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## ALPINE COUNTY UNIFIED COMMAND

**DATE:** March 8, 2023

**RE:** Public Safety Update

**FOR IMMEDIATE RELEASE: ALPINE COUNTY RECOMMENDS RESUPPLYING, LIMITING TRAVEL, AND PREPARING FOR POTENTIAL FLOODING IN THE AREA DUE TO HAZARDOUS TRAVEL CONDITIONS AND SIGNIFICANT MIXED PRECIPITATION EVENTS FORECASTED THROUGH MARCH 15, 2023.**

An Atmospheric River has been forecasted for the Alpine County region starting **Thursday, March 9th** and will remain in effect until **Saturday, March 11th**. It is recommended that residents **significantly limit travel** due to significant travel impacts from mixed precipitation events. Due to potential road closures and public safety access, travel is only recommended for necessary reasons. Additionally, **normal runoff behavior will likely be impacted due to the limited ability for runoff to access creeks, rivers and drainages via normal means. There is a high likelihood storm runoff will impact any low-lying areas with poor drainage like roadways and driveways.**

**The County will be providing sandbags and sand at Station 91 and Station 92 in the Markleeville and Woodfords areas. For more information on sandbags please contact Community Development at 530-694-2140.**

The County also encourages residents to secure supplies that will allow them to be self-sufficient for multiple days due to the potential of service interruption and road closures. Supplies include but are not limited to:

- Food
- Water
- Medication
- Propane
- Fire Wood
- Pet Food
- Batteries
- Fuel
- Generators
- Charge Cell Phones

Finally, Alpine County recommends residents clear as much snow as possible around tail pipes, exhaust vents, propane tanks, drainages, and roofs to prevent any threats to your personal safety. The County recommends assessing roof snow loads prior to the rain event in order to minimize risks to your safety.

## National Weather Service Winter Storm Warning:

### Thursday-Saturday Atmospheric River:

\* Please check the hydrology section below to get an update into the hydrology conditions/forecast for this upcoming atmospheric river.

The storm door blows wide open on Thursday as the North Pacific ridge breaks down and allows a strong upper-level jet to transport subtropical moisture to our region. Our first atmospheric river storm will arrive Thursday afternoon and bring wind, rain, and snow impacts through the weekend.

### WINDS:

As the aforementioned jet orients over the region on Thursday, upper-level flow is expected to gradually increase through the afternoon. Winds will be very strong along ridgelines Thursday afternoon into Friday afternoon. Ensemble guidance suggests 700 mb flow will peak between 50-60 kts on Friday morning, indicating gusts over 100 mph are likely along Sierra ridges. Strong winds will mix down to valley floors by Thursday evening, and remain high through Friday afternoon, though precipitation may dampen winds a bit. Blended guidance indicates good chances (60-70%) for widespread wind gusts up to between 40-50 mph.

### RAIN/SNOW:

This atmospheric river looks to have impressive moisture transport for this time of year, with ensembles suggesting PWAT anomalies of 200-300% of normal on Friday. Blended guidance continues an upward trend in QPF probabilities; for the Sierra, recent QPF probabilities between Thursday and Saturday indicate a near 100% chance for 1", 80-90% chance for 2", 70-80% chance for 3", and a 30-40% chance for 5". Western Nevada and northeast California have a 90% chance for 0.25" of QPF, and a 10-20% chance for 1". Mono County has a 70-80% chance for 1" of QPF, and 40-50% chance for 2".

Confidence for snow levels have increased as variability in solutions has decreased. Generally, snow levels are trending higher for the warmest portion of the storm, which looks to occur early Friday morning. During the onset of precipitation on Thursday afternoon, snow levels will start around 5000-6000 feet. They are expected to quickly rise through the evening as the strong jet brings warm, moist southwesterly flow overnight into Friday morning. The 10th percentile now indicates snow levels peaking between 7000-8000 feet on Friday, and the 90th percentile has up to 8000-9000

feet. This indicates that the heaviest snow will remain confined to the high Sierra. Precipitation at mid-elevations will likely begin as snow and transition to rain early Friday morning during the heaviest precipitation rates. Western Nevada will likely see all rain during this event.

Now is a great time to start preparing for heavy rain by clearing drainages, ditches, and gutters free of debris and snow. Sierra locations that are already buried under a deep snowpack should take preparations to avoid snow load on structures, as rain absorbing into the snowpack may contribute additional weight and lead to structural collapses.

Sunday onward:

After the Thursday through Saturday AR, the door remains open to additional warm, moisture-rich Pacific storms. Confidence is increasing for another AR arriving as early as Monday, which will bring additional rain, snow, and wind into next week. Make sure to stay prepared and tuned to the forecast.

### **Emergency Services**

**Alpine County Sheriff's Office Dispatch: 530-694-2231**

**CalTrans Road Conditions: <https://dot.ca.gov/travel>**

### **Media Inquiries Regarding Alpine County**

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Public Information Officer

Alpine County

530-721-1339

[jchevallier@alpinecountyca.gov](mailto:jchevallier@alpinecountyca.gov)

**###**



### 1 Prepare to move snow.

Buy rock salt, sand, snow shovels, and other snow removal equipment to keep your driveways and walkways safe and clear.



### 2 Restock heating fuel or firewood.

If your regular fuel sources are cut off, you'll need a backup. Extend the life of your fuel supply by winterizing walls, doors, and windows.



### 3 Have communication devices ready.

Keep a battery-powered radio or TV, flashlight, and fresh batteries handy.



### 4 Be aware of your surroundings.

Know where in your home to find warm clothing and blankets.



### 5 Take care of your pets.

Bring your pets inside during severe winter weather, and move other animals to sheltered areas with access to drinking water.

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## WAYS TO PREPARE FOR A WINTER STORM

While weather varies across the country, most of us will experience extreme weather sometime this winter. And it's extremely important during cold winter conditions to protect your home, your appliances, and your safety. Before you experience the winter's first storm, take the following steps to prepare your home.



Call ARS®/Rescue Rooter® today for help with any of your winter plumbing or HVAC to-dos!

**1-800-277-9400.**

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### 6 Maintain your home's exterior.

Repair roof leaks, clean rain gutters, and cut any tree branches that could damage your house during a storm.



### 7 Let 'em drip!

Turn your faucets to a slight drip to keep your pipes from freezing, and be prepared to shut off the water supply if a pipe bursts.



### 8 Maintain your heating equipment.

Have it serviced every year.



### 9 Stock up.

Make sure you have non-perishable foods on hand, and keep a supply of bottled drinking water available.



### 10 Make a family communications plan.

Detail how your family members will contact one another in case of an emergency, how you will get back together, and how to move forward.



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# FEMA Snow Load Safety Guidance

FEMA P-957



FEMA

www.FEMA.gov

This flyer summarizes warning signs of overstress conditions during a snow event, key safety issues and risks a snow event poses to buildings, and what to do after a snow event. For information on preventative measures to take before the snow season, download FEMA P-957, *Snow Load Safety Guide*, at <https://www.fema.gov/media-library/assets/documents/83501>.

## Warning Signs of Overstress Conditions during a Snow Event

Overstressed roofs typically display some warning signs. Wood and steel structures may show noticeable signs of excessive ceiling or roof sagging before failure. The following warning signs are common in wood, metal, and steel constructed buildings:

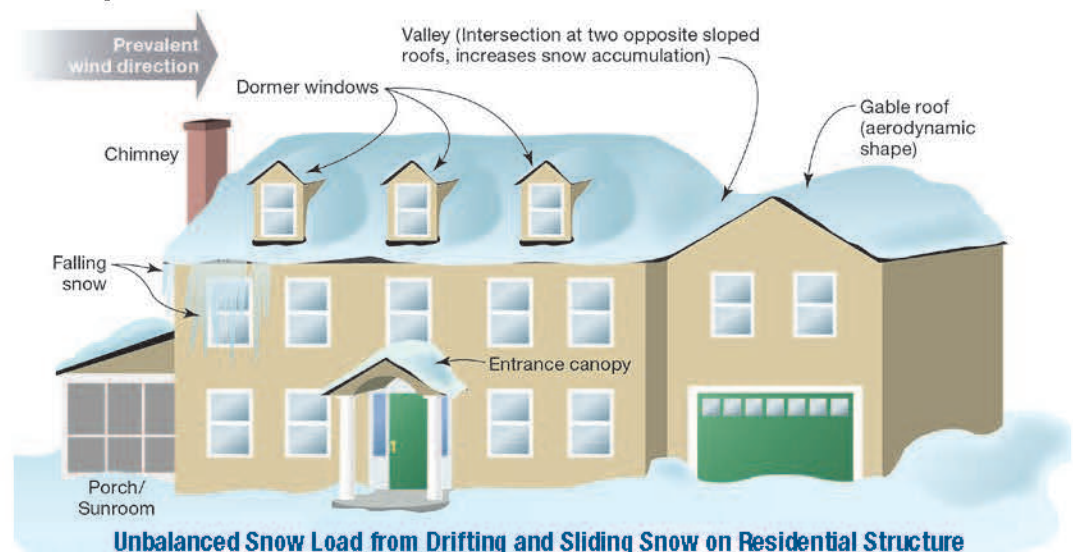
- Sagging ceiling tiles or boards, ceiling boards falling out of the ceiling grid, and/or sagging sprinkler lines and sprinkler heads
- Sprinkler heads deflecting below suspended ceilings
- Popping, cracking, and creaking noises
- Sagging roof members, including metal decking or plywood sheathing
- Bowing truss bottom chords or web members
- Doors and/or windows that can no longer be opened or closed
- Cracked or split wood members
- Cracks in walls or masonry
- Severe roof leaks
- Excessive accumulation of water at nondrainage locations on low slope roofs

Warning! If any of these warning signs are observed, the building should be promptly evacuated and a local building authority and/or a qualified design professional should be contacted to perform a detailed structural inspection.

## Key Safety Issues and Risks

Snow accumulation in excess of building design conditions can result in structural failure and possible collapse. Structural failure due to roof snow loads may be linked to several possible causes, including but not limited to the following:

- **Unbalanced snow load from drifting and sliding snow.** When snow accumulates at different depths in different locations on a roof, it results in high and concentrated snow loads that can potentially overload the roof structure.
- **Rain-on-snow load.** Heavy rainfall on top of snow may cause snow to melt and become further saturated, significantly increasing the load on the roof structure.
- **Snow melt between snow events.** If the roof drainage system is blocked, improperly designed or maintained, ice dams may form, which creates a concentrated load at the eaves and reduces the ability of sloped roofs to shed snow. On flat or low slope roof systems, snow melt may accumulate in low areas on roofs, creating a concentrated load.
- **Roof geometry.** Simple roofs with steep slopes shed snow most easily. Roofs with geometric irregularities and obstructions collect snow drifts in an unbalanced pattern. These roof geometries include flat roofs with parapets, stepped roofs, saw-tooth roofs, and roofs with obstructions such as equipment or chimneys.



## What to Do After a Snow Event

After a snow event, snow removal may be in order. To determine whether snow removal is necessary, one may enlist valuable resources such as a local building authority and/or a qualified design professional, who will be familiar with the snow conditions of the region and the design capacities of local buildings per the building code. If it is determined that the snow should be removed, snow removal should only be performed by qualified individuals. The qualified individual should follow necessary protocols for safe snow removal to minimize risk of personal injury and lower the potential for damaging the roof covering during the snow removal process.

Warning! Snow removal is a dangerous activity that should only be done by qualified individuals following safety protocols to minimize risks. If at any time there is concern that snow loads may cause a collapse of the roof structure, cease all removal activity and evacuate the building.

If subsequent snow events are anticipated, removing snow from the roof will minimize the risk of accumulating snow causing structural damage. One benefit of immediate snow removal is that the effort required to remove the snow from the rooftop is reduced.

## Safety Measures for Snow Removal

Below are some safety measures to take during snow removal to minimize risk of personal injury.

- Any roof snow removal should be conducted following proper OSHA protocol for work on rooftops. Use roof fall arrest harnesses where applicable.
- Always have someone below the roof to keep foot traffic away from locations where falling snow or ice could cause injuries.
- Ensure someone confirms that the area below removal site is free of equipment that could be damaged by falling snow or ice.
- Whenever snow is being removed from a roof, be careful of dislodged icicles. An icicle falling from a short height can still cause damage or injury.
- When using a non-metallic snow rake, be aware that roof snow can slide at any moment. Keep a safe distance away from the eave to remain outside of the sliding range.
- Buried skylights pose a high risk to workers on a roof removing snow. Properly mark this hazard as well as other rooftop hazards.

## Methods of Snow Removal

Below are some recommended methods of snow removal that allow the qualified individual to remove snow safely and minimize risk of personal injury and property damage.

- Removing snow completely from a roof surface can result in serious damage to the roof covering and possibly lead to leaks and additional damage. At least a couple of inches of snow should be left on the roof.
- Do not use mechanical snow removal equipment. The risk of damaging the roof membrane or other rooftop items outweighs the advantage of speed.
- Do not use sharp tools, such as picks, to remove snow. Use plastic rather than metal shovels.
- Remove drifted snow first at building elevation changes, parapets, and around equipment.
- Once drifted snow has been removed, start remaining snow removal from the center portion of the roof.
- Remove snow in the direction of primary structural members. This will prevent unbalanced snow loading.
- Do not stockpile snow on the roof.
- Dispose of removed snow in designated areas on the ground.
- Keep snow away from building exits, fire escapes, drain downspouts, ventilation openings, and equipment.
- If possible, remove snow starting at the ridge and moving toward the eave for gable and sloped roofs.
- In some cases a long-handled non-metallic snow rake can be used from the ground, thereby reducing the risk. Metal snow rakes can damage roofing material and pose an electrocution risk and should be avoided.
- Upon completion of snow removal, the roofing material should be inspected for any signs of damage. Additionally, a quick inspection of the structural system may be prudent after particularly large snow events.

If you have any additional questions on this topic or other mitigation topics, contact the FEMA Building Science Helpline at [FEMA-Buildingsciencehelp@fema.dhs.gov](mailto:FEMA-Buildingsciencehelp@fema.dhs.gov) or 866-927-2104.

You may also subscribe to the FEMA Building Science e-mail list serve, which is updated with publication releases and FEMA Building Science activities.

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Visit the Building Science Branch of the Risk Reduction Division at FEMA's Federal Insurance and Mitigation Administration at <http://www.fema.gov/building-science>.

Please scan this QR code to visit the FEMA Building Science web page.

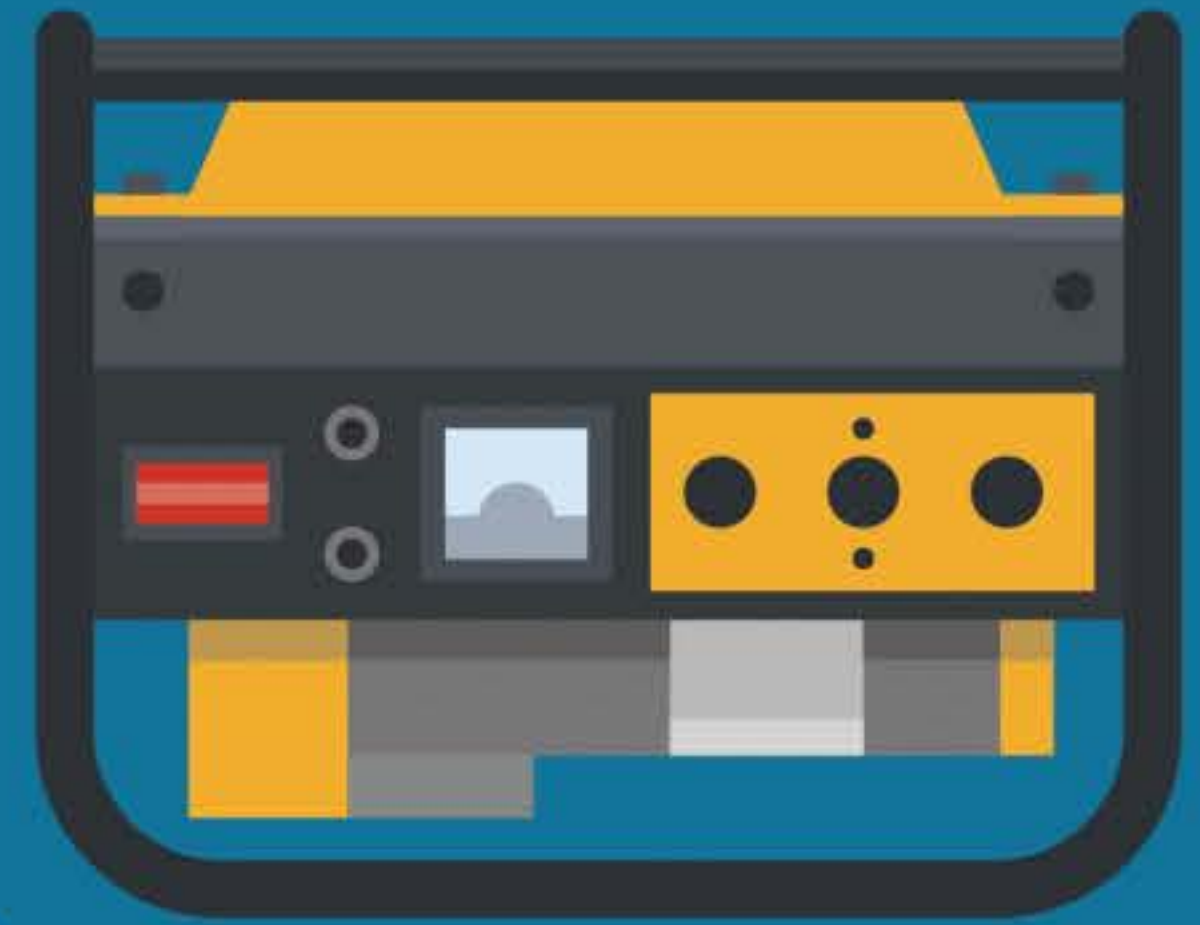


# KEEP YOUR FAMILY & PETS SAFE

## Safety Tips for Generators

Do not use generators indoors or in confined, poorly ventilated areas. Keep them outside, away from buildings and anything flammable, even dry brush.

**Fumes from a generator can be dangerous for you, your family or pets.**



Check with neighbors and family to ensure they are aware of the risks of operating generators.

**If you are using a generator for any reason, this information can help keep you and your household safe:**

- Place generators at least **20 feet** away from your home, downwind away from open doors, windows and vents.
- Before refueling it, turn off the generator and let it cool for **15-20 minutes**.
- **Never** try to power the house wiring by plugging the generator into a wall outlet; instead, use a heavy-duty, outdoor extension cord to plug appliances into generators.
- **Do not** use generators in rain or wet conditions.
- Place a fire extinguisher nearby.
- Make sure your home has operating fire alarms and carbon monoxide detectors.



Learn about carbon monoxide from the CDC at [cdc.gov/co/](https://www.cdc.gov/co/) or call 800-232-4636



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# WINTER DRIVING SAFETY



## READY YOUR VEHICLE FOR WINTER WEATHER

- **Get a tune up.** Make sure everything in your vehicle is in working condition: ignition, battery, transmission brakes, spark plugs, filters, fan belts, etc.
- **Keep your tires inflated.** Because of low temperatures and icy roads, you run a heightened risk of flats. Adequate tire pressure will help prevent them.
- **Top up your fluids.** Your vehicle should always be flush with oil, antifreeze, and especially, windshield wiper fluid.
- **Use the right tires.** If you live in a hilly region where road conditions are unpredictable, installing winter tires with added traction may be necessary.

## STORE THE ESSENTIALS

- **Things to keep you warm.** Keep blankets, boots, and cold weather clothes in your trunk in case of a breakdown.
- **Flashlights and flares.** Use these tools to alert other motorists of your presence in case of an emergency. Matches and extra batteries for the flashlights are a good idea, too.
- **A fully-inflated spare tire, tripod jack and wrench.** These should always be in your car if you get a flat, but in winter the need is especially immediate.
- **Tools to keep the snow at bay.** Don't leave home without your ice scraper and snow brush. You really won't want to have to use your hands.



## KNOW HOW TO DRIVE IN SNOWY CONDITIONS

- **Maintain an increased stopping distance.** With the added risk of slides and spinouts, stay farther away from other vehicles than you would during other seasons: around 8 seconds between your car and others.
- **Handle hills correctly.** Don't flood the gas at the crest of a hill, let your inertia bring you to the top. Never stop mid-way up a hill.
- **Don't brake too quickly or forcefully.** This will cause you to lose traction and cause steering wheel lockup.
- **Accelerate slowly.** Hitting the gas when the road is slippery will cause you to skid and lose control. Ease into every acceleration.

## KNOW HOW TO DEAL WITH GETTING STUCK IN A SNOW DRIFT OR BREAKING DOWN.

- **Don't run the engine.** Tempting to keep warm in frigid weather, but if your exhaust pipe is clogged, you run the risk of carbon monoxide poisoning.
- **Don't try to push your car out of the snow.** This could lead to overexertion or worse, the car might drift in your direction.
- **Stay in your car.** The nearest gas station may not seem far, but if weather conditions shift, just ten minutes outdoors could lead to exposure.
- **Call for help.** Ignite a flare, or tie a bright colored cloth on your antenna to indicate you are in need of help.

