



DRINKING WATER INSPECTORATE

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THE 2024 PERIODIC REVIEW OF PRICES – GUIDANCE ON SEMD AND NIS REQUIREMENTS

1. Purpose

- 1.1 The purpose of this document is to provide water companies and other stakeholders with guidance on the next Periodic Review of Prices (PR24) for those matters relating to the protection of associated assets, network and information systems essential to the production and supply of wholesome water. This letter describes the criteria and the information for associated submissions by water companies that require the support of the Drinking Water Inspectorate for inclusion in Business Plans. It also confirms the methodology that the Inspectorate will use for assessment of submissions and its timetable.
- 1.2 This guidance note is intended to support water companies in planning for PR24 and their associated submissions to support their SEMD and NIS plans.
- 1.3 Whilst each regulatory driver will be subject to a specific set of requirements and corresponding assessment of need, (and in the case of NIS this being effectively the first time that the PR process would include associated plans), the assets, systems and processes within each of the different regulatory categories are interdependent to an extent and all play their part in securing the delivery of safe, clean drinking water.
- 1.4 This overlap and integration of what has previously been areas of discrete risk management is very much increasing through the “systems thinking” approach taken by water companies as well as the push for digital technologies which is changing how assets and systems are managed, operated and indeed owned.
- 1.5 The guidance is not meant to be seen as a strategy for how water companies will define and submit their plans, or indeed change the requirements for drinking water safety plans (DWSP) and associated risk assessments to maintain the requisite levels of water quality and sufficiency. Moreover, the guidance seeks to look at the strategic integration of the risk assessments to consider a more holistic view of resilience, security and cyber protection requirements to provide more robust business drivers to support the need for change identified within company PR24 business plans.

- 1.6 In approaching the planning in this manner, the Inspectorate will be able to undertake a more strategic and robust review of plans thereby providing support through appropriate legal instruments. NIS enforcement notices will be considered where deemed appropriate and necessary.

2. Security and Emergency Measures Direction (SEMD) for PR24 – Principles

2.1 The Security and Emergency Measures (Water and Sewerage Undertakers and Water Supply Licensees) Direction 2022 (SEMD) is the principal general direction issued by the Secretary of State and Welsh Ministers under Section 208 of the Water Industry Act 1991 (the Act). Undertakers and licensees are required to maintain a water supply and/or sewerage system in the interests of national security or to mitigate the effects of any civil emergency which may occur. The current version of the Direction can be found [here](#).

2.2 The SEMD has four main areas companies must comply with:

- **Planning** - companies have to make, keep under review, test and revise plans to ensure the provision of essential water supply and/or sewerage services at all times, including during a civil emergency or any event threatening national security.
- **Resourcing** – companies have to ensure they have the necessary capability, capacity and facilities to implement their plans.
- **Securing** – companies have to identify and mitigate against any security risks to the provision of water supply and/or sewerage services. There are additional requirements for companies who have been notified by government they have any Critical National Infrastructure designated sites.
- **Responding** – companies have to react promptly to incidents, including providing an alternative supply of water (where required).

2.3 For every water treatment works and associated supply system i.e., from source to tap, companies must carry out risk assessments and plan reviews to establish whether there is a risk of supplying water that could constitute a potential danger to human health, through inadequate capabilities as detailed within the SEMD guidance

2.4 The previous PR periods have introduced significant enhancements to protective security and resilience for in scope assets and systems and it is therefore our reasonable expectation that there will not be a wholesale need for additional measures to be implemented. We do recognise that there is an ongoing review of CNI designations which may change the requirements for sites and assets, however again we do not foresee this will lead to a need for significant enhancements.

2.5 Moreover, it is envisaged that requirements for SEMD will focus more on changes in Alternative Water requirements, and companies will be expected to justify how such changes cannot be accommodated within current plans.

3. Network and Information Systems Directive (NIS) for PR24 – Principles

- 3.1 The NIS Regulations aims to improve the security of network and information systems that support or have a direct effect on the production and delivery of wholesome water (the essential service).
- 3.2 The definition of a network and information system is outlined under regulation 1(2) and is considered to include, electronic communications networks; any device or group of interconnected or related devices which perform automatic processing of digital data; or digital data stored processed, retrieved or transmitted by an electronic network or device.
- 3.3 For the water sector this definition can apply to both Operational Technology (OT) systems and Information Technology (IT) systems.
- 3.4 Regulation 10 outlines the responsibilities of an Operator of Essential Services (OES), specifically with regard to taking appropriate and proportionate measures to manage the risks to their network and information systems and to prevent and/or minimise the impact of incidents to those systems.
- 3.5 The Cyber Assessment Framework (CAF v3.1) is the framework by which maturity of cyber protection is assessed and within this there is a prescribed water sector specific profile (SSP, this can be found in Annex 1 of the Inspectorate's CAF Guidance 2022 document, which can be requested by emailing dw.nis@defra.gov.uk). The SSP was introduced in 2018 and all OES are expected to comply with this by March 2025.
- 3.6 When planning for PR24, water companies are asked to consider the definition of NIS scope to ensure that all assets and systems with the potential to disrupt the production and supply of wholesome water are considered. Companies need to consider the potential for their scopes to change as they progress through their NIS plans and projects already underway in AMP 7, and therefore their scopes should be projected to reflect as best as possible their expected view as to their future state NIS scope.
- 3.7 The Inspectorate want to see a more robust cyber risk assessment for the NIS scope that considers all potential cyber threats and their control and mitigation options based upon company risk appetites.

4. Provision of information to DWI for business plan proposals

- 4.1 For every water treatment works and associated supply system i.e. from source to tap, companies must carry out risk assessments under the requirements of regulation 27 of the Water Supply (Water Quality) Regulations 2016 (as amended) (England) and the Water Supply (Water Quality) Regulations 2018 (Wales) to establish whether there is a risk of supplying water that could constitute a potential danger to human health, and submit reports to the Inspectorate under Regulation 28 of the 2007 Amendment Regulations identifying those risks.

- 4.2 A company's Water Safety Plan (WSP) methodology and outputs of its raw water monitoring should inform the risk assessments of the company's supply systems. These risk assessments should identify all the hazards in the catchment, in treatment and in distribution systems that could potentially impact on a company's ability to adequately treat, disinfect and supply wholesome drinking water. Wholesomeness is defined in regulation 4(2) of the Regulations by reference to drinking water quality standards and any other substance or organism alone or in combination with another substance that would constitute a potential danger to human health.
- 4.3 Water companies should consider the short, medium and long term control mechanism(s) required to address each hazard and assess whether there is a need for additional control measures in the catchment, at abstraction points, at the treatment works or in the associated supply system to secure that wholesome drinking water supplies are maintained. These measures may include investment in existing assets or other existing control measures in place, where these are deficient. It should be recognised that many risks may be under control already through operational and communications control measures and the case for investment may relate to improving the performance, reliability, resilience, and/or sustainability of such controls.
- 4.4 The risk assessments must incorporate those hazards identified as part of the SEMD and NIS self-assessments and associated mitigation measures that will be required to achieve identified outcomes that water companies wish to include in their business plans at PR24.
- 4.5 As with previous periodic reviews, water companies seeking technical support from the Inspectorate will need to demonstrate the need for each proposal.
- 4.6 The case for justification must be accompanied by the following information:
- how the company has derived the most appropriate technical and cost effective options to mitigate each named risk and thereby achieve compliance with the regulatory requirements;
 - summary details of the capital costs and the net additional operating costs of each of the options considered;
 - identification of the preferred option and the rationale for choosing that option and reasons for discounting all other possible options and
 - evidence that the preferred option will adequately mitigate the risk and deliver the required outcome within an appropriate timescale.
- 4.7 The Inspectorate will expect water companies to provide detailed supporting evidence that the preferred option will mitigate the risk of the threat/hazard occurring; or, where the risk already exists, reduce the risk to an acceptable level (i.e. to secure the continuous supply of safe, clean drinking water) within a prescribed timescale. The Inspectorate will not consider any submissions for individual schemes that are not accompanied by supporting evidence of the process employed by the water company to assess and determine the most appropriate technical and cost-effective solutions, and specific supporting evidence of the appropriateness of the preferred option.

- 4.8 Companies' analyses should include an assessment of all relevant benefits including the benefits of provision for protection of public health, and maintenance of public confidence in drinking water supplies. These benefits should be assessed qualitatively, quantitatively, and where possible, monetized, in order to demonstrate that the proposed solution is needed, has a clear driver, will deliver the required outcome within the prescribed timescale, is sustainable in the long-term and is cost-effective. We will seek confirmation from companies that proposals are consistent with their long-term strategies for delivering water supply outcomes, and that these outcomes are consistent with their customer and stakeholder research.
- 4.9 It will be indicated in Final Decision Letters sent to companies' board level contacts, copied to the day-to-day contact, whether or not a legal instrument will be put in place to implement a statutory programme of work.
- 4.10 The transposition of supported proposals into formal programmes of work will reflect the regulatory position as set out within the applicable Regulations.

5. DWI methodology and timetable

- 5.1 The Inspectorate's timetable for PR24 has been developed to assist companies that have told us that they are planning to prepare a draft business plan by the fourth quarter of 2023. We would encourage companies to submit business plan proposals for drinking water quality as early as possible.
- 5.2 We will accept submissions up to **30 April 2023**, with a view to Final Decision Letters being issued by **31 August 2023**. All submissions must be accompanied by an up-to-date regulation 28 risk assessment report. If the risk assessment report is a revised version with different risks to the version previously submitted, it would be helpful if these could be sent at least four weeks in advance of the PR24 submission, with changes clearly highlighted, to allow the Inspectorate time to review the revised risk assessment and to consider whether enforcement action may be appropriate.
- 5.3 Copies of final decision letters will be sent to Ofwat, CCWater, the Chair of the relevant Customer Challenge Group and, where appropriate the Environment Agency (EA) and Natural England (NE). For proposals submitted by Welsh Water and Hafren Dyfrdwy, letters will be copied to the Welsh Government, and, if appropriate, Natural Resources Wales (NRW).

May 2022