

## Yellowhead County

Part of the Athabasca River Basin  
Tp 050 to 057, R 07 to 26, W5M  
Regional Groundwater Assessment

Prepared for:



In conjunction with:



Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada

Prairie Farm Rehabilitation  
Administration

Administration du rétablissement  
agricole des Prairies

Canada 

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### PERMIT TO PRACTICE

HYDROGEOLOGICAL CONSULTANTS LTD.

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### PERMIT NUMBER P 385

The Association of Professional Engineers,  
Geologists and Geophysicists of Alberta

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- B. Maps and Figures on CD-ROM
- C. General Water Well Information
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- E. Water Wells Recommended for Field Verification including County-Operated Water Wells

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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 County 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 Yellowhead County 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 Yellowhead County 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 Yellowhead County. The project study area includes the parts of Yellowhead County bounded by townships 050 to 057, ranges 07 to 26, W5M (herein referred to as the County). The regional groundwater assessment provides the information to assist in the management of the groundwater resource within the County. Groundwater resource management involves determining the suitability of various areas in the County 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 County.**

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 County have been assembled. Where practical, the data have been digitized. These data are then used in the regional groundwater assessment for Yellowhead County.

<sup>1</sup> See glossary

<sup>2</sup> See glossary