Real Time Water Quality Monthly Report
Lower Humber River at Humber Village Bridge
September – December 2007

General

- The Water Resources Management Division staff monitors the real-time web page on a daily basis.

Maintenance and Calibration of Instrumentation

- The instrument at Humber River was reinstalled on September 14th. The results from comparing the Minisonde values to the Datasonde values during removal and reinstallation on September 14th, 2007 can be seen in **Table 1**.

Table 1: QA/QC Data Comparison Rankings upon reinstallation on September 14th, 2007

Station	Date	Action	Minisonde vs. Datasonde Comparison Ranking			
			Temperature	pH	Conductivity	Dissolved Oxygen
Humber River at Humber Village Bridge	Sept. 14th, 2007	Installation	Good	Good	Good	Fair

- The instrument was deployed until December 5th (48-day deployment period) at which point it was removed for maintenance and calibration. No field readings were taken upon removal of the instrument on December 5th.

Data Interpretation

- During the deployment period of September 14th to December 5th, 2007 the water quality remained relatively stable for all parameters.

- The water temperature (**Figure 1**) showed a decrease over the deployment period. This is typical for this time of the year with a temperature range of 13.9°C to 4.6°C.

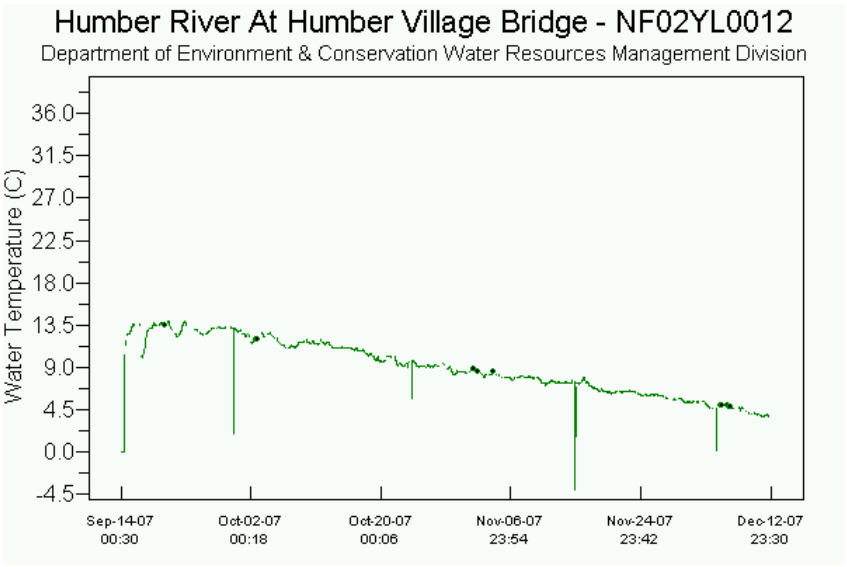

Figure 1

- The dissolved oxygen (**Figure 2**) increased over the deployment period and corresponds to the decrease seen in temperature. The DO values ranged from 9.53mg/L to 11.83mg/L.

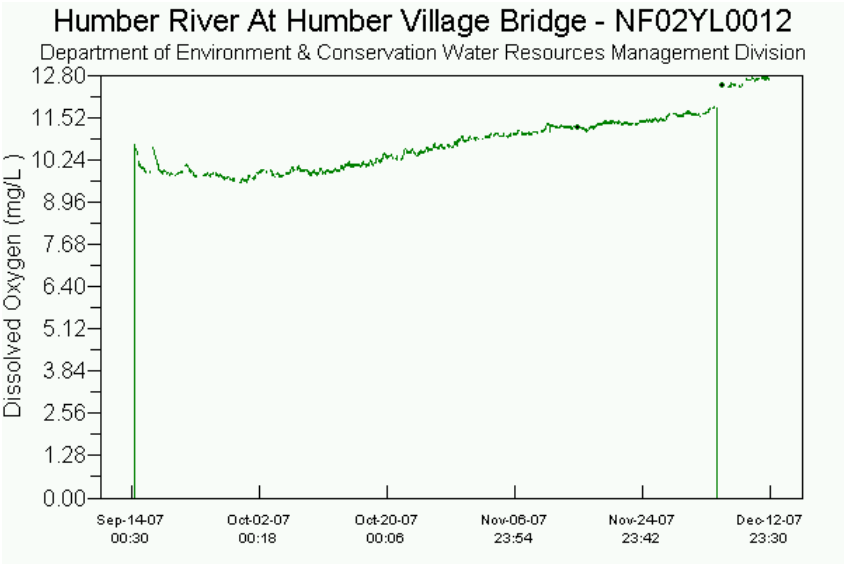

Figure 2

- pH values (**Figure 3**) remained relatively stable throughout the deployment period. The range for pH was 6.68 – 7.16 with all values falling within the recommended range (6.5 – 9.0) for the CCME Protection of Aquatic Life guidelines.

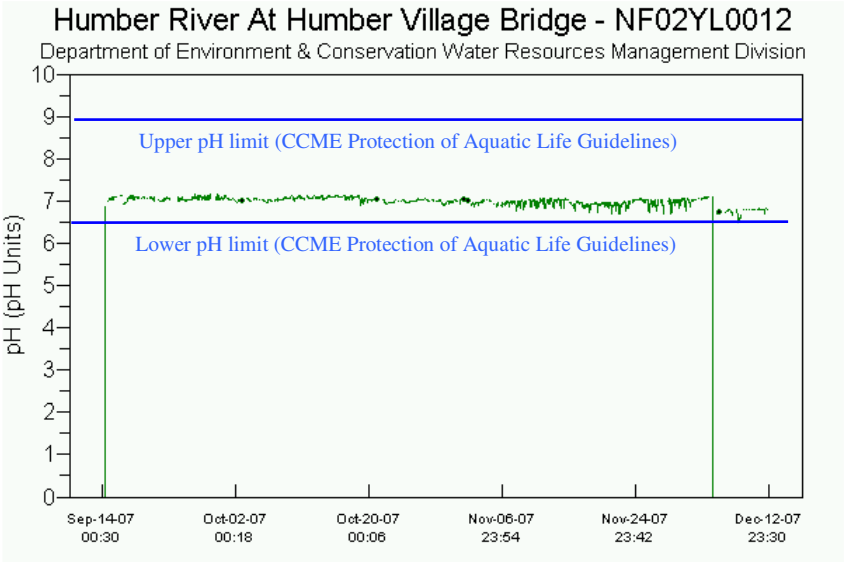

Figure 3

- Conductivity (**Figures 4**) remained consistent at background levels throughout the deployment period. The conductivity values ranged from 36.5µS/cm to 41.0µS/cm.

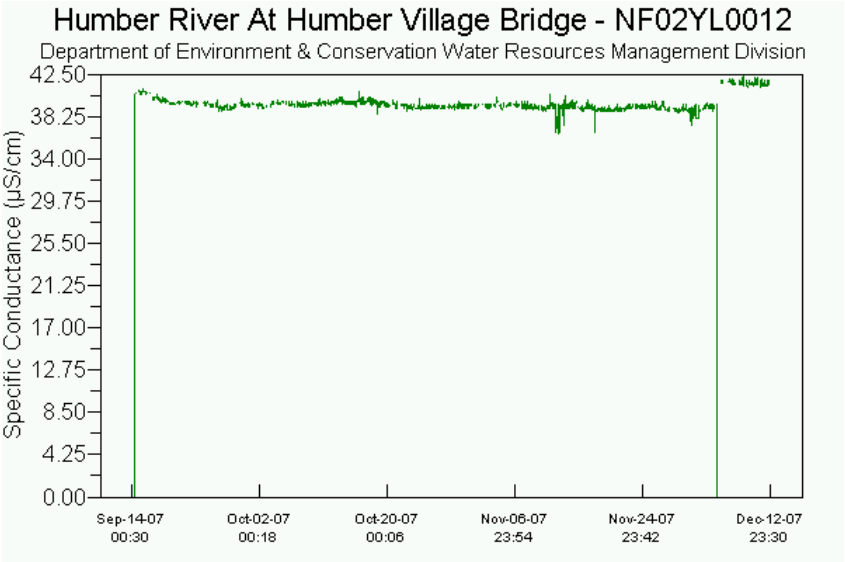

Figure 4

- The turbidity values (**Figure 5**) remained consistent throughout the deployment period with all values with the exception of one remaining below 5 NTU. The one spike seen on November 26th (105.4 NTU) occurred over a one-hour period and is not a water quality incident. This spike was likely due to a disturbance near the instrument such as organic matter going past the turbidity sensor.

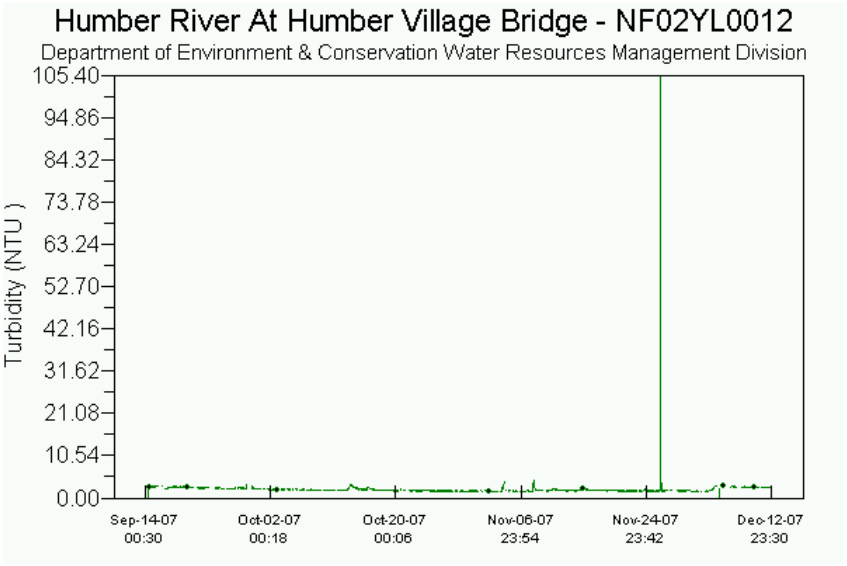

Figure 5

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