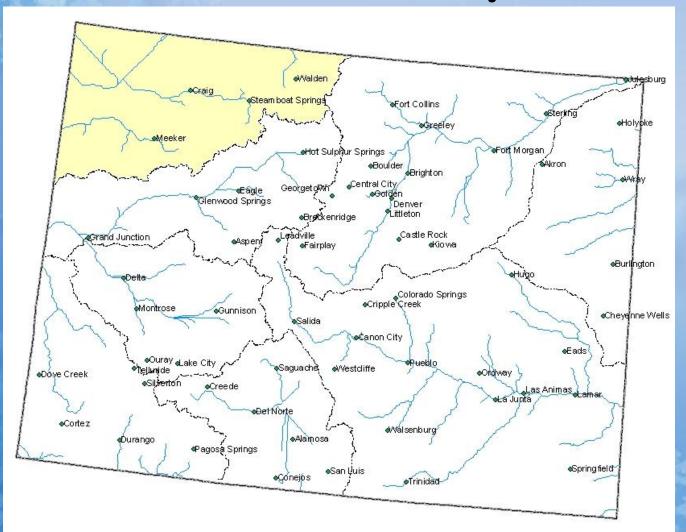
NRCS – Snow Survey & Water Supply Forecasting

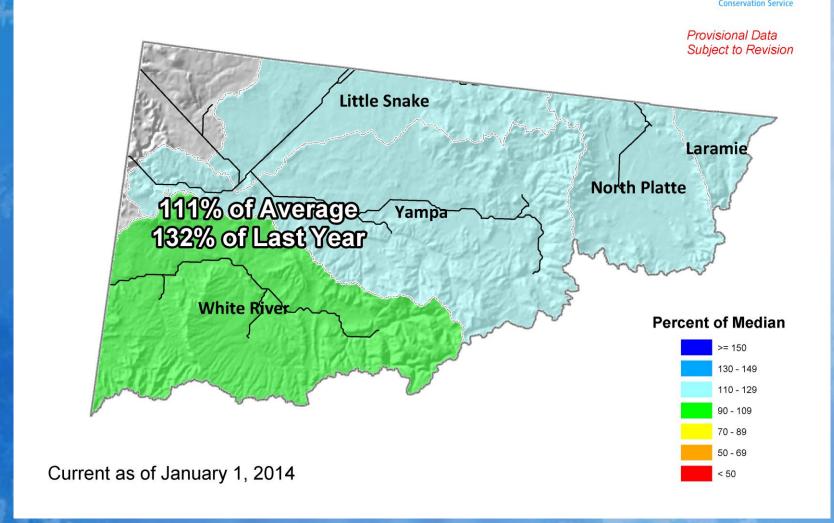
Water Availability Task Force Meeting January 22rd, 2014

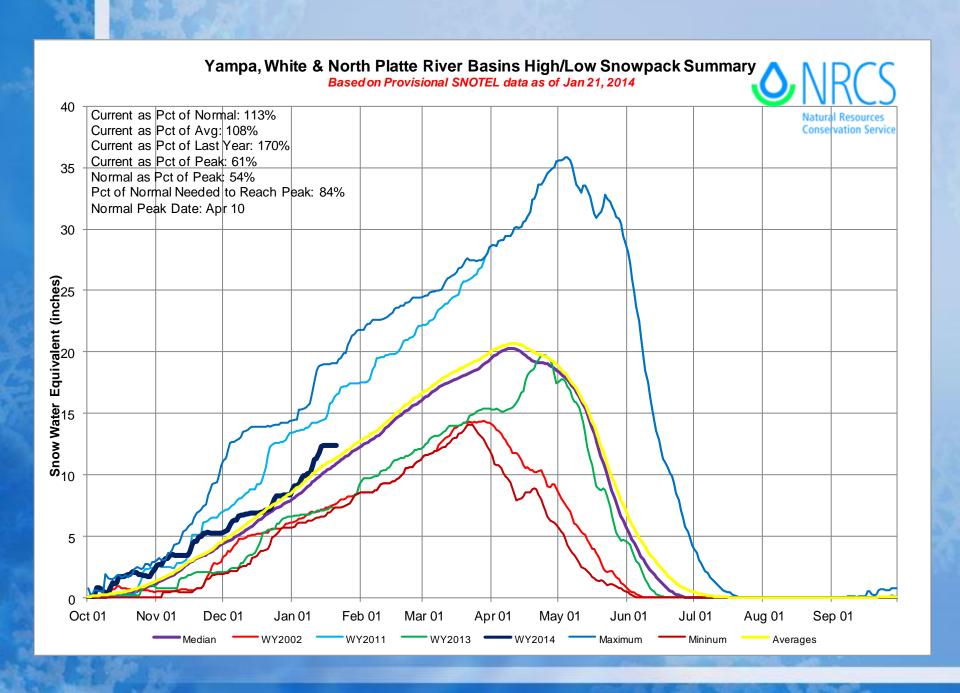
Mage Hultstrand
Assistant Snow Survey Supervisor
http://www.co.nrcs.usda.gov/snow/

Yampa, White & North Platte River Basins Summary



Yampa, White and North Platte River Basins Snowpack Map





Yampa & White River Basins High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jan 21, 2014 Current as Pct of Average: 113% Conservation Service Current as Pct of Median: 117% Current as Pct of Last Year: 166% Current as Pct of Average Annnual Total: 42% Average as Pct of Average Annual Total: 37% Pct of Avg Needed to Reach Avg Annual Total: 92% 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 WY2002

Average

WY2011

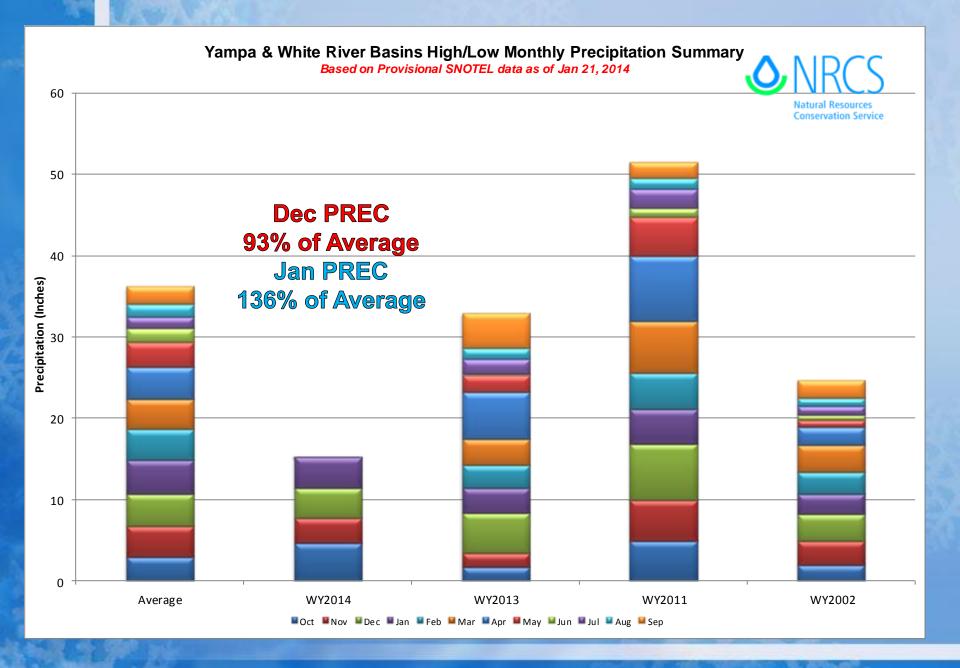
WY2013

■WY2014

Median

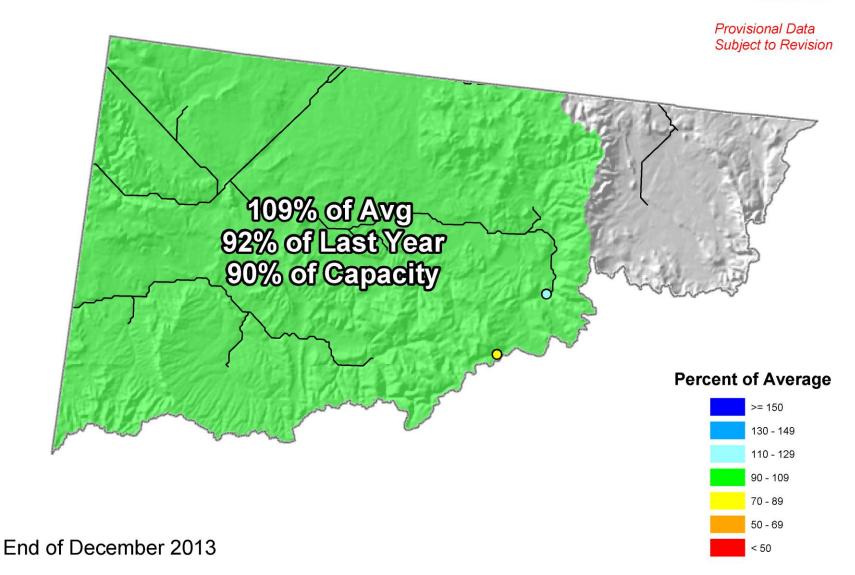
Maximum

Minin um



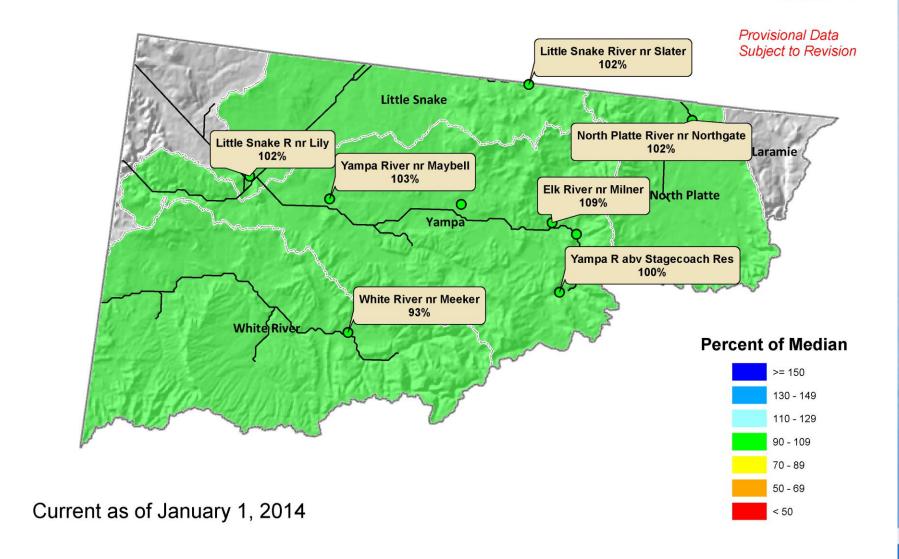
Yampa & White River Basins Reservoir Storage Map



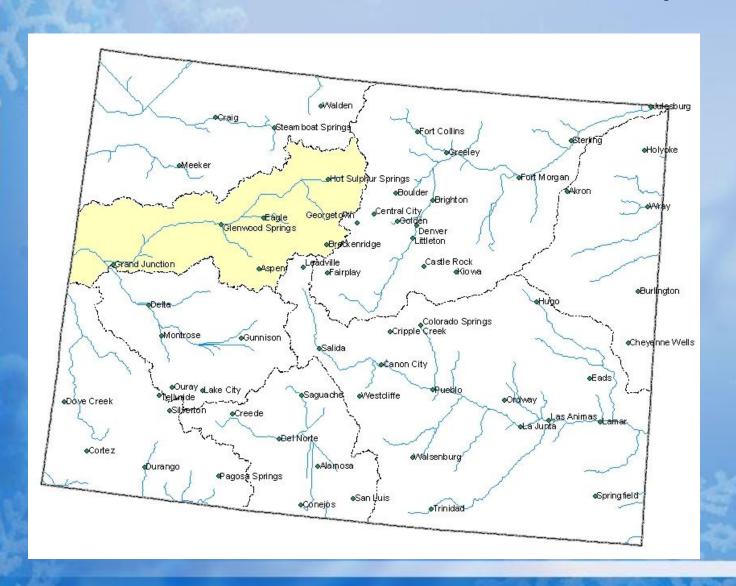


Yampa, White and North Platte River Basins Streamflow Map

Conservation Service



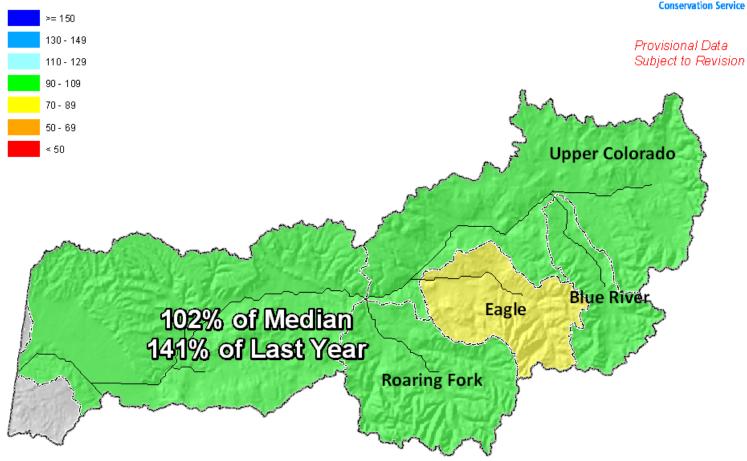
Colorado River Basin Summary



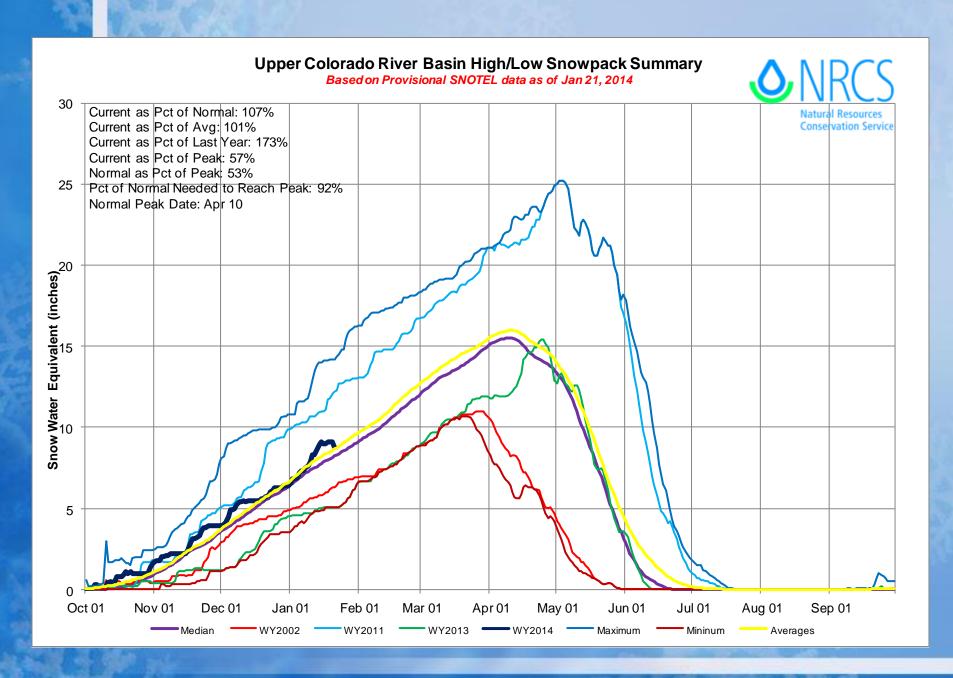
Colorado River Basin Snowpack Map



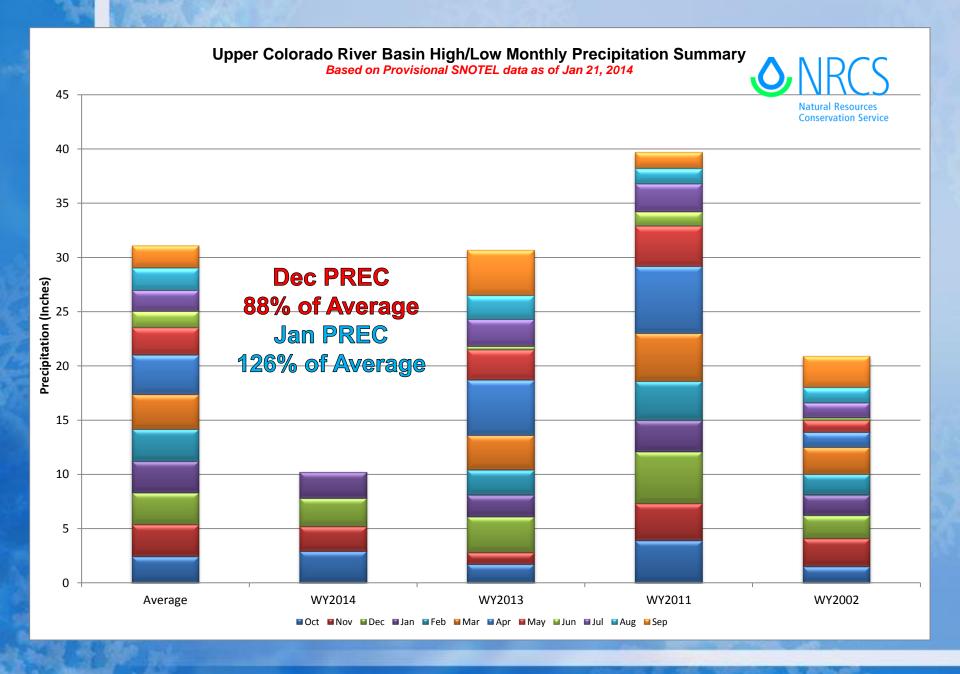
Percent of Average



Current as of January 1, 2014



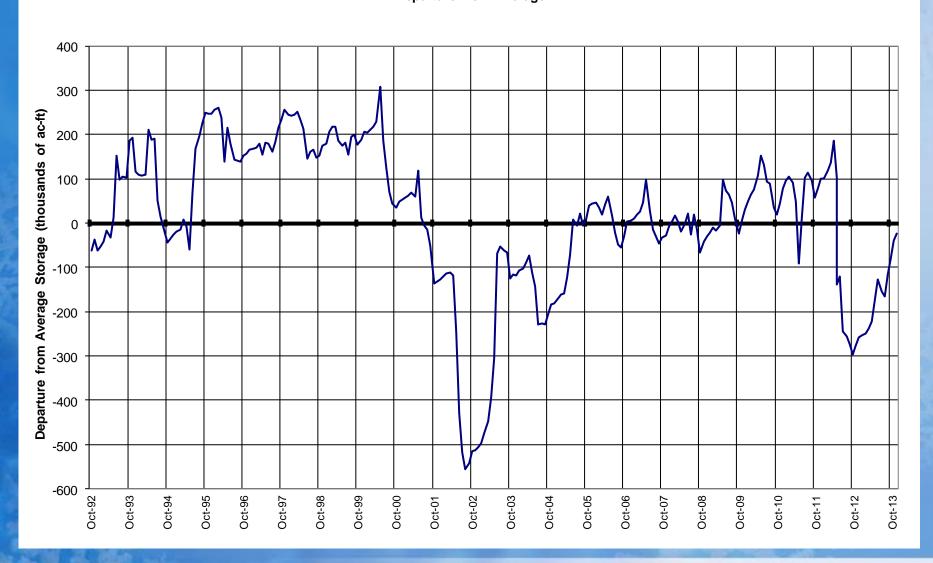
Upper Colorado River Basin High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jan 21, 2014 45 Current as Pct of Average: 100% Conservation Service Current as Pct of Median: 105% Current as Pct of Last Year: 152% Current as Pct of Average Annnual Total: 33% Average as Pct of Average Annual Total: 33% Pct of Avg Needed to Reach Avg Annual Total: 100% 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 WY2011 WY2013 Average WY2002 **W**Y2014 Median Maximum Minin um



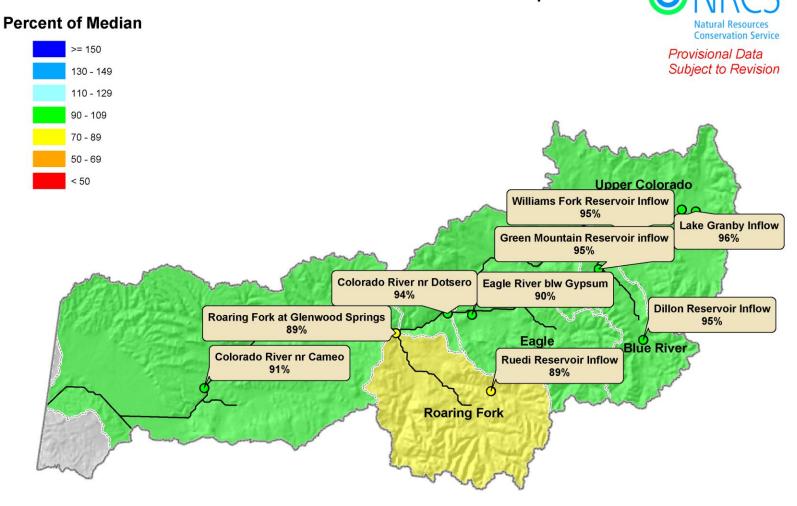
Colorado River Basin Reservoir Storage Map **Percent of Average Conservation Service** >= 150 Provisional Data 130 - 149 Subject to Revision 110 - 129 90 - 109 70 - 89 50 - 69 < 50 97% of Average 75% of Capacity Last Year: 68% of Average

End of December 2013

COLORADO RIVER BASIN Reservoir Storage Departure from Average

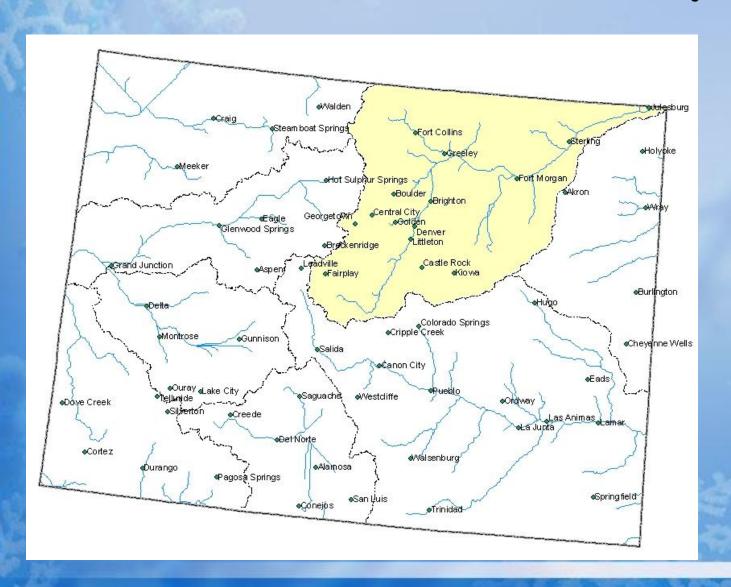


Colorado River Basin Streamflow Forecast Map

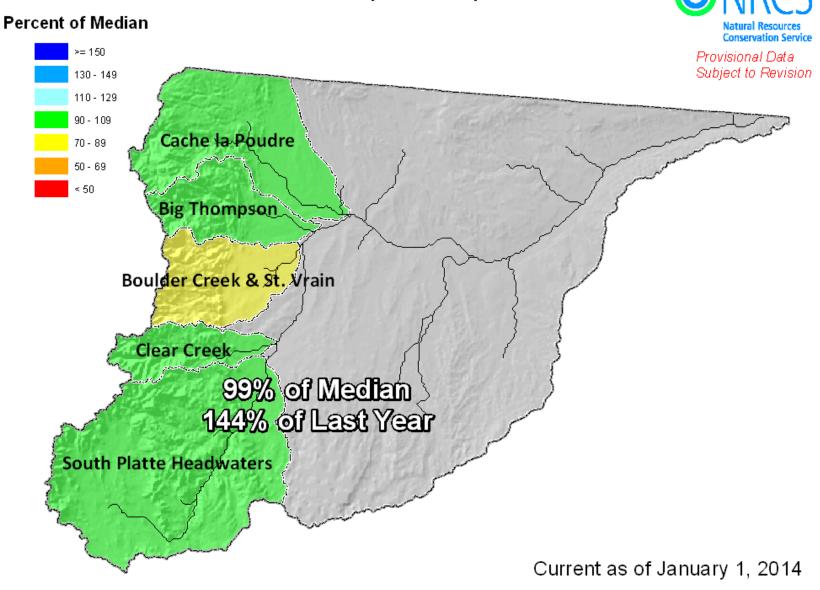


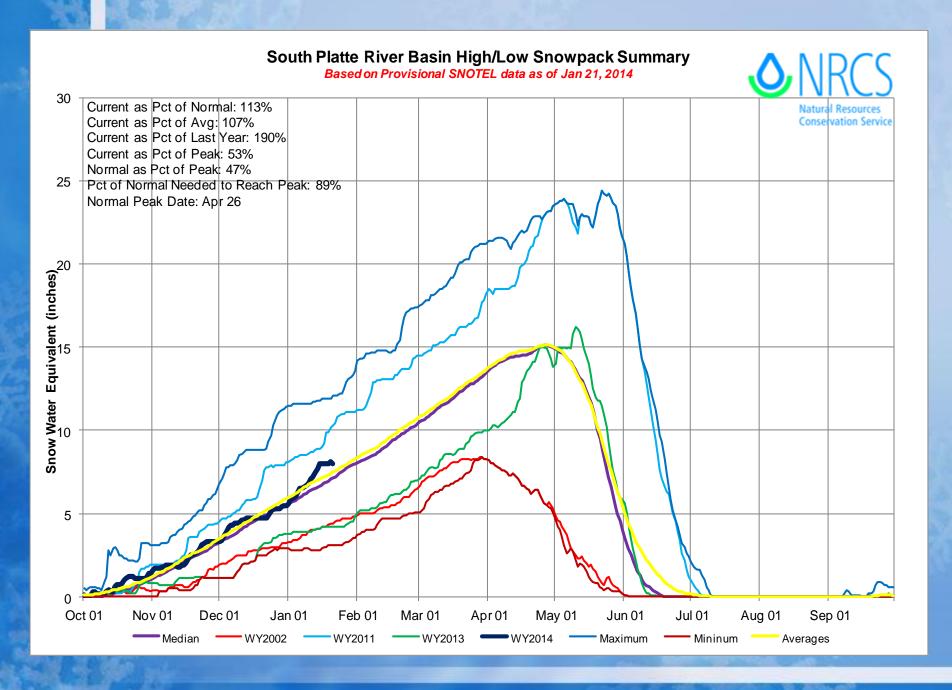
Current as of January 1, 2014

South Platte River Basin Summary



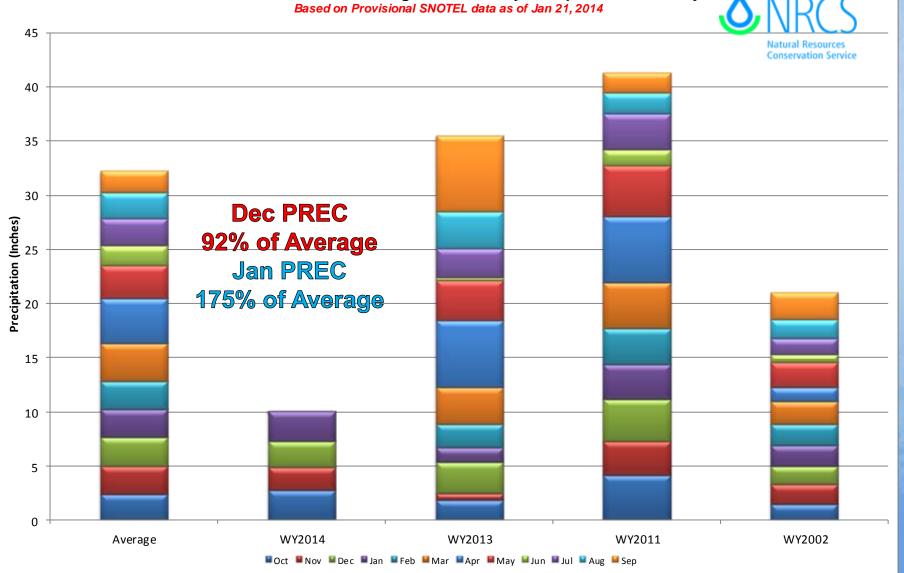
South Platte River Basin Snowpack Map





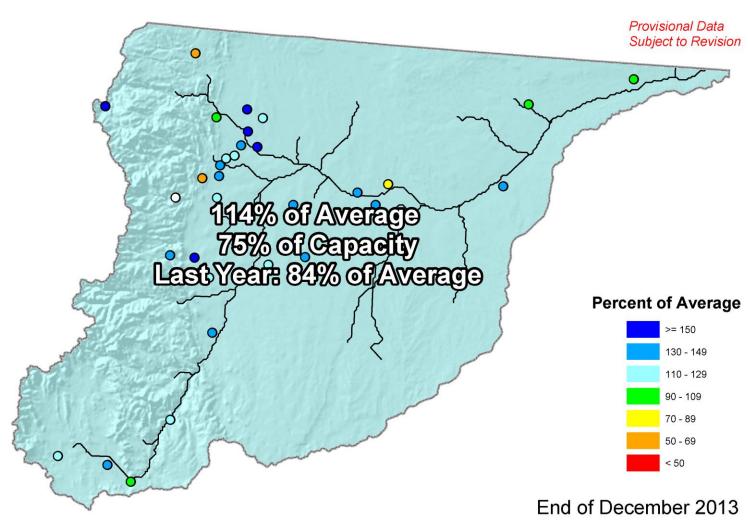
South Platte River Basin High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jan 21, 2014 45 Current as Pct of Average: 108% Conservation Service Current as Pct of Median: 111% Current as Pct of Last Year: 171% Current as Pct of Average Annnual Total: 31% Average as Pct of Average Annual Total: 29% Pct of Avg Needed to Reach Avg Annual Total: 97% 35 Year-to-Date Precipitation (inches) 10 5 0 Oct 01 Nov 01 Dec 01 Jan 01 Feb 01 Mar 01 Apr 01 May 01 Jun 01 Jul 01 Aug 01 Sep 01 WY2013 Average WY2002 WY2011 WY2014 Median Maximum Minin um

South Platte River Basin High/Low Monthly Precipitation Summary

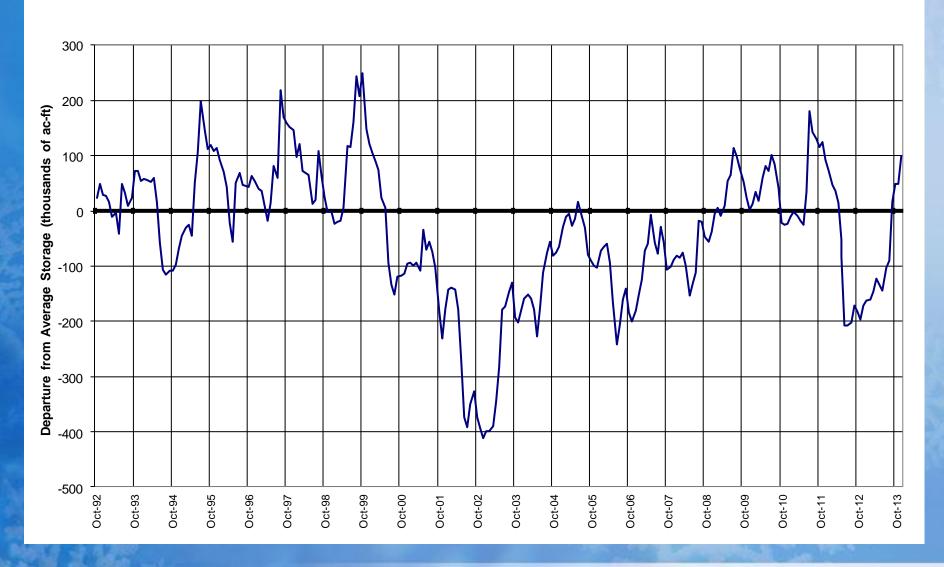


South Platte River Basin Reservoir Storage Map



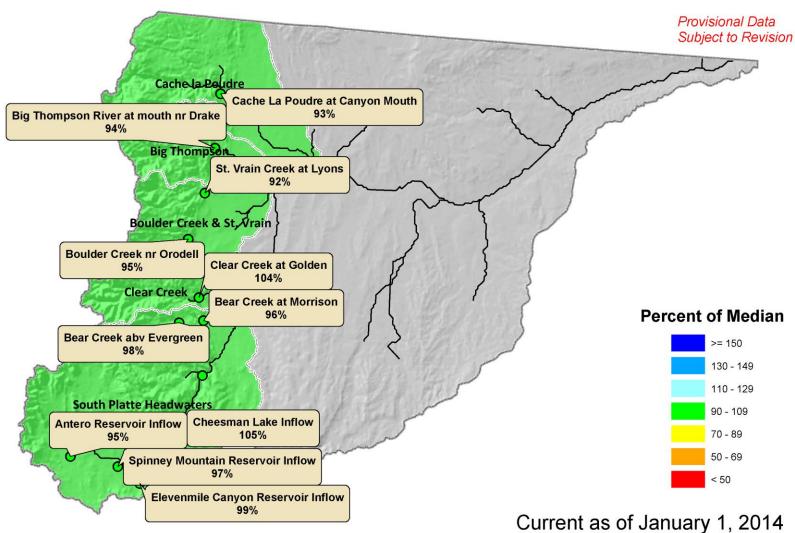


SOUTH PLATTE RIVER BASIN Reservoir Storage Departure from Average



South Platte River Basin Streamflow Forecast Map



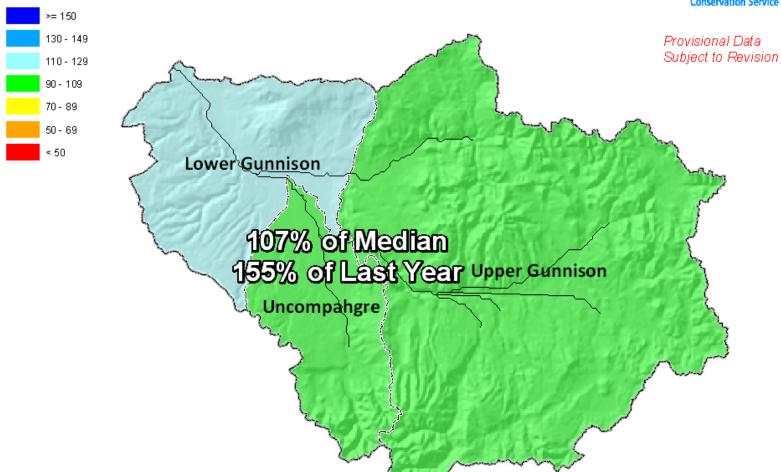


Gunnison River Basin Summary

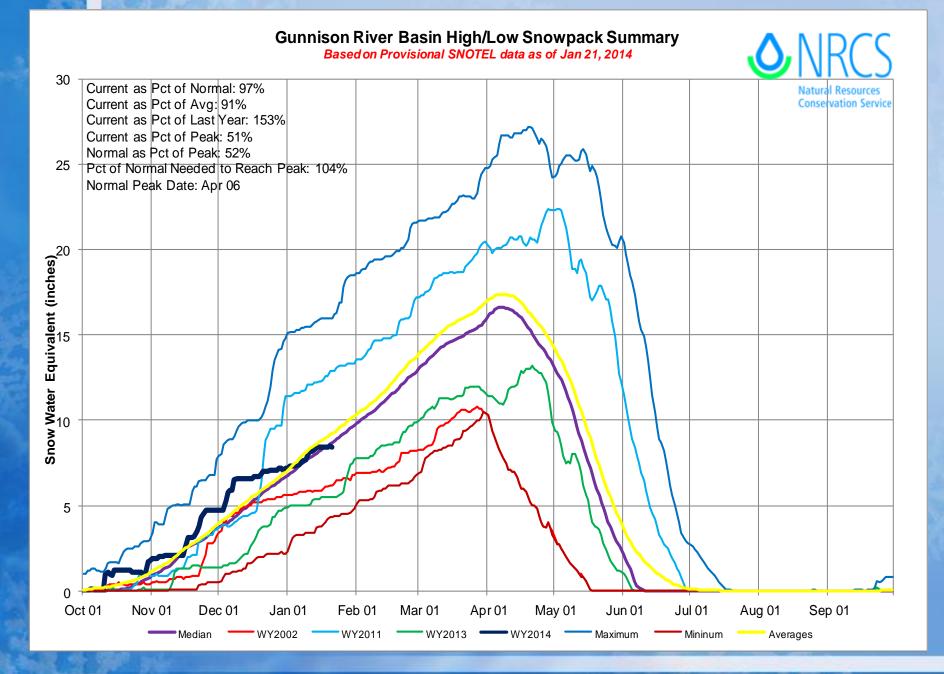


Gunnison River Basin Snowpack Map **Percent of Median**

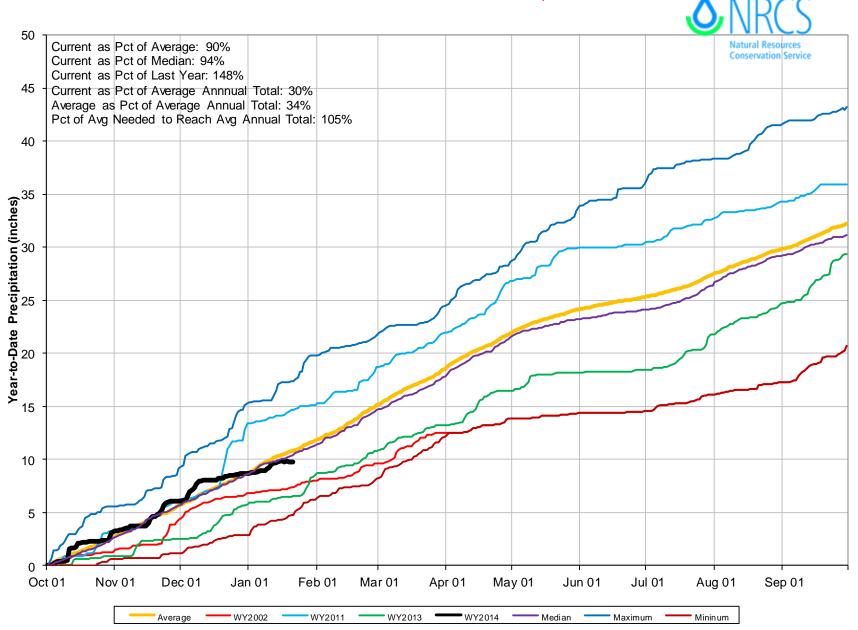




Current as of January 1, 2014



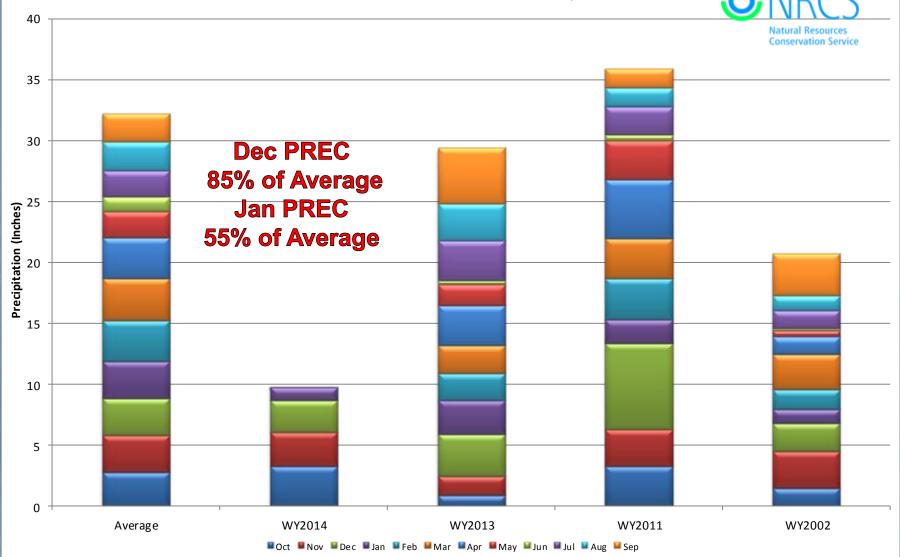
Gunnison River Basin High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jan 21, 2014

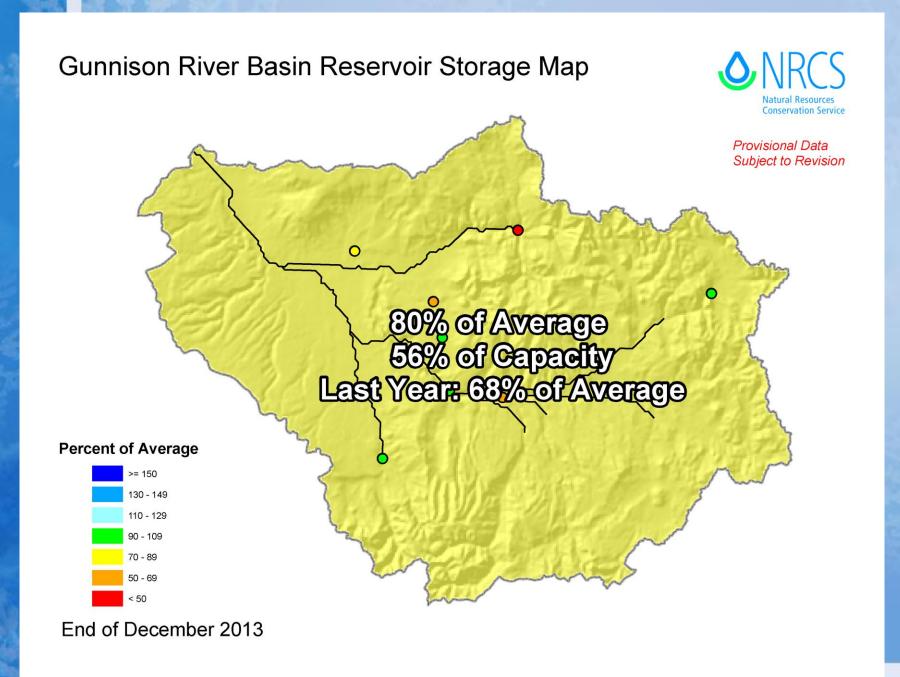


Gunnison River Basin High/Low Monthly Precipitation Summary

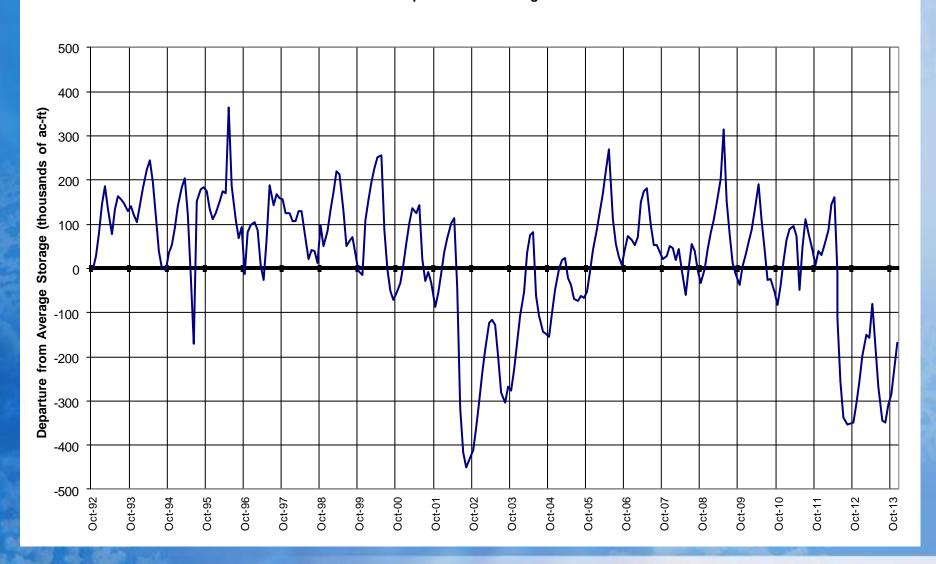
Based on Provisional SNOTEL data as of Jan 21, 2014

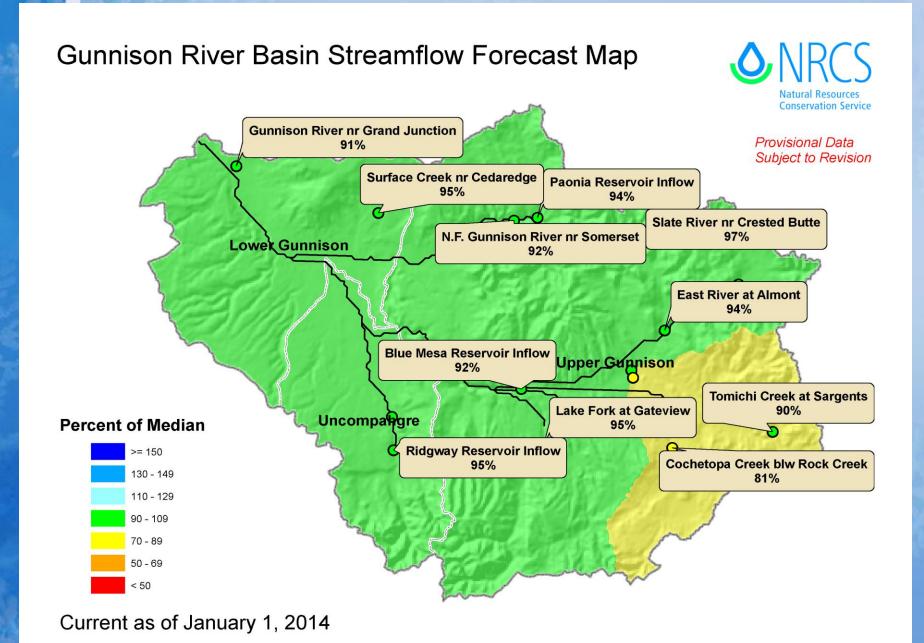




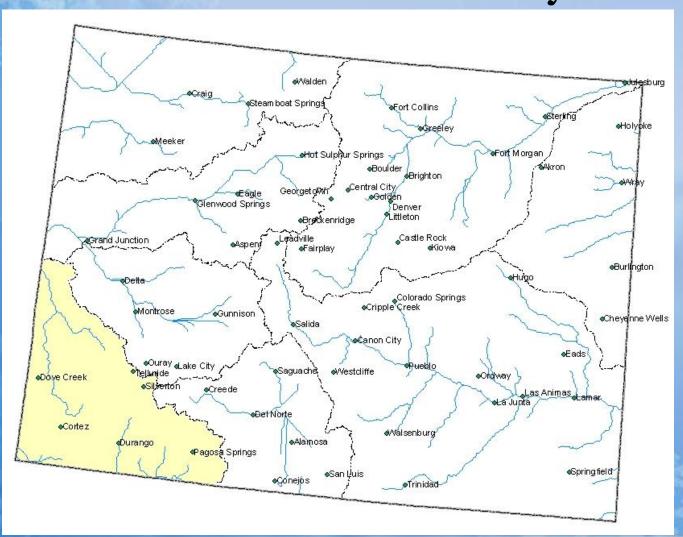


GUNNISON RIVER BASIN Reservoir Storage Departure from Average



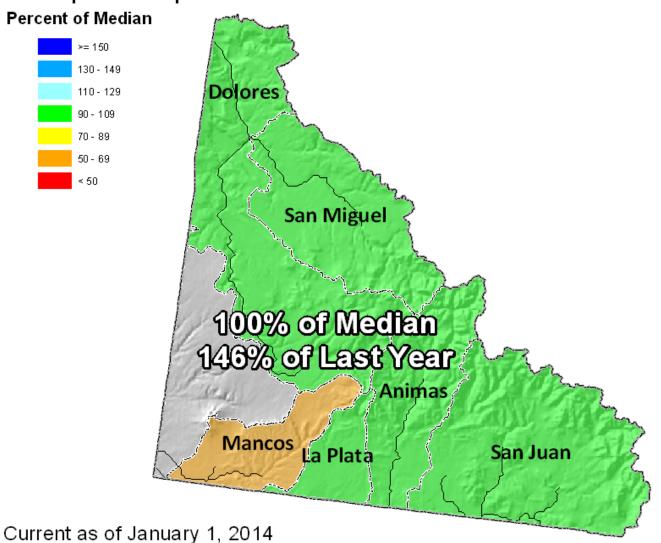


San Miguel, Dolores, Animas & San Juan River Basins Summary

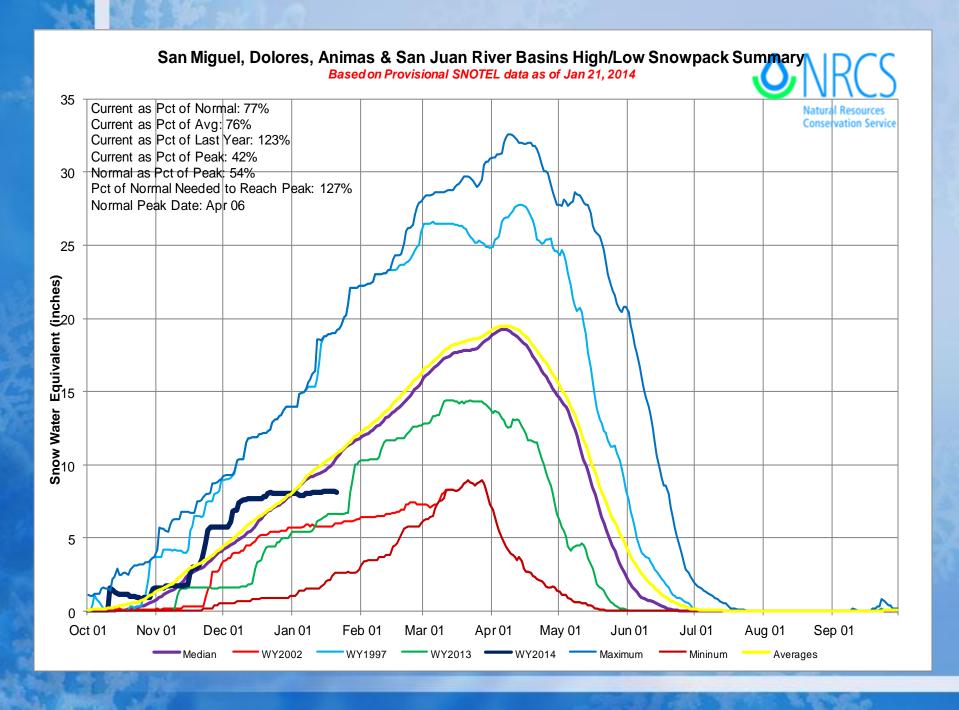


San Miguel, Dolores, Animas and San Juan River Basins

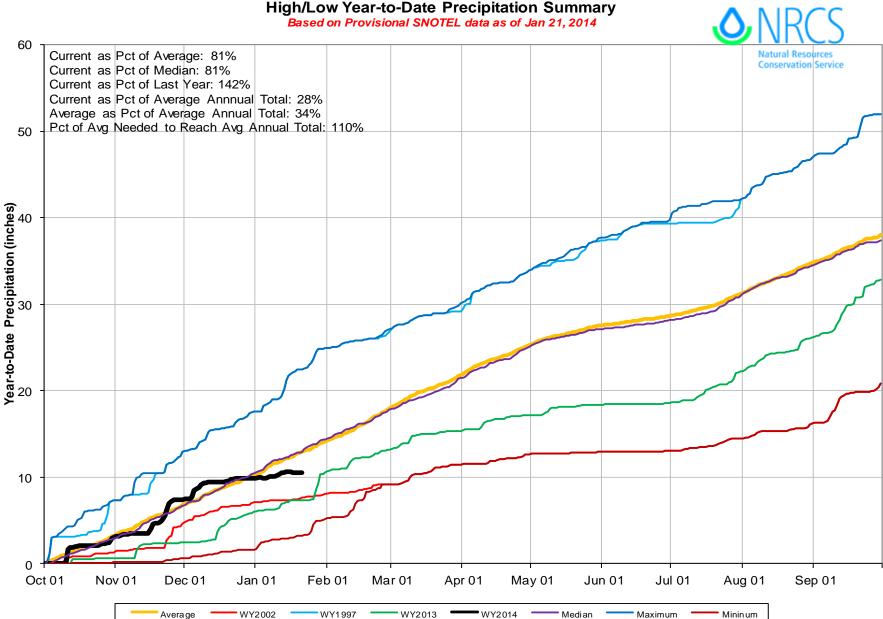
Snowpack Map

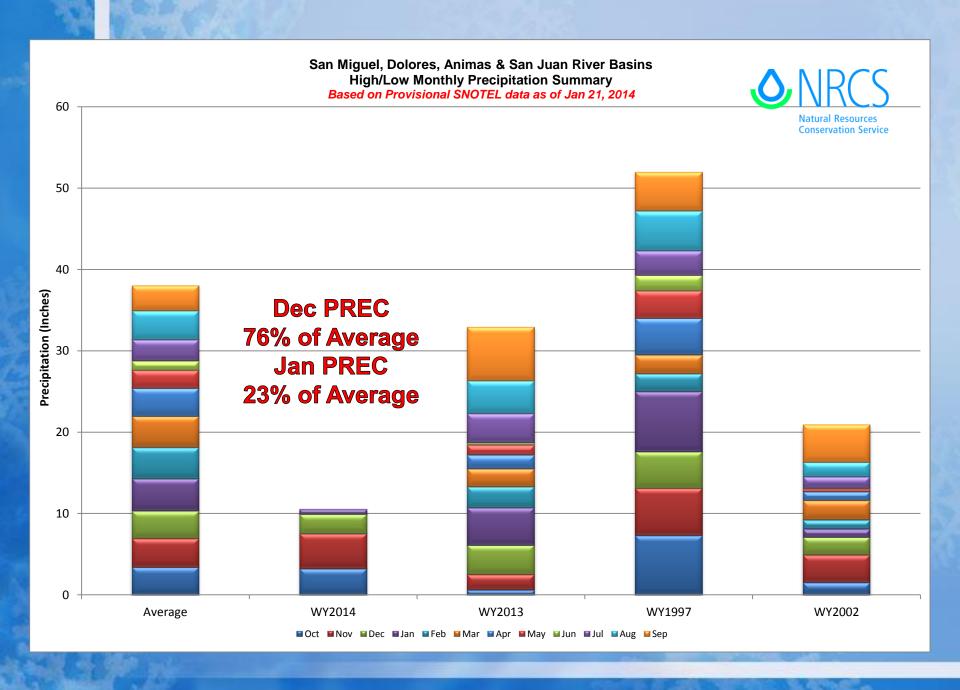


Provisional Data Subject to Revision



San Miguel, Dolores, Animas & San Juan River Basins High/Low Year-to-Date Precipitation Summary

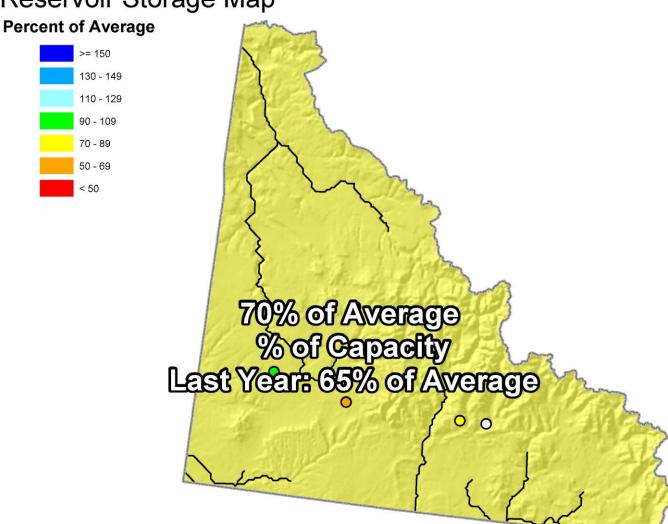




San Miguel, Dolores, Animas and San Juan River Basins Reservoir Storage Map

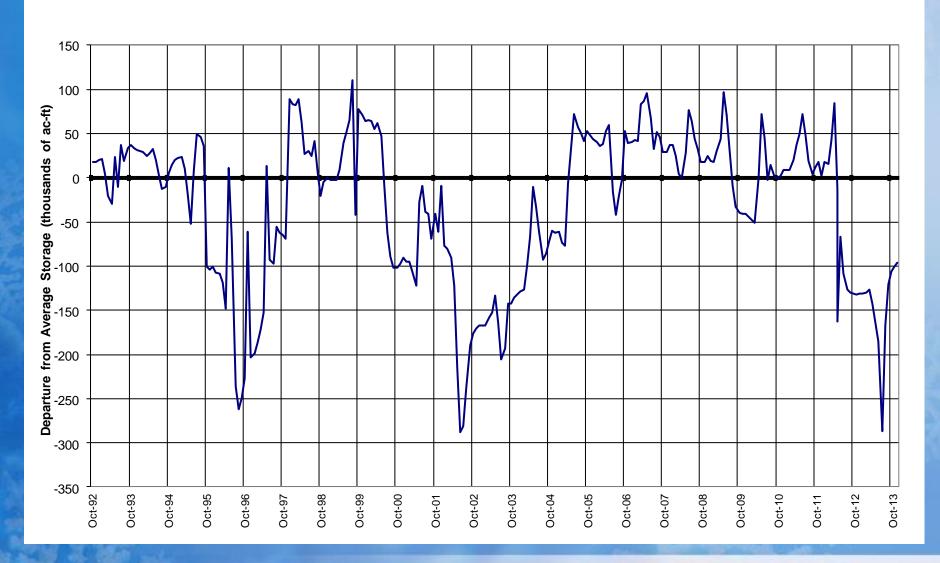


Provisional Data Subject to Revision



End of December 2013

SAN MIGUEL, DOLORES, ANIMAS AND SAN JUAN RIVER BASINS Reservoir Storage Departure from Average



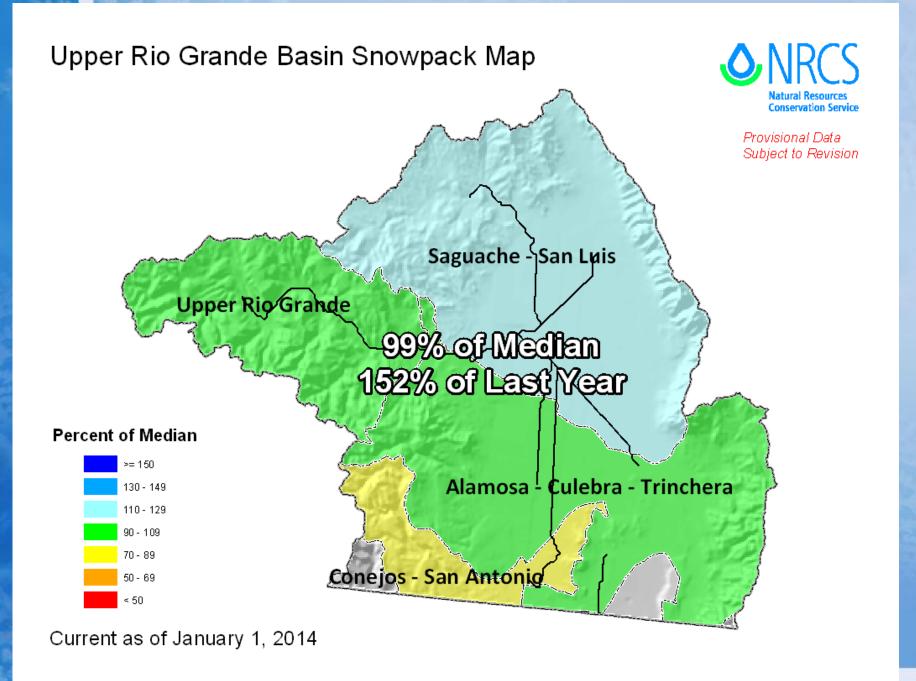
San Miguel, Dolores, Animas and San Juan River Basins Streamflow Forecast Map **Percent of Median** Conservation Service >= 150 Provisional Data 130 - 149 Subject to Revision 110 - 129 90 - 109 70 - 89 50 - 69 < 50 San Miguel Cone Reservoir Inlet 100% **Gurley Reservoir Inlet** 98% **Dolores** McPhee Reservoir Inflow 97% Mancos River nr Mancos Lemon Reservoir Inflow 85% Animas 101% **Mancos** San Juan La Plata Piedra River nr Arboles 103% San Juan River nr Carracus

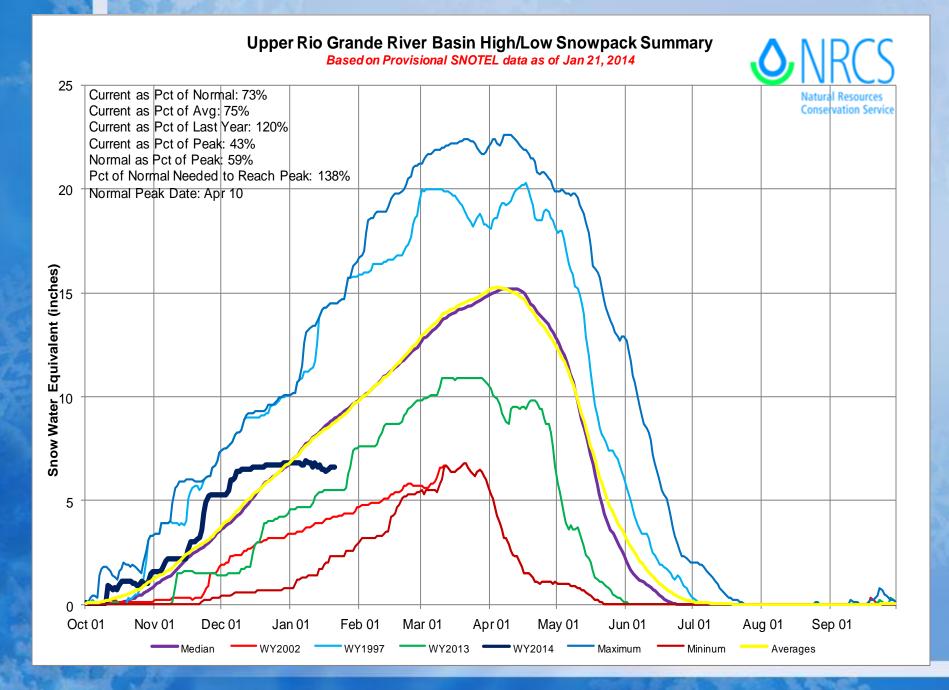
Current as of January 1, 2014

85%

Upper Rio Grande Basin Summary







Upper Rio Grande Basin High/Low Year-to-Date Precipitation Summary Based on Provisional SNOTEL data as of Jan 21, 2014 50 Current as Pct of Average: 79% Conservation Service Current as Pct of Median: 77% Current as Pct of Last Year: 136% Current as Pct of Average Annnual Total: 26% Average as Pct of Average Annual Total: 33% Pct of Avg Needed to Reach Avg Annual Total: 110% 40 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

WY1997

WY2013

WY2014

Median

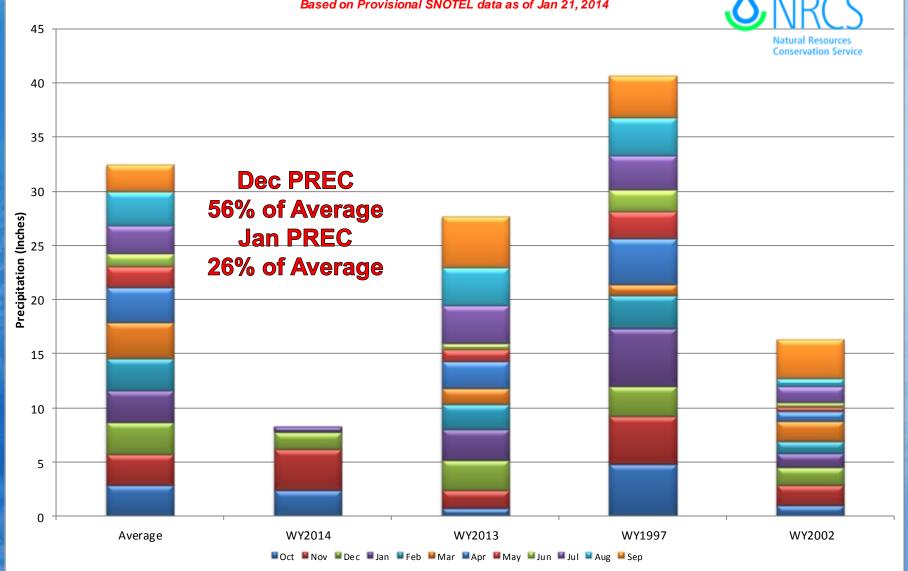
Maximum

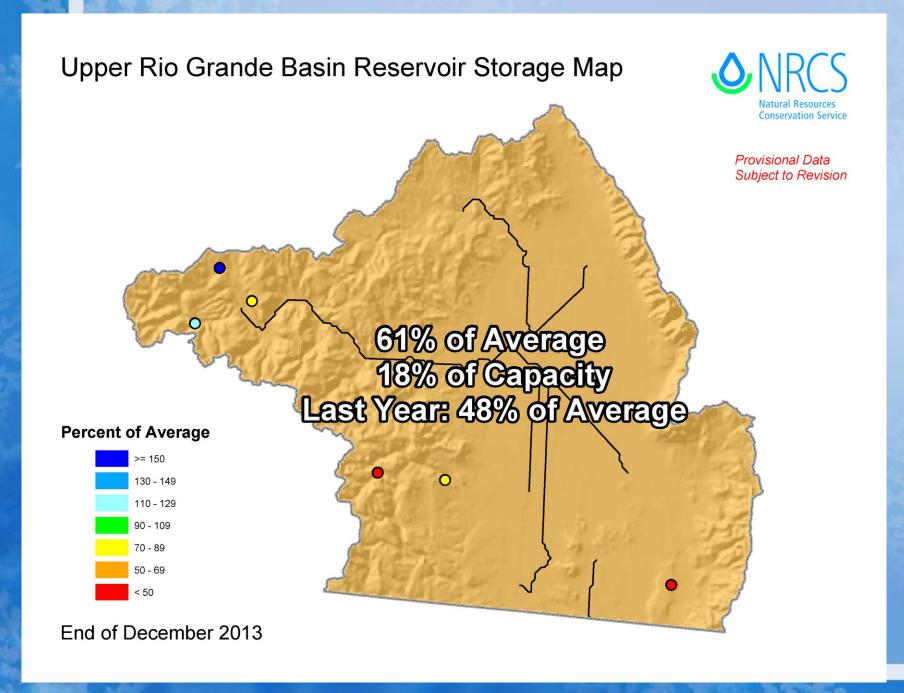
Minin um

Upper Rio Grande Basin High/Low Monthly Precipitation Summary

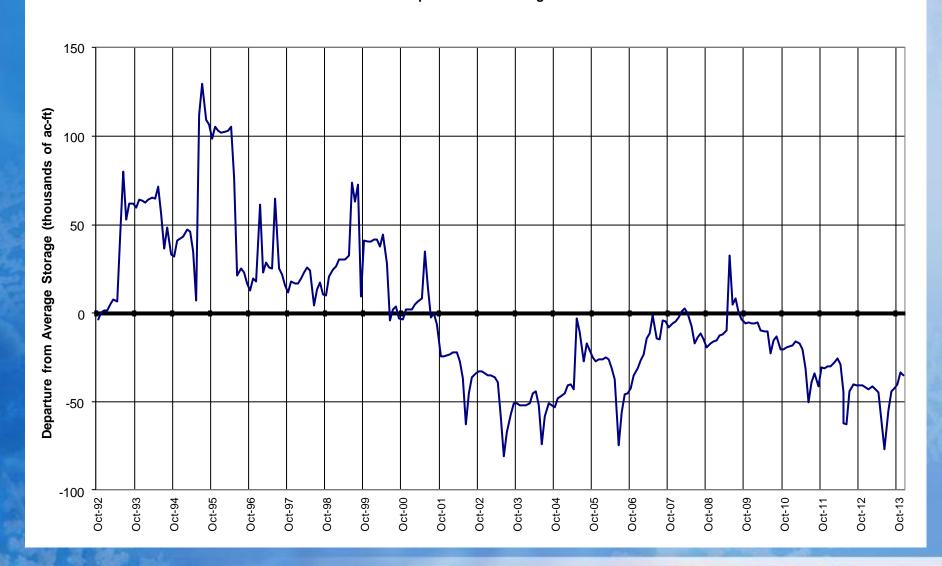
Based on Provisional SNOTEL data as of Jan 21, 2014

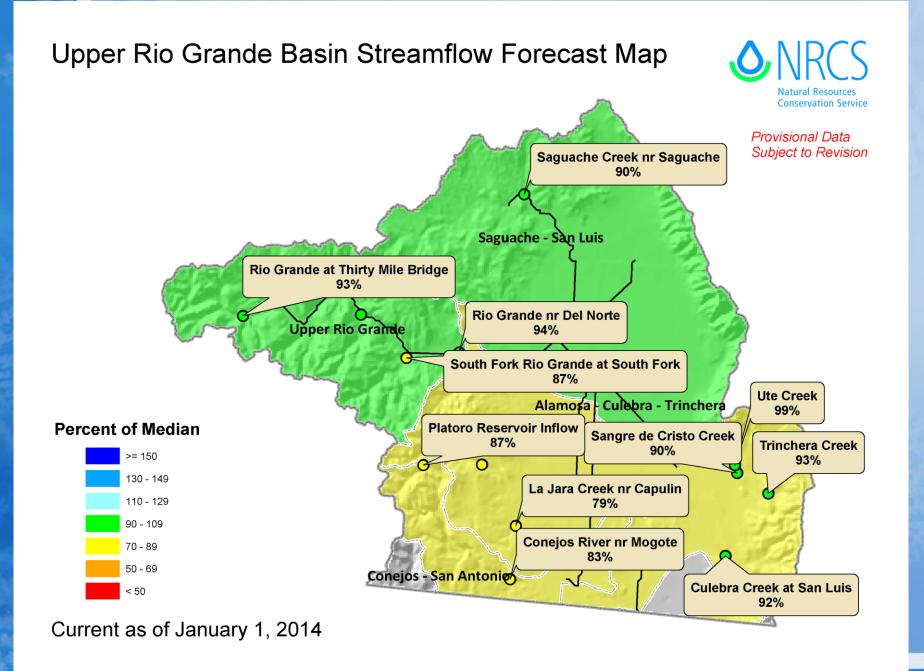






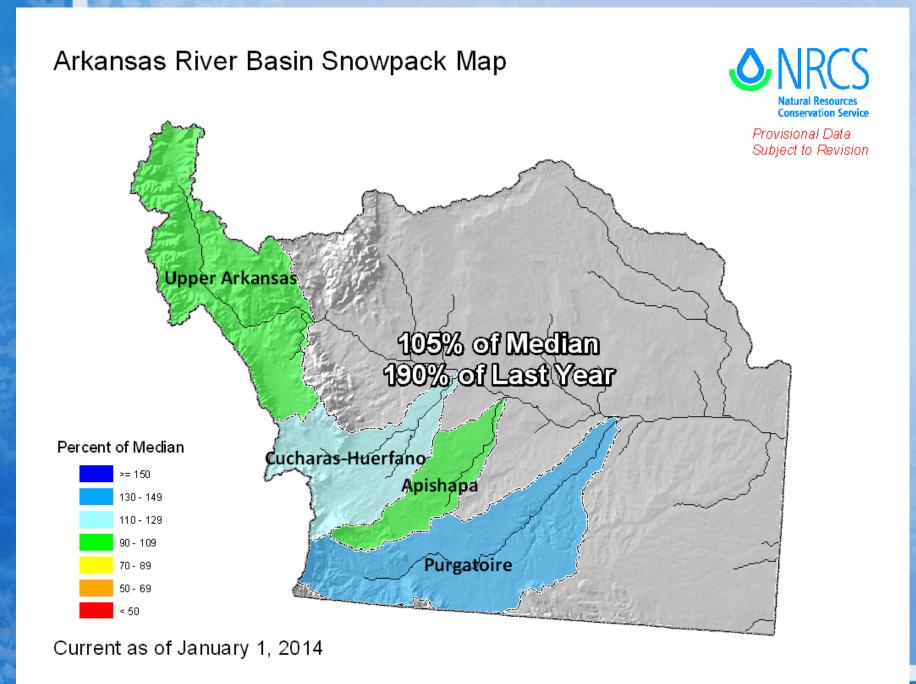
UPPER RIO GRANDE BASIN Reservoir Storage Departure from Average





Arkansas River Basin Summary





Arkansas River Basin High/Low Snowpack Summary Based on Provisional SNOTEL data as of Jan 21, 2014 Current as Pct of Normal: 92% Current as Pct of Avg: 89% Conservation Service Current as Pct of Last Year: 178% Current as Pct of Peak: 48% Normal as Pct of Peak: 51% Pct of Normal Needed to Reach Peak: 108% Normal Peak Date: Apr 11 Snow Water Equivalent (inches) 5 Oct 01 Dec 01 Jan 01 Feb 01 Jun 01 Jul 01 Aug 01 Sep 01 Nov 01 Mar 01 Apr 01 May 01

WY2013

WY2014

Maximum

Mininum

WY2002

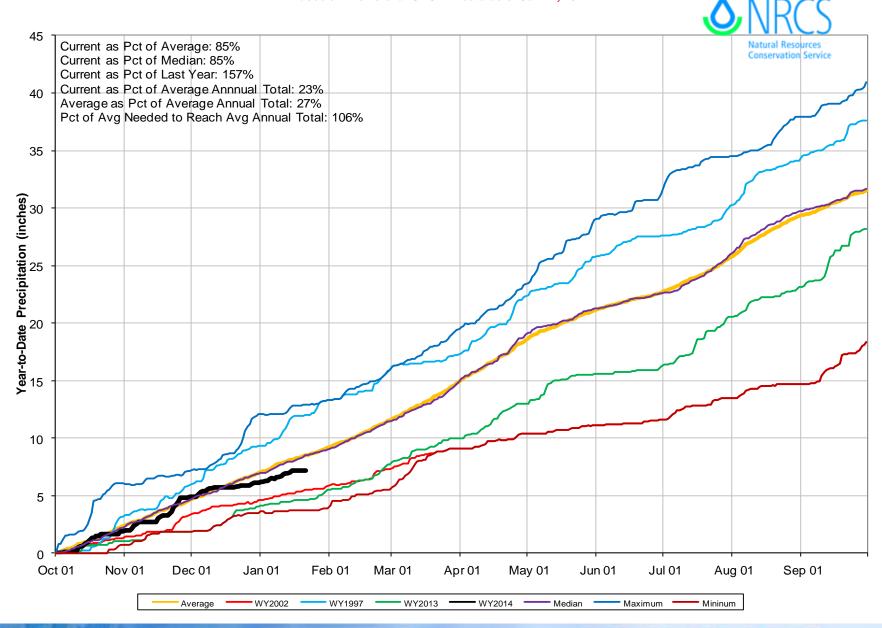
Median

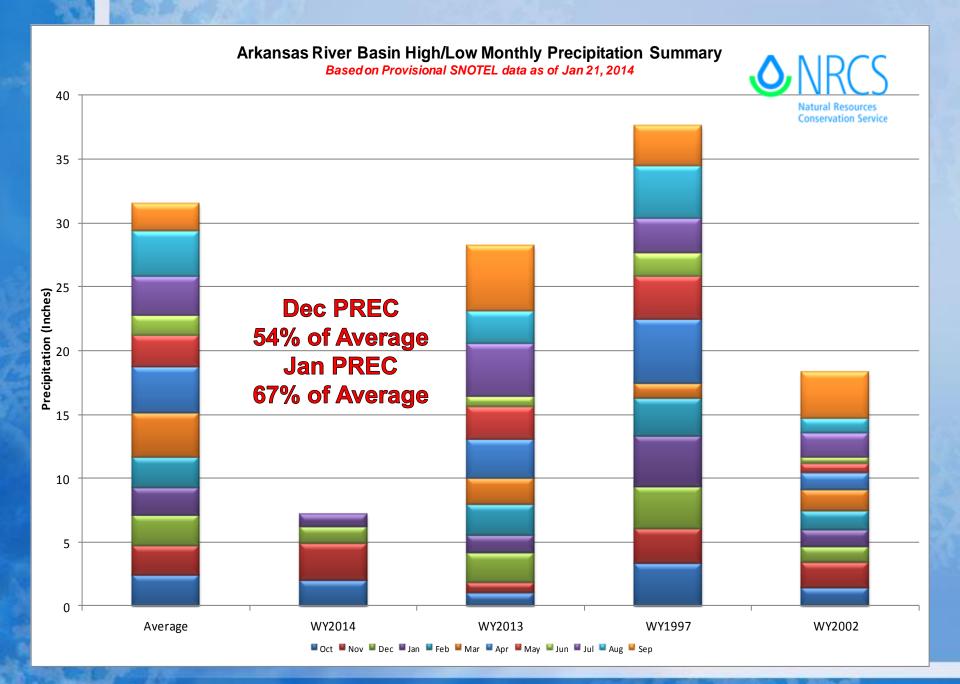
WY1997

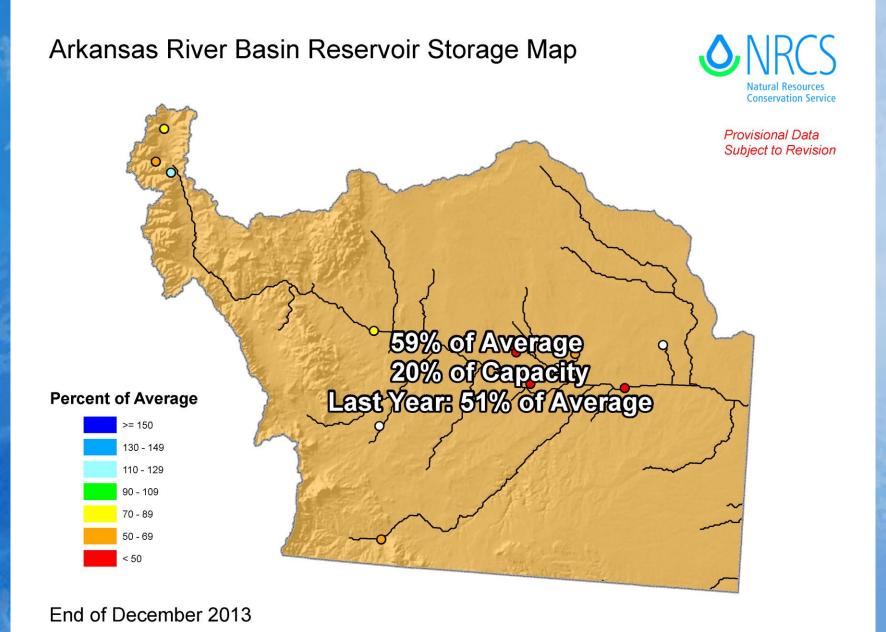
Averages

Arkansas River Basin High/Low Year-to-Date Precipitation Summary

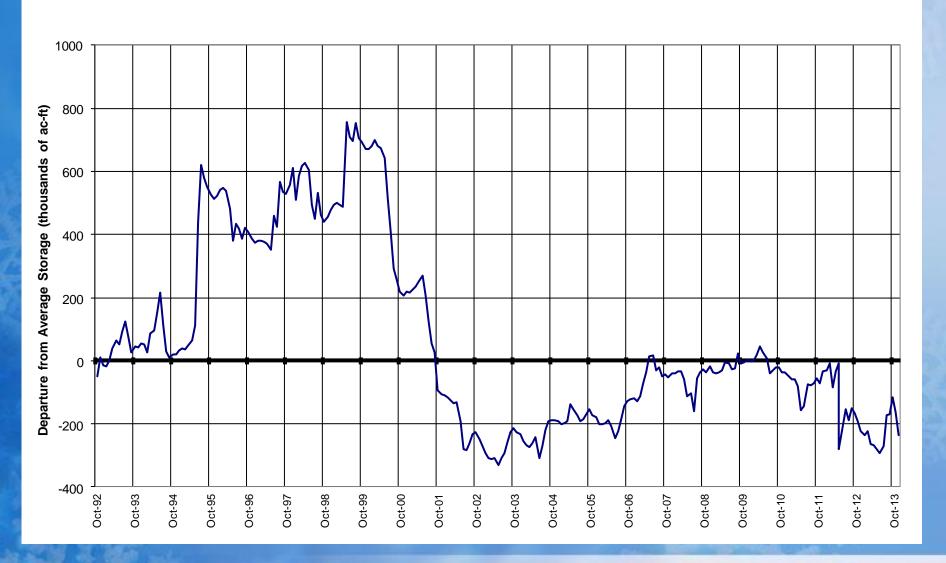
Based on Provisional SNOTEL data as of Jan 21, 2014







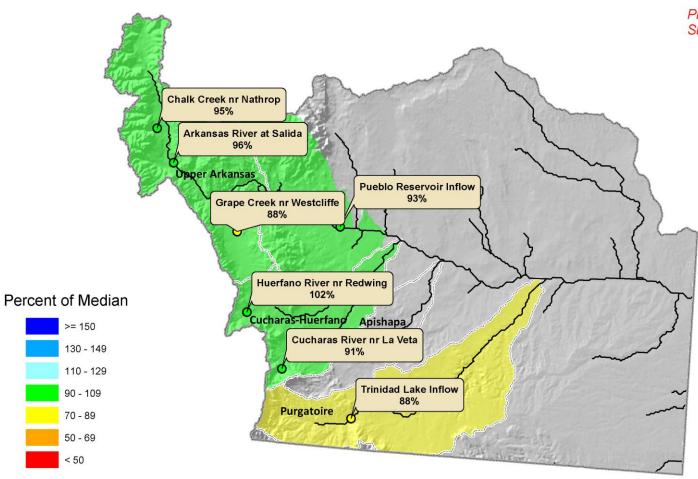
ARKANSAS RIVER BASIN Reservoir Storage Departure from Average



Arkansas River Basin Streamflow Forecast Map



Provisional Data Subject to Revision



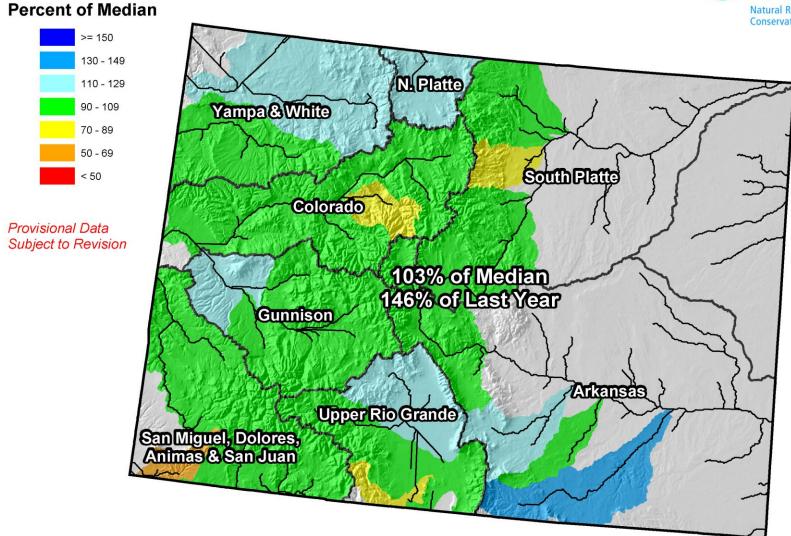
Current as of January 1, 2014

Colorado Statewide Summary



Colorado Snowpack Map





Current as of January 1, 2014

Colorado Statewide High/Low Snowpack Summary Based on Provisional SNOTEL data as of Jan 21, 2014 Current as Pct of Normal: 111% Conservation Service Current as Pct of Avg: 107% Current as Pct of Last Year: 178% Current as Pct of Peak: 60% Normal as Pct of Peak: 54% 25 Pct of Normal Needed to Reach Peak: 86% Normal Peak Date: Apr 07 Snow Water Equivalent (inches) 5 Feb 01 Jun 01 Oct 01 Nov 01 Dec 01 Jan 01 Mar 01 Apr 01 May 01 Jul 01 Aug 01 Sep 01

WY2002

WY2011

WY2013

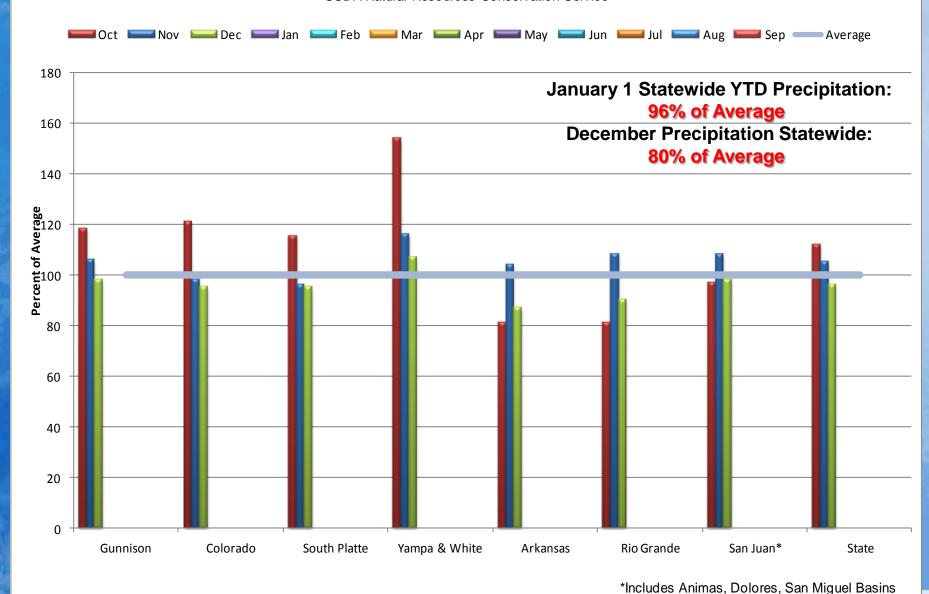
Maximum

Mininum

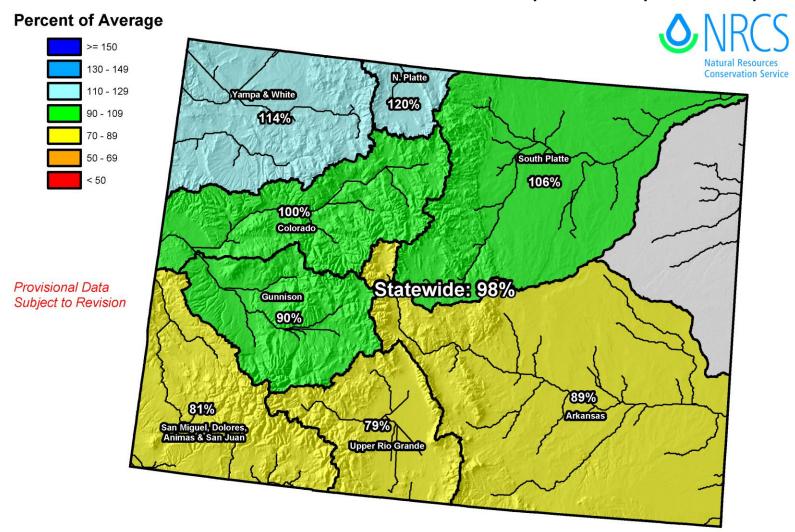
Averages

Colorado Year-to-Date Precipitation Summary for WY2014

USDA Natural Resources Conservation Service

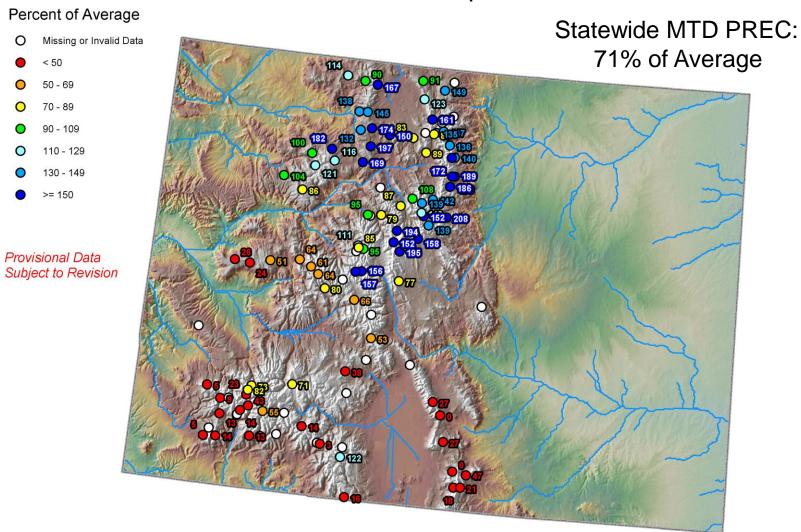


Colorado SNOTEL Water Year-to-Date Precipitation Update Map

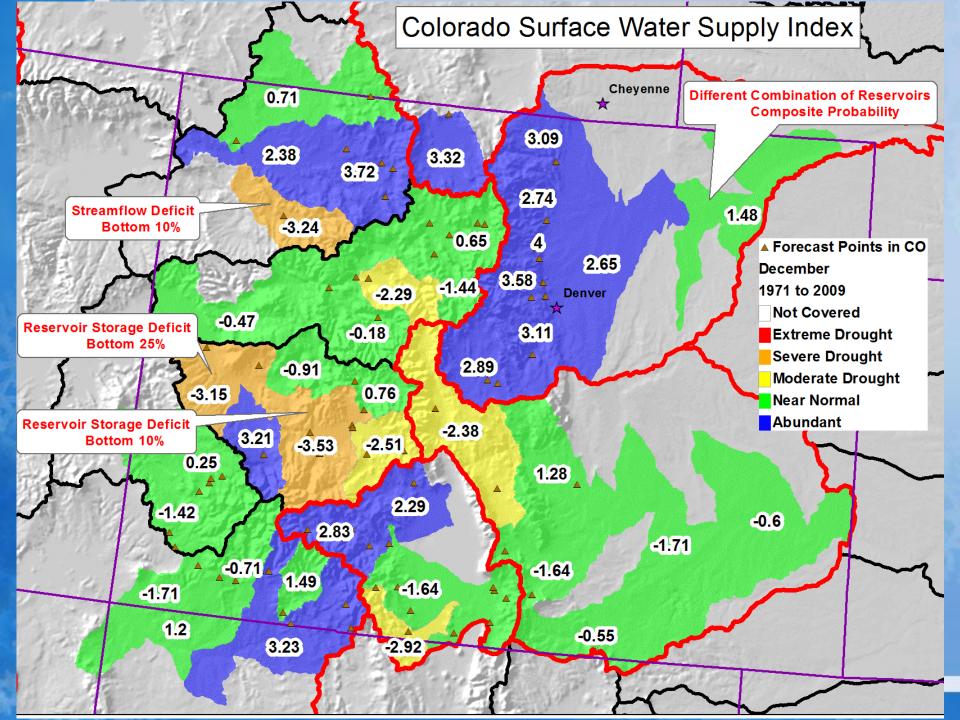


Current as of Jan 21, 2014

Colorado SNOTEL Month-to-Date Precipitation



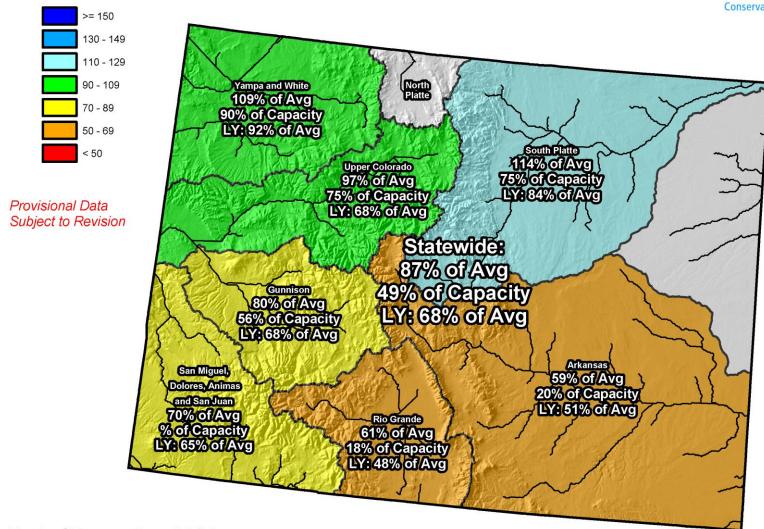
Current as of Jan 21, 2014



Colorado Reservoir Storage Map

Natural Resources Conservation Service

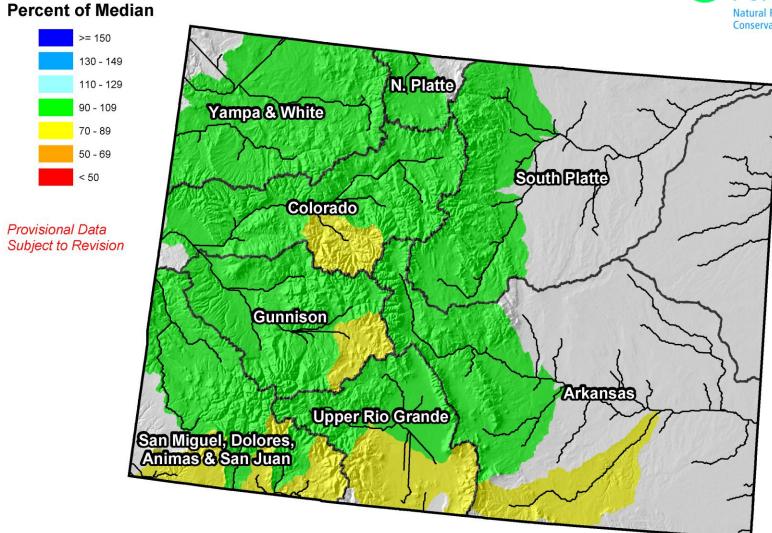
Percent of Average



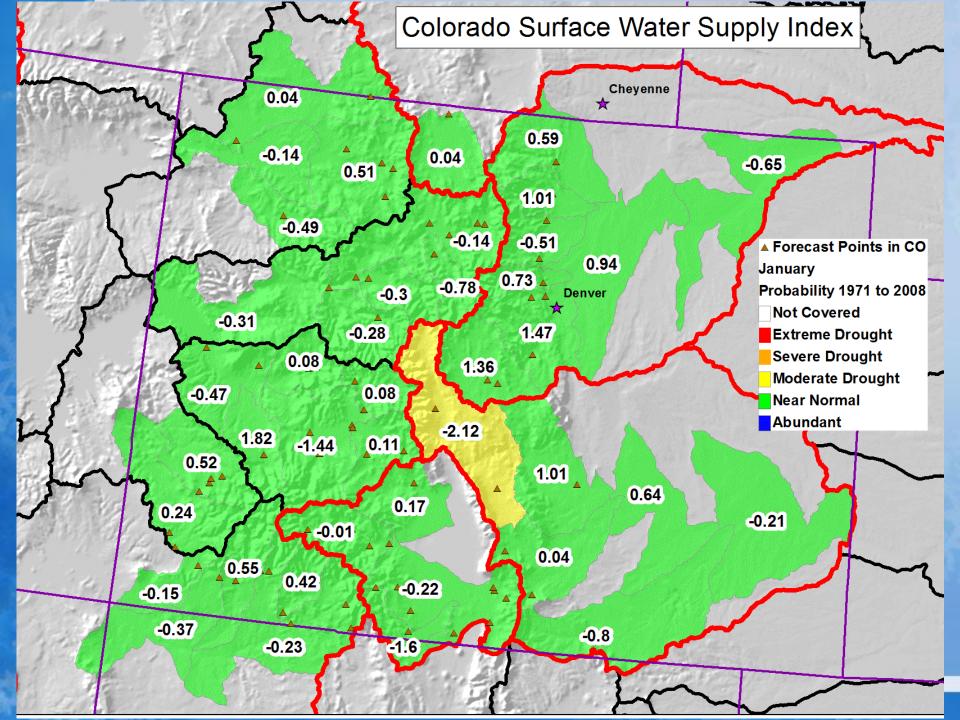
End of December 2013

Colorado Streamflow Forecast Map





Current as of January 1, 2014



Notes on the January SWSI

- •SWSI inputs switch in January from reservoir storage and observed streamflow to reservoir storage and streamflow forecasts.
 - "More of a future component"
- •This seems to have "evened" out all the HUC's compared to December.
- •The outlier in the Arkansas Headwaters is due to Homestake.

WY2014 Summary

- •OCT: The northern basins had well above average precipitation for the 2nd consecutive month. The southern basins were in the 80 -90% range. All basins received some good early season snow accumulation.
- •NOV: Basins flip flopped with the southern basins seeing above avg precip and northern basins slightly below average. All basins still accumulating snow.
- •DEC: Things dried up in the southwest part of the state in early December. Still ended the month with snowpack totals above to near normal across the state.
- •JAN: The northern basins continue to accumulate snow at near normal rates but things have started to really dry up in the southern part of the state.