WSP

Liard First Nation
KASKA

Yukon

Yukon University

WE NEED TO WORK TOGETHER TO PROTECT OUR PRECIOUS GROUNDWATER!

CREEK
tū zgze
WATER
tū
GROUNDWATER
men
LAKE
RAIN AND SNOW
chą́ zas
Fish
tūge
River
tahgah

EVERYONE IN WATSON LAKE DRINKS GROUNDWATER!

# GROUNDWATER IN WATSON LAKE

Tetsetūge męné

BC-YUKON AIR SERVICE LTD.

Tetsetūge męné

WATER TABLE

GROUNDWATER CONTAMINATION GENERALLY TRAVELS IN THE DIRECTION OF GROUNDWATER FLOW

GROUNDWATER CONTAMINATION CAN BE MEASURED THROUGH WELLS

AQUIFER RECHARGE FROM RAIN + SNOW MELT INFILTRATION

AQUIFER DISCHARGING TO LAKE

WATER TABLE

BEDROCK

It is easier to prevent groundwater contamination than to clean it up. That said, work is ongoing to remediate contaminated sites in the Watson Lake area, including the airport.

Visit our website, **yukon.ca**, to learn more about groundwater and wells and to see the Yukon "contaminated sites information map" to learn about remediated and contaminated sites in Watson Lake.

September 2023

Groundwater fills the pores and fractures in underground materials such as sand, gravel and bedrock.

Groundwater provides drinking water to everyone in Watson Lake and 97% of Yukoners!

Lakes and aquifers share water; they are intimately interconnected.

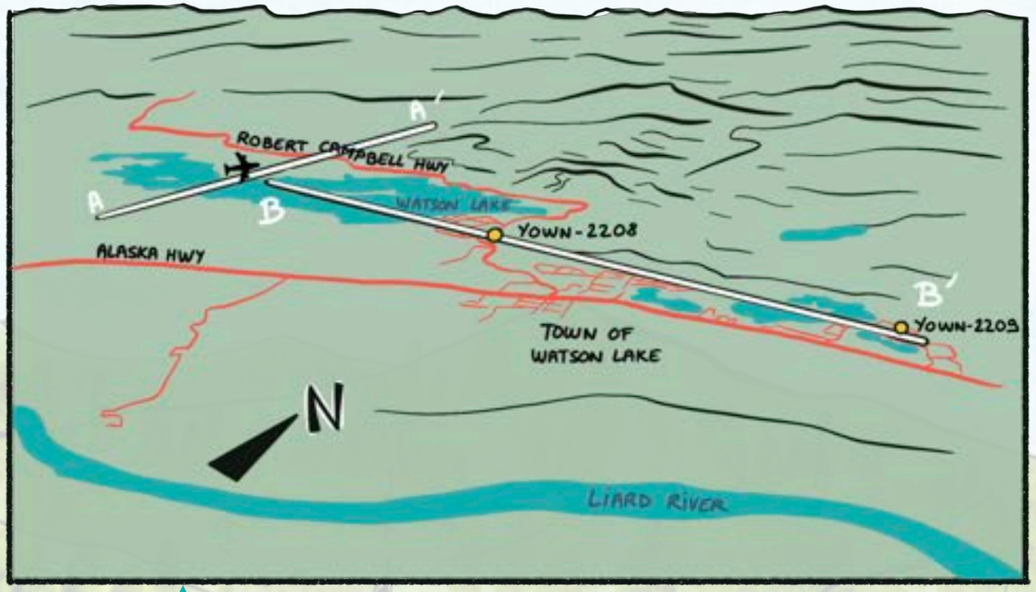
# Groundwater Systems in Watson Lake

There are three mapped aquifers in the Town of Watson Lake and all three are connected to Watson Lake itself. The Glaciofluvial Aquifer and the Deltaic Package Aquifer (both described below) are also connected to each other. All three mapped aquifers are potentially vulnerable to contamination because only a permeable layer of material lies between the water table and the surface. Till and bedrock in the Watson Lake area may also act as aquifers locally.

**Aquifers** are geological units that store groundwater and allow it to flow relatively easily. Aquifers supply groundwater for drinking and other uses. Groundwater from aquifers may be accessed at surface through springs and wells.

The Watson Lake Aquitard underlies the Deltaic Package Aquifer and is composed of clay and silt with some fine sand. These materials were left by a glacial lake that formed in the area.

**Aquitards** also contain groundwater but they don't allow it to flow very easily, so aquitards are not used as groundwater supplies. Aquitards protect underlying aquifers from contaminants flowing downwards from the surface.



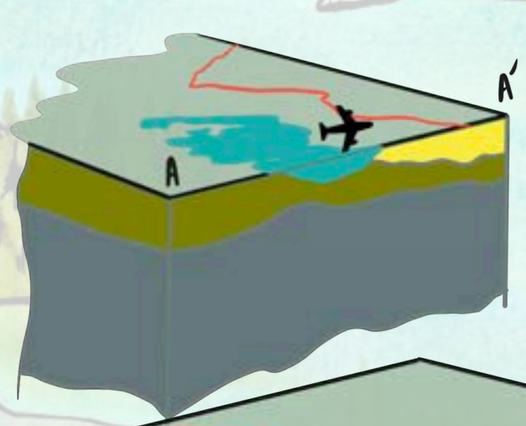

**Imagine that we cut slices into the map along the white lines.**

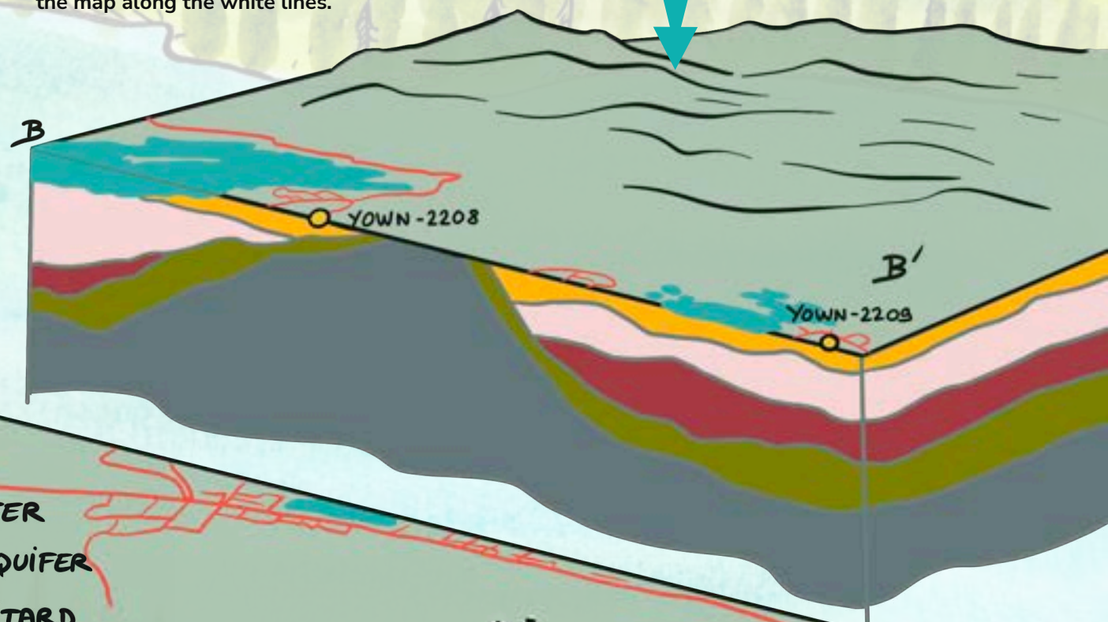
**The block diagram below shows what we would see at depth along these sections.**

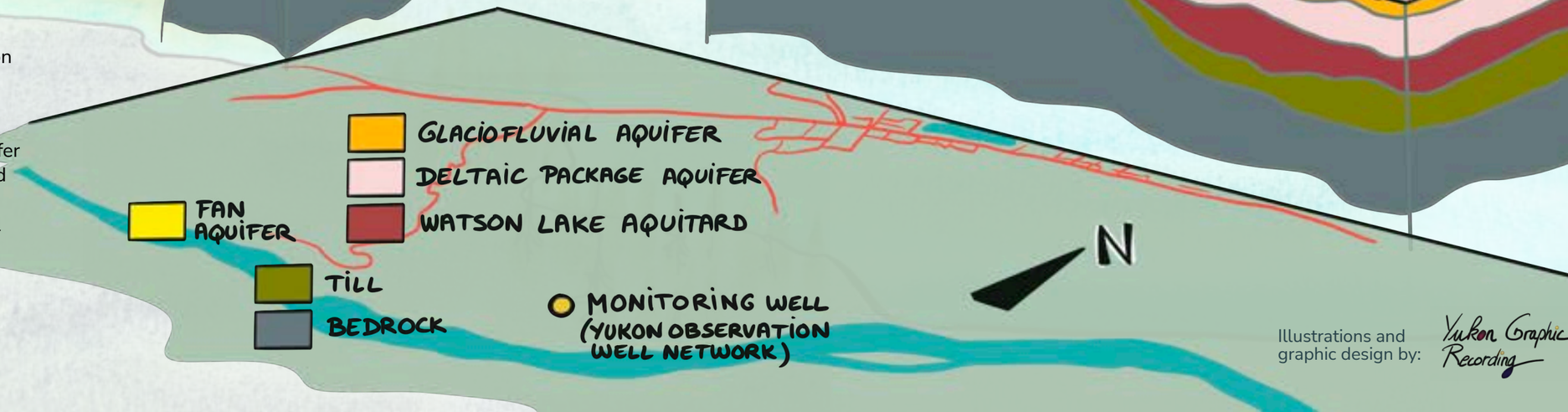
The Fan Aquifer is an unconfined sand and gravel aquifer located along the northern edge of Watson Lake in the vicinity of the airport.

The Glaciofluvial Aquifer is an unconfined sand and gravel aquifer located throughout the bedrock valley southeast of Watson Lake.

The Deltaic Package Aquifer is a partially confined sand and gravel aquifer that underlies the Glaciofluvial Aquifer.

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