



SASKATCHEWAN RIVER BASIN

Introduction and Overview

BASIN FACTS.....

- The Saskatchewan River Basin drains an area of about 340,000 square kilometres.
- The Saskatchewan River derives its name from the Cree word KISISKATCHEWAN, meaning “swift current”.
- The Saskatchewan River is the fourth longest in Canada. The North Saskatchewan is the seventh longest.



Photo credit: Meewasin Valley Authority

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 onto 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 percent 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 European on the river in 1691. Louis-Joseph (Le Chavalier) de La Verendrye first saw it in 1749. The first European explorer to see most of the river was Anthony Henday around 1755. The Saskatchewan soon carried fur traders, missionaries and settlers to the heart of the continent. With the development of the railroad, the importance of the river as a transportation route declined. But its waters were put to many other uses, for the new farms and communities growing along its banks.

Today more than three million people depend on the rivers, streams, aquifers, wells and marshes in the Saskatchewan River Basin for their industries, recreation, agriculture and personal use. Its water requires careful management and stewardship to ensure their sustainable use for many generations to come.

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?

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 increase and human activities have impacted on the 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 new and long standing problems. Here are some success stories that can lead us in a new direction and approach to water management.



Photo credit: Partners FOR the Saskatchewan River Basin

Water is the source of power generation in many places in the basin and is used for cooling in thermal generating 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 on it. Partners FOR the Saskatchewan River Basin is focusing on this vital element with the production of a series of fact sheets dealing with the questions raised above. Read the Water Quality, Water Management, Hydroelectric Operations and Wetlands and Waterfowl fact sheets to learn more about water - how it affects you and how you may be affecting it.

Natural Water Treatment: Wetlands have often been referred to as “Nature’s outhouses” because they have the ability to remove impurities from the water that flows through them. Areas around the world are now using this method to clean polluted water. The community of Vonda, Saskatchewan, with the assistance of Ducks Unlimited Canada, developed a wastewater management system composed of two cells plus a man-made wetland, all three of which are heavily populated with bulrushes and cattails. The plants absorb the phosphates and nitrates found in the wastewater. The second cell is connected to the Ducks wetland by an underground pipe. Because of concern about water quality in the wetland as a result of the water transfer from the second cell, the wetland is tested frequently and the water is found to be safe for the environment.

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, was 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 integrity and to be environmentally sustainable. It participates in basin water use management and planning and identifies problems, action plans and cooperative water use management strategies. The council monitors, evaluates and reports results to the provincial government and other stakeholders.

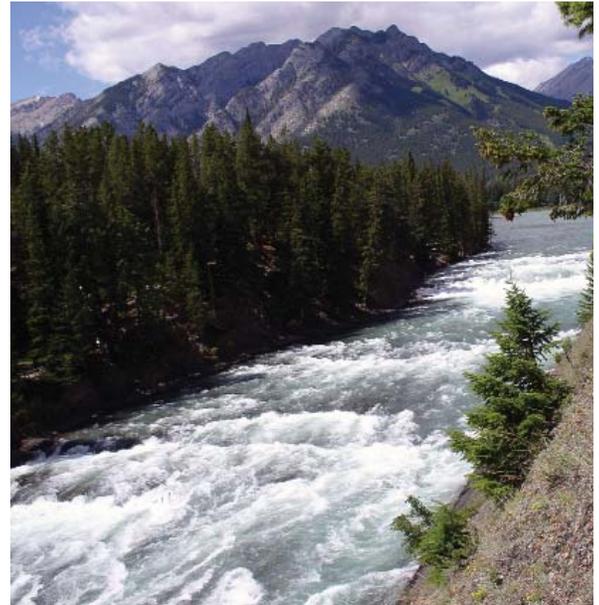


Photo courtesy: Mike Murray (BRBC)

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, the 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 provincial hatchery at Grand Rapids, supported in part by Manitoba Hydro, raises fingerlings for release into the wild. The goal is to restore lake sturgeon to its previous population levels and possibly re-establish a commercial fishery. In 2012, the hatchery successfully raised and released 33,000 sturgeon.

PARTNERS FOR THE SASKATCHEWAN RIVER BASIN

Partners FOR the Saskatchewan River Basin is an organization 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."

We challenge you to consider the issues 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 livelihoods which depend on it? What action will you take?

Get involved. Help create a sustainable Saskatchewan River Basin.

You can make a difference!

For More Information

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The fact sheet series includes:

- Introduction and Overview
- Water management
- Hydroelectric Operations
- Water Quality
- Wetlands and Waterfowl