

Annex C: Drinking Water Inspectorate and Water Resources Planning

1. Introduction

The Drinking Water Inspectorate (DWI) is the independent regulator of drinking water quality in England and Wales. We protect public health and maintain 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, we have statutory powers to require water supply arrangements to be improved.

We publish information about drinking water quality and provide technical advice to the Secretary of State for the Environment, Food & Rural Affairs, and to Welsh Ministers.

This note applies to public water supplies.

2. Background

DWI does not have a direct role in the development or appraisal of Water Resource Management Plans (WRMP), but at the request of individual companies we have had informal discussions about drinking water quality matters arising during development of previous Plans, and we are happy to continue that dialogue.

The considerations for drinking water quality within Water Resource Planning are generally well exposed and understood, and the importance of public health protection, wholesomeness and public confidence in drinking water quality remain central to the legitimacy of every company's WRMP.

3. Drinking water quality obligations

3.1 Water Industry Act 1991 s68

Under WIA section 68(1)(a) a water company has a statutory duty to supply wholesome water. Wholesomeness requirements are set out in the Water Supply (Water Quality) Regulations 2000 (England), the Water Supply (Water Quality) Regulations 2001 (Wales) and associated amendments.

In addition, section 68(1)(b) of the Act also places the following statutory duty on a company that may have implications for how it develops its WRMP: "...It shall be the duty of a water undertaker..... so far as reasonably practicable, to ensure, in relation to each source or combination of sources from which water is so supplied, that there is, in general, no deterioration in the quality of the water which is supplied from time to time from that source or combination of sources..".

3.2 Water Supply (Water Quality) Regulation; Regulation 15

The introduction of new and out of use sources for all planned and contingency supply arrangements must satisfy Regulation 15 requirements before being introduced to supply. This Regulation provides for the consideration of drinking water quality impacts of changing supply source, or introduction of a new source water, which can disrupt the ecosystem within a distribution system going rise to quality issues (a case study being the recent lead poisoning issues in Flint, Michigan, USA. <http://www.theguardian.com/us-news/2016/jan/16/bernie-sanders-michigan-flint-water-supply-lead-crisis-rick-snyder-resignation>).

4. DWI position

It is essential that all considerations relating to water quantity AND quality are taken into consideration in the cost benefit assessment of feasible options to meet demand. This applies equally for transfers of water within a company's supply area, and for exports and imports across a company's boundary.

Our current advice to companies, that also sets out the context within which decisions might be made on issues like this, is contained in the following sources:

- *Information Letter 1/2014 on Metaldehyde and other pesticides*
<http://dwi.defra.gov.uk/stakeholders/information-letters/2014/01-2014.pdf>
- *DWI PR14 Guidance - Water Resource Planning here:*
<http://dwi.defra.gov.uk/stakeholders/price-review-process/PR14-guidance-wrmp.pdf>
- *Information Letter 6/2012 on Regulation 15 Compliance Arrangements here:*
<http://dwi.defra.gov.uk/stakeholders/information-letters/2012/06-2012.pdf>
- *Information Letter 13/2004 on common carriage here:*
http://dwi.defra.gov.uk/stakeholders/information-letters/2004/13_2004.pdf
http://dwi.defra.gov.uk/stakeholders/information-letters/2004/13_2004ANNEX%20A.pdf

Under this guidance companies need to carry out risk assessments on the potential impacts on public health, consumers and wholesomeness and must meet the requirements of Regulation 15. This includes customer acceptability and any issues relating to maintenance and operation. If the risk assessment suggests that consumers supply may deteriorate, then companies must take steps to mitigate the risk (by any appropriate means; e.g. treatment, blending, customer communications etc) prior to beginning the transfer.

For this purpose we use the definition of wholesomeness to determine deterioration. Thus the provision of an area previously in receipt of a wholesome supply with a new source that is not clearly unacceptable.

The assessment of feasible options should also include the whole life costs of treatment, pumping, storage, networks, maintenance and operation. Routine operational matters to be considered should include:

- *control measures necessary to mitigate the impact of the option on optimisation of phosphoric acid dosing, pH and colour for plumbosolvency control;*
- *fluoridation practices;*
- *other chemical stabilisation processes;*
- *aesthetic impacts on consumers, and*
- *control of disinfection by-products*

Transfers of water, or commissioning of new sources, that increase the risk of non-compliance, such as by discolouration, nitrates or pesticides, should not be permitted until steps to mitigate those risks are in place.

Examples where this issue has arisen includes one where planned source changes would have led to the introduction of metaldehyde above 0.1ug/l to areas that were receiving a complaint supply, and another where a transfer risk assessment suggested customer rejection and complaints. In both cases the companies were required to mitigate the risks prior to implementation of the transfer.

This position is consistent with our comments on the EA/DEFRA consultation on the PR19 Water Resources Planning Guideline. We responded on 8 January 2016 and a copy is included on our website here:

<http://www.dwi.gov.uk/about/working-with-others/consultancies-respon/Water-Resources-Planning-Guideline.pdf>