

Area Description

The Muskoka Sands sampling area is located in southeastern Lake Muskoka at the confluence with the Hoc Roc River. This area has a high intensity of development with a large resort with golf course, along with a high density of residential properties and roads adjacent to the lake. The Hoc Roc River flows through agricultural, industrial, residential and natural wetland areas before it drains into a shallow bay. Dominant northwest winds and a considerable fetch would subject this area to heavy onshore wave action.

Volunteer Recognition

Muskoka Sands was monitored in 2011 by **Al Ward** and **Carole Ward**.

2011 Data

- MSN-0: TP-Spring turnover = 5.9 µg/L
TP-Yearly mean = 5.4 µg/L
Calcium = 3.33 mg/L
Secchi = 3.2 m
- MSN-1: Total coliforms = 86 cfu/100 mL
Total *E. coli* = 9 cfu/100 mL
- MSN-2: Total coliforms = 39 cfu/100 mL
Total *E. coli* = 5 cfu/100 mL
- MSN-4: TP-Yearly mean = 28.6 µg/L
Total coliforms = 191 cfu/100 mL*
Total *E. coli* = 59 cfu/100 mL*
- MSN-5: TP-Yearly mean = 25.7 µg/L
Total coliforms = 240 cfu/100 mL**
Total *E. coli* = 77 cfu/100 mL**

(* includes one sample with elevated *E. coli* levels; however, no follow-up samples were collected)
(** includes two samples with elevated *E. coli* levels; however, no follow-up samples were collected)

Trends and Recommendations

Monitoring of Muskoka Sands started in 2003, and the 2011 spring turnover TP concentration was consistent with historical values.

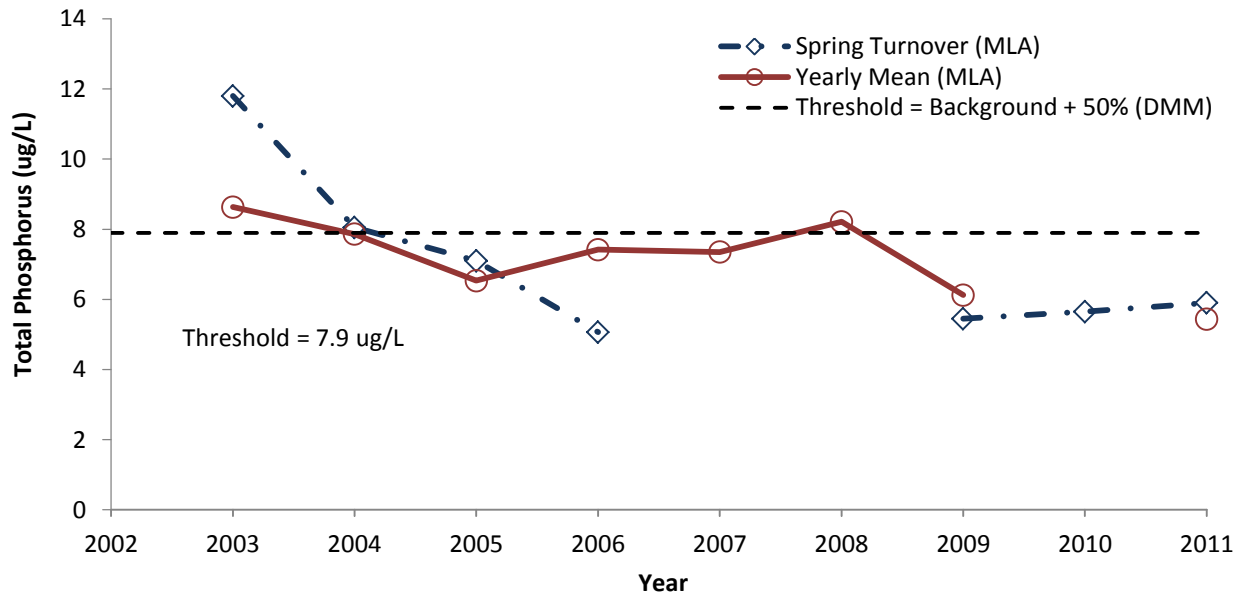
MSN-5 is a newly established watercourse site located within the Hoc Roc River to monitor upstream conditions. The yearly mean TP value at MSN-5 was similar to that at MSN-4, which is located downstream.

2011 *E. coli* values at MSN-1 and MSN-2 were below the MLA upper limit. Note that the *E. coli* figure includes both lake and watercourse sites.

Continue existing phosphorus sampling protocol to monitor long-term trends.

Discontinue bacterial monitoring at MSN-1 and MSN-2. Replace these sites with new sites in high use areas adjacent to Muskoka Sands Beach and Taboo Beach. Also, ensure that follow-up bacterial samples are collected from sites with elevated *E. coli* levels.

Phosphorus at MSN-0



E. coli Yearly Mean - Muskoka Sands

