

Managing Water Quality in the North Saskatchewan River

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The North Saskatchewan River is a vital resource for humans and nature along its 1,287 kilometre length. In Alberta's Industrial Heartland and surrounding area, it remains a source of water for a variety of users including residential, municipal, and industrial.

Water quality in the North Saskatchewan River has improved significantly over the past 50 years. This is mainly due to the construction and continued expansion and improvement of the Gold Bar Waste Water Treatment Plant, the Alberta Capital Region Wastewater Commission, as well as other factors. Construction of the Bighorn and Brazeau dams in 1965 and 1972, respectively, help improve water quality by providing an increase in average flow of the North Saskatchewan River during winter months, the lowest flow period. This additional flow dilutes concentrations of river contaminants. As a result of all efforts, water quality parameters are equivalent to 1920s levels, despite a 10-fold increase in population.

It is important to continue improvements to maintain excellent water quality while allowing for future growth. In 2007, a multi-stakeholder committee was created to develop a Water Management Framework. The goal of the Framework is to further reduce wastewater constituents and improve overall water quality downstream of the Capital Region and the Industrial Heartland, all while allowing for future economic development in the region.

An extensive engineering study has identified key scenarios for fulfilling this goal. Water modelling has been used to analyze the likely effectiveness of the scenarios. Predictions indicate that excellent water quality can be maintained while industry and population grows in the Capital Region and Industrial Heartland.

Efforts by all consumers of water from the North Saskatchewan River are necessary to preserve its overall health. Improved technology, cooperative management, and dedicated monitoring help ensure that residential, municipal, and industrial users can continue to rely on the river as a quality source of water.

*Brought to you by **Life in the Heartland**, a partnership aimed at improving access to information, resources, and contacts for residents in and around Alberta's Industrial Heartland. For more information, visit www.lifeintheheartland.com, email info@lifeintheheartland.com or follow us on Facebook at www.facebook.com/LifeintheHeartland.*