



Chapter 2.0 Report Overview



2.0 REPORT OVERVIEW

A state of the watershed report is a current account of an entire watershed that identifies knowledge gaps within the watershed. The following state of the North Saskatchewan Watershed report was prepared for the North Saskatchewan Watershed Alliance (NSWA) using most recently available data that quantifies land-use categories and comments on water quality, water quantity and environmental integrity in the North Saskatchewan Watershed. Indicators of watershed health were determined with the assistance of partner experts which became the focus of data collection. Spatial data, using a geographic information system (GIS), were collected where possible. The four main indicator categories were water quality, water quantity, land use and biological indicators. Another aspect of this report was issue identification which will affect socio-economic decision making.

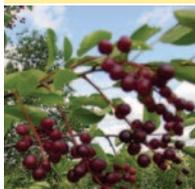
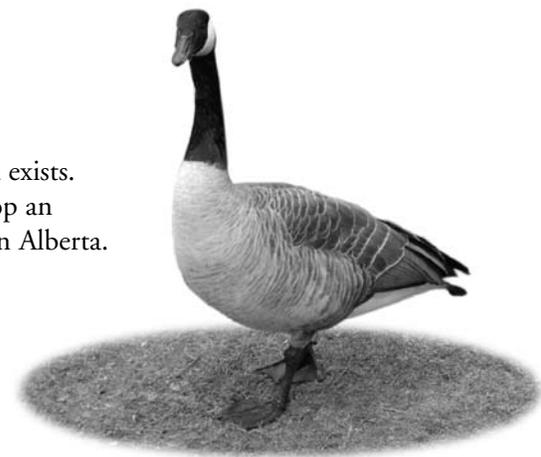
Watershed management decisions are becoming increasingly complex and require timely and relevant information from State of the Watershed reports. The NSWA subscribes to the multibarrier approach to source water protection. This is the first State of the Watershed report of this scale to be completed in Alberta, and is the NSWA's largest undertaking to date. This report will provide background information necessary for the development of an Integrated Watershed Management Plan (IWMP) for the North Saskatchewan Watershed in Alberta. Integrated Watershed Management is a comprehensive, multi-resource management planning process that involves all stakeholders in the watershed who come together to identify the resource issues and concerns. Stakeholders will also develop and implement a watershed plan with solutions that are environmentally, socially and economically sustainable.

2.1 PURPOSE OF REPORT

The purpose of this state of the watershed report is to summarize the current knowledge of the North Saskatchewan River watershed pertaining to land-use, water quality, water quantity, fisheries, and select biological indicators to comment on the environmental integrity of the North Saskatchewan Watershed. This report has been created for all NSWA members and other watershed stakeholders such as residents, regulators, policy makers, industry and non-governmental organizations. The report will provide some background knowledge that is required for improved watershed management decisions by regulators, policy makers, landowners and industrial users. Specifically, this report will:

1. Inform and raise awareness of the current state of the North Saskatchewan watershed in Alberta.
2. Comment on the value of watershed protection, ecological health, and the state of the watershed.
3. Make recommendations based on observed conditions and information needs for sustainable management of the watershed.
4. Encourage independent studies of watershed functioning in areas where little data exists.
5. Provide the basis for predictive analyses and other information necessary to develop an Integrated Watershed Management Plan for the North Saskatchewan Watershed in Alberta.

The Government of Alberta is committed to sustainable development through an integrated resource management (IRM) approach to protect the environment and manage Alberta's resources (Government of Alberta 1999). IRM of water resources requires a comprehensive, interdisciplinary approach to the management



of water, timber, air, public land, fish, wildlife, range, oil, gas and mineral resources. Water management planning is formalized in the *Framework for Water Management Planning* (Alberta Environment 2001) which outlines the processes and required components for water management planners. The Framework states that the foundation for water management planning is a baseline State of the Watershed report. This report is intended to provide the baseline data required for the NSWA IWMP. Definitions for highlighted terms found throughout this report can be found in Section 8.0 Glossary.

2.2 SCOPE OF REPORT

The geographic scope of this State of the Watershed report is the watershed boundaries of the North Saskatchewan River within Alberta. The North Saskatchewan River within Alberta is broken down into 18 Subwatersheds: Cline, Brazeau, Ram, Clearwater, Modeste, Sturgeon, Strawberry, Bigstone, White Earth, Beaverhill, Paintearth, Vermilion, Frog, Iron, Monnery, Blackfoot, Ribstone and Sounding, each named for their highest order tributary into the North Saskatchewan River main stem (Figure 1). The scale that was used to break down the Subwatersheds was arbitrarily chosen. The Battle River Subwatershed (which includes the Bigstone, Paintearth, Iron, Blackfoot and Ribstone) and the Sounding Subwatershed are included in the North Saskatchewan River watershed, although they join the North Saskatchewan River in Saskatchewan rather than in Alberta.

The scope of data collected and used in this report was constrained to recent water quality and water quantity reports, land use data provided from NSWA partners, and select data pertaining to our biological indicators (Table 1). When data was readily available, trends over time that were related to our indicators were summarized and presented in this report. However, State of the Watershed reporting provides only a “snapshot in time” and is not intended to demonstrate long-term changes in land use, water quality or show trends over time. This report does not include historical analysis, but rather presents the most recent data that was available. Indicators were previously selected by our partner experts to determine what variables would be summarized to gauge the State of the Watershed, and ultimately predict watershed health.

2.3 NSWA BACKGROUND

The North Saskatchewan Watershed Alliance (NSWA) is a non-profit society whose purpose is to protect and improve water quality and ecosystem function in the North Saskatchewan Watershed within Alberta. Formed in 1999, the NSWA believes that an ecosystem approach coupled with an inclusive, collaborative process is the most effective way to find a balance between human needs and watershed integrity.



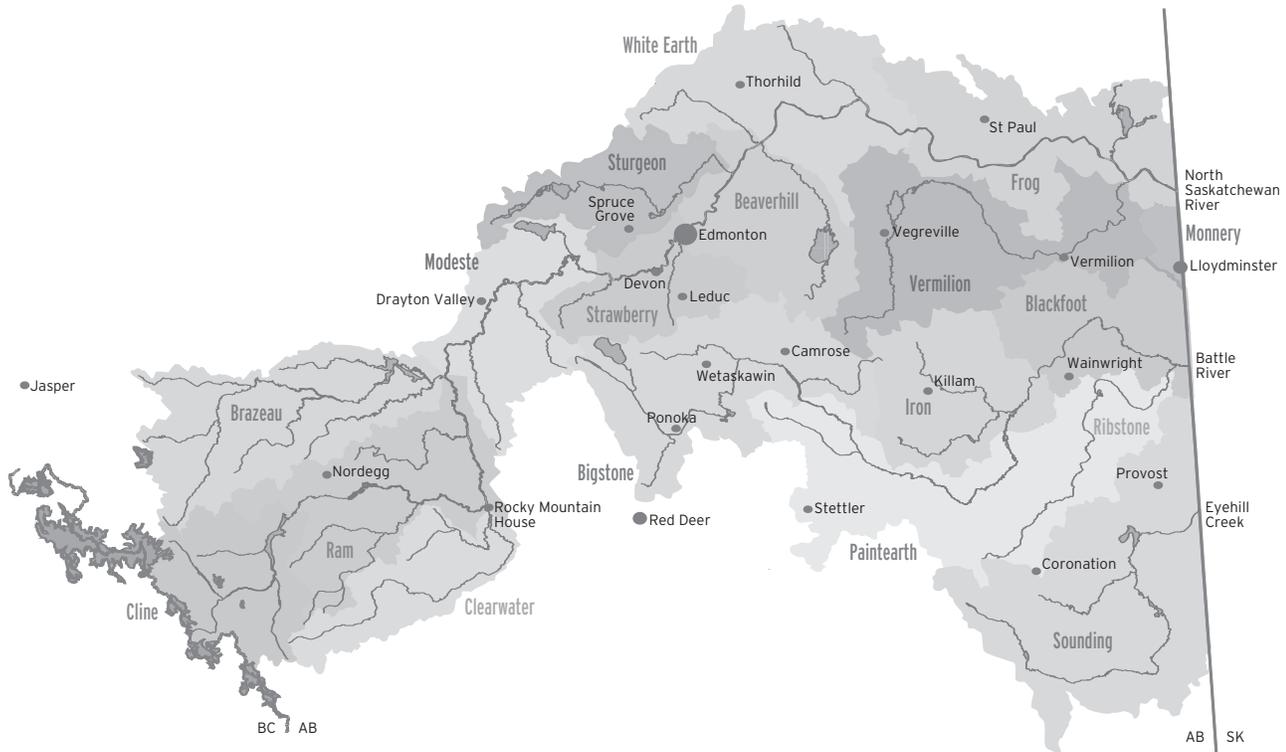


Figure 1: The 18 subwatersheds that comprise the North Saskatchewan Watershed in Alberta.

