SAFETY OF DRINKING WATER SUPPLYING OFF-RESERVE ABORIGINAL PEOPLES IN ONTARIO

A SUBMISSION BY THE ONTARIO METIS ABORIGINAL ASSOCIATION

TO PART II OF THE WALKERTON INQUIRY

MAY 23, 2001

Contents

I Introduction/ Overview

"OMAA has serious concerns about the safety of drinking water supplying a number of Metis communities in Ontario."
- OMAA Outreach Worker, March 25th Focus Group Session

The Ontario Metis Aboriginal Association (OMAA) appreciates the opportunity to contribute to Part II of the Walkerton Inquiry, a review of water quality issues in Ontario. OMAA believes that this phase of the Inquiry provides an important opportunity for the people of Ontario to raise concerns regarding Ontario's drinking water supply, study the issues raised, and identify solutions to problematic situations.

OMAA represents Metis, non-status, and other off-reserve Aboriginals living in Ontario. Our mission is to represent the political, social and economic aspirations of the Metis and other off-reserve Aboriginal people in Ontario.

OMAA believes that it is important for Ontario Metis and other off-reserve Aboriginal groups to be a part of this Inquiry to ensure that Ontario's Metis work with the government and within their communities to address serious and all too frequent incidences of drinking water contamination faced by off-reserve natives. OMAA is looking to address these issues in an effective and responsible manner, keeping the Aboriginal peoples' profound respect for water and willingness to share knowledge at the forefront of all solutions.

"Untreated, untested drinking water in many of these Meits communities poses a serious threat to residents."
- OMAA Outreach worker, March 25th Focus Group Session

Of particular concern to OMAA are rural communities, known as Metis settlements, which draw water from single private wells. These wells provide families with untested, untreated drinking water daily. In many cases single wells may serve six or more families, and in some cases even ten or more. When well water is tested, "boil water" advisories often result. Little recourse is available to those living under these advisories.

Single well populations are a very vulnerable group of the Metis population. They generally live in very poor conditions, with little outreach or resources. The potential for harm done by tainted water is especially significant in these types of situations as most of these communities do not have the knowledge to identify water-related problems and do not have the information or resources to address these problems effectively as they arise.

The single well issue is not limited to Metis settlements. Significant numbers of Ontarians, particularly those in rural areas, and those in the North, are served by private wells. According to the Ontario Public Sector Employees Union (OPSEU)[1], there are approximately 500,000 private wells in Ontario providing water to three and a half million people. OPSEU points out that there are currently no programs to ensure that these well water supplies are properly constructed or maintained. This puts both those people drinking well water at risk, and others who may have their water contaminated by a neighbour's well at risk.

II Description of OMAA

OMAA represents approximately 200,000 Metis, non-status and off-reserve Aboriginals living in Ontario. The primary role of the Association is to address the social concerns of the Metis population through implementation of project and program initiatives designed to improve the quality of life for all Metis, Non-status and off-reserve Aboriginal peoples in Ontario. Additionally, OMAA represents the best interests of our constituents with respect to Aboriginal land claims, self-government, natural resources and environmental assessments. The Association is affiliated with the national Congress of Aboriginal People (CAP).

OMAA was founded in 1971 as the Ontario Metis and Non-Status Indian Association (OMNSIA) - a coalition of previously isolated community-based local associations of Metis and non-status Indians, all living off reserves in Ontario and not registered under the Indian Act (Canada). In 1985, the Indian Act was amended to permit some non-status Indians to become registered (status) Indians.

Under the amendments (known as Bill C-31), approximately 20% of OMAA's members have been or will be registered under the Indian Act. In order to reflect this change in our constituency, OMAA changed its name in 1987 to the "Ontario Metis and Aboriginal

[1] Renewing the Ministry of the Environment, submitted by the Ontario Public Services Employees Union (OPSEU), to the Walkerton Inquiry, May 1, 2001, P34

Association" and subsequently to the Ontario Metis Aboriginal Association (OMAA). Today, OMAA is an incorporated (as a non-share capital Ontario corporation) umbrella organization representing community based local associations (Locals), and five regional organizations, known as Zones.

III Role and Importance of Water in the Lives of the Metis

Water has unique meaning for Ontario's Metis. Water is central to the traditional Aboriginal way of life. Many off-reserve natives continue to depend on local fishing, trapping and hunting for survival. Water in the lakes supports the ecosystem on which the Metis depend. Problems with the quality of water in Ontario's lakes, rivers and streams are of special significance to Aboriginal people. Use of pesticides and chemicals that seep into the lakes and streams is cause for concern to Ontario's Metis. Native communities have suffered from advisories to not eat the fish (most recently in the Kirkland Lake area), and from the on-going advisory not to eat moose and deer livers. Contamination of lake water, surface water and ground water contributes to the likelihood of contaminated drinking water. Ontario's Metis see all water and environmental pollution issues as interconnected.

> "We are no longer able to eat moose and deer livers because of the water they drink, and the food they eat. This has been part of our way of life."
>
> - OMAA member

Water is not only essential to Ontario's Metis for survival, sustaining animals and fish, it is also said to have knowledge attached to it. Ontario's Metis people view water holistically. We recognize water as supporting physical, emotional, cultural and spiritual life, and as the essence of life itself. Aboriginal people have a great respect for water that stems from these beliefs, and from the deep understanding of the importance of water to survival and knowledge.

As a result, ensuring the future of a clean and safe water supply is particularly important to Ontario's Metis communities.

IV Overview of Drinking Water Issues facing Metis Settlements

OMAA has deep concerns regarding the quality of the water supplying Metis and off-reserve Aboriginal families in Ontario who draw water from private wells. These single well communities, known as Metis settlements, are found in rural areas of Ontario, many in northern Ontario. Single well settlements are located in areas such as Wabigoon, Beardmore, Michipicoten Village, Searchmont, Spanish, Sturgeon Falls, Golden Lake, and Petawawa among others. In general, these communities are remote, northern communities, located outside municipal boundaries.

OMAA estimates that there are approximately 8,000 to 10,000 of OMAA's members living in single well communities. In the Red Lake area, for example, OMAA's Outreach Workers estimate that there are approximately 100 wells serving over 400 people. In the Chapleau area there are an estimated 1,000 wells, serving over 1,000 residences. In most cases these wells serve five or fewer families, in others they serve 6 or more families. Trailer park settlements (such as Pioneer Park in Heyden) and CMHC housing are good examples of larger Metis settlements served by local wells.

In more established communities such as Iron Bridge, Red Lake and Wabigoon, most wells are single-family drilled wells or well points. More remote Metis settlements are served by dug or bored wells.

While OMAA Outreach Workers have a general idea of single well locations and the number of families served, they indicated that they do not know of all the wells in their area, where they are located, or how many families are being served. OMAA workers are also not sufficiently aware of the condition of these wells, and how often the water from these wells is being tested or treated.

There is a range of different type of wells serving Metis settlements. Wells range from professionally drilled wells (in Red Lake and Wabigoon), to trailer parks served by a series of dug wells, to dug and bored wells serving cabins along the lakes, to residents simply drawing water directly from the lakes.

Poorly constructed and poorly maintained wells of all types can result in bacterial and/or chemical contamination of the well water. According to the Ministry of the Environment's Green Facts: *The Protection of Water Quality in Drilled Wells,*[2] drilled wells often suffer from surface contamination when the sealing on the outside or top of the casing is not watertight. Surface water may also enter drilled wells through subsidence or corrosion.

Improper well construction and the failure to carry out routine preventive maintenance on wells often results in contamination

- Ministry of the Environment Green Facts, July 2000

According to the Ministry of the Environment's Green Facts: *The Protection of Water Quality in Dug or Bored Wells,*[3] dug or bored wells are particularly susceptible to deterioration of sanitary integrity. Many dug wells risk contamination from openings in the well seal, improperly installed well casing, incorrect depth of well casings and lack of well casing seal.

Both dug and drilled wells may be contaminated if they are located too close to septic systems. Other sources of surface water contamination such as refuse, manure, salt, and petroleum may seep into an improperly constructed or improperly located well.

Lack of resources and information/ understanding often prevents proper well maintenance and makes it impossible for many communities to make needed repairs to existing wells, or drill/dig a new well if needed. Isolation, lack of resources, and lack of education also often prevent regular testing of Metis Community well water, and result in water that should be treated going untreated.

Drilled wells in particular are very expensive to replace or fix (often in excess of $5,000 to drill a new well). Despite these costs many Metis families go to the expense of drilling a new well. All too often, new wells are drilled without proper knowledge of specifications and regulations. Certified contractors are expensive to hire, and are in short supply in many areas. Often these wells become contaminated or turn out to have unsafe

[2] Ontario Green Facts, The protection of water quality in drilled wells, July 2000
[3] Ontario Green Facts, The protection of water quality in bored and dug wells, July 2000

water. Well water is then often used for washing and other household purposes only, and the families must drive to town to buy drinking water, or use water from the lakes.

V OMAA's Outreach Program

October 1, 1999 marked the beginning of OMAA's consolidated approach to improving the health of members through the Community Health Outreach Program. The Community Health Outreach Program is funded by the Aboriginal Healing and Wellness Strategy (AHWS), under Metis Community Services. It is part of the AHWS five-year strategy to address Aboriginal health issues in Ontario.

As part of this program, OMAA employs Community Health Outreach Workers located in Red Lake, Wabigoon, Thunder Bay, Chapleau, Cochrane and Iron Bridge. The Health Coordinator is Located in Sault Ste. Marie. A Community Development Support Worker, located in Sault Ste. Marie, provides administrative support to this program.

The Community Health Outreach Workers provide services in response to community health needs. A Community Health Priorities assessment was conducted by OMAA in May of 1999, which resulted in selecting Red Lake, Wabigoon, Thunder Bay, Chapleau, Cochrane and Iron Bridge as the locations for the Outreach Workers. This also provided direction to these workers regarding the focus of their activities in their region.

Community Health Outreach Workers serve large geographic areas and provide a wide range of health and social services to Metis living in their areas. They tackle issues such as homelessness, drug and alcohol addiction, ensuring access to medical services, diabetes testing, home and hospital visits. In addition to this, Outreach Workers provide water testing as requested, and when a need is identified.

The area most active in water testing is Wabigoon. The Community Health Outreach Worker in Wabigoon is Ken Cripps. He provides health outreach services to Wabigoon and the surrounding communities of Dryden,

Ignace, Pickle Lake, and Kenora. Community interest directed Ken to do water significant testing. Ken found substantial water quality issues in a number of communities.

All Community Outreach Workers face resource constraints, and are limited in the number of single well tests that they can reasonably conduct. Distances between labs and well sites, weather conditions and the need to address a wide range of health and social issues in the communities make extensive testing difficult.

VI Current Testing of Single Well Water in Metis Settlements

"In testing 43 wells, 9 cases of contamination were found."

-OMAA outreach worker, Ken Cripps Wabigoon

Testing of water quality in single well communities is currently very minimal. OMAA Outreach Workers indicated that the only testing of water currently undertaken for single well communities is conducted through OMAA's Community Health Outreach Program, usually on a request basis. OMAA's Outreach Workers indicated that they collect water for testing using containers supplied by the Public Health Units. The Outreach Workers then deliver the water sample to District Public Health Units or Ministry of Health Labs (Outreach Workers use the labs in Sault St. Marie, Sudbury, Thunder Bay, and Timmins) where it is tested at no charge for bacteria including E.coli and coliforms (Bacti test) for wells serving five or fewer residences. OMAA Outreach Workers perform tests on well water three times to ensure accuracy of these tests as requested by Public Health Labs.

"Coliforms and E.coli contamination was found in single wells in the Sault St. Marie area over the last year."

-OMAA outreach worker, March 25th Focus Group Session

Testing for other contaminants such as pesticides, nitrates, and metals is not being undertaken, mainly due to the costs of these tests, and in part due to lack of knowledge of the risks these substances may pose.

VII Results of Recent Tests in Metis Settlements

Testing that has been done on single wells in Metis settlements indicates that there are serious quality issues in some areas. For example, high concentrations of fecal matter have frequently been found in well water in a

number of communities. Over the past year, in the Wabigoon and surrounding areas for example, out of the 43 wells tested, 9 cases of contamination were found. In one case a result of 80 coliforms (indicating that water is unsafe to drink unless boiled for five minutes) was identified.

There have also been a significant number of "boil water" advisories in Metis communities served by Municipalities. For example, currently, as a result of water testing, there is a boil water advisory in Michipicoten Village. The towns of Balmertown, MacKenzie Island and Madsen currently cannot drink their water. In Chapleau (water supplied by the Municipality) high levels of phenol in the water resulted in a "do not use the water advisory", including not cooking, bathing or washing in the water.

VIII Frequency of Tests for Single Well Water in Metis Settlements

As noted above, OMAA's Outreach Workers test water sporadically, when they suspect a problem (i.e. when people are getting sick, someone reports bad tasting water), when their members request tests, or when property changes hands.

According to OMAA's Outreach Workers, requests for testing are becoming more frequent, as more members of the Metis community become aware of water contamination issues.

According to the Canadian Institute of Public Health Inspectors (Ontario Branch) *How Well is Your Well?* Pamphlet,[4] dug wells and well points should be tested at least three times a year, and drilled wells once a year. Seasonal run-off, and deterioration of the well itself from seasonal factors make frequent testing of dug wells necessary.

OMAA workers acknowledge that most wells are not tested three times a year. Some are not tested at all!

[4] How Well is Your Well?, Water Quality Program Pamphlet, Canadian Institute of Public Health Inspectors (Ontario Branch) Inc.

IX Treatment of Water in Metis Settlements

The only treatment of well water identified by OMAA's Outreach Workers is disinfecting using chlorinated household bleach (Javex). Outreach Workers did not know of any other treatments that were being used to protect single well water.

OMAA Outreach Workers expressed concern that this disinfection process may not be carried out properly in some cases. There are a number of specific steps that need to be taken to properly disinfect a well. Improper disinfection can pose health hazards. Improper drainage of chlorinated water may also contaminate surrounding groundwater. Outreach Workers are also concerned that single well owners may not be conducting follow-up tests on recently treated water, simply assuming the water is safe after the Javex treatment.

There is also concern that chlorinated bleach is being used to treat wells with repeat incidences of contamination. OMAA Outreach Workers have been informed by public health officials that chlorinated bleach is only acceptable for one-time contamination cases. Cases where there are repeated incidences of contamination require the installation of a more sophisticated treatment system – such as a UV system, or drilling a new well. A UV system is prohibitively expensive for many Metis settlements. Drilling a new well, or repairing the existing well is also often too expensive for Metis settlements.

Therefore, well water often continues to be treated with Javex only, leaving deep concerns as to the long-term quality of the water serving these communities.

X Regulatory Framework for Single Wells in Ontario

Constructing, testing and maintaining private wells are the responsibility of the owner of the land on which the well is constructed. Some Metis own their own land (such as many of those living in Iron Bridge and Red Lake). In other settlements, land is owned by CMHC (such as in the Wabigoon area). In still others, Metis rent from

landowners. This is often the case for seasonal settlers (Metis who live in town in the winter, and on the lake in the summer, as is the case in communities such as Kirkland Lake). In some cases, Metis settlements are in unorganized territory, and ownership of the land is unclear.

Some Metis settlements are therefore responsible for the proper construction, maintenance, testing and treating of their wells, and others are not.

There are a number of thresholds that determine whether a well falls under Ontario's Water Resources Act (OWRA) and under Ontario's new drinking water regulations (Reg. 459/00).

The OWRA is complex, and determining whether a well is subject to the Act, and to reg. 459/00 can be difficult, and may require professional assistance from lawyers and engineers. Acquiring this professional assistance would be excessively costly for many well owners. Most Metis well owners will have difficulty attempting to follow the requirements of the OWRA and the new regulations.

In general, a water work system (including a well) is not subject to the OWRA if it serves five or fewer private residences only; or if it is not capable of supplying water at a rate greater than 50,000 litres per day, or the water is not to be used for human consumption[5]. In general an engineer would need to be retained to determine if the well meets the rate of flow test. This level of flow (50,000 litres per day) is said to not be too stringent a test, perhaps equal to the flow of a garden hose running for one day.

If a well does not meet the above criteria, then the owner must obtain a Certificate of Approval. This can apparently cost upwards of $5,000, and the Ministry of Health may issue conditions of operation along with the Certificate of Approval (i.e. specific treatments and testing requirements).

Many of the wells serving Metis settlements will meet these criteria, and be exempt from the Act, from obtaining a Certificate of Approval, and from the new

[5] Ontario Water Resources Act, Section 52 and O. Reg. 459/00

regulations. However, a number of the larger wells, such as trailer parks, and those serving multiple residences and those serving residences and some businesses, will need to comply with the Act and possibly the new regulations.

Further tests (again in general, those wells serving five or more residences, or those supplying over 50,000 litres on 89 or more days for every 90 days) determine that a well is subject to the new Ontario regulations. Well owners caught under the new regulations must take regular and frequent samples of their water and have the samples tested for microbiological parameters (e.g., total coliforms, fecal coliforms/E. coli), chlorine residuals, turbidity, volatile organics (e.g., benzene, carbon tetrachloride) and other health-related parameters (e.g., lead, arsenic).

Sampling requirements are very stringent. For example, for drilled wells (ground water source) a sample must be taken each week from each well and tested for microbiological organisms. Grab samples for turbidity and chlorine residuals must be taken once a day. Volatile organics, nitrates and pesticides should be tested for quarterly, and inorganics every three years[6]. Testing requirements for dug and bored wells (surface water source) are similar, but slightly more stringent[7].

While desirable from a safety standpoint, this level of testing is complex, expensive and would be beyond the means of virtually all Metis well owners.

In terms of treatment, as of December 31, 2002, all drinking water that enters a water distribution system or plumbing (including wells falling under the new regulations) must be disinfected through chlorination or an equivalent process that persists as effectively as chlorination in the distribution system or plumbing. The chlorinated bleach treatment may be sufficient in some cases to meet this requirement. In cases where more treatment is required, this would be beyond the means of virtually all Metis well owners.

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[6] Ontario Water Resources Act, Schedule 2, Sampling and Analysis Requirements

[7] IBID.

For drilled wells, only disinfection is required. Dug or bored wells should have a filtration system as well, which can again be prohibitively expensive.

All private wells are subject to well construction standards, regardless of the number of residences served. Under the Province's well construction regulation,[8] anyone engaged in the business of constructing water wells must be licensed by the province and be in possession of a valid contractor's license. The regulations cover such things as casing, grouting and sealing, and testing of the well and include regulations regarding safe distances from sources of contamination (i.e. septic systems), drainage requirements, and a process for initial chlorination.

Within two weeks of completion of the well, the well contractor must deliver to the owner a copy of the Water Well Record, which is the official document filed with the Ministry of the Environment giving the well's location, and details about construction.

OMAA Outreach Workers have noted that many Metis settlement wells were constructed prior to the introduction of well construction regulations, and would not meet today's standards if examined.

XI Processes for Properly Maintaining and Treating Single Wells

There are a number of steps well owners can take to ensure that they are properly maintaining their wells, and that they are properly treating and testing their well water. The Ministry of the Environment has issued Green Fact Sheets: *The Protection of Water Quality in Bored and Dug Wells (July 2000)* and *The Protection of Water Quality in Drilled Wells (July 2000)* which provide useful insights on how to properly maintain and construct private wells. The Canadian Institute of Public health Inspectors (Ontario Branch) has prepared a "*How well is your well?*" pamphlet which provides helpful hints on testing and treating well water, and on what indicators to look for to assist in detecting problems with water quality. Local public health offices and public health labs

[8] Ontario Water Resources Act, Regulation 903

will also provide advice and instruction to assist with testing and treating well water, and some have fact sheets available to assist well owners.

The Ontario Ministry of the Environment *Green Facts – The Protection of Water Quality in Bored and Dug Wells* for example, suggests that well owners look for changes in water quality such as taste, turbidity, colour, or odour, in particular after a rainstorm or snow melt. Green facts also instructs well owners to look for cascading or seeping water and/or staining along casings above the water level in the well and for the presence of biological material in the well such as animals or roots. The "*How well is your well?"* Pamphlet also provides advice on how to properly disinfect a well.

Much of this material, while helpful, is complex and may still be confusing for many well owners. There is also no standardization of material, and no way to ensure that material produced is correct. It is also difficult for many Metis settlement's to access this information. Many do not have Internet access, many are not in regular touch with their health units, and therefore remain unaware of, and unable to implement these procedures.

None of this material is prepared specifically for Metis settlements. There is also no material currently designed to assist Metis settlements deal with Ontario's new regulations.

XII Process for Testing Well Water

When sending water samples to be tested for safety, the private well owner can run various tests for different pathogens. One of the most important biological tests, the microbiology (Bacti) test is performed for free by the Ministry of Health and Long Term Care for private wells serving five or fewer private residences. This test does not include tests for any chemicals, pesticides or metals.

A standard homeowner's test which tests for a broader range of substances provided by a private lab costs in the range of $150. These packages typically test for: aluminum, ammonia, arsenic, barium, boron, cadmium, calcium, chloride, chromium, copper, dissolved organic

carbon, fluoride, iron, lead, magnesium, manganese, H_2S, nitrates, nitrites, potassium, selenium, sodium, sulfate, zinc, total coliform, and Escherichia coli. While this is an improvement over the Bacti test, private labs performing such tests note that these tests do *not* include all the tests needed to meet the requirements under the new Ontario regulations.

Other substances, such as pesticides, are much more expensive to test for. It is estimated that to undertake all the tests required under the new Ontario regulations may cost upwards of $1,500 per annum. This is far out of the range of most private well owners, and certainly out of the reach of the majority of Metis settlements.

XIII Ontario's New Well-Water Registry

According to Ministry of the Environment officials, Ontario is in the process of developing a Drinking Water Compliance and Information system. Well owners will be required to register their well in this system, once it is up and running. The system, as we understand it, will be a web-based self-registration system.

XIV Findings

1. Need for Community Education and Outreach

OMAA Outreach Workers noted that there is a huge education issue that needs to be addressed regarding proper well construction, maintenance, testing and treating of well water in Metis communities. Outreach Workers need to be educated to better understand how to properly test well water, and if contaminants are found, how to treat the water properly. Outreach Workers also need to be able to explain to members how to properly construct wells, and how to maintain them.

Many of the single well settlements are remote, without access to the Internet, to printed material, to public health labs or public health offices. Material that is available is somewhat complex, is written in English only, and is not geared to a Metis audience. There is also no formal distribution method for information to reach these

settlements, and no guarantee that this type of information is received, understood and acted upon. Metis settlements also do not have information regarding how to properly comply with Ontario's new regulations.

2. Need to Test for Less Commonly Considered Hazards in Some Locations

> "In the Iron Bridge area a washing machine lasts only 18 months and coffee pots must be replaced 3-4 times a year because of iron deposits."
>
> -OMAA Outreach Worker, Wabigoon, March 25th Focus Group Session

Given the location of some of the Metis settlements, well water may be at serious risk from less commonly checked for contaminants that are rarely, if ever, investigated for. Many Metis settlements are close to mines and pulp and paper mills. Others are located near highways. Proximity to contaminants from local industry and from local highways poses a special risk to these communities. As well, naturally occurring factors may also be cause for concern.

For example, in Iron Bridge, there are worries about the amount of naturally occurring iron in the water. Other communities such as Deway Bay also have issues regarding the iron content of water. In the case of Deway Bay, concerns about iron in the water are intensified by the Community well's proximity to a major highway. In Wawa, there are concerns about the arsenic levels in the water.

There is also concern regarding fecal matter from farms. For example, waste produced and dumped by chicken farms in the Sault St. Marie area are causing concern for many residents. In particular, residents are worried that nitrates may be present in the water as a result of fertilizing. A number of Metis communities are also located near mines, and other heavy industries such as pulp and paper mills. There are concerns in these communities that special tests should be done to look for harmful chemicals such as arsenic that would not be picked up in the standard Bacti test undertaken by the Ministry of Health.

3. Need to Address Isolation and Current Lack of Resources

Outreach Workers identified travel time from labs as an issue that needs to be addressed. Many of the single well communities served by the Outreach Workers are

isolated. Water samples need to reach the testing lab within 48 hours of collection. This can prove to be a challenge to Outreach Workers who need to drive to the community, test the water, and return it to the lab, particularly in bad weather. MOHLTC labs require three tests to confirm contamination levels, or to declare the water safe. This process, while scientifically necessary, stretches the resources of OMAA's Outreach Workers. They serve large geographic areas, and must battle inclement water conditions and extensive commuting time to reach these settlements.

4. Need to Address Cost of Fixing the Problem

"Many elderly residents faced with a boiled water advisory continued to use the contaminated water. Many residents were also unable to afford to purchase bottled water, which became increasingly expensive as supplies dwindled."

-OMAA Outreach worker, Chapleau, March 25th Focus Group Session

Outreach Workers also identified cost as a fundamental issue for their members. Some single well communities have indicated that they do not want their water tested, as they do not have the financial resources to fix their well, or to dig a new well if needed. Many just continue to drink the untested, untreated water.

5. Need to Have Contingency Plans in Place When Water Emergencies Arise

The need for an emergency measures plan was raised. In cases where a "do not drink the water" advisory is issued, a plan needs to be established to determine how to get water to people who cannot travel to get it (the elderly, those with no form of transport), and to determine how those who cannot pay for bottled water are going to obtain safe water to drink, to bathe in and to use for emergency-level household maintenance.

In the case of Chapleau, a water emergency was declared, and people were instructed to not drink, bathe or cook with the water. However, people were not provided with another source of water. Residents were forced to drive to obtain bottled water.

6. Need to Address Proper Well Construction and Well Location

Another issue identified by OMAA Outreach Workers was the issue of well location. Apparently, there are a number of wells Outreach Workers are aware of that are located too close to septic systems. A number of wells in

the Renfrew area were identified as having this type of problem. Some wells were built prior to the regulation, and are too close to the septic system. Others are improperly constructed, so that drainage is a problem.

Outreach Workers indicated that many wells are improperly constructed due to lack of knowledge, and lack of resources to hire professional contractors to undertake the job correctly.

7. Need to Address Issues Facing Communities Drawing Water Directly from Lakes

A significant number of Metis communities consume water directly from nearby lakes. Metis settlements, in particular the more remote and isolated communities, simply draw water from the lakes and drink it, as they have done for years. There is little understanding or concern regarding the risks that this practice may pose in many of these communities. Often this water is not treated, or tested. Ministry of Health will not, as we understand it, test this water (Bacti test) for free.

8. Need to Review New Regulations as they Apply to Smaller Community Wells, Including Metis Settlements Wells.

Conversations with OMAA Outreach Workers and Metis well owners suggest that Ontario's new drinking water regulations are not well known or well understood. Most well owners, even if they did understand all of the procedures needed to meet the new requirements, would not have the resources to comply with the new regulations.

XV Recommendations

1. Development of an outreach campaign, supported by education and training material tailored to enable Metis settlements to address water issues in their communities.

OMAA, with the assistance of Metis volunteers within local communities and with government support, would be pleased to undertake responsibility for developing and implementing this campaign.

OMAA recommends that material be developed to meet the needs of Metis settlements, based on Aboriginal beliefs regarding water, and written with Aboriginal people in mind. It should be set out in an easy to follow manner, with clear instructions.
Information on where to get help, and any resources that are available to Ontario's Metis should also be included.

Material should include basic instruction regarding well construction, maintenance, and what to check for; basic instruction on how to test well water and how often to test it; and basic instruction on how to treat well water. Information on the consequences of not treating the water should also be included.

OMAA would make this material available in appropriate languages so that the majority of Ontario's Metis can understand the material.

OMAA would then train and assist Outreach Workers to provide this information to Metis settlements, and to train them to understand how to treat, test and maintain wells and well water in their communities. Outreach Workers would also work with volunteers in local communities to find community-based solutions to water issues (see recommendation #2 regarding more resources for Outreach Workers).

OMAA recommends that the Inquiry recommend that the Ontario Government provide OMAA with the mandate to develop this material, and with funding of $100,000 to produce the material required.

2. Provide extra resources to OMAA to enable OMAA to engage more Outreach Workers to reach more wells

OMAA's six Outreach Workers are currently serving large constituencies of geographically dispersed high needs people across Ontario. OMAA Outreach Workers were selected to service the highest needs areas of the Province. They are therefore stretched very thin, handling a multitude of health and social service issues.

OMAA requests that the Inquiry recommend that the Ontario Government provide the resources for an

additional two Outreach Workers (cost of training and salary at $100,000 each) through the AHWS, who would undergo special water-related training, and would devote significant time to educating local Metis regarding how to achieve well water safety using the material prepared under recommendation #1. These Outreach Workers would also be required to assist in emergency measures planning.

3. Develop an inventory of Metis settlement single wells including location of wells, number of families served, and problems identified, and estimated cost of addressing these problems.

OMAA Outreach Workers indicated that they do not have a good understanding of the number of single well communities in their areas, or of the problems arising from these wells. A single well inventory would assist OMAA in better understanding the scope of the problem that needs to be addressed, identify where the need is greatest, identify the cost of addressing the problem, and the resources needed to fix the problem.

OMAA anticipates that this inventory would cost in the range of $100,000 to $120,000 to complete. This work could be developed in conjunction with, and used to supplement, the web-based well registry that the Ontario Ministry of the Environment is developing. OMAA believes that both wells that fall under MOE's new regulations and those that are unregulated need to be part of this inventory.

OMAA recommends that the Inquiry recommend that the Ontario Government provide funding of $120,000 to OMAA to carry out this inventory, and report back to MOE with the results, including providing MOE with access to the data collected.

4. Based on the results of the Metis settlement inventory, set up a fund that local communities could apply to, to upgrade or replace problematic wells. Metis settlements would have to document problems existing wells face, and devote a specified amount of community resources to assist in addressing these issues. OMAA requests that the Inquiry recommend that the Ontario Government work with OMAA to set up this fund, based

on the results of this single-well inventory (recommendation #3).

5. Develop Emergency Measures Plans for each Outreach area, and set up an emergency measures fund.

OMAA Outreach Workers will work with their communities to develop plans to assist those unable to receive fresh water in emergencies, and those unable to afford it.

Plans should include request for resources from a central emergency measures fund to be set up using additional government funding, including government funding for the provision of bottled water during an emergency.

Use of funds by communities must be properly accounted for and be accompanied by a commitment to use community resources and municipal assistance if available. (i.e. volunteers to drive to get water for others, buying in bulk to reduce costs, approaching local merchants for discounts).

OMAA recommends that the Inquiry request that the Ontario Government work with OMAA to develop this strategy.

6. OMAA recommends that the Ontario Government work with OMAA and other Native groups to develop a strategy to address concerns arising from Ontario Metis drinking water straight from Ontario lakes and streams.

7. OMAA recommends that the Ontario Government explore the impact of the new drinking water regulations on smaller well-based settlements, including Metis settlements, and provide recommendations to address cost and other resource issues facing small well owners.

Appendix I

Results of OMAA Outreach Worker March 25th Focus Group Session

OMAA Outreach Workers met on March 25th to discuss drinking water quality issues facing OMAA members. All Outreach Workers agreed that there are significant issues facing off-reserve Metis and other Aboriginals in Ontario. Concerns were raised regarding Metis drawing water from single wells, including trailer park communities, CMHC housing, and private well communities.

Meeting Attendees:

The Community Health Outreach Worker in Red Lake is Shelley McKenzie. During this first year of operation, Shelley has been working towards improving services to homeless Aboriginal people in Red Lake. Working with a local doctor, Shelley has organized community workshops on prescription drug abuse. She works with a task force to develop and implement policies on racism and "bully behavior" in the local high school. Shelley also takes on a patient advocate role for some clients unfamiliar with the medical system.

The Community Health Outreach Worker in Waibigoon is Ken Cripps. He has provided health outreach services to Wabigoon and the surrounding communities of Dryden, Ignace, Pickle Lake, and Kenora for the past 4 years. Services provided include hospital visits, home visits, helping clients meet housing needs, and diabetes testing.

The Community Health Outreach Worker in Thunder Bay is Theresa Cote. Theresa assists clients by providing a supportive environment to refer clients for counseling. Other services include hospital visits, diabetes testing, and referrals to other services.

Kelly Geddes has been providing community health outreach services to Cochrane, Timmins, Foleyet, Kirkland Lake, Hearst, and Hornepayne for the past four years. She has worked with other service providers such as the YMCA in the "Community Food Advisors

Program" to improve nutrition in the Aboriginal community. Kelly has also provided hospital visits and one-on-one counseling and healing circles for many communities.

The Community Health Outreach Worker in Chapleau is Cheryl-Anne St. Denis. Since June 5, 2000, she has set up a schedule, which includes elder visits at the hospital, diabetes workshops, talking circles and teen workshops.

Linda Aelick has been the Community Health Outreach Worker in Iron Bridge since July of 1999. Health services provided by Linda include referrals, hospital visits, on-going counseling and assistance to cancer patients, as well as home visits to the elderly. Linda has assisted community members with referrals and access for cancer care, problem gambling, medical transportation, and special needs.

Summary of Meeting Proceedings

OMAA's Outreach Workers indicated that they collect water for testing using containers supplied by the Public Health Units. The Outreach Workers then deliver the water sample to a Ministry of Health Lab where it is generally tested for bacteria (Bacti test). OMAA Outreach Workers indicated that they test wells sporadically, when they suspect problems (i.e. when people are getting sick, someone reports bad tasting water) or when their members request tests. Many wells do not get tested at all due to lack of resources.

Requests for testing are becoming more frequent, as more members of the Metis community become aware of water contamination issues. In the Wabigoon area for example, the local OMAA outreach worker began testing water for a few OMAA members. As others learned of his service, they began asking for testing. In the last year as a result, this outreach worker conducted 70 tests on 43 wells. Out of the 43 wells, 9 cases of contamination were found. In one case there was a result of 80 coliforms. In these cases Javex was used to treat the situation. Coliform and E-coli contamination was also found by OMAA Outreach Workers in single wells in the Sault St. Marie area over the last year.

Outreach Workers noted that there is a significant education issue that needs to be addressed. Outreach Workers need to be educated to better understand how to properly test well water, and if contaminants are found, how to treat the water properly. Most well owners treat their wells with Javex.

Outreach Workers did not know of any other treatments that were being used to protect water from single wells.

Given the location of some of the Metis settlements, well water may be at risk from less commonly checked for contaminants. For example, in Iron Bridge, there is concern about the amount of naturally occurring iron in the water. In this area, a washing machine lasts only 18 months and coffee pots must be replaced 3-4 times a year because of iron deposits. Other communities such as Deway Bay also have concerns regarding the iron content of water. In the case of Deway Bay, concerns about iron in the water are intensified by the Community well's proximity to a major highway. In Wawa, there are concerns about the arsenic levels in the water.

There is also concern regarding fecal matter from farms. For example, waste produced and dumped by chicken farms in the Sault St. Marie area is causing concern for many residents. A number of Metis communities are also located near mines, and other heavy industries such as pulp and paper mills. There are concerns in these communities that special tests should be done to look for harmful chemicals such as arsenic, which would not be picked up in the standard Bacti test undertaken by the Ministry.

Outreach Workers also identified travel time from labs as an issue that needs to be addressed. Many of the single well communities served by the Outreach Workers are isolated. Water samples need to reach the testing lab within 48 hours of collection. This can prove to be a challenge to Outreach Workers who need to drive to the community, test the water, and return it to the lab, particularly in bad weather. MOHLTC labs require three tests to confirm contamination levels, or to declare the water safe. This process, while scientifically necessary, stretches the recourses of OMAA's Outreach Workers.

Outreach Workers also identified cost as an issue for their members. Some single well communities have indicated that they do not want their water tested, as they do not have the financial resources to fix their well, or to dig a new well if needed. Many just continue to drink the untested, untreated water.

There are apparently a number of Metis communities that consume water directly from nearby lakes. Often this water is not treated, or tested. Untreated lake water is not eligible for testing at MOHLTC labs.

Metis groups living in CMHC housing projects served by single wells may also face water-related issues. In the Wabigoon area, well-water contamination was found in the CMHC housing projects. Once identified, CMHC covers the cost of cleaning up the water, and, in this case, of drilling a new well. The issue here appears to be the identification of the problem and ensuring that it is reported and that appropriate action is taken.

Water serving Metis trailer park communities was also identified as problematic. Trailer park communities often receive water from wells. Communities such as Pioneer Park in Hayden were identified as communities which should test their water regularly to avoid potential problems.

The need for an emergency measures plan was raised. In cases where a “do not drink the water” advisory is issued, a plan needs to be established to determine how to get water to people who cannot travel to get it (the elderly, those with no form of transport), and to determine how those who cannot pay for bottled water are going to obtain safe water to drink, to bathe in and to use for emergency-level household maintenance.

In the case of Chapleau, a water emergency was declared, and people were instructed to not drink, bathe or cook with the water. However, people were not provided with another source of water. Residents were forced to drive to obtain bottled water. Many elderly residents could not do this, and simply continued to use the contaminated water. Many residents were also unable to afford to purchase bottled water, which became increasingly expensive as supplies dwindled.

Other issues identified by OMAA Outreach Workers include the issue of well location. Apparently there are a number of wells Outreach Workers are aware of that are located too close to septic systems. Current regulation requires that a well be 100 ft. from a septic system. A number of wells in the Renfrew area were identified as having this type of problem. Some wells were built prior to the regulation, and are too close to the septic system. Others are improperly constructed, so that drainage is a problem.

All OMAA Outreach Workers agreed that water quality issues facing Metis settlements are serious. OMAA's Outreach Workers applauded the effort OMAA is making to bring these issues to light at the Inquiry. OMAA's Outreach Workers stressed the need to take action soon to address water quality issues, to ensure that water consumed by OMAA's communities is safe.

Appendix II
Selected Treatment Options Available to Waterworks Operators

System	Cost	Associated Negatives	Usage
UV system	$650 for a 4 gallon/ minute unit.	Iron in the water will shorten its lifespan and add maintenance problems. No effect on inorganic compounds and trace elements.	Kills any lifeforms in the well (E.coli & coliforms).
4 filter system. Reverse osmosis, carbon filter for chlorine, sediment filter, and a mineral scale filter.	Just under $800.	Will not remove any coliforms or E. coli.	Removes organic compounds, fertilizers, cyanide, arsenic and other elements and poisons.
Ozone systems	$1800 – 2800	Out of the price range of most private well owners.	Removes spores of molds, amoebae, and viruses and bacteria as well as various pathogenic and saprophytic germs, basically, it kills every harmful organism known. Inactivates and oxidizes organic metals, contaminates and pesticides.
Chlorination	$2600	Only practical for larger water systems. Leaves a residual in the distribution system and the plumbing that can have long-term health effects.	It first reacts with any iron, manganese, or hydrogen sulfide. It will next react with any organic material. It kills many pathogenic bacteria. However, cyst -forming protozoa (Cryptosporidium) which cause amoebic dysentery, and giardiasis are extremely resistant to chlorination.