
An Assessment of the impact of Regulatory Models on Drinking Water Quality

Executive Summary

Since the establishment of the water industry's regulatory regime in 1989, the privatised water industry has changed, likewise consumer perceptions of tap water and the method of regulation have moved on. This research was carried out to provide unique scrutiny and assessment of regulation of drinking water quality, to better understand the strengths and weaknesses of the current regulatory approach and to use this knowledge to inform future regulatory strategies.

The objectives of this project resulted in the examination of the following areas:

- The effectiveness of the regulatory regime that was introduced in 1989 when the industry in England and Wales was privatised;
- The methods of regulation and regulatory powers that are necessary to gain improvements in drinking water quality;
- The potential for learning from regulatory regimes in place in other Member States of the European Union;
- The culture of water suppliers and the effect of industry wide challenges on water suppliers' mind-set and attitude;
- The threats to the industry and the regulatory regime and potential external opportunities.

The methods used for the study included:

- The production of a database of all summary drinking water quality data for England and Wales;
- Assessment of drinking water quality data for the duration of the Water Supply (Water Quality) Regulations 1989 and the assessment of drinking water quality data for Scotland and Northern Ireland;
- Semi-structured interviews of key personnel within the water industry including drinking water suppliers, regulators and other stakeholders;
- The application of a coding structure to assess perception information from interviews;
- Semi-structured interviews with drinking water quality regulators in the Netherlands and Germany;
- Observation of the regulatory activities of the Drinking Water Inspectorate for England and Wales the Drinking Water Quality Regulator for Scotland and the Drinking Water Inspectorate for Northern Ireland;
- A literature review on the main themes of Regulation, Water Safety Plans, *Cryptosporidium* in water supplies and the history of water industries.

The results of the varied investigations carried out, facilitated the formulation of the following conclusions:

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- For a privatised industry, a drinking water quality regulator with specific powers is essential.
 - Drinking water quality improvements are achieved more rapidly with a robust enforcement system found through comparison of United Kingdom drinking water quality regulation models. In addition, emerging quality problems are mitigated swiftly with appropriate short and long term action. Overall, this achieves good public health protection.
 - Self regulation is an acceptable model, provided the regulator has a supporting programme of checks and audit.
 - Risk based technical audit is an appropriate development of the audit process and further potential for improvement has been identified in this study.
 - The DWI's data and reporting systems are sophisticated, targeted and well managed. Further enhancement of these systems is necessary and achievable.
 - Knowledge sharing and capacity building is particularly beneficial within the United Kingdom where overall legislation provisions are similar. To a certain extent this is also the case within the European Union, due to the common Drinking Water Directive.
 - Learning points from comparison with other Member States of the European Union include an appreciation of the scope for significantly reduced enforcement action over time and the potential for difficulties with decentralised regulation.
 - Government policies have a direct affect on regulation. In some cases this is positive (the Better Regulation Agenda) but can also pose a threat to a well established and effective regime (the Hampton Review).
 - Water companies behave and react according to past experience and their business culture. This affects action taken by companies to meet new requirements.
 - The DWI as an organisation has weaknesses in its internal functions and activities. If action is taken rectify these weaknesses, effectiveness will be improved.
 - Regulation of drinking water quality in England and Wales is justified and effective.