

## **Statement of the Public Policy Objective**

- (1) An adequate supply of safe drinking-water is fundamental to human health. Amendments to the Health Act 1956 will strengthen provisions relating to the delivery of safe drinking-water.

## **Statement of the Problem and the Need for Action**

- (2) It has been estimated that:

- there are 119,000 cases of infectious intestinal disease per year<sup>1</sup>, and
- that the total annual cost of these cases to New Zealand is estimated to be \$55.1m (\$462 per case).

- (3) While it is technically difficult to assess the proportion of these caused by drinking-water supplies, it is known that the highest rates of cryptosporidiosis occur in areas where water is ungraded or where grading is unsatisfactory.

- (4) The *Annual Report on the Microbiological Quality of Drinking-Water in New Zealand 1998* covered supplies to an estimated 85% of the population. Approximately 606,000 (19%) of people covered by this survey were supplied with drinking-water that failed to comply with faecal coliform criteria in the distribution zone.

- (5) Failure of the legislative control of water supplies may impact on virtually the entire New Zealand population. Most at risk, however, are the estimated 500,000 people served by private, mainly small, rural supplies, where compliance with the Water Supplies Protection Regulations 1961 is uncertain.

## **Statement of Options for Achieving the Desired Objective**

### *Non-regulatory measures*

- (6) Non-regulatory measures have been effective in improving the quality of drinking-water in recent years with the majority of suppliers to medium to large communities now accepting responsibility for monitoring water, and with the frequency of monitoring increasing. However, problems still exist with the smaller sized supplies.

### *Regulatory measures*

- (7) The Ministry of Health originally considered amendments to the Water Supplies Protection Regulations 1961 to strengthen the legislative framework. However, the proposed amendments take a more flexible, risk-based, outcome focused and potentially cost efficient approach, than the regulation-making powers of the Health Act can provide.
- (8) Consultation and legal advice on the policy proposals indicated that the provisions would be more appropriately contained in primary legislation, which is scrutinised by Parliament, given their potential impact on drinking-water suppliers and communities. Another major reason for recommending that the policy be contained in primary legislation is that technical detail could be dealt with in the

---

<sup>1</sup> For example, diseases caused by *Campylobacter*, *Salmonella*, *Giardia*, *Cryptosporidium*, and *E.coli*

system of proposed standards issued by the Minister (rather than needing to be in regulations), and therefore a three-tier system was simply unnecessary.

(9) The revised legislation will strengthen existing provisions in the Health Act, introduce new drinking-water provisions, revoke the Water Supplies Protection Regulations 1961, and give statutory authority to existing non-regulatory instruments such as the DWSNZ.

#### *Statement of the Net Benefit of the Proposals*

(10) Health benefits are achieved by lowering the following risks:

- personal health care costs to the public
- decreased quality of life due to disease to the public
- in rare cases, death from disease

(11) Financial benefits by lowering the following risks:

- Minimising the possibility of water treatment failure, which could result in a major outbreak of disease
- loss of productivity and earnings to the public due to illness and absence from work (personal and Government impact)
- increased costs of averting behaviour (for example, buying bottled drinking-water, home treatment units) to suppliers and the public
- increased market production costs to industry where water is an input in activities (for example food processing)
- increased corrosiveness of water damaging water pipes, meters, domestic fittings with implications to suppliers and the public for maintenance and replacement, and the risk of ingesting lead and other heavy metals
- eliminating the necessity for separate MAF export industry/Health water quality management systems, thereby increasing efficiency
- potential damage to the value of New Zealand products internationally (for example, trade sanctions on food, loss of reputation), and tourism from the association of a "clean/green" image.

(12) Other benefits will be achieved by lowering the following risks:

- unpleasant aesthetic qualities (off-taste, foul odour, and murky appearance)
- loss of public confidence in an essential commodity

(13) The major costs of the proposals are too small to medium sized communities, public and privately operated. It is not possible to identify the extent of these financial problems. They will vary from community to community according to the various externalities and internalities. e.g. the per capita costs will be affected by geography (water availability, nature of water source, geology and lithology), community interest; dispersedness vs compactness, that cannot easily be assessed by a central agency. Monitoring and reporting on those supplies will help identify upgrade costs and benefits.

(14) Local Government New Zealand (LGNZ) assisted the Ministry by undertaking a limited survey of local authorities to identify some of the potential costs. This very rough estimate suggested costs between \$50m and \$200m.

(15) LGNZ propose that a working party made up of central and local government officials be established. The Ministry of Health recommends that a working group of central government officials and representatives of drinking-water suppliers should be established during the five year lead-in period to monitor and evaluate the impact on local communities of complying with the new legislation and report back to Cabinet Social Policy and Health Committee on those suppliers not complying with the new standards; the reasons for their non-compliance; and actions taken to effect compliance.

(16) Costs to the Ministry of Health are to be met out of the ongoing drinking-water programme, except for the costs for training to meet accreditation requirements that will be funded through existing Public Health NDOC funding for drinking-water programmes.

#### Summary of Costs

<b>Costs to Ministry of Health</b>	<b>2000/2001</b>	<b>Out Years</b>
Costs of developing water standards, monitoring protocols and performance specifications for accreditation of assessors and laboratories	DWSNZ 2000 already published, reviewed every 3-4 years Part of routine work programme	Part of ongoing work programme
Costs of training designated officers	\$30,000	\$230,000 spread over 2001/2002 and 2002/2003
Costs of approving/accrediting assessors	\$40,000-\$80,000 pa for the first two years	
Costs of approving/accrediting laboratories	Part of routine work programme	Part of routine work programme
Costs of monitoring and evaluating the effectiveness of the new regime	Part of routine work programme	Part of routine work programme
Costs of educating and informing water suppliers about the new regime	Part of routine work programme	Part of routine work programme
Costs of producing model public health risk management plans	\$200,000	Nil
Costs of joint working group	\$10,000 p.a. for first five years	
Costs of prosecutions	As and when required	As and when required

<b>Costs to Public Health Services</b>		
Costs of accreditation of assessors	Meet by Ministry	Ongoing costs to be meet by PHS
Costs of carrying out verification	\$100,000-\$144,000 pa	\$100,000-\$144,000 pa
Costs of enforcement	Part of routine work programme	Part of routine work programme