

REGION OF OTTAWA-CARLETON
RÉGION D'OTTAWA-CARLETON

REPORT
RAPPORT

Our File/N/Réf. 07-99-0119
Your File/V/Réf.

DATE 13 October 1999

TO/DEST. Chair and Members, Planning and Environment Committee

FROM/EXP. Councillor Jacques Legendre

SUBJECT/OBJET **SIERRA LEGAL DEFENCE FUND RATING OF
MUNICIPAL SEWAGE TREATMENT PRACTICES**

REPORT RECOMMENDATION

That the Planning and Environment Committee receive this report for information.

BACKGROUND

Attached, please find a memorandum dated 19 August 1999 from the Deputy Commissioner, Environment and Transportation Department, with regards to the above-noted subject. I have also attached a portion of *The National Sewage Report Card (Number Two)*, prepared by the Sierra Legal Defence Fund and pertaining to the Region of Ottawa-Carleton. A full copy of this report is held on file with the Regional Clerk.

I have requested that this item be included on the Agenda to allow for discussion by the Planning and Environment Committee.

Approved by
J. Legendre

cc: Commissioner, Environment and Transportation Department
 Deputy Commissioner, Environment

Our File/N/Réf. **50 07-99-0010**
Your File/V/Réf.

DATE 19 August 1999

TO/DEST. The Chair and Members of Council

FROM/EXP. Deputy Commissioner - Environment

SUBJECT/OBJET **SIERRA LEGAL DEFENSE FUND ATTACKS MUNICIPAL
SEWAGE TREATMENT PRACTICES**

The following update is provided to Regional Councillors in response to media reports relating to The National Sewage Report Card issued by the Sierra Legal Defence Fund (SLDF).

Regional staff recently participated in a survey received from the Sierra Legal Defense Fund. The results of that survey were released to the media yesterday by the Sierra Legal Defense Fund. Given that the Sierra Legal Defense Fund is highlighting a number of points in the media that relate specifically to Ottawa-Carleton, the Environment and Transportation Department is providing Councillors with background to help put the statements being made by the Sierra Legal Defense Fund into perspective.

In its report the Sierra Legal Defense Fund has downgraded Ottawa-Carleton from a "B" in 1994 to a "C" in 1999.

The SLDF identified both positive and negative attributes related to sewage collection and treatment within Ottawa-Carleton. On the positive side, the SLDF identified secondary treatment with phosphorus removal and the introduction of the Region's Cogen facility to fully utilise digestion gases. On the negative side, the SLDF referenced three items; the release of untreated sewage to the river, the continued use of chlorine to disinfect the final plant effluent, and the continued use of biosolids on agricultural lands.

In its evaluation methodology, the SLDF states that "where no discernible progress has been made in five years, cities were downgraded". This means that where the level of performance remains constant a city will receive a downgrade.

The following facts relate specifically to the issues raised in the report:

- The report erroneously states that 4,000,000 million litres of raw sewage by-passed the plant in 1998. The actual by-pass amount was reported as two minor raw sewage by-pass events at the wastewater treatment plant at an estimated volume of 4,000,000 litres. Both of these bypass events occurred during high flow. The first by-pass was the result of a power

interruption from Gloucester Hydro and lasted approximately five minutes which was the time it took for staff to restart the equipment. The second bypass was the result of a failure of the emergency backup power and the plant bypassed for three minutes while staff corrected the problem. The total volume discharged represents less than 1% of one days flow or a minuscule amount of our annual volume of 143.4 billion litres. To date in 1999, the plant has had no bypasses to the Ottawa River.

- Part of the local sewer system in Ottawa-Carleton is combined. Combined sewers are designed to overflow during severe wet weather. The Region, in partnership with the City of Ottawa, has a plan in place to implement the necessary infrastructure to meet Provincial requirements in this area. The 1999 approved budget includes more than \$20 million to eliminate many of these overflows in the first five years of the millennium through the implementation of an overflow tunnel within the core of the City of Ottawa.
- Treatment of wastewater is regulated by the Ministry of Environment. The Region has and will continue to meet the requirements for treatment set by the Ministry. Our testing of both the treated effluent and the overall impact of that effluent on the receiving water body continues to exceed the level required to comply with Provincial reporting. Facility impact assessment for the treatment plant and environmental effects monitoring have been implemented. The understanding of the impact of the plant on the water environment will assist us in determining the best overall environmental method to treat the effluent. As a proactive step in this area the Region's draft budget for 2000 includes \$100 thousand to evaluate alternatives to chlorine.
- Beneficial reuse of biosolids continues to be a successful program within Ottawa-Carleton. In 2000, several initiatives will be undertaken as part of our biosolids management plan including: evaluating alternative uses for biosolids such as co-composting; reviewing emerging practices in the beneficial use of biosolids and conducting evaluations on the adequacy of the current land application requirements.
- Pollution prevention and control at source is one of the key focuses of our environmental programs. The Industrial Waste Program is designed to minimize the pollutants being discharged to the sewage works and to prevent the discharge of pollutants to the storm sewer system by controlling the discharge at the source.
- Given that 85% of the pollution to our surface waters can be attributed to non-point sources (i.e. pollutants picked up with the general drainage runoff over land), staff continue to work with our water quality partners to ensure successful removal of these pollutants before they reach our water bodies.

The Sierra Legal Defense Fund focussed only on the treatment of sewage and while improved treatment is certainly attainable, an overall ecosystem approach to solving the community's environmental problems is a win win for our vital water resources in Ottawa-Carleton. In responding to the limited questionnaire provided by the SLDF, the Region did not provide

information relating to the many ongoing improvement initiatives that the Region has in the works. This information, although not part of the survey questions, may have provided the information needed to confirm our “B” grade.

An annual report on our environmental programs will be presented to Planning and Environment Committee early this fall.

*original signed by
Nancy B. Schepers, P. Eng.*

NBS/clc

cc: M. J. Woollam, Regional Clerk
M.J.E. Sheflin, Environment and Transportation Commissioner
D. Shannon, Acting Director, Finance and Operations Support Division
L. Lavoie, Director, Information and Public Affairs

bcc: J. Barbeau, Director Corporate Programs and Administration, CAO’s Office

**FOR MORE
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**TO VOICE YOUR
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Raw Sewage Discharged:
4 million litres

Ottawa

(Regional Municipality of Ottawa-Carleton)

Population:	750,000
Percentage of population served by sewage treatment plant(s):	90%
Volume generated:	143.45 billion litres per year
Treatment:	Secondary treatment with phosphorus removal, chlorine disinfection, no de-chlorination
Receiving Water:	Ottawa River
Permits:	Certificates of Approval from Ontario Ministry of Environment are held by the municipality, effluent generally in compliance
Combined Sewer %:	8% of total area of system
Overflows Annually:	In 1998, there were two raw sewage by-passes to the Ottawa River. The by-passes occurred during storm events as a result of power failure and equipment malfunction. Approximately 4,000,000 million litres of raw sewage by-passed the treatment plant
Toxicity Testing:	Municipality regularly tests sludge samples for metals, nitrogen and phosphorus, as well as for a variety of other parameters to ensure compliance with provincial guidelines. Sludge is tested for pH and phosphorus before land application. Some well water testing conducted as part of sludge land application program. Although effluent is not routinely tested for toxicity, a test was conducted in 1998 as part of the Environmental Effluent Monitoring Program. The pre-chlorinated effluent was found not to be toxic to rainbow trout and daphnia magna. Additional testing of chlorinated effluent is being conducted due to anomalies in the sample results.
Sludge Disposal:	Treated in anaerobic digesters, de-watered, methane gas captured as fuel, then sludge is trucked to farms to be used as agricultural fertiliser or as interim cover at the landfill site.
Sewage-related Charges:	RMOC was charged by the Ontario Ministry of Environment for violation of the <i>Ontario Water Resources Act</i> for a 1997 spill of incompletely treated sewage into a drainage ditch near spray irrigation fields. Clean-up was completed and a \$30,000 fine paid.

Changes Since 1994: Disinfection of effluent changed from annual to seasonal disinfection in 1997. Chlorination occurs from May 15th to November 15th. In February 1998, ROC opened a co-generation plant to burn methane from anaerobic digesters for power and heat.

WHY THIS GRADE:

- + sewage receives secondary treatment with phosphorus removal
- + methane from sludge treatment captured and used for electricity and heat
- chlorine disinfection
- large volume of raw sewage discharged
- sludge used on agricultural land despite unresolved questions about impacts