Indian and Northern Affairs Canada
Affairs indiennes et du Nord Canada

Plan of Action for Drinking Water in First Nations Communities

Progress Report

December 7, 2006

Canada

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Executive Summary

The Government of Canada is committed to helping First Nations produce safe drinking water by providing funding and assistance to First Nations, who are responsible for the daily operation and management of their water treatment and distribution systems.

Indian and Northern Affairs Canada has been moving forward on a Plan of Action for Safe Drinking Water in First Nations Communities. This plan also addresses the recommendations made by the Commissioner of the Environment and Sustainable Development, and will help address several deficiencies identified in First Nations communal water systems.

Since the Minister's Announcement of the Plan of Action on March 21, 2006:

- the *Protocol for Safe Drinking Water in First Nations Communities* was issued and put into effect;
- operational oversight has begun with 24-hour hotlines and support for all First Nations, with more complex supervision being developed for the communities that are most in need;
- the number of high-risk drinking water systems decreased from 193 (26% of all systems) to 114 (15% of all systems);
- the number of communities with water issues because of high-risk water systems and/or drinking water advisories has decreased from 224 to 133 (specifically, 68 with high-risk systems, 33 with drinking water advisories, and 32 with both high-risk systems and drinking water advisories);
- of the 21 priority communities, 6 have had their drinking water advisories removed, and 7 should have them removed within the next 3 months; and
- an Expert Panel has provided a report on options for a regulatory regime, which the Minister is currently reviewing.

The Government of Canada is, and will continue to be, committed to helping First Nations in the provision of safe, clean, and reliable drinking water.

Background

The Government of Canada is committed to helping First Nations in the provision of safe, clean, and reliable drinking water. To achieve this goal, the Government of Canada provides funding and advice to First Nations to help them in the management and operation of their water systems.

Indian and Northern Affairs Canada provides funding assistance for the design, construction, operation and maintenance of water systems. It also provides funding for the training and certification of water system operators.

Health Canada works with First Nations to ensure that drinking water quality monitoring programs are in place in their communities. Environment Canada develops technical guidance and training material on source water protection and sustainable water use.

First Nations are responsible for the daily operations and management of their systems, which includes the design, construction, operation, maintenance, and monitoring of their water systems.

The First Nations Water Management Strategy

In 2001 and 2002, Indian and Northern Affairs Canada did an assessment of water and wastewater systems in First Nations communities across the country. In total, 740 water systems were evaluated, with an individual assessment report created for each of those systems. The overall results of each of those assessments were compiled into the *National Assessment of Water and Wastewater Systems in First Nations Communities Summary Report* (available on-line at www.ainc-inac.gc.ca/H2O). This compilation indicated that out of the 740 water systems that were evaluated, 218 (29%) were considered high-risk, 337 (46%) were medium-risk, and 185 (25%) were low-risk.

Based on the information gathered by this assessment, the Government of Canada developed the First Nations Water Management Strategy, which was announced in May 2003. This strategy follows a multi-barrier source-to-tap approach to the protection of drinking water. This same approach is used to determine the risk ranking of a system, ranking them as either low-risk, medium-risk, or high-risk.

It should be noted that this risk ranking does not indicate whether or not the water is safe to drink; that is the role of drinking water advisories. Rather, it indicates what the chances, or “risks,” are that the system will be unable to produce safe drinking water. As mentioned, the risk of a system is based on the various barriers in place to prevent the drinking water from being contaminated, including barriers such as, but not limited to, source water protection, the design of the system, the actual operation and

maintenance of the system, the operator's training and certification, and record keeping and monitoring of the drinking water. Should one of these barriers be deficient or should a problem arise with the water, the remaining barriers should be able to compensate for those deficiencies and therefore still result in the production and delivery of safe drinking water. A low risk system means all of the barriers are working fine, and thus it is likely that any problem with the water will be compensated for, thus the chances that unsafe drinking water will be produced by the system are low. With a high risk system, there are deficiencies in all of the barriers and thus, if a problem occurs, it is unlikely that the system will be able to compensate for that problem, and there is therefore a high risk that unsafe water might be produced. A high risk system can therefore still produce safe drinking water, but the deficiencies should be addressed quickly before any further problems or issues occur.

The First Nations Water Management Strategy takes a seven-point approach, each intended to cover different barriers of the multi-barrier approach. These seven points are:

- upgrade and build new water and wastewater systems to meet establish standards;
- improve the water quality monitoring program through a comprehensive and coordinated compliance and reporting regime;
- establish a sustainable operation and maintenance program for facilities;
- enhance training programs for system operators;
- develop comprehensive water quality management protocols and policies;
- raise public awareness in First Nations communities; and
- develop clearly defined and integrated standards for protecting water.

With the announcement of the First Nations Water Management Strategy came an additional $600 million in funds over 5 years (from 2003-04 to 2007-08). Combined with the $1 billion already being invested by the Government of Canada, this resulted in a $1.6 billion investment over 5 years.

The main objective of the First Nations Water Management Strategy is to address all of the high-risk systems by the end of March 2008.

The Commissioner of The Environment and Sustainable Development Report

In September 2005, the Commissioner of the Environment and Sustainable Development released a report in which Chapter 5 dealt with *Drinking Water in First Nations Communities.* This chapter examined the Government of Canada's drinking

water program for First Nations from 1995 to 2004, and made five recommendations, which can be summarized as follows:

- implement a regulatory regime for drinking water on reserve;
- clarify design codes and standards;
- ensure proper monitoring and follow-up;
- establish institutions for capacity-building; and
- provide reports on progress to Parliament.

Both Indian and Northern Affairs Canada and Health Canada agreed with the recommendations of the Commissioner of the Environment and Sustainable Development.

The Plan of Action for Drinking Water

On March 21, 2006, the Honourable Minister of Indian Affairs and Northern Development and Federal Interlocutor for Métis and Non-Status Indians, along with the National Chief of the Assembly of First Nations, announced a Plan of Action for Drinking Water in First Nations communities. This action plan examined the multi-barrier approach of the First Nations Water Strategy, and placed added emphasis and action on expanding upon the key points that would have the most impact on reducing the risk ranking of water systems in First Nations communities. In addition, these activities would also address the recommendations made by the Commissioner of the Environment and Sustainable Development.

Specifically, in the Plan of Action, Indian and Northern Affairs Canada committed to the following activities:

- issuing a clear protocol on water standards;
- ensuring mandatory training and oversight of water systems by certified operators;
- address the drinking water concerns of all high risk system, starting with 21 priority communities;
- creating an expert panel that will provide options for a regulatory regime for drinking water on reserve; and
- commitment to future reporting on the progress of the Plan of Action.

This report will show the progress that has been made through the Plan of Action with respect to helping First Nations in the provision of clean, safe drinking water to their communities.

Progress on the Plan of Action

Issuing a Clear Protocol on Water Standards

On the date of the announcement of the Plan of Action, the Honourable Minister of Indian Affairs and Northern Development and Federal Interlocutor for Métis and Non-Status Indians also released the *Protocol for Safe Drinking Water in First Nations Communities* (available on-line at www.ainc-inac.gc.ca/H2O). This protocol document compiled and clarified the departmental standards for design, construction, operation, maintenance, and monitoring of drinking water systems. This covers all aspects of water systems from source water protection, to the requirement of certified operators, to emergency response plans. It therefore addresses the recommendation to clarify design codes and standards made by the Commissioner of the Environment and Sustainable Development.

The *Protocol for Safe Drinking Water in First Nations Communities* took effect immediately upon its release. All new water systems are now being designed and constructed to these standards. In addition, the training of operators is being adjusted to include the operation and maintenance standards of the protocol.

The *Protocol* included annual performance inspection requirements, which are currently underway. This will help in verifying compliance with the protocol, and ensure that the risk ranking of all systems is as accurate and up-to-date as possible.

Therefore, in summary, with respect to progress on the protocol:

- The *Protocol for Safe Drinking Water in First Nations Communities* was issued and put into effect on March 21, 2006.

Ensuring Oversight of Water Systems by Certified Operators

Indian and Northern Affairs Canada provides funding to First Nations and First Nations technical organizations to support the Circuit Rider Training Program, which is the main vehicle by which most First Nations operators receive the required training to operate their systems. This program provides qualified experts who rotate through a circuit of communities, providing hands-on training for the operators on their own system. Circuit Rider Trainers also help the First Nations with minor troubles and issues of operation and maintenance of their systems.

Through the work of the Circuit Rider Training Program, the number of water treatment system operators who have achieved the first level of certification or greater has increased from 8% of all operators in March 2003 to 35% of all operators as of

November 2006. This represents 392 out of 1107 water system operators and back-up operators across the country.

Since the announcement of the Plan of Action, work has been underway to strengthen the Circuit Rider Training Program. First, the program is being expanded to ensure that it will be available to all First Nations. Second, training is being adapted to ensure that not only are the operators being trained to operate their system, but also to achieve certification under provincial regimes. The training will also adhere to the *Protocol for Safe Drinking Water in First Nations Communities*. Finally, the Circuit Rider Training Program will be coordinated with operational oversight of the systems. In addition, the various regional Circuit Rider Trainers have established a communication network, allowing them to share best practices amongst each other.

The main expansion created by the Plan of Action beyond the original scope of the seven-point strategy is to ensure oversight of water systems by certified operators (i.e., by service providers who are qualified in a manner consistent with the applicable standards). This new focus of activities will have a significant impact on reducing the risk ranking of water systems, as it will accomplish several objectives.

First of all, oversight will provide additional technical support to the operator and First Nation. The qualified oversight operator will be available to help the First Nations when issues or emergencies arise. Second, the oversight operator will be able to help in the training of the operator. An oversight operator will be on-site much more frequently than the usual Circuit Rider Trainer, and can therefore provide more support in the way of training and local capacity building. Finally, the oversight operator can help ensure that the proper operation and maintenance procedures are followed. This will help both in ensuring clean, safe drinking water is produced by the system, and in maintaining the system in order for it to last its intended lifecycle. As such, oversight will help address risk ranking issues related to the operation of the system, to the training of the operator, and to monitoring and record keeping, and is thus likely to have the most significant impact on lowering the risk ranking of the system.

The establishment of oversight will be a phased approached. The first step is to ensure that all First Nations have access to a 24-hour hotline for technical support and assistance. This means that oversight experts are available to immediately go on-site in the community to address emergency situations as required. The 24-hour emergency support and hotline has been successfully implemented in most regions, and will be available in all regions by the end of December 2006.

The second phase of implementing oversight will include monitoring of systems and the occasional visit of the oversight operator to evaluate the performance and progress of the operator. This will include, where needed, the installation of remote monitoring equipment and the periodic review of the operator’s logs and records. The frequency of

assessments on performance will depend on the training and certification of the operator, and the results of previous assessment reports. Some regions have implemented this phase already, as the local Circuit Rider Trainers have accepted to take on this additional responsibility. Other regions are examining options on how best to implement this level of oversight. The second phase of oversight is expected to be in place in 2007-08.

In some cases, oversight will include full operational control of the system by a qualified service provider who will provide the oversight operator. This level of oversight will only be implemented where the local First Nations operator has not achieved certification and where significant operational issues have been identified in assessment reports. This arm's length service provider will be hired through a contract between the First Nations and the oversight service provider, with the roles and responsibilities of each party clearly defined. This highest level of oversight is being implemented through the Safe Water Operations Program developed by the Ontario region. It includes full-time, on site supervision by the certified operator, which will help ensure proper operations of the facility as well as enhance the training of the local operator and thereby support local capacity building. Several regions are starting the process to begin this highest level of oversight in the First Nations communities that are the most in need of such support, and have started the contracting process to find appropriate oversight service providers. It is expected to take several months to hire the qualified service providers for all of the communities in need.

Therefore, in summary, with respect to progress on oversight:

- a 24-hour hotline and emergency support will be available to all First Nations by the end of December 2006;
- the expansion of Circuit Rider Training Program is underway;
- frequent assessments by oversight operators will be in place in 2007-08; and
- the Safe Water Operations Program is beginning the process of hiring arm's length service providers for the communities the most in need, although it will take several months before all of the communities in need are covered.

Address All High-Risk System, Starting With 21 Priority Communities

As indicated previously, the main, but not the only, objective of the Plan of Action is to address all systems identified as high-risk, thereby helping to ensure safe drinking water in First Nations communities. Reducing the risk level of a water system can be accomplished by improving the deficiencies at any of the barriers, notably at the source water, the design of the system, the operation of the system, the training of the operator, and the monitoring and record keeping related to the system.

In March 2006, there were 193 identified high-risk systems in 170 First Nations. From these 170 communities, the Minister identified 21 communities which would be a priority for the department. These communities were identified as the first communities to address because not only did they have high-risk water systems with several deficiencies, but they also had drinking water advisories at that time. Remedial action plans were created for each of the 21 priority communities, and similar plans were to be made for the remaining communities with high-risk systems.

With respect to the 21 priority communities, the detailed progress for each community can be found in Appendix A. In summary, 6 of these communities have had their drinking water advisories lifted, notably Constance Lake (ON), Wabigoon Lake Ojibway (ON), Dene Tha (AB), Driftpile (AB), Shuswap (BC), and Taku River Tlingit (BC). An additional 7 more should have their drinking water advisories addressed by the end of March 2007, notably Pabineau (NB), Northwest Angle No. 37 (ON), Ochiichagwe'bibigo-ining (ON), Kingfisher (ON), Muskrat Dam Lake (ON), Frog Lake (AB), and Canoe Creek (BC). The remaining 8 communities will require a year or more to fully address their deficiencies.

As mentioned, these 21 priority communities were only the first to have remedial plans implemented out of all of the communities with either high-risk systems or drinking water advisories. In March 2006, there were an additional 149 First Nations communities beyond the 21 priority communities that also had one or more high-risk community drinking water systems. There were also another 54 communities that had one or more drinking water advisories. All in all, this meant that there were a total of 224 First Nations communities that had water issues that needed to be addressed.

Work has progressed very well for many of these communities. As of November 11, 2006, there are only 133 First Nations communities that still have water issues that need to be addressed. Out of these, 68 communities have one or more high-risk community drinking water systems, 33 communities have one or more drinking water advisories, and 32 communities have both one or more high-risk systems and one or more drinking water advisories. Remedial plans have been developed for each of these communities, and currently vary in implementation from design phase to nearly completed. A short summary of the remedial actions taken and remaining for each of these communities can be found in Appendix B.

It should be noted that there are additional First Nations communities that have drinking water advisories on private systems or commercial buildings. These drinking water advisories have not been counted in the statistics presented above, as the department only provides funding and assistance for communal systems.

When looking at only the high-risk communal drinking water systems, there are currently 114 high-risk systems (or roughly 15% of all systems) that can be found in 100

different First Nations communities. This is down from the 193 high-risk systems (approximately 26% of all systems) in 170 communities at the time of Minister's announcement.

Therefore, in summary, with respect to progress on risk-levels and priority communities:

- 6 of the 21 priority communities have had their drinking water advisories lifted, while 7 more should have their drinking water advisories lifted by the end of March 2007;
- there are currently 114 high-risk community drinking water systems (15% of all systems); this is down from the 193 high-risk systems (26% of all systems) at the time of the announcement; and
- there are 133 communities that still have high-risk community drinking water systems and/or drinking water advisories to be addressed; this is down from the 224 communities (which includes the 21 priority communities) at the time of the announcement.

Creating an Expert Panel to Provide Options for a Regulatory Regime

On May 31, 2006, the Honourable Jim Prentice, Minister of Indian Affairs and Northern Development and Federal Interlocutor for Métis and Non-Status Indians, along with Phil Fontaine, the National Chief of the Assembly of First Nations, the Honourable Tony Clement, Minister of Health and the Honourable Rona Ambrose, Minister of Environment announced the creation of a panel of experts that would examine and provide options on the establishment of a regulatory framework to ensure safe drinking water in First Nations communities.

The panel was composed of three highly experienced and qualified individuals. The Panel was chaired by Harry Swain, a former Deputy Minister of the Department of Indian Affairs and Northern Development. Mr. Swain also chaired the research advisory panel of the Walkerton Inquiry and an expert panel on a water and wastewater strategy for Ontario. The other members of the panel were Grand Chief Stan Louttit and Dr. Steve Hrudey. Mr. Louttit is Grand Chief of the Mushkegowuk Council. Dr. Hrudey is a Professor of Environmental Health Sciences and Associate Dean of Canada's first School of Public Health, at the University of Alberta.

The scope of the panel's work was to:

- engage First Nations and non-First Nations stakeholders and gather information and suggestions, through public hearings and written submissions;
- review examples of regulatory frameworks and regimes from other jurisdictions and countries; and

- draft a paper for the Minister of Indian and Northern Affairs that would:
  - examine options for a regulatory framework;
  - analyse the benefits and drawbacks of each option;
  - indicate issues outside the mandate of the Panel that would have to be addressed to implement the option; and
  - provide a comparative analysis of all options.

The Expert Panel held public hearings across Canada from June to August, 2006. Hearings were held in Whitehorse, Edmonton, Vancouver, Saskatoon, Winnipeg, Toronto, Québec City, Halifax and Thunder Bay. The panel heard from more than 110 invited presenters and comprised representatives from:

- 39 individual First Nations communities;
- 31 First Nations organizations, including tribal councils, regional councils, technical services associations, environmental and health organizations, and Assembly of First Nations regional offices;
- the three federal departments most closely involved in funding and overseeing water and wastewater systems on reserves - Indian and Northern Affairs Canada, Health Canada and Environment Canada;
- provincial and territorial ministries with responsibility for drinking water standards and, in some cases, source water protection;
- private sector organizations with in-depth experience in the First Nations water sector; and
- non-governmental organizations with particular expertise in public health, environmental or legal issues relevant to our mandate.

The panel submitted its final report to the Minister of Indian and Northern Affairs Canada on November 15, 2006.

The Minister is currently reviewing the final report. As lead department, Indian and Northern Affairs Canada established an advisory group for the regulatory framework for safe drinking water with members from Indian and Northern Affairs Canada, the Assembly of First Nations, Health Canada and Environment Canada. The advisory group is analysing the report and will provide the Minister with an analysis in December 2006 as to how the regulatory options put forward by the Panel affect First Nations communities as well as those government departments involved in funding and overseeing water and wastewater systems on reserves – specifically Indian and Northern Affairs Canada, Health Canada and Environment Canada.

The Minister is also to discuss the report with the National Chief of the Assembly of First Nations and his colleagues. The Minister is expected to introduce a regulatory option that will ensure safe drinking water in First Nations communities. In doing so, the Minister will continue to engage with First Nations leadership, federal, provincial and

territorial governments to ensure that an appropriate regulatory framework is put in place.

Therefore, in summary, with respect to progress on a regulatory framework for safe drinking water in First Nations communities:

- the Expert Panel held hearings across Canada during July-August 2006 and heard from over 100 First Nations and non-First Nations presenters;
- the Minister received final report from the Expert Panel in November, 2006;
- the Minister is reviewing the final report and will discuss it with National Chief of the Assembly of First Nations and his colleagues; and
- the Minister will choose a regulatory option and appropriate regulatory framework that will ensure safe drinking water in First Nations communities.

Report on Progress

The last commitment was to report on the progress made in water strategy. This report directly addresses the final recommendation of the Commissioner of the Environment and Sustainable Development to provide reports on progress to Parliament.

This report is the first progress report on the Plan of Action for Drinking Water in First Nations Community. There will be further reports in the future, which will continue to highlight the work that has been done and the current status of water in First Nations communities.

This report, as well as all future reports, can be found on the Department's water web site at www.ainc-inac.gc.ca/H2O.

Conclusion

In conclusion, progress has indeed been made through the government's new Plan of Action on Drinking Water in First Nations Communities. Indian and Northern Affairs Canada, in collaboration with Health Canada, Environment Canada, and First Nations, has made advances in all five items of the Plan of Action, and has likewise begun to address all of the recommendations made by the Commissioner of the Environment and Sustainable Development.

The Government of Canada has developed a plan, and is moving forward on that plan with measurable results:

- there has been a significant decrease in the number of First Nations communities with high-risk communal water systems and/or drinking water advisories; and
- an Expert Panel has provided options for a regulatory regime to help the Minister choose an appropriate regulatory framework for drinking water in First Nations communities.

The Government of Canada is, and will continue to be, committed to helping First Nations in the provision of safe, clean, and reliable drinking water.

Appendix A
21 Priority Communities Progress Report

Atlantic

Pabineau

Community of Pabineau, with a registered population of 227 people, 87 of whom are on reserve, is situated about 10km from Bathurst, New Brunswick. Its water problems date back to June 1, 2005 when a Drinking Water Advisory was put in place due to equipment malfunction which resulted in inadequate chlorination. This year, an evaluation of the system found that it was poorly designed. A meeting was held between the Department and the Council on September 14, 2006, and an agreement was reached on actions to be taken toward a resolution of the issues. So far, quotes have been received to install individual treatment systems at the homes. Pilot testing of two homes will commence shortly with installation of the individual systems for the remaining 21 homes to be completed shortly thereafter. It is expected that the Drinking Water Advisory will be lifted in early 2007 once all individual treatment systems are installed. In addition to this, a Request for Proposal is being developed to provide designs for the possible connection of the homes to the city of Bathurst municipal system as a long-term solution.

Woodstock

Community of Woodstock, with a registered population of 813 people, 260 of whom are on reserve, is situated about 5km south of Woodstock, New Brunswick. Its water problems date back to March 1, 2005 when a Drinking Water Advisory was put in place due to inadequate chlorination which resulted in unacceptable microbiological levels. Work began in August 2005 with the construction of a new treatment plant which included an in-ground reservoir and pumphouse. The plant was commissioned in August 2006. A problem affecting the capacity of the pumps was discovered and remedial action was undertaken to correct this problem in September 2006. In October 2006, Indian and Northern Affairs Canada began funding the connection of the homes and buildings to the community distribution system, thereby closing the individual wells that use to serve those buildings. So far, a new reservoir and pumphouse have been constructed, and one well has been closed. In addition, the operator has achieved certification to the level of the plant. A new risk assessment was completed in October 2006 which reduced the risk level to medium. It is expected that work will continue until all homes have been connected to the system.

Quebec

Kitigan Zibi Anishinabeg

Community of Kitigan Zibi Anishinabeg, with a registered population of 2671 people, 1489 of whom are on reserve, is situated about 130km north of Hull/Ottawa and adjacent to the town of Maniwaki, Quebec. Its water problems date back to 1999. There are two separate issues relating to water with this community. Some of the residents are connected to the community distribution system of the Municipality of Maniwaki through a municipal service agreement. The municipal system draws water from surface water, and had issues with treating for some parameters, notably trihalomethane. The Municipality of Maniwaki started recent upgrades on their system on August 30, 2006, to address their treatment issues and anticipates completing the upgrades in December 2007. The remaining residents of Kitigan Zibi Anishinabeg are on individual wells and have been on a Drinking Water Advisory since 1999 due to an unacceptable level of uranium in the groundwater. This year, an evaluation of possible technical solutions for treatment directly at the wells found that current technologies are not viable as they result in unacceptable levels of radon gas. Therefore, as a long-term solution, the department will slowly expand the distribution system connected to the system of the Municipality of Maniwaki to eventually include as many of the residents currently on individual wells as possible over the next few years. It is expected that until this long-term process is complete, the Drinking Water Advisory will stay in place for those residents still on individual wells. In the meantime, residents on individual wells are provided with bottled water for drinking.

Ontario

Shoal Lake

Community of Shoal Lake, with a registered population of 526 people, 254 of whom are on reserve, is situated near Kejick, Ontario. Its water problems date back to December 6, 2000 when a Drinking Water Advisory was put in place due to equipment malfunction resulting in inadequate chlorination. This year, an evaluation of the existing facilities found that there have been problems with consistent operations dating back to 2000. Work started on May 5, 2003, when a project was initiated to construct a new water treatment plant which will meet current regulations. Design is expected to be complete by October 2007, followed by construction. Negotiations are currently underway between the Department and the First Nation for acquiring certified oversight of the water operations. It is expected that the implementation of certified oversight will result in a lower risk ranking.

Constance Lake

Community of Constance Lake, with a registered population of 1449 people, 711 of whom are on reserve, is situated about 40 km northwest of Hearst, Ontario. Its water problems date back to November 18, 2005 when a Drinking Water Advisory was put in place due to equipment malfunction. This year, an evaluation of the plant found that the necessary operation and maintenance work was not being done. Work started in May 2006 when a contract with the Ontario Clean Water Agency was signed to provide certified oversight. The Drinking Water Advisory was lifted July 2006. An analysis to lower risk ranking was completed on November 9, 2006.

Moose Deer Point

Community of Moose Deer Point, with a registered population of 449 people, 143 of whom are on reserve, is situated on the O'Donnell Point peninsula in Georgian Bay in the north of Muskoka, Ontario. Its water problems date back to 1998 when a Drinking Water Advisory was put in place due to significant deterioration in the source water quality as well as inadequate chlorination. This year, an evaluation of the system found that the necessary operation and maintenance work was not being done. It also found that the pump houses were substandard. Work to modify the pump houses started in November 2006 and is expected to be completed in April 2007; bottled water is being supplied until these interim upgrades are completed. Also, certified oversight is scheduled to be in place by December 31, 2006. It is expected that the Drinking Water Advisory will continue until the water system is fully compliant with the current drinking water regulations and standards. This new system is expected to be completed in 2009/2010.

Northwest Angle No. 37

Community of Northwest Angle No. 37, with a registered population of 336 people, 153 of whom are on reserve, is situated southeast of Kenora, Ontario. Its water problems date back to 2002 when a Drinking Water Advisory was put in place due to inadequate chlorination. This year, an evaluation of the system found that the chlorinator was malfunctioning. It also found a problem with the operation and maintenance work. Work started on July 4, 2004 and will continue to November 30, 2008. So far, a project proposal has been submitted and reviewed. A certified oversight operator is scheduled to be in place by December 31, 2006. It is expected that certified oversight will result in a lower risk ranking and the removal of the Drinking Water Advisory.

Ochiichagwe'babigo-ining

Community of Ochiichagwe'babigo-ining, with a registered population of 329 people, 109 of whom are on reserve, is situated north of Kenora, Ontario. Its water problems date back to 2004 when a Drinking Water Advisory was put in place due to equipment malfunction. Work started in 2002 and continues to the present date. So far, a new water treatment plant has been constructed with commissioning in Oct/Nov 2006. The Drinking Water Advisory was lifted back in March, but was reinstated on September 9, 2006. This second Drinking Water Advisory was precautionary due to disruption of chlorination during commissioning of the new plant. Certified operational oversight is in place. It is expected that the new treatment facilities and certified oversight will result in a lower risk ranking.

Kingfisher

Community of Kingfisher, with a registered population of 461 people, 429 of whom are on reserve, is situated about 500 km north of Thunder Bay, Ontario. Its water problems date back to 2004 when a Drinking Water Advisory was put in place due to equipment malfunction which resulted in inadequate chlorination. An evaluation of the water system found that the necessary operation and maintenance work was not being done. Work started on August 9, 2005 and continues to this day with construction scheduled for early spring 2007. Certified oversight is scheduled to be in place by December 31, 2006. It is expected that certified oversight will result in a lower risk ranking and the removal of the Drinking Water Advisory.

Muskrat Dam Lake

Community of Muskrat Dam Lake, with a registered population of 367 people, 213 of whom are on reserve, is situated in the Sioux Lookout District of Northwestern Ontario on the western shore of the Severn River. Its water problems date back to 2003 when a Drinking Water Advisory was put in place due to inadequate chlorination and a high turbidity. This year, an evaluation of the system found that the necessary operation and maintenance work was not being done. Work started immediately and continues to the present date. During this period, Indian and Northern Affairs Canada has been working closely with the First Nation on the construction of a piped sewer and water system that will result in having all of the community on piped system. In addition to the servicing project, a diesel station upgrade project is underway to ensure the provision of a safe and reliable electrical supply. A certified operator, who would be responsible for the overall maintenance and operation work, is expected to be in place in January 2007. It is expected that certified oversight will result in a lower risk ranking and the removal of the Drinking Water Advisory.

Wabigoon Lake Ojibway

Community of Wabigoon Lake Ojibway, with a registered population of 530 people, 153 of whom are on reserve, is situated east of Dryden, Ontario. Its water problems date back to September 2005 when a Drinking Water Advisory was due to equipment malfunction resulting in inadequate chlorination as well as a high turbidity. An evaluation of the system found that the necessary operation and maintenance work was not being done. Work started October 2005 and continues to the present date. The Drinking Water Advisory was lifted in July 2006. Negotiations are currently underway between the Department and the First Nation for acquiring certified oversight of the water operations. It is expected that the implementation of certified oversight will result in a lower risk ranking.

Alberta

Dene Tha'

Community of Dene Tha', with a registered population of 2493 people, 1799 of whom are on reserve, is situated 812 km northwest of Edmonton, Alberta. Its water problems date back to 2005 when Drinking Water Advisories were put in place at two sites, Chateh, and Bushe River, due to unacceptable turbidity. This year, an evaluation of the system found that there were upgrades required to the plant and that the operators required training and certification. Work on the problem was started immediately after the Drinking Water Advisory was issued. A raw water reservoir expansion was approved for 2004/05 to increase raw water storage and improve raw water quality. The Raw Water Expansion project is now complete and the new reservoir is being filled. The Drinking Water Advisory in Chateh was lifted week of November 12, 2006. Operators are actively participating in the Circuit Rider Training Program and the record keeping has significantly improved. A Feasibility/Assessment was completed on the plant and reviews are now being undertaken to determine the long term requirements. The Drinking Water Advisory on the Bushe River Reserves has been lifted with the replacement of the cisterns and acceptable test results.

Driftpile

Community of Driftpile, with a registered population of 2232 people, 778 of whom are on reserve, is situated about 300km northwest of Edmonton, Alberta. Its current water problems date back to May 2005 when a Drinking Water Advisory was put in place due

to unacceptable turbidity levels in the water distribution system. Work was started on improvements to the system in 2001/02 with the addition of a second slow sand filter. As part of the project a total assessment was done of the community supply to look at issues of quantity and quality. Upon completion of the assessment a new replacement water treatment plant was approved. The plant was opened October 11, 2006 and the Drinking Water Advisory was immediately lifted. Currently the First Nation is looking to partner with 2 other First Nations to recruit an oversight operator until they have a fully certified operator.

Frog Lake

Community of Frog Lake, with a registered population of 2409 people, 1415 of whom are on reserve, is situated about 245km east of Edmonton, Alberta. Its water problems date back to July 2005 when a Drinking Water Advisory was put in place due to equipment malfunction which resulted in inadequate chlorination. This year, an evaluation of the system found that plant repairs were required and that there were problems with the operation and maintenance work. Work began immediately. So far, repairs to the plant were undertaken, including the replacement of the water line intake pipe and intake screen. The Department met with the First Nation and a consultant on November, 2006 and received a revised scope of immediate repairs. Approval was given for the consultant to co-ordinate the outstanding work and the work is now underway. Operators are now actively participating in the Circuit Rider Program and record keeping is improving. It is expected that the Drinking Water Advisory will be lifted December 15, 2006. Additional work to let the system reach the intended capacity it was original designed for will be completed in February 2007.

British Columbia

Semiahmoo

Community of Semiahmoo, with a registered population of 77 people, 48 of whom are on reserve, is situated about 15km south of Surrey, British Columbia. Its water problems date back to October 2005 when the Drinking Water Advisory was put in place due to unacceptable microbiological quality. This year, an evaluation of the situation found that a chlorination system was needed. It also found that the First Nation had permitted some businesses and homes to connect to the water system without being issued a permit or being inspected, creating a potential source of cross contamination. Work started in January 2006 and will continue to March 31, 2007. It is expected that the Drinking Water Advisory will stay in place until the issue of the

unauthorized connections is resolved. The Department is working to engage the First Nation to address the issues.

Shuswap

Community of Shuswap, with a registered population of 230 people, 72 of whom are on reserve, is situated near Invermere, British Columbia. Its water problems date back to 2001 when the Drinking Water Advisory was put in place due to inadequate chlorination. This year, an evaluation of the system found that the operator was uncertified and that the wells had been disconnected so the First Nation could draw water from another water source, which was untreated. Work started on July 26, 2006 and was completed September 27th 2006. The wells have been reconnected and the operator has been trained and certified. As a result, on November 9, 2006, the Drinking Water Advisory was lifted.

Toqhaht

Community of Toquaht, with a registered population of 118 people, 10 of whom are on reserve, is situated near Ucluet, British Columbia. Its water problems date back to 2002 when the Drinking Water Advisory was put in place due to inadequate chlorination and operational issues. This year, an evaluation of the operation of the system found problems with the operation and maintenance work, no chlorination and that a new water source was required. Work started on January 2006 and is expected to continue until January 2008. So far, bottled water is being provided to the residents, operators have been trained and certified, and chlorination is occurring. Drilling for a new ground water source was completed in November 2006, although the water quality analysis is still on-going. It is expected that the Drinking Water Advisory will remain in effect until the new water source is completed and a treatment system installed.

Canoe Creek

Community of Canoe Creek, with a registered population of 662 people, 120 of whom are on reserve, is situated southwest of Williams Lake on the east shore of the Fraser River in British Columbia. Its water problems date back to 1999 when the Drinking Water Advisory was put in place due to inadequate chlorination and operational issues. This year, an evaluation of the operation of the system found that there was no disinfection and problems with the operation and maintenance work. Work started on June 1st 1998 and continues to December 2007. So far, a plant upgrade is underway which will address the issue of disinfection. It is expected that the Drinking Water Advisory will be lifted in December 2007 once the upgrades are complete.

Lake Babine Nation – Community of Fort Babine

Community of Fort Babine, is one of three Lake Babine Nation communities with a total registered population of 2200 people, 250 of whom are on Fort Babine reserve, is situated 100km north of Smithers, British Columbia. Its water problems date back to 1999 when the Drinking Water Advisory was put in place due to inadequate chlorination and operational issues. So far, bottled water is being provided to the residents. This year, an evaluation of the plant found that the necessary repair work was not completed. Work on this system started in 1999 and continues to March 2007. So far, repairs are ongoing and the operator has been certified. It is expected that the Drinking Water Advisory will be lifted once repair work, testing, and commissioning of the treatment plant has been completed.

Toosey

Community of Toosey, with a registered population of 276 people, 141 of whom are on reserve, is situated about 200km south of Prince George, British Columbia. Its water problems date back to 2004 when the Drinking Water Advisory was put in place due to unacceptable microbiological quality and operational issues. This year, an evaluation of the operation of the system found that the necessary operation and maintenance work was not being done. Work started on December 2005 and continues to December 2007. So far, minor repairs have been completed and water source protection measures have been taken. The Department will continue to engage the First Nation to address the issues

Yukon Office

Taku River Tlingit

Community of Taku River Tlingit, with a registered population of 372 people, 83 of whom are on reserve, is situated in northern British Columbia. Taku River Tlingit has two water systems, one adjacent to the town of Atlin, British Columbia, and the other is a bulk water fill system. Its water problems date back to January 2006 when a Drinking Water Advisory was put in place due to an increase in turbidity. This year, a study on the turbidity level found that the increase was due to work being done to replace a circulating pump in the system. The replacement of the pump led to the discovery of some corroded galvanized piping in the water treatment plant. Work to replace the affected pipes was completed in March 2006 and the system was flushed. The turbidity

of the water has improved since the galvanized piping was replaced resulting in the lifting of the Drinking Water Advisory on April 18, 2006. Pre-design reports for an upgrade to the system and for improvements of the existing water supply and delivery systems have been completed for both water systems. It is expected that the final design will be reviewed through the winter of 2006/2007 with construction beginning in the spring of 2007.

Appendix B
Summary of Action Plans for High-Risk Systems and Drinking Water Advisories

Statistics:
- There are 114 High-Risk community water systems, located in 100 First Nations.
- There are 68 community water systems with Drinking Water Advisories, located in 65 First Nations.
- There are a total of 148 Action Plans for community water systems, located in 133 First Nations.
- Of these action plans:
  - 102 required system upgrades, 15 upgrades are complete
  - 17 required additional operator training, 9 have been given additional training
  - 55 required operational oversight, 2 now have operational oversight
- The systems in Bold represent the 21 priority communities
- Risk rating is on a scale of 1 to 10
  - 1 to 4 is low
  - 5 to 7 is medium
  - 8 to 10 is high

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
ATLANTIC	Burnt Church	8	None	Inadequate operation and maintenance (lack of chlorination); operator not suitably trained or certified.	Operators achieved suitable certification in November 2006, resulting in improvements to the operation and maintenance and regular chlorination. A new Risk Assessment is to be completed.	FEB-2007
ATLANTIC	Kingsclear	8	None	System does not meet standards; operator not suitably trained or certified.	Work on the chlorination equipment is complete. Operators received suitable certification in November 2006. A new Risk Assessment is to be completed.	JAN-2007
ATLANTIC	**Pabineau**	**9**	**JUN-01-2005**	**Source water deficiencies; system does not meet standards; DWA.**	**Installation of treatment systems at individual homes; design completed for the connection to the City of Bathurst.**	**MAR-2007**
ATLANTIC	Pictou Landing	8	None	Additional water source required; system does not meet standards; unacceptable microbiological quality; operator not suitably trained or certified.	Construction of a new pumphouse and water reservoir; installation of a back up distribution feed pump. The operator has been certified. A new Risk Assessment is to be completed.	DEC-2006

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
ATLANTIC	Tobique	8	None	System does not meet standards; operator not suitably trained or certified.	Upgrades to the pumphouse. Oversight is to be put in place.	MAR-2007
ATLANTIC	Waycobah First Nation	8	None	System does not meet standards; unacceptable microbiological quality; operator not suitably trained or certified.	System improvements--Chlorinators were installed and the water system currently being chlorinated. The operator achieved certification in November 2006. A new Risk Assessment is to be completed.	JAN-2007
ATLANTIC	**Woodstock**	**5**	**MAR-01-2005**	**System does not meet standards; DWA.**	**Construction of an in-ground water storage reservoir and pumphouse (Aug 2006); looping of the system; connection of two buildings to the system.**	**MAR-2007**
QUEBEC	**Kitigan Zibi Anishinabeg**	**8**	**MAY-04-2004**	**Source water deficiencies: uranium in individual wells; system does not meet standards; DWA**	**Feasibility study underway for alternate water source, or for a hook up to a neighbouring community.**	**long-term**
QUEBEC	Montagnais de Unamen Shipu	8	None	System does not meet standards.	Construction of a new system is planned for the Spring of 2007.	summer 2007
QUEBEC	Montagnais du Lac St.-Jean	8	None	System does not meet standards.	Construction of new system is completed (operators have been trained for the new system). We are reevaluating the system before dropping the risk level.	AUG-2006; re-evaluating to confirm
ONTARIO	Anishinabe of Wauzhushk Onigum	9	MAR-2003	System does not meet standards; DWA.	Construction of new plant completed by 2007. Oversight to be put in place.	DEC-2007
ONTARIO	Bearskin Lake	8	MAR-2006	System does not meet standards; inadequate operation and maintenance; DWA.	Design of new system underway with construction having begun Sept 2006. Oversight to be put in place.	JAN-2007
ONTARIO	Biinjitiwaabik Zaaging Anishinaabek	8	None	System does not meet standards.	Design of new system underway, construction to begin in 2006. Oversight to be put in place.	
ONTARIO	Cat Lake	3	AUG-2006	System does not meet standards; inadequate operation and maintenance; DWA.	DWA in effect as system was undergoing major upgrades. Oversight to be put in place.	
ONTARIO	Chippewas of Nawash First Nation	8	None	System does not meet standards; inadequate operation and maintenance.	System being upgraded to meet standards.	DEC-2007

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
ONTARIO	**Constance Lake**	**9**	**None**	**System does not meet standards; operator not suitably trained or certified.**	**Feasibility study underway to replace plant. Oversight to be put in place.**	**MAY-2006 (when OCWA was hired)**
ONTARIO	Curve Lake	8	None	System does not meet standards; inadequate operation and maintenance.	Upgrades to the system. Oversight to be put in place.	DEC-2006
ONTARIO	Deer Lake	5	NOV-2001	System does not meet standards; DWA.	First Nation advised to haul water from source not under DWA by truck. Meanwhile, an assessment of the faulty systems is underway, to be completed Jan 2007.	still in study phase
ONTARIO	Eabametoong First Nation	7	AUG-2001	System does not meet standards; DWA.	System was flushed, and merely waiting for sampling results to remove DWA. Also, assessment of system underway and to be completed Jan 2007	still in study phase
ONTARIO	Eagle Lake	6	SEP-2002	Inadequate operation and maintenance; DWA.	Oversight to be put in place.	DEC-2006
ONTARIO	Gull Bay	8	None	System does not meet standards; inadequate operation and maintenance.	Upgrades to be done on the system. Oversight is to be put in place.	
ONTARIO	Henvey Inlet First Nation	10	None	System does not meet standards; inadequate operation and maintenance; operator not suitably trained or certified.	Construction of new system began Sept 2006. Operator to be trained.	JUN-07-2007
ONTARIO	Kee-Way-Win	9	AUG-2005	System does not meet standards; DWA.	Construction of new plant to begin Nov 2006.	
ONTARIO	**Kingfisher**	**8**	**OCT-2004**	**System does not meet standards; inadequate operation and maintenance; DWA.**	**Construction of new plant, to be completed by 2007/08. Oversight to be put in place.**	**MAR-2008**
ONTARIO	Kitchenuhmaykoosib Inninuwug	5	NOV-2005	System does not meet standards; DWA.	Assessment of system underway and is to be completed JAN-2007.	still in study phase
ONTARIO	Lac Seul	8	OCT-2002	System does not meet standards; inadequate operation and maintenance; DWA.	Interim repairs to be done to resolve DWA. A new plant is to be designed and constructed for longer term.	interim by DEC-2006
ONTARIO	Martin Falls	7	JUL-2005	System does not meet standards; DWA.	The Engineering Assessment of the Water System has been completed. The scope and costs of remedial works are being refined and work is expected to be completed by April 2007.	APR-2007

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
ONTARIO	Mattagami	8	None	System does not meet standards.	Currently designing new plant to be constructed.	still in design phase
ONTARIO	Mishkeegogamang	6	APR-2002	System does not meet standards; inadequate operation and maintenance; DWA.	Assessment of system underway and is to be completed JAN-2007. Oversight is to be put in place.	DEC-2006
ONTARIO	Mohawks of the Bay of Quinte	8	OCT-2003	DWA; system does not meet standards: unauthorized connection done by First Nation to a system designed for fire flow, not drinking water.	INAC has advised the Chief and Council to disconnect residents from that system and is working with the First Nation to connect those particular residents to a proper community system.	
ONTARIO	**Moose Deer Point**	**9**	**JAN-1998**	**System does not meet standards; inadequate operation and maintenance; DWA.**	**Design is underway for a new system. Construction should be completed by 2009/2010.**	**2009/2010**
ONTARIO	**Muskrat Dam Lake**	**8**	**OCT-2003**	**System does not meet standards; inadequate operation and maintenance; DWA.**	**Repairs to the system underway. Oversight and plant ungrades to start January 2007.**	**JAN-2008**
ONTARIO	Naotkamegwanning	5	AUG-2006	System does not meet standards; DWA.	A Servicing Study is underway and is expected to be completed by February 2007.	FEB-2007
ONTARIO	Neskantaga First Nation	6	FEB-1995	System does not meet standards; DWA.	Assessment of system underway and is to be completed JAN-2007.	still in study phase
ONTARIO	Nipissing First Nation	8	None	System does not meet standards.	Upgrades are underway.	MAR-2007
ONTARIO	North Spirit Lake	9	AUG-2001	Inadequate operation and maintenance; DWA.	Oversight is to be put in place.	DEC-2006
ONTARIO	Northwest Angle No.33	9	OCT-2000	System does not meet standards in the communities of Angle Inlet and Whitefish Bay; DWA.	New systems will be built for communities of Angle Inlet and Whitefish Bay.	OCT-2010
ONTARIO	Northwest Angle No.33	8	Oct 2000	Inadequate filtration system for surface water source in two of their communities: Angle Inlet and Whitefish Bay	New systems will be built for communities of Angle Inlet and Whitefish Bay	OCT-2010
ONTARIO	**Northwest Angle No.37**	**9**	**SEP-2002**	**System does not meet standards; inadequate operation and maintenance; DWA.**	**A new plant is to be designed and constructed by 2008/09. Oversight is to be put in place.**	**MAR-2009**
ONTARIO	Obashkaandagaang	9	None	Operator not suitably tained or certified; inadequate operation and maintenance: residual chlorine not being maintained.	New chlorinators will be installed, and the operator will be trained in their use. Oversight is to be put in place.	DEC-2006

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
ONTARIO	**Ochiichagwe'babigo'ining First Nation**	**9**	**SEP-2006**	**System does not meet standards; inadequate operation and maintenance; DWA.**	**New plant completed in OCT-2006. Oversight is to be put in place.**	**DEC-2006**
ONTARIO	Pikangikum	6	OCT-2005	System does not meet standards; DWA.	Assessment of system underway and is to be completed JAN-2007.	still in study phase
ONTARIO	Poplar Hill	8	JUL-2006	Operator not suitably trained or certified; inadequate operation and maintenance; DWA.	Oversight is to be put in place.	DEC-2006
ONTARIO	Sandy Lake	7	OCT-2002	System does not meet standards; inadequate operation and maintenance; DWA.	Upgrade of system is underway. Oversight is to be put in place.	MAR-2007
ONTARIO	Serpent River	8	None	System does not meet standards.	Upgrade of system underway.	DEC-2006
ONTARIO	Serpent River	8	None	Treated water frequently does not meet standards. No chemically assisted filtration or equivalent.	Upgrade of system underway	DEC-2006
ONTARIO	**Shoal Lake No.40**	**10**	**DEC-2000**	**System does not meet standards; inadequate operation and maintenance; DWA.**	**Design and build new consolidated system. Oversight is to be put in place.**	**still in design phase**
ONTARIO	Slate Falls Nation	9	JUL-2004	System does not meet standards; DWA.	Study underway for building a new system.	still in study phase
ONTARIO	Taykwa Tagamou Nation	8	NOV-2005	System does not meet standards; inadequate operation and maintenance; operator is not suitably trained or certified; DWA.	System will be upgraded to meet standards. Operator will become certified.	DEC-2006
ONTARIO	**Wabigoon Lake Ojibway Nation**	**8**	**None**	**Inadequate operation and maintenance.**	**Oversight is to be put in place.**	**DEC-2006**
ONTARIO	Wahta Mohawk	9	None	Inadequate operation and maintenance.	Bottled water is being brought in for drinking.	
ONTARIO	Wasauksing First Nation	10	FEB-2002	School Bus Turnaround has a small system pumphouse that does not meet standards: serves 6 houses; operator not suitably trained or certified; DWA.	Design is underway for a new system. Operator training will improve.	Project proposal expected in the new year
ONTARIO	Wawakapewin	8	MAR-2004	System does not meet standards; DWA.	Study underway for upgrades to the system.	still in study phase
ONTARIO	Webequie	6	JUN-2003	System does not meet standards; DWA.	Upgrade of servicing underway.	MAR-2008
ONTARIO	Weenusk	7	FEB-2006	Inadequate operation and maintenance; DWA.	Oversight is to be put in place.	DEC-2006

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
ONTARIO	Zhiibaahaasing First Nation	8	None	System does not meet standards: lack of filtration. Community does not have a distribution network so residents are using cisterns.	First Nation should continue to truck water from Sheshegwaning. Water feasibility study to be completed for the community.	feasibility study completed Spring 2007
SASK.	Clearwater River Dene	4	APR-24-2006	DWA issued for bottle fill at plant due to uncontrolled water distribution method (i.e., water bottles).	DWA will be rescinded once the First Nation provides piped water distribution system and third-party tests show chlorine residuals are being consistently maintained to an acceptable level.	OCT-2007
SASK.	Peepeekisis	4	MAR-08-2005	DWA issued for entire community water distribution system due to unacceptable chlorine residuals and plant operations.	DWA will be rescinded once First Nation installs flush-outs on small diameter water mains, improves plant operations and third-party tests show chlorine residuals are being consistently maintained to an acceptable level.	OCT-2007
SASK.	Poundmaker	4	SEP-18-2003	DWA issued for Court House water distribution system (excludes School water distribution system) due to unacceptable chlorine residuals and plant operation.	DWA will be rescinded once First Nation improves plant operations and third-party tests show chlorine residuals are being consistently maintained to an acceptable level.	OCT-2007
SASK.	Red Earth	4	APR-20-2006	DWA originally issued for entire community after flood evacuation (as a precaution) and maintained due to unacceptable turbidity levels.	DWA will be rescinded once First Nation makes adjustments to treatment process to reduce unacceptable turbidity levels and third-party tests show turbidity levels are being consistently maintained to an acceptable level.	OCT-2007
SASK.	Shoal Lake Cree Nation	5	JUL-06-2006	DWA issued for entire community due to unacceptable turbidity levels	DWA will be rescinded once First Nation makes adjustments to treatment process to reduce unacceptable turbidity levels and third-party tests show turbidity levels and chlorine residuals are being consistently maintained to an acceptable level.	OCT-2007

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
SASK.	Standing Buffalo	4	OCT-19	DWA issued for water distribution system (east main) serving Lakeview Lodge and houses (40) due to unacceptable chlorine residuals.	DWA will be rescinded once the First Nation flushes water distribution system (east main) and third-party tests show chlorine residuals are being consistently maintained to an acceptable level.	OCT-2007
SASK.	Sweetgrass	4	JAN-15-2002	DWA in effect for remaining 3 houses on low pressure water distribution system with in-house cisterns due to unacceptable chlorine residuals.	DWA will be rescinded once First Nation completes by-passes for 3 remaining in-house cisterns and third-party tests show chlorine residuals is being consistently maintained to an acceptable level.	OCT-2007
ALBERTA	Alexis Nakota Sioux Nation	6	AUG-14-2006	Unacceptable microbiological quality; DWA.	Require shock chlorination.	DEC-15-2006
ALBERTA	Blood	5	MAR-23-2006	Equipment malfunction; inadequate disinfection; unacceptable microbiological quality; inadequate operation and maintenance	Require shock chlorination and well head protection. Requesting plan from FN.	
ALBERTA	Chiniki	4	OCT-20-2006 and OCT-20-2006 and OCT-29-2006	Unacceptable microbiological quality: DWA.	Shock chlorination	DWA on arena lifted OCT-31-2006
ALBERTA	**Dene Tha'**	**8**	**None (lifted NOV-2006)**	**System does not meet standards;operator is not suitably certified; source water subject to oil contamination.**	**Initial plant upgrades complete (Nov 2006), although more will be required to meet future demands. Oversight will be provided until operator is fully certified. A new Risk Assessment is to be completed.**	**NOV-12-2006**
ALBERTA	**Driftpile First Nation**	**8**	**None**	**System does not meet standards; inadequate operation and maintenance; no operator.**	**New water plant installed (Oct 2006); operator hired and in training; operator being recruited to provide oversight.**	

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
ALBERTA	**Frog Lake**	**8**	**JUL-14-2005**	**System does not meet standards, inadequate operation and maintenance; sourcewater subject to oil/gas contamination.**	**Main plant upgrade complete. Upgrades and minor repairs to be done for school water system and community pipes. Improvements are still required in the following areas: operator training; operation and maintenance practices.**	**FEB-2007**
ALBERTA	Kehewin Cree Nation	8	JUN-02-2006 and JUN-13-2006	System does not meet standards; unacceptable microbiological quality; inadequate operation and maintenance; operator not suitably trained or certified; DWA.	Emergency upgrades to system complete but more extensive upgrades required. Operator to receive additional training. A new evaluation and Risk Assessment is to be completed.	FEB-2007, with new analysis done MAR-2007
ALBERTA	Little Red River Cree Nation	8	None	System does not meet standards; inadequate operation and maintenance.	Operators have been hired and are being trained; Minor upgrades have been made, while options for further improvement are being examined.	still in study phase
ALBERTA	Little Red River Cree Nation	8	None	System does not meet standards; inadequate operation and maintenance.	Upgrades and repairs to system; Operator has been trained and certified; Oversight is to be put in place.	MAR-31-2007
ALBERTA	O'Chiese	8	None	System does not meet standards; inadequate operation and maintenance; no operator.	working on finding a suitable operator	unknown
ALBERTA	Samson	8	None	Innadequate sourcewater protection; system does not meet standards; no operator.	System upgrades completed; operators are being trained; Study being done on alternative water source; a new Risk Assessment is to be completed.	OCT-2007
ALBERTA	Sunchild First Nation	6	JUL-21-2005	Unacceptable microbiological quality; DWA.	Shock Chlorination, well rehabilitation or shut down. FN requested either action to remediate or protocol for drinking water	Unknown.
ALBERTA	Tsuu T'Ina Nation	7	OCT-10-2006	Unacceptable microbiological quality; DWA.	Assessment for source of contamination	still in study phase
ALBERTA	Whitefish Lake #128	9	None	System does not meet standards; inadequate operation and maintenance; operator not suitably trained or certified.	System upgrades completed. Operators are being trained and operation and maintenance has improved. A new Risk Assessment is to be completed.	Unknown

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
BRITISH COLUMBIA	Ahousaht	8	None	Reporting and plant operation and maintenance needs improvement.	Oversight is required. Review of plant remote monitoring system and reporting required.	Feasibility and Oversight 2007
BRITISH COLUMBIA	Alexandria	10	None	Source water deficiencies; system does not meet standards; inadequate operation and maintenance.	New drinking water supply; construction of new system. Oversight is to be put in place.	MAR-2009
BRITISH COLUMBIA	Alexis Creek	3	OCT-2003	System does not meet standards.	Band is attempting to create a subdivision that can receive INAC funds.	MAR-2009
BRITISH COLUMBIA	Ashcroft	9	None	Source water deficiencies; inadequate disinfection.	New water system in preliminary design stage.	SEP-2008
BRITISH COLUMBIA	Blueberry River First Nations	8	None	System does not meet standards; inadequate operation and maintenance.	Department will initiate a feasibility stage project before January 2007. Oversight is to be put in place.	MAR-2009
BRITISH COLUMBIA	Bonaparte	8	None	System does not meet standards; inadequate operation and maintenance.	Due to management issues within the First Nation, INAC may have to intervene directly.	Unknown
BRITISH COLUMBIA	Boothroyd	8	None	System does not meet standards	Complete feasibility and design then implement infrastructure improvements.	AUG-2009
BRITISH COLUMBIA	Bridge River	10	None	Source water deficiencies; system does not meet standards; inadequate operation and maintenance.	New water supply and/or upgrades to the system. In feasibility stage.	DEC-2008
BRITISH COLUMBIA	Bridge River	10	None	See Main Village system above.	NA	DEC-2008
BRITISH COLUMBIA	**Canoe Creek**	**8**	**MAR-1999**	**System does not meet standards; source water deficiencies; DWA.**	**Design to upgrade system under review. Construction anticipated for 2007.**	**MAR-2008**
BRITISH COLUMBIA	Cayoose Creek	8	None	System does not meet standards; inadequate operation and maintenance.	Water system upgrade is in design phase.	MAR-2009
BRITISH COLUMBIA	Cayoose Creek	10	None	Inadequate O&M procedures, no disinfection. Source water subject to contamination.	Water system upgrade feasibility study expected to start in 2007.	DEC-2008
BRITISH COLUMBIA	Cheam	8	None	Inadequate operation and maintenance	Trained operator required.	DEC-2007

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
BRITISH COLUMBIA	Cowichan	8	None	System does not meet standards; inadequate operation and maintenance.	Possibly connect to the City of Duncan supply line for water supply. Oversight is to be put in place.	MAR-2008
BRITISH COLUMBIA	Cowichan	8	None	Water source is from a shallow well which services 4 houses. Ground water is subject to contamination. No disinfection.	Possibly connect to City of Duncan supply line. Oversight required.	DEC-2008
BRITISH COLUMBIA	Doig River	8	None	Operator not suitably trained or certified.	Oversight is to be put in place.	SEP-2007
BRITISH COLUMBIA	Douglas	9	None	Source water deficiencies; system does not meet standards; inadequate operation and maintenance.	A new well, pump house and disinfection system is required. Oversight is to be put in place.	Construction completed 2006. Oversight still required.
BRITISH COLUMBIA	Douglas	8	None	No disinfection, unprotected wellhead. Inadequate O&M procedures.	Study of the existing water supply underway possibly GUDI.	Feasibility MAR-2007. Construction MAR-2008
BRITISH COLUMBIA	Ehattesaht	10	JUN-2006	Source water deficiencies; system does not meet standards; DWA.	Feasibility study funded for groundwater investigation as an alternate water source.	MAR-2009
BRITISH COLUMBIA	Esketemc	5	OCT-2004	Source water deficiencies; system does not meet standards; DWA.	Design of treatment and disinfection system.	DEC-2008
BRITISH COLUMBIA	Halfway River First Nation	8	None	System does not meet standards; inadequate operation and maintenance.	Feasibility study underway for system upgrades. Oversight is to be put in place.	MAR-2009
BRITISH COLUMBIA	Iskut	8	None	System does not meet standards; inadequate operation and maintenance.	Water system upgrade. Oversight is to be put in place.	SEP-2008
BRITISH COLUMBIA	Ka:'yu:'k't'h'/Che:k:tles7et'h' First Nations	8	None	System does not meet standards; inadequate operation and maintenance.	Design and installation of a chlorination system completed. Oversight is to be put in place.	Construction completion NOV-2007
BRITISH COLUMBIA	Kluskus	10	None	System does not meet standards; inadequate operation and maintenance.	New access road to existing remote community will allow equipment and material delivery for water system improvements. Oversight is to be put in place.	DW system design 07/08, Construction MAR-2009.
BRITISH COLUMBIA	Kwadacha	8	None	System does not meet standards; no operator.	INAC will meet with Band winter 2007 to initiate project. Oversight is to be put in place.	MAR-2009

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
BRITISH COLUMBIA	Kwakiutl	4	AUG-2006	System does not meet standards for fire flow, and some homes that are not connected to system have wells subject to contamination.	System requires extension of the watermain to the eastern extremities to service 25 houses. Feasibility Study to address fire flows.	Design completion FEB-2007; Construction MAR-2008
BRITISH COLUMBIA	Kwicksutaineuk-ah-kwaw-ah-mish	10	None	System does not meet standards; operator not suitably trained or certified.	Band has drilled a new well with good yields- to be connected by March 2007. New water treatment system has been tendered for construction Oct 2006.	MAR-2007
BRITISH COLUMBIA	**Lake Babine Nation**	**8**	**SEP-1999**	**System does not meet standards; DWA.**	**Construction of new system completed. Testing and commission of the treatment plant by March 2007.**	**MAR-2007**
BRITISH COLUMBIA	Lheidli T'enneh	8	None	Source water deficiencies; system does not meet standards.	INAC may have to intervene directly. Oversight to be put in place.	DEC-2008
BRITISH COLUMBIA	Little Shuswap Lake	8	None	No disinfection, no treatment and water source is at risk of contamination due to animal activity.	System will be replaced by extension of the community water distributing main currently in design.	DEC-2008
BRITISH COLUMBIA	Little Shuswap Lake	8	None	No disinfection and water source is subject to contamination.	Feasibility to study water source and provide appropriate treatment scheduled to commence Jan 2007.	MAR-2009
BRITISH COLUMBIA	Mount Currie	8	None	System does not meet standards; inadequate operation and maintenance.	Design of possible treatment and disinfection facility required.	MAR-2008
BRITISH COLUMBIA	Nadleh Whuten	5	JUN-2004	System does not meet standards; DWA.	Upgrades required. Completion of construction is expected by Winter 2007	DEC-2007
BRITISH COLUMBIA	Nanoose First Nation	8	None	Source water deficiencies; system does not meet standards.	Feasibility study completed. New well drilled & pump tested. FN consultant preparing pre-design design submission.	APR-2008
BRITISH COLUMBIA	Nazko	10	None	Source water deficiencies; system does not meet standards; inadequate operation and maintenance.	Completing feasibility in 2007. New system to be designed in 2008 and constructed by 2009. Oversight is to be put in place.	DEC-2009
BRITISH COLUMBIA	Nicomen	8	None	Inadequate operation and maintenance.	INAC will meet with Band to discuss reluctance to chlorinate and initiate improvements. Oversight is to be put in place.	DEC-2008

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
BRITISH COLUMBIA	Nisga'a Village of Gitwinksihlkw	8	None	Water source deficiencies.	Design scheduled in 2007 with construction of treatment plant by March 2009.	MAR-2009
BRITISH COLUMBIA	Nuchatlaht	9	SEP-2006	Source water deficiencies; system does not meet standards; DWA.	Existing well has been flow tested and a new pump has been installed. Possible treatment required.	DEC-2008
BRITISH COLUMBIA	Okanagan	5	SEP-2004	System does not meet standards; DWA.	Feasibility proposal being reviewed by INAC.	MAR-2009
BRITISH COLUMBIA	Oregon Jack Creek	8	None	System does not meet standards; no operator.	Intervention by INAC expected in winter 2007 to initiate feasibility study to evaluate water treatability. Oversight is to be put in place.	Design 2007, construction 2008.
BRITISH COLUMBIA	Oweekeno/Wuikinuxv Nation	8	None	System does not meet standards; inadequate operation and maintenance.	Review of control system issues required. Oversight is in place.	MAR-2008
BRITISH COLUMBIA	Pacheedaht First Nation	8	None	Source water deficiencies; system does not meet standards; inadequate operation and maintenance.	INAC will assist the First Nation to determine the feasibility of developing a new water source with the adjacent Capital Regional District. Oversight is to be put in place.	SEP-2008
BRITISH COLUMBIA	Red Bluff	10	None	Source water deficiencies; system does not meet standards.	Waiting for First Nation's submission of a feasibility stage proposal that will enable a Municipal Service Agreement connection to Quesnel. Expect connection in 2008.	SEP-2008
BRITISH COLUMBIA	Samahquam	8	None	System does not meet standards; inadequate operation and maintenance.	Source water analysis and treatability study needed. Oversight is to be put in place.	Design 2008, Construction 2009.
BRITISH COLUMBIA	Scowlitz	9	None	System does not meet standards; inadequate operation and maintenance.	Intervention by INAC expected in 2007 to identify treatment requirements. Oversight is to be put in place.	DEC-2008
BRITISH COLUMBIA	**Semiahmoo**	**9**	**OCT-2005**	**System does not meet standards; unacceptable microbiological quality; DWA.**	**Construction of chlorine station to be completed March 2007.**	**MAR-2007**
BRITISH COLUMBIA	Shackan	8	None	System does not meet standards.	Feasibility study is under review and design due to start 2007.	DEC-2008

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
BRITISH COLUMBIA	Shuswap	8	None	System does not meet standards: Homes now connected to the Kinbasket Water and Sewer Utility Company system. The utility does not hold a Provincial Permit to purvey water.	Utility should obtain permit to purvey water from Interior Health Authority.	NA
BRITISH COLUMBIA	**Shuswap**	**9**	**None**	**No disinfection, no filtration and source water prone to bacterial contamination.**	**Surface water source disconnected and ground water source re-instated. Treatment & disinfection system to be designed and constructed.**	**DEC-2008**
BRITISH COLUMBIA	Skatin Nations	8	None	System does not meet standards; inadequate operation and maintenance.	Develop a system based on the findings of the feasibility study. Oversight is to be put in place.	SEP-2008
BRITISH COLUMBIA	Skeetchestn	8	None	Additional water source required; system does not meet standards.	Expect feasibility submission in spring 2007	MAR-2009
BRITISH COLUMBIA	Skeetchestn	8	None	No chlorination, old controls and reservoir improvement needed.	Construction completed 2006.	MAR-2007
BRITISH COLUMBIA	Soda Creek	8	None	Inadequate operation and maintenance: issue with maintenance of chlorine residuals at end of system.	Oversight is to be put in place.	JUN-2007
BRITISH COLUMBIA	Soda Creek	10	None	Design problems. Inadequate O&M procedures.	Filters were resanded in 2006 but department will initiate a feasibility stage project before January 2007. Oversight program required.	MAR-2009
BRITISH COLUMBIA	Spuzzum	5	JUN-2003	System does not meet standards; inadequate operation and maintenance; DWA.	Intake improvements in design stage. Oversight is to be put in place.	Summer 2007
BRITISH COLUMBIA	Takla Lake First Nation	7	JUN-2004	Unacceptable microbiological quality; inadequate operation and maintenance; DWA.	Commissioning of treatment plant required. Scheduled for March 2007. DWA will be lifted once treatment plant formally commissioned.	MAR-2007
BRITISH COLUMBIA	Tl'azt'en Nation	8	JAN-2005/ APR-2006	System does not meet standards; inadequate operation and maintenance; DWA.	New system to be designed and constructed. Oversight to be put in place.	MAR-2009
BRITISH COLUMBIA	Tl'azt'en Nation	4	JAN-2005	System does not meet standards; inadequate operation and maintenance; DWA.	Exploration for alternate water source underway.	Design 2007, construction 2008.

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
BRITISH COLUMBIA	**Toosey**	**8**	**NOV-2004**	**System does not meet standards; inadequate operation and maintenance; DWA.**	**Well head protection improvements completed. First Nation has initiated a feasibility study. Oversight is to be put in place.**	**DEC-2008**
BRITISH COLUMBIA	**Toquaht**	**9**	**MAR-2002**	**System does not meet standards; inadequate operation and maintenance; unacceptable microbiological quality; DWA.**	**A new plant and water source is required. Feasibility of well exploration program underway. Oversight to be put in place.**	**Design summer 2007, Construction 2008.**
BRITISH COLUMBIA	Ts'kw'aylaxw First Nation	8	None	System does not meet standards.	Feasibility with well drilling started in 2005. Design to start 2007.	2008
BRITISH COLUMBIA	Uchucklesaht	8	None	Source water deficiencies; system does not meet standards.	Design of treatment system required.	Design 2007, Construction 2008.
BRITISH COLUMBIA	Ulkatcho	9	None	Source water deficiencies; inadequate operation and maintenance.	Old system decommissioned, and the community has been connected to IR#14 water system. Oversight is to be put in place.	Source water problem addressed.
BRITISH COLUMBIA	Ulkatcho	8	None	No infrastructure requirements. Issues are with operations.	Oversight required.	JUN-2007
BRITISH COLUMBIA	Whispering Pines/Clinton	8	None	System does not meet standards; inadequate operation and maintenance.	Connection to the adjacent system is proposed as soon as improvements to that system have been completed.	JUN-2009
BRITISH COLUMBIA	Whispering Pines/Clinton	8	None	No filtration, no chlorination. Inadequate O&M procedures.	Feasibility funded in 2006. Water system improvements to be implemented 08/09. Band has certified two operators.	MAR-2009
BRITISH COLUMBIA	Williams Lake	8	JUL-2006	Source water deficiencies; system does not meet standards; inadequate operation and maintenance; DWA.	Feasibility scheduled for completion in 2007.	JUN-2009
BRITISH COLUMBIA	Xaxli'p	8	None	System does not meet standards.	The First Nation is in the process of hiring a consultant to start feasibility.	JUN-2009
BRITISH COLUMBIA	Xeni Gwet'in First Nations Government	8	MAY-2001/ OCT-2001	Source water deficiencies; system does not meet standards.	Homes have been connected to another water source, and residual chlorination has been installed.	completed

REGION	BAND	RISK	DWA	MAIN ISSUE	REMEDIAL PLAN	ESTIMATED COMPLETION DATE
BRITISH COLUMBIA	Xeni Gwet'in First Nations Government	9	May 2001/ Oct 2001	DWA is due to significant deterioration in source water quality. No chlorination.	Homes have been connected to another water source, and a residual chlorination has been installed.	completed
YUKON	**Taku River Tlingit**	**8**	**None**	**System does not meet standards.**	**Upgrade and repair of treatment and distribution systems.**	**fall 2007**