

MINISTER:

Honourable Colin Hansen, Minister of Health Services

IDENTIFIER NUMBER:

DATE:

June 19, 2002

TITLE:

Action Plan for Safe Drinking Water in British Columbia

ISSUE:

Since 1999, several reports on the quality of drinking water in British Columbia have been presented to Government. In April 2001, the previous Government passed but did not proclaim the *Drinking Water Protection Act*. In September 2001, the Ministers of Health Services (MOHS) and Water, Land and Air Protection (WLAP) established a Drinking Water Review Panel to study and make recommendations on the completeness, effectiveness and efficiency of the *Drinking Water Protection Act*.

The purpose of this Cabinet Submission is to:

- propose a new and comprehensive action plan for the protection of drinking water in British Columbia, having regard to the prior studies, consultations and reviews;
- provide advice to Cabinet on the timing and content of any amendments to the *Drinking Water Protection Act* (amendments or appeal);
- outline issues to be further addressed prior to amendments to the Drinking Water Protection Act being introduced; and
- seek approval from Cabinet for the action plan
- seek approval to proceed with analysis of full costs to consumers of water.

The various aspects of the proposed action plan are based on a report that was prepared by an *ad hoc* Assistant Deputy Ministers' (ADM's) Committee on Drinking Water, in response to the recommendations of the Drinking Water Review Panel.

BACKGROUND:

Most British Columbians enjoy safe, clean drinking water, however, British Columbia has the highest reported rate of intestinal illness in Canada, which has been linked to the consumption of contaminated water. There have been 29 confirmed waterborne disease outbreaks in the province since 1980. Many of these outbreaks were caused by water system failures or the absence of adequate water treatment. There have been at least 3 confirmed waterborne outbreaks of cryptosporidiosis in British Columbia since 1995. The largest outbreak was in 1996 in Kelowna. During that summer, numerous people developed diarrhoea, and 177 cases of cryptosporidiosis were confirmed by laboratory tests. It is estimated that about 10,000 residents were infected, some from the water and others from contact with infected individuals. Failure to appropriately address this significant risk in the area of drinking water protection could result in increased risk to public health and liability for the Government of British Columbia.

Public health concerns regarding the quality of drinking water have been identified in a number of prior reviews and initiatives in British Columbia. These include the following:

- British Columbia Auditor General's report *Protecting Drinking-Water Sources* (1999);
- Provincial Health Officer's report on drinking water *Drinking Water Quality in British Columbia: The Public Health Perspective* (2000);
- Drinking Water Protection Plan and public consultations on the plan (2000); and
- *Drinking Water Protection Act* passed, but not proclaimed (2001).

These reviews had many common themes:

- a multi-stage approach for the protection of drinking water is required (source to tap);
- source protection measures must be strengthened;
- monitoring and assessments of drinking water sources and systems must be improved;
- significant infrastructure improvements are needed, especially for small systems;
- users should pay for the full costs of ensuring safe drinking water; and
- greater accountability and coordination is required at all levels.

In addition, the Walkerton Inquiry has recently released Part Two of its findings and recommendations. The report concluded that there was a lack of accountability at all levels and a lack of regulatory coordination, and questioned the adequacy of funding, staffing and oversight. Similar conclusions were recently reached by the inquiry in North Battleford, Saskatchewan.

In British Columbia, the Minister of Health Services and the Minister of Water, Land and Air Protection established the Drinking Water Review Panel in September 2001, to review the unproclaimed *Drinking Water Protection Act*. In February 2002, the Panel made 26 recommendations, with approximately 75 sub-recommendations. The Panel identified the following as the highest priority recommendations:

- introduction of an amended *Drinking Water Protection Act* in the Spring 2002 legislative session;
- creation of a single Drinking Water Protection Agency reporting directly to the Minister of Health Planning;
- strengthening of drinking water source protection measures;
- implementation of a province wide screening process for all drinking water systems in British Columbia to determine existing and future health risks to water users. These assessments will also assist in establishing priorities for watershed management and water treatment;
- creation of a dedicated drinking water protection surcharge which could be applied to a range of user fees; and
- development of a comprehensive drinking water infrastructure funding program.

The proposed drinking water action plan has involved broad cross-Ministry input at the Deputy Minister and Assistant Deputy Minister level by those ministries who have a key interest in drinking water protection (Health Planning, Health Services, Water, Land and Air Protection, Community, Aboriginal and Women's Services, Sustainable Resource Management, Agriculture, Food and Fisheries, Forests, Energy and Mines, and Transportation). It has been developed in light of the various drinking water protection reviews and studies, and other relevant government initiatives (e.g. revisions to the Forest Practices Code, fees and licenses review).

FISCAL MANAGEMENT CONSIDERATIONS:

Operationalizing the proposed drinking water action plan and amended *Drinking Water Protection Act* and regulations will mean additional costs to the Government of British Columbia, drinking water system operators, and ultimately drinking water users, for increased monitoring, assessment, testing and infrastructure improvements. All reports received by government emphasize that users should be paying for the full costs of ensuring safe drinking water. Costs for the implementation of this action plan include:

Summary of Costs

Short-term Cost Implications: Implementing Action Plan

- Health Authority Drinking Water Officers
- Provincial Health Officer support
- Information Systems
- Drinking Water Advisory Committee
- Laboratory Testing
- Emergency Source to Tap Assessments
- Drinking Water Protection Plan development
- Source Protection assessment and monitoring
- Ministry (MOHP and WLAP) Standards Setting and Technical Support for Drinking Water
- Groundwater Protection assessment and monitoring

- Development of Programs for Research
 - Training and Certification of water operators
 - Partnerships and Community Stewardship Grants
 - Governance and Planning Grants
- Increased Routine Testing and Monitoring; Source to Tap Assessments (up to \$8.5 million annually): costs per assessment are estimated to range between \$5,000 and \$20,000, depending upon the nature of the assessment.
 - Training and Certification of Water Operators (up to \$.24 million): Approximately 600 participants per year will be trained. It is expected that it will take approximately 3.5 years to train the majority of operators across the province, with ongoing training needed for new employees and attrition.
 - Other Costs to Government and Health Authorities: annualized at \$7.6 million by 2004/05 (see table below).

	2002/03 *				2003/04				2004/05			
\$ M.	MOH	WLAP	Other	Total	MOH	WLAP	Other	Total	MOH	WLAP	Other	Total
Costs to Government	2.07	1.26	0.85	4.18	4.78	2.22	0.90	7.90	4.68	2.12	0.80	7.60

(* assuming expenditures commence with the tabling of the Act).

Total cost of Action Plan: up to \$16.3 million annualized.

Next Steps on Short Term Costs:

- Immediately develop revenue stream options to cost-recover implementation of the Action Plan.
- Consult with key stakeholders, such as Union of BC Municipalities and the BC Water and Waste Association, on development and implementation of cost recovery options.

Long-term Cost Implications: Assessing Future Infrastructure Needs

The exact need for infrastructure improvements in British Columbia is unknown at this time. There are, however, significant structural improvements to drinking water systems needed in this province, and indeed, across Canada.

The Auditor General in his report Protecting Drinking – Water Sources (1999) suggest that “if all the surface-water systems in BC were to add filtration, the cost would be significant. For the approximately 100 municipalities outside Victoria and Vancouver that use unfiltered surface water, we estimate the capital costs of installing filtration would be about \$700 million and the extra cost of financing, operating and maintaining the new treatment plants would be about \$30 million a year”.

Next Steps on Potential Long-term Costs

- Conduct on-going, further assessment and evaluation of potential long term costs associated with water infrastructure investment needs, as Action Plan is implemented.
- Develop cost-recovery options and mechanisms for meeting future water infrastructure investment needs, in consultation with stakeholders. Conduct full evaluation, including socio-economic analysis, of all options. Bring recommendations back to Cabinet, at a later date, for decision.

SUMMARY OF THE PROPOSED PROVINCIAL DRINKING WATER ACTION PLAN

The cross-ministry committee and the Ministry of Health Services propose to implement a comprehensive set of principles and actions that will provide the blueprint for ensuring British Columbians have safe drinking water. The following summary outlines the key principles and elements of the action plan.

Leadership and Accountability

Principle #1 - The safety of drinking water is a public health issue.

Actions:

- The Ministry of Health Services will be the lead ministry for the Action Plan for Safe Drinking Water in British Columbia.
- The Provincial Health Officer has the mandate to ensure the accountability of government and those delivering drinking water to British Columbians.
- Health Authorities will be given additional authority and capacity to solve problems at the local level through new drinking water officer positions.
- The Ministry of Water, Land and Air Protection will play a lead role in monitoring water quality at the source.
- Water quality information will be reported regularly to the public.

Protection of Drinking Water from Source to Tap

Principle #2 - Source protection is a critical part of drinking water protection

Actions:

- Ministry of Water, Land and Air Protection will remain the lead agency on source water quality standards, monitoring, compliance and enforcement.

- Increased powers to protect water sources will be provided under the *Drinking Water Protection Act*.
- Enhanced groundwater protection and management will be provided through new regulations.
- A groundwater advisory board will be established to provide government with expert technical advice.
- Provincial land-use planning processes will consider drinking water protection as an important factor in land-use planning.
- Resource ministries will retain their responsibilities for protecting drinking water sources in the course of administering their legislative mandates.
- The Provincial Health Officer will have the statutory obligation to advise government if additional source protection measures are necessary to protect human health.

Principle #3 - Providing safe drinking water requires an integrated approach.

Actions:

- The *Drinking Water Protection Act* – an act specifically dedicated to drinking water – will be brought forward in fall 2002.
- A drinking water advisory committee will be established to provide expert technical advice to government.
- An inter-ministry committee will be established to identify emerging issues and develop policy.
- Government will lead the development of a plan for water conservation.
- When other measures fail to address a health concern, the Minister of Health Services, at the request of the Provincial Health Officer, will recommend to Cabinet that a site-specific drinking water plan be developed, giving human health protection top priority.
- The government will work with First Nations and the federal government to enhance co-operation and co-ordination on drinking water protection.

Principle #4 - All water systems need to be thoroughly assessed to determine risks.

Actions:

- The government will identify priority areas for urgent assessments where water system users may be at higher risk.

- All water systems in the province will undergo risk assessments, and assessment response plans will be established where necessary.
- Assessments will utilize scientific evidence and best practices to ensure risks are fully understood.

Principle #5 - Proper treatment and water distribution system integrity are important to protect human health.

Actions:

- Improvements to water treatment and distribution standards will be established by regulation following advice from the technical advisory committee.
- Regulations will outline the training and certification programs that will be required for operators of all water systems.
- Water suppliers will be held accountable for meeting the terms and conditions of their operating permits.
- Government has already announced more than \$109 million for 42 high priority water and wastewater infrastructure projects, with further announcements expected.
- Future infrastructure needs will be identified with the implementation of the Action Plan, with the development of cost-recovery mechanisms.
- As specific upgrades are identified, locally developed solutions will be encouraged in order to meet provincial health standards as well as provide consideration to the economic impact on the communities affected.

Principle #6 - Tap water must meet acceptable safety standards and be monitored.

Actions:

- Government will develop province-wide tap water standards for contaminants that present a significant public health risk.
- Clear procedures have been established to ensure the public is notified immediately if testing indicates a problem with the drinking water.
- Testing laboratories will have to meet specified standards, and they will be required to report health threats to a drinking water officer, the water supplier and a medical health officer.
- Water suppliers must report imminent threats, such as treatment equipment failure, to a drinking water officer and they must ensure immediate public notification.

- Basic monitoring requirements will be established by regulation, and supplemented by orders from drinking water officers where necessary.
- Where monitoring indicates potential concerns further assessments may be required and remedial action may be ordered.

Flexibility for Small Systems

Principle #7 - Small systems require a flexible system with safeguards.

Small systems provide water for a significant number of people across the province, but often lack the financial resources and trained technical expertise of larger systems. Government recognizes the need to take a different approach with large water systems, such as the Greater Vancouver Regional District, than it does with small water systems, such as a trailer park. As such, some flexibility or allowance will be provided for small systems, provided they meet the standards for safe drinking water.

Actions:

- Government will create a management plan that ensures the accountability of existing and future small systems. Part of this will include facilitating the affiliation of small systems with local or regional governments. This will also make the systems eligible for federal-provincial infrastructure grants.
- Provided human health concerns are addressed, treatment and distribution standards may be different for smaller systems.
- Training and certification requirements for water system operators will take into account
 - circumstances such as the size of a water system.
- Small systems may be subject to different monitoring and assessment requirements as determined by the drinking water officer on a case-by-case basis.

Affordable and Appropriate Costs of Safer Drinking Water

Principle #8 - Safe drinking water should be affordable, with users paying appropriate costs

Many water users presently pay less than the full cost of operating a safe and effective drinking water system. The studies and reports all agree that water rates should reflect the true cost of safe drinking water.

Actions:

- Future costs will be recovered through revenue streams that will be developed to coincide with the implementation of the Act.

PROPOSED PROCESS:

The following is the proposed process for the implementation of the government's drinking water action plan:

1. **Summer / Fall 2002** – Undertake the following activities before introduction of legislative changes in the fall.
 - establish the Drinking Water Advisory Committee, as contemplated in the *Drinking Water Protection Act*, to advise on matters referred to it by the Minister (such things as assisting in the technical work that will be ongoing regarding development of regulations);
 - formally establish a standing ADM's Committee on Drinking Water to provide policy advice and oversight to Government's work on drinking water;
 - utilizing the above committee processes and limited consultation, develop the basic regulations for consideration by Cabinet in order to fully implement the Act;
 - undertake consultations with Health Authorities on implementation of the amended Act, including the establishment of the drinking water officer positions;
 - review options and implement appropriate revenue streams to fund the immediate costs associated with the Drinking Water Action Plan;
 - develop a screening tool and process to ensure that potential high risk drinking water systems are assessed first; and
 - develop a detailed risk analysis tool and risk categorizations for drinking water systems to ensure the systems most in need are being addressed.
2. **Fall 2002 Onwards** – Introduce legislative changes to make the *Drinking Water Protection Act* consistent with the Provincial Government's drinking water action plan, fulfilling a key Throne Speech commitment. Bring legislation into force, with the regulations, immediately after passage. Introduce legislative changes to fulfill key commitment to comprehensive groundwater legislation.
 - Conduct on-going, further assessment and evaluation of potential long term costs associated with water infrastructure investment needs, as Action Plan is implemented. Develop long-term cost-recovery options and mechanisms for meeting future water infrastructure investment needs, in consultation with stakeholders. Bring recommendations to Cabinet with full evaluation, including socio-economic analysis, of all options.

OPTIONS:

Option #1 – Do not approve implementation of the Drinking Water Action Plan until legislative changes have been made this fall.

Option #2 – Approve implementation of the Drinking Water Action Plan and allow work to immediately begin prior to the introduction of legislative changes this Fall.

Option 2 is the recommended option

RECOMMENDED DECISION:

1. Approve the proposed process for implementing the government's Drinking Water Action Plan.
2. Approve further examination in the coming months, in consultation with key stakeholders, of cost-recovery options to fund the short-term costs associated with the implementation of the Drinking Water Action Plan.
3. Approve on-going evaluation and assessment of the cost of long-term infrastructure investment needs, as the Drinking Water Action Plan is implemented.

SIGNATURE:



Honourable Colin Hansen
Minister of Health Services

Date

KEY CONTACT:

Penny Ballem, MD
Deputy Minister
Ministry of Health Services and
Ministry of Health Planning
(250) 952-1911