

The Drinking Water Inspectorate Business performance report 2015/16



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A report by the Chief Inspector of Drinking Water





Business performance report 2015/16

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Foreword



Figure 1: Marcus Rink, Chief Inspector of Drinking Water

In 2015, on the 25th anniversary of the Drinking Water Inspectorate (DWI) I was pleased to take on the role as the fourth Chief Inspector of Drinking Water for England and Wales. The DWI has developed over this time along with legislation, the industry it regulates and changing principles and practices of regulation. As part of evolving changes, this report develops the financial and operational responsibility for accountability, openness and transparency to the industry and people of England and Wales, together with the Chief Inspector's Report, which provides information on the quality of water.

I continue to be impressed by the professionalism of all those within the Inspectorate, a remarkably small team of 41 who regulate an industry which delivers 14.5 billion litres of wholesome water to consumers in England and Wales every day, and provides advice for local authorities to regulate 53,000 private supplies as well as other functions explained in this report. The challenge to ensure drinking water remains safe and for the public to continue to have confidence in this, as well as ensuring the Inspectorate is trusted and acts in consumers' interests requires innovation in data handling, expertise in the field and collaboration with those we regulate, advise and interact with on the national and international stage.

Innovation within the Inspectorate has resulted in the assessment of over four million pieces of analytical data, over 600 event investigations and audits, over 200 risk assessments and legal notices, and nearly 1,200 enquiries from local authorities, consumers and organisations. To achieve this, the Inspectorate applies the principles of better regulation by promoting self-regulation in the form of risk assessments for those we regulate, and identify regulatory failure through risk analysis of the data we receive. We will continue to engage and promote constructive dialogue with our fellow regulators: Ofwat, local authorities, the Environment Agency, CCWater and the representative of the water industry, Water UK as well as Defra and the Welsh Government.

The Inspectorate recovered the cost of its work in 2015/16 through the Public Bodies (Water Supply and Water Quality Fees). This was the second

full year for cost recovery. The Inspectorate operates on a budget of under £2.5 million and continues to improve efficiency. In 2015, this included a change in organisational structure to focus on delivery of the regulatory function.



Marcus Rink
Chief Inspector of Drinking Water

Introduction

Safe, clean drinking water is vital to public health and the wellbeing of our society. This is ever more important in the face of significant challenges to drinking water supplies from the impacts of climate change on the quality and availability of water resources. It is essential that good quality drinking water, and the investment by companies necessary to achieve it, is maintained into the future.

The presence of an independent regulator is fundamental to how we reassure the public about the safety of our drinking water when we turn on the tap. Our regulatory framework has resulted in some of the best drinking water quality in Europe, and governments around the world have adopted the basic principles of this successful approach.

In this document, the Chief Inspector of Drinking Water for England and Wales and his team outline the Inspectorate's strategic objectives, and their work and achievements during the financial year 2015/16. A more detailed report of the quality of drinking water in England and Wales for 2015 can be found in the Chief Inspector's report, *Drinking water 2015*¹.

¹ <http://dwi.defra.gov.uk/about/annual-report/2015/index.html>

The Drinking Water Inspectorate – An overview

Our main statutory duties

The Drinking Water Inspectorate (DWI) was established by Parliament in 1990 to provide independent assurance that the privatised water industry in England and Wales delivered safe, clean drinking water to consumers.

The regulatory framework for water supplies in England and Wales, including the powers and duties under which we operate and the duties of water suppliers, is established in legislation. The Chief Inspector of Drinking Water is appointed by the Secretary of State for Environment, Food and Rural Affairs, and Welsh Ministers, and acts on their behalf. Certain powers are also vested directly in the Chief Inspector which ensure clear independence in our work. In addition to our regulatory role, the Chief Inspector and his inspectors are the appointed technical advisers to the Secretary of State and Welsh Ministers on all drinking water matters.

The primary legislation setting out our functions and duties is contained in the Water Industry Act 1991 (WIA) (as amended by the Water Act 2003 and the Water Act 2014). Water supply matters are also devolved to the Welsh Government by means of the Government of Wales Act 1998.

The Water Supply (Water Quality) Regulations 2000 and amendments (England) and the Water Supply (Water Quality) Regulations 2010 (Wales) made under the WIA – referred to collectively as the Regulations – set out the regulatory requirements for the quality of public drinking water supplies. Equivalent legislation and regulators exist in Scotland and Northern Ireland. The Regulations have been amended and were implemented in Wales in April 2016 and in England during June 2016.

The provisions in section 68 of the WIA (concerning enforcement) have been formally delegated to the Chief Inspector by Ministers. The provisions in Section 70 of the WIA (concerning proceedings against undertakers and others who supply water unfit for human consumption) are vested directly in the Chief Inspector. Responsibility for supporting Ministers in some other requirements of the WIA is shared between the Inspectorate and policy officials in the Welsh Government and Defra.

Our main non-statutory functions

Our work is wide-ranging, covering all aspects of the quality of public water supplies. The collective technical expertise of our staff covers all aspects of the science, engineering and management of drinking water supply. Closely aligned with our statutory duties, the Inspectorate has responsibility for many other functions, including:

- Provision of advice and guidance to water companies² on all aspects of drinking water supply.
- Dealing with queries relating to drinking water quality from consumers, organisations and businesses.
- Provision of advice to Ministers and officials on drinking water supply issues, and on Parliamentary and other queries arising.
- Working collaboratively with the other regulators in the water industry.
- Provision of advice to Ministers on private water supplies (i.e. those not supplied by a water company) and related issues.
- Provision of advice and support to local authorities on all aspects of drinking water quality, including private water supplies.
- Management of Defra's Water Quality and Health research programme.
- Representing the United Kingdom Government and devolved administrations in Europe on matters relating to the European Directive on Drinking Water Quality, and the submission of drinking water quality data to the European Commission on behalf of the UK.

It is the responsibility of policy officials to advise their Ministers on policy matters arising in connection with drinking water supply.

² Water companies include water and sewerage companies, water supply only companies, inset appointees and companies holding combined licences and retail licences as defined in the WIA. From April 2017 new licensing arrangements will apply, in accordance with the Water Act 2014. Companies holding authorisations as defined by this Act will fall within the Inspectorate's regulatory umbrella, insofar as their activities are governed by the drinking water quality regulations.

Our strategic objectives

The Drinking Water Inspectorate aims to secure safe, clean drinking water for all consumers through the following four strategic objectives:

1. Water suppliers deliver water that is safe and clean.

We achieve this by:

- Scrutinising water suppliers' operational delivery from source to tap.
- Regulating for sustainable drinking water supplies through long-term resilience and maintenance of water supply systems by water companies.
- Conducting our regulatory functions using a risk management approach to water supply that is evidence based, and makes provision for managing emergencies and mitigating risk from the environment.
- Working with other water regulators in the exercise of their powers to support the delivery of safe, clean drinking water.
- Regulating to ensure that water suppliers use only approved and safe products and processes.

2. The public have confidence in their drinking water.

We achieve this by:

- Minimising the risk of the public being exposed to unsafe drinking water.
- Taking decisive and timely independent regulatory action when needed that is in the interests of consumers.
- Conducting independent verification of the arrangements for collecting and reporting drinking water quality data.
- Providing accurate and relevant drinking water quality information (including the actions taken to remedy deficiencies) that is tailored to the needs of local community representatives.
- Conducting fair and independent appraisal of consumer complaints about drinking water quality.
- Ensuring that everything we do has a sound evidence base which we proactively maintain and publish.

3. Drinking water legislation that is fit for purpose and implemented in the public interest.

We achieve this by:

- Interpreting and applying current legislation in line with best regulatory practice.
- Providing timely technical advice and guidance to water suppliers, local authorities, health officials and other regulators at a national and international level.
- Scrutinising and influencing proposals that may impact on the supply of safe, clean drinking water.
- Engaging with legislators and consulting with stakeholders to ensure that legislation and regulatory powers and duties remain fit for purpose.
- Implementing our forward work programme as a World Health Organisation (WHO) Collaborating Centre for drinking water safety, and engaging with the global drinking water quality and health community to develop and share international best practice and promote innovation in drinking water safety and regulation.

4. DWI is a progressive and trusted organisation.

We achieve this by:

- Publishing our actions and performance record, and being accountable to Ministers, to consumers, to water suppliers and to our other stakeholders.
- Conducting the way we work in accordance with the Regulators' Code, and the ethics of the professional organisations to which our staff belong.
- Being independent, accessible, consistent and transparent in all we do.
- Engaging with all our stakeholders, and especially consumers and local community organisations, to ensure that the services we provide continue to be fit for purpose.
- Employing and supporting staff capable of delivering those services efficiently.

The *DWI's activities during 2015/16* section of this report outlines the Inspectorate's performance against the delivery of these strategic objectives during the financial year 2015/16.

Our governance arrangements

The Inspectorate is a business unit in Defra's Water and Flood Risk Management Directorate. The Directorate has formal responsibility for sponsoring DWI in Defra.

DWI differs from other business units in Defra in that certain duties are vested directly in the Chief Inspector by statute. Other powers are delegated directly to the Chief Inspector by the Secretary of State and Welsh Ministers, and he reports on these matters directly to Ministers. The Chief Inspector is accountable to the Director for human resources and financial management matters. Inspectors and technical support staff are civil servants.

As with other elements of Defra's programme expenditure, the Secretary of State is ultimately responsible for allocating resources to DWI, and is accountable to Parliament for that expenditure. As Principal Accounting Officer, the Permanent Secretary is the principal adviser to the Secretary of State on resource allocation and proper financial management. Those responsibilities are delegated through the Director General, Environment and Rural Group, to the Director, Water and Flood Risk Management, and on to the Chief Inspector insofar as they relate to the Inspectorate's expenditure.

The Inspectorate produces its own independent reports to Ministers in both England and in Wales on the operational performance of the water companies that we regulate in both countries.

The DWI's day-to-day operations are generally independent from the Directorate. For example, we manage our own evidence programme; our Inspectors deal directly with consumers and the media seeking information about drinking water safety and regulation; and we have our own website. Our operational performance is monitored routinely by formal and informal liaison with Welsh Government and Defra officials, and is reported publicly in this business performance report.

How we are managed

We have a single office located in central London, but our staff work flexibly across England and Wales. Our 41 staff consists of 31 warranted Inspectors and 10 technical and support staff (see *Annex 2*).

Inspectors are experienced professionals with strong technical, scientific or engineering backgrounds. Our technical and support staff include experts in

data management, information and knowledge management, and business administration. The work requires a high level of expertise in all aspects of drinking water supply, the interpretation of law, fair and proportionate enforcement of legal requirements and the provision of sound advice and guidance to all levels of industry stakeholders and government.

DWI's Senior Management Team has overall responsibility for the management and strategic direction of the Inspectorate. Delivery of our day-to-day activities is the responsibility of our management team of Principal Inspectors.

For human resources (HR), recruitment and pay purposes, DWI management and staff are bound by Defra's policies and follow Civil Service guidelines.

We have in place a better regulation initiative whereby salaried staff from water companies join DWI for training and development purposes for a period of six months. While the secondees function as temporary assessors, and are authorised to carry out any of DWI's day-to-day functions, they are not paid by Defra and do not fill Inspector posts.

How we are financed

Our operating costs, including overheads, are approximately £3.5 million each year. The majority of these costs are funded by water companies through cost recovery for regulatory services. Costs are also recovered from commercial organisations for approval of their products for use in drinking water treatment and distribution. A summary of these charges is provided in *Annex 1*.

The balance is funded by Defra and relates to work in support of policy advice; the functions we carry out in Europe and internationally; and for our work on private water supplies. This funding is classed as programme expenditure and falls within Defra's Water and Flood Risk Management Directorate's total programme allocation. The Inspectorate's needs are taken into account in the same way as other programme requirements for which the Directorate is responsible in its annual Business Planning and Resource Allocation exercises.

Following an internal audit of our cost recovery system, we were required to revise our fees structure to include DWI overheads that are charged to central Defra budgets. This led to a substantial increase in fees for 2015/16 and brought the scheme in line with HM Treasury's current guidance on Managing Public Money³.

³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/454191/Managing_Public_Money_AA_v2_-jan15.pdf

DWI also worked during the year with Defra and Welsh Government to put in place new fees Orders for the financial year 2016/17. This was necessary because the existing primary legislation will cease to have effect from early in 2017. The fees are now on the face of the Order complying with the current requirements of HM Treasury that administrative publication of fees should cease at the earliest opportunity. The 2016/17 fees are not substantially different from the 2015/16 fees. We wrote to all companies to explain the reason for the legislative change and to summarise the new fees.

DWI's activities during 2015/16

This section summarises some of the core activities that DWI has undertaken during the financial year April 2015 to March 2016, in the delivery of our strategic objectives. These matters are discussed in detail in the Chief Inspector's report, which covers public and private water supplies in England and Wales.

1. Water suppliers deliver water that is safe and clean.

During 2015/16:

- i. We scrutinised water suppliers' operational delivery from source to tap through the assessment of water companies' regulatory compliance data. During the year we assessed water company sampling and monitoring programmes, including all 4,129,259 compliance results, and investigated the circumstances and actions taken for all 1,235 failures of regulatory standards.
- ii. We assessed 530 events concerning water supplies reported to us by water companies, and we reported publicly on all of these, ensuring that consumers were protected and actions taken to minimise the risk of recurring failures. Of these events, 209 were classified as significant or serious.
- iii. We carried out 79 technical audits of water company assets or operational management activities where risks to drinking water quality were identified, for example, through events reported to us and through assessment of compliance failures.
- iv. We evaluated 93 risk assessment reports submitted by water companies to ensure that action was taken to mitigate risks to public health and to wholesomeness of water supplies.
- v. We issued 118 legal instruments (Notices and Undertakings), as part of our enforcement procedures, that required companies to make improvements to fix problems and to reduce the risk of supplying unwholesome water to consumers.

- vi. We also issued four Enforcement Orders under Section 18 of the Water Industry Act to secure necessary improvements.
- vii. We approved 117 products for use in contact with drinking water, under Regulation 31 of the Regulations, as a service to suppliers and water companies:
 - New approvals – 40
 - Reapprovals – 39
 - Change to approval – 38
- viii. We responded to 262 requests for advice from local authorities in connection with private water supplies, and provided technical advice and training to local authorities on audit and risk assessments.
- ix. The Chief Inspector adjudicated on three disputes that required legal proceedings, concerning private water supplies.

2. The public have confidence in their drinking water.

The activities listed under strategic objective 1 also contributed to this strategic objective. In addition, during 2015/16:

- i. We investigated 36 complaints received from consumers who were dissatisfied with the way their water company had handled a complaint about drinking water quality.
- ii. We responded to 882 enquiries relating to drinking water quality from consumers, organisations and businesses. Of these, three were requests for information sought under the Freedom of Information Act 2000, and five were requests for information sought under the Environmental Information Regulations 2004.

3. Drinking water legislation that is fit for purpose and implemented in the public interest.

A key activity undertaken by the Inspectorate during the year involved working with Defra to amend the English public and private drinking water quality regulations to transpose the requirements of the Euratom Directive and introduce other changes, and engaging with Welsh Ministers in the drafting of the necessary amendments to the Welsh Regulations (covering public and private supplies). Details are provided in the *Legislative changes* section.

We have also been closely involved with Defra, the Welsh Government, Ofwat, the Environment Agency, CCWater, Public Health England, the European Commission, water companies and a number of other key stakeholders on a range of matters that ensure that our legislative framework and regulatory practices continue to be fit for purpose. These are covered in more detail in the *Working with others* section.

We continue to manage the national Drinking Water Quality and Health Research Programme on behalf of Defra. This programme contributes to the expert body of knowledge on drinking water science that is fundamental to our effectiveness as a regulator. In 2015/16, the programme spent £257,000. This evidence base also guides our expert advice on the interpretation and setting of standards, and provides evidence-based information to government, Parliament and Welsh Government members, other regulators and stakeholders, water companies, the media and members of the public. All of our research reports are made publicly available.

During 2015/16 we:

- i. commissioned two research projects on drinking water quality and health-related topics; and
- ii. published 11 research reports.

4. DWI is a progressive and trusted organisation.

We apply the principles of Better Regulation, as set out in the Regulators' Code published by the Department for Business, Innovation and Skills (BIS), when exercising our regulatory functions. We adopt a risk-based approach to regulation and our systems, and procedures enable us to focus our activities on situations where the risks to drinking water quality and public health are greater.

In June 2015, the Secretary of State outlined her vision for the future of British food, farming and the natural environment, and stated that virtually all the data Defra holds will be made freely available to the public, putting Britain at the forefront of the data revolution.

The Inspectorate holds data that originates from water companies and local authorities in England and Wales, which is gathered in line with legislation. This drinking water quality data, along with the data from Scotland and Northern Ireland, is reported to the European Commission for the UK. Data provided by water companies and local authorities is published in summarised form in the annual Chief Inspector's report.

Our approach to regulation is transparent. We publish all legal instruments (Notices, Undertakings and Enforcement Orders) on our

website, together with our Enforcement Policy, guidance, information letters, research reports and press briefings.

During the year we put in place an improved process for receiving and analysing companies' risk assessment reports required under Regulation 28 (Regulation 29 in Wales), which enables us to identify more easily uncontrolled risks to drinking water quality that require remedial action, implementing enforcement action where necessary. This has reduced the regulatory burden for water companies and improved the efficiency of the process for the Inspectorate (see the *Regulatory developments* section).

In addition, during 2015/16:

- We engaged with the water companies we regulate through regular meetings with the companies to discuss issues that are a concern, enforcement matters and topical regulatory matters. We met regularly with Water UK (the organisation representing water companies in the UK), and attended meetings of its various members' groups, to consult with water companies about a wide variety of matters concerning drinking water quality and public health.
- We attended public meetings conducted by the Consumer Council for water to discuss and share information with CCWater members and the public about matters that affect consumers.
- We made available information about compliance and risk for all water companies in the Chief Inspector's report. Separate reports are produced for public and private water supplies, for both Wales and England, and the reports are published on our website.
- We provided information and advice to water companies and local authorities by means of information letters and guidance notes. In 2015/16:
 - i. We published six Information Letters providing guidance on various matters associated with the Regulations, the Inspectorate's activities and drinking water quality issues. One of these (05/2015) provided guidance for water companies and local authorities on the forthcoming amendments to the Regulations through transposition of the requirements of the Euratom Directive (see the *Legislative changes* section).

We continue to support the professional development of our staff by supporting attendance at conferences and seminars as appropriate to business needs, hosting internal training workshops and providing opportunities for external secondments with water companies and laboratories to develop knowledge of specific aspects of water supply

operations and laboratory analysis. We encourage all inspectors to be members of a relevant professional organisation and to work towards attaining and maintaining chartered status through these bodies.

Legislative changes

During the year, we worked with others to amend the Drinking Water Quality Regulations for public and private supplies in both England and Wales. The reasons for these changes and the work carried out is outlined below.

Revisions to the Water Supply (Water Quality) Regulations 2000 and the 2016 amendment to the Water Supply (Water Quality) Regulations 2010 (Wales)

The primary purpose of the 2016 Regulations is to transpose the requirements of Council Directive 2013/51/Euratom of 22 October 2013 (known as the Euratom Directive) into the English Drinking Water Quality Regulations. In particular the Euratom Directive introduces a standard and monitoring requirements for radon in drinking water. The 2016 Regulations also clarify certain aspects of the 2000 Regulations, and the subsequent amending regulations in 2007 and 2010, to improve alignment with the principles of better regulation aiming to reduce unnecessary regulatory burdens on water companies.

The revision of the English Regulations therefore included consolidation of the original Regulations (2000) and subsequent amendments, and introduced some other changes to regulatory requirements, in particular relating to records to be made available to members of the public.

In Wales, the Euratom requirements have been transposed through the issue of amendment regulations.

The public consultation for the draft English Regulations was launched on 1 February 2016 and closed on 14 March 2016. The 2016 English Regulations⁴ were implemented in June 2016 with the Welsh⁵ amendment coming into force in April 2016.

Summary of changes

- Radioactivity monitoring requirements have been amended to transpose the requirements of the Euratom Directive. A new parametric value for radon in drinking water (100Bq/l) is introduced with provision for Member

⁴ http://dwi.defra.gov.uk/stakeholders/legislation/ws_wq_regs_2016_eng.pdf

⁵ http://dwi.defra.gov.uk/stakeholders/legislation/ws_wq_regs_2016_wales.pdf

States to set a level up to 1,000Bq/l provided water supply is not compromised, i.e. the level of health protection is maintained.

- Minimum monitoring frequencies are specified for tritium and indicative dose (ID)
- Monitoring is not required if it can be demonstrated that the radioactive parameters are not likely to be present or will be at levels well below the parametric value. This can be demonstrated based on representative surveys, monitoring data or other reliable information. Monitoring for tritium is required only where there is an anthropogenic source. The revised regulations include provision for monitoring exemptions where there is no risk of exceedance.

The following changes apply only to the English Regulations:

- Regulation 15 – Sampling new sources – has been amended so that when a water company wishes to introduce a new source into supply, it must now submit the required risk assessment report at least one month before using the source for public water supply. This has reduced the waiting time from a minimum of three months to one month.
- Regulations 27 and 28 have been amended to ensure that risk assessments consider the likelihood of water becoming unwholesome, as well as any potential risk to human health.
- Regulation 27(3) has been removed since the requirement for a risk assessment to be completed by 1 October 2008 is no longer relevant.
- Regulation 34 – Records and Information – now includes two new requirements for companies to retain, for a minimum of five years the results of any electronic monitoring carried out in accordance with the Regulations; and particulars of all consumer contacts made in relation to discharge of duties under the Regulations.
- These amendments have resulted in some consequential changes to the numbering of other Regulations.

The Inspectorate will publish guidance to water companies covering both the English and Welsh Regulations. Water companies will be consulted on draft guidance before final publication.

Revisions to the Private Water Supplies Regulations 2009

The reasons for the revision of the Regulations included consolidation of the original Regulations (2009) and the subsequent amending Regulations in 2010, the requirement to transpose the Euratom Directive, and other changes to regulatory requirements.

Summary of changes

- The title has changed to Private Water Supplies (England) 2016.
- Regulation 11 now includes the new provisions for monitoring of radioactive substances. For radon, a representative survey must be carried out to determine the likelihood of a supply failing the standard. For ID, a screening method for gross alpha and gross beta activity may be used and if the trigger values are exceeded, further analysis must be carried out for specific radionuclides.
- Schedules 1 and 3 have been updated to include radioactivity parameters.
- Regulation 3 has been amended to more accurately reflect the Drinking Water Directive exemptions for water used for food production purpose where the competent authority (in this case the Food Standards Agency) is satisfied that the quality of water supplied cannot affect the wholesomeness of foodstuff in its finished form.
- Regulations 6, 9 and 10 have been amended to clarify that they apply where a supply is provided as part of a commercial or public activity.
- Regulation 5 (products or substances in contact with private supplies) now no longer refers to Regulation 31 of public water supply Regulations.

These changes apply to England only. In Wales amendment Regulations have been published which transpose the requirements of Euratom. Therefore separate guidance will be required for each. The public consultation on the draft English Regulations was launched on the 1 February 2016 and closed on 14 March 2016.

Guidance to the Euratom requirements

To facilitate implementation of the requirements relating to radon, the Inspectorate commissioned a research project, *Understanding the Implications of the European Requirements relating to Radon in Drinking Water*, which was published in 2015 supported with an Information Letter⁶. This report used information from geological surveys, water analysis and radon-in-air to identify areas of the UK where water supplies may be at risk of exceeding the new standard for radon, and to ensure that companies and local authorities carry out an appropriate level of monitoring before the revised Regulations are implemented in 2016. The full report is available on our website.

⁶ <http://www.dwi.gov.uk/stakeholders/information-letters/2015/05-2015.pdf>

Full guidance for both sets of Regulations will be drafted and issued to coincide with the publication of the revised Regulations.

The Water Act 2014

The Water Act 2014 introduced a number of changes to water companies' licences to prepare for market reform, changes to the abstraction licencing process and imposed a primary duty on the economic regulator (Ofwat) to secure resilience in the water sector. These changes will have a significant effect on the work of the DWI, and we are actively engaging with Defra, the Welsh Government and Ofwat to ensure that in the implementation of these changes adequate attention is paid to drinking water quality to ensure that we are able to continue to effectively carry out our statutory functions.

Section 40 of this Act also introduces provision for the Inspectorate to charge fees⁷ for the exercise of its functions.

European Council Directive 98/83/EC 'Drinking Water Directive' Annex II and III changes

The European Commission has revoked the existing Annexes II and III of the Drinking Water Directive and issued revised annexes which must be in force by October 2017. The revisions to the annexes introduce a risk assessment approach to the selection of monitoring parameters and frequencies, and changes to the analytical techniques for measuring accuracy.

Working with Defra, the Welsh Government and water companies, we will prepare and manage a programme for transposition between now and October 2017. This will require further revisions to the Regulations.

We anticipate that variations to the monitoring programme prescribed by the Drinking Water Directive will be determined using risk assessment approaches by water companies and DWI to ensure an appropriate level of monitoring is carried out to protect consumers and report on performance, depending on the hazards and their relative risk in each drinking water supply. This provides us with a significant opportunity to make arrangements for further deregulation of water supply arrangements, provided the interests of consumers and the statutory duties of stakeholders are recognised.

⁷ <http://www.legislation.gov.uk/uksi/2016/303/contents/made>

Working with others

The Inspectorate works with a wide range of external organisations, other regulators, government departments, professional bodies and academic institutions in the delivery of our strategic objectives. Some of these activities have been outlined in *The Drinking Water Inspectorate – An overview* section. We have memoranda of understanding in place with the other principal water industry regulators and Public Health England (PHE), which are available on our website⁸.

This chapter provides more detail on our engagement with our principal stakeholders.

1. Defra

DWI is a business unit in Defra's Water and Flood Risk Management Directorate. As the independent regulator for drinking water quality we are not directly responsible for development of policy. We do, however, actively engage with Defra on matters relating to water quality and sufficiency, resilience and water emergencies.

We work closely with Defra's Water Security and Resilience (WSR) team on all security and emergency issues that could directly or indirectly affect water quality and/or sufficiency. We participate in Defra's emergency meetings during serious water supply events where Defra is the lead organisation under the Security and Emergency Measures Directive (SEMD), and attend other Defra meetings as necessary, providing technical and regulatory advice.

This year, for example, DWI worked closely with WSR during the Lancashire *Cryptosporidium* water supply emergency, and we participated in Defra's strategic communications group established for this event. We will continue to liaise with Defra about this event, to ensure that lessons learned are identified for incorporation into Defra's strategy for improving water supply resilience – *Enabling Resilience in the Water Sector*.

We also work closely with the Water Framework Directive and Agriculture team in Defra. Liaison here has been about a consultation on the targeted substitution of the pesticide metaldehyde to support water companies in their efforts to meet the drinking water standard for metaldehyde in drinking water. Additionally, we have been working to ensure that environmental and drinking water quality concerns are addressed in a review of pesticide registration conditions.

⁸ <http://www.dwi.gov.uk/about/working-with-others/index.htm>

Engagement with Defra during the year also included the area of water resources ensuring that water quality concerns are considered fully in the determination of options to meet future demand, and various matters relating to abstraction reform, water trading, and market reform.

2. Welsh Government

This year, the Future Generations Act in Wales came into force. This underpins the Government's aspirations for the next 25 years on all aspects of life in Wales. The seven wellbeing goals include a healthier Wales. DWI has provided advice during the formulation of the Act and notes that access to safe drinking water is a principal tenet. We will support the work of the Statutory Public Boards set up by the Act where the issues relate directly to drinking water quality.

During the year, DWI advised the Welsh Government on the regulatory changes required to transpose the Euratom Directive. The amendment Regulations incorporating these changes were laid before Ministers on 22 March 2016. We are actively working with the Welsh Government on the changes to Annex II and Annex III of the Drinking Water Directive.

DWI is an active member of the Wales Water Forum, which was established to provide advice and guidance to Welsh Ministers on strategic matters relevant to water supplies and the environment in Wales. One of its activities is to report on progress with delivery of the Government's Water Strategy, into which we provide input on drinking water and water resources aspects.

DWI continues to support the Water Health Partnership for Wales on both the steering committee and several task-and-finish groups, for example, private water supplies and lead in drinking water.

3. Water companies

As supplementation to our routine regulatory engagement with water companies, we have significant liaison and consultation with water companies and their representative body, Water UK, on the strategic issues that are relevant to the water industry. This is an important and ongoing process.

4. Ofwat

Our work with Ofwat has included ensuring that water quality issues, including event management implications, are appropriately considered in the development of statutory codes of practice that accompany licences

for the new market in retail services for non-household customers. The market opens in April 2017 and we have also developed guidance and processes to enable us to provide technical input to the licence application process which opened in April 2016.

Additionally, we have been actively involved in Ofwat's Water 2020 programme, the development of a reporting framework for the water industry, and a review of the implications of extending retail market services to domestic customers.

5. The Environment Agency

We have been engaging with the Environment Agency (EA) on the interaction of the Water Framework Directive and Drinking Water Directive, working to support water companies in their catchment management activities for metaldehyde and nitrate. We are also working on arrangements to share data (where possible) to assist the EA in delineating drinking water protected areas to ensure that the EA can provide appropriate protection to public and private supplies, as well as provision of raw water data, where available, that may be useful in pollution incident investigations.

The Inspectorate is represented on the Metaldehyde Stewardship Group which is an agrochemical industry-led group established to address the issue of metaldehyde contamination of water supplies. Its membership includes representatives from farming, agronomy and pesticide manufacturers as well as water companies, the EA and Defra.

6. UK Regulators

DWI has memoranda of understanding with its equivalents from Northern Ireland, Scotland and the Republic of Ireland. Meetings are held three times a year and the group are joined by the regulators responsible for drinking water quality in Jersey, Guernsey, Gibraltar and the Isle of Man for general support, knowledge sharing and capacity building.

During this reporting period, transposition of the Euratom Directive) was discussed as well as plans for reporting on the calendar year of 2015. Outputs of research programmes and developing enforcement cases were shared.

7. The Isles of Scilly

Since 2006, DWI has provided technical support to the Council of the Isles of Scilly, The Duchy of Cornwall and Tresco Estates to strengthen the management of drinking water quality for public and private supplies.

This work has involved compiling and reviewing raw and treated water data, auditing supplies and producing risk assessments, recommending priorities for the maintenance and improvement of supplies, providing support and mentoring to staff and providing evidence for bids for government funding for short-term improvements. In 2015, a joint project with the Environment Agency led to the sampling of over 50 boreholes across the islands and delivered a better understanding of the quality of groundwater. This information has been incorporated into risk assessments for private supplies and will be taken into account in plans to find a more sustainable future for the management of drinking water supplies in the longer term.

8. European Commission

The informal 'Drinking Water Directive Expert Group' meets to discuss Drinking Water Directive matters two to three times per year. The Drinking Water Directive is currently under review with a number of work streams focusing on different policy options. At the most recent meeting, these policy options were discussed and developed and a forward plan proposed. The Commission provided an update on the position across all Member States concerning transposition of the Euratom Directive and took the opportunity to present on drinking water-related research.

The Commission has launched a project on the revision of article 10 of the Directive. The study is entitled *Support to the Implementation and Further Development of the Drinking Water Directive (98/83/EC): Study on Materials in contact with Drinking Water*. The three objectives of this project are to:

- **analyse the problem** of materials and products affecting the quality of drinking water to provide an overview of the problem including an indication of its scale;
- **develop guidance** for users of materials in contact with drinking water and,
- provide support for a **draft inception impact assessment**.

The study should report soon.

9. European regulators

The European Network for Drinking Water Regulators (ENDWARE) meets three times a year to discuss matters concerning implementation and compliance with the Drinking Water Directive. As transposition of the Directive requires some interpretation to take account of each Member

State's particular water industry arrangements, there is some variation in how compliance is achieved. It is therefore possible to learn about these different approaches and determine if improvements can be made in the UK. Research outcomes are shared and aspirations for future revisions of the Directive are discussed. A representative from the Commission is present for the meetings and issues or concerns are taken forward if appropriate.

10. Public Health England (PHE)

Fluoride

Where water supplies are artificially fluoridated at the request of PHE, to achieve a target concentration in water supplied to consumers, we have worked with PHE through reviewing and commenting on fluoride results that fall outside the target range. In 2015/16 we assessed 277 such results. We have also co-operated in reviewing technical aspects of water fluoridation and in January 2016, we updated and published a revised *Code of Practice on Technical Aspects of Fluoridation of Water Supplies*⁹, which is available on our website.

Chromium

DWI commissioned a research project on the *Significance of Chromium in Drinking Water*. Overall the monitoring findings were reassuring and toxicity data showed that the gaps in the database meant that at present it is very difficult to establish a definitive level upon which to propose a new drinking water standard. DWI received a toxicological risk assessment for chromium VI from PHE which concluded that chromium VI is considered carcinogenic and genotoxic. In response, DWI provided guidance to water companies on the steps they should take in Information Letter 04/2015¹⁰. The full report is also available on our website.

11. The World Health Organisation (WHO)

DWI has been designated (until January 2018) as a World Health Organisation (WHO) Collaborating Centre for Drinking-water Safety (Ref UNK-232). This recognises our knowledge of implementing risk-based regulation in the field of drinking water supply, practically implementing the WHO water safety plan approach that was first promulgated as drinking water policy globally in 2004. An important function of our

⁹ <http://www.dwi.gov.uk/stakeholders/information-letters/2016/01-2016-annexa.pdf>

¹⁰ <http://www.dwi.gov.uk/stakeholders/information-letters/2015/04-2015.pdf>

collaborating centre role is to provide support in the form of regulatory and technical knowledge through WHO organised workshops, training programmes, benchmarking projects and research studies.

During 2015 visits were made to Kyrgyzstan and Ukraine to provide capacity building to both countries working towards compliance with the Protocol for Water and Health.

A Practical Guide to Auditing Water Safety Plans was published in 2015 and the Inspectorate was a named contributor having attended the initial planning workshop and providing case studies included in the guide.

We also respond to ad-hoc queries and have reviewed technical documents.

In 2015 we published WHO's technical briefing note *Boil Water*¹¹ on our website.

In March 2016 we attended a strategic workshop on future priorities under the United Nations Economic Commission for Europe (UNECE)-WHO Europe protocol on Water and Health. The objective was to identify priorities and determine future thematic areas under the protocol for 2017-2019.

12. Consumer Council for Water (CCWater)

We share and exchange information with CCWater on drinking water quality issues, with an emphasis on issues that directly affect consumers, through attending meetings and providing reports. We attend CCWater's regional meetings as necessary, where drinking water quality features on the agenda. This year DWI engaged with, and contributed to, CCWater's consumer issues workshops which were held in each of its regions, to help determine its forward work programme.

13. Consumer Consultation Groups (CCGs)

CCGs were established by water companies to improve companies' engagement with customers as part of their meeting Ofwat requirements for the Periodic Review 2014 process. DWI provided strong support for this initiative as part of PR14. All companies have renewed CCG appointments post-PR14, with an emphasis on assurance on delivery of AMP6 commitments. We are not a member of the current CCGs, but we will continue to support their work as resources permit by providing advice on drinking water quality matters. Arrangements for the role of

¹¹ <http://www.dwi.gov.uk/stakeholders/guidance-and-codes-of-practice/Boiling-water01-15.pdf>

CCGs in the PR19 process are yet to be determined.

14. United Kingdom Accreditation Service (UKAS)

The Department for Business Innovation and Skills (BIS) has appointed the UKAS as the sole accreditation body in the UK for the purposes of assessing drinking water testing facilities and sampling arrangements in accordance with ISO/IEC 17025 and the Drinking Water Testing Specification (DWTS). Information Letter 05/2013¹² dealt with requirements for all companies to obtain UKAS accreditation under ISO/IEC 17025 to DWTS for all sampling, transport and analysis of drinking water that falls within the scope of the Regulations. The Inspectorate has liaised with UKAS and Water UK to review performance with attaining these standards and is working actively with both organisations to ensure that the requirements are achieved across England and Wales.

15. Standing Committee of Analysts

The Standing Committee of Analysts (SCA) comprises a series of working groups of experts in their fields, who provide guidance on methods of sampling and analysis for determining the quality of environmental matrices. Guidance is published as Blue Books within the series *Methods for the Examination of Waters and Associated Materials*. The guidance can be found on the GOV.UK. website¹³.

Our Chief Inspector is the current SCA strategic board chairman, which provides strategic direction for the organisation's forward programme of work.

16. British Standards Institute

DWI assists and participates in the writing of British, European and International standards that are associated to drinking water. This includes the analysis of drinking water, including quality control, drinking water products such as taps and thermostatic mixing valves, treatment chemicals and products as well as general guidance standards such as temporary supplies.

Standardisation meetings may require attendance, but membership can be by email correspondence and comment. A committee meeting is generally held either annually or biannually.

¹² <http://dwi.defra.gov.uk/stakeholders/information-letters/2013/05-2013.pdf>

¹³ <https://www.gov.uk/government/publications/standing-committee-of-analysts-sca-blue-books>

This year has seen publication of a building water guidance standard (BS8558), drinking water guidance standard (BS8551 – temporary supplies), two drinking water product standards (BS1212 and BSEN1113), three drinking water material test standards (BSEN1420, BSEN16421 and BSEN15768), five treatment chemical/filter media standards (BSEN15030, BSEN1018, BSEN12931, BSEN14369 and BSEN14368) and five drinking water analytical test method standards (ISO9698, ISO10703, ISO13161, ISO13165-3 and ISO13167). In addition to this, DWI participated in the revision, confirmation and writing of new standards where there is a requirement for regulatory, or specific expertise in certain aspects of drinking water.

17. Local authorities in England and Wales

In 2015, we published a revision to our Manual on Treatment for Small Water Supplies which provides information for local authorities and owners/managers of private supplies on measures they can take to mitigate the risk of existing or potential contamination. We also produced a simplified version of our risk assessment tool for use on simple supply systems.

18. Supply chain

The UK chaired the joint management committee of the four Member States group (4MS) with meetings in London, Berlin and Lisbon. The 4MS is a voluntary group including the UK, France, Germany and the Netherlands which works together on procedures for approval of materials and products in contact with drinking water with the intention of reducing the testing burden placed on industry by different approval schemes. The group has agreed to take forward a twin track approach exploring opportunities for mutual recognition of existing approvals alongside the work already in hand on full harmonisation.

We have also responded to enquiries from and engaged with trade bodies, including the industry consortium for products in contact with drinking water. It has held two meetings with WRAS and Water UK on 4MS issues.

We also liaised informally with various supply chain members and representative bodies on drinking water supply matters.

19. Research organisations

DWI manages the drinking water quality and health research programme for Defra.

The rationale for publicly funded research is the provision of credible and authoritative information on the health aspects of drinking water quality to ensure that standards and regulations protect public health. The Drinking Water Quality and Health (DWQH) research programme allows Defra and the Welsh Government to discharge their obligations in respect of ensuring the safety of drinking water based on credible scientific evidence

Between 1 April 2015 and 31 March 2016 we contributed financially to two UKWIR research projects on Brass Fittings – as a source of lead in drinking water – Stage 3 and Pesticide Risk Mapping (Phase 2). In this period we have also published reports on:

- Volatile Organic Compounds – Understanding the risks to drinking water (DWI 70/2/292)
- Effect of UV on the Chemical Composition of Water including DBP Formation (DWI 70/2/300)
- Understanding the significance of chromium in drinking water (Ref DWI 70/2/275)
- Understanding the implication of the EC’s proposals relating to Radon in drinking water for the UK (Ref DWI 70/2/301)

In addition, we published the executive summaries of two collaborative projects with the Water Research Foundation on Microbial Control Strategies for Main Breaks and Free-Living Protozoa in Distributed Water.

Establishing a sound evidence basis underpins everything we do. It provides reassurance to consumers, contributes to drinking water legislation, is fit for purpose and helps us ensure water suppliers deliver water that is safe and clean.

Regulatory developments

The context in which the Inspectorate operates is constantly evolving. The European Commission, Ministers and other regulators regularly update their policy and strategic objectives for water supply arrangements, and these developments have an impact on what we do. Wider governmental aspirations and initiatives, for example, for better regulation, also need to be adapted for our circumstances and implemented.

Other generic issues, such as climate change and industry-level organisational change through mergers and acquisitions, affect us all. Specific developments, for example, the development of competition in the water industry, together with economic and technical innovation, have had an impact on our work during the past year.

This section discusses our recent engagement on some of these issues.

- **Market reform**

The Water Act 2014 established the framework to create a market that will allow 1.2 million businesses and other non-household customers of providers based mainly or wholly in England to choose their supplier of water and waste water services from April 2017. Retail services include services such as billing and enhanced customer services.

We have worked with Open Water (the programme of work that brings together all of the key organisations to design and deliver the new market) to develop a suite of statutory codes governing the relationships between customers, wholesalers and retailers to ensure that this market change does not allow a reduction in confidence that non-household customers have in their drinking water supply.

We have also worked with Ofwat to develop the required retail licences and to ensure that we are ready to manage the licence applications when the process opens in April 2016.

- **Better regulation**

The Regulators' Code came into force in April 2014 as part of the Legislative and Regulatory Reform Act 2006. This replaced the Regulators' Compliance Code. It requires regulators to adhere to a set of principles for engagement with those they regulate. There are six key areas:

- i. Regulators should carry out their activities in a way that supports those they regulate to comply and grow.

- ii. Regulators should provide simple and straightforward ways to engage with those they regulate and hear their views.
- iii. Regulators should base their regulatory activities on risk.
- iv. Regulators should share information about compliance and risk.
- v. Regulators should ensure clear information, guidance and advice is available to help those they regulate meet their responsibilities to comply.
- vi. Regulators should ensure that their approach to their regulatory activities is transparent.

Regulators are expected to give regard to these principles when developing policies and procedures for carrying out their regulatory activities. The code can be found at <https://www.gov.uk/government/publications/regulators-code>.

DWI was previously audited by BIS on its level of compliance with the Regulators' Compliance Code, and was found to be an exemplar organisation in our implementation of the Code requirements. We now have a programme of work in place to deliver the expectations of the new Regulators' Code. This work will also take account of how we demonstrate delivery of other new government initiatives for better regulation such as a new growth duty, new requirements to implement business impact targets, new Small Business Enterprise and Employment (SBEE) Act requirements, and the small business appeals champion requirements. We are also engaged on various Defra-specific better regulation initiatives, including the contributions we might make to the Government's deregulation initiatives, and we are participating in the separate Regulatory Futures Review. This represents a substantial ongoing workload.

- **Enforcement policy**

The Inspectorate's enforcement policy, as published on its website, was reviewed during 2015 and republished for the period up to 2020. Defra published its own enforcement policy in October 2015 and we ensured our policy aligned with this and any updates or changes to the various codes and conventions our policy is based upon. Changes were predominantly made to provide better clarity concerning the Inspectorate's core enforcement activities and processes.

– **Risk assessment reporting**

In October 2015, a project was completed which transformed how the Inspectorate collects, stores and reacts to information produced by water companies delivering risk assessment and risk management obligations in accordance with the Regulations. The two-year project involved reviewing the data gathering requirements, testing proposals for standardising data submissions using a pilot group of companies, and the development of a new IBM database. We now hold a greatly improved dataset which is searchable and can be used to produce useful information for investigatory or reporting purposes. There are also new processes in place which ensure that regular updates are submitted by companies to keep the dataset up-to-date.

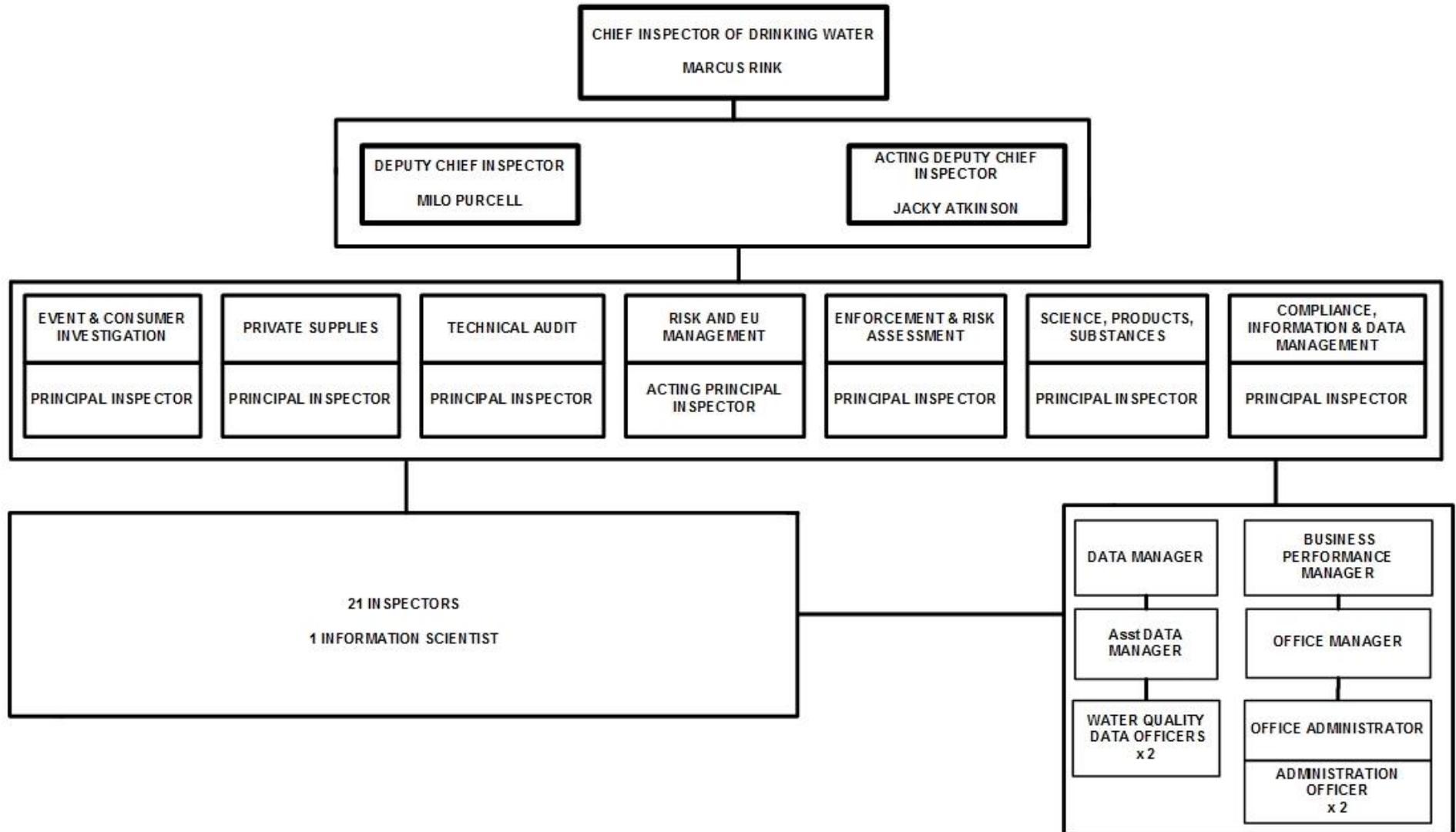
Annex 1 – Cost recovery

| Company | Amount recovered for checking sample results | Amount recovered for conducting audits, events and complaints |
|-------------------------------|--|---|
| Affinity Water | £80,255 | £11,515 |
| Albion Water | £330 | £235 |
| Anglian Water | £188,919 | £34,874 |
| Bournemouth Water | £21,299 | £4,559 |
| Bristol Water | £61,319 | £11,515 |
| Cambridge Water | £15,059 | £6,392 |
| Cholderton and District Water | £550 | £2,444 |
| Dee Valley Water | £15,488 | £10,058 |
| Dŵr Cymru Welsh Water | £130,354 | £51,324 |
| Essex and Suffolk Water | £54,850 | £6,909 |
| Hartlepool Water | £2,787 | £4,653 |
| Independent Water Networks | £1,432 | £3,149 |
| Northumbrian Water | £98,315 | £23,500 |
| Peel Water Networks | £128 | £0 |
| Portsmouth Water | £21,910 | £2,162 |
| Severn Trent Water | £313,045 | £96,068 |
| South East Water | £127,145 | £28,529 |
| South Staffordshire Water | £42,714 | £13,207 |
| South West Water | £111,324 | £21,338 |
| Southern Water | £109,017 | £33,276 |
| SSE Water | £3,238 | £1,034 |
| Sutton and East Surrey Water | £20,200 | £6,345 |
| Thames Water | £258,384 | £48,410 |
| United Utilities | £222,122 | £79,007 |
| Veolia Water Projects | £1,484 | £0 |
| Wessex Water | £123,328 | £32,336 |
| Yorkshire Water | £198,084 | £24,863 |
| Sub total | £2,223,080 | £557,702 |

| | Costs recovered |
|-------------------------|-----------------|
| Product approval | £50,450 |

| | |
|------------------------------|-------------------|
| Total costs recovered | £2,831,232 |
|------------------------------|-------------------|

Annex 2 – Structure of DWI





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