GNFAC Avalanche Forecast for Fri Apr 19, 2024

Good morning, this is Ian Hoyer with a spring weather and snowpack update on Friday, April 19th. The Gallatin National Forest Avalanche Center has stopped issuing daily avalanche forecasts for the season. We will issue weather and snowpack updates throughout April on Monday and Friday mornings. This information does not apply to operating ski areas.

Mountain Weather

Since Monday, there's been a mix of sun and clouds and rain and snow (depending on elevation). A storm on Tuesday and Wednesday brought over a foot of snow to the northern Gallatin and Madison Ranges, with 9-10" across much of the rest of the advisory area and around 3" near West Yellowstone and Island Park. High temperatures have been in the 20s and 30s F with lows in the single digits and teens F. Winds have been variable, shifting around the compass.

Expect mostly sunny skies and increasingly warm temperatures over the next couple days with highs in the 30s F today, 40s F tomorrow, and 50s F on Sunday. It may snow and/or rain on Sunday, but don't expect much accumulation.

Snowpack and Avalanche Discussion

All Regions

Avalanche concerns through this weekend will chiefly be driven by the new snow that fell this week, in combination with warm temperatures and sunshine.

Avalanches could break in the recent snow, particularly on shady, high elevation slopes. These slides will be the largest and most concerning in areas that got the most new snow and on windloaded slopes. Triggering one of these avalanches is already much less likely than it was during the storm and they will become even harder to trigger as we get further out from the snowfall. Still, stay on alert for signs that the new snow is not bonded well, such as shooting cracks or unstable test results.

On sunny slopes, the new snow provides the needed ammunition for big wet loose sluffs (**photos from last week**). As the snow surface becomes wet and sticky or you start to see rollerballs and pinwheels, be on high alert. These slides will likely be confined to the new snow, but with a substantial amount of new snow they could pick up a big volume and be quite dangerous. Wet loose slides you trigger will likely break at your feet, but pay attention to what's above you, because natural slides could come down and hit you from above.

Another concern to keep in the back of your mind is avalanches breaking deeper. Earlier this week a wet slab broke on Mt. Abundance near Cooke City (**details and photos**) and on Wednesday riders in the Little Bear area of the northern Gallatin Range remotely triggered a wet slab after the new snow loaded a still wet snowpack (**details and photos**). Remotely triggered wet slabs are unusual. After a few nights of solid freezes, I don't expect to see more wet slabs over the next couple days, but regardless, seeing unusual avalanches makes us nervous (especially after the season we've had). It's a good reminder that slides could still fail deeper, whether the snowpack is wet or still dry.

Remain diligent with your snowpack assessments and route-finding, and adapt your decision-making to changing conditions.

Upcoming Avalanche Education and Events

Hyalite Road Closure: Hyalite road is closed to ALL MOTORIZED VEHICLES until the morning of May 16. This is a regular annual road closure to reduce road damage during the spring thaw. Bicycle and foot traffic are allowed. Contact the Bozeman FS Ranger District for more info.

Events and Education Calendar.

Loss in the Outdoors is a support group for those affected by loss and grief related to outdoor pursuits. Check out the link for more information.

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.