



SASKATCHEWAN RIVER BASIN

Introduction

BASIN FACTS ...

w The Saskatchewan River Basin drains an area of about 340,000 k m².

w The Saskatchewan River derives its name from the Cree word KISIKATCHEWAN, meaning "swift current".

w The Saskatchewan

From the Rocky Mountains, across the Prairies to Lake Winnipeg, and ultimately draining into Hudson Bay, the Saskatchewan River and its tributaries wind and flow across one of the largest and most diverse river basins in North America. The North Saskatchewan begins as an icy waterfall at the foot of the Saskatchewan Glacier in western Alberta. Smaller streams join its flow, including the Brazeau and Clearwater Rivers near Rocky Mountain House. Gathering momentum, it curves past Edmonton and on to the Battlefords. Forest and parkland line its banks as it slips past Prince Albert to meet the South Saskatchewan at the confluence known as The Forks.

The South Saskatchewan is a prairie river. It arises from seven small rivers flowing from the Great Divide in both Montana and southern Alberta. These rivers merge, and between the cities of Lethbridge and Medicine

Hat, the South Saskatchewan first appears at the junction of the Old Man and Bow Rivers. After cutting its way through prairie grasslands, it widens into Lake Diefenbaker, then angles north past Saskatoon, into the parkland and on to The Forks. Just west of the Manitoba/Saskatchewan border, the river divides into a delta forming the Cumberland Marshes. The main branch continues its eastward journey through The Pas and broadens into Cedar Lake before rushing past Grand Rapids into Lake Winnipeg. It continues on to Hudson Bay as 30% of the Nelson River flow comes from the Saskatchewan River.

The history of the Saskatchewan is as dynamic as its geography. Aboriginal peoples long followed its curves and raced its rapids to hunting and fishing grounds. Henry Kelsey may have been the first white man on the river in 1691. Louis-Joseph (Le Chavalier) de la Vérendrye first saw it in 1741 and traversed a

The Saskatchewan River Basin is heavily impacted by human activities. It is a reservoir for runoff from millions of acres of agricultural lands, effluents from industries and waste water from towns and cities. Its ecosystem is changed as we take water for our own uses or drain it off the land. Land use practices throughout the basin affect water quality and quantity.

Water is essential to our survival, but we tend not to give it much thought. Yet there are many concerns regarding water in the Basin, such as water quality. What kinds of pollutants are entering the water and from what sources? Is the water safe to drink? Why is algae and weed growth increasing in some areas? How are we impacting groundwater?

Water use is another big issue. Are we consuming too much water? Are we leaving enough for the aquatic ecosystem to thrive? How should we alter water allocation during drought years? Who is in charge of water use?

Water is the source of power generation in many places in the basin and is used for cooling in thermal generation stations. How have hydroelectric dams changed the flow of water? How do power stations impact fish and other aquatic organisms?

Declining waterfowl numbers across the prairie provinces has been an issue of concern for many years. What is the extent of loss of wetlands? Are we continuing to drain wetlands? Are conservation programs working?

Although many of us take water for granted, life in the Saskatchewan River Basin depends

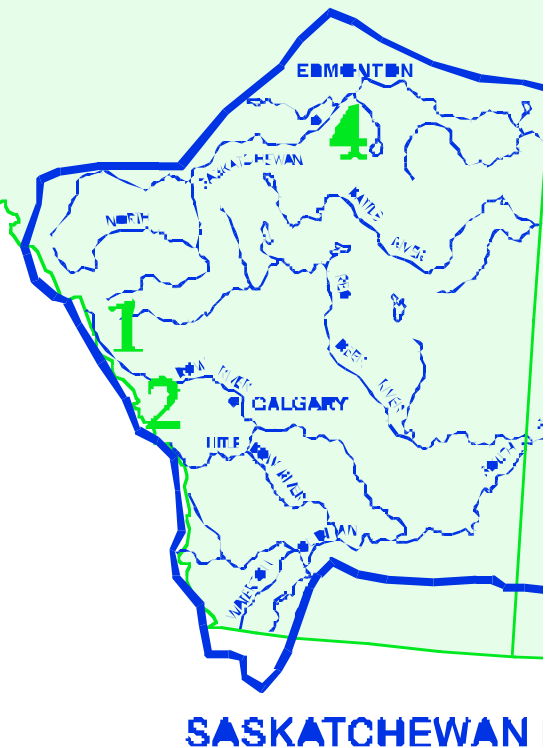
SUCCESS STORIES

The marshes, aquifers, creeks, streams, lakes and rivers which make up the Saskatchewan River Basin have supported and influenced human history and development in the region for many decades. But population increases and human activities have impacted on that most precious resource - water. A sustainable future in the basin requires that we confront difficult issues related to our use of water and find solutions to both

1 North Raven River Habitat Restoration Program: Removal of riverbank or riparian vegetation combined with intensive cattle grazing had altered the characteristics of the streams and increased the levels of sediment carried in the water. Since 1973, the river's trout habitat has been rehabilitated through cooperative action of landowners, the Alberta government and many volunteers from Trout Unlimited. Riverbank vegetation has been restored, the watercourse narrowed to speed the flow, and the banks fenced to keep cattle out. Erosion

2 Bow River Water Quality Council: Close to one million people rely on the Bow River Basin for high quality water. With population growth, the demands on the river are increasing and there are concerns about maintaining water quality. In response to the many water-related challenges in the Bow River Basin, the Bow River Water Quality Council, a water management partnership of stakeholders including special interest groups, municipal governments, first nations, industrial water users, agricultural users and provincial and federal governments, has been established. The Council's overall goal is to manage human activity and the use of surface and groundwater within the Bow River Basin to protect human health and ecological

3 Lake Sturgeon Survival: Slow-growing and long-lived, lake sturgeon once inhabited the northern portion of the basin from Lake Winnipeg to Edmonton. Over the years, its migration routes and spawning areas have been adversely impacted by hydroelectric development. Because of the decline in numbers of this prehistoric-looking fish, a federal-provincial lake sturgeon management committee was established to coordinate sturgeon rehabilitation measures. Radio-tagging and monitoring programs are underway to learn more about the elusive species. A provin-



SASKATCHEWAN

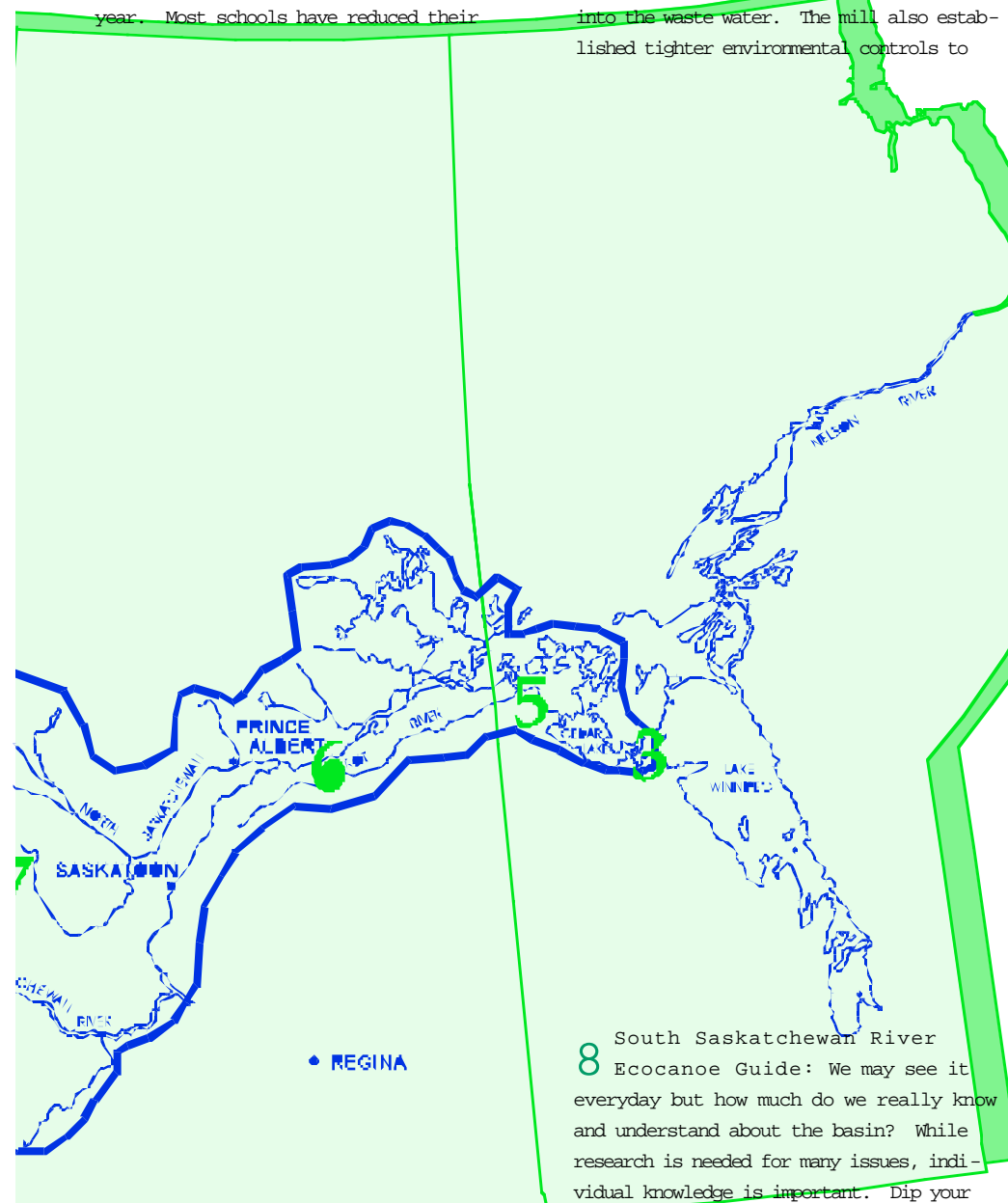
4 Water Efficiency Campaign: Edmonton has adopted a communication campaign to promote water efficiency. Aimed at residential and commercial users, the campaign is designed to obtain a 5% reduction in water demand over three years. The objective is to delay the need for costly expansion of the water treatment plant and to keep water rates constant. One part of the campaign is a water efficiency school education program, reaching 25,000 students each year. Most schools have reduced their

5 Repap Pulp and Paper Mill: Although its mill effluent was in compliance with water quality standards, in 1989 Repap Manitoba made operational improvements to reduce the total suspended solids and increase the dissolved oxygen in its mill effluent. The mill added nutrient feeding to its lagoon operation to reduce the biochemical oxygen demand of the effluent and improved its mill operations to reduce the amount of wood fibre escaping from the manufacturing process into the waste water. The mill also established tighter environmental controls to

6 Nipawin Sewage Treatment: In 1995, a joint project of SaskWater, CanAmara Foods and the Town of Nipawin completed construction of sewage treatment lagoons, which has decreased the extent of microbiological contamination in the Saskatchewan River. Summer recreation users benefit from this higher quality water. Other communities with existing treatment facilities, like Saskatoon, are also upgrading. Calgary has spent \$150

7 Water Saving Shower Heads: Although the basin may appear rich in water, in many locations demand for water outstrips the supply, especially in drought years. Canadians are among the biggest water users in the world. Individuals across the Saskatchewan River Basin are starting to use water conservation devices in their homes. A survey of basin residents showed that about half of the respondents use flow-regulating shower

8 South Saskatchewan River Ecocanoe Guide: We may see it everyday but how much do we really know and understand about the basin? While research is needed for many issues, individual knowledge is important. Dip your paddle into the milky waters of the river, taking time to observe the natural beauty and cultural history. The South Saskatchewan flows through three ecosystems and this guide, published by Partners FOR the Saskatchewan River Basin in



PARTNERS FOR THE SASKATCHEWAN RIVER BASIN

Partners FOR the Saskatchewan River Basin is a network of organizations committed to increasing stewardship for the basin. "Our Mission is to promote awareness, linkages, stewardship, knowledge and respect for the basin's ecosystems and heritage that will encourage sustainable use of the basin's natural resources and nurture cultural values." Since its initiation in 1993 the River Basin Program has grown to include over 100 partner organizations, many of whom have been actively involved in the development and implementation of information, education and stewardship action projects. Partners FOR the Saskatchewan River Basin has incorporated and is continuing this work as a non-profit charitable organization. Membership is open to individuals and organizations with an interest or mandate which is in keeping with the Program mission statement.

Partners FOR the Saskatchewan River Basin is managed on behalf of the Partner organizations by Meewasin Valley Authority, a river corridor conservation agency based in Saskatoon. A Board of Directors, comprised of senior executives representing river related sectors in the basin, provides advice and fundraising assistance. Alberta, Saskatchewan and Manitoba each have Provincial Working Groups to coordinate activities and planning. Policy decisions are made on a consensus basis.

Programs emphasize stewardship by developing:

public awareness and education

tools to teach the importance of the basin's biodiversity ongoing partnerships and networks of organizations that cross political and sectoral boundaries action projects in which people can participate

Examples of projects include:

- § databases and directories of resources
- § workshops and information projects
- § demonstration projects
- § education campaigns
- § teacher training

A VISION FOR THE FUTURE

"Rivers are wonderful," said a participant in the Partners FOR the Saskatchewan River Basin Strategic Planning Workshop. "We need to create riverness curiosity," said another. Others identified issues of concern to them: taking an ecosystem approach to basin management, increasing the appreciation of the resources of the basin, networking and solving problems from community to community - at a grassroots level, understanding downstream effects, protection of aquatic habitat, pollution within and along rivers, environmental indicators to help us understand what is happening in the system, maintaining an adequate, reliable water supply at reasonable cost.

We challenge you to consider these issues and the success stories we've told and to create a vision for the sustainable future of the Saskatchewan River Basin. What do you see in your area of the basin? What will be the water issues in the next 20, 50 or 100 years? What action will be needed now and in the future? How can we work together to protect our aquatic ecosystem and our liveli-

For More Information

This fact sheet was published by Partners FOR the Saskatchewan River Basin.

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