



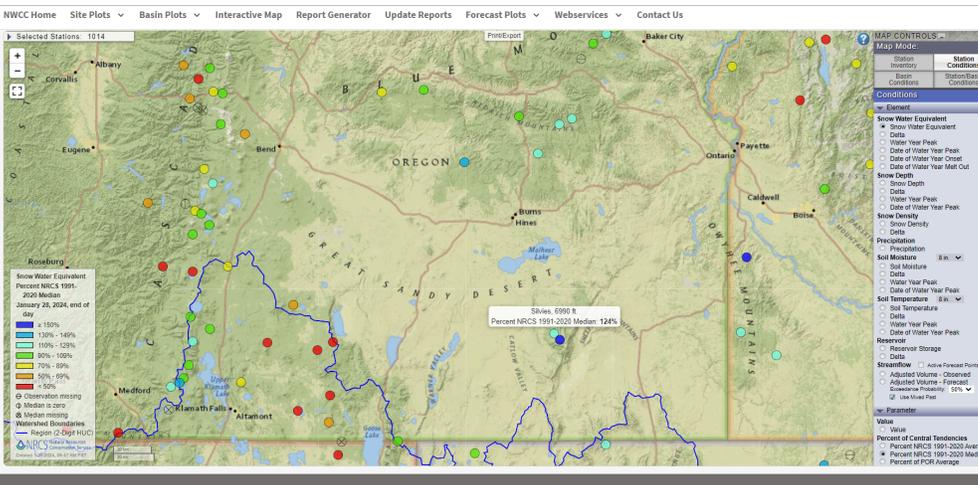
# Current Snowpack Numbers are Promising in the Harney Basin

January and February are key months for determining the outlook for water in the spring.

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by Lauren Brown

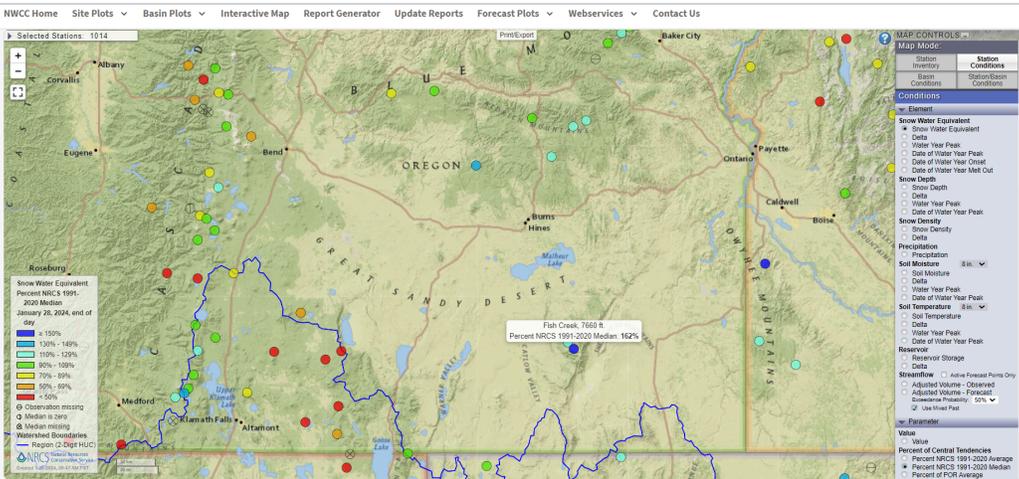
As of Jan. 23, the Harney Basin snowpack was at 114 percent of normal, according to the U.S. Department of Agriculture's Natural Resources Conservation Service interactive snow water equivalent map website, which can be found at [nwcc-apps.sc.egov.usda.gov/imap](http://nwcc-apps.sc.egov.usda.gov/imap). The map is based on about 30 years of data and provides detailed information on sites throughout the western United States and into British Columbia.

Last year at this time, the snowpack in the Harney Basin was a very robust 176 percent of normal. While ranchers and researchers have noted that we haven't had the early snowstorms in November and December as we did last year, this year's numbers still give reason for locals to be optimistic about the water year.



While perusing the numbers for the Harney Basin, Tony Svejcar, a partner of the Harney Basin Wetlands Collaborative and a retired rangeland scientist and research leader with the U.S. Department of Agriculture, said he was pleasantly surprised. "It felt like we got a fair amount of rain in the fall, but that wouldn't show up in the snowpack data. That would go into the ground," he said. "I thought we were below normal for snowpack, but we're not."

Screenshots taken Jan 29 from the NRCS National Weather and Climate Center show snowpack for Silvies and Fish Creek.



And while the numbers are positive right now, Svejcar said they can be deceiving. "It's based on the time of year," In looking at the projections, "they expect us to get a whole lot more snow into the beginning of April." He noted that there have been recent years where the precipitation and snowpack were good going into January and then the precipitation quit. "We're above average for this date as we sit now, but if the storms were to

stop coming, we could potentially go into the irrigation year at 50 percent," he said.

## Predicting the unpredictable

Ranchers know that there are many variables that come into play when trying to predict what kind of water year it will be.

Gary Marshall, a rancher in the Double O area and chairman of the High Desert Partnership board, said that prior to January, the basin had experienced a fairly mild winter. When a big snowstorm hit in the beginning of January, he had one question: Is this the start of winter or is this all we're going to get? "The days are getting longer, and we still really don't know what's going to develop. It could go different ways from here," he said.

Svejcar noted that in talking with local ranchers, that's one of the things they most lament: the unpredictability of the snowpack. Snowpacks in the Harney Basin have been declining since the 1950s. "It's not to say precipitation has been changing at a lot of these sites, it's the rain to snow ratios that have been changing," he said. "The higher elevations are getting more rain and less snow than what they did historically."

While precipitation in the form of rain can be helpful in the uplands if the timing is right, it does not help irrigate the wet meadows. A melting mountain snowpack is necessary for that to occur. "There was a time when you could kind of depend on snowpack. You could go up and look at it even if you didn't have good SNOTEL data and you had a pretty good idea that you were going to have good water on the meadows," Svejcar said. "Now with more coming as rain, it's harder to predict."

In addition, there are only a handful of sites where the snow water equivalent levels are measured in the Harney Basin. Having more sites and more data could give ranchers and researchers a better idea of what to expect as the season progresses.

Keith Baltzor, a rancher who lives near Burns, said that when it snows in the basin in November and December, that's ideal. "You get snow early, get some drifting up in the mountains where the snowpack is and then get some moisture on it, a little rain, or some warm weather, and get that locked in where it's icier. That means a lot better runoff, usually a longer runoff in the spring," he said. "The streams will stay higher, and you have more opportunity over time to irrigate." As that did not materialize this year, folks are anxiously waiting to see what will happen from now until April to see how the water in the spring will play out.

## Starting from a good place

"Last year was outstanding. Really good grass in the hills and spectacular hay crop down here in the valley too. Lots of water to go around," Baltzor said.

As a result, the basin is starting from a better place going into the 2024 water year than it did the previous year.

Marshall said from his perspective, the range and the playa areas in the desert are in good condition. "We have some carryover water in some of the waterholes from last year, so that's a good thing going into this year," he noted.

However, he said that some of the grass in the wet meadows did not come back as well as expected despite the steady irrigation. "We were on the heels of several years of drought and so the plants had been stressed from that, and they didn't do as well as we'd hoped," he said.

Svejcar said that it can take a couple years for plants to rebound after a drought. When they've been stressed, "often the plants trim back the below ground structures, and they don't have as many growing points," he said. "Sometimes it takes them a decent year to get those things back and then the second year they can really respond."

While it's still a wait and see game as to whether there will be enough snowpack to provide irrigation for the wet meadows and hay crops, Svejcar does believe that because of the exceptional water year last year, there will be enough to provide some growth in the wet meadows for migrating birds. "I think we have enough now that we'll produce green grass so at least the early birds that come in will have that high energy nice green leaf material that they depend on to get them through their migratory routes," he said.

Svejcar said that scientists who study the snowpack levels wait to panic because late season storms can happen, and it only takes a few to turn a dismal snowpack into a healthy one. "A decent storm can really get you back on track. But it doesn't feel

comfortable when you're sitting hoping that it comes, and you're not sure if you're going to get water that year. It's just a real hard position to be in," he acknowledged.

Ranchers must make decisions based on their experience and what they are seeing on the ground. "I think everybody's just kind of hunkered down and waiting to see what happens," Baltzor said. "Hope for the best, plan for the worst and it'll probably be somewhere in between."

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

