

## **GNFAC Avalanche Forecast for Mon Apr 24, 2023**

Good morning. This is Alex Marienthal with a spring weather and snowpack update on Monday, April 24th. The Gallatin National Forest Avalanche Center has stopped issuing daily avalanche forecasts for the season. We will issue our next spring snowpack and weather update on Friday. 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 chairlifts and other equipment.

### Mountain Weather

The recent storm ended late Friday with a total of 36-44" in the Bridger Range, 16-24" in the Madison and Gallatin ranges, and 9-12" near Cooke City and West Yellowstone. Over the weekend wind was west-southwest at 5-20 mph with gusts of 25-35 mph. Temperatures reached high 20s to low 30s F with partly cloudy skies becoming sunny yesterday. Today, wind will be west-southwest at 5-15 mph, temperatures will reach high 30s to low 40s F, and clouds will increase bringing rain in the valleys and snow in the mountains. By tomorrow morning the Bridger Range could have 4-8" of new snow with 2-4" elsewhere.

The middle of the week will be sunny with temperatures reaching mid-40s F during the day and dropping to high 20s and low 30s F overnight. Another chance of snow arrives Thursday with westerly wind increasing to 15-25 mph.

### Snowpack and Avalanche Discussion



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

Last week's new snow with more snow possible tonight creates the main avalanche hazards this week. On many slopes the recent snow got wet from warm temperatures and sunshine, then froze into a crust overnight. Where this crust softens during the day, wet snow avalanches can be triggered. These could become large and run far, especially where more snow fell last week. If rain falls in the mountains wet slides will become more likely. On high, shady slopes where the recent snow remained dry, a person could trigger wind slabs or dry loose avalanches which could slide easily on a crust that formed before last week's snow.

Snow that falls tonight could be drifted into fresh slabs that a person could trigger, or loose snow avalanches could be triggered if the snow doesn't stick to the old snow surface. During the storm last week, skiers at Bridger Bowl easily triggered loose snow avalanches ([slide on Apron](#), [video 1](#), [video 2](#)). Warm temperatures and sunshine the next couple days will make it easy to trigger wet avalanches of the new snow.

Before traveling on or underneath steep slopes, carefully assess the stability of recent and new snow. Dig down a couple feet to see how the snow is bonding to crusts underneath. Cracking around your skis or feet is a sign the snow is unstable and to be cautious of steeper slopes. Pay attention to how wet the snow surface becomes. If you can make a snowball of moist snow or you sink past your ankle in wet snow, wet avalanches will soon become easy to trigger or could happen naturally. Start your day early and plan to be off and not underneath steep slopes before the snow gets wet.

If stability assessment is tricky or uncertain, ride or ski slopes that are less than 30 degrees steep, or find simple terrain without large consequences if you are caught in a slide. Avalanches that involve the new snow might be small, but can be deadly if they carry you over a cliff, into trees, or a confined gully.

Other problems to be aware of are large cornices along ridgelines and deeper persistent weak layers. Give cornices a wide berth along ridgelines and avoid slopes below them ([Mt. Abundance](#), [Northern Madison Range](#)). Avalanches breaking deeper in the snowpack are unlikely. However, old weak layers might still cause an avalanche on higher elevation shady slopes where there is not a thick crust below the recent 1-3 feet of snow (Deep slabs Northern Madison Range ([1](#), [2](#)), [Southern Gallatin Range](#), [Lionhead Area](#) and [Bridger Range](#)).

We will issue weather and snowpack updates twice a week through April, and we will continue to 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

Last week's new snow with more snow possible tonight creates the main avalanche hazards this week. Before traveling on or underneath steep slopes, carefully assess the stability of recent and new snow. Dig down a couple feet to see how the snow is bonding to crusts underneath. If stability assessment is tricky or uncertain, ride or ski slopes that are less than 30 degrees steep, or find simple terrain without large consequences.

## Info and Reminders

We are updating our [avalanche and weather log](#) daily and posting relevant changes to the avalanche conditions so you can [track](#) the weather and how it affects the snowpack.

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

For more spring travel advice see this [article](#) from our GNFAC forecaster blog.