

## 19.5 Ramsey Lake Drinking Water Quality Issues

Raw (or pre-treated) water quality from the years 1991 to 2007 was studied to determine if any water quality issues exist. Data retrieved from the Drinking Water Surveillance Program conducted by the Ministry of the Environment (MOE) was used in the analysis.

An elevated and rising level of sodium is of concern in Ramsey Lake and is considered to be a drinking water quality issue for this intake. The Ontario Drinking Water Standard for sodium is 200 mg/L, however if sodium exceeds 20 mg/L the local medical officer of health must be notified so that it may be passed on to local physicians. Chloride levels in Ramsey Lake have been consistently above 50 mg/L in recent years and they appear to be increasing. Figure 3.1 depicts the increasing trend from 1991 to 2007.

Elevated levels of sodium are primarily attributed to the application of road salt. The Ramsey Lake watershed is highly urbanized and consists of a number of major roadways where road salt is applied during winter months. The watershed also includes a public works yard with road salting facilities that store road salt and sand-salt mixtures throughout the year. Road salt can be considered a non-point source pollutant and, therefore, the entire vulnerable area for Ramsey Lake is considered the issue contributing area.

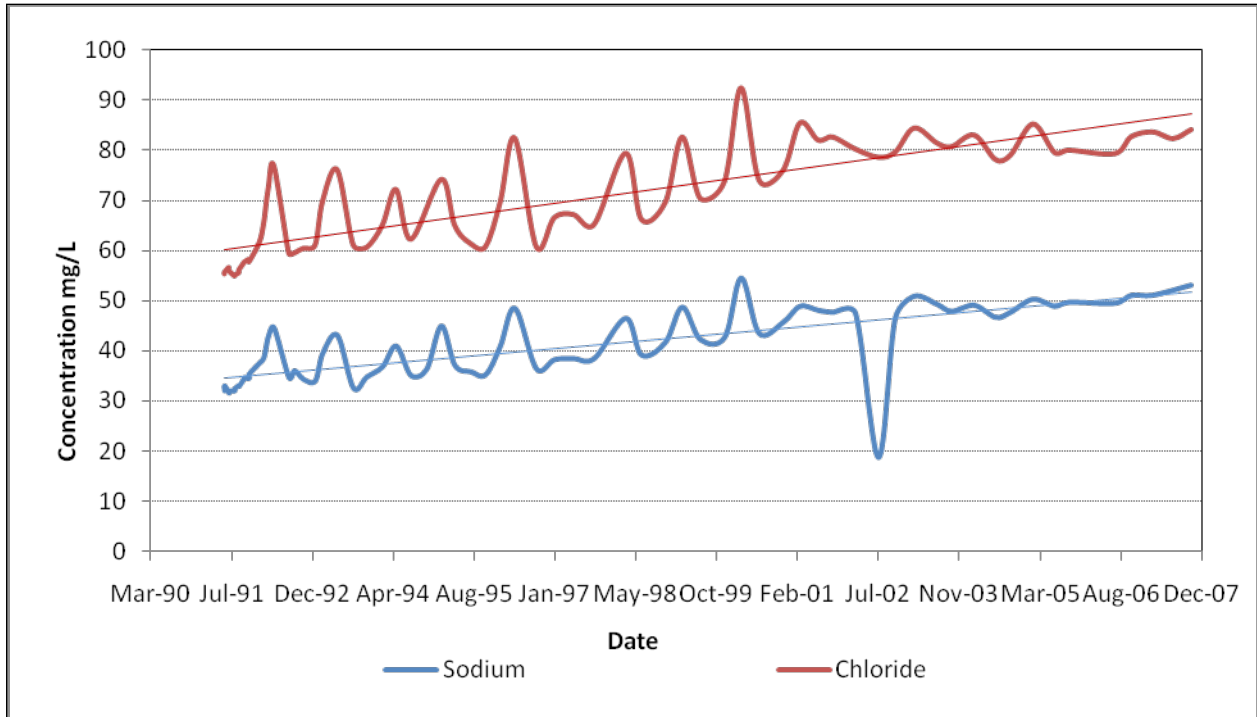


Figure 3.1 – Sodium and chloride levels in Ramsey Lake from 1991 to 2007