

**Wednesday, June 17, 2009**

*Last modified Wednesday, August 4, 2004 8:15 AM MDT*

Flood memories and threats run deep: Bear Creek still as big a danger as ever

by Jonathan Ellis

The first hint of trouble came late in the afternoon. Black clouds tinged with an eerie green blew over what is now metro Denver. They were heavy with rain and hail.

The downpour was especially bad in the mountains and foothills above Denver. In Morrison, the rain sent people scurrying indoors and into tents. Some of them retreated to stores and shops, where they loitered in doorways watching the rain.

At about 8 p.m. the people in downtown Morrison and nearby campgrounds heard the rumbling - something like a continuous burst of thunder - echoing down from Bear Creek Canyon. Old-timers knew what it meant. According to a Rocky Mountain News account, one of them dispatched a younger man to warn the families in two cottages. Those homes were right in the path of the flood.

The man didn't make it; a wall of water -10 feet or higher - swept through the canyon and crashed into Morrison. It wouldn't be stopped; not by bridges and certainly not by the two cottages.

The young man sent to warn the families watched as the water rushed toward the homes. He saw Elizabeth Miller singing on one of the porches as the deluge approached. Miller jumped inside when she saw the water, perhaps in a failed attempt to save her three children. The water pushed Miller's cottage into the Wulff cottage, where 17 people were staying - all but



*The Round-Up Tavern in Morrison was demolished in the 1938 Bear Creek flood, in which six people died. **Photo courtesy of Jefferson County Historical Society***

one of them women and children.

The Miller cottage was destroyed almost instantly. But the Wulff cottage "sailed majestically down between the rocky walls of the canon, the lights still burning and the windows and porch crowded with women and children, screaming and frantic as they moved down to their doom," according to the News account.

Downstream from Morrison, a farmer climbed a tree to escape the surge. He saw the Wulff cottage float by, women and children shrieking. The cottage was finally pushed into a grove of trees where it broke apart. Only one little girl, Irene Procter, survived out of the 17.

That day, July 24, 1896, would be remembered in Jefferson County as Black Friday. Remembered, at least, among that generation. About 28 people died in the Bear Creek watershed, most in Morrison. Many others barely escaped death along Bear Creek and tributaries like Cub and Mount Vernon creeks.

In Golden, three more died in flooding there.

At the time, Morrison and other communities along Bear Creek were fashionable camping grounds where Denver residents vacationed in the summer.

The Rocky Mountain News summed up the damage in Morrison two days later:

"Less than two days ago Morrison was considered the most delightful, quiet and peaceful summer resort in Colorado.

"Today it is a mass of wreckage and ruin, the people panic-stricken and a number of those who were inhabitants are either lying at the morgue, awaiting burial or are buried under an enormous mass of debris somewhere between Denver and Morrison, perhaps never to be found until Gabriel sounds the last trumpet on the day of judgment."

The Flood of 1896 was the most catastrophic flash flood to hit Bear Creek Canyon. Farms along Cub Creek were obliterated. "The water descended about Evergreen like a huge, moving wall carrying houses, sheds, barns and livestock with it," according to the News account. At Troutdale, one man was swept away to his death in Maxwell's Gulch. Four women died along Mount Vernon Creek when a wall of water smashed into their wagon. One of their horses was found dead, tangled in a tree.

However, the flood is only one among many and experts say there will be more. Flooding in the Bear Creek watershed has killed about 45 people and caused extensive property damage since the area was settled. Flash floods are an often overlooked danger in the state. The Bear Creek flood hit nearly 80 years to the day before the Big Thompson flood killed 145 people in Northern Colorado.

Just as in 1896, the idyllic Bear Creek watershed is a favorite for tourists and recreation

seekers. Beginning at Mount Evans to the west, the watershed drains 261 square miles starting at an elevation of 14,264 feet and ending at 5,780 feet. About 164 square miles drain into Bear Creek upstream of Morrison. The watershed is leaf shaped, giving it plenty of access to storms.

Under the right conditions, Bear Creek Canyon and its tributaries are death traps. Roger Pielke Sr., a professor of atmospheric sciences at Colorado State University and the state's climatologist, said it doesn't take much rain to create a devastating flash flood.

Floods happen occasionally in the spring, when rainstorms combine with winter runoff. In the summer, thunderstorms typically punish an area and move on. But in some cases, winds keep a storm "locked" over one area for a long period of time.

"The storm basically continues to regenerate over the same location," Pielke said.

And if that location is over a drainage basin like Bear Creek, look out.

Few people are more acquainted with flooding in Jefferson County than Dennis Potter, a captain in the Jeffco Sheriff's Office and the department's historian. Potter has written narratives of the various calamities to occur in the county.

Potter has documented 15 major floods in the county that took place between 1864 and 1938. Out of those 15, two occurred in May, one in June, eight in July, two in August and two in September.

Potter's knowledge about Bear Creek isn't based solely on historic research. In 1973, two years after he joined the department, Potter was on patrol in Bear Creek Canyon when a flood surge started. He waded into the creek and saved two children who were stranded on a rock.

"I remember doing it and thinking afterwards that was a stupid thing I did," Potter said.

It was a miserable day. The rain was cold and he was soaked. Potter and other emergency personnel raced up and down the canyon saving people.

"You could hear the bridges being ripped out," he recounted. "It was an amazing afternoon."

In the 1970s, Potter participated in civil defense exercises with firefighters, the state patrol and other emergency personnel. Bear Creek was one of their biggest concerns, and they held frequent exercises to prepare for a major flood. They knew how long they would have to evacuate Morrison in the event a wall of water started from Evergreen.

"We had two biggest fears in Jefferson County - one was Rocky Flats [the former nuclear weapons processing plant] and the other was Bear Creek," he said.

Today, if you were to ask somebody about dangers in Jefferson County, Bear Creek probably

wouldn't be mentioned, Potter said.

"I do think maybe other concerns have eclipsed it," he said.

Judy Peratt, director of Jeffco's Emergency Management Department, said wildfires are her department's major concern followed by flash floods. Emergency personnel meet twice a month in a flood/fire task force to assess dangers.

In recent years it's been more fire than flood at those meetings. The state has been in a drought pattern, and it's been tough to think about major flooding when the forests are burning down.

However, the two often complement each other. Some of the worst flooding conditions in the county are in the 2002 Hayman Fire burn area, Peratt said. There is simply no vegetation to stop water runoff.

In the event of a major flood, emergency managers have technology on their side. With reverse 911, authorities can notify entire regions before the disaster strikes.

"The calls are sent out immediately," Peratt said.

Bear Creek has been relatively quiet in the past couple of decades. Potter wonders when that'll change. It's still the same canyon it's always been.

"To me it's kind of surprising," he said. "Nothing really has changed except that more people have moved in there."

And more people and increased development can often exacerbate flooding, said Michelle DeLaria, Jeffco's stormwater quality coordinator. For example, a 10-acre wooded site probably would absorb most rain.

"Turn that into a parking lot and the littlest storm is a runoff event," DeLaria said.

The losers, DeLaria said, are the people who live downstream from increased development.

Kevin Stewart, information systems and flood warning program manager for the Urban Drainage and Flood Control District, describes the Bear Creek watershed as "very violent."

"There are historic accounts of 20-foot walls of water coming out of our canyons," Stewart said. "You're not going to swim out of that."

Stewart oversees a flood detection network that consists of about 170 monitoring stations across the metro area and foothills. Fifteen of those devices, which measure rainfall and stream flows, are in the Bear Creek basin.

The devices automatically send real-time information. When there's a problem, authorities are

notified by e-mail, pager and cell phone. The early detection network gives them a heads-up on dangerous conditions and an opportunity to issue warnings. Eventually, the network might include digital cameras that are plugged into the Internet.

Other than an early-warning system, there are few alternatives to controlling flooding in canyons such as Bear Creek, Stewart said. A flood-control dam would do the trick, but it would also ruin the canyon. The Evergreen Dam was built for water storage, Stewart said, not as a flood control device.

One major flood control measure on Bear Creek does nothing to protect communities in the canyon. Bear Creek Dam on the southwest edge of Lakewood was authorized in 1968 after the massive flood of 1965 swamped Denver. The dam, which joined Chatfield and Cherry Creek as major projects to protect Denver and its surrounding communities, was completed in 1982.

Some improvements have been made in Bear Creek Canyon, Stewart said. There have been erosion control projects, for example, particularly along Highway 74.

Emergency management officials say they can provide educational materials, but many people aren't interested in listening. The Urban Drainage and Flood Control District recently sent out 3,500 pamphlets asking people in Denver flood areas if they wanted a flood-preparedness handbook. Only 20 people replied, although more could have found the information online, Stewart said.

He believes more people will be interested the next time there's a major flood.

"I don't know what you do to generate the interest," Stewart said. "It's not a mystery. It's just the way people are. I don't know how you change it."

Ultimately, people living in flood-prone areas like Bear Creek must be responsible for themselves, Stewart said.

"Somebody who lives in the canyon ought to be knowledgeable about the risk of living in the canyon," he said.

"Eventually there may be another flood that may rival everything we've seen in the past."

There will be big trouble if the next one rivals the flood of 1938.

A large storm that roared into the Front Range on Aug. 30 weighed anchor and began dropping rain. Five years earlier, a flood in Bear Creek Canyon wiped out Idledale and killed five people. The people in Bear Creek Canyon knew what to expect in 1938.

On Sept. 2, the storm intensified near Morrison. An unofficial report cited by the Urban Drainage and Flood Control District said 7.9 inches of rain fell north of Morrison in six hours, with the heaviest amounts falling between Bear Creek and Mount Vernon Creek.

The flood surge from Mount Vernon Creek reached Morrison first. About a half-hour later, Bear Creek's wall of water followed. Morrison was wrecked and six people died. More people would have died if telephone operator Bernice Baker hadn't warned the community.

Barbara Pedley, 10, and Thomas Clennan, 8, were riding with their grandparents up Bear Creek Canyon on their way to Evergreen when the wall of water slammed into their car. None of the four inside the car lived.

Gov. Teller Ammons arrived on the scene with promises of help. He later declared that the residents of Morrison used the flood as an excuse to get drunk. Mayor Frank Baker angrily denied the charge, blaming the drunkenness on "curiosity seekers" from outside of town who stumbled across cases of liquor that were washed out of the Schneider Drug Store.

Drunkenness aside, the flood had a sobering effect on the community. Former Mayor Otis A. Pike recommended that the town be abandoned and rebuilt on higher ground.

Some residents agreed.

"They ought to dam up this town and make a scenic lake of it," Mrs. W.H. Davis told the Rocky Mountain News. "It is a death trap and tourists really are taking their lives in their hands when they come into it to go up the canyon."

Fifty-year Morrison resident Charles Cochran agreed: "Anybody who rebuilds on the present site should be arrested."

That never happened. Houses now sit where campers used to vacation in Morrison, Potter said.

"Morrison still sits in the same place it did in 1874," Potter said.

Morrison is still there, as is Idledale, Kittredge and Evergreen - only now with more people. Bear Creek is also still there.