

City of Kamloops

Distribution System

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History

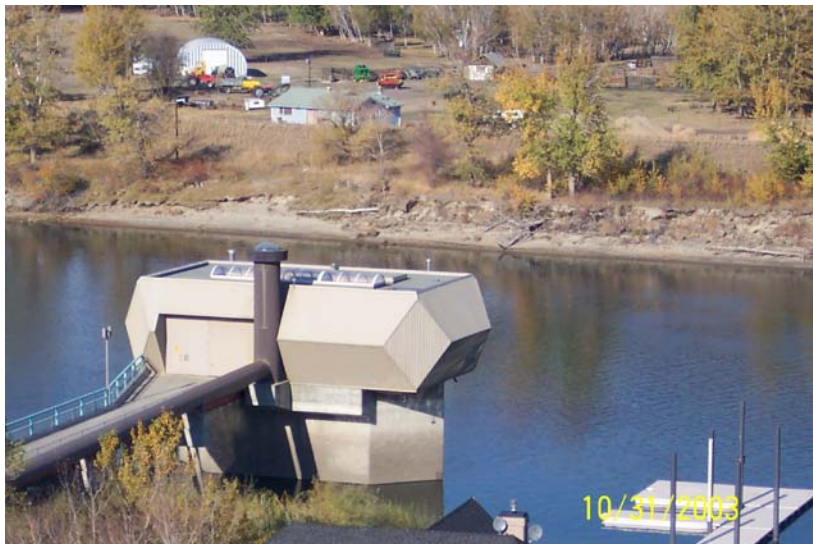
In just over 100 years, the City of Kamloops water utility has grown from a one-reservoir system built by James McIntosh to one of the most sophisticated water distribution systems in Canada.

How much water is supplied each year?

In 2008, approximately 23.4 billion litres were supplied to customers for domestic and commercial use.

Water Source

By the end of 2009 all of the water supplied for the City of Kamloops will be taken from the South Thompson River with the exception of the Campbell Creek subdivision which is supplied by a system of 5 deep wells. Water from the South Thompson is pumped from the intake structure through 4 low lift pumps and is then treated in the Kamloops Centre for Water Quality (KCWQ), which began operation in February 2005.



South Thompson Intake Structure

Kamloops Centre for Water Quality

The KCWQ is one of Canada's largest low-pressure, enhanced coagulation membrane water treatment plants and is capable of supplying up to 160 MLD (42.3 MGD) of clean drinking water to its customers, regardless of the turbidity in the raw river water.



Kamloops Centre for Water Quality

How does the treated water get to the customers?

At our main River Street High Lift Station, there are eight pumps capable of supplying 120,000 litres per minute into our water distribution system. Four 600 horsepower pumps serve the Valleyview, Juniper, Rosehill, North Kamloops, Brocklehurst, Westsyde, Karindale and Noble Creek areas. Three 450 hp pumps and one 800 hp pump serve South Kamloops, Sahali, Aberdeen Dufferin, and Knutsford areas. The Campbell Creek System has five wells in two aquifers, which are capable of supplying up to 10,000 litres per minute to the single reservoir serving that area.



River Street High Lift Station

Booster Stations

Booster stations containing more pumps are placed at various elevations to "boost" the water up to the reservoirs. Due to the vast changes in topography, the distribution network consists of 60 different pressure zones with 40 booster stations, 44 reservoirs, 520 kilometres of underground pipes and 2200 hydrants. An extensive network of smaller water lines connected to the main lines run under nearly every street in the city, bringing water to every customer. Boosters and reservoirs are all connected to a SCADA system to help monitor the entire system.



City of Kamloops Booster Station

Staffing

Management and administration of the Water and Wastewater Utility are carried out by the Director of Public Works and Utilities, the Utility Services Manager, and 4 Utility Services Superintendents. This administrative staff coordinates all operations and capital works, and relies on a work force complement of approximately 60. Foremen, pipefitters, electricians, equipment operators, water/wastewater operators, millwrights, instrumentation and SCADA technicians are included in this number.