

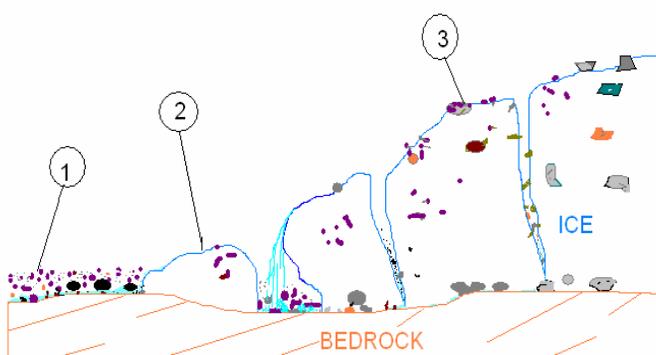
# Nature Notes

## Glaciers are Amazing Things



Standing here reading this entrance sign it's tough to imagine that the whole of Kimberley, all of the Ski Hill and all of the land between here and the Rockies was once buried in glacial ice that crept slowly southward. As you zip along the Nature Park trails your feet will be stomping mostly upon cobbles and gravels that had their origins in bedrock north and west of here. To acquire their current rounded, smooth surfaces these rocks had to await the arrival of glacial ice.

Some wait. The rocks themselves are up to 1.5 *billion* years old. The most recent period of serious glaciation began about a *million* years ago. Let me see, that makes it about a 1.499 billion year wait?



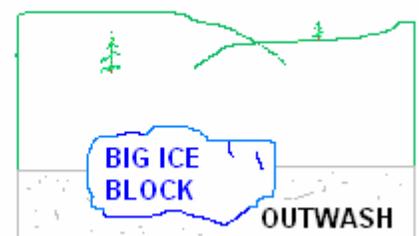
Glaciers are dirty things. They have angular, unsorted chunks of rock of all sizes inside, underneath and riding on top. (3 in the diagram) Glaciers are not fussy things either. They welcome any rocks that tumble down on them or that get ripped from valley walls and bottoms.

But things change. Glaciers get warm and melt. Then Mother Nature has all this messy rock junk in the ice to deal with. Imagine ice thick enough to cover our Ski Hill, wide enough to reach the Rocky Mountains and stretching from about the USA border up to the Yukon Territories. That's hard to imagine. But now imagine the humongous torrents of water that would be whipping around whilst the ice melted back! It's this meltwater that worked over the glacial load. Meltwater shoved, sorted and smoothed these rocks. This is outwash (1 in diagram)

This area was ice-free about seven thousand years ago. Since that time, in some Park places, water erosion has stripped away the loose, rounded rocks and exposed the bedrock. Visit the Bear Mountain View Point and you will be standing on glacially smoothed rock.

In other places (2 up top) large chunks of rotting ice became separated from the main ice. Meltwater deposited outwash material all around the ice block but not under it. When the ice lump finally melted away it left a shallow depression. If the hole contains water it would be called a kettle. Eimer's Pond is one. Other kettles are dry but covered with brush and trees and are a little more difficult to spot. There are some really good ones in the Mary's Kitchen locality.

10,000  
YEARS  
AGO



The glaciers are gone but we can still admire their work.

Visit [www.rockies.net/kimberley/naturepark](http://www.rockies.net/kimberley/naturepark) for a hard copy or more information about Nature Park events