

EXPLANATORY MEMORANDUM TO

The Private Water Supplies Regulations (Northern Ireland) 2009

SR 2009 No. 413

1. Introduction

1.1. This Explanatory Memorandum has been prepared by the Department of the Environment to accompany the Statutory Rule (details above) which is laid before the Northern Ireland Assembly.

1.2. The Statutory Rule is made under Articles 107(2) and (3) and 118(3) and (4) of the Water and Sewerage Services (Northern Ireland) Order 2006¹ and section 2(2) of the European Communities Act 1972² and is subject to the negative resolution process.

2. Purpose

2.1. The Regulations aim to transpose into legislation, implement and enforce Northern Ireland's obligations under European directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption³ ("the Drinking Water Directive") in respect of private supplies and to protect the health of consumers of private water supplies and consumers of food and drink prepared from private water supplies.

2.2. Regulation 1 cites the name of the Regulations and when the Regulations will come into operation.

2.3. Regulation 2 defines certain terms used in the Regulations.

2.4. Regulation 3 sets out that the Regulations apply to all water supplies intended for human consumption not provided by a water undertaker appointed under Article 13 of the Water and Sewerage Services (Northern Ireland) Order 2006.

2.5. Regulation 4 states where the Regulations do not apply such as water controlled by the Natural Mineral Water, Spring Water and Bottled Drinking Water (Northern Ireland) Regulations 2007⁴; water that is a medicinal product or water used solely for washing a crop.

2.6. Regulation 5 sets out the conditions under which water is regarded as wholesome.

2.7. Regulation 6 specifies substances or products which should be used for new installations for the preparation or distribution of water intended for human consumption.

2.8. Regulation 7 requires the Department to carry out a risk assessment of private supplies to which the Regulations apply, other than supplies to single private dwellings.

2.9. Regulation 8 requires the Department to monitor private supplies.

2.10. Regulation 9 sets out the requirements for monitoring of large supplies and supplies to commercial or public premises.

2.11. Regulation 10 sets out the requirements for monitoring of other private supplies, other than those to single private dwellings.

¹ S.I. 2006/3336 (N.I. 21)

² 1972 c.68

³ OJ L 330/32 5.12.98

⁴ S.R. 2007 No.420

2.12. Regulation 11 requires the Department to offer advice to owners or occupiers of single private dwellings which have a private water supply.

2.13. Regulation 12 sets out requirements for sampling and analysis of private water supplies.

2.14. Regulation 13 requires the Department to keep records in respect of private supplies.

2.15. Regulation 14 requires the Department to publish an annual report in respect of private supplies, and details what this report should contain.

2.16. Regulation 15 states the information that should be provided to those likely to consume water from a private supply in the event that the Department considers the supply to be a risk to human health. It also provides for the Department to notify the Public Health Agency and the relevant district council in such an instance.

2.17. Regulation 16 requires the Department to carry out an investigation to establish the cause if any sample that it takes is unwholesome or if an indicator parameter is exceeded.

2.18. Regulation 17 sets out the actions that the Department should take once it has established the cause of water which is unwholesome, including offering advice if the cause is attributable to the domestic distribution system within a private dwelling, or granting an authorisation or serving a notice.

2.19. Regulation 18 sets out more detail about authorisations including who may apply for an authorisation, under which circumstances an authorisation may be granted and what it shall specify, under which circumstances it should be amended or revoked, how long an authorisation should last and what actions should be taken in the event of an authorisation being extended.

2.20. Regulation 19 states the circumstances under which the Department shall serve a notice under these Regulations and what that notice shall specify, including prohibiting the supply of water, or restricting what it may be used for. This regulation also states that it is an offence to fail to comply with such a notice.

2.21. Regulation 20 sets out the process for appeal to the Water Appeals Commission under these Regulations.

2.22. Regulation 21 allows the Water Appeals Commission, once an appeal is made against a notice under these Regulations, to either cancel the notice or confirm it.

2.23. Regulation 22 sets out the penalties associated with an offence under the Regulations: on summary conviction a fine not exceeding the statutory maximum or a term of imprisonment not exceeding three months; or on conviction on indictment, a fine or imprisonment for a term not exceeding two years.

2.24. Regulation 23 revokes the Private Water Supplies Regulations (Northern Ireland) 1994⁵.

2.25. Schedule 1 sets out prescribed concentrations and values for parameters as detailed in the Drinking Water Directive. It also sets out prescribed concentrations and values for additional parameters as required at a national level for the protection of human health.

2.26. Schedule 2 makes provisions for risk assessments carried out under the Regulations, stating the details which should be assessed for each type of private supply.

⁵ S.R. 1994 No.237

2.27. Schedule 3 details the required monitoring programme for large private supplies and supplies to commercial or public premises.

2.28. Schedule 4 sets out requirements in respect of sampling and analysis carried out in the implementation of the Regulations. It includes details on how samples should be taken and analysed and authorisation of alternative methods of analysis.

2.29. Schedule 5 provides for details that shall be included within records compiled by the Department in respect of private water supplies.

3. Background

3.1. The Regulations revoke and replace the Private Water Supplies Regulations (Northern Ireland) 1994 and transpose the requirements of the 1998 Drinking Water Directive in respect of private water supplies. The Directive sets new standards for water intended for human consumption that member states are required to meet and sets indicator parameter values for monitoring purposes. Action must be taken when non-compliance of a parameter value is judged to be a risk to human health.

4. Consultation

4.1. The Department issued a public consultation on the proposals contained in the Regulations on 12th June 2009 for a period of 3 months. Over 300 organisations and individuals were consulted and 16 responses were received. Overall the respondents were supportive of the aims and objectives of the Regulations.

4.2. As a result of responses received to the public consultation, the policy in respect of small domestic supplies serving more than one dwelling (defined in the Regulations as “other private supplies”) was changed on grounds of public health to require mandatory testing of these supplies for a reduced suite of parameters.

5. Equality Impact

5.1. Consideration was given to Section 75 of the Northern Ireland Act 1998. The need for an Equality Impact Assessment was screened out.

6. Regulatory Impact

6.1. A Regulatory Impact Assessment showed that the benefits of the Regulations outweigh any additional costs. The use of Risk Assessments should decrease costs involved by demonstrating which parameters do not require to be monitored, maximising potential benefits. The Regulations do not place an excessive burden on businesses as similar requirements have been in place for a number of years in the Private Water Supplies Regulations (Northern Ireland) 1994.

7. Financial Implications

7.1. The additional financial implications for the Department in implementing these Regulations are not significant. As has been stated above, the use of Risk Assessments should decrease costs involved. Whilst there is a further additional cost

in including mandatory testing for small shared supplies, this cost is small and outweighed by further benefits to public health.

8. Section 24 of the Northern Ireland Act 1998

8.1. The proposed legislation is considered compatible with section 24 of the Northern Ireland Act 1998.

9. EU Implications

9.1. The Regulations transpose the requirements of the EC Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption (the Drinking Water Directive) in respect of private water supplies. A transposition note has been prepared to accompany the Regulations. The Regulations fully transpose the Directive and include the additional elements of Risk Assessments and mandatory testing for “small” private supplies. The use of risk assessments, as recommended by the World Health Organisation, is a proactive measure to identify potential hazards and to prevent or control risks involved. The analysis of costs and benefits showed that the use of risk assessments should decrease costs involved by demonstrating which parameters do not require to be monitored, and should maximise potential benefits. The inclusion of small domestic supplies serving more than one dwelling will ensure that the people consuming water from this small number of private supplies will have their health safeguarded.

10. Parity or Replicatory Measure

10.1. The Regulations are similar to the Private Water Supplies (England) Regulations 2009 and the (draft) Private Water Supplies (Wales) Regulations 2010. A similar regime exists in Scotland, implemented through the Private Water Supplies (Scotland) Regulations 2006 and the Private Water Supplies (Notices) (Scotland) Regulations 2006.

10.2. The regulatory approach taken by England and Wales in respect of small private supplies serving more than one dwelling is slightly different, providing for mandatory testing every five years. The Department, based on health grounds, took the decision to monitor these supplies annually with the option of decreasing this frequency to once every five years taking into account the findings of a risk assessment.

11. Additional Information

11.1. Not applicable.

Regulatory Impact Assessment

The Private Water Supplies Regulations (Northern Ireland)

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1. Title of proposal

The Private Water Supplies Regulations (Northern Ireland)

2. Purpose and Intended Effect

Objectives

2.1. To transpose into legislation, implement and enforce Northern Ireland's obligations under European Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption¹ ("The Drinking Water Directive") in respect of private supplies. As a consequence, the current regulations (The Private Water Supplies Regulations (Northern Ireland) 1994²) will be revoked and replaced.

2.2. To protect the health of consumers of private water supplies and consumers of food and drink prepared from private water supplies.

Purpose

2.3. This RIA accompanies the new regulatory arrangements for private water supplies. The purpose of the RIA is to assess the likely impact of the new regulatory arrangements on owners and consumers of private supplies and on public and commercial activities that are affected by private supplies.

3. Consultation

3.1. The Drinking Water Inspectorate (DWI), a part of the NI Environment Agency within DOE, and the policy team in the Department, have liaised and collaborated with their counterparts in Scotland, Wales and England to seek to achieve a consistent approach to policy and to the content of the Regulations. DWI has also liaised with these administrations regarding technical guidance on the proposed Regulations. This guidance entitled "Private Water Supplies Technical Manual" will be updated to include details of the new Regulations and how they will apply in Northern Ireland. This manual is available online.³

3.2. The Department is responsible for implementing the current arrangements and will continue to be responsible for implementing the new arrangements. A partial RIA formed part of the Department's consultation paper on the proposed new regulatory arrangements in order to inform the preparation of this final RIA. No specific comments were received regarding the partial RIA within the public consultation process. However, as a result of comments received during the consultation period, the policy in respect of small shared supplies was revised. This is reflected in this final RIA.

¹ OJ L 330/32 5.12.98

² SR 1994 No. 237

³ http://www.privatewatersupplies.gov.uk/private_water/22.html

4. Options

4.1. This RIA identifies 3 options:

1. **Do nothing**
2. **Full transposition without risk assessment**
 - (a) **excluding small private supplies**
 - (b) **including small private supplies¹**
3. **Full transposition with risk assessment²**
 - (a) **excluding small private supplies**
 - (b) **including small private supplies**

Other potential options

4.2. Implementation by administrative or non-regulatory means, such as guidance or a Code of Practice, would not transpose the Directive into national law and would not achieve the controls and the measures needed to monitor and enforce the Directive's standards and other wholesomeness requirements. The European Commission would not be satisfied by such an approach, and would most likely invoke infraction proceedings to achieve proper transposition. This option is therefore ruled out.

Exemption from the Directive

4.3. The Directive offers a discretionary exemption in relation to an individual supply that provides an average daily volume of less than 10 cubic metres (<10m³/day), or serves fewer than 50 persons, provided the water is not supplied as part of a commercial or public activity.

4.4. Hence, the exemption could apply to an individual supply of <10m³/day, that serves one or more dwellings and is used solely to meet the daily domestic needs of the occupants. However, a supply of <10m³/day could not be exempt if there was any element of commercial (or public) use such as bed and breakfast. Therefore it is not possible to exempt from the proposed Regulations small or medium enterprises (SMEs) who use the private supplies as part of such activities.

Consideration of the three options

Option 1 - do nothing

¹ "Small" supplies includes those which provide <10m³/day, or serving fewer than 50 persons, **except supplies to single private dwellings**

² "Risk Assessment" entails examining elements of a water supply and source to identify the risk of parameters being present, enabling a possible reduction in amount of monitoring

4.5. The current Private Water Supplies Regulations 1994 were intended to transpose the 1980 Directive. They do not adequately transpose and implement the 1998 Directive, primarily because:

- the Directive includes some new and some tighter standards for drinking water quality – there are some new parameters and a number of parameters have been dropped;
- sampling and analysis (“monitoring”) requirements have changed significantly, including new “check” and “audit” monitoring to assess compliance with the standards; and
- The Department has no power or duty to enforce the standards in the current Regulations, and has only a discretionary power in article 3(E) of the Water and Sewerage Services (Northern Ireland) Order 1973 to serve private supply notices that may require owners and occupiers to take remedial action to improve failing private supplies.

Assessment of Risks involved with Option 1

4.6. If nothing is done to improve the quality of private water supplies, including where necessary enforcing drinking water quality standards, many people who rely wholly or partly on private supplies to provide their drinking water will continue to consume drinking water of a quality that could be inferior to the quality of public water supplies. According to the 2007 Report “Drinking Water Quality in Northern Ireland¹” (produced by the Drinking Water Inspectorate), there was approximately a 1% failure rate in 2007 in terms of all chemical parameters tested in private supplies and an approximately 12% failure rate in terms of all microbiological parameters tested (excluding dairy farms). Failure of the microbiological standards represents a risk of illness to persons consuming such water.

4.7. The European Commission is already aware that transposition of the 1998 Directive has not been completed throughout the UK. Unless each administration across the UK makes new regulations that incorporate all the requirements of the Directive, as it applies to private supplies, the Commission may use its Treaty powers to seek judgement at the European Court of Justice to secure compliance by the UK Government with the Directive. This could result in significant fines to the Northern Ireland Executive which would ultimately be paid from the public purse.

4.8. For the reasons given above, it is not feasible for the Department to do nothing and **Option 1** is therefore ruled out.

Option 2 - full transposition **without** risk assessment

2(a) *excluding small supplies*

¹ Report available online at <http://www.ni-environment.gov.uk/water/drinkwater.htm>

4.9. Option **2(a)** would comply fully with the requirements of the Directive. It would involve meeting the Directive's monitoring (sampling and analysis) requirements relating to all supplies that are not allowed to be exempt. The Directive must always apply to all supplies of 10m³/day or more and supplies of less than 10m³/day that are used for commercial purposes, for example food production or catering, or as part of a public activity.

4.10. Option **2(a)** would require the Department to investigate a failure to comply with a standard and to require the owner to take necessary remedial action. At first the Department would try to solve the problem informally. If the owner did not take the required action, the Department would either have to issue an "authorisation", with a programme of remedial action, if the failure was not of a microbiological parameter and/or did not cause a risk to human health; or, in any other case, an "improvement notice", with a programme of remedial action which must be complied with. The Department would also have the power to prohibit a supply of water, or restrict what the water can be used for, in cases where a serious risk to human health is posed.

2(b) including small supplies

4.11. Option **2(b)** is similar to option **2(a)**, the only difference being that it would include the mandatory testing of "small" domestic supplies (<10m³/day, or serving fewer than 50 persons) that supply more than one dwelling. This option goes further than is required by the Directive in the sense that it does not seek to apply fully the discretionary threshold below which smaller supplies may be exempt. Action in respect of supplies to single private dwellings would be solely to offer advice if requested to do so.

4.12. Option **2(b)** will ensure that users of small private supplies enjoy a similar degree of health protection as consumers of larger private supplies or those which provide water for use in a commercial or public activity.

Assessment of Risks involved with Option 2

4.13. Options **2(a)** and **2(b)** do not involve risk assessments. Consequently, failures of supplies to comply with the standards will normally only be detectable by routine monitoring under the proposed Regulations. The routine monitoring of the majority of private supplies will be infrequent and as such the water quality outside of these sampling occasions will be unknown and this may present a risk, especially during periods of heavy rain when it is known that the water quality of such supplies can be compromised and could pose a risk to health.

Options 3(a) and 3(b) propose that this risk is offset by the inclusion of risk assessments which will lead to earlier detection of at-risk supplies and will demonstrate quickly the cause of a problem, resulting in earlier implementation of remedial action.

Option 3 - full transposition **with** risk assessment

3(a) *excluding small supplies*

4.14. Option **3(a)** would comply fully with the requirements of the Directive. This option goes further than is required by the Directive because it includes risk assessments. The Directive allows parameters to be excluded from “audit” monitoring when it can be demonstrated that they are unlikely to be present at concentrations that would contravene the standards. Carrying out risk assessments and taking the findings into account will help the Department assess whether to reduce the overall amount of monitoring and the information obtained from risk assessments will help the Department to identify where failures are likely to occur. Furthermore, risk assessments will also assist the Department when investigating failures and when reaching decisions on appropriate and proportionate remedial action.

3(b) *including small supplies*

4.15. Option **3(b)** is the same as option **3(a)**, except that it would include the shared small supplies. Therefore this option both goes further than option **3(a)** and further than is required by the Directive.

Assessment of Risks involved with Option 3

4.16. Options 3(a) and 3(b) include risk assessments, which will lead to earlier detection of at risk supplies, resulting in earlier implementation of remedial action.

4.17. Both Options 2 and 3 will place a general duty on the Department to enforce the requirements of the proposed Regulations. As per the Directive, in respect of supplies to single private dwellings, it is proposed the Department will offer appropriate advice to the owner/user of the supply.

5. Cost and benefits

Sectors and groups affected

5.1. The Department will implement the monitoring and other requirements of the proposed Regulations.

5.2. The proposed Regulations will primarily affect those with responsibility for ensuring that their private supplies meet the required standards. These are usually the owners of the land or of the private supply, or any other persons who exercise powers of management or control.

5.3. The sectors liable to be affected will include groups of dwellings that are served by the same private supply, food production undertakings, and any catering businesses, including establishments or dwellings where bed and breakfast facilities are provided, other recreational and holiday premises such as hotels or guest houses.

Numbers of private water supplies

5.4. Of the 111 private water supplies currently registered with the Drinking Water Inspectorate, 18 are small domestic supplies serving more than one dwelling. The consultation paper on the proposed Regulations put forward the proposal to include a power to monitor these small shared supplies only if considered appropriate to do so. However, following the responses received during the consultation period and based on health grounds, this policy was revised to propose mandatory sampling of small shared supplies. The costs for this have been taken into account in this RIA and are likely to be lower than for larger or commercial supplies, because it is proposed that small supplies are monitored by a decreased suite of parameters and in accordance with a risk assessment. 78 of the 93 commercial supplies are small or medium sized businesses. The remaining 15 are larger commercial businesses.

Cost

5.5. The Department is responsible for discharging the functions and duties under the proposed Regulations. The costs for monitoring private water supplies in Northern Ireland are met from the public purse.

5.6. In the following sections the total costs for options 2(a), 2(b), 3(a) and 3(b) are calculated and compared with the costs for option 1 and the extra cost over option 1.

Option 1 (Do nothing)

5.7. The current costs for the monitoring (sampling and analysis) of private water supplies are based on the number of monitoring visits for each supply. A breakdown of the current costs is available in Appendix 1. The total annual current cost is £110,450.

Options 2(a) and 2(b) (without risk assessments)

5.8. The main costs associated with the proposed Regulations will be:

- the maximum cost of a sampling visit
- the maximum cost of carrying out, or arranging to carry out, the analysis (note the full monitoring requirements have to be carried out under these two options)
- the new cost of carrying out investigations into a failure to determine the cause and the appropriate remedial action
- the new cost of preparing and serving an “improvement notice”
- the new cost of preparing and serving a “restriction notice”

- the new cost of preparing, consulting upon, issuing and reviewing an authorisation
- the cost of any steps the Department itself takes under an improvement notice.
- Administrative Costs

5.9. Annual maintenance costs for source protection, collection chambers, treatment and distribution have not been included. Such costs may arise from, for example, cleaning collection chambers, replacing filters or UV lamps, or repairing burst pipes. Annual maintenance costs are difficult to estimate but are likely to be small compared to the annual costs of monitoring.

Options 3(a) and 3(b) (with risk assessments)

5.10. The main costs will be:

- the new cost of carrying out, or arranging to carry out, risk assessments
- the maximum cost of a sampling visit [**note** that it will be possible to achieve savings by carrying out the sampling and some or all the work associated with a risk assessment during the same visit]
- the maximum cost of carrying out, or arranging to carry out, the analysis [**note** that the findings of a risk assessment in conjunction with a previous history of compliance for individual parameters at predetermined levels may allow a reduction in the number of parameters for audit monitoring and therefore reduce the costs]
- the new cost of carrying out an investigation to determine the cause of a failure and the appropriate remedial action
- the new cost of preparing and serving an “improvement notice”
- the new cost of preparing and serving a “restriction notice”
- the new cost of preparing, consulting upon, issuing and reviewing an authorisation
- the cost of any steps the Department itself takes under an authorisation.
- Administrative Costs

5.11. A breakdown of the estimated costs for options 2 and 3 is available in Appendix 1. A summary of costs and benefits is given at the end of this section.

Benefits

General approach

5.12. Estimates of the benefits of the options have been informed by the partial Regulatory Impact Assessment (RIA) (March 2005) ¹ and by the final RIA² published with the draft and final Scottish Regulations respectively. The RIAs were informed by, and developed from, a report of a study carried out on behalf of the Scottish Executive by EnviroCentre, Glasgow ³. This also formed the basis for the recently published Impact Assessment of Draft Private Water Supplies (England) Regulations 2008. A breakdown of the estimated benefits is available in Appendix 1.

Option 1 - do nothing

5.13. No benefits.

Option 2 - full transposition **without** risk assessment

Option 2(a) (excluding small supplies)

5.14. The main benefit of option 2(a) will be to ensure that the 93 private water supplies used for commercial purposes in Northern Ireland will be wholesome and safe for human consumption.

Option 2(b) (including small supplies)

5.15. The additional benefit for option 2(b) will be to ensure similar protection for 18 small private water supplies serving more than one dwelling. This will result in reduced numbers of adverse health impacts, including transmission of waterborne pathogens, among the populations who depend on, or who make occasional use of, private supplies.

Option 3 - full transposition **with** risk assessment

5.16. Options 2(a) and 2(b) do not include risk assessments. Without risk assessment, failures of supplies to comply with the standards for wholesomeness and other requirements will normally only be detectable by monitoring. Risk assessments will lead to earlier detection of potentially

¹ The Draft Private Water Supplies (Scotland Regulations 2005 and Proposals for a Private Water Supplies Grant Scheme – A Consultation issued in March 2005.

² Final Regulatory Impact Assessment, The Private Water Supplies (Scotland) Regulations 2006, issued in April 2006.

³ Economic Assessment in Support of the Partial Regulatory Impact Assessment for Possible Regulations for Private Water Supplies and Public Buildings in Scotland, the Scottish Executive Central Research Unit 2004.

failing supplies and to earlier implementation of remedial action, therefore the benefits will be achieved over a shorter timeframe.

Options 2 and 3

5.17. The quantifiable health benefits from options 2(a), 2(b), 3(a) and 3(b) are avoiding loss of income, loss of economic activity, medical treatment costs and morbidity through avoidance of illness associated with consumption of contaminated water from private supplies. A breakdown of the estimated quantifiable benefits is available in Appendix 1. There are also a number of other benefits that are not quantifiable but are recorded in Appendix 1 qualitatively – these include economic competitiveness for commercial supplies, public confidence; value for money by avoiding costly prosecutions; property enhancement; and increased awareness of water and environmental quality.

Comparison of Summary Costs and Benefits

5.18. A comparison of the estimated additional costs (over option 1) and estimated value of benefits for options 2(a), 2(b), 3(a) and 3(b) are presented in the table below. The present value of costs and benefits are discounted over 15 years at 3.5%. Note that these are the quantifiable costs and benefits and there are also some costs and benefits that it was not possible to quantify.

Estimated additional costs and benefits

Option	Costs £	Benefits £
2(a) – excluding small supplies without risk assessment	285,795	1.04m
2(b) – including small supplies without risk assessment	336,732	1.06m
3(a) – excluding small supplies with risk assessment	- 71,221	1.87m
3(b) – including small supplies with risk assessment	1,172	1.91m

5.19. The present value of the annual and one-off costs of option 3(a) is negative because the annual costs are less than for option 1. For all options the estimated value of the benefits greatly exceeds the estimated additional costs. When risk assessment is included for commercial supplies (option 3(a) compared to option 2(a)) and for all supplies (option 3(b) compared to option 2(b)) the differences between the estimated benefits and the additional costs increases by over £1m (commercial supplies [$£1.87m - \{-£71,221\}$] - [$£1.04m - £285,795$] = £1.19m and all supplies [$£1.91m - £1,172$] - [$£1.06m - £336,732$] = £1.18m). Although the cost savings for option 3(b) (i.e. risk assessment including small supplies) are not as high as the savings for 3(a)

the overall benefits which are mainly health related are higher, therefore it is proposed to pursue this option.

6. Enforcement, sanctions and monitoring

6.1. The Department will be responsible for implementing and enforcing the monitoring and other requirements of the new Regulations. The owners of the land or the private supply where the problem arises will need to implement any remedial action required to meet the revised drinking water quality standards. The Regulations will make it an offence for an owner of the land or a private supply to fail to comply with an “improvement notice” or a “restriction notice” issued by the Department. On summary conviction for an offence under the proposed Regulations, a person would be liable to a fine or imprisonment not exceeding three months, and on conviction on indictment, to a fine, or imprisonment not exceeding two years.

6.2. The Department will monitor and review the operation of the Regulations on a regular basis and will amend them as required to reflect changes in European legislation (the Directive is likely to be reviewed within the next 5 years) and practical experience of their operation.

7. Summary and Recommendation

7.1. This report presents the findings of the Regulatory Impact Assessment which has been undertaken in relation to the Private Water Supplies Regulations (Northern Ireland) 2009. It identifies the costs and benefits of three options, namely:

- do nothing;
- full transposition of the 1998 Drinking Water Directive (this option also assesses both scenarios of either excluding or including “small” shared domestic private supplies); and
- full transposition of the 1998 Drinking Water Directive with Risk Assessment (again assessing the 2 scenarios of either excluding or including “small” private supplies)

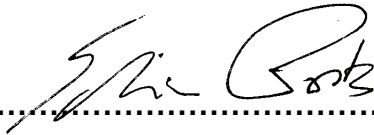
7.2. On the basis of the analysis it is concluded that option 1 is not viable and that the Directive should be transposed.

7.3. Having assessed the costs and benefits, the option which the Department would recommend is option 3(b) – full transposition of the Directive with Risk Assessment and including “small” private supplies. This option would result in an estimated additional cost of £1,172 per year, with an estimated benefit of £1.91m. The use of risk assessments, as recommended by the World Health Organisation, is a proactive measure to identify potential hazards and to prevent or control risks involved. As has been shown in the analysis of costs and benefits, the use of risk assessments should decrease costs involved by demonstrating which parameters do not require to be monitored, and maximise potential benefits. The inclusion of small domestic supplies

serving more than one dwelling will ensure that the people consuming water from this small number of private drinking supplies will have their health safeguarded.

8. Declaration

I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.

Signed:.....

Date:24/11/09.....

Edwin Poots MLA
Minister for the Environment

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Appendix 1 to RIA: Detail of Costs / Benefits

Costs

Option 1: Current Costs

The current costs for the monitoring (sampling and analysis) of private water supplies are based on the number of monitoring visits for each supply. The cost per visit is currently £75 for sampling. The cost for analysis of tests is dependent on the parameters being tested at each visit – the total costs per category of supply is shown in the table below. An average of £71 per monitoring visit is estimated for transport and administration (this includes the costs of delivery and collection of sample bottles, transportation to the laboratories and project management of the contract). The annual costs for monitoring per current category of supply and the total annual costs are shown in table 1 below.

Table 1

Category	Number of Supplies in NI	Total Annual Cost for Sampling	Total Annual Cost for Analysis	Total Cost for Administration
2.1	1	1800	1875.63	1704
2.2	14	12600	22624.98	11928
2.3	31	9300	14240.78	8804
2.4	42	6300	9690.24	5964
2.5	5	375	56.65	355
1E	18	1350	203.94	1278
Sub Total	111	31725	48692.22	30033
Total				110,450.22

Options 2 and 3: Estimated Costs

Annual maintenance costs for any additional (over option 1) source protection/collection, treatment and distribution again have not been included, for example cleaning collection chambers, replacing filters or UV lamps or repairing burst pipes. These annual maintenance costs are unlikely to change significantly under the new Regulatory regime and are likely to be small compared to the annual costs of monitoring.

Tables 2(a) and 2(b) summarise the estimated costs of options 2(a) and 2(b), and Tables 3(a) and 3(b) summarise the estimated costs of options 3(a) and 3(b). The costs for monitoring and risk assessments have been revised following feedback from UK local authorities during the public consultation phase, and this is reflected in the costs below.

The Tables also show the additional costs for each of the 4 options (2(a), 2(b), 3(a) and 3(b)) compared to option 1 (do nothing).

Table 2a (Option 2(a))

Additional costs for commercial supplies – without risk assessments

Item	Unit cost	Calculation	Cost
Sampling visit	£100	15 x 4 for largest supplies + 49 x 2 for medium supplies 29 x 1 for small commercial supplies = 187 visits	£18,700/a
Check analysis	£100	15 x 4 for largest supplies + 49 x 2 for other large supplies + 29 x 1 for small commercial supplies = 187 analyses	£18,700/a
Audit analysis	£500	64 x 2 for large/medium supplies + 29 x 1 for small supplies = 157 analyses	£78,500/a
Investigation –	£100 for visit plus limited analysis	Assume 10% fail in year 1, 5% fail in year 2 etc – approximates to 20% failing in total = 19 failing supplies	£1,900 one-off
Improvement and restriction notices	£100 each	Assume 75% fail for microbial parameters = 14 restriction notices. Assume 50% of these are solved by informal negotiation and other 50% require improvement notices = 7 improvement notices Total notices = 21	£2100 one-off
Authorisations	£100	Assume other 25% require authorisation = 5 authorisations	£500 one-off
Remedial action	£2,000 average	For 19 failing supplies	£38,000 one-off
Administration	£80	187 sampling visits	£14,960/a
Total			£130,860/a £42,500 one-off
Option 1			£110,450
Extra cost Option 2(a) Over option 1		Annual costs	£20,410/a
		One-off costs	£42,500
		Present value of these costs discounted over 15 years at 3.5%	£285,795

Table 2b (Option 2(b))

Additional costs for small supplies – without risk assessments

Item	Unit cost	Calculation	Cost
Sampling visit	£100	18 x 1 for small supplies = 18 visits	£1,880/a
Small supplies analysis	£25	18 analyses (assumes no additional analyses required)	£450/a
Investigation	£100 for visit plus limited analysis	Assume 20% fail in year 1, 10% fail in year 2 etc – approximates to 40% failing in total = 7 failing supplies	£700 one-off
Improvement and restriction notices	£100 each	Assume 75% fail for microbial parameters = 5 restriction notices Assume 50% of these are solved by informal negotiation and other 50% require improvement notices = 3 improvement notices Total notices = 8	£800 One-off
Authorisations	£100	Assume other 25% require authorisation = 2 authorisations	£200 One-off
Remedial action	£750 average	For 7 failing supplies	£5250 One-off
Administration	£80	For 18 small supplies	£1440/a
Total for small supplies			£3,690/a £6,950 One-off
Total for commercial supplies		<i>[See Table 2a]</i>	£130,860/a £42,500 One-off
Total for all supplies			£134,550/a £49,450 One-off
Option 1		<i>[For sampling and analysis only]</i>	£110,450
Extra cost Option 2(b)		Annual costs	£24,100/a
		One-off costs	£49,450
		Present value of these costs discounted over 15 years at 3.5%	£336,732

Table 3a (Option 3(a))

Additional costs for large supplies – with risk assessments

Item	Unit cost	Calculation	Cost
Risk assessment	£500	93 risk assessments every 5 years	£46,500 total £9300/a
Sampling visit	£100	15 x 4 for largest supplies + 49 x 2 for medium supplies 29 x 1 for small commercial supplies = 187 visits	£18,700/a
Check analysis	£100	15 x 4 for largest supplies + 49 x 2 for other large supplies + 29 x 1 for small commercial supplies = 187 analyses	£18,700/a
Audit analysis	£250	64 x 2 for large/medium supplies + 29 x 1 for small supplies = 157 analyses Assumes that risk assessment reduces substantially number of parameters to be monitored to halve cost	£39,250/a
Investigation	£100 for visit plus limited analysis	Assume 10% fail in year 1, 5% fail in year 2 etc – approximates to 20% failing in total = 19 failing supplies	£1,900 one-off
Improvement and restriction notices	£100 each	Assume 75% fail for microbial parameters = 14 restriction notices. Assume 50% of these are solved by informal negotiation and other 50% require improvement notices = 7 improvement notices Total notices = 21	£2,100 one-off
Authorisations	£100	Assume other 25% require authorisation = 5 authorisations	£500 One-off
Remedial action	£2,000 average	For 19 failing supplies	£38,000 One-off
Administration	£80	For 187 sampling visits	£14,960/a
Total			£100,910/a £42,500 One-off
Option 1			£110,450
Extra cost Option 3(a)		Annual costs	- £9,540
		One-off costs	£42,500
		Present value of these costs discounted over 15 years at 3.5%	- £71,221

Please note that the extra annual cost is negative because option 3(a) costs less than option 1.

Table 3b (Option 3(b))

Additional costs for small supplies - with risk assessments

Item	Unit cost	Calculation	Cost
Risk assessment	£500	18 risk assessments for small supplies every 5 years	£9,000 total £1800/a
Sampling visit	£100	18 x 1 for small supplies = 18 visits	£1800/a
Small supplies analysis	£25	18 analyses (assumes risk assessment does not reduce requirements and no additional analyses required)	£450/a
Investigation	£100 for visit plus limited analysis	Assume 20% fail in year 1, 10% fail in year 2 etc – approximates to 40% failing in total = 7 failing supplies	£700 one-off
Improvement and restriction notices	£100 each	Assume 75% fail for microbial parameters = 5 restriction notices Assume 50% of these are solved by informal negotiation and other 50% require improvement notices = 3 improvement notices Total notices = 8	£800 one-off
Authorisations	£100	Assume other 25% require authorisation = 2 authorisations	£200 one-off
Remedial action	£750 average	For 7 failing supplies	£5,250 one-off
Administration	£80	For 18 sampling visits	£1440/a
Total for small supplies			£5490/a £6950 one-off
Total for large supplies		<i>[See Table 3a]</i>	£100,910/a £42,500 one-off
Total for all supplies			£106,400/a £49,450 one-off
Option 1			£110,450
Extra cost Option 3(b)		Annual costs	- £4,050/a
		One-off costs	£49,450
		Present value of these costs discounted over 15 years at 3.5%	£1,172

Please note that the extra annual cost is negative because option 3(b) costs less than option 1.

Benefits

The benefit assessment model employed in the EnviroCentre report has been used, which gives an estimate of the financial benefits of introducing the new regulations. Applicable figures for numbers of supplies etc. in Northern Ireland were applied.

The model calculates the number of people likely to get ill assuming each exposure has a risk of contracting illness, and the numbers are based on the number of people utilising supplies (domestic and commercial); the sample failure rate for the supply class; and an estimated illness contraction rate of 1%.

The EnviroCentre model calculates the total cost of supply failures from the following estimates (the estimated costs have been increased by 8.3% to allow for inflation since 2003 when the costs for the Scottish study were obtained): a loss of income based on an average daily wage of £94.61; a loss of productivity based on an estimated 30% of daily wage reflecting the overall economic loss per work day lost; an estimated illness reporting rate of 10%; an estimated duration of illness of 2 days; the average cost of treatment of £162.45 per illness taking account of travel, doctor's time and treatment; and decrease in quality of life when affected by illness (£54.15 per illness).

The Benefit model calculates the cumulative benefit over 15 years based on assumptions of the resulting improvements due to the regulations, and discounts the benefits over 15 years at 3.5%.

When assessing health benefits in Northern Ireland it was decided to exclude supplies to single private dwellings because the Department will only offer advice to owners/users of such supplies, if requested to do so.

Option 2: without risk assessments

Using the EnviroCentre model, there is an estimated health benefit of £1.04m for option 2(a) over option 1, and an estimated health benefit of £1.06m for option 2(b), which includes small supplies, over option 1.

Option 3: with risk assessments

Using the EnviroCentre model, there is an estimated health benefit of £1.87m for option 3(a) over option 1, and an estimated health benefit of £1.91m for option 3(b), which includes small supplies, over option 1.

Table 4 below summarises the relevant factors considered for the options and the corresponding quantifiable and qualitative benefits associated with them.

Table 4 - Benefits summary for the proposed Regulations

Factor	Benefit
Health - reduction in failing supplies (options 2(a), 2(b), 3(a) and 3(b))	<p>Fewer people being exposed to failing supplies, leading to reduced risk of contracting illness from unwholesome water (for example an <i>E. coli</i> infection from a private supply may be easily spread amongst children or the elderly who may have little or no resistance to <i>E. coli</i>).</p> <p>Reduced visits to GPs and requirement for medical treatment.</p> <p>Reduced cost burden on local industry, commerce and health service.</p> <p>Based on the contraction and reporting rates for illness in the EnviroCentre report from existing failing samples from private water supplies, these health benefits have been estimated as up to £1.04m and £1.06m (options 2(a) and 2(b) respectively) and £1.87m and £1.91m (options 3(a) and 3(b) respectively) over 15 years discounted at 3.5%.</p>
Economic competitiveness (options 2(a), 2(b), 3(a) and 3(b))	<p>Commercial activities that depend upon a consistent, good quality water supply (e.g. tourist related, food production) can encourage repeat business, and avoid the costly risk of failure.</p> <p>Increased commercial opportunities to suppliers of water treatment systems and local tradespersons to undertake upgrading of supplies.</p>
Public confidence (options 2(a), 2(b), 3(a) and 3(b))	<p>Options 2(a) (commercial supplies) and 2(b) (including small supplies) will through the remedial action and enforcement scheme improve protection to users of these supplies respectively.</p> <p>The use of risk assessments (options 3(a) (commercial supplies) and 3(b) (including small supplies)), the changes in parameters being monitored and the remedial action and enforcement scheme will improve further the protection to users of these supplies respectively.</p> <p>With a satisfactory source protection, water treatment and distribution system, there will be a reduced likelihood of failure and therefore people becoming ill and adversely affecting confidence in the water supply.</p>
Value for money (avoid costly prosecutions) (options 2(a), 2(b), 3(a) and 3(b))	<p>It will be more cost effective to require improvement to the source, treatment or distribution of a failing supply than to prosecute owners who refuse to take remedial action.</p>
Impact on development (property) (options 2(a), 2(b), 3(a) and 3(b))	<p>The quality of water supplied to existing properties will continue to be monitored and improved where necessary. This may enhance property prices when the owners can demonstrate that their private supplies are wholesome (increasingly prospective purchasers are asking about quality of private supplies). Note that remedial action in relation to an unwholesome supply to single private dwelling is discretionary.</p> <p>No new restrictions on development if proposed in the area served by a private supply.</p>
Availability	<p>Information on failing supplies, and the reasons why they are failing, will</p>

information (options 2(a), 2(b), 3(a) and 3(b))	lead to a greater awareness and a more efficient management system, reducing future risk of failure (options 3(a) and 3(b) mainly, but also to a lesser extent for options 2(a) and 2(b)).
Social justice (options 2(a), 2(b), 3(a) and 3(b))	Monitoring, remedial action and, if necessary, enforcement to require compliance with wholesomeness standards will apply to only commercial failing private supplies (options 2(a) and 3(a)) and to all supplies (options 2(b) and 3(b)) with local discretion in relation to a supply to a single private dwelling. Social justice is greater with options 2(b) and 3(b) as all consumers will get advice and the same degree of health protection.
Environmental Quality Mainly options 3(a) and 3(b)	The use of risk assessments leading to improved management at the source of a private supply will also create conditions for improvements in the quality of the surrounding environment (mainly options 3(a) and 3(b), such as avoiding pollution of water bodies.
Rural impacts Mainly options 2(b) and 3(b)	<p>Most private supplies are in rural areas, where the benefits will apply, particularly improved health (the value of the health benefits is estimated above) and quality of life.</p> <p>Less potentially long journeys to seek medical treatment.</p> <p>Increased awareness will lead to local knowledge building because risk assessments are likely to place increased emphasis on the education of owners, managers and users of private supplies, enhancing self-regulation and management, with greater potential for transferring and acquiring knowledge.</p> <p>These are greater for options 2(b) and 3(b) with local discretion in relation to a supply to a single private dwelling.</p>
UK benefits (options 2(a), 2(b), 3(a) and 3(b))	Measures that meet effectively the general obligations, and that may go beyond the basic requirements of the Directive, should not only confer substantive health benefits, but should also minimise or reduce the risk of the European Commission bringing a case against the UK Government in the European Court of Justice.

Appendix 2 to RIA: Impact Assessment Screening

All policies need to be proofed or have their impact assessed against a wide range of criteria. The table below shows the results of a screening exercise for each impact assessment. The results of the necessary impact assessments are included after this table.

Impact Assessment	Required?
Crime	X
Community Safety & Victims	X
Equality	X
Health	X
Human Rights	X
Rural Proofing	✓
Social Inclusion	X
Economic Appraisal	X
Economic Impact Assessment	X
Small Firms Impact Test	✓
Competition Assessment	✓
State Aid Compliance Assessment	X
Environment Assessment	X
Strategic Environmental Assessment	X

Appendix 3 to RIA: Rural Proofing

Rural Proofing is a process to ensure that all relevant Government policies are examined carefully and objectively to determine whether or not they have a different impact in rural areas from that elsewhere, because of the particular characteristics of rural areas. Where necessary, it may involve deciding if policy adjustments should be made to reflect rural needs and in particular to ensure that, as far as possible, public services are accessible on a fair basis to the rural community.

Northern Ireland has a legal obligation to comply with the requirements of the European 1998 Drinking Water Directive (98/83/EC), the purpose of which is to protect human health from adverse effects resulting from contamination of water intended for human consumption. This RIA accompanies the Regulations which have been drafted for the purpose of implementing the 1998 Directive. These regulations will replace the existing Private Water Supplies Regulations (Northern Ireland) 1994.

The majority of private water supplies are in rural areas serving rural communities or rural businesses.

For a private supply to a single private dwelling (there are approximately 3000 such supplies in Northern Ireland), the proposed regulations will have no effect other than the owner or occupants receiving advice regarding their private supply.

A small supply to a rural community of two or more houses but serving less than 50 people, that is used solely for domestic purposes and not part of a commercial or public activity shall be monitored once per year for a decreased suite of parameters. This frequency may be decreased to once every five years, dependent on the result of a risk assessment. There are 18 such supplies in Northern Ireland, and these are monitored under the current Private Water Supplies Regulations (Northern Ireland) 1994.

The owner of any private water supply that is used for commercial purposes (such as a bed and breakfast or food producer) has to meet the standards in the Directive as there is no exemption permitted. There are currently 93 such supplies in Northern Ireland of varying sizes. A minimum of one check¹ and audit² monitoring (sampling and analysis) is proposed each year, depending on the size of the supply. The use of risk assessment should enable the number of parameters in audit monitoring to be reduced. These businesses may have to pay the one-off cost of any treatment that is necessary to comply with the standards and safeguard the health of the occupants/visitors and the

¹ Check Monitoring must be carried out at least once a year to confirm that the water in a supply is wholesome. Some parameters will only be monitored in certain circumstances but the suite of parameters under check monitoring cannot be reduced even if compliance is met.

² Audit Monitoring provides further detail about the quality of a water supply. Parameters from audit monitoring may be excluded if it is shown that the concentrations in a supply are unlikely to exceed the prescribed values.

quality of the products. There will also be the cost of maintaining any treatment equipment.

In assessing the impact on rural areas, it has been noted that the majority of private water supplies are in such areas of Northern Ireland. There will be no different impact through these regulations on private supplies which are in rural areas and those which are not. Therefore, it is concluded that it is not necessary to make any adjustments to policy to reflect rural needs.

Appendix 4 to RIA: Small Firms Impact Test

A small business is defined as having fewer than 50 employees; and no more than 25% of the business owned by another enterprise (which is not a small business); and either less than £4.4 million annual turnover; or less than £3.18 million annual balance sheet total. The proposed Regulations will affect all businesses that rely wholly or partly on private supplies for drinking water or for water used in food production. Many of these are likely to be small businesses. However, the proposed Regulations are likely to have a similar effect on small and large businesses, relative to size. Small businesses are likely to use less water than large businesses and the cost of any necessary remedial action is likely to be approximately proportionate to water used. It is concluded that overall the proposals are not likely to have a disproportionate impact on small businesses.

Appendix 5 to RIA: Competition Assessment

It may be expected that the impact associated with the proposed Regulations may put businesses that rely on private supplies at a disadvantage to businesses that use public supplies because of the possible costs to businesses associated with, where necessary, improvements to private water supplies. However, businesses that rely on public water supplies have to pay for the costs of meeting the public supply regulations through their water bills and this includes the costs of improvements. The impact of the proposed Regulations for private supplies should eventually be offset by increased public confidence in the quality of products, particularly food and drinks prepared from private supplies. It is concluded that there will be no significant competition effects.

Appendix 6 to RIA: Public and Community/Voluntary Sectors

Given that the proposal is quite specific in nature the analysis reveals that it is unlikely to have any substantial impact on the public, community or voluntary sectors. The main impacts will be beneficial in terms of protecting the health of consumers of private water supplies.

The Private Water Supplies Regulations (Northern Ireland)

Transposition Note

1. These Regulations aim to transpose Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption (“the Directive”) in respect of private water supplies. A copy of the Directive can be found at

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1998:330:0032:0054:EN:PDF>

2. The purpose of this Transposition Note is to show how each provision of the Directive is proposed to be transposed into the Private Water Supplies Regulations (Northern Ireland) 2009. This set of Regulations is concerned only with private water supplies in Northern Ireland.

3. The Water Supply (Water Quality) Regulations (Northern Ireland) 2007¹ transpose the Directive in relation to public water supplies provided by Northern Ireland Water Limited.

4. The Directive does not require risk assessments. However, the use of risk assessments, as recommended by the World Health Organisation, is a proactive measure to identify potential hazards and to prevent or control risks involved. The Department of the Environment (“The Department”) believes that the use of risk assessments should decrease costs involved by demonstrating which parameters do not require to be monitored, and should maximise potential benefits. Therefore, the proposed Regulations require a risk assessment to be carried out for each private supply, except supplies to single private dwellings.

5. There is a discretionary exemption from most of the requirements of the Directive for water from an individual supply that provides less than 10 m³ per day as an average (or serves fewer than 50 persons) for domestic uses. The Directive allows Member States to exempt these small domestic supplies from their national laws, if they wish, unless the water is supplied as part of a commercial or public activity. The Department will apply this exemption in respect of supplies to single private dwellings. However, on public health grounds, small domestic supplies serving more than one dwelling will undergo mandatory testing annually, which can be reduced to once every five years taking into account the findings of a risk assessment.

¹ SR 2007 No. 147 as amended by SR 2009 No. 246.

Transposition Table

6. The Private Water Supplies Regulations 2009 are made under Articles 107(2) and (3) and 118(3) and (4) of the Water and Sewerage Services (Northern Ireland) Order 2006¹ and section 2(2) of the European Communities Act 1972². Unless otherwise stated in column No. 4 (“Responsibility and comments”) in the Transposition Table below, the powers and duties in these Regulations are conferred on the Department.

1	2	3	4
Article	Objectives	Implementation (Regulations)	Responsibility & comments
1.	<p>1(1) Directive 98/83/EC concerns the quality of water intended for human consumption.</p> <p>1(2) The objective of the Directive is to protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.</p>	<p>Part 1 – Water Standards Regulation 1 (Citation and commencement) Regulation 2 (Interpretation) Regulation 3 (Water supplies to which these Regulations apply). Regulation 5 defines wholesomeness.</p>	<p>For convenience, “water intended for human consumption” is often abbreviated to “drinking water” and Directive 98/83/EC is often described as the “Drinking Water Directive”</p>
2.	<p>2(1) defines ‘water intended for human consumption’ as -</p> <ul style="list-style-type: none"> - (a) water either in its original state or after treatment that is intended for use in domestic purposes, and “domestic purposes” means purposes such as drinking, preparing or cooking food, or washing; - (b) water used in any food-production undertaking, unless the Member State is satisfied that the quality of the water cannot affect the wholesomeness of the foodstuff in its finished form, and “food production” is the manufacturing, processing, preserving, preparing or marketing of food or drink. 	<p>Regulation 3 (Water supplies to which these Regulations apply). Regulation 3(1) provides that the Regulations apply to all drinking water supplies other than supplies provided by the water undertaker. Under regulation 3(2) the water supplies in paragraph (1) are referred to in the Regulations as “private supplies”</p>	<p>The water undertaker must establish monitoring programmes under the Water Supply (Water Quality) Regulations 2007 (“the 2007 Regulations”), as amended by the Water Supply (Water Quality)(Amendment) Regulations 2009</p>
3.	<p>2(2) defines “domestic distribution system” as the pipework, fittings and appliances that are installed between taps normally used for human consumption and the distribution network.</p>	<p>Regulation 17(2) Where the cause of a failure in a private dwelling is the domestic distribution system the Department shall</p>	<p>The Department is not responsible when a failure is caused by the domestic plumbing in a private dwelling. When a failure is</p>

¹ S.I. 2006/3336 (N.I. 21)

² 1972 c.68

		advise the occupier[s] on measures necessary to protect their health. Regulation 17(3) Where the plumbing causes a failure in a commercial or public building, the responsible person must remedy the failure	caused by the plumbing in public premises, the Department will seek to reach an informal solution with the owner or occupier. But it may need to take formal action to require remediation.
3.	General exemptions. 3(1) The Directive does not apply to: (a) natural mineral waters (Directive 80/777/EEC), or (b) medicinal products (under Directive 65/65/EEC).	Regulation 4(a) and (b) identifies the mandatory exemptions	The Natural Mineral Water, Spring Water and Bottled Drinking Water (Northern Ireland) Regulations 2007 (SR 2007 No 420). The Food Standards Agency DHSSPS
3.	3(2) describes discretionary exemptions from Directive - (a) purposes where the water quality has no direct or indirect influence on consumers' health, (see also Article 2.1(b)). (b) from an individual supply with average daily volume of <10 m ³ [<50 persons] unless water is supplied as part of a commercial or public activity. (c) if exemptions used, population must be informed of exemption and given advice on protecting their health.	(a) Regulation 4(c) exempts water for washing crops after harvesting when the Department is satisfied that water quality does not affect fitness for consumption. (b) Regulation 10 sets out requirements for monitoring small shared supplies serving more than one domestic dwelling. (c) Regulation 11 exempts single private dwellings but states that the Department shall offer appropriate advice. Regulations 15 and 17 require the Department to provide information and advice.	The Department shall monitor small shared supplies serving more than one dwelling at least once each year for a reduced suite of parameters, and according to risk assessment.
4.	Describes general obligations to take necessary measures to ensure that water intended for human consumption is wholesome and clean	Regulation 5, Wholesomeness	

4.	<p>4(1) Minimum requirements that water should –</p> <p>(a) be free from any micro-organisms and parasites and from any substances which, in numbers or concentrations, constitute a potential danger to human health, and</p> <p>(b) meet the minimum requirements set out in Annex I, Parts A and B which set values for the microbiological (Part A) and chemical (Part B) parameters, including the notes for specific chemical parameters, for example lead, nitrate and nitrite, individual pesticides and pesticides total.</p>	<p>Water is wholesome if it -</p> <ul style="list-style-type: none"> - does not constitute a risk to human health, - meets the prescribed concentrations and values for parameters in Part 1 of Schedule 1, and - satisfies the nitrate-nitrite formula. <p>Schedule 1, Part 1, Table A (microbiological parameters), Table B (chemical parameters), (Directive requirements)</p>	
4.	<p>4(2) requires Member States to ensure that measures taken must not cause deterioration of present quality of drinking water so far as that is relevant for the protection of human health or increase in pollution of waters used to produce drinking water.</p>	<p>Regulation 7 (requirement to carry out a risk assessment), Schedule 2 (Risk Assessment) and Schedule 3 (Monitoring), regulations 7 to 12 specific requirements for different types of supplies and regulation 12 and Schedule 4 (sampling and analysis).</p>	<p>Also in Part 3 (Action in the event of failure) , investigation, remedial work as may be required during a period of an authorisation, and formal action in the event of failures to meet standards and/or where there is a risk to human health.</p>
5.	<p>5(1) and (2) require Member States to set parametric values no less stringent than those set out in Annex I;</p>	<p>Regulation 5, and Schedule 1, Part 1 (wholesomeness), Table A (microbiological parameters) and Table B (chemical parameters)</p>	<p>Table A (Microbiological parameters) - Directive requirements; Table B (chemical parameters) – includes both Directive requirements and some national requirements.</p>
5.	<p>5(2) also provides that values for indicator parameters in Annex 1, Part C need be fixed only for monitoring purposes and to fulfil Article 8 obligations;</p> <p>5(3) requires values be set for additional parameters if</p>	<p>Schedule 1, Part 2 (indicator parameters), Regulation 7 (risk assessments), regulation 9, Schedule 3 (monitoring), regulation 12 and Schedule 4 (sampling</p>	

	required to protect human health. Any such additional parametric values should satisfy Article 4(1)(a) requirements as minimum).	and analysis).	
6.	<p>6(1) describes the points where a drinking water supply must comply with the parametric values:</p> <p>(a) water from a distribution network to comply at tap normally used for human consumption;</p> <p>(b) water from a tanker to comply at the point where it emerges from the tanker;</p> <p>(c) bottled water for sale to comply at point where it is put into bottles (or containers).</p> <p>(d) water used in food production to comply at point where it is used in the food undertaking</p>	<p>Regulation 12 (sampling and analysis) identifies the different points where water must comply:</p> <p>(a) Regulation 12(1)(a)</p> <p>(b) Regulation 12(1)(c)</p> <p>(c) Separate Regulations apply.</p> <p>(d) regulation 12(1)(b)</p>	<p>(c) The Natural Mineral Water, Spring Water and Bottled Drinking Water (Northern Ireland) Regulations 2007 (SR 2007 No 420).</p>
6.	<p>6(2) describes circumstances in which Member States are deemed to have fulfilled their general obligations in relation to water supplied from a distribution network.</p> <p>Normally these obligations are fulfilled if wholesome water is supplied to premises and if it can be established that any non-compliance with the parametric values is due to the domestic distribution system or to its maintenance.</p> <p>However, there is an exception to this general criterion where non-compliance is due to the domestic distribution system or its maintenance in premises and establishments such as hospitals, schools and restaurants where food is produced or water or food may be supplied to the public</p>	<p>Regulation 16 requires the Department to investigate to establish the cause if any sample is unwholesome (fails to comply with a standard in Schedule 1, Part 1, Tables A & B); or if a sample exceeds an indicator parameter value in the Table in Part 2.</p> <p>If the domestic distribution system in a private dwelling causes a failure, regulation 17(2) requires the Department to advise the occupiers on measures necessary to protect health.</p> <p>If the domestic distribution system in a public building causes a failure, regulation 17(3) requires the local authority to take action by either -</p> <p>(a) granting an</p>	

		<p>authorisation to a responsible person, or (b) serving a notice on one or more of the responsible persons Where the problem cannot be solved through informal agreement</p>	
<p>6.</p>	<p>6(3) requires Member States to take “appropriate measures” where there is a risk that water supplied from a distribution network would not comply with parametric values because of the domestic distribution system. Appropriate measures are – 6(3)(a) to reduce or eliminate risk, for example advice to property owners about possible remedial action, and/or to alter the water by treatment before supply to reduce or eliminate risk of non-compliance after supply due to the domestic distribution system; and 6(3)(b) to inform consumers and advise them of any possible additional remedial action to take.</p>	<p>Regulation 15 requires the Department, if it considers that a private supply is a risk to human health, to inform the people who are likely to consume the water of the risk (including, where possible, the degree of risk), and to give them advice to allow them to minimise it. If the domestic distribution system in a private dwelling [NB not specifically a single private dwelling] causes a failure, regulation 17 requires the Department to advise the owner or occupier on measures that are necessary to protect health. Where the cause of a failure is not the domestic distribution system, if the authority cannot solve the problem informally, it must take formal remedial action (except in the case of a supply to a private dwelling). This may be either - (a) to grant an authorisation to a responsible person, or (b) to serve a notice on one or more of the responsible persons</p>	

7.	<p>7(1) requires Member States to take all measures necessary to ensure that regular monitoring is carried out to meet the requirements of the Directive, particularly the parametric values.</p> <p>["Monitoring" means the taking and analysing of water samples]</p> <p>Samples should be representative of the quality of the water consumed throughout the year. The efficiency of any disinfection treatment should be verified, and any contamination from disinfection by-products kept as low as possible, without compromising the disinfection.</p>	<p>Article 7 is covered by Part 2, regulations 8 to 12, Schedules 3 and 4. Regulation 8 requires the Department to monitor all private supplies in accordance with Part 2. Regulation 9 requires monitoring in accordance with Schedule 3. Regulation 10 requires the Department to monitor a domestic supply with average daily volume of less than 10m³/day (apart from supplies to single private dwellings) for five parameters and for others as the risk assessment may determined.</p>	<p>Regulation 9 and Schedule 3 apply to large domestic supplies, providing an average daily volume of more than 10m³/day and any size of supplies used as part of a commercial activity. Regulation 10 applies to smaller domestic supplies which serve more than one dwelling.</p>
7.	<p>7(2) requires the competent authorities to establish monitoring programmes that meet the minimum requirements set out in Annex II (Monitoring).</p>	<p>Regulation 8 requires monitoring in accordance with Part 2 of the Regulations. Regulation 9, Schedule 3 (monitoring) applies to domestic supplies with average daily volume of $\geq 10\text{m}^3/\text{day}$ and to any size of supply that is used for a commercial purpose. Regulation 10 requires monitoring of domestic supplies with average daily volume of $<10\text{m}^3/\text{day}$ but which serve more than one dwelling for -</p> <ul style="list-style-type: none"> - the five parameters set out at paragraphs (a) to (e) in regulation 10 (1), and - according to the risk assessment, for - (a) any other Schedule 1 parameters (including indicator 	

		<p>parameters) that may be exceeded, and</p> <p>(b) anything else that may be a risk to human health.</p> <p>The frequency of this monitoring must be once per year, but this frequency can be reduced to once every five years in accordance with the results of a risk assessment.</p>	
7.	<p>In Annex II –</p> <ul style="list-style-type: none"> - Table A , Part 1 describes the purpose of check monitoring and identifies parameters and circumstances - Table A, Part 2 describes the purpose of audit monitoring. All parameters must be subject to audit monitoring unless it can be established that a parameter is unlikely to be present. - Table B1 gives the minimum frequencies of sampling and analyses including when reduced monitoring may apply. - Table B1, note 6. Member States decide the frequency of monitoring for supplies of 100 m³/day or less. <p>Table B2 applies to sampling for commercial bottled water and is dealt with in other Regulations.</p>	<p>Schedule 3, Part 1 (Check monitoring) requires sampling for the parameters and in the circumstances set out in Table A.</p> <p>Table B sets out the minimum annual sampling frequencies. Paragraphs 2(2) and (3) deal with reduced and higher check frequencies.</p> <p>Part 2 (Audit monitoring)</p> <p>Paragraph 3 allows the Department to exclude a parameter where it is unlikely to fail a prescribed standard, taking account of the findings of a risk assessment.</p> <p>Table C sets out the minimum annual sampling frequencies for audit monitoring.</p> <p>Paragraph 2(3) (check) and 4(2) (audit) permit the authority to set higher frequencies, if appropriate after taking into account the findings of a risk assessment</p>	
7.	<p>7(3) requires that competent authorities should determine sampling points in accordance with Annex II. See also Article</p>	<p>Sampling points are identified in regulation 12(1). Schedule 4 (Sampling and</p>	

	6(1) above.	analysis) is applied by regulation 12(6)	
7.	7(4) indicates that community guidelines on monitoring may be drawn up under Article 12.	Not required	
7.	<p>7(5)</p> <p>(a) requires specifications for analysis of parameters set out in Annex III to be met</p> <p>(b) permits Member States to use alternative methods of analysis for microbiological parameters, provided the results are at least as reliable as those obtained by using the specified methods.</p> <p>(c) for parameters listed in Annex III, Parts 2 and 3 any method may be used provided it meets “performance characteristics” that are specified in those Parts.</p> <p>Annex III requires that any laboratory which analyses samples has a system of analytical quality control, checked by an approved independent person.</p>	<p>Schedule 4 –</p> <p>Part 1 General</p> <p>Paragraph 3 permits the Department to authorise use of alternative methods, and sets out the requirements and circumstances.</p> <p>Part 2, Analytical methodology (Tables A and B)</p> <p>Table A identifies parameters and prescribed methods of analysis.</p> <p>Table B identifies the parameters and the prescribed “performance characteristics” to be met by methods of analysis.</p> <p>Paragraph 5 includes requirements for systems of analytical quality control in laboratories that analyse samples.</p>	<p>As stated in Schedule 4 paragraph 3(2), the Department shall inform the Commission of any authorised alternative method, providing a description of the method and results of equivalence tests.</p>
7.	7(6) requires additional monitoring on a case by case basis for substances and micro-organisms for which no value has been set, where they may be present and there is a potential danger to human health.	Regulation 9 requires the Department to carry out appropriate additional monitoring, on a case by case basis, where it considers that a private supply is a risk to human health for any reason	
8.	Article 8 sets out the requirements and options for remedial action and restrictions in use.	Regulation 16 requires the Department to investigate to establish the cause where a private supply is unwholesome. Regulation 17 sets out what it must or may do	

		once it has established the cause, including when the cause is the domestic distribution system.	
8.	8(1) requires investigation of non-compliance with parametric values, including values for indicator parameters, to identify the cause	Regulation 16 requires the Department to investigate to establish the cause where any sample is unwholesome (mainly failures of parameters in Part 1 of Schedule 1) or if the sample for an indicator parameter exceeds the limits in Part 2 of the Schedule.	
8.	8(2) requires remedial action to restore quality as soon as possible, and priority to enforcement measures where necessary to protect human health.	Regulation 17(3) requires the Department to grant an authorisation or serve a notice in the circumstances described. The responsible person[s] who are named in the authorisation are required to take specified remedial action where there is a failure. Notices under regulation 19 also specify actions to be taken in order to protect human health. It is an offence to fail to comply with a notice under regulation 19.	It is an offence to fail to comply with a notice under regulation 19 and Regulation 22 sets out the penalties
8.	8(3) requires prohibition or restriction of a supply that is a potential danger to human health and that consumers are informed promptly and given necessary advice, and 8(4) requires competent authorities considering such action to take account of the risks to human health associated with the interruption or restriction of supply	Regulation 19 describes the circumstances and requirements to serve a notice including taking account of risks associated with the serving of the notice. It sets out what a notice must specify including the appropriate restriction measures.	It is an offence to breach or fail to comply with a notice and regulation 22 sets out the penalties. Regulation 19(5) requires the Department to revoke a notice as soon as there is no longer a risk to human health.

8.	8(5) allows Member States to establish guidelines to assist competent authorities with 8(4) .	Not required	
8.	8(6) requires remedial action to be taken where a failure to meet an indicator parameter value (Annex 1, Part C) is a risk to human health	Where a failure to meet an indicator parameter value represented a risk to health Regulation 15, 16, 17, 18 and 19 apply.	
8.	8(7) consumers must be notified where remedial action is taken unless the failure is trivial.	Regulation 17 allows the Department to solve a problem informally, by negotiation. If it is unable to do so, it may, if appropriate, issue an authorisation under regulation 18. But if the Department does not or cannot issue an authorisation, it must serve a notice	
9.	This Article provides for a permissive system of derogations from the parametric values for the chemical parameters set out in Annex I, Part B (or from any values set nationally for additional parameters that are not included in Annex I). This allows supplies to continue whilst remedial action is being taken	Regulation 18 allows the Department to grant a derogation (in these Regulations, an "authorisation") from the standards for the chemical parameters set out in Table B of Schedule 1.	In these Regulations, a derogation under Article 9 is identified as an "authorisation"
9.	9 (1) permits derogations from values for the chemical parameters in Annex 1, Part B or from the values for additional parameters, set locally to protect health, up to a maximum value, provided the derogation would not constitute a potential danger to human health, and the supply cannot otherwise be reasonably maintained. A derogation must be for as short a time as possible and no more than 3 years. A second derogation not exceeding 3 years is permitted following a review, but copies	The Department may grant an authorisation under regulation 18, if: - it has consulted the relevant district council and the Public Health Agency and taken their views into account - the authorisation would not cause a risk to human health, and - the private supply cannot otherwise be maintained by any other reasonable means	Towards the end of the duration of the authorisation, the Department shall review it. If it intends to issue a second authorisation, this must be communicated to the Commission

	of the review and grounds for the decision must be sent to the Commission		
9.	9(2) In exceptional circumstances, a Member State may request the Commission for a third period not exceeding three years	Regulation 18(10) a third period of authorisation may be granted if the Commission confirms its approval	The Commission must confirm approval of the third period of authorisation before it is granted
9.	9(3) sets out the information that must be specified in a derogation, including: the grounds for the derogation, the parameter and maximum permitted value, geographical area affected, water quantity and population, whether a supply to food production premises is affected, a monitoring scheme, summary of plan for remedial work and a timetable, estimate of cost for review, plus the duration of a derogation	Regulation 18 (3), subparagraphs (a) to (h) set out what an authorisation must contain, including all the requirements of Article 9(3).	
9.	9(4) and 9(5) provide for derogations where a failure is trivial, may be resolved within 30 days by remedial action, and has occurred on no more than 30 days in previous 12 months	The Department considers that formal provisions to grant authorisations for such a short period are not practicable. The Department must first try to solve a problem informally and this approach applies equally where a chemical parameter failure appears at first sight to be trivial.	If the problem is not solved informally and the failure is not remedied, regulation 17 requires the Department either to issue an authorisation or, if that is not appropriate, to serve a notice.
9.	9(6) requires that, unless the derogation is “trivial”, the affected population is promptly informed of the derogation and any necessary advice given to any group for which derogation could present a special risk	Regulation 18 (6) requires the Department to promptly inform those affected and, where necessary, to ensure that advice is given to particular groups for which the authorisation could present a special risk.	
9.	9(7) requires that the Commission is informed within two months of any derogation concerning a supply >1,000m ³ /d average (> 5,000	Regulation 18(7) provides for the Commission to be informed of such a derogation	

	persons).		
10.	Substances and materials for new installations used in the preparation and distribution of water, must not remain in water in concentrations higher than necessary and must not reduce the protection of human health provided for in the Directive	Regulation 6 (New installations) provides that only substances or products specified under regulation 30 of the Water Supply (Water Quality) Regulations 2007 may be used for new installations for preparing or distributing drinking water	The Water Supply (Water Quality) (Amendment) Regulations (NI) 2009 amended this set of Regulations.
11.	Requires Commission to review Annexes at least every 5 years and adapt, having regard to scientific and technical progress	None required	
12.	Provides for a Committee of representatives of Member States to assist the Commission, for example with review of Annexes II and III and monitoring issues to be decided	None required	
13.	13(1) requires up to date information on water quality to be available to consumers	Schedule 5, applied by regulation 13 requires the Department to compile, review and update a record of private supplies. Regulation 14 requires the Department to publish an annual report about private supplies, including information about the quality of private supplies.	The Department must review and update their records at least once a year.
13.	13(2) requires a report on water quality to be published every three years covering as a minimum all supplies exceeding 1000 m ³ /day. 13(3) requires reports to be sent to Commission within 2 months. 13(4) The formats and minimum information shall be determined with regard to specified Articles and	The records that the Department will be required to keep under regulation 13 and Schedule 5 will enable them to provide an annual report, as required by regulation 14.	The Department currently publishes an annual report containing an overview of drinking water quality in Northern Ireland, which includes details of private water supplies. Regulation 14 provides for the Department to continue to do so.

	<p>amended if necessary by Article 12 procedure.</p> <p>13(5) Commission to examine Member States' reports and to publish synthesis report within 9 months.</p> <p>13(6) requires report on measures to meet Article 6(3) and Annex 1, Part B, note 10</p>		
14.	Requires Member States to take measures to ensure that quality of water intended for human consumption complies with Directive within five years of entry into force	Regulation 1 (Citation and commencement) states that the Regulations apply in Northern Ireland and specifies when they will come into operation	The Department may grant authorisations under regulation 18 where failures of the chemical parameters can be remedied over time and without risk to human health.
15.	In exceptional circumstances and for geographically defined areas, Member States may submit a special request for a period longer than in Article 14	None required	
16.	Repeals previous Directive 80/778/EEC five years after entry into force, or as soon as Member States have brought into force the laws, regulations and administrative provisions needed to comply	None required. Regulation 23 revokes the Private Water Supplies Regulations 1994 (SR 1994 No. 237)	The Private Water Supplies Regulations (Northern Ireland) 1994 implemented Directive 80/778/EEC in relation to Northern Ireland.
17.	Member States are required to bring into force the laws, regulations and administrative provisions needed to comply with the Directive within two years of its entry into force	Regulation 1 (Citation and commencement).	The Regulations apply in Northern Ireland and come into operation as specified.
18.	The Directive enters into force 20 days after it was published in the Official Journal [O.J.].	None required.	
19.	The Directive is addressed to Member States	None required.	