

## **GNFAC Avalanche Forecast for Fri Apr 14, 2023**

Good Morning. This is Alex Marienthal with a spring weather and snowpack update on Friday, April 14th. The Gallatin National Forest Avalanche Center has stopped issuing daily avalanche forecasts for the season. We will issue weather and snowpack updates on Monday and Friday mornings through April. This information does not apply to operating ski areas.

Bridger Bowl is closed, and backcountry conditions exist. There is no avalanche mitigation or ski patrol rescue. In case of emergency, call 911. Please stay clear of work areas, snowmobiles, chair lifts and other equipment.

### Mountain Weather

Yesterday snowfall dropped 13" in the Bridger Range, 10-12" in Cooke City and Hyalite, and 5-7" near Big Sky and West Yellowstone. This morning temperatures are single digits to teens F, and today temperatures will reach mid-20s to low 30s F. Yesterday wind was southwest at 15 mph with gusts of 25-45 mph, and this morning wind is northerly at 5-15 mph.

A couple inches of snow are possible today before skies clear for the weekend. Wind will remain calm to light out of the north through tomorrow, and on Sunday will shift westerly and increase to 15-25 mph. Temperatures will reach high 30s on Saturday and high 40s on Sunday. Overnight lows will be in the teens tonight and mid-20s to low 30s F the next couple nights.

### Snowpack and Avalanche Discussion



**Bridger Range   Gallatin Range   Madison Range   Lionhead Range   Cooke City**

The new snow creates dangerous avalanche conditions and makes human-triggered avalanches likely, especially in areas that received more snow and where moderate winds drifted snow into thicker slabs. Yesterday's snow fell on a firm crust on many slopes which will make avalanches slide easier and break wide, even where snow is not drifted into denser slabs. Over the next couple days warm temperatures and sunshine will make the new snow unstable as it gets wet. This weekend, avalanches within the new snow will remain possible whether dry or wet, and the chances for large wet snow avalanches will increase the more the snow surface gets wet later in the weekend.

This time of year stability can change drastically over the course of the day, or from one slope to another. Carefully assess the stability of the new snow throughout the day and as your terrain choices change with regards to exposure to sunshine, wind, and temperature (different aspects and elevations). When the sun is shining or temperatures are above freezing, expect avalanches to become more likely later in the day, especially on slopes that receive direct sun. This weekend plan to be off and out from below steep slopes before the snow gets wet and weak. If you are sinking above your ankle in wet snow, or see natural rollerballs or avalanches it is past the time to seek lower angle or shadier slopes.

Weak layers buried 2-3 feet deep and near the bottom of the snowpack are not to be forgotten. Avalanches on these layers are becoming less likely, but the consequences remain potentially deadly or very destructive. On high, shady slopes it could still be possible to trigger a dry deep slab on these layers. Large wet slab avalanches might break on these layers when the recent snow gets melted and drains weakening water into the snowpack.

Your best bet to avoid these is to choose simple, low angle terrain, especially during and after storms or on sunny, hot days.

As temperatures warm this weekend, give cornices a wide berth along ridgelines and avoid slopes directly below them. Last week there were large cornice breaks on [Mt. Abundance](#), and in [Northern Madison](#).

Recent deep slabs (4/2-4/6): [Northern Madison Range](#), [Southern Gallatin Range](#), [Lionhead Area](#) and [Bridger Range](#).

Wet avalanches last weekend (4/8-4/11): [Natural at Bridger](#), [Natural on Baldy](#), [Saddle Peak and Bridger](#), [Big Sky](#), [across road in YNP](#), [Quake Lake over Hwy](#).

Our [avalanche and weather log](#) shows avalanche activity occurred on most days for the past few months, and avalanches are not stopping quite yet. We will issue spring snowpack and weather updates twice a week through April, and we will share relevant avalanche and snowpack information on our website and social media. If you get out, please send us your observations no matter how brief. You can submit them via our website, email ([mtavalanche@gmail.com](mailto:mtavalanche@gmail.com)), phone (406-587-6984), or Instagram ([#gnfacobs](#)).



## Island Park

Island Park got 10" of new snow which creates dangerous avalanche conditions and makes human-triggered avalanches likely. This weekend avalanches within the new snow will remain possible whether dry or wet, and the chances for large wet snow avalanches will increase the more the snow surface gets wet later in the weekend.

## Info and Reminders

Bridger Bowl Ski Area is closed, and ski patrol is no longer performing rescues and making terrain closure decisions for you ([video](#)).

[Hyalite Canyon road is closed](#) for motorized use until May 16.

[Events and Education Calendar](#).

## GENERAL SPRING SNOWPACK AND TRAVEL ADVICE

Spring weather can be highly variable and create a mix of avalanche problems. Snow conditions and [stability](#) can change drastically from day to day or hour to hour. Anticipate rapid change and plan accordingly. Abundant snowfall over the winter with more spring snow to come makes avalanches possible into summer.

### NEW SNOW AND WIND LOADED SLOPES

Spring storms are notorious for depositing heavy amounts of snow in the mountains. Even with a deep and generally stable snowpack throughout the advisory area, heavy and rapid loads of new snow will decrease [stability](#). The main problems to look out for are avalanches breaking within the new snow, wind slabs, and loose snow avalanches. The likelihood of triggering an avalanche spikes during and immediately after snowstorms. New snow instabilities tend to stabilize quickly, but it's a good idea to give fresh snow a day to adjust before

hitting big terrain. New snow instabilities can be challenging to assess, and spring storms bond to old snow differently across aspects and elevations. Conservative terrain selection is essential during and immediately following storms. Avoid wind-loaded slopes and slopes steeper than 35 degrees for 24-48 hours after new snow and wind.

New snow can quickly change from dry to wet on a spring day, and [stability](#) can decrease rapidly with above freezing temperatures or brief sunshine. New snow may bond well early in the morning and then easily [slide](#) later. Wet loose slides are likely during the first above freezing temperatures or sunshine immediately after a storm. Anticipate changes in snow [stability](#) as you change [aspect](#) or elevation and over the course of the day. An early start is always an advantage. Be ready to change plans or move to safer terrain at the first signs of decreasing [stability](#).

## WET SNOW AVALANCHES

Spring and wet snow avalanches go hand-in-hand. Above freezing temperatures, rain, and/or intense sunshine cause the snow to become wet and weak and make wet avalanches easy to [trigger](#) or release naturally. Conditions tend to become most unstable when temperatures stay above freezing for multiple days and nights in a row. Avoid steep terrain, and be aware of the potential for natural wet avalanches in steep terrain above you, if you see:

- Heavy rain,
- Above freezing temperatures for more than 24 hours,
- Natural wet avalanches,
- Rollerballs or pinwheels indicating a moist or wet snow surface,
- Or if you sink to your boot top in wet snow.

In general, if the snow surface freezes solid overnight, the snowpack will be stable in the morning and [stability](#) will decrease through the day as snow warms up. The snow surface hardness, rate of warming, duration of sunshine, [aspect](#) and elevation determine how fast [stability](#) will decrease through the day. Be aware that sunny aspects may have a [wet snow avalanche](#) danger while shadier slopes still have a [dry snow avalanche](#) danger. Getting off of steep slopes should be considered when, or before, the above signs of instability are present. Wet snow avalanches, whether loose snow or slabs, can be powerful, destructive and very dangerous. Conservative terrain choices, starting early in the day, and careful observations can keep you safe. See Alex's recent video, and this article for more spring travel advice.

## CORNICES

Cornices along ridgelines are massive and can break under the weight of a person (photo). Prolonged above freezing temperatures and rain make them weaker and possible to break naturally. They can break off suddenly and farther back than one might expect. [Cornice](#) falls can also entrain large amounts of loose snow or [trigger slab](#) avalanches. Stay far back from the edge of ridgelines and minimize exposure to slopes directly below cornices. Regardless of whether a [cornice](#) triggers a [slide](#) or not, a falling [cornice](#) is dangerous to anyone in its path.

## DISCLAIMER

It does not matter if new snow falls or not, avalanches will continue to occur until the existing snowpack is mostly gone. Always assess the slope you plan to ride with diligence and safety in mind. Do not let your guard down. Travel with a partner, carry rescue gear and only expose one person at a time in avalanche terrain.

Have a safe and enjoyable spring and summer!

Doug, Alex, Ian and Dave