

Benefits of private water supply grants

KEY FINDINGS

- No overall improvement to water quality in Private Water Supplies was shown from the method developed. Although effective at some specific properties where a point of entry or point of use treatment was applied, improvement in national compliance with the Drinking Water Directive has not been achieved. However, a lack of suitable data and information before and after grant award makes an assessment of improvement in water quality challenging. Much can be done to improve this.
- The data indicate that treatment at source, e.g. within the wider catchment area, rather than the current piecemeal approach at point of use, may be more cost-effective.
- When known about and applied for, private water supply (PWS) grants were valued by PWS users and Local Authorities attempting to implement the grants. Survey respondents were mostly satisfied with the grant process, and reported a range of benefits from using the scheme to improve their water supplies.
- Potential issues with the grant scheme include:
 - low awareness of PWS quality risks
 - difficulties in finding out about the grant
 - barriers to collaborative grant applications
 - lack of knowledge about what to do and how to maintain the PWS system
 - while the grant amount is sufficient for bacterial treatment at point of use, it does not cover more complex and expensive supply or storage solutions.
- Overall, the issues are less about the grant process itself and more about the overall approach to resolving PWS problems. Despite no overall improvement to water quality in Private Water Supplies in Scotland during the lifetime of the grant scheme, half of the cases we examined showed increase in compliance at the level of supply. Where the change is negative, it is not yet known whether this is:
 - a matter of maintenance, land use, or an artefact of the method linking tests on different properties with the grant per supply
 - due to non-improvement of source water or other properties providing compliance samples
 - because the treatment did not solve the water quality problems in the long-term.

INTRODUCTION

Private water supplies provide ~3% of the Scottish population with their main source of drinking water. Many more people encounter private supplies when they visit rural parts of Scotland, although private drinking water supplies can be found in urban settings. The quality of these supplies is variable, many have adequate treatment and are well managed, but others present a risk to health due to the quality of the raw water and inadequate, absent, or poorly maintained treatment.

Since the implementation of the Private Water Supplies (Scotland) Regulations 2006, the Scottish Government has spent almost £8 million on grants to help with the costs of improving private water supplied through applying appropriate treatment in properties using at risk PWS.



RESEARCH AIMS AND OBJECTIVES

The aim was to assess the grant scheme's performance between 2006 and 2013 by investigating its effectiveness in improving PWS drinking water quality in Scotland, and identifying reasons for the results from the perspective of PWS users and Local Authorities implementing the scheme.

The objectives were to:

- Develop a method, using available data, to assess whether the grant scheme has helped to improve private water supply quality

- Apply the proposed method and present results of the evaluation
- Make recommendations on how the quality of private water supplies could be improved, including any changes to the grant scheme, or alternative approaches.

This involved a workshop with Local Authority representatives to agree the method, an analysis of Scottish Government data, a survey of PWS users, and interviews with a small number of survey respondents and Local Authority officers responsible for administering the grant scheme.

RECOMMENDATIONS

The evidence does not suggest many problems with the grant scheme per se, although this may reflect the views of a limited sample size. There are some recommendations for improvement, but the wider problem for improving PWS water quality nationally is that the grant scheme supports only piecemeal interventions at the point of use. The scheme does not provide incentives for individuals to collaborate to tackle water quality and water supply issues at source. In brief, we recommend:

- **Improving current processes** for registration of properties; investigating persistent DWD failures; PWS information provision; risk assessments; and data recording
- **Extending the grant** to connection to the mains; allowing the grants to cover a percentage of overall cost of improvements to PWS; requiring or encouraging collaborative grant applications; improving maintenance of PWS, including developing a Trusted Trader Scheme for contractors
- **Further research** on supplies and sources; perceptions of PWS and grants; incentives for social and tied housing; barriers to collaborative applications and methodologies for registering properties on PWS.

Key words: *Private Water Supplies; Water Quality; Water Quantity; Rural; Risk*

RESEARCH TEAM AND CONTACTS

Kirsty Blackstock, Ioanna Akoumianaki, Carol Kyle, Kirsty Holstead and Sue Morris

Email: enquiries@crew.ac.uk

Tel: +44 (0) 1224 395295

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