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Real-Time Spatial Estimates of Snow-Water Equivalent (SWE) Western United States Region February 15, 2026

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Introduction

Figure 1 below displays estimated SWE amounts across the Western United States. Detailed SWE maps (in JPG format) and summaries of SWE (in Excel format) by individual basin and elevation band accompany the report and are publicly available [here](#). Please note that the basin-wide percent of long-term average from the spatial SWE estimates is not directly comparable with the SNOTEL basin-wide percent of average. A better comparison might be made with the percent of average in the elevation banded tables (linked below) that contain SNOTEL sites.

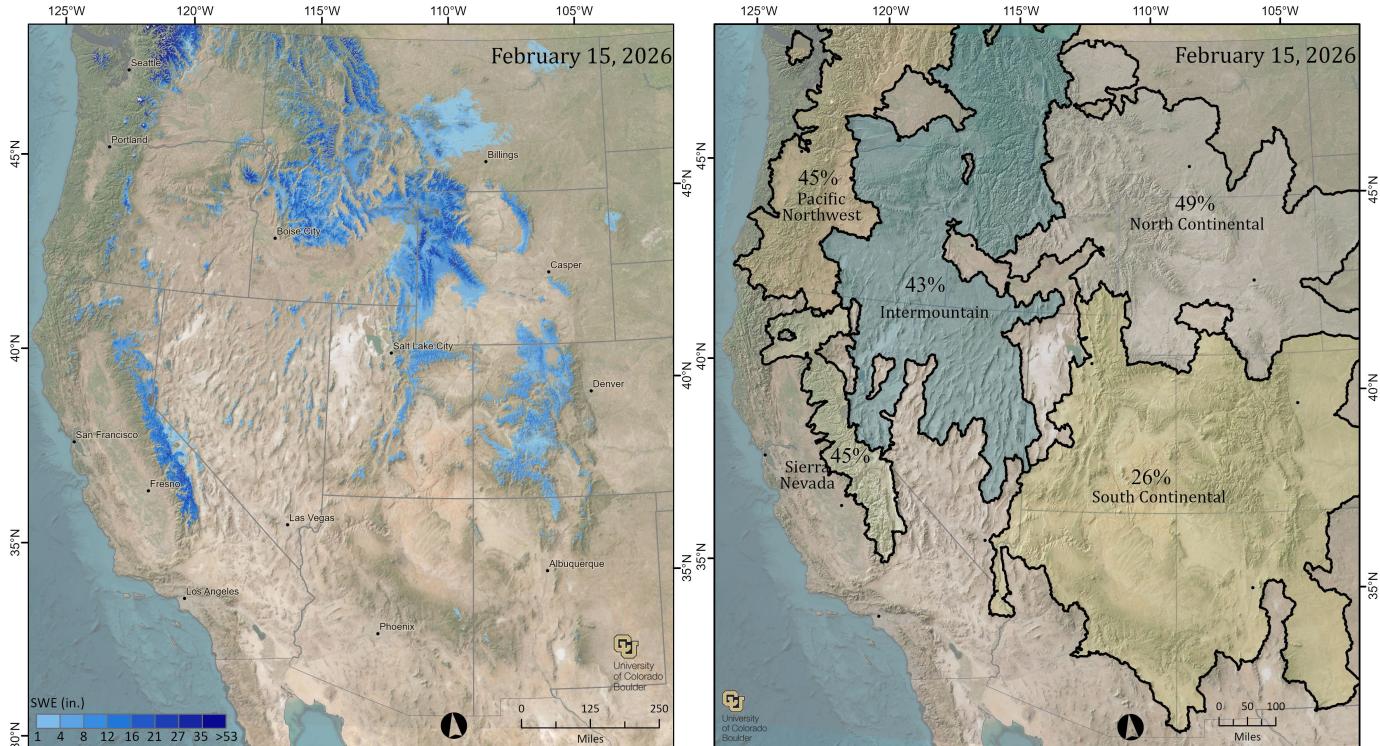


Figure 1. Estimated SWE and % of Average SWE across the Western U.S. SWE amounts across the entire Western region of the United States (left) and percent of long-term average (2001-2025) by five regions (right). Region boundaries are delineated based on Snowpack regimes of the Western United States (Trujillo and Molotch, 2014) and the Commission for Environmental Cooperation (CEC) Ecological Regions of North America, Level III [Commission for Environmental Cooperation, 2009, available at <http://www.cec.org/north-american-environmental-atlas/terrestrial-ecoregions-level-iii/>].

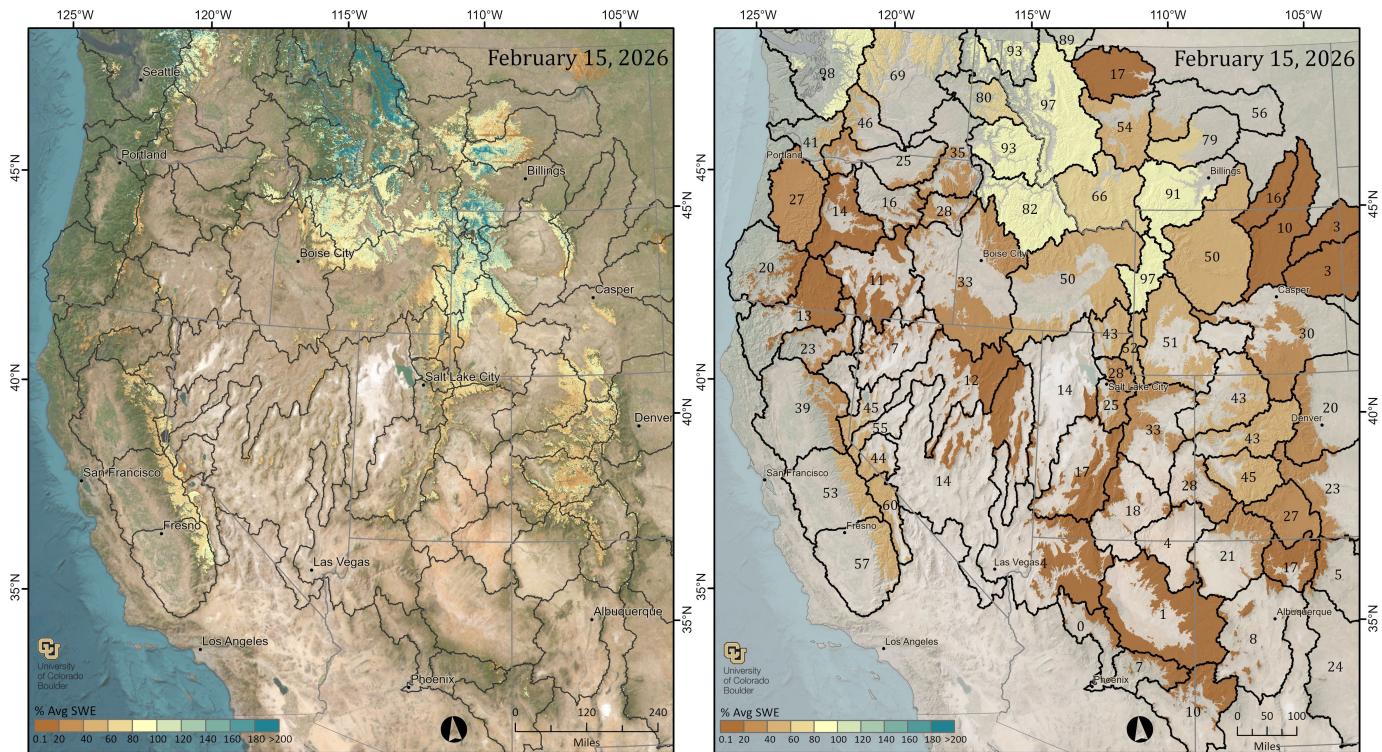


Figure 2. Estimated % of Average SWE across the Western U.S. Percent of long-term average (2001-2025) from the spatial SWE calculated for each pixel (left) and by HUC-6 basin (right); integer within each watershed represents the percent of average SWE for the report date. Shaded areas (right) correspond to the elevation bands used in the tables below.

For detailed maps and tabular summaries of SWE and snowpack water storage volumes for specific regions and watersheds, click on the links below:

[Pacific Northwest](#)

[North Continental](#)

[South Continental](#)

[Intermountain](#)

[Sierra Nevada](#)

[Elevation Banded SWE Tables](#)

About this report

This is an experimental research product that provides near-real-time estimates of snow-water equivalent (SWE) at a spatial resolution of 500 meters for the Western region of the United States from mid-winter through the melt season. The report is typically released within a week of the date of data acquisition at the top of the report. A similar report covering the Sierra Nevada has been distributed to water managers in California since 2012.

The spatial SWE data fusion (SWE-fusion) analysis method for the Western U.S. uses the following data as inputs:

- In-situ SWE from all operational NRCS and CDEC snow pillow sites, and the CoCoRaHS network when appropriate
- Fractional snow-covered area (fSCA) data from recent cloud-free satellite images
- Physiographic information (elevation, latitude, upwind mountain barriers, slope, etc.)
- Historical daily SWE patterns (1985-2021) retrospectively generated using historical fSCA data and an energy balance model that back-calculates SWE given the fSCA time-series and meltout date for each pixel
- Satellite-observed daily mean fractional snow-covered area (DMFSCA)

For more details see the *Methods* section below. Please be sure to read the *Data Issues / Caveats* section for a discussion of persistent challenges or flagged uncertainties of the SWE-fusion product.

Data availability for reporting

Snow pillows located throughout the Western U.S. region are input as the dependent variable in the SWE-fusion system. 799 Natural Resources Conservation Service (NRCS) Snow Telemetry (SNOWTEL) sites and 131 California Department of Water Resources (CA-DWR) California Data Exchange Center (CDEC) are potentially available for each model run. In addition, the Community Collaborative Rain, Hail and Snow (CoCoRaHS, <https://www.cocorahs.org/>) network provides over 500 snow measurements across the modeling domain.

Maps and Tables by Region

Maps and tables for each of the five western regions (Figure 1b) are shown below. Note that the basin-wide averages may reflect variable conditions across the elevation bands; see banded-elevation tables (linked below). Basin-wide percent of average is calculated across all model pixels inside a given basin and base elevation. Basin base elevations vary anywhere between sea level and 7,000'. Base elevations are dependent on long-term snow coverage. For example, a base elevation in the north could be lower as compared to a base elevation in the south.

Pacific Northwest

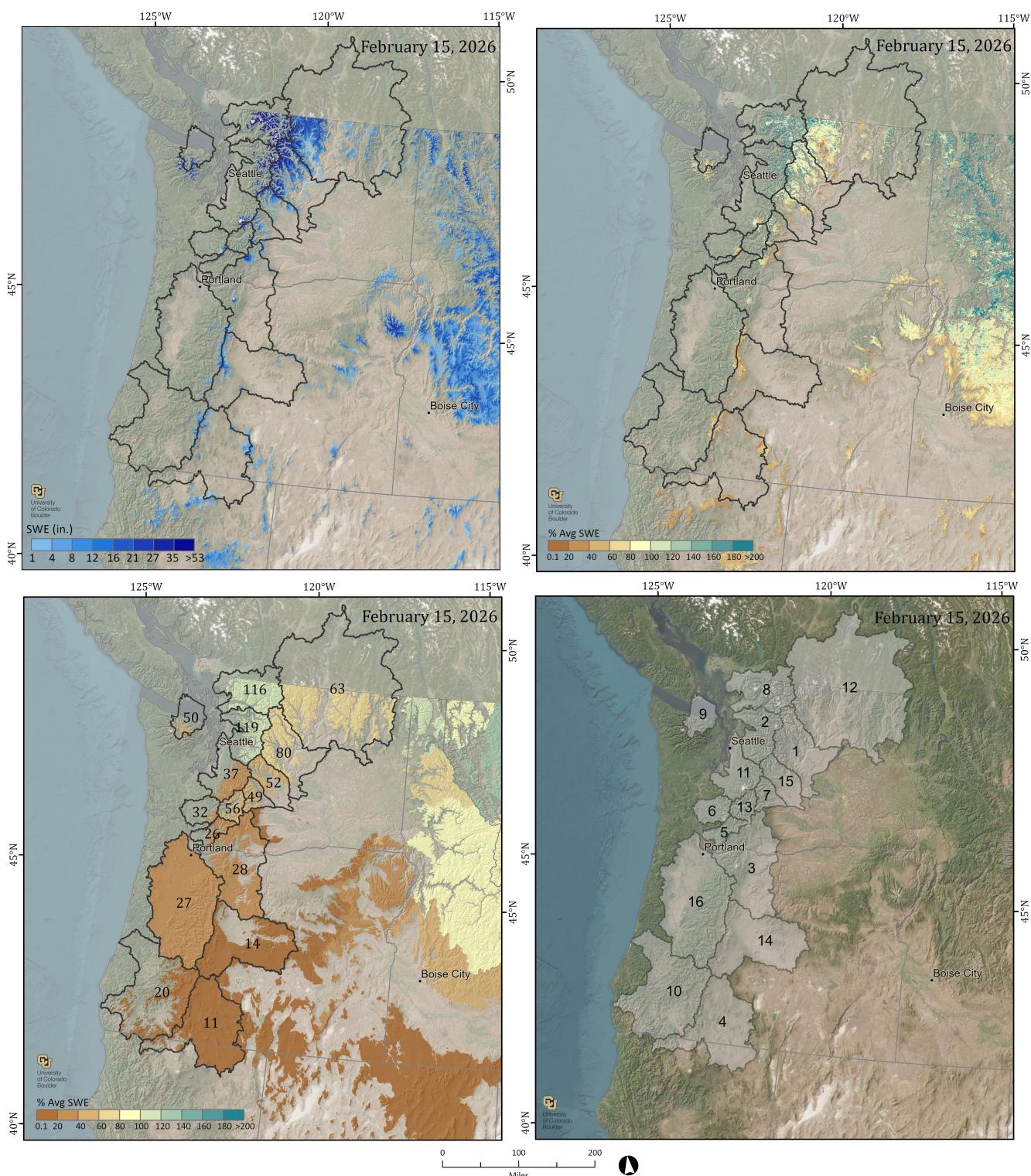


Figure 3. Estimated SWE and % of Average SWE across the Pacific Northwest Region. SWE amounts (upper left), percent of long-term average (2001-2025) SWE calculated for each pixel (upper right), basin-wide percent of long-term average (lower left) shaded areas correspond to the elevation bands used in the banded-elevation tables, and basin identification numbers that correspond to Table 1 below (lower right). The North Puget Sound and Upper Columbia basin portions that are inside Canada do not contain SWE-fusion model data due to lack of data availability needed to run the model in Canada.

Table 1. SWE by watershed. Shown are percent of average SWE to date for the current date (2001-2025 as derived from the regression model), mean SWE for the current report, current percent of snow-covered area, current SWE volume (acre-feet), the area (mi^2) inside each basin that contains data pixels (not including cloud-covered pixels, lakes or other satellite no data pixels), first of the month snow surveys, and current snow pillow sensors (the number of stations are in parentheses), for those areas collected, summarized for each basin. [SWE tables by banded elevation are here.](#)

Basin	Pacific Northwest SWE Report for 2/15/2026										
	% of Average		SWE (in)			SCA	Vol. (AF)	Area (mi^2)	Pillows		SNODAS* (in)
	2/8	2/15	2/8	2/15	Pillows				2/8	2/15	
1. Central Columbia	86	80	11.2	10.3	57.4	1,171,162	2,129.50	17.1 (6)	17.2 (6)	19.9	
2. Central Puget Sound	135	119	6.9	7	31	464,924	1,246.10	13.0 (5)	14.5 (5)	16.6	
3. Hood-Sandy-Lower Deschutes	26	28	0.5	0.6	7.4	164,872	5,083.40	4.5 (10)	5.2 (10)	3.4	
4. Klamath	9	11	0.4	0.5	7.5	185,354	7,543.00	2.6 (16)	3.0 (16)	1.0	
5. Lewis	26	26	0.7	0.8	7	24,566	583.2	8.1 (7)	9.3 (7)	6.1	
6. Lower Cowlitz	31	32	2	2.2	23.4	22,742	190.5	4.3 (2)	5.0 (2)	3.6	
7. Naches	49	49	3.2	3.3	33.8	107,491	614	14.9 (4)	15.2 (4)	12.4	
8. North Puget Sound	124	116	7.4	7.4	32.1	924,605	2,342.10	21.1 (9)	22.3 (9)	24.1	
9. Olympic	49	50	6.7	7.2	38.8	90,351	236.4	9.1 (3)	9.9 (3)	14.4	
10. Rogue-Umpqua	18	20	0.5	0.6	5.7	102,694	3,388.60	0.8 (6)	1.1 (6)	0.9	
11. South Puget Sound	38	37	1.4	1.4	10.2	85,037	1,146.00	6.2 (13)	6.5 (12)	9.4	
12. Upper Columbia	64	63	5.7	5.1	39.9	1,499,623	5,486.20	9.4 (7)	9.5 (7)	8.6	
13. Upper Cowlitz	58	56	2.4	2.5	15.5	96,304	717.7	10.3 (3)	11.5 (3)	13.2	
14. Upper Deschutes-Crooked	13	14	0.6	0.6	8.3	196,356	5,681.70	4.3 (7)	5.3 (7)	1.8	
15. Upper Yakima	58	52	4.7	4.3	36.5	234,877	1,031.70	7.1 (3)	7.4 (3)	7.4	
16. Willamette	25	27	0.2	0.3	2.9	163,837	11,470.90	1.8 (18)	2.5 (18)	0.8	

‡ Basin boundaries were derived from a combination of NRCS and HUC8 boundaries.

* This is a comparison to the SNODAS (SNOW Data Assimilation System) nationwide product from the National Weather Service.

North Continental

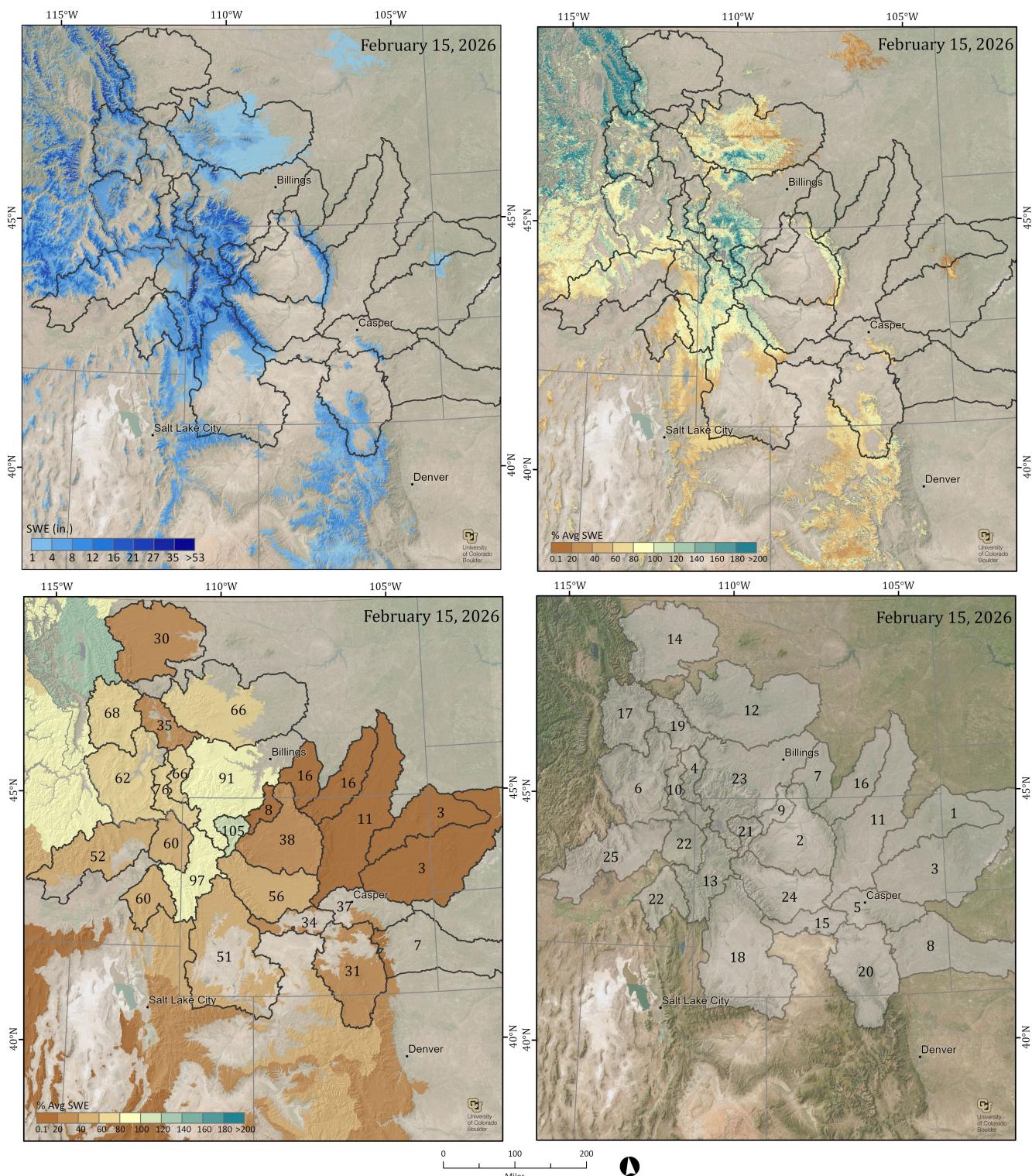


Figure 4. Estimated SWE and % of Average SWE across the North Continental Region. SWE amounts (upper left), percent of long-term average (2001-2025) SWE calculated for each pixel (upper right), basin-wide percent of long-term average (lower left) shaded areas correspond to the elevation bands used in the banded-elevation tables, and basin identification numbers that correspond to Table 2 below (lower right).

Table 2. SWE by watershed. Shown are percent of average SWE to date for the current date (2001-2025 as derived from the regression model), mean SWE for the current report, current percent of snow-covered area, current SWE volume (acre-feet), the area (mi^2) inside each basin that contains data pixels (not including cloud-covered pixels, lakes or other satellite no data pixels), first of the month snow surveys, and current snow pillow sensors (the number of stations are in parentheses), for those areas collected, summarized for each basin. [SWE tables by banded elevation are here.](#)

North Continental SWE Report for 2/15/2026											
Basin	% of Average SWE (in)								Pillows		SNODAS* (in) 2/15
	2/8	2/15	2/8	2/15	SCA	Vol. (AF)	Area (mi^2)	2/8	2/15	2/15	
1. Belle Fourche	4	3	0.1	0.1	4.1	34,080	7,233.40	1.8 (1)	1.7 (1)	0.2	
2. Bighorn	37	38	1.3	1.4	13.1	639,503	8,864.60	6.5 (8)	7.5 (7)	0.9	
3. Cheyenne	4	3	0	0	1.8	39,556	15,359.30	3.9 (2)	3.7 (2)	0.1	
4. Gallatin	58	66	3.5	4	37.6	395,925	1,848.40	11.0 (4)	12.3 (4)	4.8	
5. Glendo	44	37	3.5	2.7	34	103,858	714.1	2.5 (4)	2.6 (4)	0.4	
6. Jefferson	60	62	3.7	3.8	37.3	1,790,985	8,812.20	7.8 (14)	8.7 (14)	2.9	
7. Lower Bighorn	15	16	0.3	0.3	4.3	60,566	3,259.10	NA	NA	0.2	
8. Lower No Platte	8	7	0.5	0.4	4	16,284	824	NA	NA	0.0	
9. Lower Shoshone	9	8	0.2	0.2	1.9	12,490	1,474.60	NA	NA	0.0	
10. Madison Headwaters in WY	72	76	4.7	4.9	46.9	671,471	2,557.60	10.6 (6)	11.3 (7)	7.0	
11. Powder	10	11	0.2	0.2	2.8	174,197	13,397.20	3.7 (5)	3.9 (5)	0.2	
12. Smith-Judith-Musselshell	16	66	0.7	2.9	70.4	1,311,926	8,339.80	7.1 (9)	8.0 (9)	1.0	
13. Snake	92	97	8.7	9.2	87.1	2,818,590	5,741.50	13.0 (11)	14.1 (11)	10.4	
14. Sun-Teton-Marias	26	30	0.8	0.8	6.9	467,917	10,541.30	5.2 (5)	5.6 (5)	1.2	
15. Sweetwater	38	34	2.3	2.1	25.8	133,899	1,201.20	6.1 (2)	6.4 (2)	0.7	
16. Tongue	15	16	0.4	0.4	4.5	113,198	5,405.20	3.3 (6)	3.3 (6)	0.4	
17. Upper Clark Fork	54	68	2.8	3.6	38.2	1,154,402	6,006.90	8.3 (11)	9.2 (11)	4.8	
18. Upper Green	52	51	3.8	3.7	35.3	1,898,741	9,583.60	7.8 (21)	8.2 (21)	3.2	
19. Upper Missouri	19	35	0.8	1.5	20.5	237,246	2,956.30	3.7 (2)	4.3 (2)	1.5	
20. Upper No Platte	31	31	2.1	2	27.3	799,987	7,590.10	9.8 (16)	10.8 (16)	2.6	

‡ Basin boundaries were derived from a combination of NRCS and HUC8 boundaries.

* This is a comparison to the SNODAS (SNOW Data Assimilation System) nationwide product from the National Weather Service.

North Continental SWE Report for 2/15/2026

Basin	% of Average SWE (in)						Pillows		SNODAS* (in)	
	2/8	2/15	2/8	2/15	SCA	Vol. (AF)	Area (mi ²)	2/8	2/15	2/15
21. Upper Shoshone	99	105	6.1	6.8	54.1	542,970	1,505.30	9.0 (4)	9.8 (4)	7.8
22. Upper Snake Basins	53	60	3.8	3.9	50.1	1,465,598	6,974.50	6.8 (10)	7.4 (10)	3.9
23. Upper Yellowstone	79	91	4	4.6	43.4	2,761,053	11,233.00	10.0 (20)	11.1 (20)	5.6
24. Wind	52	56	2.1	2.1	18.6	887,899	7,750.00	6.9 (9)	7.2 (9)	2.0
25. Wood and Lost Basins	52	52	3.8	3.8	37.7	1,517,210	7,420.10	8.0 (16)	8.6 (16)	3.3

‡ Basin boundaries were derived from a combination of NRCS and HUC8 boundaries.

* This is a comparison to the SNODAS (SNOW Data Assimilation System) nationwide product from the National Weather Service.

South Continental

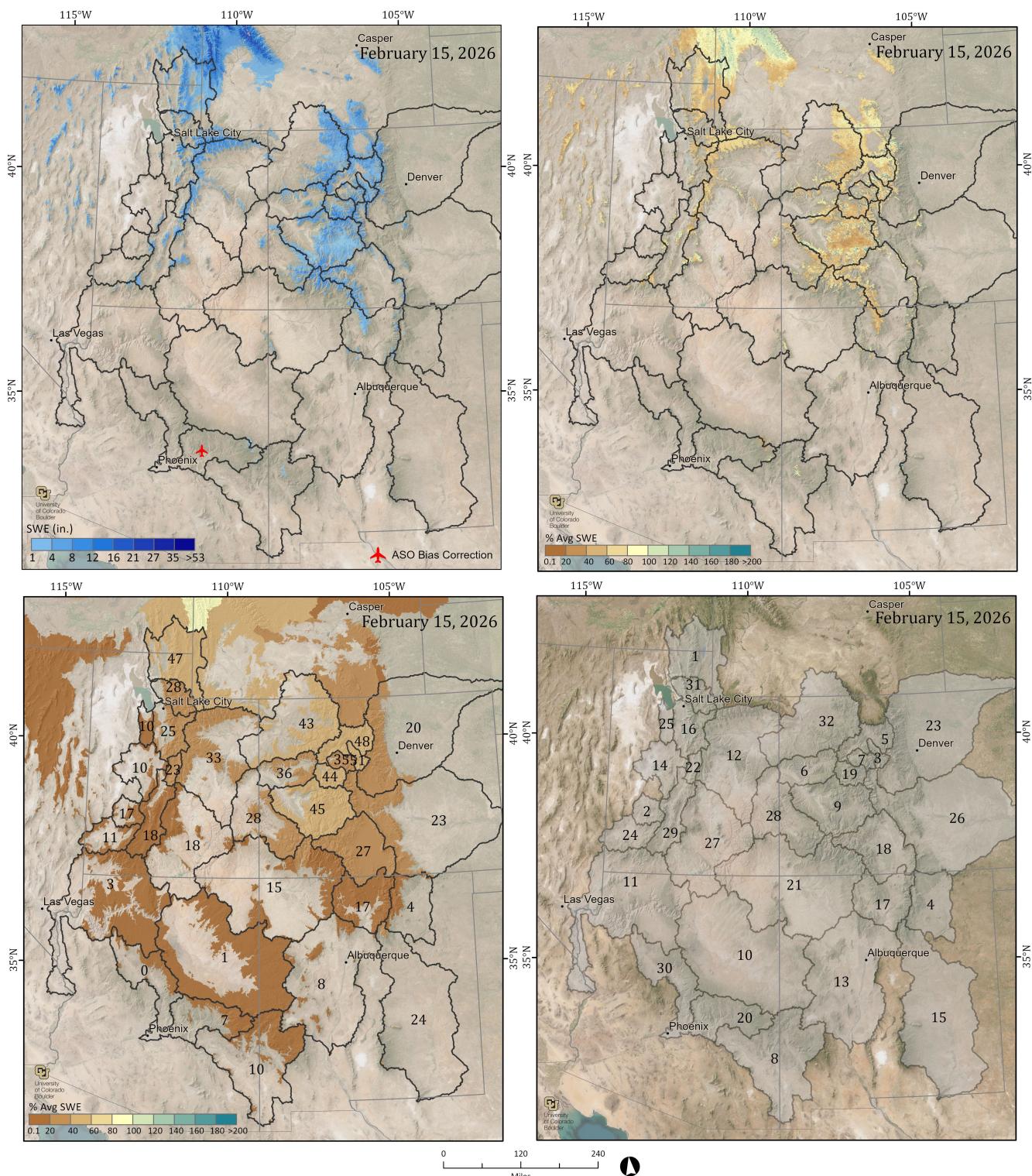


Figure 5. Estimated SWE and % of Average SWE across the South Continental Region. SWE amounts with red airplane markers indicating upper basin areas where the model was bias-corrected by Airborne Snow Observatories data (upper left), percent of long-term average (2001-2025) SWE calculated for each pixel (upper right), basin-wide percent of long-term average (lower left) shaded areas correspond to the elevation bands used in the banded-elevation tables, and basin identification numbers that correspond to Table 3 below (lower right).

Table 3. SWE by watershed. Shown are percent of average SWE to date for the current date (2001-2025 as derived from the regression model), mean SWE for the current report, current percent of snow-covered area, current SWE volume (acre-feet), the area (mi^2) inside each basin that contains data pixels (not including cloud-covered pixels, lakes or other satellite no data pixels), first of the month snow surveys, and current snow pillow sensors (the number of stations are in parentheses), for those areas collected, summarized for each basin. [SWE tables by banded elevation are here.](#)

South Continental SWE Report for 2/15/2026											
Basin	% of Average SWE (in)						Pillows			SNODAS* (in)	
	2/8	2/15	2/8	2/15	SCA	Vol. (AF)	Area (mi^2)	2/8	2/15	2/15	2/15
1. Bear	44	47	3.6	3.8	45.3	1,278,402	6,323.40	7.7 (17)	8.5 (17)	3.2	
2. Beaver	16	17	0.5	0.5	7	23,008	835.5	6.1 (1)	6.3 (1)	0.8	
3. Blue	48	51	4.1	4.3	57.3	158,314	683.9	5.3 (5)	5.7 (5)	4.1	
4. Canadian	6	4	0.2	0.1	2.3	8,022	1,265.80	3.0 (2)	3.2 (2)	0.6	
5. Colorado Headwaters	45	48	3.7	3.8	56.3	588,814	2,906.10	5.6 (13)	6.3 (13)	3.9	
6. Colorado Headwaters-Plateau	36	36	2.8	2.7	39.7	263,456	1,813.00	4.3 (1)	4.9 (1)	1.9	
7. Eagle	34	35	2.8	2.9	37.1	140,312	918	4.1 (3)	4.6 (3)	3.9	
8. Gila	9	10	0	0	1.3	12,078	4,926.30	0.8 (6)	0.9 (6)	0.1	
9. Gunnison	43	45	3.2	3.4	54.1	1,182,300	6,459.70	5.0 (11)	5.7 (11)	3.6	
10. Little Colorado	1	1	0	0	0.4	11,549	16,398.00	2.2 (5)	2.7 (5)	0.0	
11. Lower Colorado Mainstream	3	3	0	0	0.6	17,970	10,697.40	2.5 (5)	2.7 (5)	0.1	
12. Lower Green	31	33	2.3	2.5	33.5	745,511	5,693.80	4.2 (24)	4.8 (24)	2.9	
13. Lower Rio Grande	10	8	0.2	0.2	3.3	14,759	1,796.70	2.3 (6)	2.5 (6)	0.5	
14. Lower Sevier	9	10	0.4	0.5	7	21,849	906.4	2.6 (4)	3.7 (3)	1.3	
15. Pecos	28	24	1.1	0.9	19.2	16,418	332.1	1.7 (2)	1.5 (2)	1.6	
16. Provo-Utah Lake-Jordan	23	25	1.6	1.8	23.5	253,703	2,694.10	6.3 (18)	7.9 (16)	2.8	
17. Rio Chama-Upper Rio Grande	16	17	0.6	0.5	11.4	152,117	5,227.90	3.3 (13)	3.7 (13)	1.3	
18. Rio Grande Headwaters	25	27	1.2	1.2	16.7	484,556	7,613.30	3.8 (14)	4.3 (14)	1.4	

‡ Basin boundaries were derived from a combination of NRCS and HUC8 boundaries.

* This is a comparison to the SNODAS (SNOW Data Assimilation System) nationwide product from the National Weather Service.

** The Animas Basin is part of the San Juan Basin. The values present in the San Juan Basin include those of the Animas by either a summation or weighted average based on the area that is referenced in the table.

§ Data in all ASO-collected basins have been bias-corrected using ASO data and therefore the SWE changes might not represent snowmelt/accumulation but rather an update to the SWE estimates based on airborne data.

South Continental SWE Report for 2/15/2026

Basin	% of Average SWE (in)						Pillows		SNODAS* (in)	
	2/8	2/15	2/8	2/15	SCA	Vol. (AF)	Area (mi ²)	2/8	2/15	2/15
19. Roaring Fork	42	44	4	4.3	56.8	309,745	1,360.30	5.6 (7)	6.3 (7)	4.9
20. Salt§	8	7	0.1	0.1	3.9	11,468	2,360.60	0.9 (8)	1.0 (8)	0.3
21. San Juan**	17	17	0.9	0.9	12.4	318,659	6,425.50	3.9 (14)	5.0 (14)	1.4
22. San Pitch	21	23	1.2	1.4	18.3	62,493	859.5	4.6 (6)	5.4 (6)	1.9
23. South Platte	20	20	0.9	0.9	11	259,552	5,641.90	4.6 (21)	5.0 (21)	1.2
24. Southwestern Utah	10	11	0.2	0.2	3.7	17,638	1,446.90	1.5 (5)	1.7 (5)	0.3
25. Toole Valley-Vernon Creek	8	10	0.3	0.3	3.4	13,365	902.1	2.6 (4)	2.7 (4)	0.5
26. Upper Arkansas	23	23	0.8	0.8	10.8	252,011	5,892.20	2.7 (7)	3.1 (7)	0.7
27. Upper Colorado-Dirty Devil	16	18	0.7	0.8	11.1	111,354	2,608.00	2.9 (7)	3.2 (7)	1.8
28. Upper Colorado-Dolores	27	28	1.6	1.7	28.2	305,943	3,453.30	5.3 (9)	6.0 (9)	2.4
29. Upper Sevier	17	18	0.8	0.9	13.9	180,727	3,767.80	3.1 (15)	3.2 (16)	1.4
30. Verde	0	0	0	0	0	98	1,820.70	0.6 (7)	0.3 (7)	0.1
31. Weber-Ogden	26	28	2.2	2.4	31.7	259,748	2,046.60	5.6 (17)	6.9 (16)	2.8
32. White-Yampa	41	43	3.5	3.5	50.2	1,100,008	5,952.40	8.0 (15)	9.2 (15)	3.4
33. Animas	31	31	2.5	2.6	30.1	128,135	922.5	4.3 (5)	5.5 (6)	3.5

‡ Basin boundaries were derived from a combination of NRCS and HUC8 boundaries.

* This is a comparison to the SNODAS (SNOW Data Assimilation System) nationwide product from the National Weather Service.

** The Animas Basin is part of the San Juan Basin. The values present in the San Juan Basin include those of the Animas by either a summation or weighted average based on the area that is referenced in the table.

§ Data in all ASO-collected basins have been bias-corrected using ASO data and therefore the SWE changes might not represent snowmelt/accumulation but rather an update to the SWE estimates based on airborne data.

Intermountain

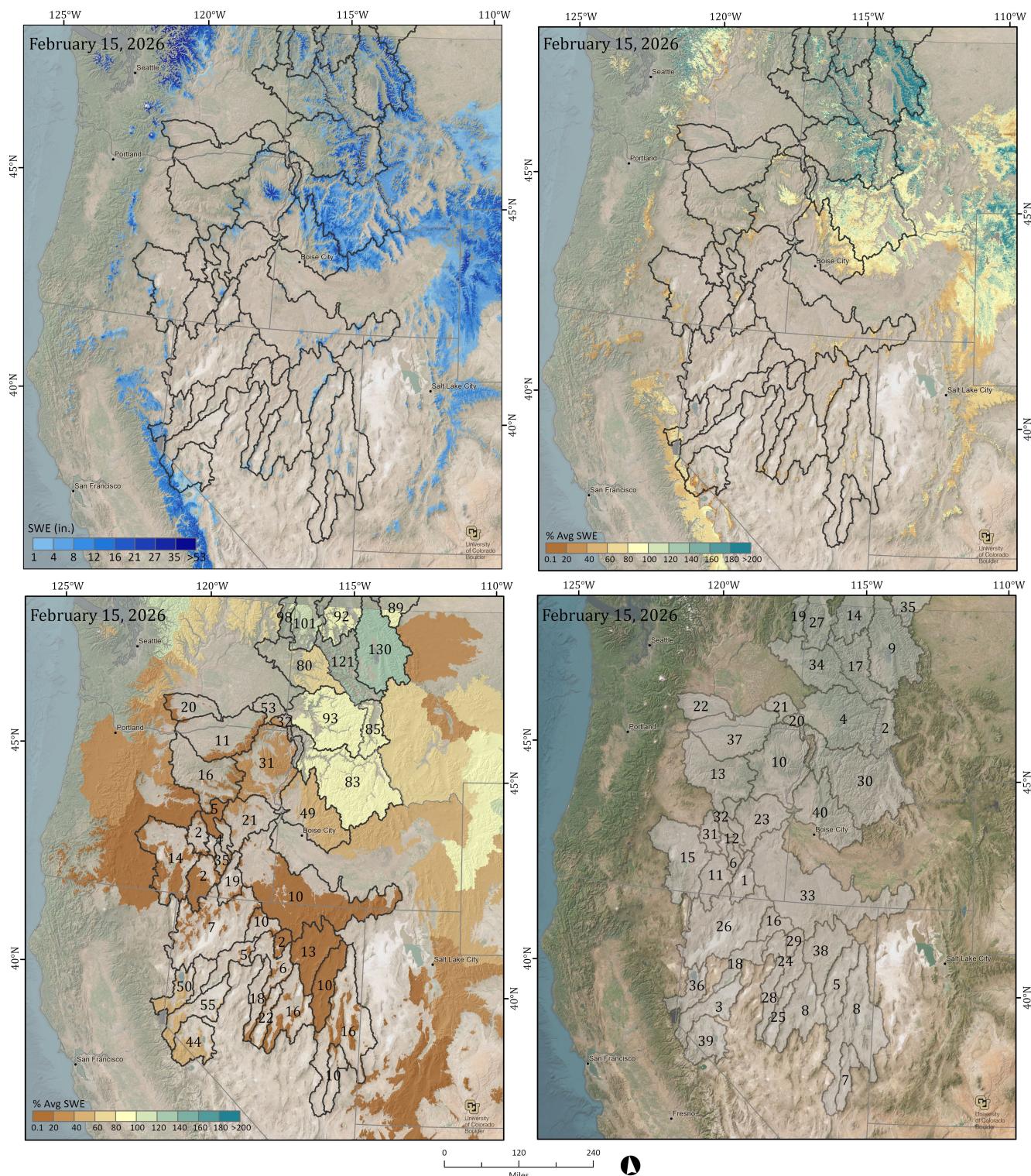


Figure 6. Estimated SWE and % of Average SWE across the Intermountain Region. SWE amounts (upper left), percent of long-term average (2001-2025) SWE calculated for each pixel (upper right), basin-wide percent of long-term average (lower left) shaded areas correspond to the elevation bands used in the banded-elevation tables, and basin identification numbers that correspond to Table 4 below (lower right).

Table 4. SWE by watershed. Shown are percent of average SWE to date for the current date (2001-2025 as derived from the regression model), mean SWE for the current report, current percent of snow-covered area, current SWE volume (acre-feet), the area (mi^2) inside each basin that contains data pixels (not including cloud-covered pixels, lakes or other satellite no data pixels), first of the month snow surveys, and current snow pillow sensors (the number of stations are in parentheses), for those areas collected, summarized for each basin. [SWE tables by banded elevation are here.](#)

Intermountain SWE Report for 2/15/2026											
Basin	% of Average SWE (in)						Pillows		SNODAS* (in)		
	2/8	2/15	2/8	2/15	SCA	Vol. (AF)	Area (mi^2)	2/8	2/15	2/15	
1. Alvord Lake	15	19	0.9	1.2	10.8	20,998	322.7	NA	NA	0.7	
2. Bitterroot	88	85	5.5	5.3	48.9	556,951	1,955.00	9.6 (4)	10.3 (4)	8.1	
3. Carson	52	55	2.4	2.6	25.2	194,625	1,407.70	9.4 (7)	10.0 (7)	3.2	
4. Clearwater Basin	98	93	3.8	3.7	35.6	1,489,343	7,475.20	11.0 (10)	12.3 (10)	7.7	
5. Clover Valley and Franklin	7	10	0.2	0.3	4.3	58,653	4,115.00	3.6 (2)	3.9 (2)	0.1	
6. Donner und Blitzen	26	35	2.4	3.6	40.9	41,669	219.9	3.2 (2)	4.5 (2)	1.9	
7. Dry Lake Valley	8	10	0.3	0.3	5.6	5,379	296.3	NA	NA	0.0	
8. Eastern Nevada	12	16	0.5	0.6	9.5	144,079	4,375.20	3.2 (8)	3.6 (8)	0.5	
9. Flathead	134	130	4.1	4.5	35.2	1,829,294	7,644.30	13.6 (13)	12.9 (12)	8.4	
10. Grande Ronde-Burnt-Powder-Imnaha	31	31	2.2	2.3	22.3	646,335	5,316.00	4.8 (11)	5.8 (10)	2.4	
11. Guano	1	2	0	0.1	0.7	5,587	2,062.90	0.0 (1)	0.0 (1)	0.1	
12. Harney-Malheur Lakes	3	4	0.2	0.2	2.9	2,561	280.6	NA	NA	0.3	
13. John Day	15	16	1	1.1	11.9	84,561	1,504.70	2.5 (2)	3.1 (2)	1.4	
14. Kootenai	116	92	3.7	3.3	28.2	290,826	1,671.80	11.3 (5)	11.7 (5)	8.5	
15. Lake County-Goose Lake	12	14	0.6	0.7	11.5	132,648	3,623.70	3.6 (2)	4.2 (2)	0.6	
16. Little Humboldt	9	10	0.5	0.6	6.7	13,299	420.8	1.8 (3)	2.5 (2)	0.9	
17. Lower Clark Fork	139	121	5.9	5.7	51.9	450,506	1,474.70	24.1 (3)	19.2 (4)	11.6	
18. Lower Humboldt	4	5	0.1	0.2	1.8	2,520	272.6	0.0 (1)	0.0 (1)	0.1	
19. Lower Pend Oreille	100	98	6.5	6.5	54.9	45,943	133.4	10.0 (1)	10.8 (1)	13.9	

‡ Basin boundaries were derived from a combination of NRCS and HUC8 boundaries.

* This is a comparison to the SNODAS (SNOw Data Assimilation System) nationwide product from the National Weather Service.

Intermountain SWE Report for 2/15/2026											
Basin	% of Average SWE (in)						Pillows		SNODAS* (in)		
	2/8	2/15	2/8	2/15	SCA	Vol. (AF)	Area (mi ²)	2/8	2/15	2/15	
20. Lower Snake-Asotin	26	32	0.8	0.9	16.5	16,234	333.7	0.0 (1)	0.3 (1)	1.5	
21. Lower Snake-Tucannon	45	53	2.8	3.2	51.5	18,334	108.3	NA	NA	5.9	
22. Lower Yakima	19	20	1	1.1	15.7	28,119	485	7.7 (2)	7.5 (2)	2.5	
23. Malheur	19	21	1.3	1.4	20.5	75,909	989.2	2.6 (3)	2.8 (3)	1.6	
24. Middle Humboldt	6	6	0.2	0.2	2.1	7,091	633	NA	NA	0.2	
25. Northern Big Smoky Valley	17	22	0.7	1	16.3	31,461	572.8	NA	NA	0.9	
26. Northern Great Basin	6	7	0.3	0.3	4	38,363	2,224.90	1.2 (2)	1.4 (2)	0.6	
27. Panhandle Basins	114	101	3.9	3.8	37.2	332,596	1,644.60	14.4 (3)	14.8 (3)	8.4	
28. Reese	14	18	0.6	1	14.1	25,464	496.9	2.7 (2)	3.1 (2)	0.6	
29. Rock	2	2	0.1	0.1	0.8	3,741	835.5	5.2 (1)	5.5 (1)	0.1	
30. Salmon Basin	81	83	6.5	6.5	67.9	4,129,849	11,950.50	11.6 (11)	12.9 (11)	8.4	
31. Silver	1	2	0.1	0.1	1.5	1,969	444.3	NA	NA	0.3	
32. Silvies	5	5	0.3	0.3	4.6	18,906	1,317.40	1.3 (2)	1.8 (2)	0.4	
33. Southern Snake Basins	9	10	0.4	0.4	4.1	257,750	12,552.70	2.6 (11)	3.1 (11)	0.3	
34. Spokane	89	80	2.3	2.2	27	371,448	3,142.80	5.6 (8)	6.2 (8)	4.5	
35. St. Mary	87	89	4.8	5.3	35.9	190,177	668.1	1.6 (1)	1.6 (1)	7.3	
36. Truckee	42	50	2.4	2.8	28.6	218,649	1,443.60	9.8 (9)	10.4 (9)	3.7	
37. Umatilla-Walla Walla-Willow	8	11	0.3	0.3	4.9	24,633	1,434.30	3.4 (7)	4.0 (7)	0.8	
38. Upper Humboldt	11	13	0.5	0.6	6.9	150,329	5,035.80	3.0 (8)	3.2 (8)	0.4	
39. Walker	40	44	1.7	2.2	41.5	225,344	1,942.90	11.2 (7)	11.9 (7)	3.0	
40. West Central Basins	48	49	4.8	4.9	52.5	1,490,500	5,702.10	7.7 (14)	9.8 (15)	6.2	

‡ Basin boundaries were derived from a combination of NRCS and HUC8 boundaries.

* This is a comparison to the SNODAS (SNOW Data Assimilation System) nationwide product from the National Weather Service.

Sierra Nevada

There is a separate SWE report which also includes maps and tables that has a stronger focus on the Sierra Nevada, it is available [here](#). The Sierra report incorporates additional vetting and can include bias-corrections with Airborne Snow Observatory data. Below is one of the maps from the current report.

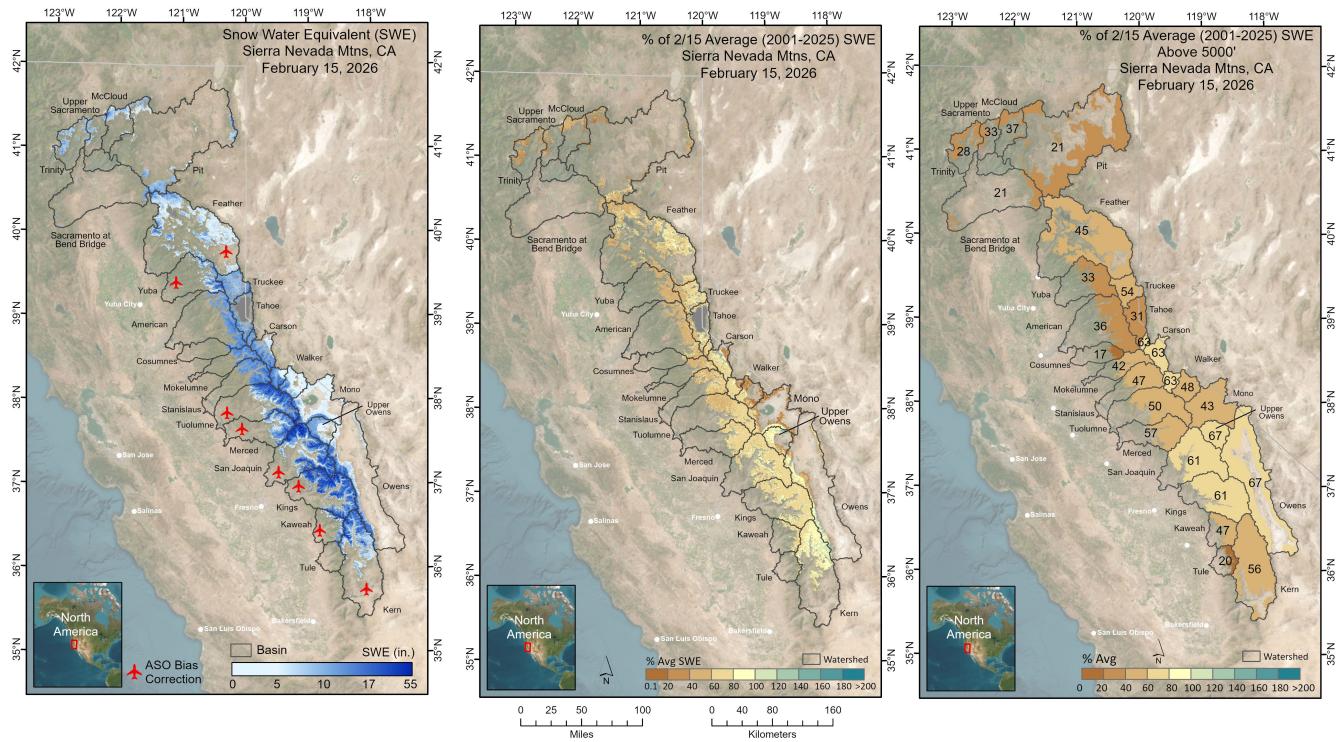


Figure 7. Estimated SWE and % of Average SWE across the Sierra Nevada. SWE amounts with red airplane markers indicating upper basin areas where the model was bias-corrected by Airborne Snow Observatories data (left), and percent of average (2001-2025) SWE for the Sierra Nevada, calculated for each pixel (middle) and basin-wide (right). Basin-wide percent of average is calculated across all model pixels >5000' elevation.

Table 5. SWE by watershed. Shown are percent of average SWE to date for the current date (2001-2025 as derived from the regression model), mean SWE for the current report, current percent of snow-covered area, current SWE volume (acre-feet), the area (mi^2) inside each basin that contains data pixels (not including cloud-covered pixels, lakes or other satellite no data pixels), first of the month snow surveys, and current snow pillow sensors (the number of stations are in parentheses), for those areas collected, summarized for each basin. [SWE tables by banded elevation are here.](#)

Sierra Nevada SWE Report for 2/15/2026											
Basin	% of Average		SWE (in)				Pillows		SNODAS* (in)		
	2/8	2/15	2/8	2/15	SCA	Vol. (AF)‡	Area (mi^2)	2/8	2/15	2/15	
0. Trinity	29	28	4.7	4.3	57.1	73,077	321.4	4.1 (7)	4.3 (7)	4.1	
1. Upper Sacramento	35	33	5.5	4.8	61.9	29,263	115.2	7.9 (2)	8.1 (2)	7.3	
2. McCloud	36	37	4.8	4.5	70.9	39,749	164.9	9.6 (1)	10.6 (1)	12.7	
3. Pit	19	21	1.1	1.2	16.6	135,577	2,086.20	6.5 (5)	7.7 (5)	3.1	
4. Sacramento at Bend Bridge	23	21	2.1	2	21.4	25,938	240	NA	NA	4.5	
5. Feather§	37	45	4	2.6	56.2	298,999	2,117.50	8.7 (7)	8.6 (7)	5.1	
6. Yuba§	30	33	3.8	4.1	46.5	116,312	525.6	11.7 (4)	13.2 (4)	6.4	
7. American	34	36	4.8	5.4	46.9	230,531	807	7.7 (13)	9.1 (12)	5.6	
8. Cosumnes	15	17	1.3	1.6	15	7,848	91.9	NA	NA	1.2	
9. Mokelumne	43	42	5.9	6.2	49.8	104,579	317.9	11.1 (3)	12.1 (3)	6.7	
10. Stanislaus	47	47	6.6	6.9	53.4	208,570	562.9	13.8 (4)	14.7 (4)	6.4	
11. Tuolumne§	55	50	8.1	7.6	52.8	370,882	915	9.5 (8)	11.4 (7)	8.6	
12. Merced§	61	57	8.1	6.4	59.2	182,730	539.4	16.6 (2)	17.5 (2)	11.8	
13. San Joaquin§	67	61	9.5	8.9	63.3	581,118	1,225.40	9.5 (7)	10.8 (7)	12.4	
14. Kings§	71	61	9.7	9	55.8	585,211	1,213.40	15.2 (7)	15.6 (7)	10.8	
15. Kaweah§	51	47	5.1	3.7	31.4	62,863	314.4	11.4 (1)	12.1 (1)	6.1	
16. Tule	21	20	1	1	7.3	7,526	137.6	1.7 (1)	1.4 (1)	0.8	
17. Kern§	64	56	3.9	3.5	30.6	318,516	1,682.80	10.9 (5)	11.5 (5)	3.3	

* This is a comparison to the SNODAS (SNOW Data Assimilation System) nationwide product from the National Weather Service.

‡ For volume totals above Shasta Lake add Upper Sac, McCloud and Pit volumes. For volume totals above Bend Bridge add Upper Sac, McCloud, Pit and Sac at Bend Bridge volumes.

§ Data in all ASO-collected basins have been bias-corrected using ASO data and therefore the SWE changes might not represent snowmelt/accumulation but rather an update to the SWE estimates based on airborne data.

Sierra Nevada SWE Report for 2/15/2026

Basin	% of Average SWE (in)						Pillows		SNODAS* (in)	
	2/8	2/15	2/8	2/15	SCA Vol. (AF)‡	Area (mi ²)	2/8	2/15	2/15	2/15
18. Truckee	45	54	6.1	7.2	74.6	163,648	425.4	9.2 (6)	9.8 (6)	9.9
19. Tahoe	30	31	3.9	4.1	37.2	112,223	508.3	8.8 (7)	9.4 (7)	8.1
20. W Carson	62	63	9.5	9.8	87.8	34,189	65.3	12.3 (3)	13.1 (3)	12.2
21. E Carson	61	63	6.4	6.9	67.1	131,628	355.2	7.2 (4)	7.7 (4)	7.5
22. W Walker	69	63	9.5	9.2	83.5	88,228	179.8	12.8 (4)	13.3 (4)	11.8
23. E Walker	45	48	3	3.9	83.6	73,471	356.3	9.9 (1)	10.7 (1)	6.4
24. Mono	41	43	1.6	2.1	60.2	122,385	1,085.80	NA	NA	5.2
25. Upper Owens	65	67	5	5.3	80.3	107,714	382.7	19.5 (1)	21.2 (1)	11.7
26. Owens	75	67	2.7	2.6	26.1	249,148	1,772.90	8.9 (4)	9.5 (4)	2.3

* This is a comparison to the SNODAS (SNOw Data Assimilation System) nationwide product from the National Weather Service.

‡ For volume totals above Shasta Lake add Upper Sac, McCloud and Pit volumes. For volume totals above Bend Bridge add Upper Sac, McCloud, Pit and Sac at Bend Bridge volumes.

§ Data in all ASO-collected basins have been bias-corrected using ASO data and therefore the SWE changes might not represent snowmelt/accumulation but rather an update to the SWE estimates based on airborne data.

Elevation Banded SWE Tables

Due to the length of the banded elevation tables (tables 6-10), that data is being hosted on our GitHub repository. Direct links to all of the tables are below. Access to the GitHub repository for the tables in CSV format is [here](#).

- [Pacific Northwest \(Table 6\)](#)
- [North Continental \(Table 7\)](#)
- [South Continental \(Table 8\)](#)
- [Intermountain \(Table 9\)](#)
- [Sierra Nevada \(Table 10\)](#)

The value of spatially explicit estimates of SWE

Snowmelt makes up the large majority (~60-85%) of the annual streamflow in the Western U.S. The spatial distribution of SWE across the landscape is complex. While broad aspects of this spatial pattern (e.g., more SWE at higher elevations and on north-facing exposures) are fairly consistent, the details vary a lot from year to year, influencing the magnitude and timing of snowmelt-driven runoff.

SWE is operationally monitored at hundreds of NRCS SNOTEL and California DWR CDEC snow pillow sites spread across the Western U.S., providing a critical first-order snapshot of conditions, and the basis for runoff forecasts from the CA DWR, NRCS and NOAA. However, conditions at snow pillow sites (e.g., percent of normal SWE) may not be representative of conditions in the large areas between these point measurements, and at elevations above and below the range of the pillow sites. The spatial SWE-fusion creates a detailed picture of the spatial pattern of SWE using snow pillows, satellite, and other data, extending beyond the snow pillow sites to unmonitored areas.

Interpreting the spatial SWE estimates in the context of snow pillow sites

The spatial SWE-fusion product estimates SWE for every pixel where the fractional snow-covered area (fSCA) satellite product identifies snow-cover. Comparatively, snow pillow samples on average 8-20 points per basin within a narrower elevation range. Thus, the basin-wide percent of long-term average from the spatial SWE-fusion estimates is not directly comparable with the snow pillow basin-wide percent of average. A better comparison might be made with the % average in the elevation bands ([elevation-banded tables 6-10](#)) that contain snow pillow sites.

Location of Reports, Excel Format Tables, and JPG Maps

<https://github.com/CU-Mountain-Hydrology/WestWide>

Methods

The spatial SWE-fusion estimation method is described in Yang, et. al. (2022) and Schneider and Molotch (2016). The method uses a General Linear Regression Model in which the dependent variable is derived from the operationally measured in situ SWE from all online NRCS SNOTEL and CDEC snow pillow sites in the domain and when applicable the CoCoRaHS SWE values. The gridded model output is then scaled by the fractional snow-covered area (fSCA). The fSCA is a near-real-time cloud-free daily satellite image from the Snow Today fSCA image (Rittger, et. al. 2019, <https://nsidc.org/snow-today>) which uses the SPIReS algorithm (Bair, et al. 2021).

The following independent variables (predictors) enter into the generalized linear regression model:

- Physiographic variables that affect snow accumulation, melt, and redistribution, including elevation, latitude, upwind mountain barriers, slope, and others. See Table 1 in Yang, et. al., (2022) for the full set of these variables.
- The historical daily SWE pattern (1985-2021) retrospectively generated using historical Landsat data, and an energy-balance model that back-calculates SWE given the fractional Snow-Covered Area (fSCA) time series and meltout date for each pixel. See Fang, et. al., (2022) for details. (For computational efficiency, only one image during the 1985-2021 period that best matches the real-time snow pillow-observed pattern is selected as an independent variable.)
- Satellite-observed daily mean fractional snow-covered area (DMFSCA) derived from Rittger, et. al., (2019) data.

The real-time regression model for this date has been validated by cross-validation, whereby 10% of the snow pillow data are randomly removed and the model prediction is compared to the measured value at the removed snow pillow stations. This is repeated 30 times to obtain an average R-squared value, which denotes how closely the model fits the snow pillow data. During development of this regression method, the model was also validated against independent historical SWE data from Airborne Snow Observatory lidar data and from snow surveys at 10 locations in Colorado.

List of All Known Data Issues/Caveats

- SATELLITE FSCA – Recent snowpack accumulation particularly in the Arizona / NM region may be under-estimated due to issues with satellite-observed fSCA.
- GLACIER & NON-SEASONAL SNOW – SWE values on non-seasonal snow and glaciers need to be excluded before data analysis.
- RECENT SNOWFALL – There are occasionally problems with lower-elevation SWE estimates due to recent snowfall events that result in extensive snow-cover extending to valley locations where measurements are not available. This scenario results in an over-estimation of lower- elevation SWE.
- LIMITED SNOW PILLOW DATA – When snow at the snow pillow sites melts out, but remains at higher elevations, the model tends to overestimate SWE at the under-monitored upper elevations. This issue typically occurs late in the melt season, resulting in less accurate SWE prediction at higher elevations compared to earlier in the snow season.
- CLOUD COVER – Cloud cover can obscure satellite measurements of snow-cover. While careful checks are made, occasionally the misclassification of clouds as snow or vice versa may result in the mischaracterization of SWE or bare ground.
- POOR QUALITY SNOW SENSOR DATA – Although data QA/QC is performed, occasional SNOTEL sensor malfunction may result in localized SWE errors.
- ANOMALOUS SNOW PATTERNS – Anomalous snow years or snow distributions may cause SWE error due to the model design to search for similar SWE distributions from previous years. If no close seasonal analogue exists, the model is forced to find the most similar year, which may result in error.
- DENSE FOREST COVER – Dense forest cover at lower elevations where snow-cover is discontinuous can cause the satellite to underestimate the snow-cover extent, leading to underestimation of SWE.
- PERCENT OF AVERAGE CALCULATIONS – Data utilized to generate this report change to optimize model performance. To maintain consistency across the historical record, the percent of average values are based on our baseline algorithm and therefore there can be discrepancies between absolute SWE values and corresponding percent of averages.
- MODELING METHODS – We work to generate the best SWE estimates for each reporting date. Our methods can change from one report to another. Sometimes data changes between reports is an artifact of method changes.
- EARLY SEASON FSCA ERRORS – The gap-filled fSCA requires some cloud-free images to determine fSCA amounts. Early in the season and if it has been particularly cloudy the algorithm hasn't had time to calculate fSCA amounts in some areas, typically in the Pacific Northwest and northern areas of the domain.

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