

## Real Time Water Quality Monthly Report: Lower Humber River @ Humber Village Bridge October 2004

### General

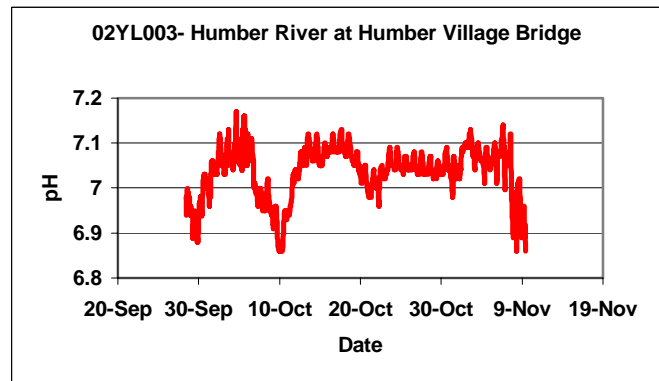
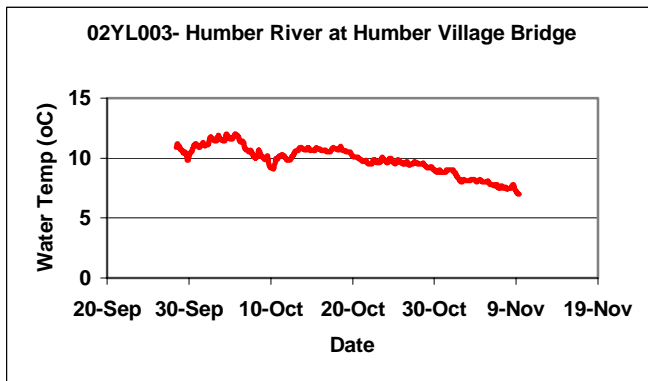
- The Water Resources Management Division staff monitor the real-time web page on a daily basis.

### Maintenance and Calibration of Instrumentation

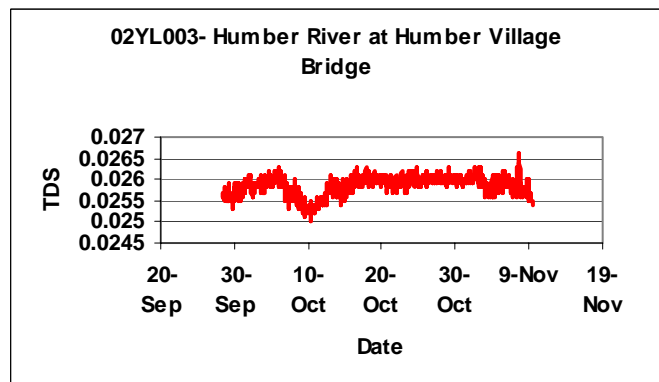
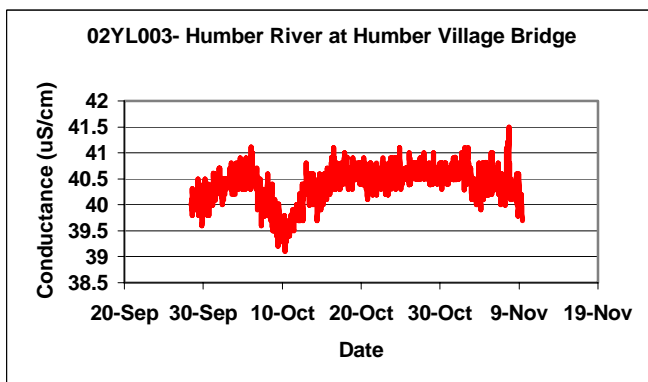
- All sensors calibrated without problem.
- Comparative water quality readings were taken with a Minisonde during the reinstallation of the Datasonde to ensure readings were correct. This procedure is also required as part of the QA/QC protocol. The Minisonde was calibrated before use.
- A water sample was taken for laboratory analysis as part of QA/QC procedures on reinstallation.

### Data Interpretation

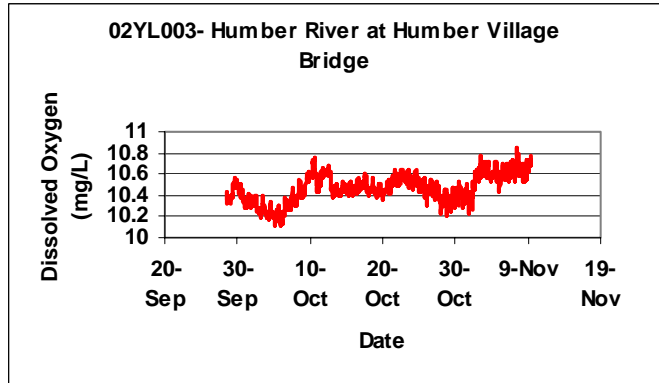
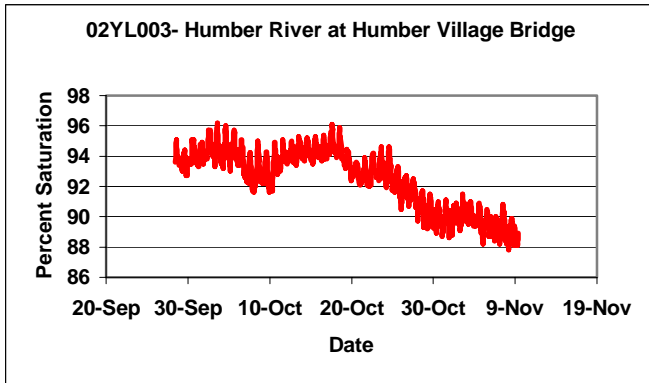
- During the period from Sept 28th, 2004 to Nov 9th, 2004 all parameters displayed normal behaviour reflective of conditions, except for an anomalous turbidity reading.
- Water temperature continued to decrease, coinciding with the autumnal cooling of ambient air temperature. pH displayed the usual fluctuations generally observed in pH; values were still within normal range however.



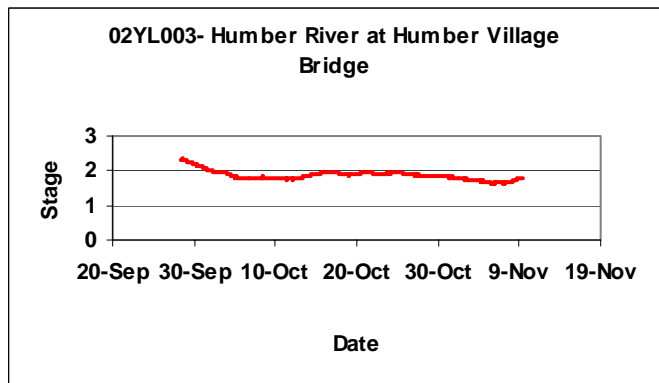
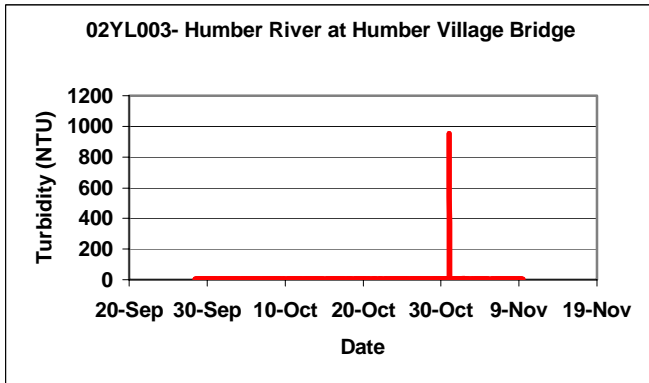
- Conductance and TDS values for this period fell within normal range for the Humber River. Both conductance and dissolved solids remained steady over this period reflective of the lack of trend also observed in streamflow. The dip in conductivity and TDS around Oct 10th coincides with the dip observed in pH.



- Dissolved oxygen levels increased over this period corresponding to the decrease in water temperature. Percent saturation levels displayed a reverse trend from that of dissolved oxygen. Fouling of the membrane observed after removal might account for this.



- Background turbidity levels stayed around 3.5 NTU throughout this entire period, except for one anomalous reading of over 900 NTU. Debris of some kind or observed fouling of the probe may have caused this reading.



### Additional Information

- For the most part, water quality readings held steady over this period, particularly streamflow, pH and conductivity. Turbidity was also steady except for one anomalous reading. As expected, water temperature continued to decrease with the colder weather, resulting in increased dissolved oxygen levels. The disagreement in the observed trends of dissolved oxygen and percent saturation appears odd, but could be due to observed fouling of the probe.

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