

Water Resource Regional Planning – general comments from the Drinking Water Inspectorate

- 1 The Drinking Water Inspectorate ('the Inspectorate') is the independent regulator of drinking water quality in England and Wales. The Inspectorate protects public health and maintains confidence in public water supplies by ensuring water companies supply safe clean drinking water that is wholesome, and that they meet all related statutory requirements. Where standards or other requirements are not met, the Inspectorate has statutory powers to require water supply arrangements to be improved.
- 2 The Inspectorate publishes information about drinking water quality and provides technical advice to the Secretary of State for the Environment, Food & Rural Affairs, and to Welsh Ministers.
- 3 These comments have been produced in response to the Regional Water Resource groups emerging plans to better develop and share water resources, to ensure predicted supply/demand deficits can be met over the different planning horizons.
- 4 For all aspects of water resource planning, the Inspectorate expects that water suppliers will always plan to meet their statutory obligations relating to the quality of their drinking water supplies. It follows that a minimum requirement of all water resource schemes is that drinking water quality, for both wholesomeness and acceptability to consumers, is always central to, and accounted for, in the appraisal of any options considered. When new sources are brought online water companies will need to fulfil their statutory duties under Regulation 15 in England and Regulation 14 in Wales (introduction of new sources) and Regulation 27 and 28¹.
- 5 The Inspectorate has issued guidance on the Long-Term Planning of Water Supplies² which should be followed when securing new supplies.
- 6 When developing emerging and detailed plans for water resources, water companies (or those delivering schemes) should have due regard for drinking water quality and the potential for water quality risks to exist. Water companies already use the drinking water safety planning approach to risk assessing the potential impact on water quality and identification of required controlling actions when designing and operating water supply systems, following the source to tap approach. In the case of new inter-company or cross catchment transfers (raw and potable) and new resource schemes (e.g., water re-cycling, desalination) water companies should adopt and expand the

¹ The Water Supply (Water Quality) Regulations 2016 (as amended)
The Water Supply (Water Quality) Regulations 2018 (Wales)

² [Guidance and codes of practice - Drinking Water Inspectorate \(dwi.gov.uk\)](https://www.dwi.gov.uk/guidance-and-codes-of-practice-drinking-water-inspectorate)

drinking water safety planning approach to encompass the potential new drinking water quality risks associated with these types of schemes.

- 7 Therefore, companies should take water quality considerations into account (i.e., to complete a risk assessment on the potential impacts on public health, wholesomeness and acceptability to consumers of new or altered supply arrangements, including cross-company transfers of raw or treated water, mixing of water and new resource schemes) when developing options stemming from the regional plans. Where a potential risk is identified, prior to making supply changes, a company must take steps to mitigate that risk.
- 8 For raw water transfers the development of the drinking safety plan and risk assessments should consider the risks identified within the upstream drinking water safety plans and to identify whether further mitigation is required at the receiving location. Investigation of raw water quality risks may require further monitoring to support the existing available data sets and due regard should be given to future risks (including emerging contaminants). Acceptability considerations should be risk assessed including the change of source type which may result in a change in taste, odour or feel of the water to consumers and any impacts on the distribution system in terms of corrosivity risks.
- 9 For potable transfers consideration should be given to the age of water, whether appropriate mixing is occurring within intermediary storage reservoirs/conveyance infrastructure and risks associated with disinfection by products especially if the supply is re-chlorinated. Consideration should be given to acceptability risks associated with the change of source type or mixing of waters which may result in a change in taste, odour or feel of the water to consumers and any impacts on the distribution system in terms of corrosivity risks.
- 10 Resource schemes such as desalination and water-recycling will introduce different risks associated with the treatment including the challenge of remineralisation. Risks associated with the change of source type and/or blending arrangements which may result in a change in taste or feel of the water to consumers and any impacts on the network in terms of corrosivity risks should also be explicitly assessed and appropriately managed. Due regard should also be given to future risks including emerging contaminants which may impact on water quality. Water recycling may pose new challenges in terms of acceptance by consumers of the recycled nature of the water. Water companies will need to mitigate these new risks and early consumer engagement is seen a key measure to ensure acceptability. Due regard for the operation of the sources should be given, including appropriate safeguards at the upstream wastewater treatment works and water recycling plants. Consideration of the requirements of Regulation 31 including availability of approved products and chemicals needed in any treatment process and distribution system should also be made.

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- 11 The Inspectorate considers early engagement with consumers is key to mitigate acceptability issues relating to taste, odour or the feel of water for new resource schemes wherever there is a change in source water, or a new source is used.

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