

# **Grand River Source Protection Area**

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## **ASSESSMENT REPORT** **Submission Draft**

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**January 30, 2025**

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## 28.0 MAP REFERENCES

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Additional references for specific maps are given in the table below:

Map #	Description	Reference
Map 2-5:	Population and Population Density in Watershed by Municipality and Reserve	Grand River Conservation Authority, August 2018. Summary of Population Statistics for Grand River Watershed.
Map 2-7:	Physiography of Grand River Watershed Area	Physiography of Southern Ontario Geological Survey dataset MRD228, Chapman, L.J. and Putnam, D.F. 2007. Ministry of Northern Development and Mines, Copyright © Queen's Printer, 2010.
Map 2-8:	Hummocky Topography	Various Authors, 1967-1993, Quaternary and Pleistocene Geology, Southern Ontario, Ontario Geological Survey. Ministry of Northern Development and Mines, Copyright © Queen's Printer, 2003.
Map 2-10:	Bedrock Topography	Gao, C., Shirota, J., Kelly, R.I., Brunton, F.R. and van Haften, S. 2006. Bedrock topography and overburden thickness mapping, southern Ontario; Ontario Geological Survey, Miscellaneous Release—Data 207.
Map 2-11:	Bedrock Geology	Paleozoic Geology of Southern Ontario, Ontario Geological Survey dataset MRD219, Armstrong, D.K., Dodge, J.E.P., 2007. Ministry of Northern Development and Mines, Copyright © Queen's Printer, 2010.
Map 2-12:	Quaternary (Surficial) Geology	Various Authors, 1967-1993, Quaternary and Pleistocene Geology, Southern Ontario, Ontario Geological Survey. Ministry of Northern Development and Mines, Copyright © Queen's Printer, 2010.
Map 2-13:	Overburden Thickness	Holysh, S., Pitcher, J., and Boyd, D. 2001. <i>Grand River Regional Groundwater Study</i> . Grand River Conservation Authority, Cambridge, ON.
Map 2-14:	Water Table Surface of the Grand River Watershed	AquaResource Inc. 2009a. Integrated Water Budget Report, Grand River Watershed: Final Report, June 2009.

Map #	Description	Reference
Map 2-15:	Potentiometric Surface of the Grand River Watershed	AquaResource Inc. 2009a. Integrated Water Budget Report, Grand River Watershed: Final Report, June 2009.
Map 2-17:	Groundwater Discharge Map	Groundwater Discharge derived from Figure 70 (page 169) of: AquaResource Inc., June 2009. Final GRCA Integrated Water Budget Report.
Map 2-18:	Average Annual Temperature	Based on Environment and Climate Change Canada data. Produced using information under License with the Grand River Conservation Authority © Grand River Conservation Authority, 2019.
Map 2-19:	Average Annual Precipitation	Based on Environment and Climate Change Canada data. Produced using information under License with the Grand River Conservation Authority © Grand River Conservation Authority, 2019.
Map 18-2:	Groundwater Discharge Map in the Grand River Watershed	Groundwater Discharge derived from Figure 70 (page 169) of: AquaResource Inc., June 2009. Final GRCA Integrated Water Budget Report.
Map 18-4:	Water Quantity Stress Levels by Groundwater Assessment Area within the Grand River Watershed	Adapted from AquaResource Inc. 2009. Tier 2 Water Quantity Stress Assessment Report: Grand River Watershed, Final Report December 2009. AquaResource Inc., Breslau, ON.
Maps 19-1 to 19-12:	Region of Waterloo Tier 3 Water Budget and Risk Assessment	Matrix Solutions Inc. 2014. Region of Waterloo Tier Three Water Budget and Local Area Risk Assessment. Matrix Solutions Inc., Waterloo, ON.
Maps 20-1 to 20-12:	Whitemans Creek Tier 3 Water Budget and Risk Assessment	Earthfx Inc., 2018. Whitemans Creek Tier Three Local Area Water Budget and Risk Assessment: Risk Assessment Report.
Maps 22-1 to 22-8:	Centre Wellington Tier 3 Water Budget and Risk Assessment	Matrix Solutions Inc. 2020. Centre Wellington Tier Three Water Budget Final Risk Assessment Report. Matrix Solutions Inc., Guelph, ON.



**APPENDIX A**

**Written Notice from Director Classifying Intakes per Technical Rule 55.1  
Requests for Approval of Alternative Approach**

**APPENDIX B**

**Correspondence Regarding Excavation that Breaches the Aquitard**