

Chapleau Ojibway First Nation (Band No. 229)

Date of Visit: February 28, 2001

By George Culhane (OCWA)

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Tribal Council Affiliation: Wabun Tribal Council

Operator: Anita Leona

Location: The Chapleau Ojibway First Nation community is located 2 km south of Chapleau

Population: 24 people in the community (November 2000 - INAC)

No. of Units: 11 housing units (CAIS)

1.0 Description of Community Water Supply

Based on the CAIS report, the water to the houses in the Chapleau Ojibway community is treated as follows:

- 24 people used piped water
- 11 houses are serviced by a communal water system.

2.0 Description of Community Sewage Facilities

Based on information supplied to OCWA, sewage from the houses in the Chapleau Ojibway community is treated as follows:

- 24 people are serviced by individual septic tanks
- 11 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
A. Water Source		
Biological	0	
Chemical	0	
Physical	0	
Overall Ranking for Water Source	0	
B. Design		
Biological	1	No exceedances in 28 samples
Chemical	1	No exceedances in two samples
Physical	5	Hardness exceedance 2 of 2 samples Manganese exceedances 1 of 2 samples
Risk to Public Health	10	No disinfection
Condition of Laboratory Equipment	0	
Overall Ranking for Design	10	No disinfection, no confined space entry, equipment pump for fire protection, generator for backup power, no lab area
C. Operations		
Reservoir Cleanliness	0	
Emergency Plan	0	
Overall Ranking for Operations	6	No as-built drawings, annual hydrant flushing program, or annual main-valve operating gram
D. Reporting		

SECTION Water	SECTION RANKING Water	RISK Water
Ranking for Laboratories and Testing	1	
Ranking for Boil Water Advisories	1	No boil water advisories issued
Overall Ranking for Reporting	1	Meeting GCDWQ
E. Operators		
Overall Ranking for Operators	10	No certification or training and operator does not appear confident in abilities to run plant
F. Statistical Data		
Overall Ranking for Individual Wells	0	
Overall Ranking for the System	10	High Risk

4.0 Communal Water Supply (11 houses)

4.1 Water Source

The community is serviced by a communal well.

4.2 Design

The community is serviced by a small well pumphouse supplying groundwater to the community through a water distribution system. The rated design capacity is unknown, however, the operator indicated that the present usage requirement of the system is met. The pump house is equipped with a pump, three pressure tanks, and a spare fire pump. No method of disinfection is being used.

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

Date	Exceedance	Result	GCDWQ Limit
May 29, 2000	Manganese	2.53 mg/L	0.050 mg/L (AO)
	Hardness	37 mg/L	80 to 100 mg/L (OG)
July 12, 2001	Hardness	36 mg/L	80 to 100 mg/L (OG)

AO = aesthetic objective, OG = operational guideline

There is no back up power generator.

The only expressed safety concern is that the pumphouse is small and cluttered. There is no safety equipment available.

There is no designated laboratory, office/filing or maintenance area. There is no flow meter, on-line analyzers, and virtually no equipment of any kind.

4.3 Operations

There are no operations and maintenance manuals for plant equipment, and as-built drawings on site. There are no emergency spare parts and contact listing of technicians/trades people available. The response for such personnel is approximately 48 hours.

There is no annual flushing program or main valve operating and maintenance program. There is one spare fire pump on site.

In the last two years, there have been no service disruptions and no re-occurring operational problems.

4.4 Reporting

Health Canada conducts bacteriological testing once a month on the communal water system. The results are kept at the Band Office.

The following table summarizes the bacteriological data from Health Canada:

Period	Frequency	Regularity	Exceedances
99/10/27 to 01/09/18	Once a month from different locations	<ul style="list-style-type: none"> ▪ Months missing 1999: Nov ▪ Months missing 2000: Jan, Feb, Apr, June, Sept, Oct, Dec ▪ Months missing 2001: Feb, June, Aug 	<ul style="list-style-type: none"> ▪ No exceedances noted during period

Operator water testing is infrequent. In the last two years, there have been no disease or health related outbreaks. Health Canada has not issued any boil water advisories on the communal water system.

4.5 Operators

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Anita Leonna is the operator at the treatment plant. [REDACTED]

The operator should receive additional training with respect to operation and maintenance of the water treatment facility.

There is no back up operator available to cover for vacation or sickness.

5.0 Deficiencies in the Communal Water Supply

1. There is currently no method of disinfection on the communal water supply system.
2. Safety equipment is not available.
3. There are no operations and maintenance manuals for plant equipment and there are no as-built drawings on-site.
4. Good housekeeping of the facilities needs to be practiced.
5. The operator does not perform a flushing and maintenance program or valve operation and maintenance program on the water distribution system.
6. Health Canada takes one bacteriological sample every month.

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7. [REDACTED]

6.0 Deficiencies of Communal Sewage Facilities

1. Inspection of individual sewage septic tanks was outside the Terms of Reference of the OCWA study.

7.0 Classifications

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 I

8.0 Recommendations

- Purchase safety equipment.
- Increase frequency of bacteriological testing and implement chemical testing.
- Provide disinfection for the system.
- Consider adding a flow meter, a pressure sensor, and an alarm.
- If disinfection is implemented, also consider providing laboratory/office/maintenance areas, safety equipment, flow monitoring, a chlorine analyzer, and alarms.
- Purchase spare parts.
- Consider emergency back up power.
- Implement a training program that can lead to certification of the operator.
- Implement annual flushing, valve testing and maintenance program.
- Operator needs to implement a house cleaning and general maintenance program of the facilities.
- Develop a comprehensive contingency plan to address operational problems, breakdowns, vacations and sickness, main breaks and boil water advisories.
- Obtain as-built drawings and operations and maintenance manuals and keep on-site.
- Implement a sewage septic tank inspection program to inspect all septic tanks in the community for proper operations and meeting the required standards.

9.0 Overall Community Risk Assessment

Water Category – High Risk

- **High Risk because of the following:**
 - No disinfection equipment; and
 - Operator needs 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.