NRCS – Snow Survey & Water Supply Forecasting

Water Availability Task Force Meeting July 18th, 2013

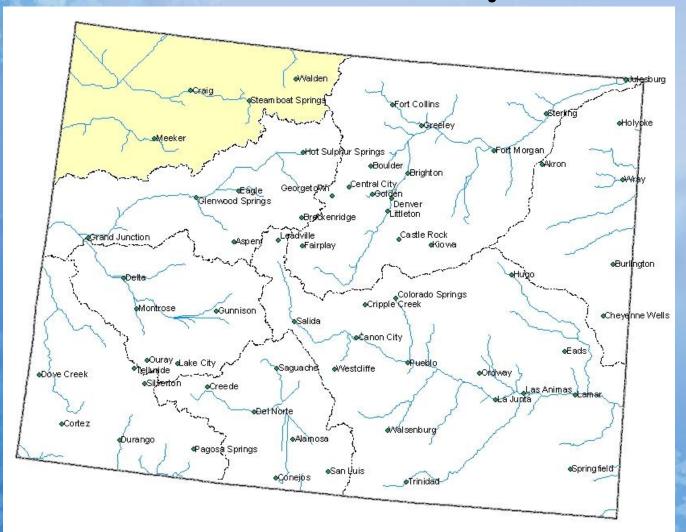
Mage Hultstrand

Assistant Snow Survey Supervisor 720-544-2855

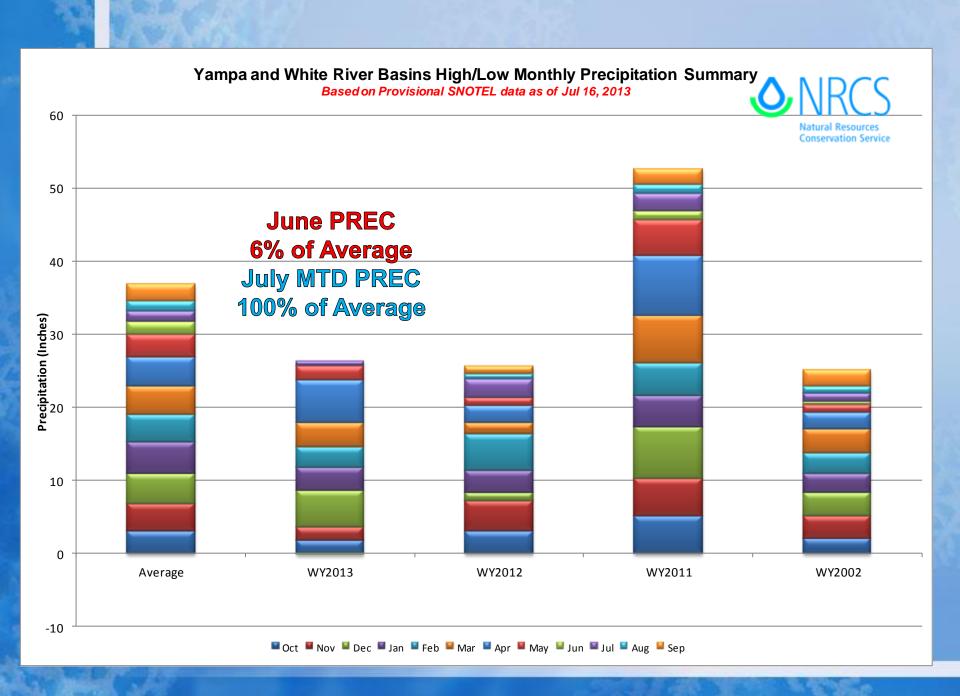
mage.hultstrand@co.usda.gov

http://www.co.nrcs.usda.gov/snow/

Yampa, White & North Platte River Basins Summary

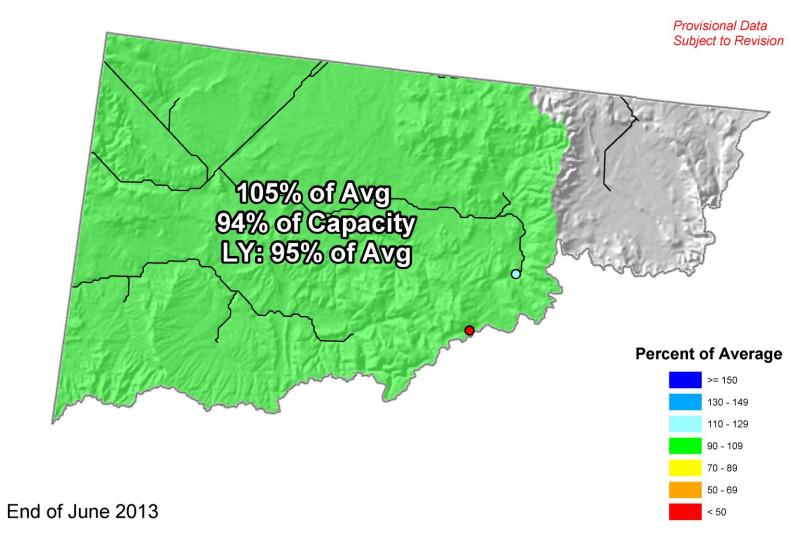


Yampa and White River Basins High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jul 16, 2013 Current as Pct of Average: 81% Conservation Service Current as Pct of Last Year: 116% Current as Pct of Average Annnual Total: 71% Average as Pct of Average Annual Total: 88%
Pct of Avg Needed to Reach Avg Annual Total: 233% 50 Year-to-Date Precipitation (inches) 10 Oct 01 Nov 01 Dec 01 Jan 01 Feb 01 Mar 01 Apr 01 May 01 Jun 01 Jul 01 Aug 01 Sep 01 WY2011 Average WY2002 WY2012 **W**Y2013 Median Maximum Mininum

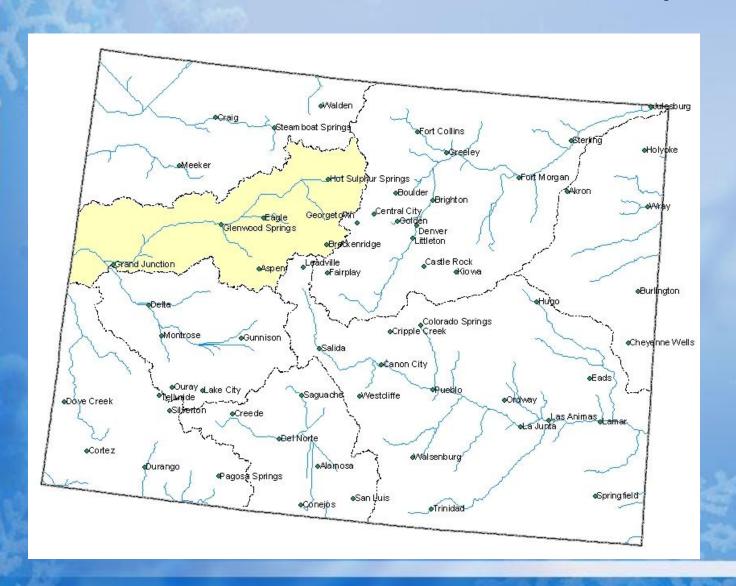


Yampa & White River Basins Reservoir Storage Map



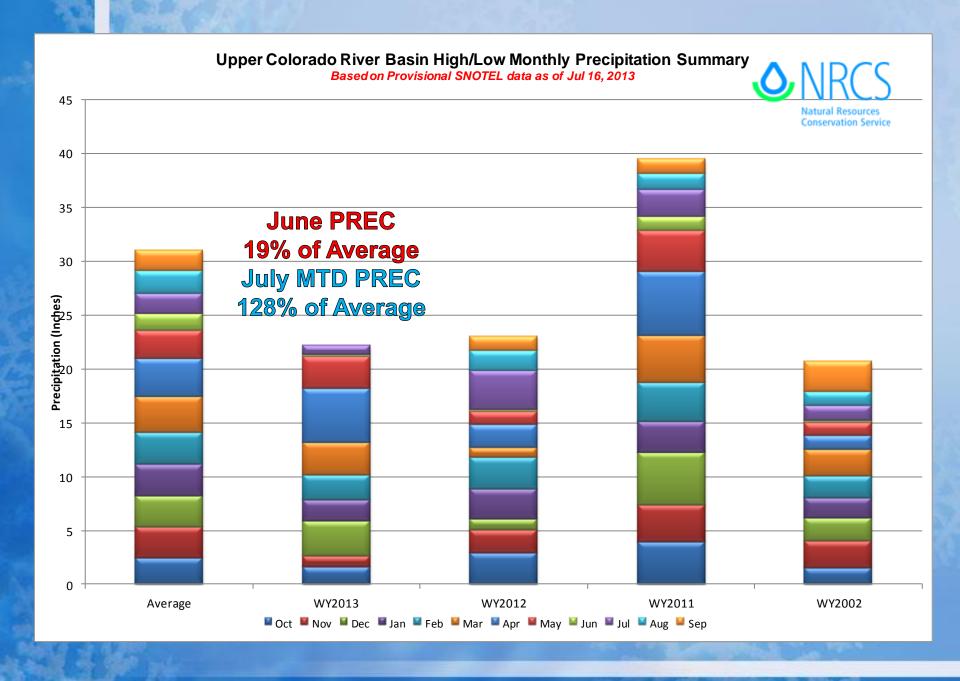


Colorado River Basin Summary



Upper Colorado River Basin High/Low Year-to-Date Precipitation Summary

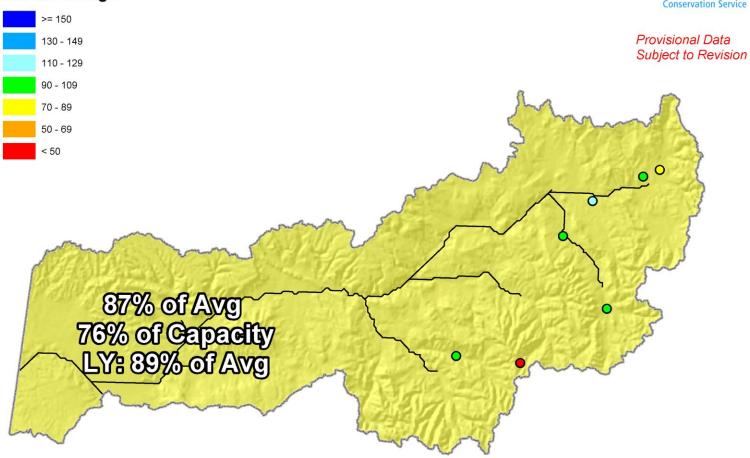
Based on Provisional SNOTEL data as of Jul 16, 2013 45 Current as Pct of Average: 86% Conservation Service Current as Pct of Last Year: 123% Current as Pct of Average Annnual Total: 72% Average as Pct of Average Annual Total: 83% Pct of Avg Needed to Reach Avg Annual Total: 169% 35 Year-to-Date Precipitation (inches) 10 5 Oct 01 Nov 01 Dec 01 Sep 01 Jan 01 Feb 01 Mar 01 Apr 01 May 01 Jun 01 Jul 01 Aug 01 Average WY2002 WY2011 Maximum WY2012 **■**WY2013 Median Mininum



Colorado River Basin Reservoir Storage Map

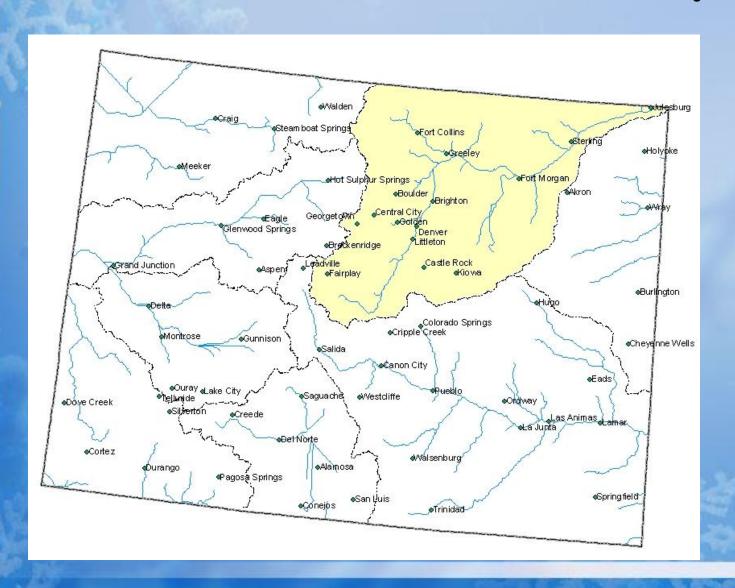


Percent of Average



End of June 2013

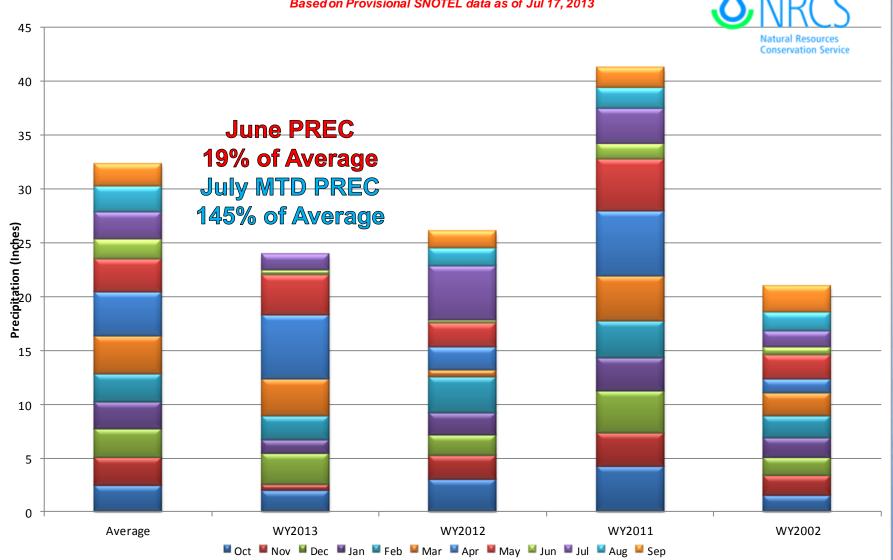
South Platte River Basin Summary



South Platte River Basin High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jul 16, 2013 Current as Pct of Average: 91% Conservation Service Current as Pct of Last Year: 117% Current as Pct of Average Annnual Total: 74% Average as Pct of Average Annual Total: 81% Pct of Avg Needed to Reach Avg Annual Total: 138% 35 Year-to-Date Precipitation (inches) 10 5 Oct 01 Dec 01 Jan 01 Feb 01 Mar 01 Apr 01 May 01 Jun 01 Jul 01 Aug 01 Sep 01 Nov 01 WY2002 WY2011 WY2012 WY2013 Median Mininum Average Maximum

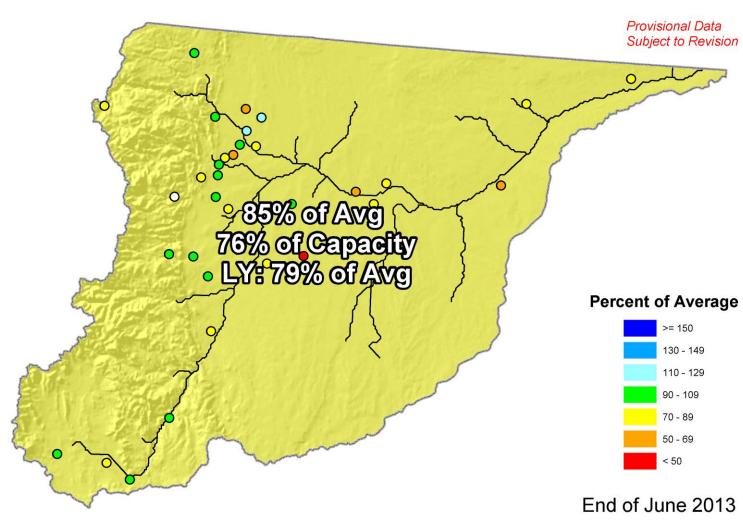
South Platte River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Jul 17, 2013



South Platte River Basin Reservoir Storage Map

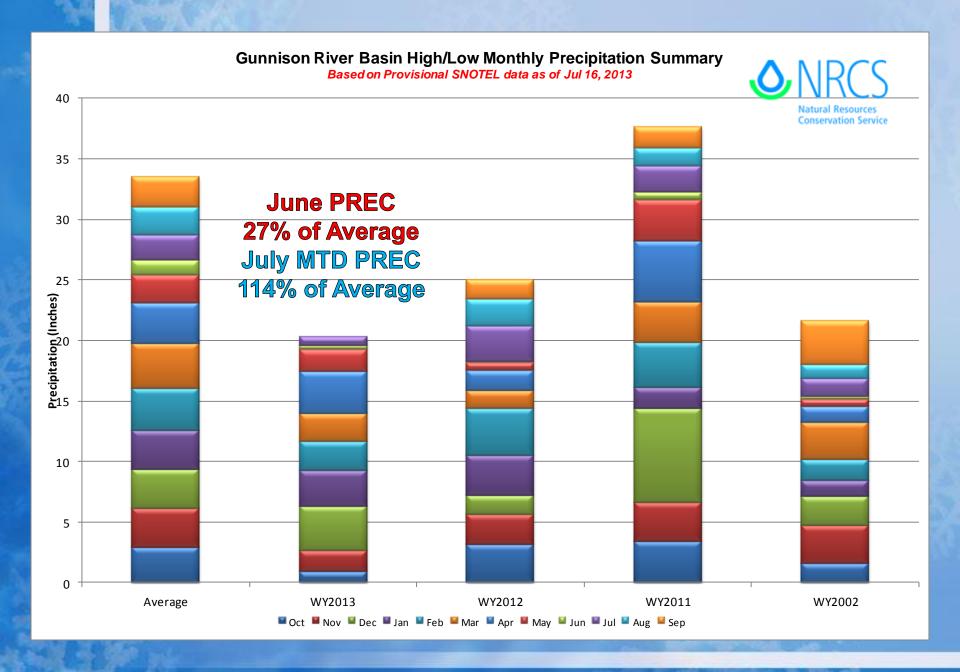


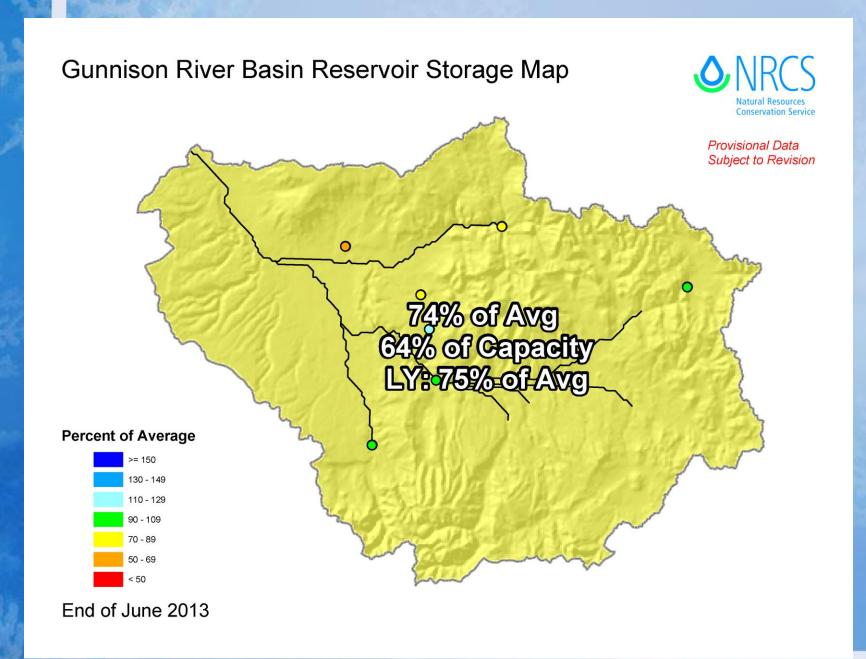


Gunnison River Basin Summary

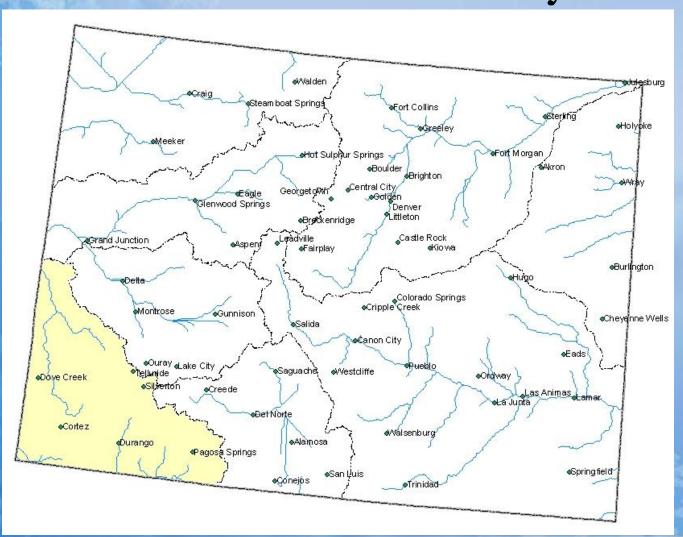


Gunnison River Basin High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jul 16, 2013 50 Current as Pct of Average: 74% Conservation Service Current as Pct of Last Year: 102% Current as Pct of Average Annnual Total: 61% Average as Pct of Average Annual Total: 81%
Pct of Avg Needed to Reach Avg Annual Total: 213% 40 35 Year-to-Date Precipitation (inches) 10 5 Oct 01 Nov 01 Dec 01 Jan 01 Feb 01 Mar 01 Apr 01 May 01 Jun 01 Jul 01 Aug 01 Sep 01 Average WY2002 WY2011 WY2012 **W**Y2013 Median Maximum Mininum



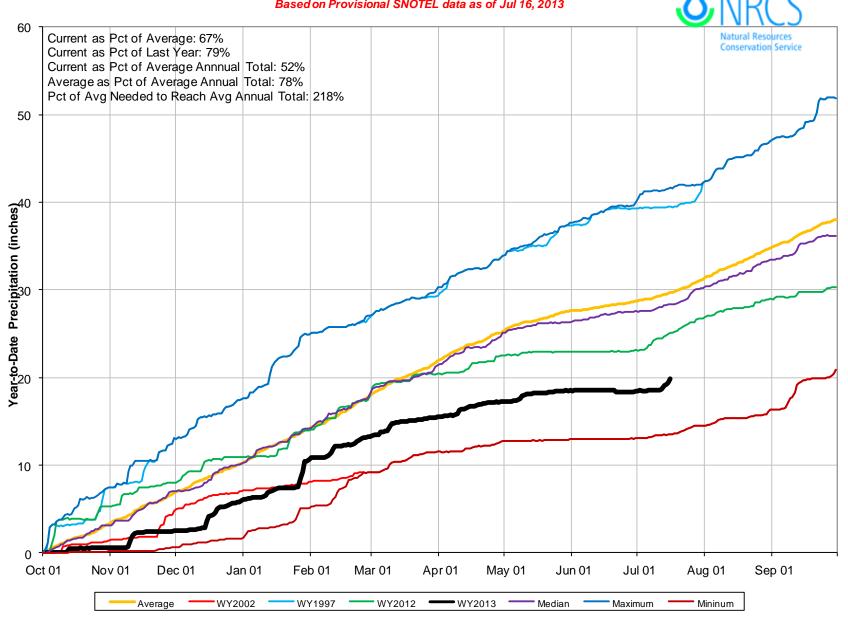


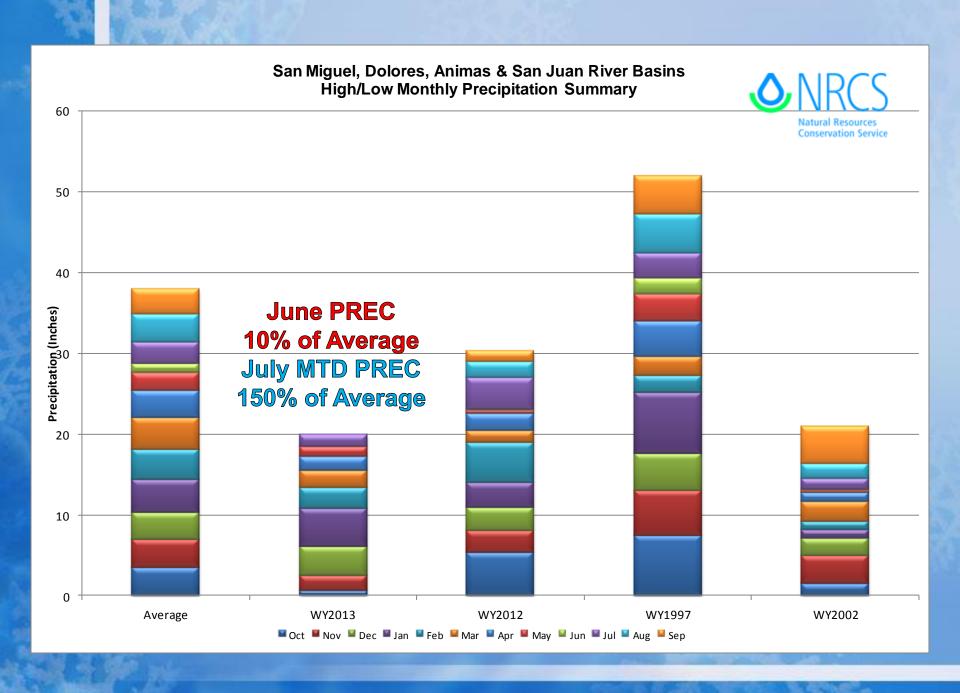
San Miguel, Dolores, Animas & San Juan River Basins Summary



San Miguel, Dolores, Animas & San Juan River Basins High/Low Year-to-Date Precipitation Summary
Based on Provisional SNOTEL data as of Jul 16, 2013





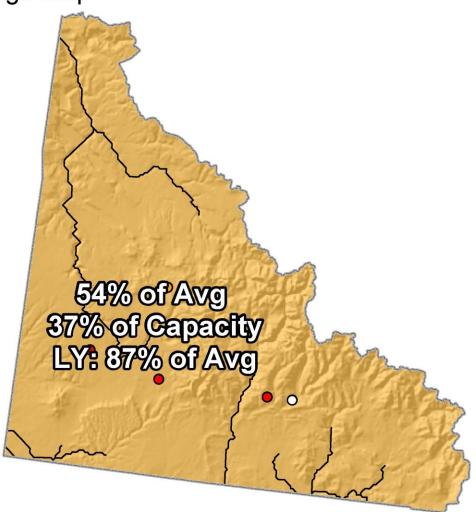


San Miguel, Dolores, Animas and San Juan River Basins Reservoir Storage Map



Provisional Data Subject to Revision



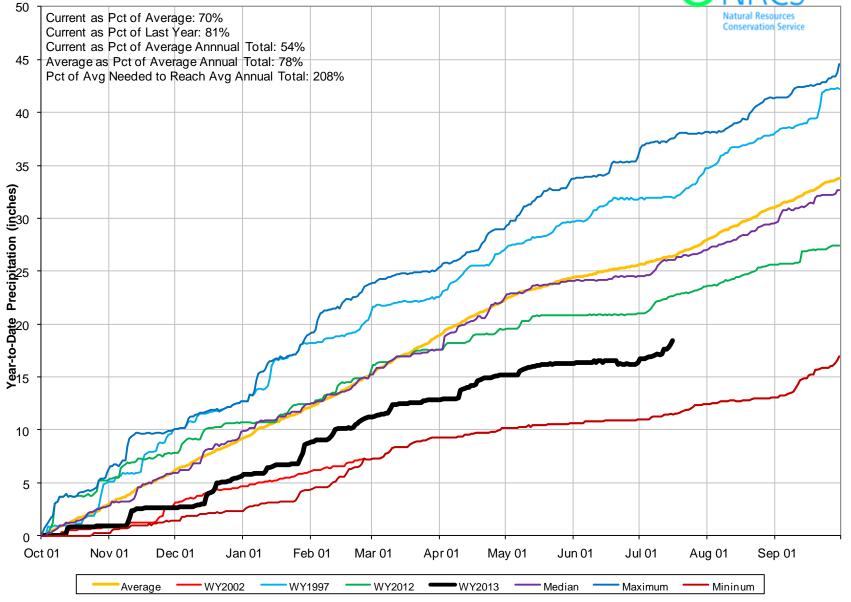


End of June 2013

Upper Rio Grande Basin Summary

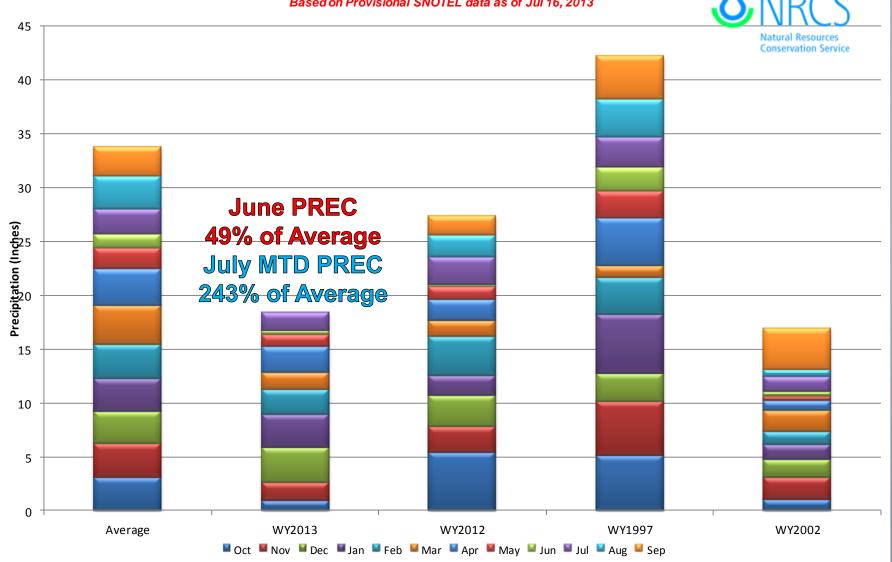


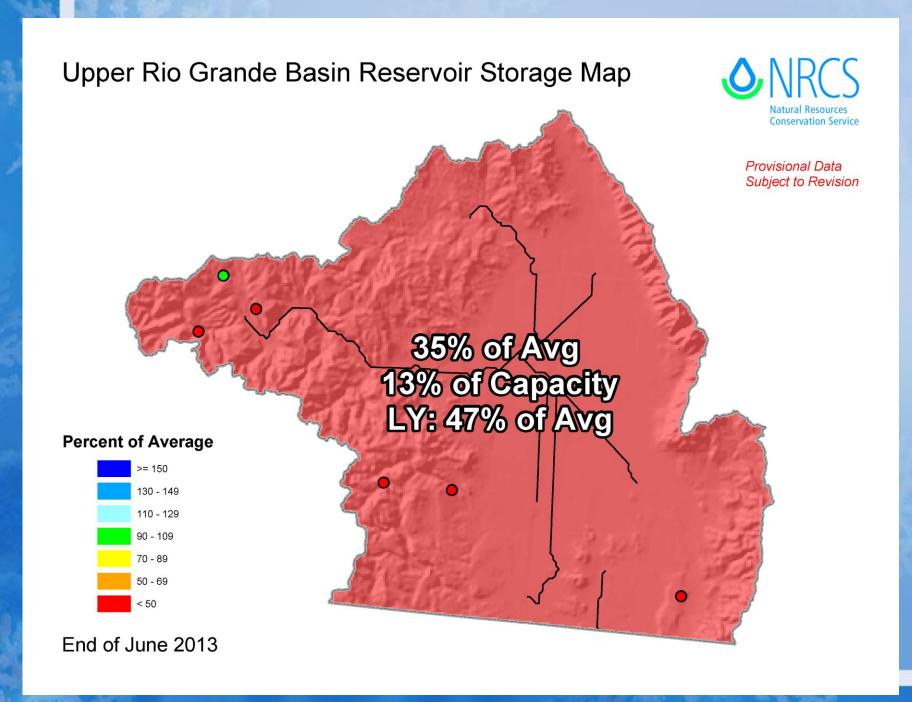
Upper Rio Grande Basin High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jul 16, 2013 Conservation Service



Upper Rio Grande Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Jul 16, 2013





Arkansas River Basin Summary



Arkansas River Basin High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jul 16, 2013 Current as Pct of Average: 79% Current as Pct of Last Year: 102% Conservation Service Current as Pct of Average Annnual Total: 61% Average as Pct of Average Annual Total: 77% Pct of Avg Needed to Reach Avg Annual Total: 171%

Jun 01

Median

Jul 01

Maximum

Aug 01

Mininum

Sep 01

45

35

Year-to-Date Precipitation (inches)

10

5

Oct 01

Nov 01

Average

Dec 01

Jan 01

WY2002

Mar 01

WY2012

Apr 01

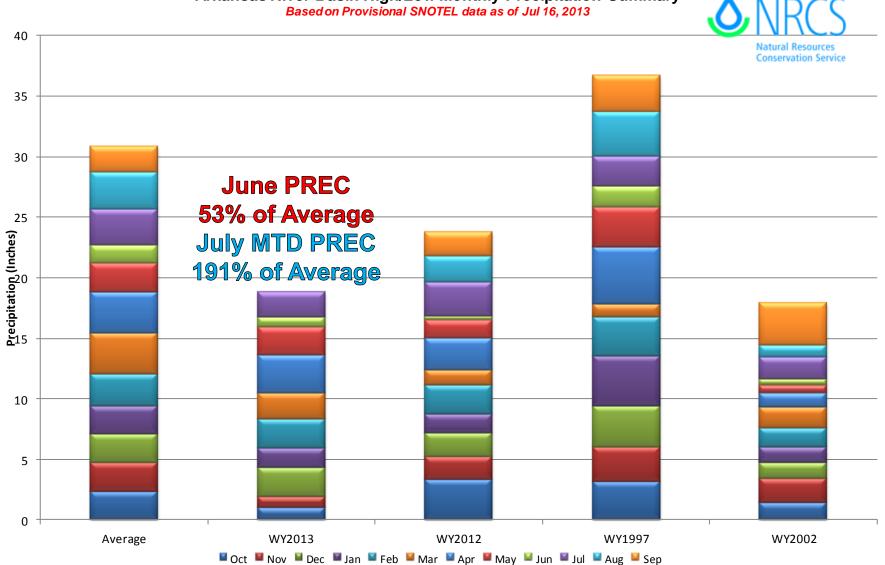
WY2013

May 01

Feb 01

WY1997

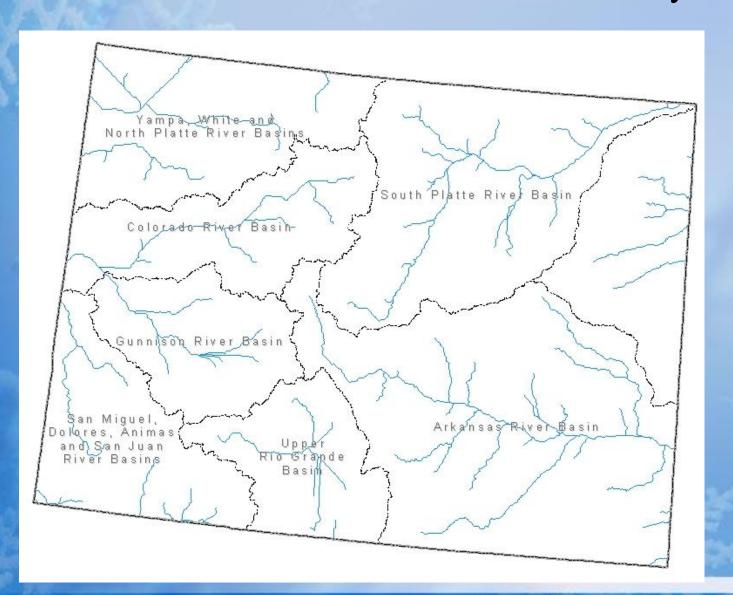
Arkansas River Basin High/Low Monthly Precipitation Summary



Arkansas River Basin Reservoir Storage Map **Conservation Service** Provisional Data Subject to Revision 52% of Avg 19% of Capacity LY: 64% of Avg **Percent of Average** >= 150 130 - 149 110 - 129 90 - 109 70 - 89 50 - 69 < 50

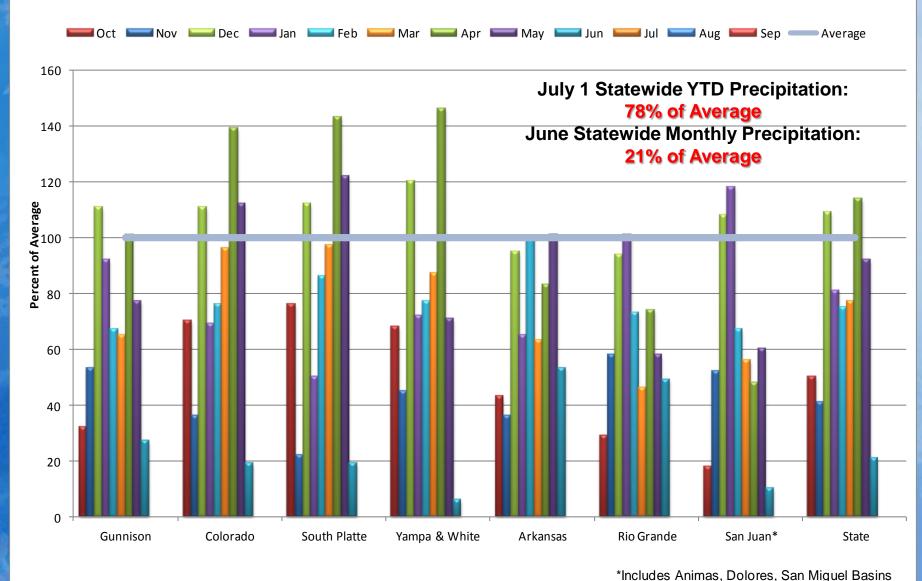
End of June 2013

Colorado Statewide Summary

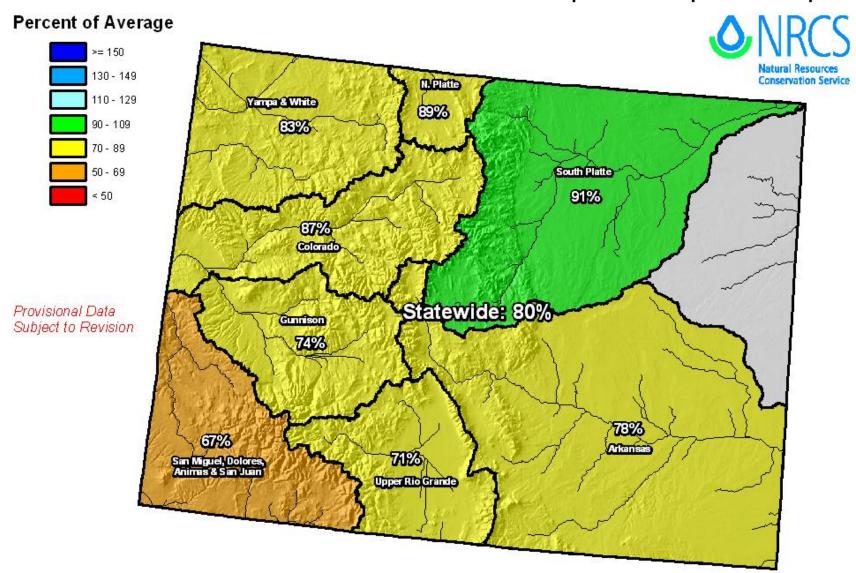


Colorado Monthly Precipitation Summary for WY2013

USDA Natural Resources Conservation Service



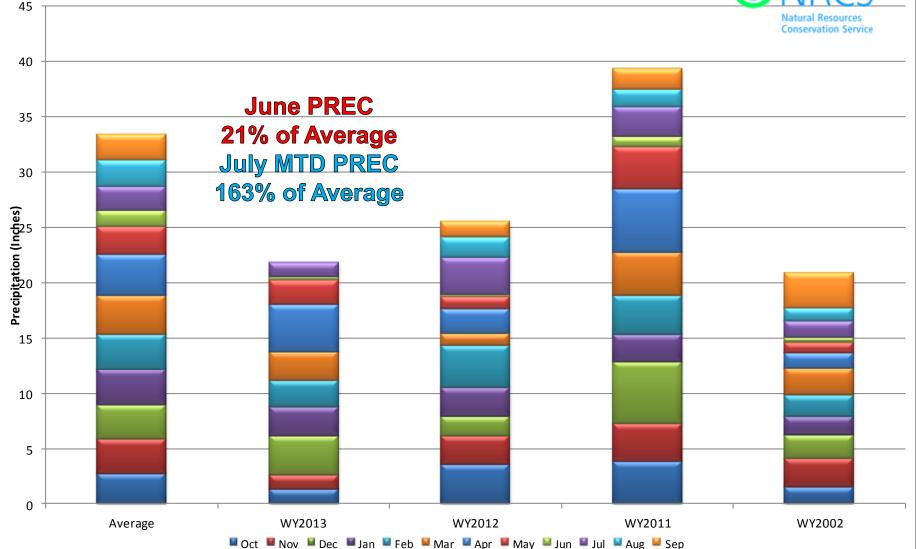
Colorado SNOTEL Water Year-to-Date Precipitation Update Map



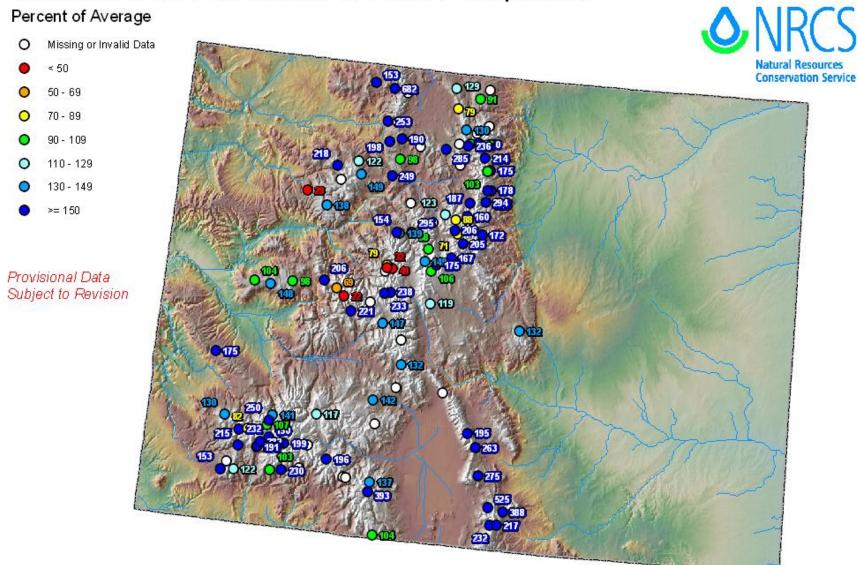
Colorado Statewide High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Jul 16, 2013





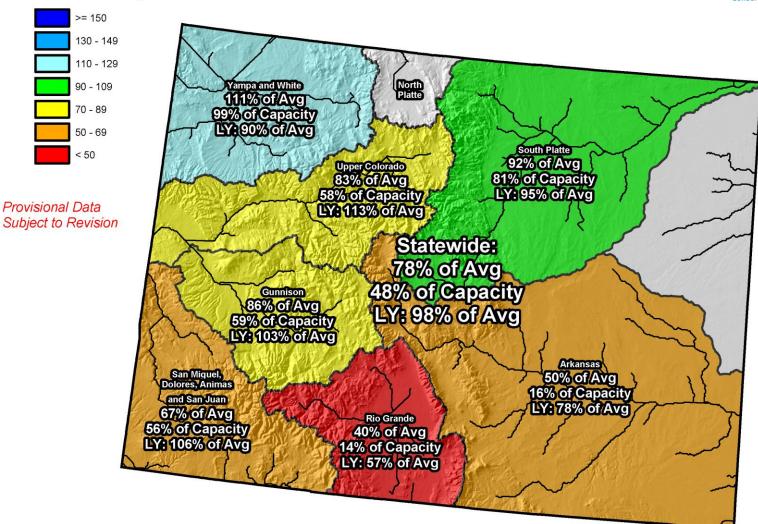
Colorado SNOTEL Month-to-Date Precipitation



Colorado Reservoir Storage Map

Natural Resources Conservation Service

Percent of Average

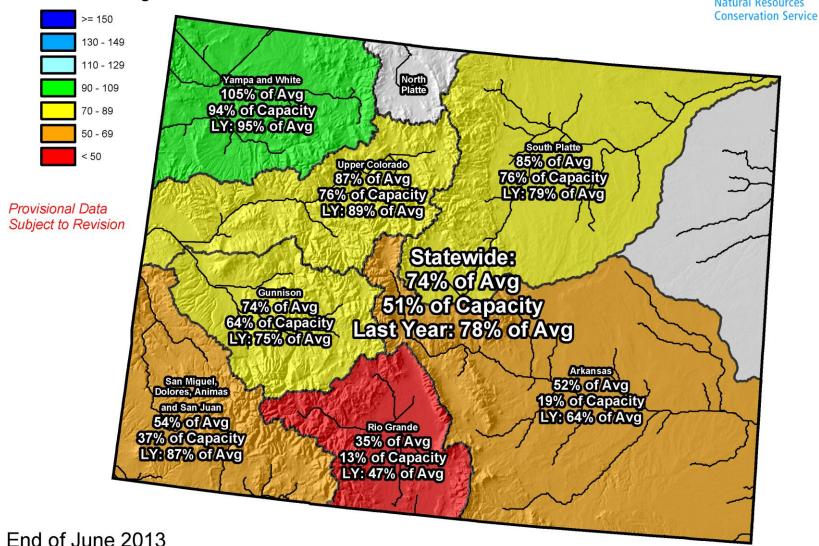


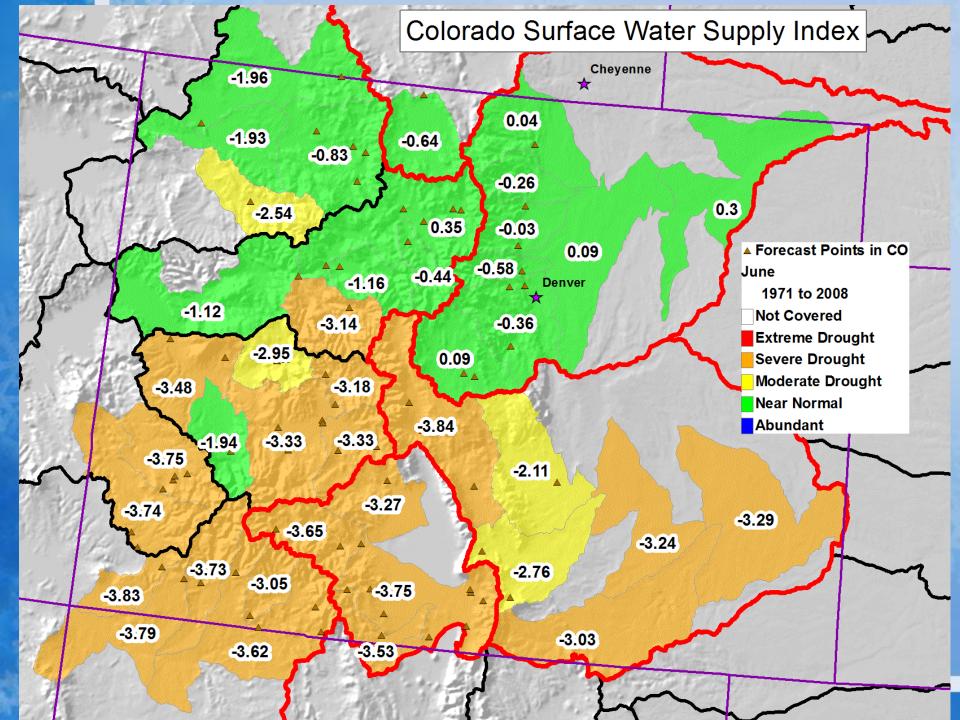
End of May 2013

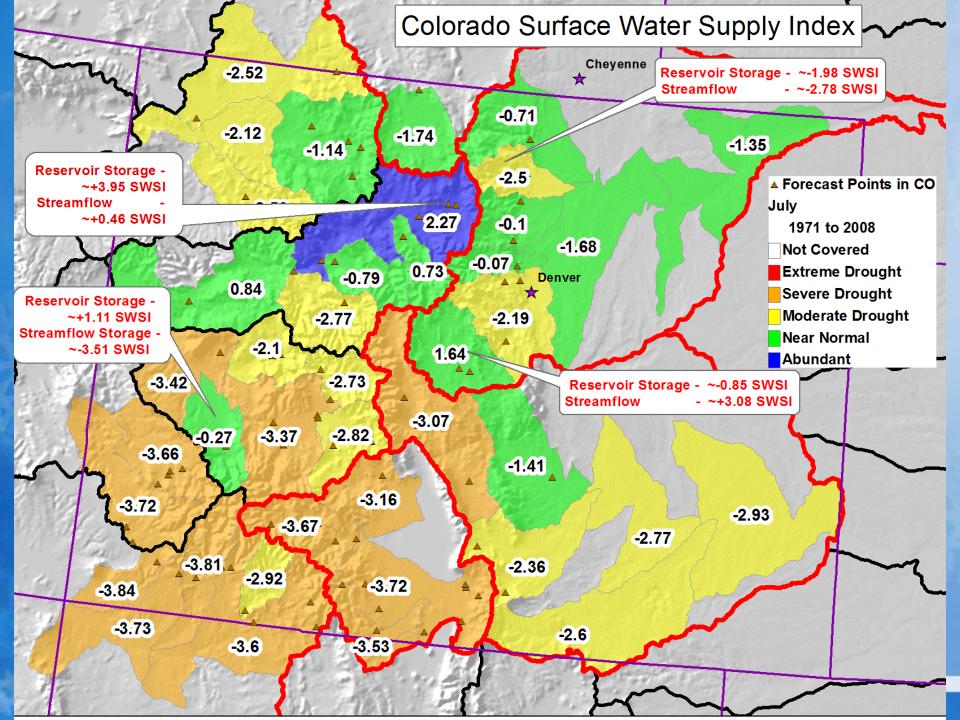
Colorado Reservoir Storage Map

Natural Resources

Percent of Average







WY2013 Summary

- •DEC: SNOW! Finally. Storms in mid to late Dec boosted snowpack but it was not enough to reach normal conditions.
- •JAN: End of month storm increased the snowpack in Southwest basins.
- •FEB: Prec below average. The Snow we did receive was just enough to keep the snowpack from further declining.
- •MAR: Storms helped maintained snowpack but no boost.
- •APR: Multiple storm systems brought the snowpack up substantially and in some cases to near normal peaks. Really improved the northern basins but did not help the southern basins.
- •MAY: Above normal prec recorded for the South Platte, Upper Colorado and Arkansas basins. In the South Platte additional snow accumulation caused the basin to reach a second higher peak SWE in early March.
- •JUNE: Little to no precipitation received in the mountains during the month. Reservoir storage improved in some areas but did not recover to normal.
- •JULY: Above average mountain prec so far this month in ALL basins! Reservoir storage remains in decent condition in the north but continues to drop in the south.