



# Locals Cautiously Hopeful About This Year's Snowpack

While the snowpack looks promising at present, the next couple of months will be key in determining the outlook for agriculture and migrating birds.

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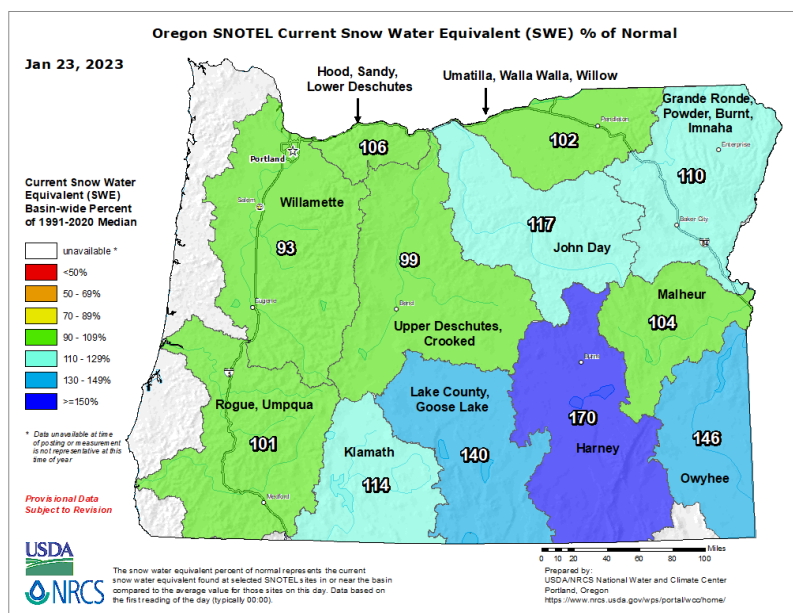
by Lauren Brown

As we enter mid-winter, ranchers and scientists have reason to be optimistic regarding the water year as current snowpack amounts are higher than normal. As of Jan. 1, snowpack numbers in Harney county are 176 percent of normal according to data provided by the National Resource Conservation Service.

Tony Svejcar, a consultant for the Harney Basin Wetlands Collaborative and a retired rangeland scientist and research leader with the U.S. Department of Agriculture, says what happens in the next two months will be key. "It's a good start, but I think we've all seen a lot of years where the fall and early winter was really good and then we got to the first of the year and the moisture shut off," he said. "I'd like to see these storms continue. January and February are really important months for our moisture situation."

[NRCS measures snowpack with devices](#) that record the amount of snow as well as calibrate the weight of the water equivalents in the snow. "I think this year has been pretty wet, so even if the snowpack doesn't look real deep I think it has a lot of moisture in it, and that's what these numbers reflect," Svejcar said.

Historically, in the United States, Svejcar said that northern states have used snow as a storage device for water. States that are further south store their water in reservoirs. "In locations like this, we have historically had enough snow. We haven't had to put in a lot of reservoirs and store a lot of water because we basically let the snow do it for us," Svejcar said. However, he said snowpacks in the west have been declining since at least the 1950s.



Drought has been a mainstay in Central and Eastern Oregon for the last several years. In fact, Crook County, despite the increase in the snowpack this year, already declared a drought emergency in January, asking the governor to make disaster relief funds available.

Will this year's increased snowpack be able to overcome the past years' drought designations? Perhaps not. However, this year could signal a change in weather patterns.

Dan Nichols, a rancher in the Diamond area and a member of the High Desert Partnership Board, says that in his experience, after a dry weather pattern, there is often a wetter weather pattern. For Nichols and his ranching operation, a good snowpack helps make grazing decisions on when to turn cattle out. "On our allotment, a good snowpack just means water holes are in better shape and you get good ground precipitation for early spring grass growth," he said. "We've been holding off on

turnout and grazing things differently and less because of the drought. This year will help rejuvenate that, and in a year or two, we might be able to get back to normal if this keeps up.”

Gary Marshall, a rancher in the Double O area and chairman of the High Desert Partnership Board, said he keeps a close eye on the SNOTEL (snow telemetry) numbers, although he is not sure it is a completely accurate picture of what is going on in the mountains. “It gives you some kind of idea of what is happening as far as depth of snow and snow water equivalent and moisture,” he said. “If I can see what those numbers are, then I can talk to other people and see what it looks like for the whole watershed.”

He is hoping that Moon Reservoir, which has been dry the last few years, will fill this year. “It just helps extend the whole irrigation growing season down through this whole upper end of the valley here,” he said.

Marshall agrees that the next few months are critical regarding the increase or decrease of the snowpack because in one way or another, it will affect his ranching operation. “Final decisions are held off here until we get into the last part of February or maybe even early March,” he said. “It can make a difference whether you decide to hay or not for instance and that can be hundreds of thousands of dollars on a budget,” he said. Deciding whether or not to expend capital on equipment and fuel to prepare meadows for the hay season is a big decision for many ranchers. “We are making decisions all the way along, but they’re more in the form of different scenarios. If the moisture quits right now, then that’s going to mean one thing when we get to May. If it continues on, that’s going to be a completely different outcome for production,” Marshall said.

Svejcar was quick to point out that while the wet meadows in the basin rely on snowpack and runoff for irrigation, the uplands, which consist of sagebrush, rely on the spring rains to provide grazing for cattle and wildlife. “You can get a year where you have almost no snow or crummy snowpack and poor production in the meadows and if you get those April and May rainstorms – that’s the really critical period for the uplands – they may produce just fine,” Svejcar said.



*Pictured: Rustic lake overlook above Drinking Water Reservoir. Photo by Brandon McMullen.*

In a good snow year, the wet meadows not only produce hay for area ranches, but they provide fuel for migrating birds. As a major stop on the Pacific Flyway, the Harney Basin has the potential to host millions of birds between the spring and fall migrations. However, low water years can greatly affect the number of birds that stop here. “In the last few years, a lot of people have told me that even when they got water, they felt like hay production was dramatically less than average. In some cases, a third or half of average, so the water didn’t spread,” Svejcar said. “I saw situations where snow geese were out on dry meadows at the research center, and they just took off. They didn’t stay here because the resources just weren’t here for them.”

Marshall said he has noticed fewer birds on their meadows during drought years as well. “It’s amazing how many birds we get when we do have the water and how long they stay,” he said. “They’ll stick around and nest and hatch – all kinds of different ducks and egrets and sandhill cranes. It’s just a lot more fun when we get that water.”

With the increased snowpack, flooding can be an issue, especially if warm winter and spring rains melt

the snowpack too quickly. Svejcar said the biggest erosion events can happen when there is rain on snow or rain on frozen soil. "If you get a situation where there is a good snowpack and it is heavy snow, and it warms up with rain on top of it, the snow will melt quickly. These are the conditions where flooding is possible," he said.

Ranchers are used to dealing with all kinds of weather conditions, and though flooding has been rare of late, it is also a problem they're used to dealing with.

Nichols said flooding can be hard to predict. "You keep your fingers crossed that it doesn't do more damage than what you can get fixed before the growing season. There have been years where it has thawed and rained, and we've had ice in the creek. We've had ice jams and it covered up about 20 acres of meadow with sticks and rocks and dead fish," he said. "A flood can do a tremendous amount of damage. Fortunately, we've been able to clean it all up, and it hasn't done anything permanent."

Marshall said that the Double O valley can handle a lot of water as it comes down Silver Creek through the spillway at Moon Reservoir and spreads across the valley eventually arriving at Harney Lake. Sometimes, however, the amount of water can force ranchers to move livestock to higher ground. One year, he recalls the water washed out the county road for a quarter mile between his ranch and the Double O School, where his kids attended classes. His neighbor, Louis Yriarte, brought over his rowboat and would row over to pick up the children, row them across the water and get them to school. "Then we'd meet him down there at the county road after school, and he'd bring them back across," Marshall said.

Marshall doesn't anticipate flooding on that scale this year. "With what we have right now, we'll get some high flows but it's not going to be a wash out kind of a thing," he said. He is hopeful that the moisture will continue to give local ranchers a break from the drought that has persisted in recent years. "There is land that has been used that really needs a break from the drought. People are hoping to get moisture and put stock into other areas and give those hard used areas a chance to heal up a little bit," he said.

Nichols said that, among the folks he has talked with, there is a general feeling of positivity regarding the snowpack this year. However, he noted that ranchers are always making decisions and proceeding with the cycle of things regardless of the weather. "The overall feeling is that they're glad to see this change, and they are looking forward to maybe altering things for a few years again," he said. "It's just something you've got to be prepared for. Its nature and you just deal with it. There's always a silver lining around all of it one way or the other."

*This article is provided by High Desert Partnership; a Harney County nonprofit convening and supporting six collaboratives including the Harney Basin Wetlands Collaborative.*

