

2009 Kenora Water System

Summary Report

January 1st 2009 – December 31st 2009

Prepared by Warren Ortlieb

Index

- General Requirements of the SDWA

- System Approvals

- Certificate of Approval
- Permit to Take Water

- Non-Compliances

- Quantities, Flows and Comparisons

- Attachments

- Letter to Mr. & Mrs. Glen Larson (Rocky Heights)
- 2009 Annual Report (Part III Form 2 Section 11) Operational Incidents
- 2009 Inspection Rating Report Record
- 2009 – Report Summary

General Requirements of the SDWA

In accordance with the Safe Drinking Water Act, 2002 – O. Reg. 170/03 under Schedule 22 it is the responsibility of the Water and Sewer Department to provide a Summary Report of the water system to the Municipal Council no later than March 31 of each year after 2003. Under Schedule 22 (22-2) subsection 5 the report shall be prepared not later than March 31, 2010 shall be deemed to be the period from January 1, 2009 to December 31, 2009. The report must,

- (a) list the requirements of the Act, the regulations, the systems approval and any order that the system failed to meet at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The report must also include the following information for the purposes of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- (a) A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- (b) A comparison of the summary referred to in paragraph (a) to the rated capacity and flow rates approved in the systems approval.

Systems Approvals

- **C of A**
- **Permit to Take Water**



DWS Certificate of Approval

**AMENDED CERTIFICATE OF APPROVAL
MUNICIPAL DRINKING WATER SYSTEMS
NUMBER 4334-7UGP47
Issue Date: August 28, 2009**

The Corporation of the City of Kenora
1 Main Street South
Kenora, Ontario
P9N 3X2

Site Location: Kenora Regional Water Treatment Plant
9 Seventh St S
Kenora City, District of Kenora
P9N 1P3

Pursuant to the Safe Drinking Water Act, 2002, S.O. 2002, c. 32, and the regulations made thereunder and subject to the limitations thereof, this approval is issued under Part V of the Safe Drinking Water Act, 2002, S.O. 2002, c. 32 to:

The Corporation of the City of Kenora
1 Main Street South
Kenora, Ontario
P9N 3X2

PART 1 - DRINKING-WATER SYSTEM DESCRIPTION

- 1.1 for a drinking-water system serving Kenora, Keewatin and Jaffray Melick Township, rated as set out in Part 4 consisting of the following:

Existing Water Works

(as per the Engineer's Report entitled "Waterworks Kenora Water Treatment Plant as prepared by RAL Engineering Ltd. dated January 2001, Applications of Approval dated August 16, 2002 and March 3, 2004)

Intake Facility

Located 270m into the Lake of the Woods with a 900mm pipe connection to the Low Lift Pumping Station;

Low Lift Pumping Station

Consisting of a wet well equipped with two inlet screens, three vertical turbine pumps each rated at 152 L/s and a venturi meter;

Plant Building [NAD 27 Zone 15 392645.00 E 5512492.00 N]

Housing the following:

Mixing Chamber

- equipped with a high speed blender followed by an in-line rapid mixer;

Flocculator/ Clarifier

- two upflow solids contact clarifiers each measuring 11.5 m x 16.8 m x 6.25 m side water depth at a total rated capacity of 27, 600 m³/d;

Filtration Units

- four dual media [anthracite/ sand] filters with air scour backwash;

Clearwell

- a 2275 m³ wet well with a common baffled mixing chamber and two contact tanks each with four (4) flow governing baffles;

High Lift Pumping Station

- equipped with three pumps each capable of delivering 150 L/s at 120 m Total Dynamic Head and a venturi meter on the discharge main into the distribution system;
- two (2) static in-line mixers in high lift header;

Chlorination

- a primary disinfection system consisting of four (4) gas chlorinators with vacuum regulators, two (2) gas chlorinators (pre and standby) each rated 226.7 kg/d and two (2) gas chlorinators (post and trim) each rated at 90.7 kg/d;
- a secondary disinfection system consisting of three (3) 6,800 L ammonium sulfate solution tanks, one (1) 500 L day tank, two (2) chemical transfer pumps (one duty, one standby) each rated 60 L/min and two (2) chemical metering pumps (one duty, one standby) each rated 4.4 L/hr, with chemical feed line connected to the high lift pump common discharge header;
- five (5) online chlorine analyzers to monitor free and total chlorine, with alarm and recorder;

Chemical Feed Systems

- a primary coagulation [alum or poly-aluminum chloride/ sulfate] feed system consisting of two (2) 27,000 L solution tanks, two feed pumps each capable of delivering 480 L/hr along with solution feed lines to the in-line rapid mixer in the Mixing Chamber;

- a polyelectrolyte coagulant aide feed system consisting of a mixing unit, two feed pumps each capable of delivering 830 L/hr along with solution feed lines to the raw water line in the Mixing Chamber;
- a caustic soda feed system consisting of one (1) 27,000 L tank, one (1) 1,000 L day tank, one (1) chemical transfer pump capable of 125 L/min. and two (2) chemical feed pumps each capable of delivering 0.35 L/min. along with solution feed line connected to the high lift pump common discharge header;
- a sodium silicofluoride feed system consisting of a chemical feeder, a mixing tank and a feed pump capable of delivering 0.6 L/s;
- spill containment curbs for all process chemicals;

Stand-by Power Facility

- a 400kW diesel engine stand-by power generator set;

Waste Water Treatment Facility

Consisting of a 525 m³ settling/ surge tank, a 37.5 m³ supernatant well with related sludge pump and supernatant pumps;

together with all associated piping, electrical and mechanical equipment, ventilation, monitoring, control, metering, alarm systems, and instrumentation.

- 1.2 all in accordance with the applications and plans and other supporting documents listed in Schedule "A", and all other Schedules, which are attached to, and form part of this approval, except as specified in the conditions contained herein.

PART 2 - DEFINITIONS AND INFORMATION

- 2.1 Words and phrases not defined in this approval shall be given the same meaning as those set out in the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32 and any regulations made in accordance with that act, unless the context requires otherwise.

- 2.2 In this approval

"adverse effect", "contaminant", "impairment" and "natural environment" shall have the same meanings as in the *Environmental Protection Act*, R.S.O.1990, c. E.19 and the *Ontario Water Resources Act*, R.S.O.1990, c. O.40;

"approval" means this entire approval document, issued in accordance with section 36 of the *SDWA*, and includes any schedules to it;

"Director" means a Director appointed pursuant to s. 6 of the *SDWA* for the purposes of Part V of

the *SDWA* ;

"drinking-water system" includes the works set out in Part 1;

"operating authority" and "owner" mean, in addition to the respective meanings given in the Act, The Corporation of the City of Kenora;

"provincial officer" means a provincial officer appointed pursuant to s. 8 of the *SDWA* ;

"rated capacity" means the maximum flow rate of water which can be treated when operating the drinking-water system under design conditions;

"*SDWA*" means the *Safe Drinking Water Act, 2002, S.O. 2002, c. 32*, as amended.

PART 3 - GENERAL

Compliance

- 3.1 The owner and operating authority shall operate the drinking-water system in accordance with the *SDWA* , any applicable regulations made thereunder, and this approval.
- 3.2 Despite any condition of this approval to the contrary, the owner and operating authority set out in Part 2 are jointly and severally liable to comply with all conditions of this approval.
- 3.3 The owner and operating authority shall ensure that any person authorized to carry out work on or operate any aspect of the drinking-water system has been informed of the *SDWA* , all applicable regulations made in accordance with that act, and this approval and shall take all reasonable measures to ensure any such person complies with the same.
- 3.4 A copy of this approval shall be kept in a conspicuous place so that it is available for reference by all persons responsible for all or part of the operation of the drinking-water system.

Build, etc. in Accordance

- 3.5 Except as otherwise provided by this approval, the drinking-water system shall be designed, developed, built, operated and maintained in accordance with Part 1 above and the documentation listed in Schedule "A".

Interpretation

- 3.6 Where there is a conflict between the provisions of this approval and any other document, the following hierarchy shall be used to determine the provision that takes precedence:
 - i. The *SDWA* ;

- ii. a condition imposed in this approval in accordance with s. 38 of the *SDWA* ;
- iii. any regulation made under the *SDWA* ;
- iv. this approval;
- v. any application documents listed in Schedule "A" from most recent to earliest; and
- vi. all other documents listed in Schedule "A" from most recent to earliest.

3.7 The requirements of this approval are severable. If any requirement of this approval, or the application of any requirement of this approval to any circumstance, is held invalid or unenforceable, the application of such requirement to other circumstances and the remainder of this approval shall not be affected thereby.

3.8 Nothing in this approval shall be read to provide relief from the need for strict compliance with the *Environmental Assessment Act*, R.S.O. 1990, c E.18.

Other Legal Obligations

3.9 The issuance of, and compliance with the conditions of, this approval does not:

- i. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement; or
- ii. limit in any way the authority of the Ministry to require certain steps be taken or to require the owner to furnish any further information related to compliance with this approval.

3.10 For greater clarity, nothing in this approval shall be read to provide relief from regulatory requirements in accordance with section 38 of the *SDWA* , except as provided in Part 9.

Adverse Effects

3.11 Nothing in this approval shall be read as to permit: i) the discharge of a contaminant into the natural environment that causes or is likely to cause an adverse effect; or ii) the discharge of any material of any kind into or in any waters or on any shore or bank thereof or into or in any place that may impair the quality of the water of any waters.

3.12 All reasonable steps shall be taken to minimize and ameliorate any adverse effect on the natural environment or impairment of the quality of water of any waters resulting from the operation of the drinking-water system including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.

3.13 Fulfillment of one or more conditions imposed by this approval does not eliminate the requirement to fulfill any other condition of this approval or the requirements of any applicable

statute, regulation, or other legal requirement resulting from any act or omission that causes or is likely to cause an adverse effect on the natural environment or the impairment of water quality.

Change of Owner

- 3.14 The owner or the operating authority, as the case may be, shall notify the Director, in writing, of any of the following changes within 30 days of the change occurring:
- i. change of owner or operating authority;
 - ii. change of address;
 - iii. change of partners where the owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c. B17; or
 - iv. change of name of the corporation where the owner or operating authority is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C.39.
- 3.15 In the event of any change in ownership of the drinking-water system, other than change to a successor municipality, the owner shall notify the successor of and provide the successor with a copy of this approval, and the owner shall provide a copy of the notification to the district manager of the local office of the Ministry and the Director.

Inspections

- 3.16 No person shall hinder or obstruct a provincial officer in the performance of his or her duties, including any and all inspections authorized by the *SDWA* .

Information

- 3.17 Any information requested, by the Ministry, concerning the drinking-water system and its operation under this approval, including but not limited to any records required to be kept by this approval shall be provided to the Ministry, upon request.
- 3.18 Records required by or created in accordance with this approval, unless specifically referenced in s. 12 of O. Reg. 170/03, shall be retained for at least 5 years in a location where a provincial officer who is inspecting the treatment system can conveniently view them.

PART 4 - PERFORMANCE

Rated Capacity

- 4.1 The drinking-water system shall not be operated to exceed the rated capacity for the maximum

flow rate into the treatment system of 292 L/s.

Increase to Rated Capacity

- 4.2 Despite condition 4.1, the drinking water system may be operated at a rate above the rated capacity set out in condition 4.1 where necessary for:
- i. fighting a large fire; or
 - ii. the maintenance of the drinking-water system.
- 4.3 Condition 4.2 shall not be construed to allow drinking-water to be supplied that does not meet all other applicable standards and legal requirements.

Management of Residue

- 4.4 The annual average concentration of suspended solids in the effluent discharged from the backwash wastewater facilities shall not exceed **25 mg/L**.

PART 5 - MONITORING AND RECORDING

Flow measuring devices

- 5.1 Install a sufficient number of flow-measuring devices within the drinking-water system to permit continuous measurement and recording of:
- i. the flow rate and daily volume of water conveyed into the treatment system; and
 - ii. the flow rate and daily volume of water conveyed from the treatment system to the distribution system.
- 5.2 Records shall be maintained that set out the parameters recorded in accordance with condition 5.1, and where a measured flow rate into a treatment system, train, or stage exceeds the maximum flow rate set out for that treatment system, train, or stage in Part 4, the amount, date, time and duration of the exceedence shall also be recorded.

Calibration of flow measuring devices

- 5.3 All flow measuring devices must be checked and calibrated in accordance with the manufacturer's instructions.
- 5.4 If the manufacturer's instructions do not indicate how often to check and calibrate the flow measuring devices, the equipment must be checked and calibrated at least once every year during which the drinking-water system is in operation.

Additional Sampling - Management of Residue

- 5.5 In addition to any other sampling and analysis that may be required, sampling and analysis shall be undertaken for the parameters listed in **Table 5.1** at the listed frequencies and locations.

Table 5.1 Management of Residue Sampling

<u>Item</u>	<u>Parameter</u>	<u>Frequency</u>	<u>Location</u>
1.	Suspended Solids (composite)	Monthly	Point of discharge

- 5.6 For the purposes of **Table 5.1**, composite means the mean of three samples taken during the discharge event, with at least one sample taken immediately following the commencement of the discharge, one sample taken approximately at the mid-point of the discharge event and one sample taken immediately before the discharge ceases.

PART 6 - OPERATIONS AND MAINTENANCE

Chemical standards

- 6.1 All chemicals and materials used in the operation of the drinking-water system that come into contact with water within the system shall meet all applicable standards set by both the American Water Works Association ("AWWA") and the American National Standards Institute ("ANSI") safety criteria standards NSF/60 and NSF/61.
- 6.2 The most current chemical and material product registration documentation from a testing institution accredited by either the Standards Council of Canada or by the American National Standards Institution shall be available at all times for each chemical and material used in the operation of the drinking-water system that comes into contact with water within the system.
- 6.3 Condition 6.2 does not apply in the context of any particular chemical or material where the Owner has written documentation signed by the Director that indicates that the Ministry is satisfied that the chemical or material is acceptable for use within the drinking-water system and that chemical or material is only used as permitted by the documentation.

Operations manual

- 6.4 An up-to-date operations manual shall be maintained and available for reference by all persons responsible for all or part of the operation of the drinking-water system.
- 6.5 The operations manual shall include at a minimum:
- i. the requirements of this approval and associated procedures;

- ii. the operation and maintenance recommendations from the most recent engineers' report;
 - iii. procedures for the monitoring and recording of in-process parameters necessary for the control of the treatment system and assessing the performance of the drinking-water system;
 - iv. procedures for the operation and maintenance of monitoring equipment;
 - v. contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset and equipment breakdown;
 - vi. procedures for the dealing with complaints related to the drinking-water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint;
- 6.6 Procedures necessary to the operation of any physical alterations of the drinking-water system shall be incorporated into the operations manual prior to the alterations coming into operation.

Drawings

- 6.7 Up-to-date Process Flow Diagrams (PFD) and Process and Instrumentation Diagrams (P&ID) for the treatment system shall be kept on site at the drinking water system.
- 6.8 All drawings and diagrams in the possession of the owner or operating authority that show the treatment system as constructed shall be retained.
- 6.9 An alteration to the treatment system shall be incorporated into Process Flow Diagrams (PFD), Process and Instrumentation Diagrams (P&ID), and record drawings and diagrams within one year of the substantial completion of the alteration and shall be retained and shall be made readily available for inspection by Ministry staff.

PART 7 - FUTURE ALTERATIONS

Approved future alterations

7.1 *Not Applicable*

Certificate of compliance

7.2 *Not Applicable*

PART 8 - STUDIES AND UPGRADES REQUIRED

8.1 *Not Applicable*

Requirement not an approval

8.2 *Not Applicable*

PART 9 - RELIEF FROM REGULATORY REQUIREMENTS

Relief from regulatory requirements

9.1 *Not Applicable*

Conditions in exchange for relief from regulatory requirements

9.2 *Not Applicable*

SCHEDULE - A

The following supporting documents form part of this approval.

1. Application dated January 16, 2009
2. Application received March 30, 2005
3. Application dated September 30, 2004
4. Application dated March 29, 2004
- Design Brief dated March 2, 2004
5. Application dated February 24, 2003 and supporting documents and correspondence
6. Application dated August 16, 2002 and supporting documents and correspondence
7. The original applications for approval, including design calculations, engineering drawings and reports, and other supporting documents prepared in support of any previous certificate(s) of approval issued for any works now approved and replaced by this approval, unless this approval states otherwise.

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 7517-6EPKXE issued on July 28, 2005

All or part of this decision may be reviewable in accordance with the provisions of Part X of the SDWA. In accordance with Section 129(1) of the Safe Drinking Water Act, Chapter 32 Statutes of Ontario, 2002, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days

after receipt of this notice, require a hearing by the Tribunal. Section 129(2) sets out a procedure upon which the 15 days may be extended by the Tribunal. Section 129(3) of the Safe Drinking Water Act, Chapter 32 Statutes of Ontario, 2002, provides that the Notice requiring the hearing shall state:

1. The aspect of the decision, including the portion of the permit, licence, approval, order or notice of administrative penalty in respect of which the hearing is required; and
2. The grounds for review to be relied on by the person at the hearing.

Except with leave of the Tribunal, a person requiring a hearing in relation to a reviewable decision is not entitled to,
(a) a review of an aspect of the decision other than that stated in the notice requiring the hearing; or
(b) a review of the decision other than on the grounds stated in the notice

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
MSG 1E5

AND

The Director
Part V, *Safe Drinking Water Act, 2002*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the

Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca

The above noted water works are approved under Part V of the Safe Drinking Water Act.

DATED AT TORONTO this 28th day of August, 2009



Aziz Ahmed, P.Eng.
Director

EL/

c: District Manager, MOE Kenora
Drinking Water Supervisor, MOE Kenora



Ontario

Ministry of the Environment
Drinking Water System Inspection Report Appendix B

DWS Permit to Take Water



Ministry of the
Environment
Ministère de
l'Environnement

PERMIT TO TAKE WATER
Surface Water
NUMBER 3413-6DFNPM

Pursuant to Section 34 of the Ontario Water Resources Act, R.S.O. 1990 this Permit To Take Water is hereby issued to:

The Corporation of the City of Kenora
1 Main Street South
Kenora, Ontario, P9N 3X2
Canada

For the water taking from: Lake of The Woods (Rat Portage Bay)

Located at: 9 Seventh Street South
Kenora, District of Kenora

For the purposes of this Permit, and the terms and conditions specified below, the following definitions apply:

DEFINITIONS

- (a) "Director" means any person appointed in writing as a Director pursuant to section 5 of the OWRA for the purposes of section 34, OWRA.
- (b) "Provincial Officer" means any person designated in writing by the Minister as a Provincial Officer pursuant to section 5 of the OWRA.
- (c) "Ministry" means Ontario Ministry of the Environment.
- (d) "District Office" means the Kenora District Office.
- (e) "Permit" means this Permit to Take Water No. 3413-6DFNPM including its Schedules, if any, issued in accordance with Section 34 of the OWRA.
- (f) "Permit Holder" means The Corporation of the City of Kenora.
- (g) "OWRA " means the *Ontario Water Resources Act*, R.S.O. 1990, c. O. 40, as amended.

You are hereby notified that this Permit is issued subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. Compliance with Permit

- 1.1 Except where modified by this Permit, the water taking shall be in accordance with the application for this Permit To Take Water, dated May 30, 2005 and signed by Warren Ortlieb, and all Schedules included in this Permit.
- 1.2 The Permit Holder shall ensure that any person authorized by the Permit Holder to take water under this Permit is provided with a copy of this Permit and shall take all reasonable measures to ensure that any such person complies with the conditions of this Permit.
- 1.3 Any person authorized by the Permit Holder to take water under this Permit shall comply with the conditions of this Permit.
- 1.4 This Permit is not transferable to another person.
- 1.5 This Permit provides the Permit Holder with permission to take water in accordance with the conditions of this Permit, up to the date of the expiry of this Permit. This Permit does not constitute a legal right, vested or otherwise, to a water allocation, and the issuance of this Permit does not guarantee that, upon its expiry, it will be renewed.
- 1.6 The Permit Holder shall keep this Permit available at all times at or near the site of the taking, and shall produce this Permit immediately for inspection by a Provincial Officer upon his or her request.
- 1.7 The Permit Holder shall report any changes of address to the Director within thirty days of any such change. The Permit Holder shall report any change of ownership of the property for which this Permit is issued within thirty days of any such change. A change in ownership in the property shall cause this Permit to be cancelled.

2. General Conditions and Interpretation

2.1 Inspections

The Permit Holder must forthwith, upon presentation of credentials, permit a Provincial Officer to carry out any and all inspections authorized by the OWRA, the *Environmental Protection Act*, R.S.O. 1990, the *Pesticides Act*, R.S.O. 1990, or the *Safe Drinking Water Act*, S. O. 2002.

2.2 Other Approvals

The issuance of, and compliance with this Permit, does not:

(a) relieve the Permit Holder or any other person from any obligation to comply with any other applicable legal requirements, including the provisions of the *Ontario Water Resources Act*, and the *Environmental Protection Act*, and any regulations made thereunder; or

(b) limit in any way the authority of the Director or a Provincial Officer to require certain steps be

taken or to require the Permit Holder to furnish any further information related to this Permit.

2.2.1 Prior to the taking of any water under the authorization of the Permit to Take Water, the Permit Holder shall ensure full compliance with the *Safe Drinking Water Act, 2002* and its regulations. At no time does this permit authorize the taking of water when out of compliance with the *Safe Drinking Water Act, 2002* and its regulations.

2.3 Information

The receipt of any information by the Ministry, the failure of the Ministry to take any action or require any person to take any action in relation to the information, or the failure of a Provincial Officer to prosecute any person in relation to the information, shall not be construed as:

- (a) an approval, waiver or justification by the Ministry of any act or omission of any person that contravenes this Permit or other legal requirement; or
- (b) acceptance by the Ministry of the information's completeness or accuracy.

2.4 Rights of Action

The issuance of, and compliance with this Permit shall not be construed as precluding or limiting any legal claims or rights of action that any person, including the Crown in right of Ontario or any agency thereof, has or may have against the Permit Holder, its officers, employees, agents, and contractors.

2.5 Severability

The requirements of this Permit are severable. If any requirements of this Permit, or the application of any requirements of this Permit to any circumstance, is held invalid or unenforceable, the application of such requirements to other circumstances and the remainder of this Permit shall not be affected thereby.

2.6 Conflicts

Where there is a conflict between a provision of any submitted document referred to in this Permit, including its Schedules, and the conditions of this Permit, the conditions in this Permit shall take precedence.

3. Water Takings Authorized by This Permit

3.1 Expiry

This Permit expires on **August 14, 2015**. No water shall be taken under authority of this Permit after the expiry date.

3.2 Amounts of Taking Permitted

The Permit Holder shall only take water from the source, during the periods and at the rates and amounts of taking specified in Table A. Water takings are authorized only for the purposes specified in Table A.

Table A

Source Name	Source	Taking	Taking	Max.	Max. Num.	Max. Taken	Max. Num.	Zone
-------------	--------	--------	--------	------	-----------	------------	-----------	------

Description:	Type:	Specific Purpose:	Major Category:	Taken per Minute (litres):	of Hrs. Taken per Day:	per Day (litres):	of Days Taken per Year:	Easting/Northing:
1. Lake of The Woods (Rat Portage Bay)	Lake	Other - Water Supply	Water Supply	18055.00	24.00	26000000.00	365.00	15 392580 5512850
Total Taking:						26000000.00		

3.3 Water may only be taken under the authorization of this permit upon the expiry of Permit to Take Water 00-P-6052 on August 14, 2005.

4. Monitoring

4.1 The Permit Holder shall maintain a record of all water takings. This record shall include the dates and times of water takings, and the total measured amounts of water pumped per day for each day that water is taken under the authorization of this Permit. The Permit Holder shall keep all required records up to date and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon his or her request.

5. Impacts of the Water Taking

5.1 Notification

The Permit Holder shall immediately notify the local District Office of any complaint arising from the taking of water authorized under this Permit and shall report any action which has been taken or is proposed with regard to such complaint. The Permit Holder shall immediately notify the local District Office if the taking of water is observed to have any significant impact on the surrounding waters. After hours, calls shall be directed to the Ministry's Spills Action Centre at 1-800-268-6060.

5.2 For Surface-Water Takings

The taking of water (including the taking of water into storage and the subsequent or simultaneous withdrawal from storage) shall be carried out in such a manner that streamflow is not stopped and is not reduced to a rate that will cause interference with downstream uses of water or with the natural functions of the stream.

6. Director May Amend Permit

The Director may amend this Permit by letter requiring the Permit Holder to suspend or reduce the taking to an amount or threshold specified by the Director in the letter. The suspension or reduction in taking shall be effective immediately and may be revoked at any time upon notification by the Director. This condition does not affect your right to appeal the suspension or reduction in taking to the Environmental Review Tribunal under the *Ontario Water Resources Act*, Section 100 (3).

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is included to ensure that the conditions in this Permit are complied with and can be enforced.
2. Condition 2 is included to clarify the legal interpretation of aspects of this Permit.
3. Conditions 3 through 6 are included to protect the quality of the natural environment so as to safeguard the ecosystem and human health and foster efficient use and conservation of waters. These conditions allow for the beneficial use of waters while ensuring the fair sharing, conservation and sustainable use of the waters of Ontario. The conditions also specify the water takings that are authorized by this Permit and the scope of this Permit.

In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, as amended, provides that the Notice requiring the hearing shall state:

1. The portions of the Permit or each term or condition in the Permit in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

In addition to these legal requirements, the Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Permit to Take Water number;
6. The date of the Permit to Take Water;
7. The name of the Director;
8. The municipality within which the works are located;

And the Notice should be signed and dated by the appellant.

This notice must be served upon:

*The Secretary
Environmental Review Tribunal
2300 Yonge Street, 12th Floor
Toronto, Ontario M4P 1E4*

AND

*The Director, Section 34
Ontario Water Resources Act, RSO 1990,
Ministry of Environment
331-435 James St S
Thunder Bay ON P7E 6S7
Fax: (807)475-1754*

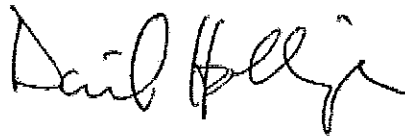
Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal:

by telephone at (416) 314-4600

by fax at (416) 314-4506

by e-mail at www.ert.gov.on.ca

Dated at Thunder Bay this 20th day of June, 2005.



Dave Hollinger
Director, Section 34
Ontario Water Resources Act, R.S.O. 1990

Non-Compliance

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

1. Records did not confirm that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.

Regulation 170/03 requires a chlorine residual test to be conducted for every microbiological sample collected. One chlorine residual was missing from the chain of custody form for sampling conducted on November 10, 2008.

Action(s) Required:

The City of Kenora must ensure that a record is made every time a chlorine residual is required to be taken.

Non - Compliance With Regulatory Requirements

The following is a list of non - compliances, the duration and the corrective action taken to bring the City of Kenora's Water System in to compliance with the Safe Drinking Water Act. There was only one(1) non-compliance identified in the Ministry of the Environment's 2009 Water System Inspection for the Kenora Water System.

1) Non Compliance - For every required operational test and for every required sample, a record was not made of the date, time, location, and name of the person who performed the test and the result of the analysis.

On one occasion the operator tested for chlorine but did not record the result on the Chain of Command Custody Form. This non – compliance is the result of the operators not being diligent with the requirements of Regulation 170. This violation was discussed with the identifiable operator through Performance Appraisal program.

Quantities, Flows and Comparisons

2009 Summary of Quantities and Flows

Month	Effluent Flow M3	Average Daily Flow M3	Max. Daily Flow M3
January	253,405	8,174	9,096
February	226,693	8,096	8,811
March	237,583	7,664	8,605
April	222,934	7,431	8,055
May	213,155	6,876	8,957
June	212,229	7,074	9,884
July	350,797	11,316	13,333
August	209,652	6,763	7,847
September	209,116	6,971	10,850
October	189,382	6,109	8,129
November	178,100	5,937	6,752
December	<u>188,843</u>	6,092	7,096
Total	2,691,889		

Monthly Average - 224,324 m3

Daily Instantaneous Peak Flows

January 1, 2009 – December 31, 2009 – 21,099 m3/day = 244 L/s

Approved Flow Rate – 292 L/s

Rated Capacity – 25,229 m3/day

Comparisons

In July 2009, the maximum daily flow was 13,333m3, which calculates to 52.8 % of the approved rated capacity.

The daily instantaneous peak flow for 2009 was 21,099 m3/day or 244 L/s, which calculates to 83.6% of the approved rated capacity

Attachments

- **Letter to Mr. & Mrs. Glen Larson**
- **2009 Annual Report (Part III Form 2 Section 11) Operational Incidents**
- **2009 Inspection Rating Report Record**
- **2009 Report Summary**



City of Kenora
Operations Centre

60 Fourteenth St N
Kenora, ON P9N 4M9
Operations Manager
Phone 807-467-2291
Fax 807-467-2246
www@kenora.ca

"By Registered Mail"

February 2, 2010

Mr. & Mrs. Glen Larson
1317 Rocky Heights Rd
Kenora, Ontario
P9N 4G9

Dear Mr. & Mrs. Larson:

Re: 2009 Annual Report

Enclosed is the 2009 Annual Report for the City of Kenora's Water System. The City is required to provide a copy of the report to the owner(s) of private water systems that receive drinking water from the City of Kenora's Drinking Water System, as outlined in the current regulations of the Safe Drinking Water Act.

As you are deemed to be the owner of the Rocky Heights Private Water System, you are therefore required to operate the water system in accordance with the current regulations under the Safe Drinking Water Act.

Should you have any questions regarding this matter please do not hesitate to contact me at telephone 467-2296 or Paula Spencer, Drinking Water Inspector, Ministry of the Environment (Kenora office) at telephone 468-2731.

Respectfully Submitted,

Warren Ortlieb
City of Kenora

Wo/pm

c.c Rick Perchuk, Operations Manager
Bill Preisentanz, CAO
Paula Spencer, Drinking Water Inspector, MOE (local)

Attachment: 2009 Annual Report



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	220001423
Drinking-Water System Name:	KENORA AREA WATER TREATMENT PLANT
Drinking-Water System Owner:	CITY OF KENORA
Drinking-Water System Category:	LARGE MUNICIPAL RESIDENTIAL
Period being reported:	JANUARY 1, 2009 – DECEMBER 31, 2009

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes [X] No []

Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

City Hall – 1 Main Street South
 Kenora Water Treatment Plant –
 9 7th Street South
 City of Kenora – Website
<http://www.kenora.ca>

Complete for all other Categories.

Number of Designated Facilities served:

N/A

Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []

Number of Interested Authorities you report to:

N/A

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
Rocky Heights Distribution System	N/A

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water? Yes [X] No []



Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method _____

Describe your Drinking-Water System

The Kenora Water Treatment Plant is categorized as Large Municipal Residential. It is designated a Class III plant. The total number of service connections at this time is 6440, with 5,268 currently active, 260 seasonal and 912 inactive. The water plant has a rated capacity of 292 Litres per second. The process is chemically assisted and includes filtration to meet the treatment requirements of O.Reg 170/03 for surface water. The plant uses chloramination to provide secondary disinfection prior to distribution.

List all water treatment chemicals used over this reporting period

Chlorine, Ammonium Sulphate, Aluminum Sulphate, Polyelectrolyte, Sodium Hydroxide, Sodium Silicofluoride.

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

Recoating and Repainting of Zone 1 Tank - \$269,000
Replacement of Marine Line - \$2.8 million
Rec Center Project - \$67,480



Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
Feb 13/2009	Total Coliform in distribution system.	Present	P/A	Suspected sampling error. 2 consecutive resamples taken 24 hours apart. Both samples indicated an absence of TC and EC.	Feb 17/2009
July 31/2009	Fecal Streptococcus in highlift header.	Present	P/A	Suspected sampling error. Resamples taken from highlift header and Brinkman booster. Both samples indicated an absence of PA MOE coliform and bacteria.	Aug 4/2009

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	52	<1 – 2	1 – 1000	N/A	N/A
Treated	52	Absent	Absent	51	0 – 4
Distribution	312	Absent	1 Present	94	0 – 3

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results	Number of Online Samples	Range of Results
Turbidity	365	0.026 - 0.071 NTU	8760	0.029 – 2.009 NTU
Chlorine	365	1.67 – 2.11 mg/L	8760	1.69 – 2.12 mg/L
Fluoride (If the DWS provides fluoridation)	365	0.37 -0.76 mg/L	8760	0.07 – 0.79 mg/L

NOTE: Record the unit of measure if it is not milligrams per litre.



Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
Nov 3/2004	Total suspended solids	No samples were taken as effluent was not discharged to lake in 2009.	N/A	mg/L

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Feb 9/2009	<0.60	ug/L	No
Arsenic	Feb 9/2009	<1.00	ug/L	No
Barium	Feb 9/2009	10.0	ug/L	No
Boron	Feb 9/2009	<50.0	ug/L	No
Cadmium	Feb 9/2009	<0.10	ug/L	No
Chromium	Feb 9/2009	<1.00	ug/L	No
*Lead	N/A	N/A	N/A	N/A
Mercury	Feb 9/2009	<0.10	ug/L	No
Selenium	Feb 9/2009	<5.00	ug/L	No
Sodium	Jan 31/2005	7.75	mg/L	No
Uranium	Feb 9/2009	<5.00	ug/L	No
Fluoride	Jan 31/2005	0.36	mg/L	No
Nitrite	Feb 9/2009	<0.02	mg/L	No
	May 4/2009	<0.020	mg/L	No
	Aug 5/2009	<0.020	mg/L	No
	Nov 9/2009	<0.020	mg/L	No
Nitrate	Feb 9/2009	0.08	mg/L	No
	May 4/2009	0.085	mg/L	No
	Aug 5/2009	<0.030	mg/L	No
	Nov 9/2009	0.139	mg/L	No

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems



Summary of lead testing under Schedule 15.1 during this reporting period
 (applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	132	<1.0 – 59.0 ug/L	6
Distribution	24	<1.0 – 3.9 ug/L	0

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Feb 9/2009	<0.10	ug/L	No
Aldicarb	Feb 9/2009	<1.00	ug/L	No
Aldrin + Dieldrin	Feb 9/2009	<0.04	ug/L	No
Atrazine + N-dealkylated metabolites	Feb 9/2009	<0.20	ug/L	No
Azinphos-methyl	Feb 9/2009	<0.10	ug/L	No
Bendiocarb	Feb 9/2009	<0.20	ug/L	No
Benzene	Feb 9/2009	<0.50	ug/L	No
Benzo(a)pyrene	Feb 9/2009	<0.01	ug/L	No
Bromoxynil	Feb 9/2009	<0.20	ug/L	No
Carbaryl	Feb 9/2009	<0.20	ug/L	No
Carbofuran	Feb 9/2009	<0.20	ug/L	No
Carbon Tetrachloride	Feb 9/2009	<0.50	ug/L	No
Chlordane (Total)	Feb 9/2009	<0.30	ug/L	No
Chlorpyrifos	Feb 9/2009	<0.10	ug/L	No
Cyanazine	Feb 9/2009	<0.10	ug/L	No
Diazinon	Feb 9/2009	<0.10	ug/L	No
Dicamba	Feb 9/2009	<0.20	ug/L	No
1,2-Dichlorobenzene	Feb 9/2009	<0.50	ug/L	No
1,4-Dichlorobenzene	Feb 9/2009	<0.50	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Feb 9/2009	<0.40	ug/L	No
1,2-Dichloroethane	Feb 9/2009	<0.50	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	Feb 9/2009	<0.50	ug/L	No
Dichloromethane	Feb 9/2009	<0.50	ug/L	No
2-4 Dichlorophenol	Feb 9/2009	<0.50	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Feb 9/2009	<0.20	ug/L	No
Diclofop-methyl	Feb 9/2009	<0.20	ug/L	No
Dimethoate	Feb 9/2009	<0.10	ug/L	No
Dinoseb	Feb 9/2009	<0.20	ug/L	No
Diquat	Feb 9/2009	<1.00	ug/L	No
Diuron	Feb 9/2009	<1.00	ug/L	No
Glyphosate	Feb 9/2009	<5.00	ug/L	No



Heptachlor + Heptachlor Epoxide	Feb 9/2009	<0.20	ug/L	No
Lindane (Total)	Feb 9/2009	<0.10	ug/L	No
Malathion	Feb 9/2009	<0.10	ug/L	No
Methoxychlor	Feb 9/2009	<0.10	ug/L	No
Metolachlor	Feb 9/2009	<0.10	ug/L	No
Metribuzin	Feb 9/2009	<0.10	ug/L	No
Monochlorobenzene	Feb 9/2009	<0.50	ug/L	No
Paraquat	Feb 9/2009	<1.00	ug/L	No
Parathion	Feb 9/2009	<0.10	ug/L	No
Pentachlorophenol	Feb 9/2009	<0.50	ug/L	No
Phorate	Feb 9/2009	<0.10	ug/L	No
Picloram	Feb 9/2009	<0.20	ug/L	No
Polychlorinated Biphenyls(PCB)	Feb 9/2009	<0.02	ug/L	No
Prometryne	Feb 9/2009	<0.10	ug/L	No
Simazine	Feb 9/2009	<0.10	ug/L	No
THM (NOTE: show latest annual average)	Feb 9/2009 May 4/2009 Aug 5/2009 Nov 9/2009	48.8	ug/L	No
Temephos	Feb 9/2009	<0.10	ug/L	No
Terbufos	Feb 9/2009	<0.20	ug/L	No
Tetrachloroethylene	Feb 9/2009	<0.50	ug/L	No
2,3,4,6-Tetrachlorophenol	Feb 9/2009	<0.50	ug/L	No
Triallate	Feb 9/2009	<0.10	ug/L	No
Trichloroethylene	Feb 9/2009	<0.50	ug/L	No
2,4,6-Trichlorophenol	Feb 9/2009	<0.50	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Feb 9/2009	<0.20	ug/L	No
Trifluralin	Feb 9/2009	<0.10	ug/L	No
Vinyl Chloride	Feb 9/2009	<0.50	ug/L	No

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2009-2010)

DWS Name: KENORA AREA WATER TREATMENT PLANT
DWS Number: 220001423
DWS Owner: Kenora, The Corporation Of The City Of
Municipal Location: Kenora City
Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Detailed
Inspection Date: August 26, 2009
Ministry Office: Kenora Area Office

Maximum Question Rating: 844

Inspection Module	Non-Compliance Rating
Permit To Take Water	0 / 30
Capacity Assessment	0 / 42
Treatment Processes	0 / 115
Process Wastewater	0 / 10
Distribution System	0 / 4
Operations Manuals	0 / 42
Logbooks	0 / 46
Contingency/Emergency Planning	0 / 31
Consumer Relations	0 / 16
Certification and Training	0 / 61
Water Quality Monitoring	14 / 321
Reporting & Corrective Actions	0 / 126
TOTAL	14 / 844

Inspection Risk Rating 1.66%

FINAL INSPECTION RATING: 98.34%

Water Treatment Plant & Water Distribution System Report Summary

The Kenora Area Water Treatment Plant and Distribution System one(1) non-compliance under the Safe Drinking Water Act from January 1st, 2009 to December 31st, 2009. The non-compliance was recorded as “operator failed to record a chlorine residual on a chain of custody form”. Although this was listed as a non-compliance, it was administrative in nature and did not directly affect the quality of the drinking water. No non-compliances were identified in the distribution system. Effluent flows leaving the water plant were higher in July due to leaks in the marine water line, but have decreased significantly with the installation of the new water line.

The Ministry of the Environment performs an annual inspection of the City’s water System and issued an inspection rating of 98.34% for 2009, which shows an improvement over 97.86% received in 2008.

Warren Ortlieb