Government of Newfoundland and Labrador

Real Time Water Quality Monthly Report
Lower Humber River at Humber Village Bridge
November– December 2005

General

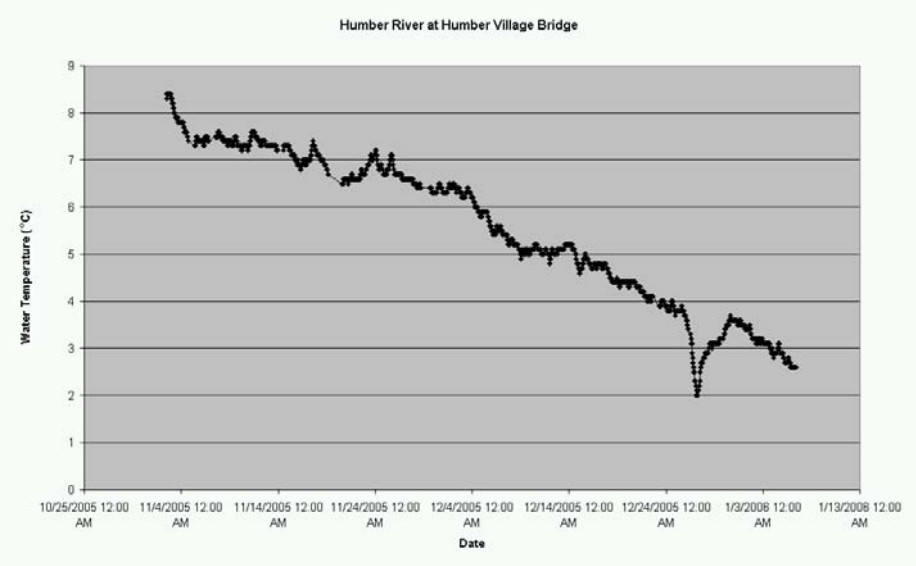
- The Water Resources Management Division staff analyses the real-time web page on a daily basis.

Maintenance and Calibration of Instrumentation

- All sensors calibrated with no problem.
- Comparative water quality readings were taken with a Minisonde during the reinstallation of the Datasonde to ensure readings were correct. This procedure was 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 upon reinstallation.
- The Datasonde and Minisonde were sent for annual servicing in January 2006.

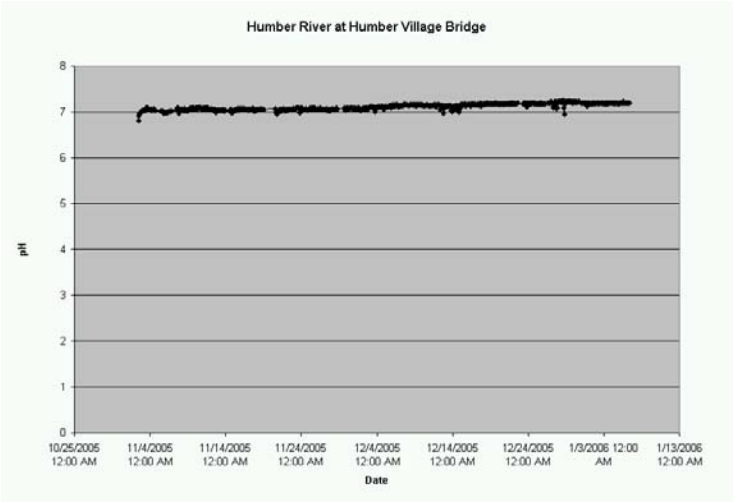
Data Interpretation

- During the period of November 2, 2005 to January 6, 2006 the water quality remained relatively stable with the exception of some fluctuations in turbidity.
- Temperature decreased during the two-month time period as is expected during the fall months. During the period of December 26-30, the temperature decreased sharply and then returned to normal values for the period.

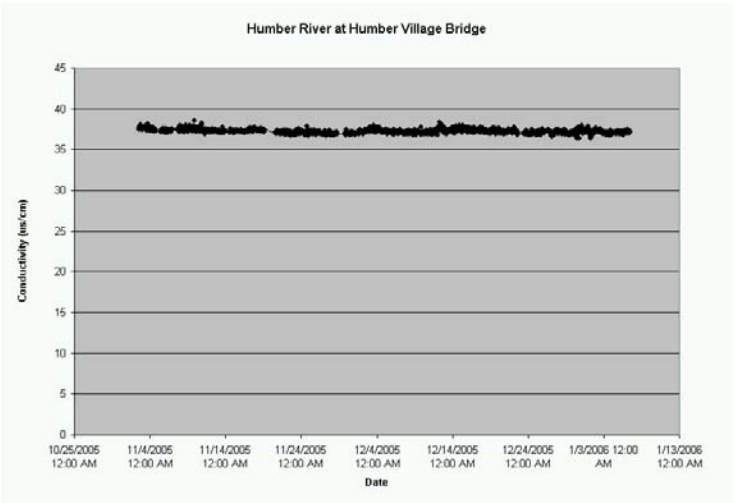


- The dissolved oxygen of Humber River increased throughout the two-month time period. This is consistent with the decrease in temperature that normally occurs simultaneously. The spike in dissolved oxygen seen during December 26-30 corresponds to the decreased temperatures during that time.

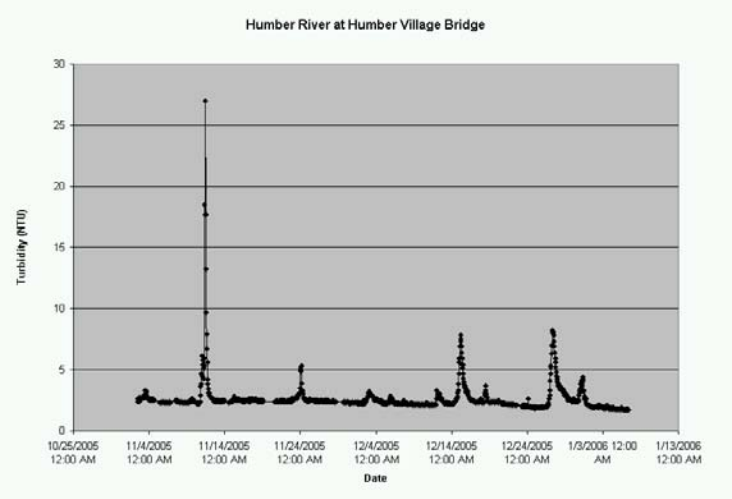
- pH remained relatively stable with values slightly above 7.0 units as is normal for this station.



- Conductivity remained very stable in Humber River throughout the two-month time period.



- The turbidity values generally remained below 4 NTU. There were some fluctuations that occurred this two month period with a maximum value of 27.0 NTU on November 11, 2005. There were a couple of other turbidity spikes with values remaining below 9 NTU.



Additional Information:

- For the most part, water quality in Humber River behaved normally for the period of November 2, 2005 to January 6, 2006.
- The following table provides summary statistics on water quality parameters of the Humber River for this time period between November 2, 2005 and January 6, 2006.

	Temp-Water (^{o}C)	**pH**	**Conductance (uS/cm)**	**Diss-Solids (g/L)**	**% Saturation**	**Dissolved Oxygen (mg/L)**	**Turbidity (NTU)**
Max	8.4	7.2	38.6	0.0247	98.4	13.08	27.0
Min	2.0	6.8	36.4	0.0233	93.7	11.23	1.7
Average	5.5	5.5	37.2	0.0238	95.2	12.01	2.6
Standard Deviation	1.6	1.6	0.3	0.0002	0.6	0.54	1.3

Prepared by: Annette Tobin
Department of Environment and Conservation
Regional Water Quality Officer
Ph: (709) 637-2431
Fx: (709) 637-2541
Email: AnnetteTobin@gov.nl.ca