



WATER AVAILABILITY TASK FORCE MEETING

February 16, 2011

January (Feb. 1) SWSI Report

Sarah Reinsel, P.E.

Colorado Division of Water Resources

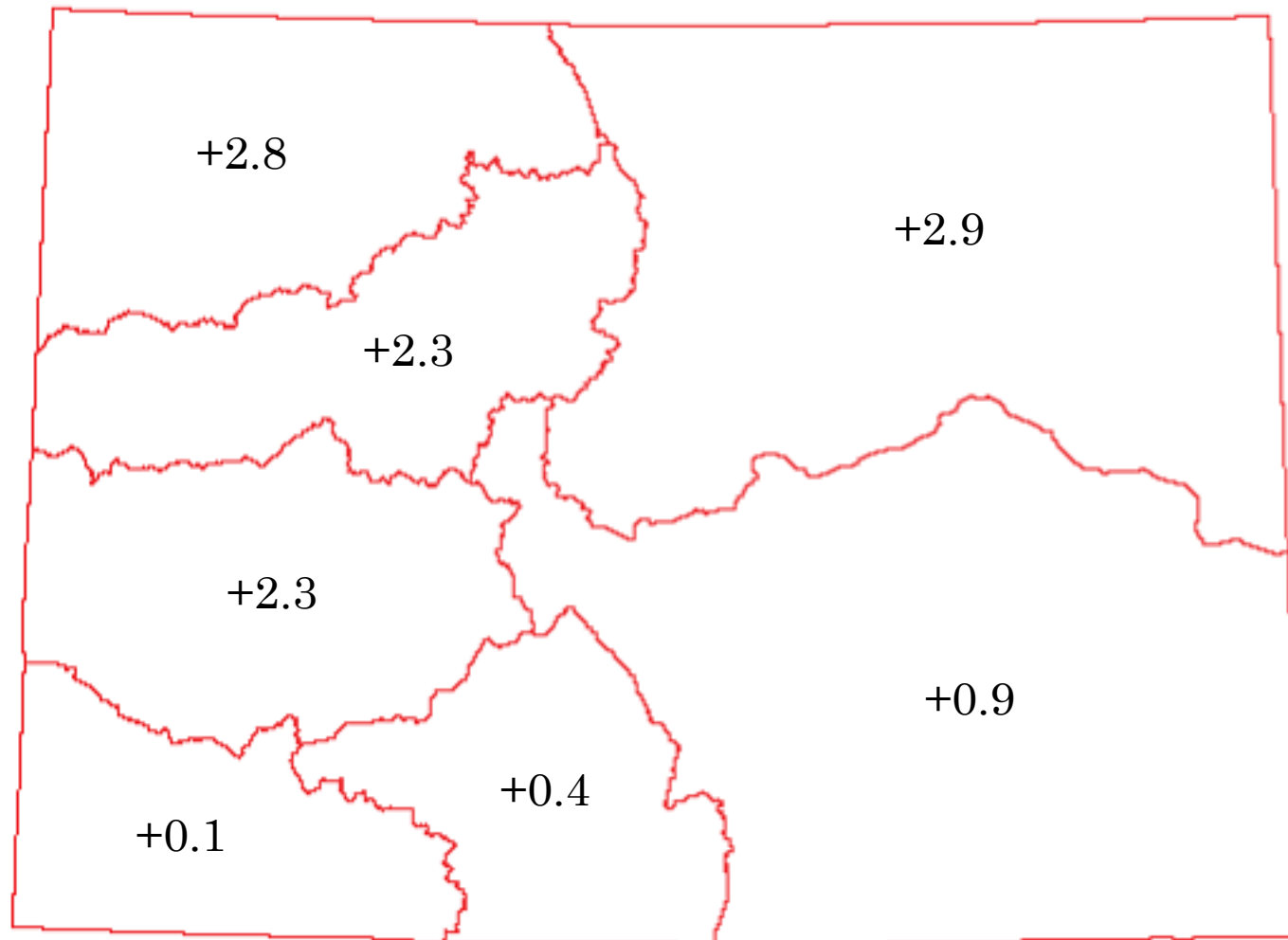


WINTER SWSI

- For the winter period of November – April, the SWSI value is calculated by the Natural Resources Conservation Service (NRCS)
- The components used are Snowpack (P_{SP}), Precipitation (P_{PCP}), and Reservoir Storage (P_{RS}), along with each basin's winter weighting factors



SURFACE WATER SUPPLY INDEX FOR COLORADO



February 1, 2011



DIVISION 1 – SOUTH PLATTE BASIN

$$SWSI = \frac{(0.27 \times P_{SP}) + (0.18 \times P_{PCP}) + (0.55 \times P_{RS}) - 50}{12}$$

- The SWSI value for the month was +2.9, up 0.4 from last month's value.
- As of February 1, 2011:
 - Snowpack was 118% of normal
 - Reservoir storage was 105% of normal
 - Flow in the South Platte River near Kersey was 83% of normal
- January was cold and dry, and February is anticipated to be warmer but dry.
- If current storage and snowpack trends continue, overall water supply should be near normal.



DIVISION 2 – ARKANSAS BASIN

$$SWSI = \frac{(0.51 \times P_{SP}) + (0.34 \times P_{PCP}) + (0.15 \times P_{RS}) - 50}{12}$$

- The SWSI value for the month was +0.9, down 0.4 from last month's value.
- As of February 1, 2011:
 - Snowpack was 96% of normal
 - Reservoir storage was 99% of normal
 - Flow in the Arkansas River near Portland was 116% of normal
- Conservation storage amounts in Pueblo Reservoir and John Martin Reservoir are lower than last year, but plenty of additional storage space is available.



DIVISION 3 – RIO GRANDE BASIN

$$\text{SWSI} = \frac{(0.63 \times P_{\text{SP}}) + (0.32 \times P_{\text{PCP}}) + (0.05 \times P_{\text{RS}}) - 50}{12}$$

- The SWSI value for the month was +0.4, down 1.3 from last month's value.
- As of February 1, 2011:
 - Snowpack was 85% of normal
 - Reservoir storage was 104% of normal
 - Flow in the Rio Grande near Del Norte was 109% of normal
- The sun is shining and the sky is blue
there's snow in the mountains
and stock on the plains.
But I have a suspicion that all is not well,
last summer was dry and '11 will be too
for Water Districts 35, 20, 21, 24, 25, 26 and 22.
– Pat McDermott, Division 3 Staff Engineer and SWSI Poet



DIVISION 4 – GUNNISON BASIN

$$SWSI = \frac{(0.54 \times P_{SP}) + (0.36 \times P_{PCP}) + (0.10 \times P_{RS}) - 50}{12}$$

- The SWSI value for the month was +2.3, down 1.3 from last month's value.
- As of February 1, 2011:
 - Snowpack was 128% of normal
 - Reservoir storage was 112% of normal
 - Flow in the Uncompahgre River near Ridgeway was 108% of normal
- Precipitation was below average for January, but seasonally is still above average. Snowpack also remains above average.
- Still no measurable dust-on-snow events
- Great ski conditions!



DIVISION 5 – COLORADO BASIN

$$SWSI = \frac{(0.51 \times P_{SP}) + (0.34 \times P_{PCP}) + (0.15 \times P_{RS}) - 50}{12}$$

- The SWSI value for the month was +2.3, down 0.5 from last month's value.
- As of February 1, 2011:
 - Snowpack was 129% of normal
 - Reservoir storage was 113% of normal
 - Flow in the Uncompahgre River near Ridgeway was 95% of normal
- Cold temperatures have caused stream flows to fall below average, and snowpack to remain well above average.
- Silt WCD is investigating interest in a domestic water delivery system for Silt Mesa residents.



DIVISION 6 – YAMPA/WHITE BASIN

$$SWSI = \frac{(0.60 \times P_{SP}) + (0.40 \times P_{PCP}) - 50}{12}$$

- The SWSI value for the month was +2.8, down 0.9 from last month's value.
- As of February 1, 2011:
 - Snowpack was 134% of normal for the North Platte and 124% of normal for the Yampa/White
 - Flow in the Yampa River near Steamboat was 122% of normal
- Water supply still looking good.
- Outstanding conditions for winter recreation throughout the basin, with good ice fishing on Steamboat Lake and Stagecoach Reservoir reported.



DIVISION 7 – SAN JUAN/DOLORES BASIN

$$\text{SWSI} = \frac{(0.54 \times P_{\text{SP}}) + (0.36 \times P_{\text{PCP}}) + (0.10 \times P_{\text{RS}}) - 50}{12}$$

- The SWSI value for the month was +0.1, down 2.8 from last month's value.
- As of February 1, 2011:
 - Snowpack was 106% of normal
 - Reservoir storage was 105% of normal
 - Flow in the Animas River near Durango was 93% of normal
- January precipitation total (0.03 inches) was the lowest recorded amount in 117 years.



QUESTIONS?

