

HOW TO PREPARE

Teton County has very limited disaster response resources. State and federal help will be hours to many days away, especially if the passes and/or canyons are blocked. Individuals, families, and businesses will all improve their chances of surviving disasters without personal injury or large property loss if they are aware of possible disasters, have made plans, and have taken some basic precautions.

KNOW THE HAZARDS SPECIFIC TO YOUR LOCATION

What effects would specific disasters have on your home, neighborhood, schools, and business? How will your family get back together if communications, bridges, and electric power are disrupted or compromised? How would your family survive on its own for days before help could arrive, especially in the winter, possibly without electric power and natural gas? Could you help your family, friends, neighbors or visitors? Or will you need help from them?

DO THE FOLLOWING

Make plans for responding to likely disasters with your family, neighbors, and fellow workers, and be familiar with the disaster plans of your town and county. Write your plans down. Review and practice them yearly. Take a free course in preparedness regularly provided by Teton County Emergency Management. Assemble a 72-hour emergency kit. Store some emergency supplies in your vehicle, especially during the winter. Replenish any perishable or depleted supplies.

MAJOR EARTHQUAKES ARE THE BIGGEST THREAT

Be prepared to have no phone service (including cell), electricity, natural gas, water, or access to groceries for at least several days. Prepare your home by securely anchoring gas tanks and appliances, assuring they have flexible connectors, being sure your home is anchored to its foundation and anchoring large precious objects, including computer displays and televisions. Know how to shut off the gas to your home. In winter be prepared to drain household plumbing. Do not store heavy objects in high places, especially over beds. Store dishes and glassware in cabinets with sturdy earthquake-proof latches.

Simple preparations could make a big difference when disaster strikes.

GETTING HELP

In an emergency

Also to report a fire, landslide, avalanche, etc.

MORE INFORMATION

Teton County Information Hot Line

DIAL 911

866-221-6441

Wyoming Highway Patrol

www.whp.dot.state.wy.us/wydot

800-442-9090

Sheriff's Office and Search and Rescue

www.tetonsheriff.org

307-733-4052

JH Fire and Emergency Medical Service

www.tetonwyo.org/fire

307-733-4732

Town of Jackson (Police Department)

www.townofjackson.com

307-733-1430

Bridger-Teton Branch of the Red Cross

www.wyomingredcross.org

307-733-4049

St. John's Medical Center

www.tetonhospital.org

307-733-3636

Grand Teton National Park

www.nps.gov/grte

307-739-3300

Yellowstone National Park

www.nps.gov/yell

307-344-7381

Bridger-Teton National Forest

www.fs.fed.us/r4/btnf

307-739-3630

Teton County Emergency Management

www.tetonwyo.org/em

307-733-9572

Teton County Public Health

www.tetonwyo.org/phn

307-733-6401

Wyoming State Geological Survey

www.wsgs.uwyo.edu

307-766-2286

National Weather Service

www.weather.gov/riverton

800-211-1448

Geologists of Jackson Hole

www.geo-jh.org

National Earthquake Information Center

earthquake.usgs.gov

Yellowstone Volcano Observatory

volcanoes.usgs.gov/yvo

Citizen Preparedness

www.ready.gov

Are You Ready?

An In-depth guide to Citizen Preparedness, FEMA

www.fema.gov/areyouready

Earthquake Preparedness

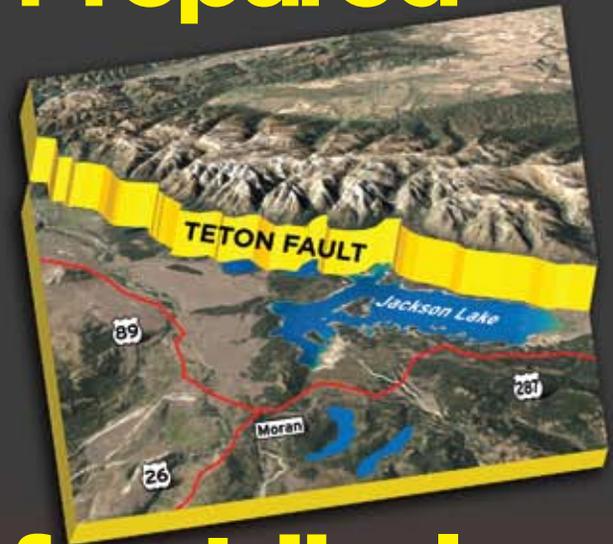
www.tetontectonics.org/Earthquakes.html



Quake Lake
formed in 1959

A collaboration between the Geologists of Jackson Hole and Teton County Emergency Management, with the assistance of numerous local, state, and federal partners.
Design: www.dreamfarm.com September, 2009

Teton County, Wyoming Are You Prepared



for Likely Disasters?

The natural wonders of Teton County attract nearly four million tourists each year and are the primary reason 20,000 people choose to live here. But these natural wonders sometimes pose hazards.

There are some hazards that you can avoid by your individual actions: don't approach wild animals, get down from mountain peaks and ridges during lightning storms, wear life preservers when boating, and be skilled and knowledgeable whenever skiing in non-patrolled areas.

But there are far more significant hazards that, while less frequent, can affect many, even ALL people in Teton County. This brochure is designed to provide you with critical information about possible events such as earthquakes, floods, landslides, avalanches, and the situation where all of those events could occur during a major earthquake.

MAJOR HAZARDS IN TETON COUNTY

VOLCANIC ERUPTIONS ARE UNLIKELY

The last major volcanic eruption in Yellowstone National Park occurred 640,000 years ago and is NOT likely to be repeated in our lifetime. Most life-threatening volcanic eruptions are preceded over months to years by earthquakes large enough to be felt, ground deformation throughout large regions, gas and/or ash emission, etc. The Yellowstone Volcano Observatory closely monitors seismic and volcanic activity and will recommend evacuation and closure of Yellowstone National Park if appropriate. These actions will give people in Jackson plenty of time to evaluate and respond to the threat.

WILDFIRES ARE FREQUENT

In this dry mountain climate, wildfires ignited by lightning or careless people occur regularly, typically in mid to late summer. The 2001 Green Knoll Fire just south of Wilson burned 4600 acres, threatening dozens of homes. The 2003 fire just northeast of Gros Ventre Junction demonstrated how hot and rapidly sagebrush can burn. Residents should consider removing woodpiles, trees, bushes, and other possible fuels within 30 feet of their home to provide a reasonable firebreak, install sprinkler systems, and invest in non-flammable roofing to repel flying embers. Families living in forested environments should consider installing a large tank of water for firefighters to use and should be prepared to evacuate their homes on short notice. If you see a new fire, please call 911 immediately.

AVALANCHES KILL PEOPLE EVERY YEAR

Avalanches in Teton County kill an average of 3 people, every winter. If you are headed away from avalanche-controlled areas, do not travel alone. Be sure each person in your party is informed about avalanches and rescue techniques, and is equipped with the bare minimum in avalanche gear, including a radio beacon, a shovel, and a probe. Be sure to read the Backcountry Avalanche Hazard and Weather Forecast (www.jhavalanche.org) prior to each and every backcountry trek. Avalanches and winter storms may also cause temporary road closures. Contact the Wyoming Travel Information Service (1-888-WYO-Road) or www.wyroad.info for up-to-date conditions.

LANDSLIDES ARE COMMON

Teton County has the highest danger from landslides in Wyoming. Fortunately, most occur in areas that are uninhabited, but may still affect transportation routes into and out of the valley. Landslides are typically triggered by unusually high rates of rain or by an earthquake. In 1997, the Snake River Canyon was closed for 6 weeks by a landslide. Lower Slide Lake northeast of Kelly was formed by a giant landslide in 1925. In 1927, the dam created by the slide suddenly failed causing major flooding in Kelly and throughout the valley. When building, avoid construction in steep-slope areas. If you live on or near the base of a steep slope, you might consider getting an evaluation of the danger from a geotechnical consultant.



Jensen Canyon flash flood, 2007

FLASH FLOODS HAPPEN

Major rainfall in steep mountain canyons can produce significant flash floods. These are most common and most dangerous in and near the base of narrow mountain canyons, where approaching storms cannot be easily detected until they arrive. Check the weather reports before hiking into such areas.

MAJOR SNAKE RIVER FLOODING POSSIBLE

Very rapid melting of a large snowfall or a torrential rainfall throughout the area could cause the Snake River to overflow its banks and levees. Significant floods occur every 15 years on average and are often mitigated by the flood-control dikes.

A MAJOR EARTHQUAKE IS INEVITABLE

The Tetons tower more than 7000 feet above Jackson Hole. They were formed during major earthquakes along the Teton Fault, which extends from the foot of Teton Pass to the north beyond Jackson Lake. In the past 6 to 13 million years, thousands of magnitude 7 to 7 1/2 earthquakes have raised the mountains and lowered the valley 3 to 6 feet during each major earthquake. The mountains have risen over 7000 feet and the valley has subsided more than 16,000 feet, filling with sediments

and glacial debris. Geologic data suggest that one big earthquake is expected approximately every 2000 to 3000 years. The last large earthquake documented to have occurred is dated at 4800 years ago. A large earthquake therefore could be expected at any time. It could happen today or it might not happen in our lifetime. There is no way to be sure. Early warning is not likely.

The Teton Fault dips eastward under Jackson Hole. When this fault slips, most of Teton County will be severely damaged with the strongest shaking within a few miles east of the fault and losses approaching one billion dollars. Landslides and avalanches may close the passes and canyons. Bridges over the Snake River and its tributaries may fail or be unusable. Communications and power may be interrupted. Some buildings may collapse, but the most widespread damage is likely to be to building contents. Loss of life is not expected to be high.

A DEADLY MIX OF HAZARDS

The nightmare disaster scenario for Teton County would be a major earthquake in the middle of winter leading to failure of Jackson Lake Dam when the lake is full. The Bureau of Reclamation concluded the dam would not fail in a large earthquake; however, no man-made structure is completely immune to damage, and reputable scientists believe that the nature of the sedimentary layers underlying the Jackson Lake Dam could amplify the groundshaking, causing the dam to fail. In the event of failure, a wall of water would pass below Moran within 30 minutes, engulf Park facilities at Moose within 5 hours, flood all homes in the Snake River Plain, bury Wilson in 12 to 18 feet of water within 8 1/2 hours, flood the highway in Snake River Canyon in the vicinity of Fall Creek Road in 14 hours, and possibly destroy the dam on Palisades Reservoir, starting a sequence of dam failures possibly as far away as American Falls or beyond.

In addition, avalanches and landslides would likely close all access routes to Teton County, interrupt electric power and communications, and could break the natural gas pipeline. It could take days for significant help to arrive from outside the county. Without electricity or natural gas, deep winter cold would provide a significant challenge to all residents and visitors.

Such a scenario is NOT highly likely, but it is possible enough that, just like fastening the seat belts in your car, you should develop a disaster plan that prepares you and your family for dealing with such a scenario.