



DRINKING WATER INSPECTORATE

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DWI Information Letter 02/2023

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To: Board Level and Day to Day Contacts of Water and Sewerage Companies and Water Companies in England and Wales

Dear Sir/Madam

PFAS – Inspectorate expectations for PFAS activity in AMP8

1. Purpose

1. The purpose of this letter is to clarify the Inspectorate's expectations regarding companies AMP8 (2025-2030) strategies for investigating PFAS risk and the trigger levels and actions that will be implemented to mitigate PFAS risk from source to tap.

2. Background

2. This letter provides further explanation to the previously published Information Letter 03/2022 (IL 03/2022; [IL 03-2022 PFAS Guidance-4-1.pdf \(dwi-content.s3.eu-west-2.amazonaws.com\)](http://dwi-content.s3.eu-west-2.amazonaws.com/IL_03-2022_PFAS_Guidance-4-1.pdf)), which sets out the requirement for companies to have a risk assessment methodology for PFAS compounds. Where there is a likelihood of a failure to meet the Water Supply (Water Quality) Regulations (2016 in England and 2018 in Wales) ('the Regulations') associated with the potential risks to human health, in this case PFAS in drinking water, it is the water companies' responsibility to assess the risk of PFAS compounds in all catchments, raw water sources, and water supply systems. Water companies must strategically plan to mitigate any risks which pose or are likely to pose a risk to health and consequently the supply of

wholesome water in a rapidly changing area of understanding. This is particularly relevant to a persistent contaminant widely present in the environment which is likely to require proactive intervention through investment and planning in treatment ahead of direct regulatory action as knowledge develops. As more information from monitoring data and research becomes available, it is expected that companies' understanding of PFAS risk in drinking water will develop and therefore, risk assessments will need to be reviewed and updated continuously, in line with regulation 27 of the Regulations .

3. IL 03/2022 defined a tiered approach with a precautionary guideline value for concentrations of PFAS in water. The tier 3 guideline value of 0.1 µg/l is currently recommended for all 47 PFAS compounds defined in IL 03/2022 after which the supply of drinking water is considered contrary to the guidance. Companies will also be aware of the expectation to monitor, consult and incorporate within risk assessment detections found to be in tier 2, that is above 0.01ug/l. These guideline values and expectations will be periodically reviewed.
4. Following a precautionary approach, where the presence of PFAS poses a likely risk, currently or in the future, in the quality of water supplied, section 19 Undertakings to meet the requirements of section 68(1)(b) of the Water Industry Act 1991 (as amended) ('the Act') will be accepted.

3. AMP8 PFAS Strategies

5. The Inspectorate expects companies to be developing strategies for investigating the extent of sources of PFAS in their catchments, raw and final water and developing strategies that detail trigger levels and actions required to reduce the risk of PFAS in drinking water. PFAS strategies should be adaptable; to be able to respond to potential future changes in regulatory expectations.
6. The Inspectorate considers that PFAS strategies should include as a minimum:
 - a. Operational Monitoring: complementary to the sampling requirements defined in IL 03/2022, sampling extended upstream of abstraction points into catchments and sub-catchments, and downstream through different stages of water treatment to the final water sampling location. Comprehensive sampling programmes are required to identify the source and concentration of PFAS compounds.

- b. Enhanced investigatory monitoring: Enhanced investigatory sampling should be risk based and representative of different hydrological conditions. Companies should consider appropriate sampling frequencies for enhanced monitoring strategies to inform risk assessments. A clear strategy should be employed to improve understanding of the risks and inform the identification and implementation of appropriate control measures.
- c. Catchment characteristics/identification of PFAS sources: Identification of PFAS sources in the catchment (minimum requirements defined in IL 03/2022), product usage (existing data available and data gathering), catchment modelling with analysis of weather, surface and groundwater flows, catchment walkovers, identification of high-risk locations.
- d. Engagement with stakeholders: Initiating and maintaining regular engagement with stakeholders is important to ensure that catchment risk assessments are current. Some types of external stakeholder companies that should be engaged with for PFAS risk assessments are listed in Table 4 of IL 03/2022.
- e. Operational Measures: As more data relating to PFAS in raw water is collected, companies may be able to employ abstraction management in response to weather forecasts or different hydrological conditions or other intelligence. As more research is published in the field, optimisation of existing treatment processes within the normal operating envelope of works could be implemented e.g. GAC regeneration. Companies should establish appropriate operational measures to mitigate the PFAS risks in the short, medium and long term.
- f. Participation in research and development: Research projects into removal of PFAS through treatment; emerging treatment technologies; optimisation of treatment for PFAS removal; regeneration of granular activated carbon (GAC); additional treatment measures; appropriate disposal of PFAS waste; best practice for identification of high-risk hotspots; increased understanding of sources of PFAS compounds; increased understanding of transmission through the environment; identification of catchment mitigations; innovation for the use of online monitors for PFAS.

- g. Regulatory Mechanisms: liaison with appropriate regulators responsible for taking action using environmental legislation to introduce compulsory measures; restrictions on product use; product formulation and labelling and promotion of product substitution.

4. Bulk Supplies, NAVs and inset appointees

7. The Inspectorate expect recipients of bulk supplies, including NAVs and inset appointees to be developing PFAS strategies for AMP8. As detailed in IL 03/2022, companies receiving bulk supplies for onward distribution retain the statutory responsibility of compliance with Section 68 of the Act and are responsible for completing a regulation 27 risk assessment.

5. Submission of AMP8 PFAS Strategies

8. The Inspectorate expects all companies to submit their AMP8 PFAS strategies to DWIpricereview@defra.gov.uk no later than **30 June 2023**. Companies PFAS strategies will be reviewed by the Inspectorate. We expect companies to offer undertakings under section 19 of the Act to deliver their PFAS strategies over AMP8, where it is concluded that there is a likelihood of contravention of section 68(1) of the Act. The Inspectorate will advise companies where section 19 Undertakings can be accepted, following our assessment.
9. Section 8.5.2 of the Inspectorate's long term planning guidance for the quality of drinking water supplies states,
"We anticipate that some proposals, in particular catchment schemes, may be submitted for regulatory support which will deliver longer-term improvements to raw water quality, but are not included by the Inspectorate in a specific drinking water quality scheme, or are not included in the environmental regulators' programmes of work. In these cases, the making of a legal instrument for drinking water quality is unlikely to be appropriate, but the proposal may be commended by the Inspectorate in the Final Decision Letter, which will also confirm that a legal instrument will not be put in place."

Our approach with PFAS strategies is an exception to the above statement. With our rapidly evolving understanding of the risks of PFAS in drinking water with increased monitoring information, toxicological data, and treatment efficacy and solutions, there is a need to have a more adaptive and precautionary approach to PFAS for the next 5 years. Without intervention, we would anticipate PFAS becoming an increasing risk to the quality of drinking

water supplies in England and Wales and hence a precautionary approach is warranted.

10. Where companies have identified the need for a twin track approach to managing PFAS risks at certain sites (e.g. treatment and/or other operational control measures in addition to catchment management actions), as part of the PR24 planning process and are seeking support at PR24, Appendix B submissions should be compiled and submitted to the Inspectorate by **31 March 2023**. In these cases, the Inspectorate will consider the likelihood of failure and the potential danger to human health, alongside the company's risk assessment and support schemes with regulation 28(4) notices.

6. Enquiries

11. This letter is being sent electronically to Board Level and Day to Day Contacts. Please acknowledge receipt by email to dwi.enquiries@defra.gov.uk. Hard copies are not being sent but the letter may be freely copied.
12. Copies of this letter are being sent to: Christine McGourty, Chief Executive, Water UK; Davide Minotti, Deputy Director Water Services, Department for Environment, Food and Rural Affairs; Eifiona Williams, Water Management Team, Welsh Government; Sue Petch, Drinking Water Quality Regulator for Scotland; Berni Corr, Drinking Water Inspectorate for Northern Ireland; Alice Laycock and Emma Clancy, CCW; Alison Cullen and Paul Martin, Ofwat; Anne Dacey, Environment Agency; Benedict Duncan, Food Standards Agency; Stephen Robjohns, UK Health Security Agency; Richard Thompson, Environment Agency.

Yours sincerely



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Deputy Chief Inspector, Drinking Water Inspectorate