

## What is Rock Flour?

Rock Flour is the sedimentation that is pulverized by the movement of the glaciers. The rock flour flows down to the lake in the spring when the snow and ice melt into the lakes. When close to the shore, the water is cloudy due to the rock flour.



## What are the Solutions for the Future?

Glaciers are like giant mirrors on Earth's surface that reflect back the sunlight. But, due to the burning of fossil fuels that are trapped in the atmosphere, the sun's heat is going back to the glaciers. The glaciers are melting at a more rapid rate and will disappear faster than anticipated.

### Solutions

**Alternative methods of energy** - wind power, hydro, etc

**Driving less** - less carbon caught in the atmosphere

**Minimizing your carbon footprint** - turning off lights, unplugging electronics

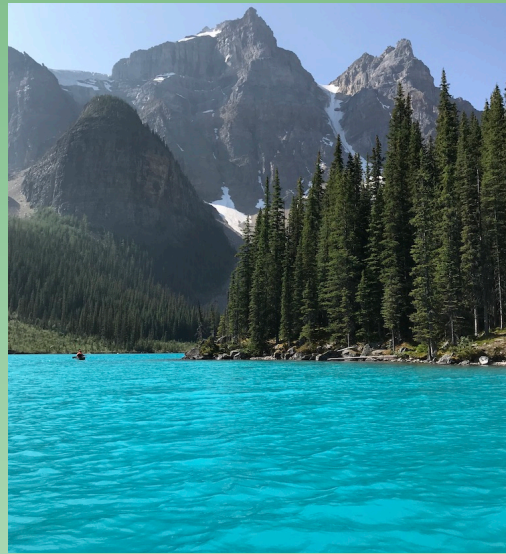
## Moraine Lake & Lake Louise



## What Causes the Unique Color of the Lakes?

Uncommon in the rest of the world, the lakes in the mountains are blue/green due to the minerals that flow into them. The glacial lakes are particular to an area of the Rocky Mountains, stretching from northern Montana into Alberta, Canada, where there are many glaciers still found on the summits of the mountains.

This mineral runoff is called **Rock Flour.**



## How Does Increased Glacial Melting Affect the Rock Flour?

Studies have shown that the increase in ice melting and deteriorating was reflected in the down-valley rock flour. There is a simple relationship between up-valley ice and down-valley sedimentation, and because of the increase in glacial melting, the surface area of ice and, in return, the amount of rock flour flowing into the lakes decrease.

This might not seem like a problem for now because the lakes are still getting rock flour, but it is projected that by 2100, the glaciers will take up 3% of the space they do now, causing very little rock flour to be created and deposited into the lakes. Due to climate change, there is not as much ice and snow accumulating on the glaciers during the winter, causing less water to flow in the spring.



River in Kootenay National Park carrying Rock Flour