

Real Time Water Quality Monthly Report Lower Humber River at Humber Village Bridge July – September 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 July 13th. The results from comparing the Minisonde values to the Datasonde values during removal and reinstallation on July 13th, 2007 can be seen in **Table 1**.

Table 1: QA/QC Data Comparison Rankings upon reinstallation on July 13th, 2007

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

- The instrument was deployed until September 13th (63-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 on September 13th, 2007 can be seen in **Table 2**.

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

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

Data Interpretation

- During the deployment period of July 13th – September 13th, 2007 the water quality remained relatively stable for most parameters.
- The water temperature (**Figure 1**) fluctuated over the deployment period. This is typical for this time of the year with a temperature range of 10.9°C to 20.0°C.

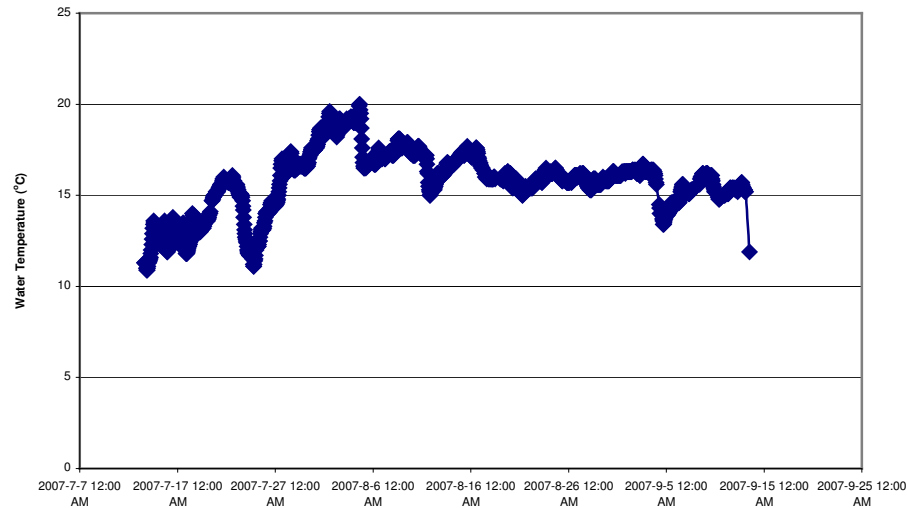


Figure 1

- The dissolved oxygen (**Figure 2**) fluctuated over the deployment period that corresponds to the fluctuations in temperature. The DO values ranged from 8.18mg/L to 11.24mg/L.

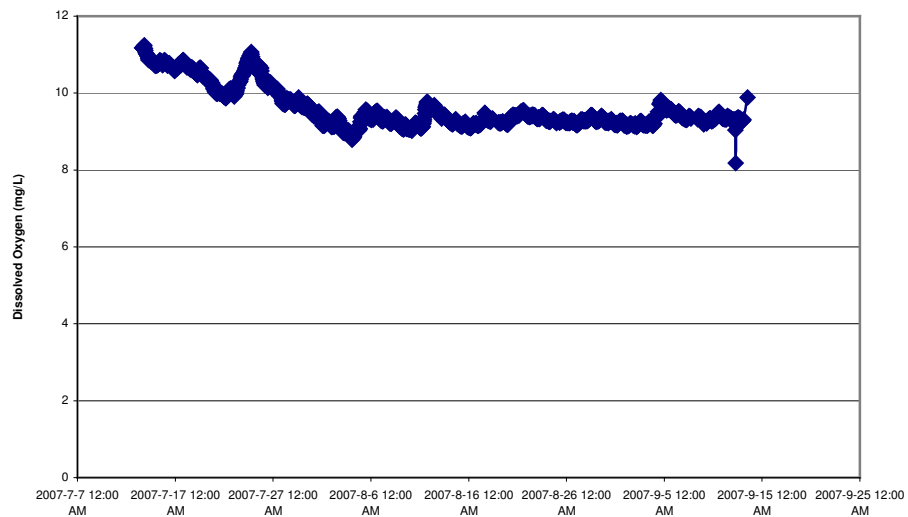


Figure 2

- pH values (**Figure 3**) remained relatively stable throughout the deployment period. The range for pH was 7.01 – 7.32 with all values falling within the recommended range (6.5 – 9.0) for the CCME Protection of Aquatic Life guidelines.

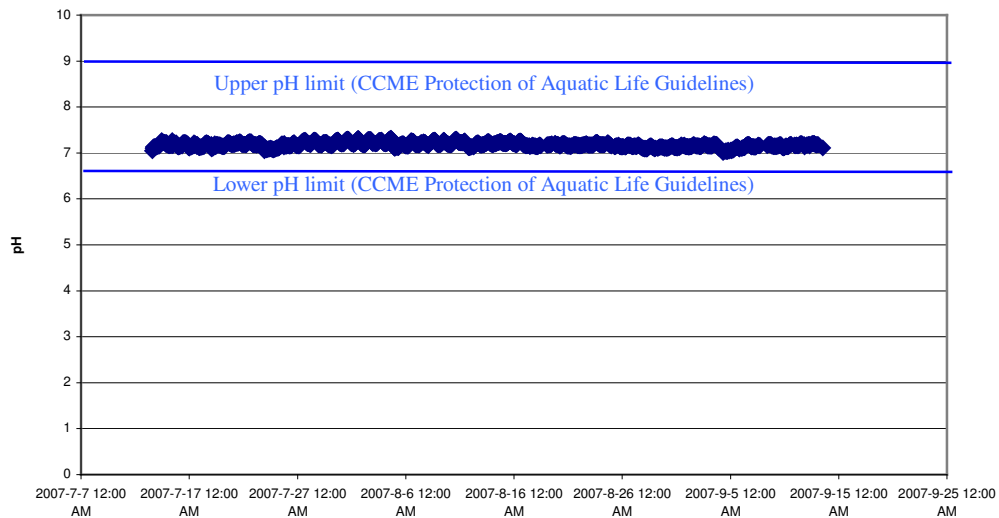


Figure 3

- Conductivity (**Figures 4**) remained consistent at background levels throughout the deployment period. The conductivity values ranged from 35.5 μ S/cm to 40.1 μ S/cm.

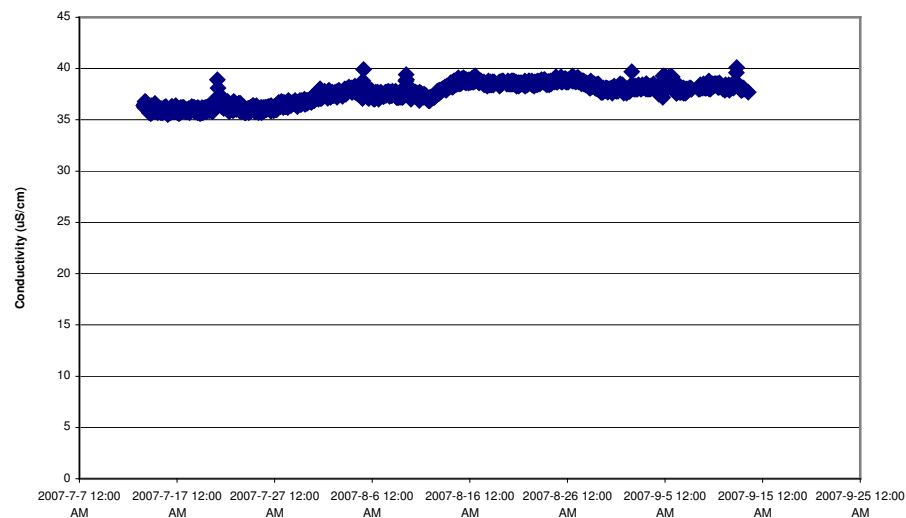


Figure 4

- The turbidity values (**Figure 5**) remained relatively consistent throughout the deployment period. The three spikes seen in Figure 5 remain below 11 NTU.

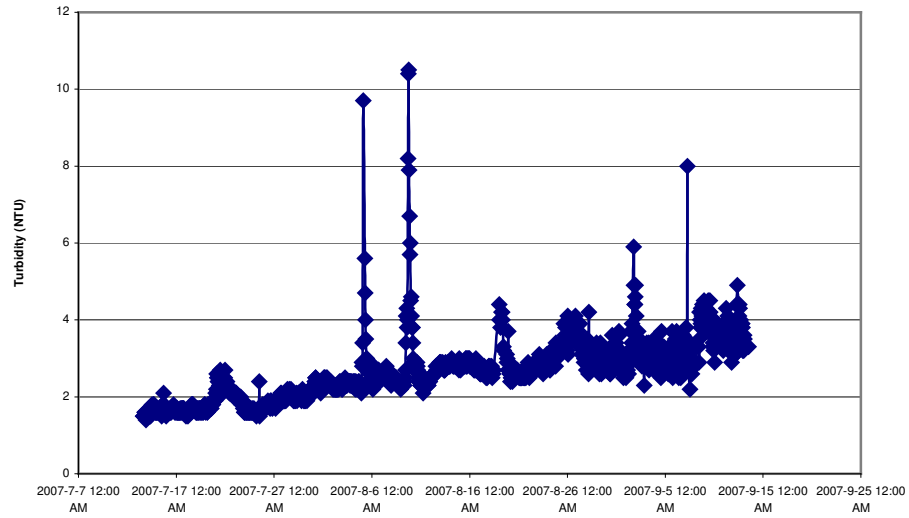


Figure 5

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