

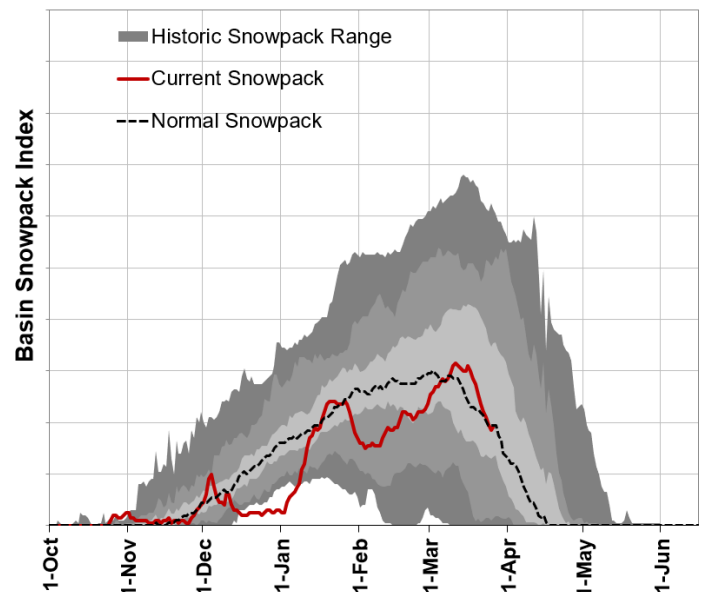
BE FLOOD AWARE

McKay Creek Awareness - Pendleton, Oregon

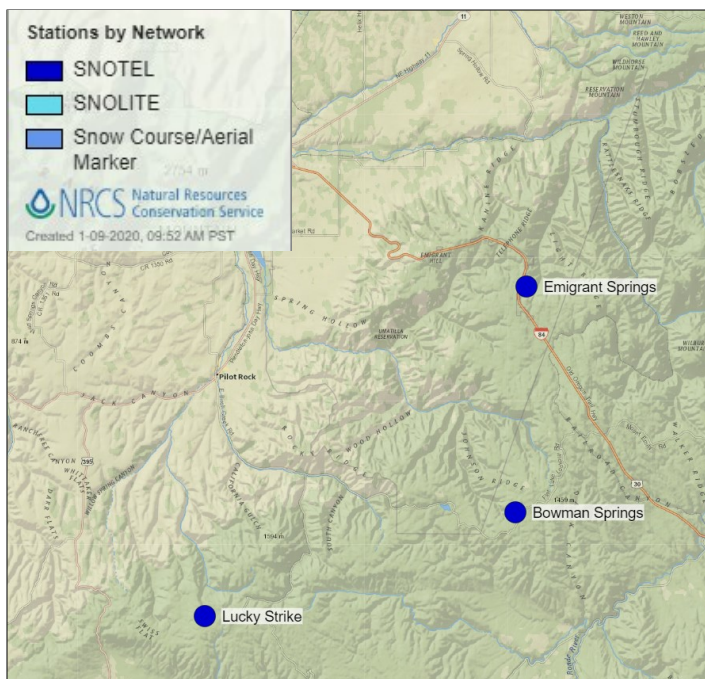
Today's Summary for Mar 25, 2024

- The sites located in the McKay Creek watershed are reporting amounts of snow water equivalent (SWE) that are below to above normal (1991-2020 median) with values ranging between 0.6" and 6.3".
- Water year-to-date precipitation (Oct 1 to present) ranges from 91% to 131% of normal. The last 7 days have received precipitation amounts ranging from 0.3" to 0.7".
- The NWS mountain forecast calls for chances of rain and snow showers throughout the week. Daytime highs in the 50s. Lows in the 30s. The NWS River Forecasting Center is not predicting significant flooding through the week.
- Snow densities range from 58% to 70%. Snow density is simply: snow water equivalent divided by snow depth x 100%.
- Decreases in snow depth occur naturally during and after cold snow storms. Decreasing snow depth is not the best indicator of snowmelt.
- Daily, consecutive decreases in snow water equivalent of 0.5 inches or greater, along with densities of about 40% or greater (typically during spring-time), can be an indicator that snowmelt may be imminent.

McKay Basin Snowpack



This graph shows today's mountain snowpack levels recorded at NRCS snow telemetry (SNOTEL) sites in the McKay Basin.



Where does the McKay Creek snow data come from?

The USDA Natural Resources Conservation Service has three automated snow telemetry (SNOTEL) sites in the McKay Creek watershed, shown here on this map. These sites record data every hour such as the snow water equivalent (SWE) level, which is the amount of water stored in the snow, the snow depth, precipitation, air temperature, and more. See the table below for today's data readings at these sites. For near-real-time data, check the NRCS Snow Survey website.

Site	Elevation	Snow Water Equivalent inches	SWE % of Normal	Snow Depth inches	Snow Density %	Precipitation (Oct. 1 to date) inches	Precipitation % of Median	Midnight Air Temperature (Degrees F)
Lucky Strike	4,970	4.6	85%	8	58%	21.0	131%	33
Bowman Springs	4,530	6.3	115%	9	70%	18.0	108%	34
Emigrant Springs	3,800	0.0	67%	0	-	20.6	91%	36

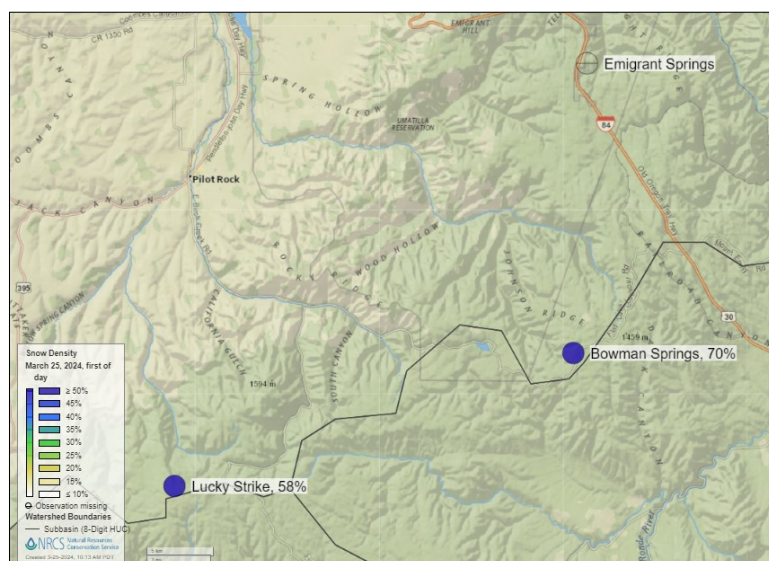
* SWE values at a site with 0 inches of snow depth may exist for patchy, low snowpack conditions.

What's the current snow density?

This map shows the current snow densities at NRCS snow survey sites across the region. When snow density reaches 40% or more, there is a greater risk for flooding if a moderate or heavy rainstorm falls on top of that snow.

Get the latest data online at:
<https://go.usa.gov/xdNvt>

For questions, contact:
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 National Weather Service Pendleton,
 541-276-7832, www.wrh.noaa.gov/pdt



Seasonal Volumetric Streamflow Forecast

Forecast Point	Agency	Forecast Period	50% KAF	% of Median (NRCS) % of Average (NWS)
McKay Cr inflow nr Pilot Rock (Mar 1)	NRCS	APR-SEP	31	119%
McKay Cr outflow nr Pendleton (Mar 25)	NWS RFC	APR-SEP	20	55%

Using the Forecast — An Example

Using the 50 Percent Exceedance Forecast. Using the example forecasts shown below, there is a 50% chance that actual streamflow volume at McKay Creek near Pilot Rock will be less than 17.9 KAF (thousands of acre feet) of volumetric streamflow between April 1 and Sept 30. There is also a 50% chance that actual streamflow volume will be greater than 17.9 KAF. The forecast value is 62% of the average.

Forecast Point	period	50% (KAF)	% of avg	max (KAF)	30% (KAF)	70% (KAF)	min (KAF)	30-yr avg
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McKay Ck nr Pilot Rock	MAR-JUL	30	59	56	40	22	12.4	51
	APR-SEP	17.9	62	40	26	11.5	4.6	29

Max (10%), 30%, 50%, 70% and Min (90%) chance that actual volume will exceed forecast.
Averages are for the 1981-2010 period.
All volumes are in thousands of acre-feet.

footnotes:
1) Max and Min are 5% and 95% chance that actual volume will exceed forecast
2) streamflow is adjusted for upstream storage
3) median value used in place of average

Observed Streamflow

Gaging Station	Agency	Current Flow (cfs)	Stage (ft)	Mean Daily Flow (Previous Day)
McKay Cr inflow nr Pilot Rock (Mar 25)	OWRD	196 cfs	3.54 ft	151 cfs
McKay Cr outflow nr Pendleton (Mar 25)	OWRD	10.6 cfs	0.27 ft	10.6 cfs