

Lakeland County Study Area

Part of the Churchill and Athabasca River Basins
Parts of Tp 062 to 070, R 09 to 17, W4M
Regional Groundwater Assessment

Prepared for Lakeland County



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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- B. Maps and Figures on CD-ROM
- C. General Water Well Information
- D. Maps and Figures Included as Large Plots
- E. Water Wells Recommended for Field Verification
- F. Maps and Figures Included for both Lakeland County and M.D. of Bonnyville

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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 Lakeland County (the 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 Lakeland County prepared by Hydrogeological Consultants Ltd. (HCL) with financial and technical assistance from the Prairie Farm Rehabilitation Administration arm of Agriculture and Agri-Food Canada (AAFC-PFRA). 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 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 aquifers¹ within the surficial deposits²
- spatially identify the main aquifers
- describe the quantity and quality of the groundwater associated with each surficial aquifer
- identify the hydraulic relationship between aquifers
- identify possible groundwater depletion areas associated with each surficial 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 Lakeland County.

¹ See glossary

² See glossary