King County borders the Cascade Range which has a long history of avalanche activity. Avalanches occur when a snow pack loses its grip on a slope and slides downhill. Despite the fact that avalanche danger is highest during severe winter weather, most injuries occur in the backcountry by humans participating in winter recreation, such as skiing, snowshoeing, snowmobiling, and camping.

PREPAREDNESS TIPS

1. **Check out area avalanche conditions** before you venture out.

2. **Tell family/friends where you are going**, what route you will be taking, and when you expect to return.

3. **Write a trip plan** and give it to a family member or friend before you go.

4. **Bring along the appropriate equipment** and supplies for winter conditions, incase you get lost or separated.

5. **Bring a form of two way communication**, such as a walkie talkie or cell phone, and make sure you are equipped with an avalanche beacon.

6. **Pay attention to and abide by posted signs and regulations.**

*continued*
7. Be aware of your surroundings and learn about the indicators and signs for avalanche.

8. Keep an updated emergency supply kit in your vehicle.
There are 87 dams in King County, four of which would cause a county-wide emergency if they fail. These dams are located on the Tolt, Cedar, White, and Green rivers. The chief concern of a major dam failure in King County is the resulting flooding to area residents. It is important to be prepared for this risk by creating a plan and building a disaster kit in case flooding from a failed dam impacts your home, business, school, or commute.

**PREPAREDNESS TIPS**

1. Learn the safest route from your home or business to high ground.
2. Make arrangements for housing in the event you need to evacuate.
3. Teach all family members how, where, and when to turn off utilities.
4. Determine a meeting place outside of the hazard area.

**RESPONSE TIPS**

1. Listen to your weather radio and keep a local radio and/or television on for information and emergency instructions.
2. If told to evacuate, do so.

*continued*
3. Move your furniture and valuables to higher levels in your home.

4. Move to higher ground away from water.

5. Do not drive around barricades.

6. Never drive through a flooded area.

7. Do not walk or wade through flood waters.
King County is geographically located in an area known as the Pacific Ring of Fire, a distinctive zone marked by the prevalence of earthquake and volcanic activity. Washington State is framed by the Pacific, North American, and Juan de Fuca plates, which are segments of the earth’s crust. King County also has numerous fault lines, cracks in the crust, that are active and expected to create large magnitude earthquakes. On an annual basis, thousands of minor earthquakes happen in the greater Puget Sound. Most of these earthquakes go unnoticed.

Direct impacts from earthquakes may include damage to structures like buildings, pipelines, roadways, and bridges. Secondary impacts from earthquakes are common and can include tsunamis/seiches and landslides.

Since King County is “Earthquake Country,” being prepared for the next trembler is a key goal for your individual and family preparedness planning.

PREPAREDNESS TIPS

1. Pick safe places in your home where you could DROP, COVER, AND HOLD, during an earthquake. A safe place could include a sturdy desk or table. Remember do the same at work!
2. Practice DROP, COVER, AND HOLD with your family and coworkers.

3. Have a fire extinguisher available and know when and how to use it.

4. Learn ways to seismically safeguard your home.

5. If your home was built before 1977, check to see if the foundation is bolted to the frame.

6. Prepare for the possibility of a tsunami/seiches, power outages, and landslides.

RESPONSE TIPS

1. During an earthquake, DROP, COVER, AND HOLD where you are until the shaking stops.

2. If you are inside, stay inside - wait until the shaking stops and you are sure it’s safe to exit.

3. If you must leave, wait until the shaking stops and use the stairs.

4. If you are in a vehicle, slow down and drive to a clear space away from overpasses, power lines, buildings and trees. Stay in your vehicle.

5. After the shaking stops, check yourself and others for injuries.

6. Check for small fires, gas leaks, damaged sewer and water lines, and electrical damage. Learn what to do if you come across one of these hazards.

7. Listen to your weather radio and keep a local radio and/or television on for information and emergency instructions.

8. Use the telephone only to report life-threatening emergencies.

King County

www.kingcounty.gov/prepare
Compared to the rest of the country, summers in the Pacific Northwest are usually very comfortable. However, when temperatures rise to dangerous levels for several days at a time, there is an increase health risk to people and pets, and fire risk to property.

Common heat-related illnesses are heat exhaustion and heat stroke. Signs of heat exhaustion include heavy sweating; weakness; cold, pale, and clammy skin; weak pulse; fainting; and vomiting. Signs of heat stroke include high body temperature; hot, dry skin; rapid and strong pulse; and possible unconsciousness.

Individuals who are at higher risk of heat-related illness include:

- older adults
- infants and young children
- users of some medications

**PREPAREDNESS TIPS**

1. Make sure family members, including pets, have plenty of water.

2. Learn the signs of heat stroke and other heat-related illnesses.
3. Never leave any person or pet in a parked vehicle.

4. Cover windows that receive morning or afternoon sun.

5. Avoid sunburns, they limit the skin's ability to cool itself down.
King County, like other places in country experience frequent fires. About one-third of all fires occur in residential properties; one-third involve natural vegetation; and the remaining third involve vehicles, outside equipment and storage, and other locations. Most fires are human-caused and are preventable. Only a small percentage of fires are caused by natural forces such as lightning.

In order for a fire to occur, three elements in the right combination are required (1) heat or ignition sources, (2) fuel, and (3) oxygen. In wildland fires, weather conditions and terrain are key factors, in addition to precipitation and lightning.

**Structure fires:** a fire of natural or human-caused origin that results in the destruction of homes, businesses, and other structures in populated, urban, or suburban areas.

**Wildland fires:** a fire of natural or human-caused origin that results in the uncontrolled destruction of forests, field crops, and grasslands.

Fire hazards present a very real risk for residents and businesses in King County. We must be vigilant, prepare, and mitigate these hazards in our region and surrounding counties.
PREPAREDNESS TIPS

1. Learn how to prevent fires in and around your home.
2. Install and maintain smoke detectors on every level of your home and in every bedroom.
3. Have a fire extinguisher available and learn how to use it.
4. Plan and practice a home evacuation plan.
5. Provide escape ladders for stories above the first level.
6. Designate one outside meeting place.
7. Take the same steps for preparing for a fire at work.

RESPONSE TIPS

1. If a fire starts, alert others, and get out of the building.
2. If your primary escape route is filled with smoke, use a second way out.
3. Once outside the building, stay outside.
4. Go to the designated outside meeting place where everyone can be accounted for.
5. Call 9-1-1 for help.
6. If you live in an area at risk for wildland fires, make sure to keep a weather radio and a local radio and/or television station on for information and emergency instructions.
7. If your clothes catch on fire - stop, drop, and roll.

King County

www.kingcounty.gov/prepare
There are six major river systems that flow through King County: the Skykomish, Snoqualmie, Cedar, Sammamish, Green, and White rivers. Many communities in King County are located along the major river systems and in times of flooding these rivers can be hazardous for residents who live and work in the area.

Combinations of heavy rain, melting snow, or other severe storm threats can make living in a flood plain dangerous.

**PREPAREDNESS TIPS**

1. **Learn the safest route** from your home and business to higher ground.

2. **Make arrangements for housing** in the event you need to evacuate your home.

3. **Teach all family members how, when, and where to turn off utilities.**

4. **If it has been raining hard for several hours, or raining steadily for several days, be alert to the possibility of a flood.**

5. **Consider purchasing one or more pumps** to remove water in and around your home during heavy rains or flooding.

6. **Prepare for severe storms and power outages which often accompany floods.**
7. Review your flood insurance policies for structure and contents coverage. Don't have insurance? Contact your insurance company or visit, www.floodsmart.gov.

RESPONSE TIPS

1. Keep a weather radio and a local radio/television station on for information and emergency instructions.
2. Have your emergency supply kit ready to go if told to evacuate.
3. If told to evacuate, do so as soon as possible.
4. Move your furniture and valuables to higher levels in your home.
5. Move to higher ground away from rivers, streams, creeks, and storm drains.
6. Do not drive through barricades or a flooded area.
7. Do not walk or wade through flood waters.

RETURNING TO YOUR HOME AFTER A FLOOD:

1. Do not turn electricity back on if you smell gas or if the electric system has been flooded.
2. Do not handle electrical equipment in wet areas.
3. Use flashlights to check buildings containing natural gas, propane, or gasoline. Do not use candles.
4. Follow directions from local officials regarding the safety of drinking water.
5. Clean and disinfect everything that was touched by flood waters and throw out any food.

King County
www.kingcounty.gov/prepare
Due to King County’s high population density and the fact that many structures are built on top of or below bluffs and slopes subject to landslides, more lives are endangered during these land movements and there is greater potential for damage or destruction to private and public property. Understanding the possibility of a landslide in your area is an essential component to your family’s emergency plan.

PREPAREDNESS TIPS

1. Check with your county or city to see if they have specific information on areas vulnerable to landslides.

2. Plant ground cover on slopes to stabilize the land and build retaining walls.

3. Plan at least two evacuation routes since roads may become blocked or closed.

4. Learn to recognize the landslide warning signs, such as new cracks appearing in plaster, brick, or foundation; and pulling away of walls, walks, and stairs from buildings.

5. Make arrangements for housing in the event you need to evacuate your home.

continued
RESPONSE TIPS

1. If inside a building, stay inside. Take cover under a piece of sturdy furniture.

2. If outdoors, get out of the path of the landslide or mudflow by running uphill away from the path. If escape is not possible, curl into a tight ball and protect your head.

3. Stay away from the slide area. There may be additional slides.

4. Once it’s safe, check for injured and trapped persons.

5. Listen to your local radio/TV stations for current information.

6. Check for damaged utility lines. Report any damage to the utility company.

7. If possible, check the building’s foundation, chimney, and surrounding land for damage.
Power outages in our region are typically related to severe weather such as snow, high winds, and flooding; as well as a possible major earthquake. In addition to weather-related causes, outages can also be resulted of equipment failure, damage to buried cables, or line loading.

Areas of King County have experienced power outages up to two weeks in length. Outages for even a few days can cause issues for families, especially during extreme weather. Residents should be prepared for other potential emergencies by creating a plan and building an emergency supply kit, as you may not know the extent or severity of the outage.

**PREPAREDNESS TIPS**

1. Install surge protector and/or battery back-up systems.

2. Learn how to manually operate household products if possible, such as garage doors.

3. If you have a telephone system that relies on electricity to work, plan for alternative communication.

4. Make sure you have plenty of flashlights and extra batteries available.

5. Consider purchasing a generator. If you have a generator make sure it is regularly maintained.

*continued*
6. Register your life-sustaining and medical equipment with your utility company.

**RESPONSE TIPS**

1. Use a battery operated light source.

2. NEVER use gas ovens, gas ranges, barbecues, or propane heaters for indoor heating.

3. Limit the number of times you open the refrigerator and freezer to help keep foods cold.

4. Turn off lights and unplug small electrical items and computers.

5. Listen to your portable weather radio for current information.

6. If driving, proceed with caution. If a traffic light is out treat it as an all-way stop.

7. Stay away from downed power lines and sagging trees with broken limbs.
Severe storms are a common hazard in King County. Severe storms may include wind, snow, ice, hail, thunder, lightning, and potentially tornadoes. Snow storms can also be associated with other natural hazards such as flooding and landslides.

PREPAREDNESS TIPS

1. Be prepared for power outages that often accompany severe weather.

2. Prepare to stay home for several days. Talk to your employer about alternative work procedures.

3. Know safe routes from your home, work, and school in case you need to evacuate.

4. Learn the signs of hypothermia and how to treat it.

5. Pick a “safe place” in your home where family members can gather during a thunderstorm. It should be away from windows and glass doors.

6. Pay attention to the weather. If you see or hear thunder go to a safe place immediately.

7. Prepare for secondary hazards that often accompany severe storms.

continued
RESPONSE TIPS

1. If advised to evacuate, tell others where you are going and turn off utilities, if told to do so.

2. Watch out for and stay away from fallen power lines. Report fallen power lines and broken gas lines to utility companies immediately.

3. Stay away from storm-damaged areas.

4. After blizzards, heavy snows or extreme cold, check to see if physical damage has occurred and that water pipes are functioning.

5. Wait for streets and roads to be cleared and/or opened before you attempt to drive anywhere.

6. Check on neighbors, especially anyone who might need help.
Tsunami is a sea wave of local or distant origin that results from large-scale seafloor displacements associated with large earthquakes, major submarine slides, or exploding volcanic islands.

A seiche is a series of standing waves in an enclosed body or partially enclosed body of water caused by earthquakes or landslides. Seiche action can affect harbors, bays, lakes, rivers, and canals.

While tsunami and seiche events are infrequent in Puget Sound, it is important to be aware of their dangerous potential. Early warning signs of a tsunami include a sudden or unexpected recession of water. The first wave will be followed by additional waves a few minutes or even a few hours later. Wave size typically increases over time, and coastal flooding may often precede the largest wave.

Recent studies regarding the potential for a great Cascadia Subduction Zone earthquake off the coasts of Washington, Oregon, and Northern California indicate that local tsunami waves may reach nearby coastal communities within minutes of the earthquake.
PREPAREDNESS TIPS

1. Learn about the tsunami risks in your community.
2. Learn about established tsunami evacuation routes and identify the safest route from your home, school, and workplace.
3. Make arrangements for housing in the event you need to evacuate your home.
4. Have your emergency kit ready to go.
5. Establish meeting places and phone numbers in case family members are separated.
6. When travelling, make sure to learn about potential tsunami risk in the community you are visiting.

RESPONSE TIPS

1. When a tsunami watch is issued, listen to a weather radio and local radio/television for emergency information.
2. Stay away from the beach.
3. Follow instructions issued by local authorities.
4. Take your disaster supplies with you.
5. Get to higher ground and as far inland as possible.
6. Do not assume the danger is over after one wave. The next wave may be larger and more destructive than the first.
7. Use the telephone only for emergency calls.
8. Stay away from flooded and damaged areas until officials say it is safe to return.
9. Never drive through flooded areas.
10. Stay away from debris in the water.
A volcano is a vent through which molten rock escapes to the earth’s surface. When pressure from gases within the molten rock becomes too great, an eruption occurs. Eruptions can be quiet or explosive. There may be lava flows, flattened landscapes, poisonous gases, and flying rock and ash. Volcanic eruptions can be accompanied by other natural hazards, including earthquakes, lahars (mudflows), flash floods, rockfalls and landslides, acid rain, fire, and under special conditions, tsunamis. Washington is home to five major active volcanoes: Mt. Rainer, Mt. Baker, Mt. St. Helens, Mt. Adams, and Glacier Peak.

PREPAREDNESS TIPS

1. Find out if you live or work in a volcano hazard area and learn about the warning systems, emergency plans, and evacuation routes.

2. Be prepared for hazards that can accompany volcanoes: mudflows, flash floods, landslides, earthquakes, ashfall, acid rain, and tsunamis.

3. Plan two evacuation routes out of your neighborhood and be familiar with your community’s pre-established evacuation routes.

4. Get goggles and disposable breathing masks for each member of the household in case of ashfall.
Add them to your emergency supply kits at home and in all of your vehicles.

**RESPONSE TIPS**

1. Keep a weather radio and a local radio/television station on for information and emergency instructions.

2. If directed by authorities to evacuate, do so immediately.

3. If outside, go to a safe indoor shelter.

4. Bring animals and livestocks into closed shelters.

5. Stay inside and close all windows, doors, and dampers. Place damp clothes at door thresholds and other draft sources. Tape drafty windows.

6. Put all machinery inside a garage or barn.

7. Stay indoors until local health officials advise it is safe to go outside.