

## **APPENDIX A: LIST OF TECHNICAL PAPERS**

The following is a list of the technical papers and reports that were reviewed, and have been grouped according to topic:

### **A-1: REGIONAL GROUNDWATER STUDIES**

- 1 Golder and Dillon, 2003. Renfrew County – Mississippi – Rideau Groundwater Study, prepared for the Mississippi Valley Conservation Authority Study Group, Final Report, 2003.
- 2 Dillon, 2001. The United Counties of Leeds and Grenville Groundwater Management Study, 2001.
- 3 Dillon, 2004. Quinte Regional Groundwater Study, prepared for Quinte Conservation, 2004.
- 4 Trow Associates Ltd., 2006. Western Cataraqui Groundwater Study, prepared for Cataraqui Region Conservation Authority.
- 5 Water and Earth Science Associates, Preliminary Hydrogeology Investigation, Prince Edward County, 2004
- 6 CRCA, 2007, Source Water Protection Water Budget Conceptual Report, March 30, 2007.

### **A-2: GENERAL PAPERS ON GROUNDWATER RECHARGE**

- 7 Chebotarev, I. I., 1955. Metamorphism of natural waters in the crust of weathering. *Geochim. Cosmochim. Acta*, 8, pp. 22-48, 137-170, 198-212.
- 8 Cherkauer, D.S. and S.A. Ansari, 2005. Estimating Ground water recharge from topography, hydrogeology and land cover. *Ground Water*, v. 43, no. 1, p. 102-112.
- 9 DeVries, J.J. and I. Simmers, 2002. Groundwater recharge: an overview of processes and challenges. *Hydrogeology Journal*, v. 10, p. 5-17.
- 10 Harte, P.T. and T.C. Winter, 1996. Factors affecting recharge to crystalline rock in the Mirror Lake Area, Grafton County, New Hampshire. U.S. Geological Survey Toxic Substances Hydrology Program - Proceedings of the Technical Meeting, Colorado Springs, Colorado, September 20-24, 1993. Water Resources Investigations Report 94-4015.
- 11 Healy, R.W. and Cook, P.G., 2002. Using groundwater levels to estimate recharge. *Hydrogeology Journal*, V. 10, pp-91-109.
- 12 MOEE, 1995, Hydrogeological Technical Information Requirements for Land Development Applications, MOEE, 1995.
- 13 MOEE, 1989, Guidelines for the Preparation of a Rural Servicing Report for Development to be Serviced by On-Site Sewage System, MOEE, 1989.

- 14 Scanlon, B.R., Healy, R.W. and P.G. Cook, 2002. Choosing appropriate techniques for quantifying groundwater recharge. *Hydrogeology Journal* v. 10, p. 18-39.

### **A-3: SITE-SPECIFIC FIELD RECHARGE STUDIES**

#### **A-3-1: Recharge Studies Using Water Table Fluctuation (WTF) Method**

- 15 Crosbie, R.S., Binning, P. and J.D. Kalma, 2005. A time series approach to inferring groundwater recharge using the water table fluctuation method. *Water Resources Research*, v. 41, W01008.
- 16 Healy, R.W. and P.G. Cook, 2002. Using groundwater levels to estimate recharge, *Hydrogeology Journal*, v. 10, 91-109.
- 17 Milloy, Claire Alison, 2007. Measurement of hydraulic head for the evaluation of groundwater recharge to discrete fracture zones in a crystalline bedrock aquifer. M.Sc. thesis, Queen's University, Kingston, Ontario. January 2007.
- 18 Nichols, D.S and E.S. Verry, 2001. Stream flow and ground water recharge from small forested watersheds in north central Minnesota, *Journal of Hydrology*, v. 245, v. 3-4, p. 169-193.
- 19 Sophocleous, M.A., 1992. Groundwater recharge estimation and regionalization: The Great Bend Prairie of Central Kansas and its recharge statistics. *Journal of Hydrology*, v. 137, p. 113-140.

#### **A-3.2: Recharge Studies Using Environmental Isotopes**

- 20 Abbott, M.D., Lini, A. and P.R. Bierman,  $^{18}\text{O}$ ,  $\text{D}$  and  $^3\text{H}$  measurements constrain groundwater recharge patterns in an upland fractured bedrock aquifer, Vermont, USA. *Journal Hydrology*, v. 228, p. 101-112.
- 21 Ofterdinger, U.S., Balderer, W., Loew, S. and P. Renard, 2004. Environmental isotopes as indicators for ground water recharge to fractured granite. *Ground Water*, v. 42, no. 6, p. 868-879.
- 22 Oxtobee, Jaime P.A. and Kent Novakowski, 2002. A field investigation of groundwater/surface water interaction in a fractured bedrock environment. *Journal of Hydrology*, v. 269, p. 169-193.
- 23 Yager, Richard M. and William M. Kappel, 1998. Infiltration and hydraulic connections from the Niagara River to a fractured-dolomite aquifer in Niagara Falls, New York. *Journal of Hydrology*, v.206, p. 84-97.

#### **A-3.3: Recharge Studies Using Unsaturated Zone Measurements**

- 24 Gburek, W.J. and G.J. Folmar, 1999. A ground water recharge field study: site characterization and initial results. *Hydrological Process*, v. 13, p. 2813-2831.

- 25 McConville, C., Kalin, R.M. and H.T. Johnston, 2001. Evaluation of recharge in temperate climates using the water balance approach and O-18 profiles in the unsaturated zone. *Ground Water*, v. 39, no. 4, p. 616-623.
- 26 Rushton, K.R. and C. Ward, 1979. The estimation of groundwater recharge. *Journal of Hydrology*, v. 41, p. 345-361.
- 27 Stothoff, S.A., Groeneveld, D.P. and S.B. Jones, 1999. The effect of vegetation on infiltration in shallow soils underlain by fissured bedrock. *Journal of Hydrology*, v. 218, p. 169-190.

#### **A-3.4: Recharge Studies Using Multiple Methods**

- 28 Flint, Alan L. et al., 2002. Estimating recharge at Yucca Mountain, Nevada, USA: comparison of methods. *Hydrogeology Journal*, v. 10, p.180-204.
- 29 Risser, D.W., Gburek, W.J. and G.J. Folmar, 2005. Comparison of methods for estimating ground-water recharge and base flow at a small watershed underlain by fractured bedrock in the eastern United States. U.S. Geological Survey Scientific Investigations Report 2005-5038, 31 p.

#### **A-4: PAPERS ON GROUNDWATER FLOW IN FRACTURED ROCK**

- 30 Berkowitz, Brian, 2002. Characterizing flow and transport in fractured geological media: a review. *Advances in Water Resources*, v. 25, p. 861-884.
- 31 Bradbury, K.R. and M.A. Muldoon, 1994. Effects of fracture density and anisotropy on delineation of wellhead-protection areas in fractured-rock aquifers. *Applied Hydrogeology*, v. 3, p. 17-23.
- 32 Lapcevic, P.A., Novakowski, K.S. and E.A. Sudicky, 1999. Groundwater flow and solute transport in fractured media. Chapter 17 in REFERENCE UNKNOWN. CRC Press LLC.
- 33 Pruess, K. On water seepage and fast preferential flow in heterogeneous, unsaturated rock fractures,. *Journal of Contaminant Hydrology*, v. 30, p. 333-362.
- 34 Shapiro, Allen M. and Paul A. Hsieh, 1998. How good are estimates of transmissivity from slug tests in fractured rock? *Groundwater*, v. 36, no. 1, Jan-Feb, p. 37-48.

#### **A-5: OTHER PAPERS**

- 35 Brunton, F.R., Dodge, J.E.P., and Shirota, J.: Summary of Field Work and Other Activities 2006, Ontario Geological Survey, Open Field Report 6192, p. 31-1 to 31-9, 2006.
- 36 Brunton, F.R., Dodge, J.E.P., and Shirota, J.: Summary of Field Work and Other Activities 2005, Ontario Geological Survey, Open Field Report 6172, p. 27-1 to 27-7, 2005.