

## **Ojibways of Pic River No. 50 First Nation (Band No. 192)**

**Date of Visit:** March 8, 2001

by P. Doig

**Site Address:** Heron Bay, ON P0T 1R0

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**Tribal Council Affiliation:** Thunder Bay Services Centre - Unaffiliated First Nations (North)

**Operators:** Tony Michano and Joe Michano

**Location:** The Ojibways of Pic River No. 50 First Nation community is located 9 km southeast of Marathon

**Population:** 467 people in the community (November 2000 - INAC)

**No. of Units:** 121 housing units (CAIS)

### **1.0 Description of the Community Water Supply**

Based on the CAIS report, water to the Ojibways of Pic River community is treated as follows:

- 467 people use piped water
- 121 houses are serviced by a communal water system.

### **2.0 Description of the Community Sewage Facilities**

Based on the CAIS report, sewage from the houses in the Ojibways of Pic River community is treated as follows:

- 467 people use septic tanks
- 121 houses are serviced by individual septic tanks.

### 3.0 Overall Assessment for Communal Water Treatment Supply

The questionnaire developed by PWGSC required OCWA to undertake a risk assessment of the Water Source, Design, Operation, Reporting, and Operators. To properly assess these areas, a revisit to the water treatment facilities would be required.

OCWA was requested to undertake the evaluation without a visit to the site. With the available information, OCWA has undertaken the requested assessment of the facilities.

The ranking system used is as follows:

- 0 = Not enough information to assess
- 1-4 = Low Risk
- 5-7 = Medium Risk
- 8-10 = High Risk

For more detailed information on the Risk Assessment used see the Terms of Reference, Appendix B.

SECTION Water	SECTION RANKING Water	RISK Water
<b>A. Water Source</b>		
Biological	0	No lab available
Chemical	6	Aluminum, sodium exceedances
Physical	6	Hardness exceedance
Overall Ranking for Water Source	6	
<b>B. Design</b>		
Biological	1	No exceedances
Chemical	1	No exceedances
Physical	6	Hardness, dissolved organic carbon exceedances
Risk to Public Health	1	No risk
Condition of Laboratory Equipment	0	Not inspected
Overall Ranking for Design	3	
<b>C. Operations</b>		
Reservoir Cleanliness	0	Not inspected
Emergency Plan	0	Unknown
Overall Ranking for Operations	7	Chlorine residual analyzer not calibrated properly
<b>D. Reporting</b>		
Ranking for Laboratories and Testing	1	Monthly by Health Canada
Ranking for Boil Water Advisories	1	No boil water advisory
Overall Ranking for Reporting	1	

<b>SECTION Water</b>	<b>SECTION RANKING Water</b>	<b>RISK Water</b>
<b>E. Operators</b>		
Overall Ranking for Operators	5	1 operator trained and confident, 1 operator with no training but confidence
<b>F. Statistical Data</b>		
Overall Ranking for Individual Wells	0	
Overall Ranking for the System	5	Medium Risk

#### 4.0 **Communal Water Supply (121 Houses)**

##### 4.1 Water Source

The raw ground water is drawn from five wells.

The following table summarizes the treated water data available from Health Canada, which does not meet GCDWQ:

Date	Location	Exceedances	Result	GCDWQ limit
Aug. 2, 2000	Pumphouse	Aluminum	0.21 mg/L	0.1 mg/L (OG)
		Sodium	42.9 mg/L	20 mg/L (OG)
		Hardness	101 mg/L	80 to 100 mg/L (OG)

OG - operational guideline

##### 4.2 Design

The community is serviced with a water treatment plant constructed in 1996-97. The rated design capacity is 500 m<sup>3</sup>/day, and the operator states the present usage of the system is being met.

The treatment plant consists of slow sand filters, and a 332 m<sup>3</sup> on-site in ground water reservoir. There is a generator for backup power, for the water treatment plant and for fire protection. The generator is tested on a regular basis. The confined space equipment is lacking a safety harness. Laboratory, Office and Workshop areas are sufficient within the plant.

The following table summarizes the treated water data available from Health Canada, which does not meet GCDWQ:

Date	Location	Exceedances	Result	GCDWQ Limit
Sept. 19, 2001	Drinking Water	Hardness	189 mg/L	80 to 100 mg/L (OG)
		Dissolved Organic Carbon	5.0 mg/L	5.0 mg/L (AO)

AO - aesthetic objective; OG - operational guideline

There are recurring problems with the water softener pump. Annual programs for hydrant flushing and maintenance, and main valve operating and maintenance are in place.

##### 4.3 Operations

Ozone and chlorine are used for disinfection. The disinfection equipment is functional and the disinfectant is supplied every two months. There is an on-line chlorine residual analyzer but it has not been calibrated. Chlorine residuals are checked once a week.

Operating and Maintenance manuals for the plant and equipment are present, as well as the as-built drawings. Emergency spare parts are readily available and also a contact listing of technicians/trades people. The response time for these personnel is satisfactory.

##### 4.4 Reporting

Dilico conducts bacteriological testing every month on the communal water system. There has been no disease or health related outbreaks within the last two years or any boil water advisories issued. The water

turbidity is recorded weekly, and there have been no exceedances. Chemical analysis of the treated water is conducted once a year, and no chemicals have exceeded the Canadian Clean Water Guidelines.

The following table summarizes the bacteriological data available from Health Canada:

<b>Period</b>	<b>Frequency</b>	<b>Regularity</b>	<b>Exceedances</b>
99/10/19 to 2001/10/11	4 to 22 times per month from different locations	<ul style="list-style-type: none"><li>▪ 1 month missing in 1999</li><li>▪ 4 months missing in 2000</li><li>▪ 1 month missing in 2001</li></ul>	<ul style="list-style-type: none"><li>▪ No exceedances</li></ul>

#### 4.5 Operators

Tony Michano and Joe Michano operate the water treatment plant. Tony is certified and has received training in October of 2000 from the MOE.

Both operators state that they are familiar with calibrating and maintaining the disinfecting equipment, and that they have received training from the MOE. The operators recommend that both operators get laboratory training, and that Joe gets training that can lead to certification.

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Housekeeping and cleaning is satisfactory. Operating and Maintenance of the facilities seems to be well looked after.

#### 5.0 Deficiencies in the Community Water Supply

1. A safety harness needs to be purchased to complete confined space equipment.
2. There have been recurring problems with the water softener pump.
3. One of the two operators is certified and has had training by the MOE in October 2000. Both operators should get more training in the laboratory.

#### 6.0 Recommendations

- Purchase a safety harness.
- Develop an overall community water contingency plan.
- Investigate and repair/replace the water softener pumps.
- Implement a training program that can lead to certification of the operators.
- Implement additional training for the operators in laboratory procedures.
- Implement a sewage septic tank inspection program to inspect all septic tanks in the community for proper operations and meeting the required standards.

#### 7.0 Plant Classification

Based upon the Terms of Reference – Appendix I – Plant Classification Guideline developed by Public Works and Government Services Canada and with discussions with the Ontario Ministry of the Environment Classification Group, OCWA classified this plant as follows:

Water Treatment Facility - Class II

## **8.0 Overall Community Risk Assessment**

### **Water Category – Medium Risk**

- **Medium Risk because of the following:**
  - Chlorine residual analyzer not calibrated properly; and
  - 1 operator with no training.

**Note: Information within this report is based on discussions with the plant operator and a quick visual walkthrough of the facilities. No detailed review was undertaken by OCWA.**