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Report of the  
**Commissioner of the  
Environment and  
Sustainable Development**  
to the House of Commons

**Chapter 5**  
Drinking Water in First Nations Communities



Office of the Auditor General of Canada

*The 2005 Report of the Commissioner of the Environment and Sustainable Development comprises eight chapters, and The Commissioner's Perspective—2005 and Main Points. The main table of contents is found at the end of this publication.*

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Chapter

# 5

Drinking Water in  
First Nations Communities

*The audit work reported in this chapter was conducted in accordance with the legislative mandate, policies, and practices of the Office of the Auditor General of Canada. These policies and practices embrace the standards recommended by the Canadian Institute of Chartered Accountants.*

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# Drinking Water in First Nations Communities

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## Main Points

### What we examined

Indian and Northern Affairs Canada (INAC) and Health Canada provide funding and support to assist First Nations in making drinking water available to their communities. INAC covers the costs of designing, constructing, and repairing water systems as well as most operation and maintenance costs. Health Canada supports First Nations in the monitoring and testing of tap water to demonstrate that it is safe for drinking. Through funding arrangements, First Nations are responsible for the construction, upgrade, and day-to-day management of water systems. We examined whether the programs and funding of both departments have helped First Nations communities provide residents with access to drinking water comparable with that of other Canadians living in communities of a similar size and location. We visited six First Nations communities during this audit.

We also looked at how well the First Nations Water Management Strategy is being implemented. This five-year strategy was introduced in 2003 to substantially improve the quality and safety of drinking water on reserves.

### Why it's important

Access to safe drinking water is vital to the health of all Canadians, including the approximately half million people living in some 600 First Nations. In 1995, Health Canada and INAC estimated that one quarter of the water systems in First Nations communities posed potential health and safety risks to the people they served. In 2001, INAC found a significant risk to the quality or safety of drinking water in three quarters of the systems. Between 1995 and 2003, the federal government spent about \$1.9 billion to help First Nations communities provide safe drinking water and wastewater services. In 2003, the government made drinking water safety in First Nations communities a priority and approved a budget of \$600 million over five years for the First Nations Water Management Strategy.

### What we found

- When it comes to the safety of drinking water, residents of First Nations communities do not benefit from a level of protection comparable to that of people who live off reserves. This is partly

because there are no laws and regulations governing the provision of drinking water in First Nations communities, unlike other communities. INAC and Health Canada attempt to ensure access to safe drinking water in First Nations communities through their policies, administrative guidelines, and funding arrangements with First Nations. This approach does not cover all the elements that would be found in a regulatory regime for drinking water, and it is not implemented consistently.

- Despite the hundreds of millions in federal funds invested, a significant proportion of drinking water systems in First Nations communities continue to deliver drinking water whose quality or safety is at risk. Although access to drinking water has improved, the design, construction, operation, and maintenance of many water systems is still deficient. Moreover, to a significant extent, the success of the First Nations Water Management Strategy depends on INAC and Health Canada addressing the management weaknesses we have noted.
- The technical help available to First Nations to support and develop their capacity to deliver safe drinking water is fragmented. Given that most First Nations communities have fewer than 500 residents, and that providing drinking water has become more complex, the development of institutions that can provide ongoing technical support is critical to a continuing supply of safe drinking water for these communities.

**The departments have responded.** Indian and Northern Affairs Canada and Health Canada have fully accepted all the recommendations, except for the one on implementation of a regulatory regime. Instead, the departments have stated that they will fully explore, in consultation with First Nations, the options and feasibility of a regulatory regime. The departments' responses are included in the chapter.



## Introduction

**First Nation**—A community of Indian people living on one or more reserves, and off reserves. The term “First Nation” has the same meaning as “Band”, as defined in the *Indian Act*.

**First Nations community**—A group of First Nations people living on a reserve.

**Reserve**—As defined in the *Indian Act*, a tract of land, the title of which is vested in Her Majesty, set apart for the use and benefit of a Band (First Nation).

**5.1** The production and delivery of safe drinking water is often taken for granted, until problems occur, at times with tragic consequences. After incidents in Walkerton, Ontario in 2000 and North Battleford, Saskatchewan in 2001, improving the safety of drinking water has become a priority throughout Canada, including **First Nations communities**. The safety of drinking water involves complex technical, human, financial, and regulatory factors. In First Nations communities, the relationship between the federal government and First Nations and the unique situation of each **First Nation** add to this complexity.

**5.2** Federal programs and funding related to drinking water on **reserves** are based on government policy adopted in the 1960s and 1970s, and parliamentary appropriations. The objective of the government policy is to ensure that people living on reserves attain a comparable level of health and have access to water facilities comparable with other Canadians living in communities of a similar size and location.

**5.3** There are two main departments responsible for the implementation of the policy: Indian and Northern Affairs Canada (INAC) and Health Canada. In addition, Public Works and Government Services Canada (PWGSC) provides technical services to INAC under a memorandum of understanding.

**5.4 Indian and Northern Affairs Canada.** Water systems in First Nations communities are funded as part of the Department’s Capital Facilities and Maintenance Program. Through funding arrangements, this program transfers funds to First Nations to help them provide community services, such as water and sewage, schools, roads, fire protection, and community buildings. The program’s objective is to improve living conditions on reserves.

**5.5** INAC sets priorities on the allocation of funds and defines the conditions for their use. For drinking water systems on reserves, such as water treatment plants, water intakes, pipes, and water trucks, the program covers the full costs of design, construction, acquisition, upgrading, and major repairs for water services to residential and community buildings. Individual wells and businesses are not eligible for assistance; nor are water systems servicing fewer than five houses. INAC approves projects and funding, in accordance with applicable departmental guidelines, or seeks Treasury Board approval for projects over \$15 million. It also monitors compliance with funding conditions.

Water quality must meet the Guidelines for Canadian Drinking Water Quality, while the level of water distribution services funded by INAC depends on the housing density in a community. The service level can vary from high-pressure piped water to delivery of water by trucks to cisterns.

**5.6** The program also provides funding to First Nations for the operation and maintenance of eligible water systems. INAC's policy is to fund 80 percent of the estimated operation and maintenance costs for a particular water system. First Nations are expected to collect the remaining 20 percent through user fees or other sources. The Department also funds First Nations for training and certification of operators. In addition, the program covers 80 percent of the costs when a First Nation buys its drinking water from a neighbouring municipality.

**Tribal council**—An organization established by a number of First Nations with common interests who voluntarily join together to provide advisory or program services to member First Nations.

**5.7** INAC also provides funding to **tribal councils**, from another program, to make technical support available to member First Nations for the planning, design, construction, and operation and maintenance of community infrastructure.

**5.8 Health Canada.** In First Nations communities, Health Canada acts as a surveillance agency for drinking water and as a public health agency. Under the Drinking Water Safety Program, Health Canada funds First Nations or tribal councils, or contracts with individuals, to sample and test tap water to provide a final check on the overall safety of the drinking water. The Department defines funding conditions in its contribution arrangements and monitors compliance with the Treasury Board-approved terms and conditions of the program. The objective of the program is to ensure that drinking water on reserves located south of 60° is monitored as per the Guidelines for Canadian Drinking Water Quality. The territorial governments are responsible for drinking water north of 60°.

**5.9** Most First Nations communities are funded by Health Canada to sample and test their drinking water. Departmental employees support these activities by providing training and quality assurance, reviewing and interpreting results, and providing advice and recommendations. In some communities, departmental employees carry out tests. In other communities, the responsibility for monitoring drinking water and for other activities normally carried out by departmental employees has been fully transferred to First Nations. The Drinking Water Safety Program also provides for training and community-based education on drinking water issues. Health Canada's general responsibilities for

public health and safety in First Nations communities support the delivery of this program.

**5.10** According to INAC and Health Canada, First Nations are responsible for ensuring that water systems are planned, designed, constructed, operated, and maintained in accordance with the program and financial conditions of their funding arrangements. The day-to-day responsibility for operating and maintaining water systems, including water testing, rests with individual First Nations under these arrangements. Exhibit 5.1 shows some of the challenges in providing safe drinking water in First Nations communities, including some First Nations views on this matter.

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#### **Exhibit 5.1** Challenges in providing safe drinking water in First Nations communities

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**Location.** Many First Nations are located on the Canadian Shield, or other difficult terrain, making it technically difficult and costly to provide water services. Some reserves are isolated and can be accessed by roads only in winter; some have limited access to electricity or other forms of energy. Water sources are often located off reserves, and it is difficult for First Nations to protect them.

**Accountability.** Federal departments set requirements that make First Nations responsible for providing day-to-day drinking water. It is not clear who is ultimately accountable for the safety of drinking water.

**Costs and financing.** Providing drinking water is costly, and there is limited economy of scale. Water facilities serve a small population. Poor economic conditions limit First Nations' access to financing for water projects and to regular revenues to cover a portion of operation and maintenance costs. This creates a built-in shortfall in funding available for operation and maintenance.

**Operators.** It is difficult to find and retain qualified operators. Many operators do not have the qualifications required. As most First Nations communities are small, there are few qualified candidates. Operators have limited access to outside support and training.

**Technical standards.** It is not clear which standards are applicable. Provincial guidelines and regulations on drinking water are to be applied except when less stringent than federal standards. Support to help meet standards and enforcement mechanisms is limited.

**Population growth.** On-reserve population is estimated to increase by 230,000 people between 2004 and 2021. It is difficult to estimate population growth and economic development in each community to plan water systems that can meet drinking water needs for 10 to 20 years.

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#### **Safety of First Nations drinking water**

**5.11** According to data collected by Indian and Northern Affairs Canada, there are about 460,000 First Nations people living on reserves spread across some 600 First Nations (2004 figures). Of these, about 78,000 First Nations people live in about 90 isolated communities without year-round road access.

**5.12** In 1995, an assessment of drinking water systems by Health Canada and Indian and Northern Affairs Canada, based on available data on the quality of drinking water, found that about 25 percent of water systems on reserves posed potential health and safety risks to the people they served. The federal government spent about \$1.9 billion between 1995 and 2003 on water and wastewater systems on reserves, most of it on drinking water. A portion of this spending was in direct response to the 1995 assessment.

**5.13** Another assessment carried out by INAC in 2001, based on an on-site inspection of all water systems in First Nations communities, found a significant risk to the quality or the safety of drinking water in three quarters of these systems. In response to the 2001 assessment and the results of the Walkerton Inquiry, the federal government introduced the First Nations Water Management Strategy in 2003 with a budget of \$600 million over five years. The main objective of the strategy is to substantially improve the quality and safety of drinking water in First Nations within a five-year period.

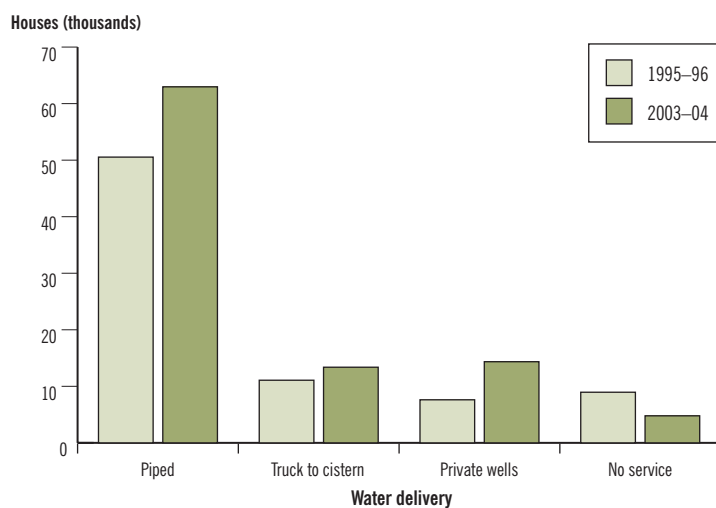
**5.14** As a result of efforts from both departments and First Nations, and the significant investment in federal funds, access to drinking water in First Nations communities has improved. Exhibit 5.2 shows the changes in access between 1995 and 2004 by type of delivery services.

**Did you know?**

The number of drinking water systems on reserves in 2003–04: **739**

The estimated replacement value of the systems in 2004: **\$1.4 billion**

**Exhibit 5.2 Access to drinking water in First Nations communities has improved since 1995**



Source: Indian and Northern Affairs Canada (unaudited)

**5.15** At the time of the audit, INAC and Health Canada were into the second year of implementing the strategy, and work was under way on all its elements. INAC had drafted policies and standards, sent communication material to chiefs and councils about the strategy and drinking water issues, increased funding for operation and maintenance of water systems, increased training available to water system operators, and started addressing water systems identified in 2001 as presenting a significant risk. The work on these systems was completed in some cases. Health Canada had increased its funding and training for water testing and put in place an information system in most regions. Finally, both departments had started discussions to improve the co-ordination of their activities.

#### **Focus of the audit**

**5.16** Our audit focussed on the activities of Indian and Northern Affairs Canada and Health Canada related to the safety of drinking water in First Nations communities, including the technical services provided to INAC by PWGSC, and the results of those activities. The audit covered primarily the programs and funding specifically developed to support water systems and monitor water quality. Through community visits and consultations, we sought the views of First Nations and their organizations on the matters included in the audit.

**5.17** The objectives of the audit were to determine whether

- the programs and funding of INAC and Health Canada provide First Nations communities with access to safe drinking water comparable with that of communities of a similar size and location;
- sufficient and appropriate information on the quality of the drinking water is being reported by Health Canada to First Nations, INAC, and other appropriate parties; and
- sufficient and appropriate information is being collected by INAC and Health Canada to ensure that the government is able to report to Parliament on the results of the First Nations Water Management Strategy.

Further details on the audit objectives, scope, approach, and criteria are included at the end of the chapter in **About the Audit**.

## Observations and Recommendations

### Initiatives have not substantially reduced the health and safety risks

**5.18** Following the 1995 assessment of drinking water in First Nations communities, which found that about 25 percent of the drinking water systems posed potential health and safety risks to the people they served, Indian and Northern Affairs Canada (INAC) undertook a number of activities. These included the following:

- INAC reallocated about \$370 million from its capital program and other programs to fund the construction, upgrade, and repair of water (and wastewater) systems.
- The Department also used funds from specific-purpose initiatives to accelerate the construction and upgrading of water (and wastewater) systems on reserves. For instance, since 1998 it has had access to \$50 million a year under the Gathering Strength water and sewer initiative.
- The Department issued new administrative guidelines to staff on the service level for drinking water and on the operation and maintenance of water systems, and it modified the conditions in funding arrangements with First Nations to clarify accountability.
- INAC provided additional support for the training of water system operators.

**5.19** The main objective of most of these activities was to address all situations where drinking water was considered to pose potential health and safety risks to people. However, there was no comprehensive plan with timeframes and resources for dealing with these situations, and the impact of the additional funding was not effectively tracked. Many water projects were funded from various sources of funds under different initiatives. INAC was not able to establish a clear link between projects and initiatives and its overall goal of addressing all situations posing risks. Therefore, the results of each initiative cannot be demonstrated.

**5.20** Many water systems have been built, upgraded, or repaired following the 1995 assessment. However, INAC has not addressed all potential risk situations identified in 1995 and cannot demonstrate that the drinking water issues for First Nations who had water systems built, upgraded, or repaired have been resolved. For example, the construction of a new water treatment plant in a First Nations community was completed in 2003, at a cost of about \$4 million, but

the First Nation has concerns about the water source and the design of the water treatment plant and is not prepared to use it. At the end of our audit, the Department was working with the First Nation to try to resolve these issues.

**5.21** In 2001, INAC undertook an on-site assessment of water (and wastewater) systems on reserves. It looked at the performance of water treatment plants, operating practices, operator qualifications, and water quality objectives. It also identified areas of improvement and estimated their cost. The assessment found that in about three quarters of the water systems in First Nations communities there was a significant risk to the quality or the safety of drinking water. Despite the measures taken since 1995 and the hundreds of millions of dollars spent on water systems, the risk level of the drinking water was still substantial.

**5.22** In 2003, INAC and Health Canada developed the First Nations Water Management Strategy. The strategy is intended to fix most of the problems identified in the 2001 assessment and substantially improve the quality and safety of drinking water in First Nations communities by 2008. It covers the following seven elements:

- developing comprehensive guidelines, policies, and standards;
- educating on-reserve residents about drinking water issues;
- clarifying roles and responsibilities;
- building and upgrading water systems to standards;
- improving operation and maintenance;
- providing operator training; and
- expanding water testing.

The departments have been trying to address the last five points since 1995.

**5.23** The strategy has a budget of \$600 million over five years. In addition, the departments will continue to spend funds from their regular program budgets. Over the period, spending by INAC and Health Canada combined is planned to be about \$1.8 billion.

## Governing framework

### Regulatory gap for drinking water on reserves

**5.24** In keeping with the government's policy objective, and with its priority on the safety of First Nations drinking water, we expected that funding provided to First Nations would be based on appropriate standards and licensing to help First Nations communities provide

residents with access to safe drinking water comparable with that of other Canadians living in communities of a similar size and location.

**5.25** However, we found that INAC, Health Canada, and First Nations do not operate under a regulatory regime as most provinces do. Instead, INAC and Health Canada use funding arrangements with First Nations and administrative documents as the means to set and enforce requirements for water quality and safety.

**5.26** Although most provinces have legislation and regulations in place for drinking water, both INAC and Health Canada state that provincial jurisdiction over drinking water does not extend to reserves.

**5.27** All employers subject to the *Canada Labour Code*, including the federal government, must provide their employees with safe drinking water (see Chapter 4, *Safety of Drinking Water: Federal Responsibilities*). However, because the *Canada Labour Code* applies only to employees and provincial legislation and regulations are not applied on reserves, residents of First Nations communities do not benefit from the regulatory protection for drinking water available in provinces and to federal employees. The case study below provides an example of the application of federal regulations on reserves.

#### How federal regulations are applied on reserves

Under the *Canada Labour Code* and the Occupational Safety and Health Regulations, every federally regulated employer has to provide its employees with drinking water that meets the standards set out in the Guidelines for Canadian Drinking Water Quality. Federal employees working in First Nations communities are covered by these regulations.

We found that in 2002 Health Canada installed small water treatment units in nursing clinics and health stations in at least 20 First Nations communities that were regularly experiencing drinking water safety problems. This was a result of Human Resources and Development Canada intervention to ensure that federal employees working in these facilities would be provided with safe drinking water as prescribed under the *Canada Labour Code*.

In order to maintain water safety and meet its obligations, Health Canada carries out regular tests of water quality. As of January 2005, the tests indicated that water being produced by some of these units was not safe for drinking and the Department was taking action to resolve these issues.

**5.28** INAC attempts to fill this “regulatory gap” by referring to provincial legislation and regulations in its policies and administrative guidelines, and in funding arrangements with First Nations. However, we found that important elements covered in most provincial regulatory regimes are missing in the guidelines and funding arrangements. These include the approval and licensing of water treatment plants, ongoing monitoring, public reporting requirements,



and compliance and enforcement mechanisms. This means, for example, that where a province requires water treatment plants to be licensed or certified, the plants located in First Nations communities are not.

**5.29** We also found that INAC administrative guidelines are not consistently implemented. These guidelines require, among other things, that new water systems meet provincial regulations, except where they are less stringent than those of the federal government. Department officials told us that they do not feel obliged to comply fully with or enforce provincial regulations. They also stated that they do not have the human resources and the capacity that the provinces have to support and enforce them.

**5.30** As part of the First Nations Water Management Strategy, INAC is drafting new administrative guidelines on drinking water systems in First Nations communities. We reviewed this document and believe that it falls short of providing an effective regulatory regime because it applies only to INAC officials. Further, it will not be enforceable through legislation or regulations, and how it will apply to First Nations remains unclear.

**5.31** INAC also uses funding arrangements with First Nations to define drinking water requirements. However, the wording of the arrangements is general and does not specifically refer to water systems. In 2001, in a submission to the Walkerton Inquiry, the Chiefs of Ontario stated: “First Nations, their consultants and federal officials are left to discern the applicable standards from vague and conflicting language in funding conditions, guidelines and manuals.” This situation had not changed significantly at the time of our audit.

**5.32** Funding arrangements between INAC and First Nations require First Nations to adhere to all applicable codes and standards and preserve health and safety. However, it is not clear whether and how the First Nations are to incorporate all the elements found in provincial legislation and regulations in the management of their drinking water.

**5.33** There is no legislation requiring that drinking water quality and safety in First Nations communities be monitored. Health Canada states that it has no statutory- or regulatory-based enforcement or inspection powers for water quality on reserves. Therefore, departmental staff are not legally empowered to ensure that all required tests are carried out. Further, First Nations are not legally empowered to test their drinking water. Consequently, residents in

First Nations communities do not benefit from testing practices comparable with those in other communities.

**5.34** Under the Drinking Water Safety Program, Health Canada signs funding arrangements with most First Nations, or contracts with individuals, to test drinking water as recommended under the Guidelines for Canadian Drinking Water Quality. However, under these arrangements, the only consequence for failing to carry out tests is that funds are withheld.

**5.35** In our view, until a regulatory regime comparable with that in provinces is in place, INAC and Health Canada cannot ensure that First Nations people living on reserves have continuing access to safe drinking water.

**5.36 Recommendation.** Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should develop and implement a regulatory regime for drinking water in First Nations communities. This regime should be comparable with that in provinces and designed to protect the health and safety of First Nations people. As a minimum, this regime should deal with roles and responsibilities, water quality requirements, technical requirements, certification of systems and operators, compliance and enforcement, and public reporting requirements.

**Indian and Northern Affairs Canada's response.** Indian and Northern Affairs Canada will continue to implement the First Nations Water Management Strategy aimed at improving program elements—specifically, roles and responsibilities, water quality requirements, technical requirements, certification of systems and operators, compliance and enforcement, and public reporting requirements. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will

- fully explore the options and feasibility of a regulatory regime with all other stakeholders for drinking water on reserve. All aspects of a proposed regime will be assessed, including establishing new legislation, regulations, and enforcement mechanisms. An action plan for the implementation of the chosen option will be produced by September 2006;
- continue to develop and implement mechanisms aimed at ensuring compliance with the required standards regarding drinking water quality until a regulatory regime is in place. This will include finalizing the *Protocols for Safe Drinking Water in First Nations Communities* recently developed under the

First Nations Water Management Strategy, which includes key elements covered in a provincial regulatory regime and which will provide clear direction on how First Nations are to incorporate these elements in the management of their drinking water by April 2006; and

- continue to develop and implement amendments to funding arrangements in line with the codes and standards contained in the above-noted protocol document, to strengthen drinking water management practices consistent with provincial regulatory requirements by April 2007.

**Health Canada's response.** The political and governance issues in First Nations communities are very complex. First Nations have identified the need for self-government as a priority. Health Canada and Indian and Northern Affairs Canada will assess the feasibility of this recommendation and options for implementation, in consultation with First Nations stakeholders. In the interim, Health Canada will improve program delivery in the areas identified by the auditors as a strength of provincial legislation, specifically in the areas of roles and responsibilities, water quality requirements, technical requirements, compliance and enforcement, and public reporting requirements. These actions will be completed by December 2006.

## Program management

### Implementation of administrative guidelines is inconsistent

**5.37** To test INAC's management systems, we examined 28 water projects of 20 First Nations in three regions. We expected that the Department would comply with the administrative guidelines issued to its staff and ensure that funds transferred to First Nations for these projects would be used for their intended purpose.

**5.38** We found that the levels of services to be provided are interpreted differently from one region and First Nation to another. For example, in one region, water delivery by trucks is not considered an acceptable level of service and is not explored as an option. In other regions, it is widely used in communities where housing density is low.

**5.39** There are cases where INAC does not comply with the definition of eligible users: residential and community buildings. According to departmental guidelines, all other users should normally pay the full cost of their water. We found cases where water systems funded by INAC are being used to provide water to businesses at no extra cost.

**5.40** Additional costs of water systems are not always justified. INAC guidelines state that the Department is to fund the most cost-effective

option, taking into account the estimated construction and operation and maintenance costs over the planned life of a water system. In one case we examined, the option finally approved by INAC was the most expensive over the life of the system, adding \$630,000 to the estimated construction costs; compared with the lowest cost option, this represented a 36 percent increase. However, this decision was not based on technical considerations, as required under INAC guidelines, but on the First Nation wanting a treatment process with a higher level of protection against giardia and cryptosporidium. The case study below provides another example where INAC spent a relatively large amount of money to respond to a health and safety issue without examining different service levels or innovative solutions.

#### A costly response to a health and safety issue

In 1995, a First Nation was identified as not having access to safe drinking water. In 1997, discussions began between Indian and Northern Affairs Canada (INAC) and the First Nation on a water project to provide chlorinated water to five houses on one of its reserves, two houses off the reserve, and five more houses to be built. This reserve was under a boil-water advisory. The initial estimate of the project cost was \$520,000.

A review conducted in 1998 by Public Works and Government Services for INAC questioned the project design as it did not meet INAC's guidelines and noted that a more cost-effective option was available. The First Nation was asked to explore the possibility of connecting to a neighbouring First Nation's water system then being built. After discussions, this option was rejected because of concerns over water availability.

In 1999, INAC approved the project essentially as first discussed at a planned cost of \$762,000. The project did not include filtration. The construction was substantially completed in 2001. The final costs of the project reached \$782,000. At the time of the audit, the reserve was still under an indefinite boil-water advisory for infants and people in poor health due to the absence of filtration. The feasibility of connecting the reserve to a water treatment plant located on another of the First Nation's reserves was also being explored.

**5.41** People in some communities still do not have access to running water. While this is not considered acceptable under INAC policies, it is not clear how the administrative guidelines for drinking water help INAC officials reconcile minimum service standards with available funding.

**5.42** In one case we examined, a \$3 million water treatment plant was built in 1999. Yet, people living in about half of the 500 houses in the community do not have running water, from pipes or cisterns, and some have to haul their water from watering points. Although INAC guidelines state that watering points are temporary, the region's five-year capital plan (to 2009), does not contain a project to service these houses. If the current plan proceeds, about half the population in this community will have received limited benefits from this water treatment plant 10 years after its construction.

**Codes and standards**—Codes are sets of rules, requirements, or criteria expressed in written form (for example, the National Building Code). Standards are rules, requirements, or procedures for an orderly approach to a specific activity. Codes and standards only become law if a government references them in legislation.

**5.43** We found that controls in the INAC regions provide assurance that funds transferred to First Nations for the design, construction, or repair of drinking water systems are used for their intended purpose. In the three regions we visited, we examined construction projects that were either in progress or that had been completed. INAC payments for the construction projects were usually made on the basis of progress reports. In one region, controls included the need for First Nations to set aside a separate account for water project funds. However, controls in the regions are not sufficient to ensure compliance with applicable **codes and standards**.

#### **Limited evidence that water systems meet all applicable codes and standards**

**5.44** We expected that INAC would have appropriate management practices to assess, approve, and monitor drinking water projects on reserves and ensure that all funding conditions are met.

**5.45** We found that INAC has no comprehensive list of codes and standards applicable to the design and construction of water systems. Codes and standards are set out in various documents, funding arrangements, administrative documents, and project briefs. In these documents, the definitions of codes and standards range from the requirement to meet “all applicable codes and standards” to references to either a general or specific list of codes and standards. It is unclear which definitions are applicable and will be applied to a given project.

**5.46** In the projects we examined, INAC’s evidence of which codes and standards were complied with varied. The Department did not always receive reports to demonstrate that reviews and inspections of design and construction were carried out and that drinking water projects complied with applicable codes and standards. For example, we found projects where the certificate of completion required by INAC at the end of construction was not provided. When provided, completion reports varied in content and in the levels of assurance on compliance with codes and standards.

**5.47** This weakness can have consequences for the quality or safety of drinking water. For example, we found some water systems with deficiencies attributable to faulty design or construction. These deficiencies can result in risks to operator safety, failure to achieve the treatment performance, or inability to produce the expected water quantity.

**5.48** INAC’s 2001 assessment of water systems also found many design or construction faults. These explain a portion of the 75 percent

of water systems that were classified as risky. Moreover, correcting these problems can be complex and costly. In one region, for example, INAC will fund 40 detailed assessments of water systems to find out the exact nature of the problems and identify potential solutions. In one case we examined, correcting a risky situation in a community of about 350 people will involve the construction of a new water system at the cost of about \$6 million. The new system will also meet the community's future drinking water needs.

**5.49** Under the First Nations Water Management Strategy, INAC is committed to ensuring that all water systems on reserves are built to standards. It has developed draft administrative guidelines to define its own requirements. In their current form, these guidelines clarify some requirements, but it is not clear how First Nations will implement them.

#### **Water testing is inconsistent**

**5.50** Drinking water needs to be tested regularly as a final check on the safety of the supply chain for drinking water and to protect public health. We expected that Health Canada would have a plan in place to ensure that all drinking water systems in First Nations communities would be tested in accordance with the Guidelines for Canadian Drinking Water Quality, that information on water quality would be shared with appropriate parties, and that timely and appropriate action would be taken when drinking water poses health risks.

**5.51** Health Canada files we examined indicate that regular tests of drinking water are not carried out in most First Nations. Although Health Canada's overall target is to reach the testing frequency recommended in the Guidelines for Canadian Drinking Water Quality by 2008, we found that the Department has no comprehensive plan, with specific target dates, to meet this overall target. In addition, it does not ensure that First Nations test their drinking water as required in the funding arrangements, contracts, and Health Canada procedure manual. In some cases, First Nations failed to carry out water tests for periods as long as seven months. Although Health Canada does not provide funds when tests are not carried out, the absence of tests hampers Health Canada's and First Nations' ability to detect potential water quality problems and make timely and informed decisions to deal with these problems. Further, test results are not available for use by INAC and First Nations as a component of quality control for drinking water. In situations where the drinking water quality is poor, Health Canada employees provide additional support to First Nations communities.

#### **Testing recommended for water systems**

The Guidelines for Canadian Drinking Water Quality recommend that public water distribution systems be tested at least four times per month, at regular intervals, for microbiological characteristics, and semi-annually for chemical substances.

**5.52** In the regions we visited, Health Canada does not yet systematically record testing results in its information system, which, in one region, has been in place for four years. Although data were incomplete, there was no plan to identify data problems and correct them. Further, we found that there was no evidence in the information system that quality control requirements for water testing were followed, and officials could not explain the intended purpose of this system and how it is to be used for program management.

**5.53** Health Canada considers that it has only an advisory role to First Nations when tests show that the drinking water is not safe to drink. At times, the Department may recommend that a First Nation issue a boil-water advisory to users. According to Health Canada, First Nations have the authority to put in place and lift advisories, and they have the responsibility, with assistance from INAC, Health Canada, tribal councils, and other support organizations, to correct the underlying causes. We found that some advisories have been in place for many years. For instance, a community of over 1,000 people has been under a boil-water advisory since August 2001 due to an inadequate level of chlorine in its distribution system. We also found that responsibilities to correct the causes of the advisories are not always understood. In one community, a section of the community had been under a boil-water advisory for over three years before the corrective actions were taken and the advisory lifted.

### **Support and capacity development is inadequate**

**5.54** We expected that INAC would have appropriate management practices in place to monitor operation and maintenance of First Nations water systems to ensure that drinking water meets standards and that funding is used for the intended purpose. We found that INAC's programs are limited in scope and that the technical help available to First Nations to support and develop their capacity to provide safe drinking water is fragmented. We identified weaknesses in three main areas: operators, funding, and information and monitoring.

**5.55 Operators.** Most water treatment plant operators in First Nations communities do not possess the knowledge and skills required to operate their plant safely. The 2001 assessment found that about 10 percent of the operators met the certification requirements of their respective province. Under the First Nations Water Management Strategy, INAC introduced a requirement that all on-reserve operators be certified to the level of complexity of their water treatment plant, in accordance with the rules applicable in their province. The target is to

certify all operators or ensure that uncertified operators are directly supervised by a certified operator by 2006.

**5.56** In the regions we visited, INAC transfers funds to First Nations for classroom instruction and education upgrades to help operators meet certification requirements. INAC's statistics indicate that at the end of March 2005, about 40 percent of the operators were certified. However, for one region included in these statistics, we found that although many of the operators were trained and had passed exams, they were not certified. In addition, the statistics do not indicate if the operators are certified to the level of complexity of their plants. Further, as provincial certification and training requirements are becoming more stringent, many First Nations operators have difficulty meeting educational and experience requirements. In addition, for more complex water treatment plants, a minimum number of years of experience operating such a facility under appropriate supervision is required before certification. In our view, there is a high probability that the certification target will not be met. In one region, INAC is considering other options to ensure proper plant operation, such as the grouping of many systems under the supervision of one or more trained operators.

**5.57** The main support available to operators comes from the Circuit Rider Training Program funded by INAC in all regions. Under this program, experienced operators provide hands-on, on-site training on a cyclical basis over a period of 12–24 months to help resident operators run their own water system. Assistance is also available in case of emergency. In 2001, about 65 percent of operators on reserves had received this type of training. INAC officials told us that this program has been a success and that the knowledge and skills of operators have improved. However, the support and training are not mandatory or accessible to all First Nations. We also found that INAC does not require a training plan to be in place. We noted that a lot of the trainers' time is spent resolving immediate technical problems rather than providing training.

**5.58** There is other support available to First Nations. INAC funds tribal councils and, in some regions, other First Nations organizations, to make a range of technical services available to First Nations. However, it does not require that a tribal council provide assistance for drinking water. Tribal councils and their member First Nations determine priority areas and the nature and extent of support made available. As not all First Nations are members of a tribal council, support and capacity development is fragmented and not available to all First Nations. Moreover, the Department has limited information



on whether the support available for drinking water meets First Nations needs and results in safe drinking water. At least two provinces have created corporations to provide a full range of services to water providers. These models could be explored for First Nations.

**5.59 Funding.** INAC does not use a consistent method to fund First Nations for the operation and maintenance (O&M) of their water systems. Its policy is to allocate O&M funds on the basis of a formula. The amount allocated to each First Nation should cover 80 percent of the estimated O&M costs of drinking water systems. However, we found that the formula had not been updated for many years. In some regions, the Department does not use the formula and provides some First Nations with 80 percent of their actual O&M costs if they can provide sufficient evidence of paying these costs.

**5.60** Under the First Nations Water Management Strategy, INAC is implementing a new method to estimate O&M costs and allocate funds. This method takes into account the characteristics of each water system, and as a result, many First Nations are eligible for additional funding. However, it is not clear whether this method will apply to all First Nations or if actual costs will continue to be paid in some cases.

**5.61** INAC does not know whether all funds for operation and maintenance are used for this purpose. The Department provides First Nations about \$45 million annually to support the operation and maintenance of their water systems (including wastewater). Under the applicable funding conditions, First Nations have the flexibility to use O&M funds for other purposes, and INAC has limited assurance that they are used for the purpose intended. For the duration of the First Nations Water Management Strategy, INAC has raised O&M funding by over 50 percent, to about \$75 million. The additional funds are transferred to First Nations under different conditions and cannot be used for purposes other than the operation and maintenance of water systems. INAC plans to request a permanent increase in its capital budget to provide First Nations with a stable O&M funding level. It is not clear whether the Department will make funding conditions uniform as part of this process and how it will obtain assurance that all funds are used as intended.

**5.62** Other issues related to operation and maintenance funding of water systems remain. Under INAC's O&M guidelines, First Nations are expected to cover 20 percent of the O&M costs of water systems through user fees or other sources. In practice, according to INAC information, few First Nations collect user fees. Moreover, INAC

ignores whether First Nations have other resources to meet this requirement and has no means to enforce it.

**5.63 Information and monitoring.** INAC has limited information on whether First Nations meet the conditions of their funding arrangements and whether its programs and funding result in safe drinking water. To monitor the state of water systems, INAC requires First Nations to provide information annually on their O&M plans and activities, and the results of an inspection of the condition of their water systems every three to five years.

**5.64** We found that INAC does not know whether regular maintenance identified by First Nations was completed or whether urgent maintenance or repair projects are needed. Some reports requested by INAC are not provided by all First Nations, even though they would be useful to both INAC and the First Nations. For instance, First Nations are supposed to have maintenance management plans in place for their water systems. However, INAC does not require evidence that these plans are in place and used. In addition, regions are supposed to ensure that annual maintenance inspections are completed. These are not being done systematically. Moreover, periodic inspections are not always carried out when due, and some inspection reports provided by First Nations contain poor-quality information. As a result, the information system in place to record the results of water system inspections is not reliable.

**5.65** When deficiencies in a water system are noted in a report to INAC, First Nations, through their funding arrangements, are responsible for correcting them with assistance from tribal councils and other organizations. However, there is no effective means to inform INAC that the deficiencies are corrected, and the Department has limited means to ensure that a First Nation has addressed the deficiencies. INAC cannot withdraw O&M funding because drinking water is an essential service.

**5.66** Under the current reporting mechanisms, INAC focusses on the condition of the water systems. Before undertaking the assessment of water systems in 2001, INAC had limited information on the safety of First Nations drinking water. We found that the Department still does not have adequate information on drinking water quality or safety. The Department has undertaken a review of its information needs and data collection processes for drinking water. It is also planning to implement annual performance inspections of water systems starting in 2005.

**5.67** Health Canada and INAC have set out seven elements in the First Nations Water Management Strategy to substantially improve the quality and safety of drinking water in First Nations communities by 2008. However, as providing safe drinking water has become more complex and as most First Nations communities have fewer than 500 residents, access to ongoing technical support is critical in supplying residents of First Nations communities with safe drinking water. There are a number of challenges to the successful implementation of the strategy. In our view, unless these challenges and support needs are fully addressed, it is unlikely that the strategy will improve the quality and safety of First Nations drinking water on a continuing basis.

**5.68 Recommendation.** Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should

- clarify the codes and standards applicable to the design and construction of drinking water systems;
- consider such factors as the quality of water sources, local capacity, potential for innovation, and cost effectiveness when approving funding for water systems; and
- develop mechanisms to obtain assurance that all required factors are taken into account when approving drinking water projects and that codes and standards are complied with.

**Indian and Northern Affairs Canada's response.** Work is well under way to create codes, standards, and protocols applicable to the design, construction, and commissioning of drinking water systems under the First Nations Water Management Strategy. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will

- review Indian and Northern Affairs Canada's *Action Framework for Safe, Clean Drinking Water and Effective Wastewater Treatment for First Nations*, and related protocols regarding the design and construction of drinking water systems, to ensure the codes and standards are clear, understandable, and consistently applied by April 2006. These documents will also include a list of all relevant codes and requirements that First Nations drinking water systems must meet;
- review the project review process, as currently documented in the *National Framework for the Review of Water and Wastewater Systems in First Nations Communities*, including the list of factors that are to be considered when approving funding for water systems, such

as the quality of water sources, local capacity, potential for innovation, and cost effectiveness by September 2006; and

- strengthen mechanisms to verify that all codes and standards have been complied with, including a checklist of all required factors that must be taken into account when approving and commissioning drinking water systems by April 2006.

**Health Canada's response.** Health Canada agrees with this recommendation. In collaboration with Environment Canada, Indian and Northern Affairs Canada, and Public Works and Government Services Canada, Health Canada developed the *National Framework for the Review of Water and Wastewater Systems in First Nations Communities*, which was distributed to regional offices in March 2005. This document delineates the role of each department in the integrated review process for drinking water and wastewater project proposals in First Nations communities. Health Canada's role in the review process is to review the projects from a public health perspective. The Department is currently developing a set of guidelines to provide additional assistance to Health Canada reviewers in this regard. These actions will be completed by May 2006.

Health Canada will continue to work together with Indian and Northern Affairs Canada, in consultation with First Nations, on clarifying codes and standards and developing mechanisms to obtain assurance on the approval of drinking water projects and compliance with codes and standards.

**5.69 Recommendation.** Health Canada, in consultation with Indian and Northern Affairs Canada and First Nations, should ensure that

- all drinking water tests recommended under the Guidelines for Canadian Drinking Water Quality are being carried out;
- test results are properly recorded and relevant information is shared with appropriate parties;
- situations where drinking water is not safe, or where there is no assurance of drinking water safety, are clearly identified and actions to be taken in each situation are defined; and
- action is taken by responsible parties as required.

**Indian and Northern Affairs Canada's response.** In collaboration with Health Canada and First Nations, Indian and Northern Affairs Canada will ensure that roles and responsibilities are more clearly defined for the sharing of monitoring and test results, as well as for actions taken following situations where water is found to be unsafe, so

that timely actions are taken by all parties to ensure public health and safety. Indian and Northern Affairs Canada, with Health Canada, will

- finalize the Memorandum of Understanding between Indian and Northern Affairs Canada and Health Canada regarding the collection and sharing of information by December 2005;
- clarify and formalize the roles and responsibilities of the Department, First Nations, and Health Canada, as identified in Health Canada's *Procedure Manual for Ensuring Safe Drinking Water Quality in First Nations Communities South of 60°*, for situations in which drinking water in First Nations communities is not safe or where there is no assurance of water safety, and clearly define actions to be taken by April 2006; and
- develop a communication and follow-up procedure for informing all affected parties of potentially unsafe water by May 2006.

**Health Canada's response.** Health Canada agrees with this recommendation. The Department has finalized a *Procedure Manual for Ensuring Safe Drinking Water Quality in First Nations Communities South of 60°*, wherein procedures for recording and sharing test results and identifying and taking action when water is not safe are detailed. The procedure manual will be updated by December 2006 to reflect the recommendations of the audit, in consultation with regional offices, other Health Canada areas and subject matter specialists, other government departments, and First Nations stakeholders.

**5.70 Recommendation.** Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should

- assess the capacity and support that First Nations need to deliver safe drinking water in their communities;
- establish the institution or institutions that could consolidate these capacity-building and support functions for all First Nations; and
- define the information that the departments and First Nations need to demonstrate that the drinking water is safe.

**Indian and Northern Affairs Canada's response.** Indian and Northern Affairs Canada will examine and improve capacity-building and support in First Nations communities for the provision of safe drinking water. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will

- develop and conduct a survey to assess the capacity of First Nations communities to provide safe drinking water by September 2006;
- review, evaluate, and strengthen existing mechanisms for capacity development and support for First Nations communities by June 2006. This will include evaluating options, such as the establishment of new or identification of pre-existing institutions to consolidate capacity-building and support for all First Nations, and the production of an action plan for implementing the recommended option; and
- establish the required information, by December 2006, that the Department and First Nations need to demonstrate that drinking water on reserves is safe. This will be done through implementation of the recently developed annual inspections that evaluate the performance and condition of the systems, as well as the data collected by Health Canada.

**Health Canada's response.** Health Canada agrees with this recommendation. The Department builds First Nations capacity and provides support to First Nations through the provision of advice and recommendations to First Nations communities and by funding and training community-based monitors of drinking water quality. We have made progress in addressing the provision of support capacity through the First Nations Water Management Strategy. Health Canada will have finalized a national framework for training community-based monitors of drinking water quality by December 2005.

Together with Indian and Northern Affairs Canada and in consultation with First Nations, Health Canada will examine the feasibility of the establishment of an institution or institutions to consolidate capacity building and support functions for all First Nations by June 2006.

## Reporting to Parliament

### Parliament is not yet receiving a complete picture

**5.71** The federal government will have spent \$1.8 billion between 2003 and 2008 for drinking water (and wastewater) on reserves. Given the importance of the First Nations Water Management Strategy for water safety in First Nations communities, we expected that Indian and Northern Affairs Canada and Health Canada would have identified specific performance indicators for the strategy and would be collecting sufficient and appropriate information on these indicators to be able to report to Parliament on the strategy's progress.

**5.72** In 2003, the departments submitted a Results-Based Management and Accountability Framework to the Treasury Board. This framework contained performance indicators, data sources for measuring progress against these indicators, responsibilities for measuring performance, and reporting frequencies for each indicator. It also identified outputs and immediate, intermediary, and final outcomes. However, we found that in 2003–04 the departments did not collect information against many of the indicators identified; therefore, they were limited in what they could report to Parliament about the strategy. However, officials told us that implementation of the strategy started late in the first year.

**5.73** Some critical performance indicators are missing. Although one of the main objectives of the strategy is to upgrade all water systems on reserves to meet applicable standards, the departments did not identify as a performance indicator the number of on-reserve systems meeting these standards. Moreover, they did not identify water quality and the percentage of the on-reserve population accessing safe drinking water from community systems. Without this type of information, it will be difficult to demonstrate to Parliament whether the strategy is succeeding in improving the quality and safety of drinking water.

**5.74** Parliament is not yet receiving enough information about the strategy and the quality and safety of drinking water in First Nations communities. In our view, efforts to capture the required performance information on the progress of the strategy and on drinking water on reserves, and to report this information to Parliament, must be accelerated.

**5.75 Recommendation.** Indian and Northern Affairs Canada and Health Canada should

- ensure that they collect information on implementation of the First Nations Water Management Strategy and on drinking water in First Nations communities;
- determine the information that would be relevant to Parliament, including the percentage of the on-reserve population accessing safe drinking water, the number of water systems meeting standards, the quality of the drinking water, and the amount of funds spent; and
- report this information to Parliament beginning with the 2006–07 fiscal year.

**Indian and Northern Affairs Canada's response.** Indian and Northern Affairs Canada is currently collecting data against key indicators identified under the First Nations Water Management Strategy. In addition, the Department plans to conduct a formative evaluation of the First Nations Water Management Strategy. Indian and Northern Affairs Canada will

- in conjunction with Health Canada, conduct a formative evaluation of the First Nations Water Management Strategy, to evaluate progress in terms of improved water quality on reserves by December 2006;
- review current data collection tools and procedures to ensure that information is being collected against all performance indicators identified in the accountability framework submitted to the Treasury Board in 2003, identify any missing performance indicators in the accountability framework, and revise current data collection tools and procedures to include these key indicators so that relevant information may be collected and reported to Parliament by April 2006; and
- in addition to reporting progress on the First Nations Water Management Strategy for 2005–06, provide all relevant information to Parliament beginning with the 2006–07 fiscal year.

**Health Canada's response.** Health Canada agrees with this recommendation. As identified in the First Nations Water Management Strategy, the Department has recently finalized national data standards for performance indicators and put in place a system to facilitate the collection of these data. Health Canada will modify these data standards and the associated systems to respond to the recommendations. This information will be reported to Parliament by the 2006–07 fiscal year.

## Conclusion

**5.76** Indian and Northern Affairs Canada, Health Canada, and First Nations do not operate under a regulatory regime for drinking water as most provinces do. There are also weaknesses in program management in both departments. When it comes to the safety of drinking water, residents of First Nations communities do not benefit from a level of protection comparable with that of people living off reserves.



**5.77** There is no statute or regulation requiring the monitoring of the quality and safety of drinking water in First Nations communities. Health Canada relies on its staff and on First Nations to sample and test drinking water quality. Regular tests at the frequency recommended under the Guidelines for Canadian Drinking Water Quality are not carried out in most First Nations. When the results of these tests are reported to Health Canada, they are not properly recorded; nor are they systematically shared with Indian and Northern Affairs Canada.

**5.78** Finally, not all the information identified was collected by the departments in 2003–04 and some critical indicators were missing. Parliament is not yet receiving enough information about the First Nations Water Management Strategy and the quality and safety of drinking water in First Nations communities.

## About the Audit

### Objectives

The objectives of the audit were to determine whether

- the programs and funding of Indian and Northern Affairs Canada (INAC) and Health Canada provide First Nations communities with access to safe drinking water comparable with that of communities of a similar size and location;
- sufficient and appropriate information on the quality of the drinking water is being reported by Health Canada to First Nations, INAC, and other appropriate parties; and
- sufficient and appropriate information is being collected by INAC and Health Canada to ensure that the government is able to report to Parliament on the results of the First Nations Water Management Strategy.

### Scope and approach

The audit focussed on the activities of INAC and Health Canada related to the safety of drinking water in First Nations communities, including the technical services provided to INAC by Public Works and Government Services Canada, and the results of those activities. We examined whether these programs were working well to provide these communities with access to safe drinking water comparable with that of other communities of a similar size and location. We reviewed policy developments and analyzed information since 1995. We also looked at how well the First Nations Water Management Strategy is being implemented. This strategy was introduced in 2003 to substantially improve the quality and safety of drinking water in First Nations.

The audit team carried out interviews with departmental managers and staff and reviewed relevant documents at INAC and Health Canada headquarters and in three regions (Ontario, Manitoba, and British Columbia). We reviewed 28 drinking water system projects funded by INAC in 20 First Nations communities between 1995 and 2004, and their operation and maintenance where relevant. We also looked at the activities in these communities for monitoring the quality of drinking water, and we examined the results of those activities. The audit team visited six First Nations communities. These visits involved discussions with political leaders, water and/or capital managers, and operators of water treatment plants, as well as general observations of plant conditions.

### Criteria

Our audit was based on the following criteria:

- Indian and Northern Affairs Canada and Health Canada comply with authorities and ensure that funding is used for the purposes intended.
- The departments provide funding on the basis of appropriate standards and licensing to help First Nations communities provide residents with access to safe drinking water comparable with that of other Canadians living in similar communities.

- INAC develops plans to upgrade and build First Nations drinking water treatment systems to meet standards.
- INAC ensures that appropriate management practices are in place to assess, prioritize, approve, and monitor individual drinking water capital projects.
- The departments ensure that appropriate management practices are in place to monitor systems and test First Nations drinking water to ensure that the water meets standards.
- Health Canada shares information on the quality of drinking water with the First Nations, INAC, and, depending on the nature of results, other appropriate parties.
- The departments ensure that timely and appropriate actions are taken by the appropriate parties, as per their roles and responsibilities, when available information demonstrates that a First Nation's drinking water is unsafe or there is a risk to the health and safety of First Nations residents.
- The departments are able to demonstrate to Parliament how they will achieve the expected results set out in the First Nations Water Management Strategy.

### **Related audit work**

December 1997 Report of the Auditor General, Chapter 35, Follow-up of Recommendations in Previous Reports: Indian and Northern Affairs Canada: On-Reserve Capital Facilities and Maintenance—1995, Chapter 23

November 1995 Report of the Auditor General, Chapter 23, Indian and Northern Affairs Canada: On-Reserve Capital Facilities and Maintenance

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## Appendix List of recommendations

The following is a list of recommendations found in Chapter 5. The number in front of the recommendation indicates the paragraph where it appears in the chapter. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Department's response
<p><b>Governing framework</b></p> <p><b>5.36</b> Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should develop and implement a regulatory regime for drinking water in First Nations communities. This regime should be comparable with that in provinces and designed to protect the health and safety of First Nations people. As a minimum, this regime should deal with roles and responsibilities, water quality requirements, technical requirements, certification of systems and operators, compliance and enforcement, and public reporting requirements. (5.24-5.35)</p>	<p><b>Indian and Northern Affairs Canada's response.</b> Indian and Northern Affairs Canada will continue to implement the First Nations Water Management Strategy aimed at improving program elements—specifically, roles and responsibilities, water quality requirements, technical requirements, certification of systems and operators, compliance and enforcement, and public reporting requirements. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will</p> <ul style="list-style-type: none"> <li>• fully explore the options and feasibility of a regulatory regime with all other stakeholders for drinking water on reserve. All aspects of a proposed regime will be assessed, including establishing new legislation, regulations, and enforcement mechanisms. An action plan for the implementation of the chosen option will be produced by September 2006;</li> <li>• continue to develop and implement mechanisms aimed at ensuring compliance with the required standards regarding drinking water quality until a regulatory regime is in place. This will include finalizing the <i>Protocols for Safe Drinking Water in First Nations Communities</i> recently developed under the First Nations Water Management Strategy, which includes key elements covered in a provincial regulatory regime and which will provide clear direction on how First Nations are to incorporate these elements in the management of their drinking water by April 2006; and</li> <li>• continue to develop and implement amendments to funding arrangements in line with the codes and standards contained in the above-noted protocol document, to strengthen drinking water management practices consistent with provincial regulatory requirements by April 2007.</li> </ul> <p><b>Health Canada's response.</b> The political and governance issues in First Nations communities are very complex. First Nations have identified the need for self-government as a priority. Health</p>

Recommendation	Department's response
	<p>Canada and Indian and Northern Affairs Canada will assess the feasibility of this recommendation and options for implementation, in consultation with First Nations stakeholders. In the interim, Health Canada will improve program delivery in the areas identified by the auditors as a strength of provincial legislation, specifically in the areas of roles and responsibilities, water quality requirements, technical requirements, compliance and enforcement, and public reporting requirements. These actions will be completed by December 2006.</p>
<p><b>Program management</b></p> <p><b>5.68</b> Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should</p> <ul style="list-style-type: none"> <li>• clarify the codes and standards applicable to the design and construction of drinking water systems;</li> <li>• consider such factors as the quality of water sources, local capacity, potential for innovation, and cost effectiveness when approving funding for water systems; and</li> <li>• develop mechanisms to obtain assurance that all required factors are taken into account when approving drinking water projects and that codes and standards are complied with.</li> </ul> <p>(5.37-5.49)</p>	<p><b>Indian and Northern Affairs Canada's response.</b> Work is well under way to create codes, standards, and protocols applicable to the design, construction, and commissioning of drinking water systems under the First Nations Water Management Strategy. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will</p> <ul style="list-style-type: none"> <li>• review Indian and Northern Affairs Canada's <i>Action Framework for Safe, Clean Drinking Water and Effective Wastewater Treatment for First Nations</i>, and related protocols regarding the design and construction of drinking water systems, to ensure the codes and standards are clear, understandable, and consistently applied by April 2006. These documents will also include a list of all relevant codes and requirements that First Nations drinking water systems must meet;</li> <li>• review the project review process, as currently documented in the <i>National Framework for the Review of Water and Wastewater Systems in First Nations Communities</i>, including the list of factors that are to be considered when approving funding for water systems, such as the quality of water sources, local capacity, potential for innovation, and cost effectiveness by September 2006; and</li> <li>• strengthen mechanisms to verify that all codes and standards have been complied with, including a checklist of all required factors that must be taken into account when approving and commissioning drinking water systems by April 2006.</li> </ul> <p><b>Health Canada's response.</b> Health Canada agrees with this recommendation. In collaboration with Environment Canada, Indian and Northern Affairs Canada, and Public Works and Government Services Canada, Health Canada developed the <i>National Framework for the Review of Water and Wastewater Systems</i></p>

Recommendation	Department's response
<p><b>5.69</b> Health Canada, in consultation with Indian and Northern Affairs Canada and First Nations, should ensure that</p> <ul style="list-style-type: none"> <li>• all drinking water tests recommended under the Guidelines for Canadian Drinking Water Quality are being carried out;</li> <li>• test results are properly recorded and relevant information is shared with appropriate parties;</li> <li>• situations where drinking water is not safe, or where there is no assurance of drinking water safety, are clearly identified and actions to be taken in each situation are defined; and</li> <li>• action is taken by responsible parties as required.</li> </ul> <p>(5.50-5.53)</p>	<p><i>in First Nations Communities</i>, which was distributed to regional offices in March 2005. This document delineates the role of each department in the integrated review process for drinking water and wastewater project proposals in First Nations communities. Health Canada's role in the review process is to review the projects from a public health perspective. The Department is currently developing a set of guidelines to provide additional assistance to Health Canada reviewers in this regard. These actions will be completed by May 2006.</p> <p>Health Canada will continue to work together with Indian and Northern Affairs Canada, in consultation with First Nations, on clarifying codes and standards and developing mechanisms to obtain assurance on the approval of drinking water projects and compliance with codes and standards.</p> <p><b>Indian and Northern Affairs Canada's response.</b> In collaboration with Health Canada and First Nations, Indian and Northern Affairs Canada will ensure that roles and responsibilities are more clearly defined for the sharing of monitoring and test results, as well as for actions taken following situations where water is found to be unsafe, so that timely actions are taken by all parties to ensure public health and safety. Indian and Northern Affairs Canada, with Health Canada, will</p> <ul style="list-style-type: none"> <li>• finalize the Memorandum of Understanding between Indian and Northern Affairs Canada and Health Canada regarding the collection and sharing of information by December 2005;</li> <li>• clarify and formalize the roles and responsibilities of the Department, First Nations, and Health Canada, as identified in Health Canada's <i>Procedure Manual for Ensuring Safe Drinking Water Quality in First Nations Communities South of 60°</i>, for situations in which drinking water in First Nations communities is not safe or where there is no assurance of water safety, and clearly define actions to be taken by April 2006; and</li> <li>• develop a communication and follow-up procedure for informing all affected parties of potentially unsafe water by May 2006.</li> </ul> <p><b>Health Canada's response.</b> Health Canada agrees with this recommendation. The Department has finalized a <i>Procedure Manual for Ensuring Safe Drinking Water Quality in First Nations Communities South of 60°</i>, wherein procedures for recording and sharing test results and identifying and taking action when water is not safe are detailed. The procedure manual will be updated by</p>

Recommendation	Department's response
<p><b>5.70</b> Indian and Northern Affairs Canada and Health Canada, in consultation with First Nations, should</p> <ul style="list-style-type: none"> <li>• assess the capacity and support that First Nations need to deliver safe drinking water in their communities;</li> <li>• establish the institution or institutions that could consolidate these capacity-building and support functions for all First Nations; and</li> <li>• define the information that the departments and First Nations need to demonstrate that the drinking water is safe.</li> </ul> <p>(5.54-5.67)</p>	<p>December 2006 to reflect the recommendations of the audit, in consultation with regional offices, other Health Canada areas and subject matter specialists, other government departments, and First Nations stakeholders.</p> <p><b>Indian and Northern Affairs Canada's response.</b> Indian and Northern Affairs Canada will examine and improve capacity-building and support in First Nations communities for the provision of safe drinking water. Indian and Northern Affairs Canada, together with Health Canada, and in consultation with First Nations, will</p> <ul style="list-style-type: none"> <li>• develop and conduct a survey to assess the capacity of First Nations communities to provide safe drinking water by September 2006;</li> <li>• review, evaluate, and strengthen existing mechanisms for capacity development and support for First Nations communities by June 2006. This will include evaluating options, such as the establishment of new or identification of pre-existing institutions to consolidate capacity-building and support for all First Nations, and the production of an action plan for implementing the recommended option; and</li> <li>• establish the required information, by December 2006, that the Department and First Nations need to demonstrate that drinking water on reserves is safe. This will be done through implementation of the recently developed annual inspections that evaluate the performance and the condition of the systems, as well as the data collected by Health Canada.</li> </ul> <p><b>Health Canada's response.</b> Health Canada agrees with this recommendation. The Department builds First Nations capacity and provides support to First Nations through the provision of advice and recommendations to First Nations communities and by funding and training community-based monitors of drinking water quality. We have made progress in addressing the provision of support capacity through the First Nations Water Management Strategy. Health Canada will have finalized a national framework for training community-based monitors of drinking water quality by December 2005.</p> <p>Together with Indian and Northern Affairs Canada and in consultation with First Nations, Health Canada will examine the feasibility of the establishment of an institution or institutions to consolidate capacity building and support functions for all First Nations by June 2006.</p>

Recommendation	Department's response
<p><b>Reporting to Parliament</b></p> <p><b>5.75</b> Indian and Northern Affairs Canada and Health Canada should</p> <ul style="list-style-type: none"> <li>• ensure that they collect information on implementation of the First Nations Water Management Strategy and on drinking water in First Nations communities;</li> <li>• determine the information that would be relevant to Parliament, including the percentage of the on-reserve population accessing safe drinking water, the number of water systems meeting standards, the quality of the drinking water, and the amount of funds spent; and</li> <li>• report this information to Parliament beginning with the 2006–07 fiscal year.</li> </ul> <p>(5.71-5.74)</p>	<p><b>Indian and Northern Affairs Canada's response.</b> Indian and Northern Affairs Canada is currently collecting data against key indicators identified under the First Nations Water Management Strategy. In addition, the Department plans to conduct a formative evaluation of the First Nations Water Management Strategy. Indian and Northern Affairs Canada will</p> <ul style="list-style-type: none"> <li>• in conjunction with Health Canada, conduct a formative evaluation of the First Nations Water Management Strategy, to evaluate progress in terms of improved water quality on reserves by December 2006;</li> <li>• review current data collection tools and procedures to ensure that information is being collected against all performance indicators identified in the accountability framework submitted to the Treasury Board in 2003, identify any missing performance indicators in the accountability framework, and revise current data collection tools and procedures to include these key indicators so that relevant information may be collected and reported to Parliament by April 2006; and</li> <li>• in addition to reporting progress on the First Nations Water Management Strategy for 2005–06, provide all relevant information to Parliament beginning with the 2006–07 fiscal year.</li> </ul> <p><b>Health Canada's response.</b> Health Canada agrees with this recommendation. As identified in the First Nations Water Management Strategy, the Department has recently finalized national data standards for performance indicators and put in place a system to facilitate the collection of these data. Health Canada will modify these data standards and the associated systems to respond to the recommendations. This information will be reported to Parliament by the 2006–07 fiscal year.</p>



# Report of the Commissioner of the Environment and Sustainable Development to the House of Commons—2005

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