



Department
for Environment
Food & Rural Affairs

Drinking Water Quality in England: A Triennial Report 2020 – 2022

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Introduction

This is the second three yearly report encompassing 2020 to 2022 on the quality of drinking water supplies in England. It covers the quality of public supplies and the largest private supplies serving more than 5,000 consumers, or 1,000 cubic metres a day. The report is compiled by the Drinking Water Inspectorate, a part of DEFRA, who act on behalf of the secretary of state to regulate drinking water quality in England.

This report demonstrates the high quality of drinking water in England. For public supplies, of the many thousands of samples taken by water companies (water supply licensees and wholesale licensees) during 2020 to 2022, 99.98% met the regulatory standards. Every sample that did not meet the standards was investigated and where required, actions were put in place to protect consumers and prevent recurrence.

High-quality drinking water supplies in England are due to the work of the many stakeholders involved in drinking water treatment and distribution. The Water Safety Planning approach included in the Drinking Water Inspectorate's drinking water legislation, ensures any risks are identified and dealt with effectively before they become a problem. This approach, supported by targeted enforcement action, ensures that public health always remains a priority.

Since 2010, when legislation was introduced, the quality of private supplies has been improving, but they still lag behind the standards of the public supplies. During 2020 to 2022, the largest supplies met the regulatory standards for 94.22% of the time.

Local authorities are the regulators of private water supplies. They are responsible for carrying out a risk assessment and monitoring, and can serve notices if they determine a supply is unwholesome, and must serve a notice if they determine there is a potential risk to human health.

Where does our tap water come from?

Public water supplies

Approximately 99% of the population of England receive a public supply from a water company. Consumers will know whether they receive a public supply, because they will be billed by a water company for their drinking water supply. Over fourteen thousand megalitres of water were supplied each day to a population of nearly fifty-eight million people in England. This is equivalent to about 5,600 Olympic sized swimming pools every day. The figures for 2020 to 2022 are shown in Table 1 and the breakdown by water source is shown in Table 2.

Table 1 - Public supply statistics for England (Chief Inspector's Report)

England data	2020	2021	2022
Total population	56,822,463	57,256,186	57,907,036
Number of water supply zones	1,590	1,630	1,683
Total daily volume of water supplied (Megalitres)	14,225	14,137	14,123

Table 2 - Public supply sources for England (Chief Inspector's Report)

Water sources by percentage volume (surface, groundwater, other)	2020	2021	2022
Ground	27%	30%	31%
Surface	65%	64%	62%
Mixed/Other	8%	6%	7%

Source: www.dwi.gov.uk/what-we-do/annual-report/



Water is abstracted from surface water (rivers and reservoirs), groundwater aquifers and mixed sources, with the largest proportion being supplied from surface water.

Before it reaches consumers taps, public supplies are treated to remove impurities, and distributed through a network of strategic water mains and storage tanks called service reservoirs before local water mains carry supplies into people's homes.

The number of water treatment works, service reservoirs and water supply zones in the public supply network in England are shown in Table 3.

Table 3 - Number of water company assets in England (Chief Inspector's Report)

England data	2020	2021	2022
Water treatment works	1,090	1,076	1,077
Service reservoirs	3,791	3,776	3,789
Water supply zones	1,590	1,630	1,683

Private water supplies

About one percent of the population of England have a private water supply, commonly a farm, or small rural community. These consumers often abstract their water from a well, spring or borehole on private land.

As explained in the Introduction, this report covers the quality of the largest private supplies of which there are 11 serving a population of almost 300,000. These supplies are mostly used as part of a commercial or public activity such as drinks manufacturing or hospitals.

Quality standards for drinking water

Drinking Water is regulated under the Water Supply (Water Quality) Regulations 2016 (as amended), and the Private Water Supplies (England) Regulations 2016 (as amended).

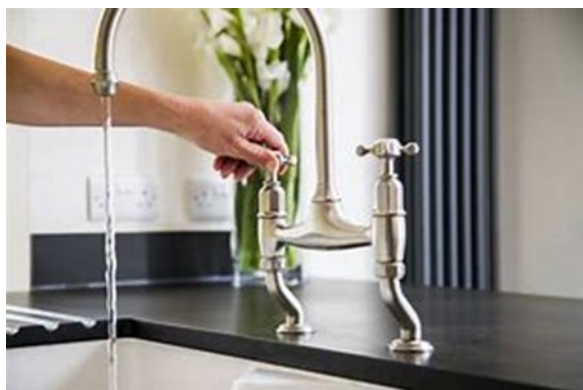
Both sets of regulations include standards for a wide range of microbiological and chemical parameters, plus indicator parameters and pesticides. Many are health-based standards and contain safety margins to protect the most vulnerable members of society. Other standards ensure that water is aesthetically pleasing and acceptable to consumers.

The two microbiological parameters *Escherichia coli* (*E. coli*) and *Enterococci* should be absent from drinking water to guarantee its quality. Some parameters reflect the acceptability of water to the consumer, such as appearance, taste and odour of the water.

Other chemical parameters are selected for their potential impact on human health. Chemical parameters are highly unlikely to be present in drinking water in concentrations that can cause acute health effects. Furthermore, the impact of any parameter exceeding the safety limit or the non-compliance of chemical usage and disposal, depends on the way they affect the human body. Mostly the parametric values are based on lifelong exposure and an average drinking water intake of two litres per person per day.

The Drinking Water Inspectorate (the Inspectorate) was established in 1990 to provide independent assurance that the water industry delivers safe, clean drinking water to consumers. The Inspectorate holds water companies to account and takes action to ensure any failures are addressed, and provides technical and scientific advice to local authorities (who are the regulators of private water supplies). Information on the regulatory work of the Inspectorate can be found on the website: www.dwi.gov.uk.

Sampling results for public water supplies



Water supplies are sampled throughout the supply chain to confirm water remains safe to drink and free from contamination. In addition, a random selection of consumer properties is sampled each year. Samples are taken at the point of supply, usually the kitchen tap, and analysed to check they meet the regulatory standards.

The Covid-19 pandemic brought about many challenges for the drinking water industry, which included changing the sampling programme to comply with government guidelines. For the majority of 2020 and parts of 2021 some of the consumer tap samples were taken at surrogate sample points in the network, to avoid entering people's homes and risking spread of the virus. Therefore, data for domestic plumbing metals in particular may appear to be different to other years.

The percentage compliance for the main parameter groups is shown in Table 4

Table 4 - Compliance measured at consumers taps and supply points for public supplies.

Parameter group	2020	2021	2022
Microbiology	99.98%	99.98%	99.98%
Chemicals	99.96%	99.96%	99.94%
Indicator parameters	100.00%	99.98%	99.97%
Pesticides	100.00%	100.00%	100.00%

Drinking water supplies are generally of excellent quality and consistently meet the standards in the Regulations, although each year a small number of samples failed to meet the standards. The exact numbers of samples and failures for each parameter is shown in Table 5 to 9.

The majority of substances met the regulatory standards all the time (100% compliance). Lead and nickel had the poorest performance with lead (99.60%) and nickel (99.64%), followed by odour (99.80%), coliforms (99.82%), iron (99.83%), and taste (99.86%).

Table 5 - Compliance data 2020 – 2022 for microbiological parameters in zones and supply points combined.

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
<i>E. coli</i>	134,730 (11)	149,009 (11)	145,904 (25)	99.99%
Enterococci	14,757 (4)	12,293 (4)	12,387 (2)	99.97%

Table 6 - Compliance data 2020 – 2022 for chemical parameters in zones and supply points combined.

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
1 2-Dichloroethane	11,714 (0)	10,093 (0)	10,082 (0)	100.00%
Aluminium	47,361 (8)	47,222 (12)	49,001 (18)	99.97%
Antimony	12,745 (0)	12,303 (0)	12,194 (0)	100.00%
Arsenic	12,749 (0)	12,294 (0)	12,195 (1)	100.00%
Benzene	11,729 (0)	10,089 (0)	10,083 (0)	100.00%
Benzo[a]Pyrene	12,436 (2)	12,664 (2)	12,360 (3)	99.98%
Boron	10,727 (0)	10,379 (0)	10,132 (0)	100.00%
Bromate	11,320 (0)	11,257 (0)	10,919 (0)	100.00%
Cadmium	12,566 (0)	12,328 (0)	12,235 (0)	100.00%
Chromium	12,822 (2)	12,330 (0)	12,389 (0)	99.99%
Colour	71,196 (0)	50,598 (0)	53,179 (0)	100.00%
Copper	10,747 (6)	12,268 (1)	12,303 (2)	99.97%
Cyanide	8,272 (0)	7,987 (0)	7,642 (0)	100.00%
Fluoride	12,423 (0)	10,862 (0)	10,227 (0)	100.00%
Iron	46,849 (62)	47,682 (101)	49,437 (81)	99.83%
Lead	10,551 (40)	12,269 (38)	11,285 (59)	99.60%
Manganese	46,641 (19)	47,177 (12)	49,008 (14)	99.97%
Mercury	8,341 (0)	7,944 (0)	8,517 (0)	100.00%
Nickel	10,534 (35)	12,256 (46)	11,238 (43)	99.64%
Nitrate	41,878 (1)	22,788 (0)	22,154 (0)	100.00%
Nitrite - Consumer's Taps	41,985 (2)	22,785 (0)	22,180 (3)	99.99%
Nitrite/Nitrate formula	41,385 (1)	22,186 (0)	22,051 (0)	100.00%
Odour	46,637 (89)	50,591 (108)	53,139 (103)	99.80%
Polycyclic Aromatic Hydrocarbons	12,349 (1)	12,495 (0)	12,281 (1)	99.99%
Selenium	12,742 (0)	12,296 (0)	12,226 (0)	100.00%
Sodium	12,676 (2)	11,609 (1)	12,398 (1)	99.99%
Taste	46,564 (60)	50,477 (53)	53,045 (88)	99.86%
Tetra-chloromethane	13,314 (0)	10,894 (0)	11,495 (1)	100.00%
Trichloroethene & Tetra-chloroethene	13,265 (0)	11,574 (0)	11,415 (1)	100.00%

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
Trihalomethanes	13,314 (1)	12,270 (2)	12,390 (0)	99.99%
Turbidity	71,564 (6)	50,575 (4)	53,175 (8)	99.99%

Table 7 - Compliance data 2020 – 2022 for indicator parameters in zones and supply points combined.

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
Ammonium	57,166 (0)	37,571 (1)	36,683 (0)	100.00%
Chloride	13,014 (3)	10,390 (4)	10,233 (6)	99.96%
Clostridium Perfringens	24,684 (4)	27,097 (7)	23,977 (6)	99.97%
Coliform Bacteria	134,730 (149)	149,007 (282)	145,911 (342)	99.82%
Colony Counts After 3 Days At 22°C	60,903 (0)	59,715 (0)	59,234 (0)	100.00%
Conductivity	79,287 (0)	63,230 (0)	62,435 (0)	100.00%
Hydrogen ion (pH)	71,270 (1)	53,914 (4)	53,199 (3)	100.00%
Sulphate	13,331 (0)	34,233 (0)	10,248 (0)	100.00%
Total Indicative Dose (Gross Alpha and Beta)	0 (0)	1,996 (0)	2 (0)	100.00%
Total Organic Carbon	8,472 (0)	8,742 (0)	8,745 (0)	100.00%
Tritium	353 (0)	438 (0)	316 (0)	100.00%

Table 8 - Compliance data 2020 – 2022 for pesticides in zones and supply points combined.

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
Individual Pesticides	161,584 (3)	164,028 (0)	171,746 (3)	100.00%
Special Pesticides	14,924 (0)	14,603 (0)	16,677 (0)	100.00%
Total pesticides	7,147 (0)	7,141 (0)	7,297 (0)	100.00%

Table 9 - percentage of samples not meeting the standard.

Parameter	2020	2021	2022
Lead	0.38%	0.31%	0.52%
Nickel	0.33%	0.38%	0.38%
Coliform Bacteria	0.11%	0.19%	0.23%
Odour	0.19%	0.22%	0.20%
Fluoride	0.00%	0.00%	0.00%
Taste	0.13%	0.11%	0.17%
Iron	0.13%	0.21%	0.16%
Chloride	0.02%	0.04%	0.06%
<i>Clostridium Perfringens</i>	0.02%	0.03%	0.04%
Aluminium	0.02%	0.03%	0.04%
Manganese	0.04%	0.03%	0.03%
Benzo[a]Pyrene	0.02%	0.02%	0.02%
<i>E. coli</i>	0.01%	0.01%	0.02%
Copper	0.06%	0.01%	0.02%
<i>Enterococci</i>	0.03%	0.03%	0.02%
Turbidity	0.01%	0.01%	0.02%
Nitrite - Consumer's Taps	0.00%	0.00%	0.01%
Trichloroethene & Tetra-chloroethene	0.00%	0.00%	0.01%
Tetra-chloromethane	0.00%	0.00%	0.01%
Arsenic	0.00%	0.00%	0.01%
Polycyclic Aromatic Hydrocarbons	0.01%	0.00%	0.01%
Sodium	0.02%	0.01%	0.01%

Parameter	2020	2021	2022
Hydrogen ion (pH)	0.00%	0.01%	0.01%
Trihalomethanes	0.01%	0.02%	0.00%
Chromium	0.02%	0.00%	0.00%

Lead

The lead failures come from lead plumbing which is present in some older buildings. Water companies treat drinking water with phosphate to provide a coating within lead pipes, and while this reduces the amount of lead which dissolves into the water, it is not completely effective. Water companies are tackling lead failures using a risk-based approach, prioritising schools and vulnerable consumers. The Inspectorate has published research on long term strategies to reduce lead exposure from drinking water:

www.dwi.gov.uk/research/completed-research/premise-risk/long-term-strategies-to-reduce-lead-exposure-from-drinking-water/.

Nickel

Nickel failures are sometimes found to be associated with the installation of new water fittings in the home, for example, new chrome taps. The nickel leaching from these products is often attributable to chrome/nickel or nickel-plated products and is variable depending on the plating process. The Inspectorate and UK Water Industry Research body (UKWIR) are carrying out a research project to look for a possible methodology for quality assurance testing by water fittings manufacturers. More information about approved products can be found on the Inspectorate's website:

www.dwi.gov.uk/drinking-water-products/reg-31-approval/products-used-within-a-property-boundary/ and advice for consumers finding approved plumbers on the WaterSafe website: www.watersafe.org.uk.

Coliforms

Coliforms are extremely common on surfaces and are used as an indicator of environmental contamination. In each case an investigation is carried out to investigate the cause and resamples are taken until the issue is resolved. Most coliform failures were traced to the kitchen tap, which highlights the need for consumers to keep the tap clean, although few of the remaining failures were attributable to any conclusive cause.

Iron and Manganese

Iron and manganese can be found in tap water as these metal deposits can accumulate in the pipe network. These deposits can come from a variety of sources, iron and manganese are found naturally in source waters and iron is used in the treatment process at water treatment works. Water companies will try to reduce the amount of iron and manganese leaving treatment works so these metals do not 'seed' the network. Unlined cast iron pipes can also be a source of iron, as corrosion of the metal pipe wall can happen over time and depending on the water chemistry.

The mains sediments can collect in pipes, should there be a sudden change in water flow or direction, for example after a burst main or if the water company needs to re-route water around the network, these mains deposits can become disturbed and make their way through to the consumer's tap.

When this happens, consumers can sometimes experience discoloured water, which may be brown, black or orange in colour. Whilst often not harmful to health at the concentrations seen, receiving discoloured water is visually not appealing and can lead to rejection of the water.

Water companies will manage the concentrations of iron and manganese in the network by implementing tighter controls at the treatment works and by undertaking maintenance activities in the network such as conditioning and flushing pipes and replacing ageing pipes.

Taste and odour

Taste and odour issues can be associated with consumer plumbing. Half of the taste samples and a third of the odour failures were found to be caused by deficiencies in the domestic plumbing. Other causes of taste and odour include algal breakdown products from rivers or reservoirs in the catchment. Where repeated failures occurred, the Inspectorate has acted alongside companies, to install treatment to remove taste and odour.

Pesticides

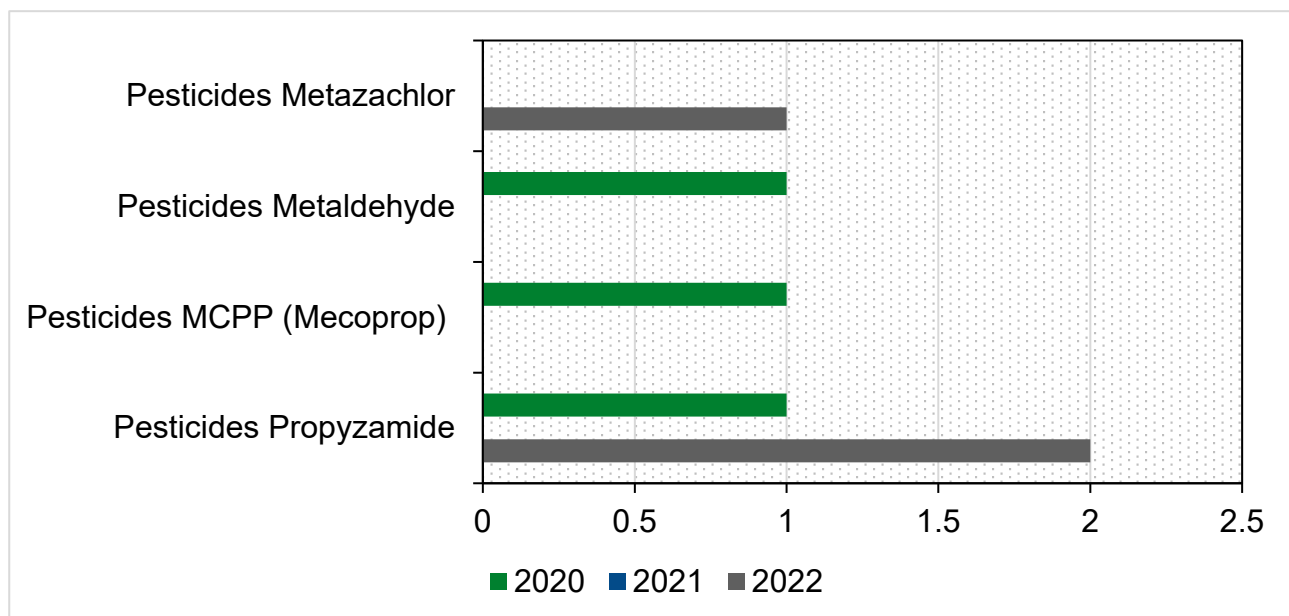
A limit of 0.1 micrograms per litre applies to individual pesticides in drinking water. This extremely low limit means that consumers are normally protected, even where marginal failures occur.

Individual pesticide failures occurred for several herbicides including metazachlor, mecoprop and propyzamide, which are all weed killers, also for metaldehyde which is found in slug pellets. The failures are shown in Figure 1. Catchment management is the

most effective way of avoiding pesticides from entering water courses, and this can be seen to have been effective for reducing the number of metaldehyde failures over the three-year period 2020 to 2022 to just one failure. Farmers and landowners working in partnership with water companies are encouraged to apply pesticides safely, to minimise the mobility of pesticides and the likelihood of them reaching the source water. Many pesticides are effectively removed by treatment with activated carbon or ozone.

A ban on metaldehyde was introduced in England. From 31 March 2021 no further sale was allowed. Whilst all use was banned by 31 March 2022. There will be historical chemicals within the soil which will be released into the catchment over time and companies need to remain vigilant.

Figure 1 - Details of individual pesticide exceedances in England



Further information on the assessment of water company performance can be found in the Chief Inspector's Annual Report: www.dwi.gov.uk/what-we-do/annual-report/.

Sampling results for private water supplies

Private supplies in England, in common with many areas of the world, are variable in quality, and although many are excellent, compliance with the regulatory standards is worse than public supplies. Local authorities are the regulators of private water supplies.

Whilst this report concentrates on the largest private supplies, further information on all private water supplies is available in the Chief Inspector's Annual Report on private supplies: www.dwi.gov.uk/private-water-supplies/annual-reports-for-private-water-supplies/. A large private supply is defined as one which supplies a population greater than 5,000 or produces more than 1,000 m³ per day.

All the large private supplies have had a risk assessment carried out by the local authority, to determine the quality of the supply and to identify remedial actions required for improvement. Statistics for the large private supplies are shown in tables 10 to 12.

Table 10 - Private water supply statistics

Private supplies in England data	2020	2021	2022
Total population	828,257	821,152	956,429
Total volume of water supplied (Megalitres)	235	380	513
Approximate number of private supplies	36,913	34,302	34,904
Private Distribution Supplies – regulation 8	196	232	417
Large, commercial and public use supplies – regulation 9	7,384	8,534	9,400
Single Dwelling Supplies – regulation 10	2,933	32,979	32,934
Total Local authorities with Private Supplies	253	252	254

Table 11 - Private water supply sources

Water sources by percentage volume (surface, groundwater, other)	2020	2021	2022
Groundwater supplies	61.7%	62.3%	62.6%
Surface water influenced supplies	23.1%	31.5%	30.3%
Mains water	11.2%	0.7%	0.7%
Rainwater	0.0%	0.1%	0.0%
Other	0.0%	0.0%	0.0%
Unknown	4.0%	5.4%	4.9%

Table 12 - Percentage compliance for large private supplies

Parameter group	2020	2021	2022
Microbiology	99.63%	100.00%	100.00%
Chemicals	97.74%	100.00%	50.00%
Indicator parameters	96.17%	100.00%	98.65%
Pesticides	100.00%	N/A	N/A

The numbers of samples and failures for each parameter for the large private supplies are shown in Table 13 to 16.

Table 13 - Compliance data 2020 – 2022 for microbiological parameters in large private supplies.

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
<i>E. coli</i>	247 (1)	1 (0)	3 (0)	99.60%
Enterococci	24 (0)	1 (0)	6 (0)	100.00%

Table 14 - Compliance data 2020 – 2022 for chemical parameters in large private supplies.

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
1 2-Dichloroethane	18 (0)	0 (0)	0 (0)	100.00%
Aluminium	75 (0)	0 (0)	0 (0)	100.00%
Antimony	42 (0)	0 (0)	0 (0)	100.00%
Arsenic	42 (0)	1 (0)	0 (0)	100.00%
Benzene	17 (0)	0 (0)	0 (0)	100.00%
Benzo[a]Pyrene	14 (0)	0 (0)	0 (0)	100.00%
Boron	46 (0)	1 (0)	0 (0)	100.00%
Bromate	18 (0)	0 (0)	0 (0)	100.00%
Cadmium	42 (0)	0 (0)	0 (0)	100.00%
Chromium	17 (0)	0 (0)	0 (0)	100.00%
Colour	138 (0)	1 (0)	0 (0)	100.00%
Copper	47 (0)	1 (0)	0 (0)	100.00%

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
Cyanide	16 (0)	0 (0)	0 (0)	100.00%
Fluoride	19 (0)	1 (0)	0 (0)	100.00%
Iron	118 (4)	0 (0)	0 (0)	96.61%
Lead	43 (0)	1 (0)	0 (0)	100.00%
Manganese	118 (7)	0 (0)	0 (0)	94.07%
Mercury	24 (0)	0 (0)	0 (0)	100.00%
Nickel	43 (1)	0 (0)	0 (0)	97.67%
Nitrate	147 (11)	1 (0)	1 (1)	91.95%
Nitrite - Consumer's Taps	146 (1)	1 (0)	0 (0)	99.32%
Nitrite/Nitrate formula	90 (11)	0 (0)	1 (1)	86.81%
Odour	135 (3)	1 (0)	1 (0)	97.81%
Polycyclic Aromatic Hydrocarbons	16 (0)	0 (0)	0 (0)	100.00%
Selenium	42 (0)	0 (0)	0 (0)	100.00%
Sodium	80 (0)	2 (0)	0 (0)	100.00%
Taste	127 (5)	1 (0)	1 (0)	96.12%
Tetra-chloromethane	18 (0)	0 (0)	0 (0)	100.00%
Trichloroethene & Tetrachloroethene -	19 (0)	0 (0)	0 (0)	100.00%
Trihalomethanes	16 (0)	0 (0)	0 (0)	100.00%
Turbidity	173 (0)	1 (0)	0 (0)	100.00%

Table 15 – Compliance data 2020 – 2022 for indicator parameters in large private supplies.

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
Ammonium	106 (0)	100 (0)	0 (0)	100.00%
Chloride	32 (0)	53 (0)	31 (0)	100.00%
Clostridium Perfringens	33 (0)	53 (0)	33 (0)	100.00%
Coliform Bacteria	245 (2)	1 (0)	3 (2)	98.39%
Colony Counts After 3 Days At 22°C	231 (0)	1 (0)	0 (0)	100.00%
Conductivity	178 (0)	1 (0)	0 (0)	100.00%

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
Hydrogen ion (pH)	178 (39)	1 (0)	0 (0)	78.21%
Sulphate	52 (0)	53 (0)	49 (0)	100.00%
Total Organic Carbon	15 (0)	52 (0)	32 (0)	100.00%
Tritium	0 (0)	0 (0)	0 (0)	N/A

Table 16 - Compliance data 2020 – 2022 for pesticides in large private supplies.

Parameter	2020 Samples taken (failures)	2021 Samples taken (failures)	2022 Samples taken (failures)	Percentage compliance 2020 - 2022
Pesticides (Individual)	24 (0)	0 (0)	0 (0)	100.00%
Pesticides (Special)	0 (0)	0 (0)	0 (0)	N/A
Pesticides (Total by Calculation)	0 (0)	0 (0)	0 (0)	N/A

The most common failures for these largest supplies are manganese (94.07%), nitrate (91.95%), nitrite/nitrate formula (86.81%) and pH (78.21%)

This profile is not indicative of all private supplies, and in smaller supplies faecal contamination is one of the most common problems. In 2022, 3.0% of samples from all private supplies contained *E. coli* and 5.1% contained *Enterococci*. Failures of these two standards mean that the water supply is contaminated with faecal matter and there is a risk that harmful pathogens will also be present. Smaller supplies are discussed in more detail in the Chief Inspector's Annual Report on private supplies: www.dwi.gov.uk/private-water-supplies/annual-reports-for-private-water-supplies/.

The Inspectorate provides an advisory service to local authorities, private supply owners or the industry associated with private supplies who contact an Inspector through their website or public phone enquiry line. The Inspectorate also provides a private supply risk assessment tool which is widely used by local authorities and their contractors.

Sampler certification became a requirement from 11th July 2020 in England and 20th November 2019 in Wales. The sampling procedures manual is available on the

Inspectorate website and the manual is to be used as the reference document for ISO 17024 accreditation of local authority samplers. Any person collecting, transporting and storing samples of private water supplies must comply with the procedures contained within this manual. In practice, this means becoming a certified sampler.

Maintaining standards into the future

This report shows what can be achieved through effective water safety planning, compliance assessment and targeted regulation, to deliver high quality drinking water in England. As enforcers of the Regulations for public supplies, the Inspectorate will continue to work with water companies and regulators to ensure that catchments, water treatment works, and distribution networks are suitable to meet the challenges of the future, from climate change, contamination, and population growth. The Inspectorate will also continue to supply scientific and technical advice to local authorities, private supply owners and the associated industry. Through this work, the industry will pass on a sustainable and high-quality water supply to future generations.