

Geology and the Growth of Downtown Stillwater

Not all geology happened slowly long ago and far away. Stillwater's downtown, for example, was reshaped by a single rapid geological event on the morning of May 14, 1852.

Stillwater began as a lumber town. John McKusick built a saw mill in 1844 in a strategic spot at the head of Lake St. Croix. Here was a place for logs coming down river from the northern pineries to meet goods and services coming up Lake St. Croix from the Mississippi. The town grew up around the water-powered saw mill. The water came from a lake on the uplands, where a creek was dammed and water flowed down flumes to the mill. The lake, called Lake McKusick, still exists. Most of us drive passed it on the way to the club meetings. The ravine along which the flume was built runs eastward under Owen Street and behind Laurel Street to downtown Stillwater.

In May of 1852, torrential rains fell for days in the St. Croix Valley. The ground was thoroughly soaked and Lake McKusick was filled to overflowing. Finally, the dam gave way. Water roared down the ravine, mixing with muddy soil and rock to form a gigantic debris flow. Tons of water, mud, rocks and trees erupted from the mouth of the gorge, spread out over the low lands and splashed into the St. Croix. McKusick's mill and a number of houses were buried. It was a disaster, but people do make lemons into lemonade. The debris flow had added 8 to 10 acres of new land to the town between Myrtle Street and Commerce Street in what was described as "the greatest movement of real estate in the history of the valley". The mill was rebuilt and houses, stores and a fine new steamboat landing sprang up on the new land. Much of downtown Stillwater is built on this fan-shaped deposit of landslide debris. Stillwater was lucky. There were few residents or buildings then. Today such an event would be an unmitigated disaster to many.

Events similar to this have happened more recently in the St. Croix Valley - upper Mississippi River area. In the summer of 1975, heavy rains drenched the bluffs east of Maiden Rock Wisconsin. A debris flow roared down a ravine, made a right turn onto County highway S and flowed through the middle of town. This turned out to be not of much benefit to the town, only a mess to clean up. Luckily no one was killed. Since then debris basins and concrete barricades have been built to help divert water and mud flows under the road way, passed Maiden Rock.

Such event will happen again along the valley. The conditions causing them - sediment, steep slopes cut by ravines and periodically heavy rains - still are present. Officials need to be aware of this and on guard to prevent

future disasters. About the only people to gain from such disasters these days are rockhounds, because such huge movements will likely bring to light a few more agates.

- Dr. Bill Cordua, University of Wisconsin-River Falls

Reference:

Dunn, J.T., The St. Croix -Midwest Border river, Minnesota Historical Society Press, St. Paul, MN.