authorities and consumers that companies acted appropriately to safeguard public health.

Lead in drinking water

In the consultation exercise, local authorities expressed a strong interest in progress towards meeting the stricter standard for lead (25 µg/l). In Part 5 of this report we give an update on the work of companies to install and optimise water treatment measures to minimise the tendency of water supplies to pick up lead from pipes. In 2004, across England and Wales we saw a continuation of the downward trend in non-compliance with the new standard of (25 µg/l) for the lead parameter as follows: 2.01% (2001), 1.32% (2002), 0.74% (2003), 0.46% (2004). In 2013 the final strict standard for lead (10 µg/l) will come into force. As we move towards this date it will become increasingly important to understand where in the country, water treatment measures alone may be insufficient to achieve compliance with this health-based standard. Not all communities are exposed to this risk because it relates to where the pipe supplying water to an individual property is made from lead. Our new style regional reports this year make a start on clarifying this pattern. For the benefit of local authorities we have given summary details of the outcomes of water company investigations of samples exceeding the standard for lead in force this year.

Acceptability of drinking water to consumers

In Drinking Water 2003 I drew attention to the fact that despite year on year improvements in overall drinking water quality compliance, the Inspectorate was receiving an increasing number of consumer complaints, the majority of which were about discoloured drinking water. In order to understand this better, this year, we have developed and applied a measure of consumer acceptability known as OPI (TIM) based on compliance for the three parameters – turbidity, iron, manganese, - which best reflect the causes of discoloured water. Using this measure we can see how a consumer's experience of drinking water quality does indeed vary according to where

they live or work. The range of OPI (TIM) values in 2004 for each company supplying England spans from 97.22% to 100%. The overall value of OPI (TIM) for all 26 companies was 99.79% and when we compare this to the overall value for drinking water compliance in England and Wales of 99.94% we can see how the new index helps to indentify more clearly where effort is required to raise the quality of water at consumers' taps.

Also relevant and new for this year we have reported on the consumer contacts about drinking water quality received by water companies. When consumers are concerned about their drinking water quality, their first point of contact is the water company, although some choose to contact their local authority, local WaterVoice committee or the Inspectorate instead. The most usual form of contact is a phone call but a few consumers will write or e-mail. All companies record these contacts in a broadly similar way. In 2004 the companies recorded, in total, 162,382 contacts about drinking water quality covering a range of concerns: discoloured water, water with an objectionable taste or odour, white (milky) water, visible particles or organisms and health symptoms (nausea, diarrhoea, dry skin, rashes, and sore throat). Consumer concern about drinking water quality is not uncommon with an average of 3 out of every 1,000 consumers contacting their water company at least once during the year. The degree of concern varies considerably across the regions and by company (<1 per 1,000 population to 14 per 1,000 population) and we discuss the reasons for this in more detail in Part 1 (for the regions) and Part 3 (for the companies). I should make it clear that not all contacts, when fully investigated, reflect an actual problem with drinking water.

Returning to the discoloured water problem in particular, whilst this can and does occur in hotspots across the country, there is also a noticeable regional pattern as illustrated by the proportion of discoloured water consumer contacts in each region. In the six regions in England, contacts for discoloured water ranged from 26% to 75% of the total for the region. In five of the six regions they represented over half the total. I am of the view that those companies with higher than average rates of consumer contact (Northumbrian Water, United Utilities, South East Water, South West Water, Yorkshire Water and Wessex Water) need to be more proactive in their communications with their customers to explain, for example, the cause of discoloured water and to give straightforward information about what is being done, and by when, to improve matters. To assist local authorities in dealing with consumer complaints, details of water company programmes of work to improve drinking water quality in the distribution system are given in Part 1 of the report.

In future the Inspectorate will be looking more closely at other causes of consumer concern and I draw attention to two of these: taste and odour and white (milky) water because in some regions it is probable that water company operational strategies may contribute to the occurrence of these problems.

Events affecting drinking water quality

As usual, we have reported on the events and incidents notified in 2004 and their assessment status on 31 December 2004 (Part 3). In England and Wales as a whole, a total of 89 incidents which potentially affected 3.2 million consumers were notified in 2004. This compares to 99 incidents potentially affecting 2.3 million consumers in 2003. Also in 2004 there were 215 notifications that were classified as non-incidents which compares to 254 in 2003. Even in the most well-run of companies incidents will occur. What matters here is how well a company deals with restoring supplies to normal, particularly whether or not it communicates in a timely and effective way with local authorities, health officials and those affected (consumers and business).

Since I joined the Inspectorate I have been asked repeatedly to publish more information about incidents. Whilst the outcome of each incident investigation by the Inspectorate is made public, I agree there is merit in pulling this information together in one place for the purpose of sharing common themes and learning points. Accordingly, for the benefit of local authorities and health officials, Part 1 of the report gives relevant information of this nature on a regional basis. For the benefit of water companies we give summary information about all incidents in 2004 in Part 3 of the report. It is of concern to my inspectors that quite often companies fail to collect sufficient samples in an appropriate timescale during an incident. Also we have noted repeated occurrences of errors in valve operations and responses to alarms. These are operational matters which I feel certain all water companies will wish to review and satisfy themselves about.

The future of the Inspectorate

Throughout the year there have been a number of government reviews and reports all on the theme of better regulation. When invited to do so we have provided information about our activities and the drinking water regulatory framework to assist these reviews. We have also reviewed our own performance and approach in the light of these published better regulation criteria. To a very large extent I have been encouraged to find that the way we regulate drinking water quality accords with published best practice. We are helped in this regard by the fact that we regulate a very clearly defined sector of industry (currently 26 water companies) and we have well established arrangements for consulting the industry through its association, Water UK. We also publish all our guidance and other technical advice, such as this report, on our widely used website which has a specialist user area for business. In 2004, usage of our website increased on previous years (greater than 1.4 million hits).

Regulation of drinking water quality necessitates the generation and interpretation of very large amounts of specific and complex, scientific and other technical information. By collaborating with the industry over several years we have put in place, arrangements for this information to be transferred to us electronically, direct from the companies' corporate laboratory information management systems (LIMS). Thus we do not duplicate the work of the companies or that of any other regulator. Doing this well is no simple matter for either ourselves or the companies. However it has already yielded benefits,

for example, some of the companies have learnt that they need to make considerable improvements in the accuracy of the data held within their LIMS. However, I am concerned about the general better regulation suggestion that in future, all regulators, whatever their purpose, should derive their information about the businesses they regulate from a common database – it would certainly not be at all practicable (and it would be very costly) for drinking water quality information to be handled in the same way as other forms of business information.

As I conclude my statement for this year, the Inspectorate is aware that its future, as regards its governance arrangements from 2008 onwards, is uncertain. I am reassured for consumers and my small, hard working and professional team of staff that Defra will be consulting widely on these plans for change. As my team knows, we have a crystal clear purpose and a very recently updated regulatory framework within which we can confidently continue to operate. In Part 2 of this report we have documented our performance and I look forward to working closely with the regulated water companies to update and improve our targets yet further. In Annex 4 to this report I am also publishing our present governance arrangements formally agreed with the Water Director of Defra on 1 April 2005. To those in wider government and beyond, on behalf of the water industry and the Inspectorate, I feel it necessary to say that the single and vital purpose of drinking water regulation in both the UK and Europe is the protection of human health, it is not a function of the Inspectorate to protect water.

And finally, I would like to pay tribute to my Deputy Chief Inspector, Claire Jackson, who has worked tirelessly to guide the Inspectorate. The respect in which the Inspectorate is held by the water industry is in very large measure a result of Claire's professionalism, and her dedication to the cause of safe drinking water which has the confidence of consumers. This is the last report of the work of the Inspectorate under Claire's direction as she retires in September 2005. On all our behalves I thank her and wish her much happiness in the future.