



## Mitigation Saves House and Lifestyle Along Creek

**BOULDER, CO** – September of 2013 will forever be remembered in Colorado due to the massive flooding that overwhelmed the state. The city of Boulder was one of the hardest hit areas devastated by rainfall.

Mark Schueneman's home was spared due to the advice that he followed from the emergency manager. That advice was to elevate.

"When choosing a lot to build my house on, I specifically wanted to build near Left Hand Creek," said Schueneman, a retired concrete contractor. Given his proximity to the floodplain, he was advised to build an additional two feet of freeboard above the Base Flood Elevation (BFE) to reduce his risk of flooding. It cost him only a little more to raise his home but the protection was worth it so that he could live in this location.

"I wanted to be near water. My bedroom is 40 feet from the creek and the sound of the water helps me to sleep soundly," said Schueneman.

Schueneman, the designer and builder, began construction of the 2450-square-foot adobe dwelling in 2007 and completed it in 2008. The house is located in the Crestview Estates Subdivision. A unique feature of the house is that straw bale construction was utilized.

"Straw bale construction is great for insulating homes and it keeps the moisture level down," said Schueneman. Schueneman is the former Director of the Colorado Straw Bale Association and presently on the Board of Directors.

Another mitigation effort that Schueneman incorporated along with the elevation is a rock barrier surrounding his house designed to ward off wildfires.

"I visited the burn area after the fire of 2011 and several of the homes were spared because the fire stopped at their stone walls," said Schueneman. He feels that this barrier helped steer water away from his home during the flood.

Schueneman began checking the stream depth gauges at the creek around 12:30 a.m. He checked the creek every 20 to 30 minutes and discovered that it was rising slowly. The creek began to rise faster at approximately 2:30 a.m. He called neighbors and warned them of the impending danger and told them it was time to leave. He moved his cars to higher ground and evacuated for the night. "Left Hand Creek was flooding like crazy and threatening to overtop; I was definitely afraid," said Schueneman."

Schueneman remembered the Big Thompson Flood of 1976, which was the deadliest in Colorado history. This dreadful storm claimed the lives of 143 individuals and injured 150. "I know when a storm drops that much water it saturates the ground. The steep canyons are like a funnel and the water siphons to the lower canyon where we are," Schueneman explained.



When returning the next day he discovered that he could not check on the house due to road closures. He walked along a path and over a hill to get to his property and was relieved to find that his home was above the flood waters.

Schueneman observed that the five steps leading to the home were still in place. The water had come up three of the steps but had not gone any higher. It was an unexpected and pleasant surprise.

He saw plenty of damage at his neighbors' homes. One of the neighbors lost the foundation of his house; another neighbor's furnace was severely damaged. There was damage throughout the neighborhood.

This flooding event has been Schueneman's only experience with flooding threatening his property since he built near the creek. He is pleased with the performance of the elevation and other mitigation techniques at his home.