

## M.D. of Lesser Slave River No. 124

Part of the Athabasca River Basin  
Tp 065 to 073, R 23 to 27, W4M & Tp 065 to 075, R 01 to 08, W5M  
Regional Groundwater Assessment

Prepared for:



In conjunction with:



Agriculture and  
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Administration

Agriculture et  
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agricole des Prairies

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### PERMIT TO PRACTICE

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The Association of Professional Engineers,  
Geologists and Geophysicists of Alberta

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***For additional copies of the report/CD-ROM, please contact the following:***

- 1-800-GEO-WELL
- The Groundwater Centre/Regional Groundwater Assessment

[http://www.groundwatercentre.com/m\\_info\\_rgwa.asp](http://www.groundwatercentre.com/m_info_rgwa.asp)

## 1 PROJECT OVERVIEW

**“Water is the lifeblood of the earth.” – Anonymous**

How a M.D. takes care of one of its most precious resources - groundwater - reflects the future wealth and health of its people. Good environmental practices are not an accident. They must include genuine foresight with knowledgeable planning. Implementation of strong practices not only commits to a better quality of life for future generations, but also creates a solid base for increased economic activity. **Though this report's scope is regional, it is a first step for the M.D. of Lesser Slave River No. 124 in managing their groundwater. It is also a guide for future groundwater-related projects.**

### 1.1 Purpose

This project is a regional groundwater assessment of the M.D. of Lesser Slave River No. 124 prepared by Hydrogeological Consultants Ltd. (HCL) with financial and technical assistance from the Prairie Farm Rehabilitation Administration branch of Agriculture and Agri-Food Canada (AAFC-PFRA) and the M.D. of Lesser Slave River. The project study area includes the parts of M.D. of Lesser Slave River bounded by townships 065 to 073, ranges 23 to 27, W4M and townships 065 to 075, ranges 01 to 08, W5M (herein referred to as the M.D.). The regional groundwater assessment provides the information to assist in the management of the groundwater resource within the M.D. Groundwater resource management involves determining the suitability of various areas in the M.D. for particular activities. These activities can vary from the development of groundwater for country residential, agricultural or industrial purposes, to the siting of waste storage. **Proper management ensures protection and utilization of the groundwater resource for the maximum benefit of the people of the M.D.**

The regional groundwater assessment will:

- identify the aquifers<sup>1</sup> within the surficial deposits<sup>2</sup> and the upper bedrock
- spatially identify the main aquifers
- describe the quantity and quality of the groundwater associated with each aquifer
- identify the hydraulic relationship between aquifers
- identify possible groundwater depletion areas associated with each upper bedrock aquifer.

Under the present program, the groundwater-related data for the M.D. have been assembled. Where practical, the data have been digitized. These data are then used in the regional groundwater assessment for the M.D. of Lesser Slave River.

<sup>1</sup> See glossary

<sup>2</sup> See glossary