Real Time Water Quality Monthly Report
Lower Humber River at Humber Village Bridge
May – July 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 removed on May 16th, 2007 for cleaning and calibration and then reinstalled on May 17th. The results from comparing the Minisonde values to the Datasonde values during removal and reinstallation on May 16th/17th, 2007 can be seen in **Table 1**.

Table 1: QA/QC Data Comparison Rankings upon removal/reinstallation on May 17th, 2007

Station	Date	Action	Minisonde vs. Datasonde Comparison Ranking			
			Temperature	pH	Conductivity	Dissolved Oxygen
Humber River at Humber Village Bridge	May 17th, 2007	Installation	Excellent	Excellent	Good	Excellent

- The instrument was deployed until July 12th (57-day deployment period) at which point it was removed for maintenance and calibration. The results from comparing the Minisonde values to the Datasonde values during removal July 12th, 2007 can be seen in **Table 2**.

Table 2: QA/QC Data Comparison Rankings upon removal on July 12th/13th, 2007

Station	Date	Action	Minisonde vs. Datasonde Comparison Ranking			
			Temperature	pH	Conductivity	Dissolved Oxygen
Humber River at Humber Village Bridge	July 12th, 2007	Removal	Excellent	Good	Poor	Marginal
	July 13th, 2007	Installation	Excellent	Excellent	Poor	Marginal

Data Interpretation

- During the deployment period of May 17th – July 12th, 2007 the water quality remained relatively stable for most parameters.

- The water temperature (**Figure 1**) increased over the deployment period. This is typical for this time of the year with a temperature range of 3.1°C to 13.8°C.

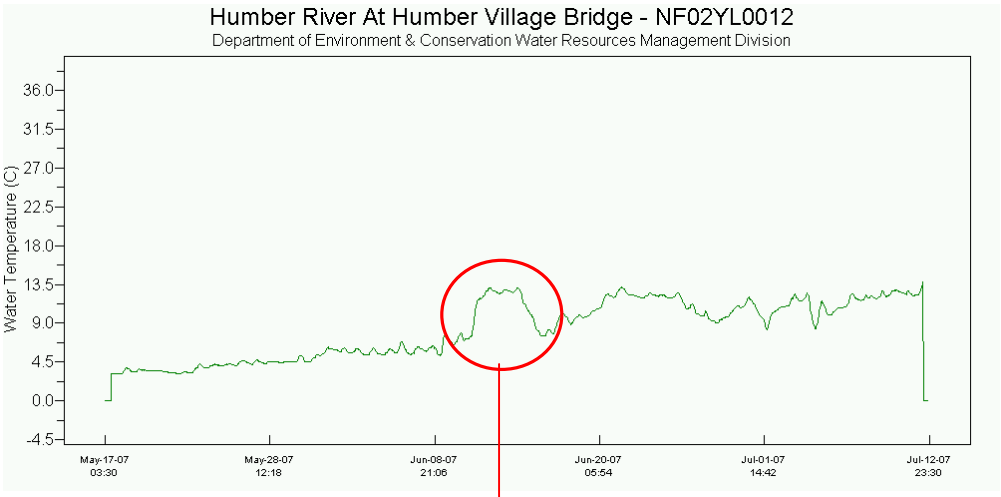

Figure 1

- The dissolved oxygen (**Figure 2**) decreased over the deployment period that corresponds to an increase in temperature. This pattern is typical for this time of the year. The DO values ranged from 13.85mg/L to 9.86mg/L. The period of time June 12th – June 15th showed a decrease/increase in dissolved oxygen that corresponds to an increase/decrease in temperature seen in **Figure 1**.

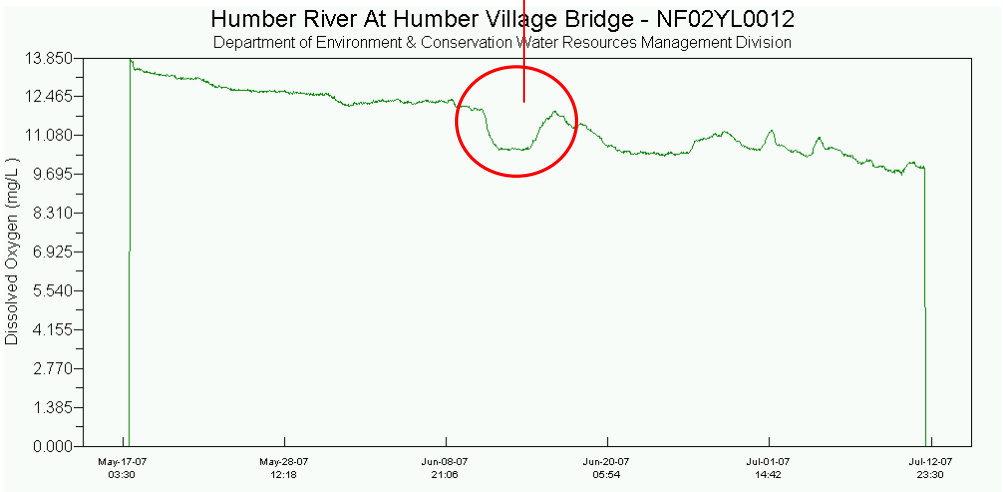

Figure 2

- pH values (**Figure 3**) remained relatively stable at approximately 7.0 units. The range for pH was 6.79 – 7.03 with all values falling within the recommended range (6.5 – 9.0) for the CCME Protection of Aquatic Life guidelines.

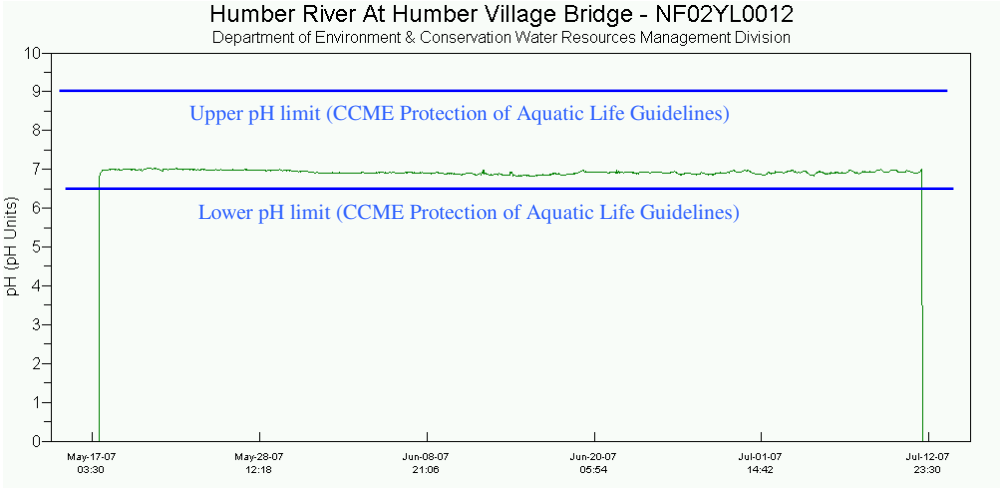

Figure 3

- Conductivity (**Figures 4**) remained consistent at background levels throughout the deployment period. The conductivity values ranged from 32.7µS/cm to 42.1µS/cm.

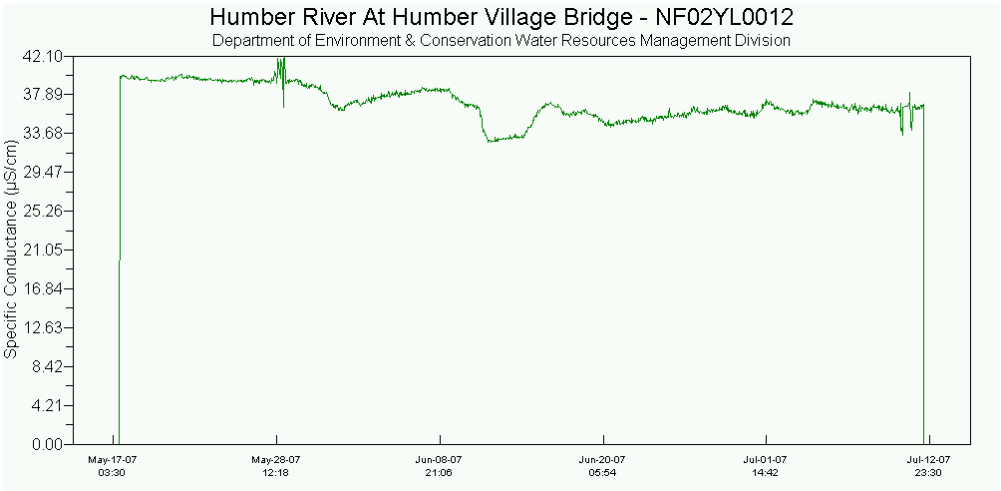

Figure 4

- The turbidity values (**Figure 5**) remained below 3.6 NTU which is within typical background concentrations for this station.

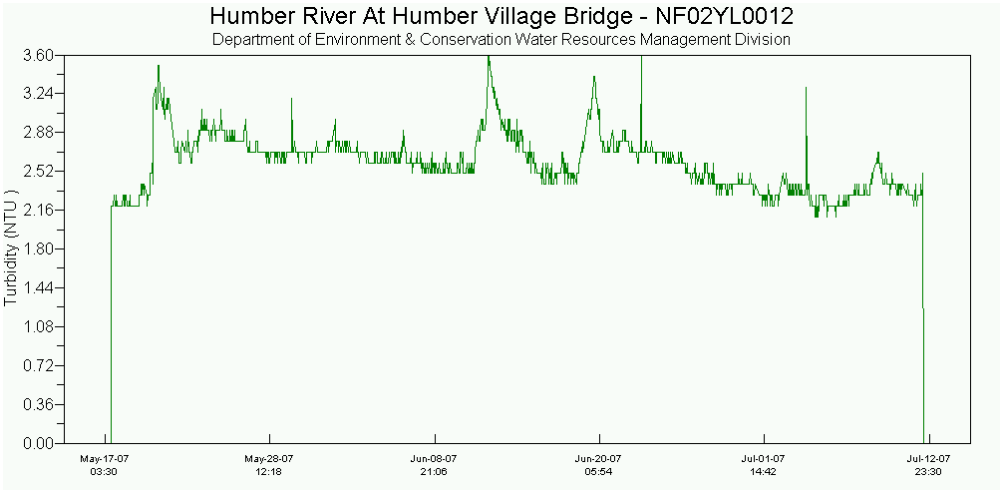

Figure 5

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