

## APPENDIX G

### Richmond Landfill Hydrogeologic Investigations Bibliography

**Part A) Hydrogeologic Investigations (other than annual monitoring reports – see next section)**

***Reports in bold font marked significant advances in site hydrogeological knowledge***

1. Canadian Waste Services Inc. (CWS), 2000: *2000 Richmond Landfill Site Surface Water Quality Monitoring Interim Report*.
2. Ministry of the Environment (MOE), 1977: *A preliminary hydrogeologic study testing six Hand-augered test holes*.
3. MOE, 1979: *A preliminary study examining leachate impacts upon Marysville Creek*.
4. Morrison and Beatty Limited (MBL), 1979. *A preliminary hydrogeologic report with an Application for Certificate of approval to the MOE*.
5. MBL, 1980. *A preliminary hydrogeologic report dealing with the proposed landfill expansion*.
6. Morrison and Beatty Limited, 1981. *Groundwater flow patterns to the west of the Richmond landfill*.
7. MBL, 1984. *A comprehensive hydrogeologic study*.
8. MBL, 1984. *Reprint of the March 1984 MBL report*. October.
9. MBL, 1985: *Hydrogeologic Study, Proposed Landfill Expansion, Township of Richmond. Report to Sutcliffe Sanitation Services Ltd., 69 p.*
10. MBL, 1986. *Addendum Report Number 1*.
11. MBL, 1987. *Addendum Report Number 2*.
12. **Water and Earth Science Associates Ltd. (WESA), 1991. *Hydrogeological Study of the Laidlaw Waste Systems (Richmond) Ltd. Sanitary Landfill Site, Napanee, Ontario***.
13. **WESA, 2000. *2000 Supplemental Hydrogeology Program, Canadian Waste Services Inc., Richmond landfill, Town of Greater Napanee***.
14. **WESA, 2004: *Detailed Background Report to Discussion Paper #5 “Hydrogeology Baseline Conditions” Parts A and B, Richmond Landfill Expansion Environmental Assessment***.
15. **WESA, 2005: *Detailed Background Report to Discussion Paper #7, Impact Assessment, Hydrogeology, Richmond Landfill Expansion Environmental Assessment***.
16. **WESA, 2005: *Addendum to Detailed Background Report to Discussion Paper #5 Hydrogeology Baseline Conditions***
17. **Waste Management (WM), 2006: *Response to MOE Review Comments, July 18, 2006***.

**Specifically Attachments prepared by WESA:**

- **Attachment C:** *Minutes of July 6, 2006 Hydrogeological Meeting*
- **Attachment D:** *Additional Drilling and Sampling Results*
- **Attachment E:** *Leachate Generation Model Revisited*
- **Attachment F:** *Geophysical Survey Results*
- **Attachment G:** *Hydrology of Marysville Creek and Beechwood Ditch*
- **Attachment H:** *Modelling Sensitivity Analysis (Impact Assessment)*
- **Attachment I:** *Professional Opinion Conceptual Model*
- **Attachment J:** *Reasonable Use Presentation and Alternatives*
- **Attachment M:** *Landfill Gas Monitoring Results*

18. WESA, 2006: *Supplemental Monitoring WM Richmond Landfill Site, Napanee Ontario, Letter to MOE, 2 Nov. 2006.*
19. WESA, 2007: *Post-Closure Environmental Monitoring Plan, Richmond Landfill, Town of Greater Napanee, Ontario, June 2007.*
20. WESA, 2008: *June 2008 Supplemental Hydrogeological Investigation - Richmond Landfill, Letter to MOE, 24 Jul., 2008.*
21. WESA, 2008: *2006 Supplemental Hydrogeology Program, Waste Management of Canada, Richmond Landfill, Town of Greater Napanee, Oct., 2008.*
22. WESA, 2008: Response to discussion items at Nov. 25, 2008 Meeting (MOE Kingston Office), 16 Dec., 2008:
  - a. *Effect of groundwater density on pressure head, Richmond Landfill*
  - b. *WM Richmond Landfill: Regional Geology and Structural Trends*
  - c. *WM Richmond Landfill: Groundwater Flow in the Zone 3-10 m below Top of Bedrock (updated 22 Jan. 2009)*
  - d. *Updated Elevation Data at Groundwater Monitor OW57, 22 Jan. 2009*
23. WESA, 2008: *Additional Sampling at M96 to M104 - Richmond Landfill, Letter to MOE, 12 Feb., 2009.*

<b>Part B) Annual Environmental Monitoring Reports</b>
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**Morrison-Beatty (up to 1988)**

- a. Morrison and Beatty Limited. *Monitoring Report for 1987, Tricil Limited Landfill, Township of Richmond, Country of Lennox of Addington.* Report to Tricil Limited, March, 1988, 20 pp. 1988.
- b. Morrison and Beatty Limited. *The Annual Monitoring Report for 1988.* 1989.

**WESA (1989-present)**

- a. *1989 Annual Report, Laidlaw Sanitary Landfill Site, Township of Richmond, Unpublished Report.*
- b. *1989 Annual Groundwater Report, Laidlaw Sanitary Landfill Site, Township of Richmond.*
- c. *1990 Annual Groundwater Report, Laidlaw Sanitary Landfill Site, Township of Richmond.*
- d. *1991 Annual Groundwater Report, Laidlaw Sanitary Landfill Site, Township of Richmond.* 1992.
- e. *1992 Annual Groundwater Report, Laidlaw Waste Systems (Richmond) Ltd. Landfill Site, Township of Richmond.*
- f. *1993 Annual Monitoring Report, Laidlaw Waste Systems (Richmond) Ltd. Landfill, Township of Richmond.*
- g. *1994 Annual Monitoring Report, Laidlaw Waste Systems (Richmond) Ltd. Landfill, Township of Richmond.*
- h. *1995 Annual Monitoring Report, Laidlaw Waste Systems (Richmond) Ltd. Landfill, Township of Richmond.*
- i. *1996 Annual Monitoring Report, Laidlaw Waste Systems (Richmond) Ltd. Landfill, Township of Richmond.*

- j. *1997 Annual Monitoring Report, Canadian Waste Services Inc. Richmond Landfill, Town of Greater Napanee.*
- k. *1998 Annual Monitoring Report, Canadian Waste Services Inc., Richmond Landfill, Town of Greater Napanee.*
- l. *1999 Annual Monitoring Report, Canadian Waste Services Inc., Richmond landfill, Town of Greater Napanee.*
- m. *2000 Annual Monitoring Report, Canadian Waste Services Inc., Richmond landfill, Town of Greater Napanee.*
- n. *2001 Annual Monitoring Report, Canadian Waste Services Inc., Richmond landfill, Town of Greater Napanee.*
- o. *2002 Annual Monitoring Report, Canadian Waste Services Inc., Richmond landfill, Town of Greater Napanee.*
- p. *2003 Annual Monitoring Report, Canadian Waste Services Inc., Richmond landfill, Town of Greater Napanee.*
- q. *2004 Annual Monitoring Report, Canadian Waste Services Inc., Richmond landfill, Town of Greater Napanee.*
- r. *2005 Annual Monitoring Report, Canadian Waste Services Inc., Richmond landfill, Town of Greater Napanee.*
- s. *2006 Annual Monitoring Report, Canadian Waste Services Inc., Richmond landfill, Town of Greater Napanee.*
- t. *2007 Annual Monitoring Report, Waste Management of Canada, Richmond landfill, Town of Greater Napanee.*
- u. *2008 Annual Monitoring Report, Waste Management of Canada, Richmond landfill, Town of Greater Napanee.*