

SECTION 1

INTRODUCTION

Section Contents

- 1.1 Background
- 1.2 Private supplies
- 1.3 Data on Private Water Supplies
– Scotland (S)
- 1.4 Construction products and
chemicals in contact with
drinking water



Private Water Supplies

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1 INTRODUCTION

1.1 Background

Water is essential to sustain life and an adequate supply of good-quality drinking water should be available to consumers. International guidelines on drinking water quality are published by the World Health Organization¹. Within the European Union drinking water is subject to specific quality standards set out in the EC Directive on the Quality of Water Intended for Human Consumption (98/83/EC², the ‘Drinking Water Directive’) which takes into account the WHO guidelines.

The water quality standards laid down in the drinking water Directive apply to all public and private water supplies intended for drinking, cooking, food preparation and other domestic purposes. Member States had to introduce legislation implementing the requirements of the Directive by the end of 2000 and have to comply with most of the standards in the Directive by the end of 2003.

¹ WHO (2004). *Guidelines for drinking water quality*. Third Edition Volume 1, Recommendations. World Health Organization, Geneva.



1.2 Private supplies

A private water supply may be defined as any water supply that is not provided by a statutory water undertaker and where the responsibility for its maintenance and repair lies with the owner or person who uses it. A private water supply can serve a single household and provide less than one cubic metre of water per day or it can serve many properties or commercial or industrial premises and provide 1000 m³/d or more. The water source could be a borehole, well, spring, lake, stream or river.

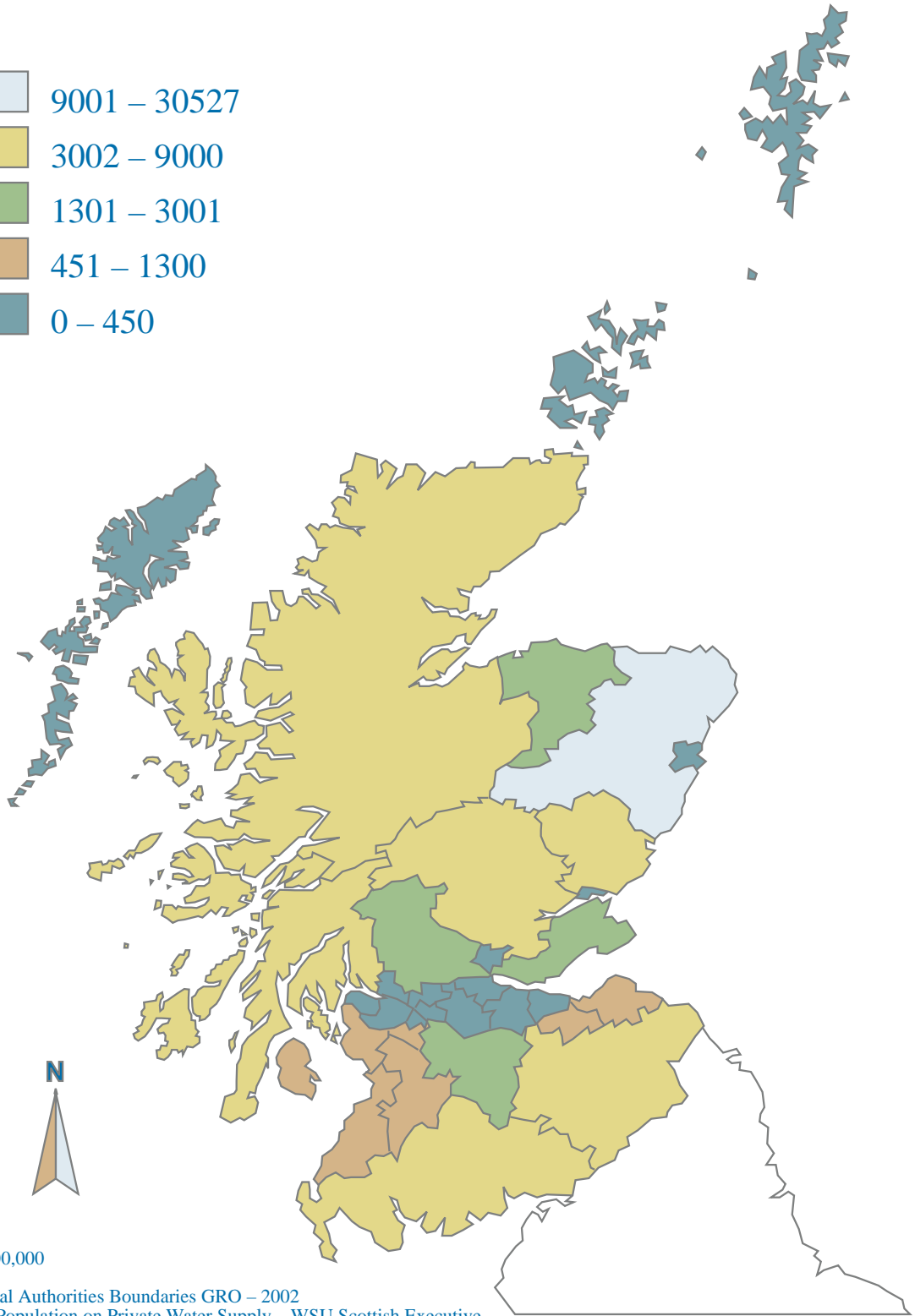
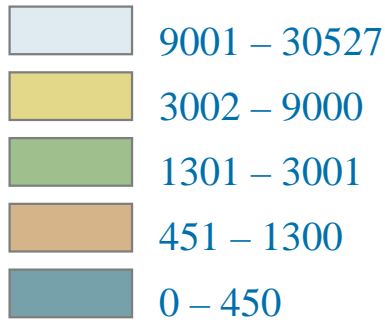
The monitoring requirements of the Drinking Water Directive vary according to the size of the supply. In addition to the volume of water produced (or population served), private water supplies should also be classified according to the nature of the supply taking account of whether the supply serves:

- single dwelling domestic use;
- is for domestic use for persons normally residing on the premises; or
- is supplying premises used for commercial food production or with changing populations.

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1.3(S) Individual Country Data on Private Water Supplies – Scotland

Population on Private Water Supplies



Scale 1:2,700,000

Source: Local Authorities Boundaries GRO – 2002
Percentage Population on Private Water Supply – WSU Scottish Executive.

Scottish Executive Geographic Information Service 30 July 02 Job: 207ac

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1.4 Construction products and chemicals in contact with drinking water

Chemicals used in water treatment and construction products used in water supply systems can adversely affect water quality. Potential effects include the addition of potentially toxic contaminants as well as aesthetic aspects such as taste and appearance. This source of potential contamination is best addressed through controls on the quality of chemicals and construction products used in water supply systems, from the point of collection to the point of use.

Currently there is no internationally recognised scheme for the regulation or approval of construction products and chemicals although some countries have guidelines, standards, regulations or approval systems. The Drinking Water Directive² requires Member States to ensure that substances and materials (including associated impurities) used in water treatment and distribution, do not cause a risk to public health. However, the implementation of schemes to control product quality is currently left to Member States.

A wide range of European standards for drinking water treatment chemicals has been published. There is also a European Union initiative to develop a European Acceptance Scheme for construction products in contact with drinking water. Operators of private water supplies are advised to use chemicals that conform to a European standard and to observe the dosing recommendations contained in the standard. Construction products should be approved under an appropriate national approval scheme such as that provided by The Committee on Products and Processes for Use in Public Water Supply³.

Outside Europe, particularly in North America, relevant standards for treatment chemicals and construction materials are NSF Standards 60⁴ and 61⁵ respectively.

² EC (1998). Council Directive of 3 November 1998 on the quality of water intended for human consumption. *Official Journal of the European Communities*, No L330, 5th December 1998, pp 32-52 (98/83/EC).

³ www.scotland.gov.uk/library/environment/cppw.pdf

⁴ ANSI/NSF 60 Drinking water treatment chemicals – Health effects.

⁵ ANSI/NSF 61 Drinking water system components – Health effects.

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