

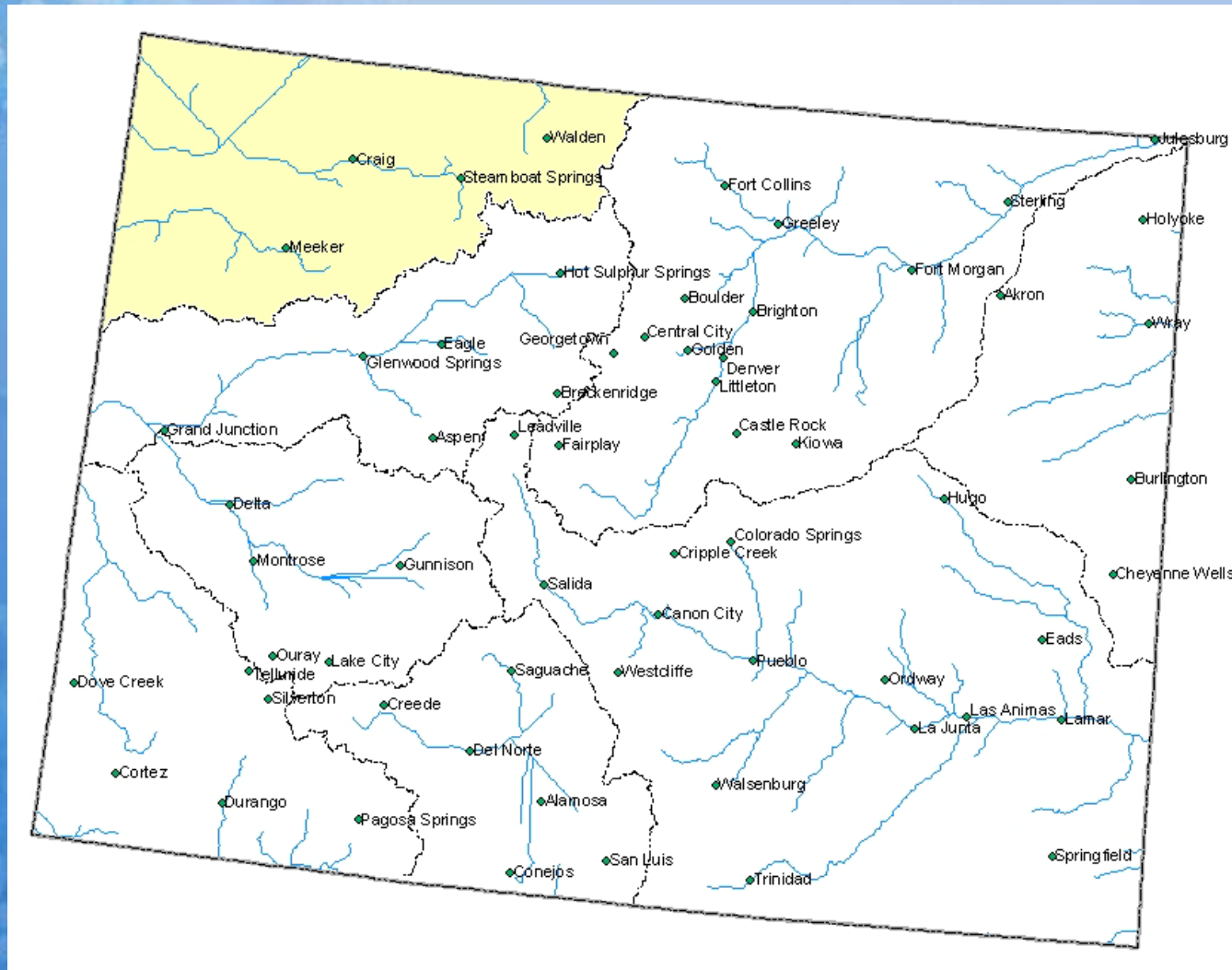
NRCS – Snow Survey & Water Supply Forecasting

Mage Hultstrand

Water Availability Task Force Meeting

May 22, 2012

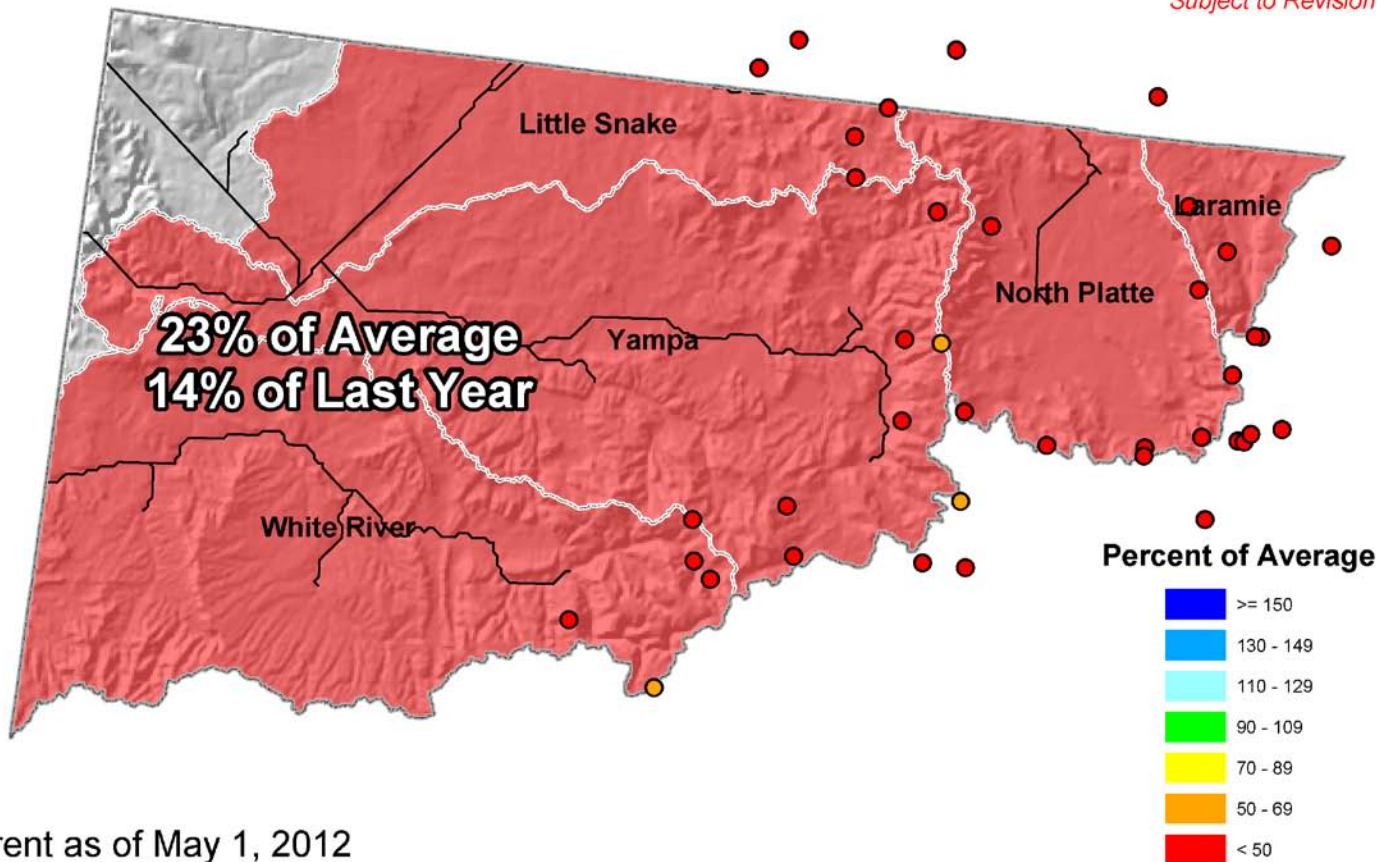
Yampa, White & North Platte River Basins Summary



Yampa, White and North Platte River Basins Snowpack Map

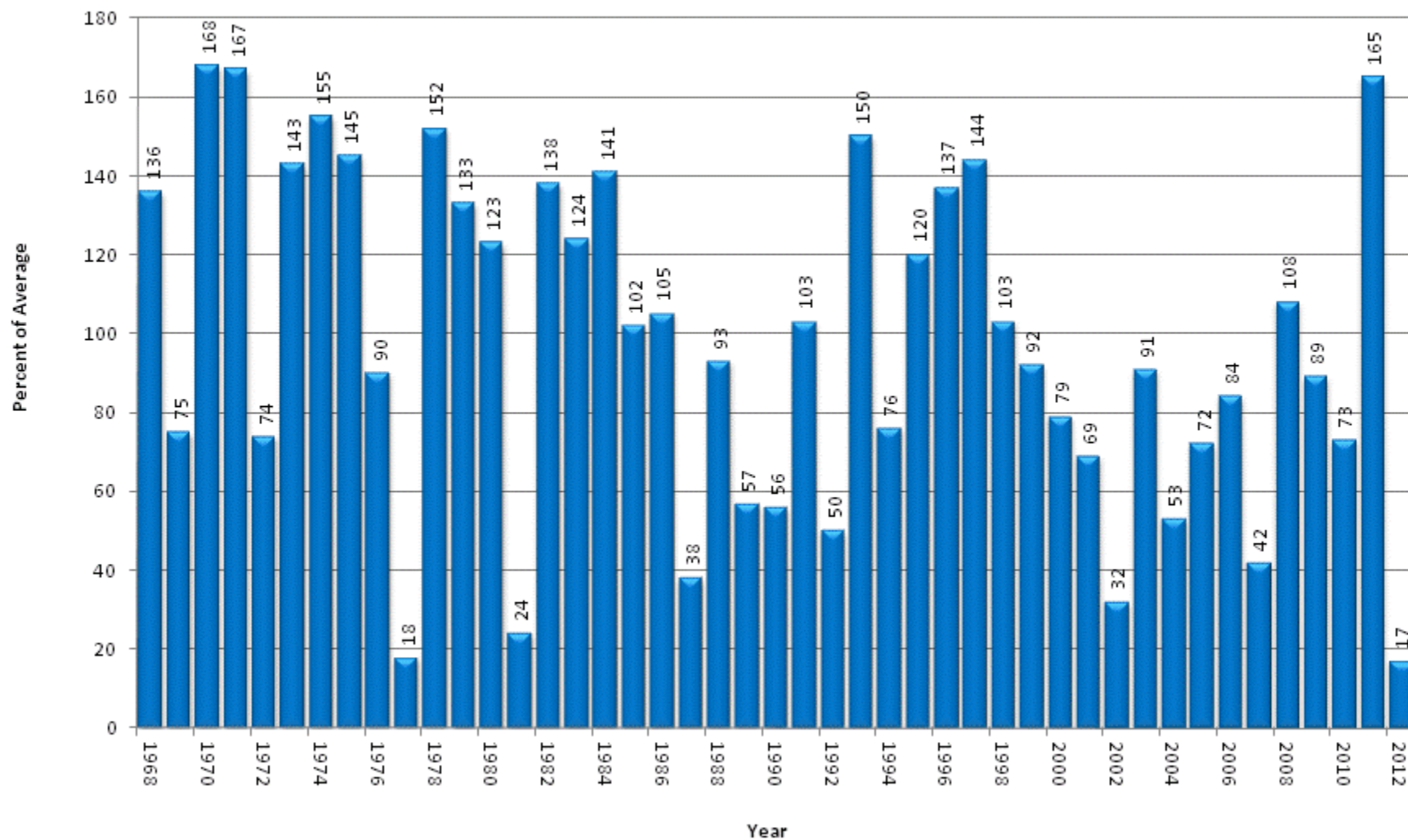


*Provisional Data
Subject to Revision*



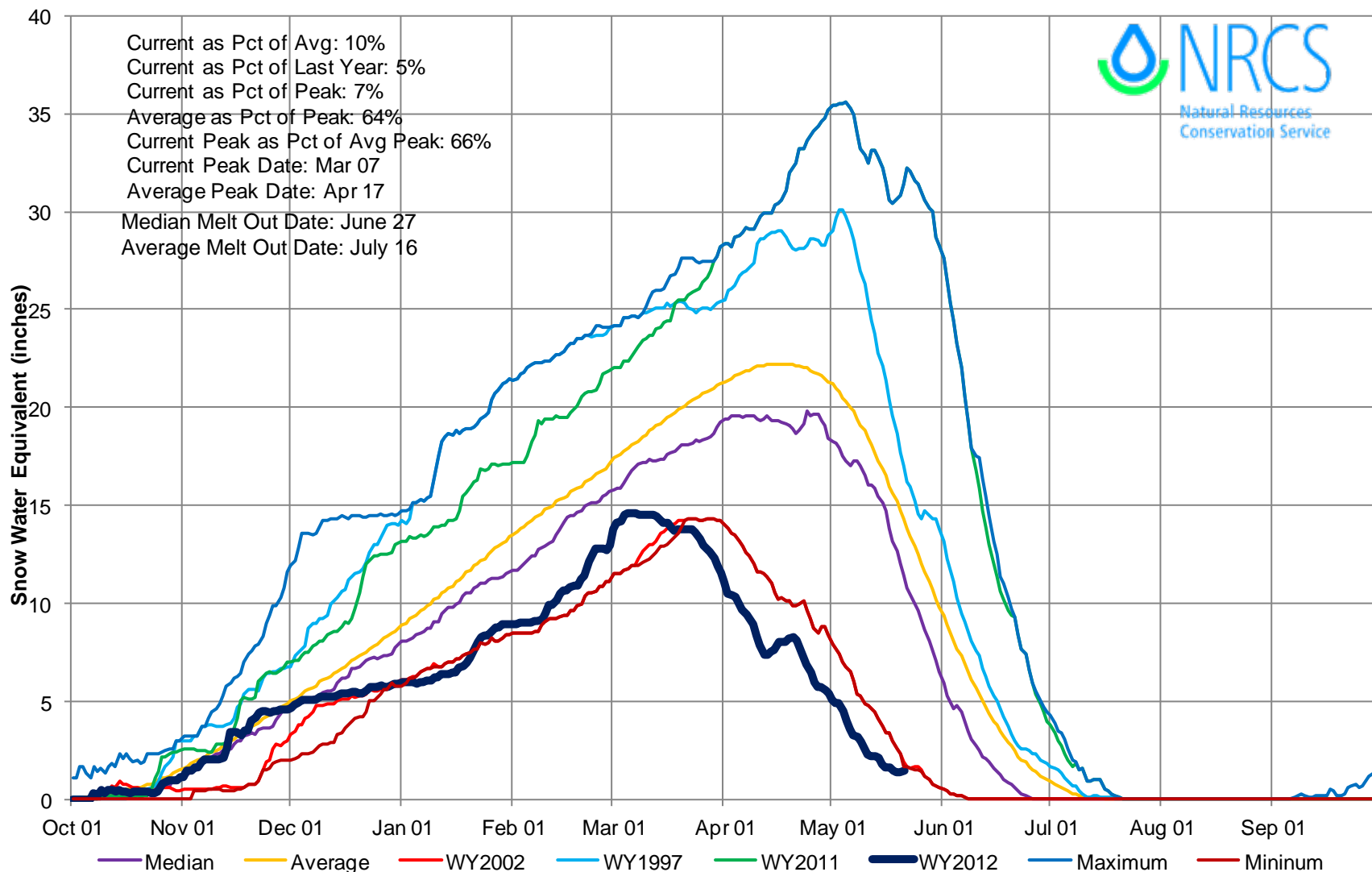
Current as of May 1, 2012

May 1 Total Yampa & White River Basins Snowpack



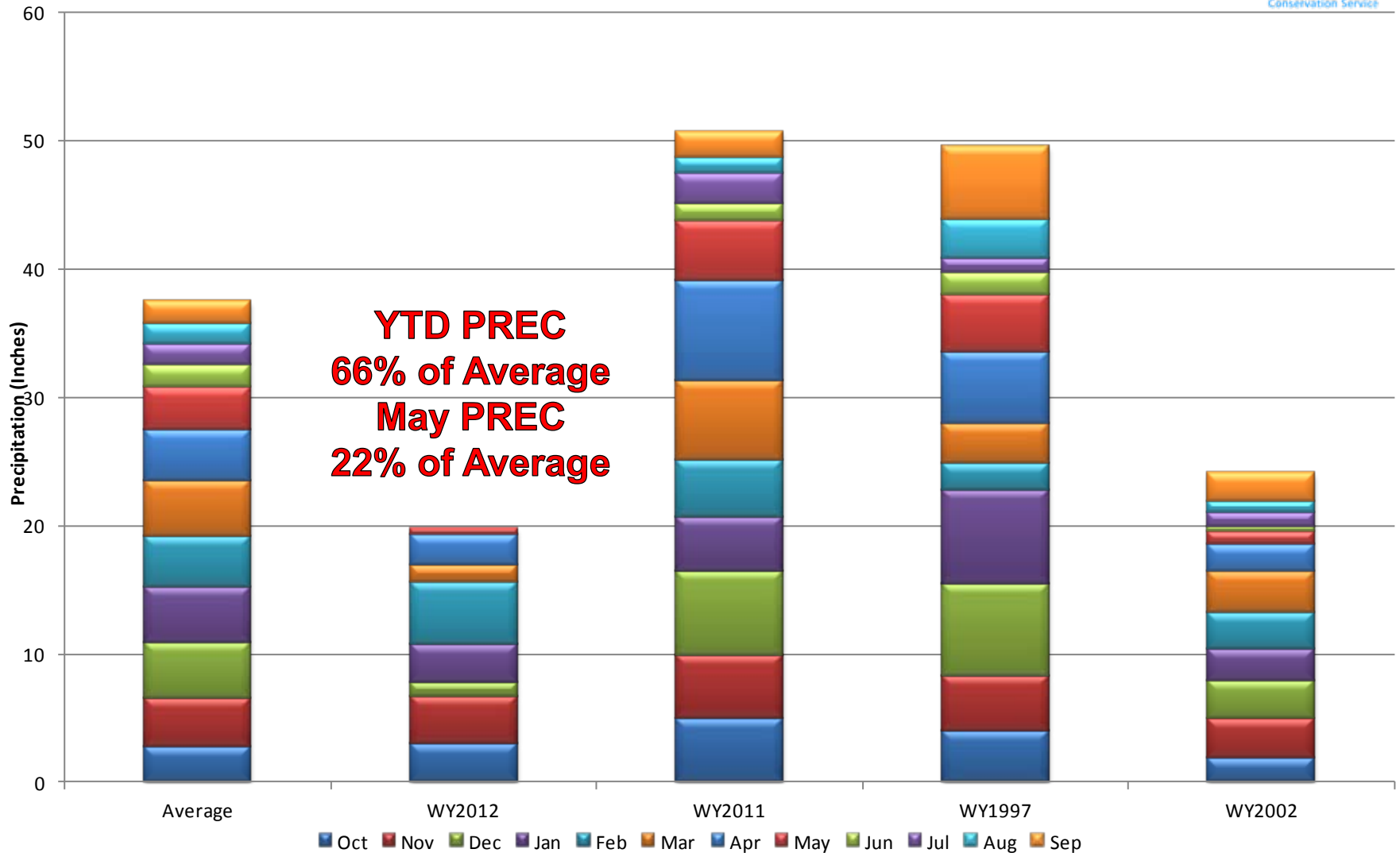
Yampa, White and North Platte River Basins High/Low Snowpack Summary

Based on Provisional SNOTEL data as of May 21, 2012



Yampa and White River Basins High/Low Monthly Precipitation Summary

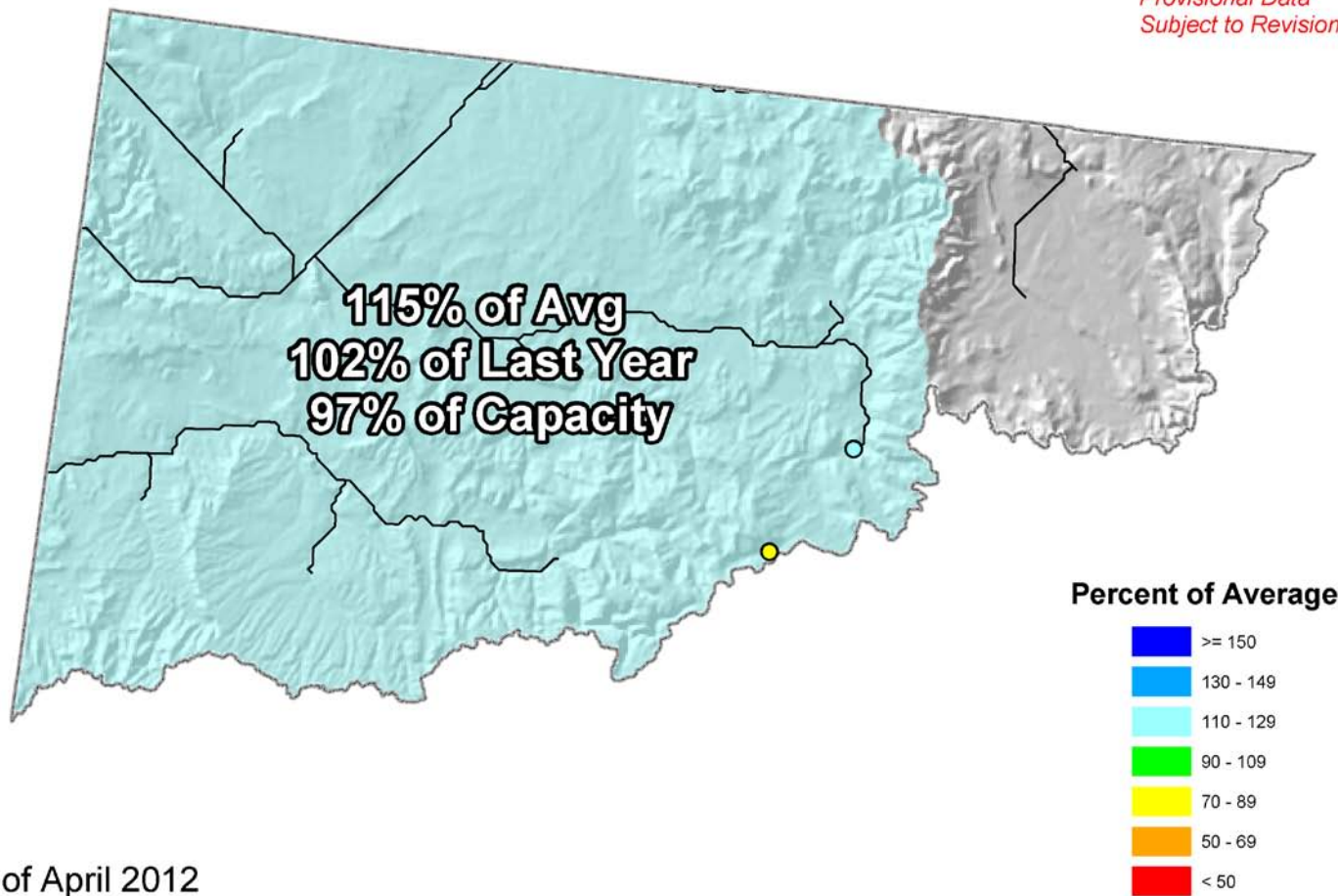
Based on Provisional SNOTEL data as of May 21, 2012



Yampa & White River Basins Reservoir Storage Map



*Provisional Data
Subject to Revision*

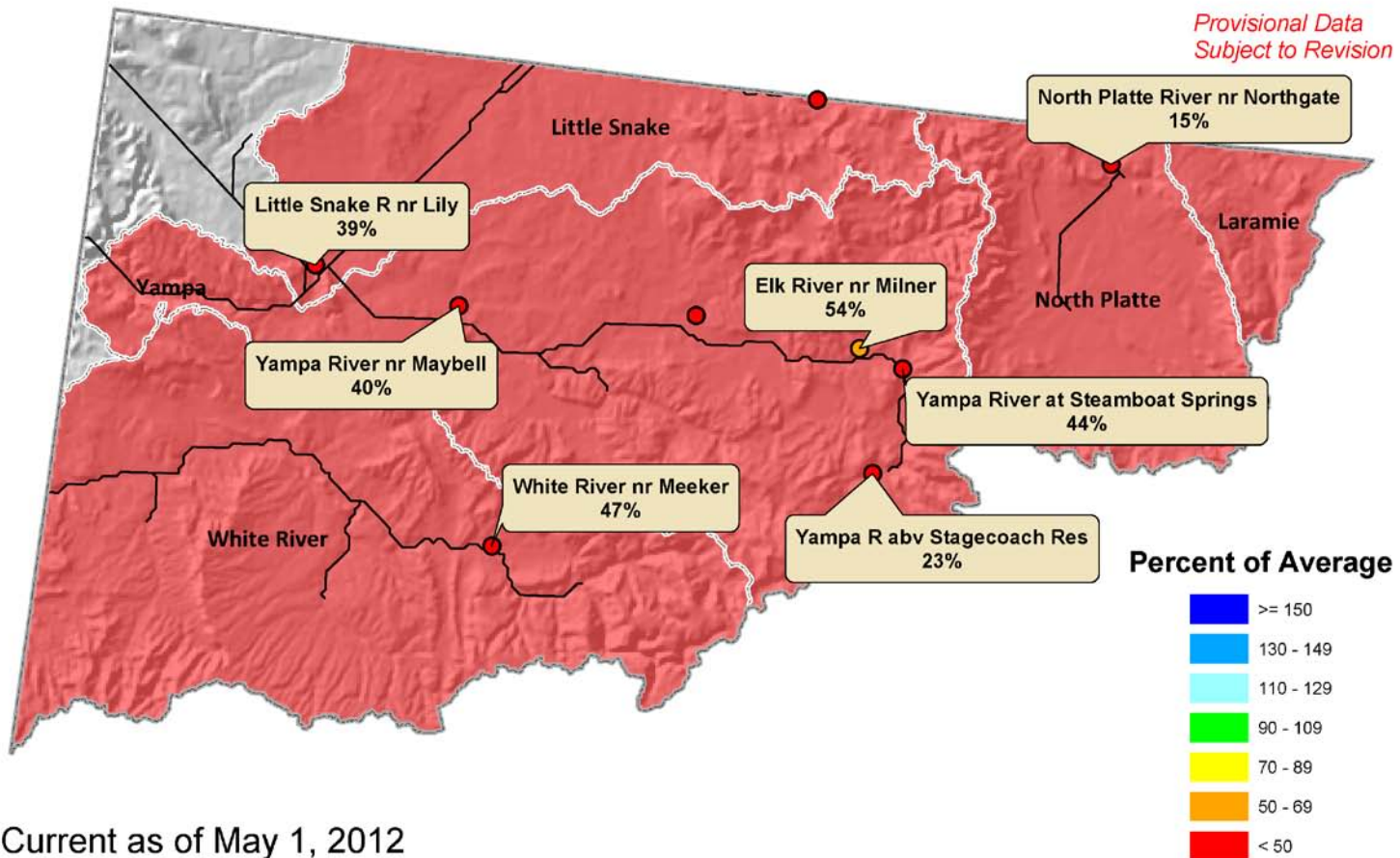


End of April 2012

Yampa, White and North Platte River Basins Streamflow Map

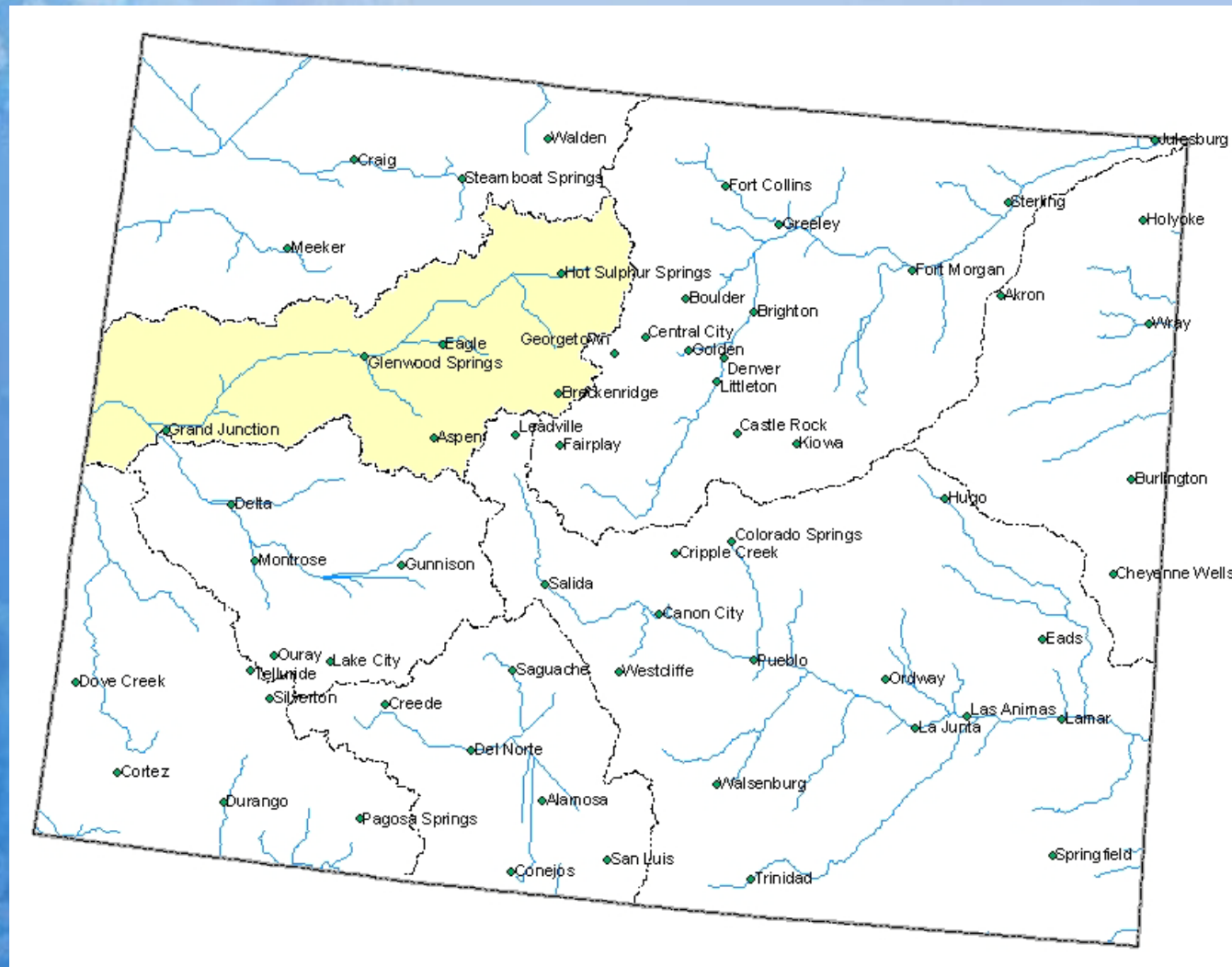


*Provisional Data
Subject to Revision*



Current as of May 1, 2012

Colorado River Basin Summary



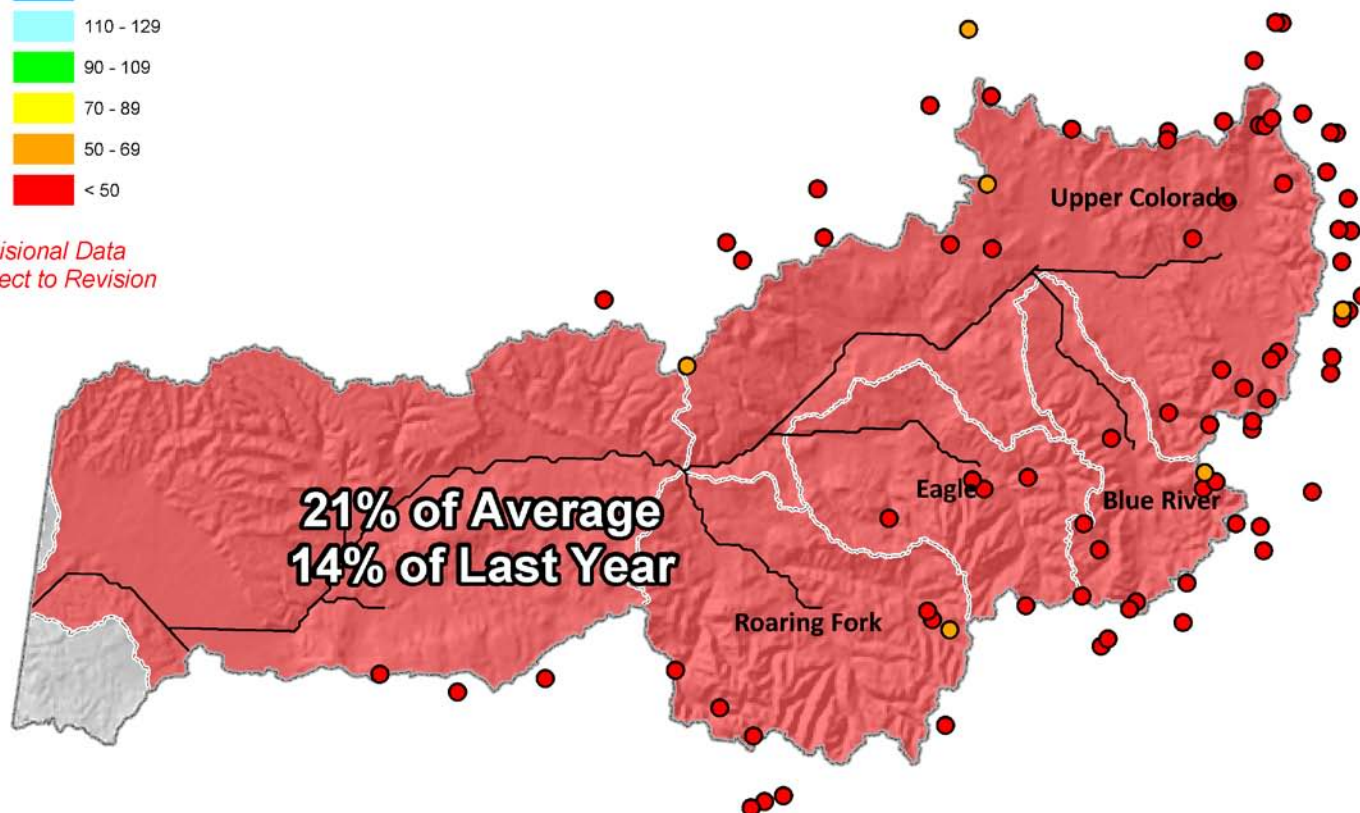
Colorado River Basin Snowpack Map



Percent of Average



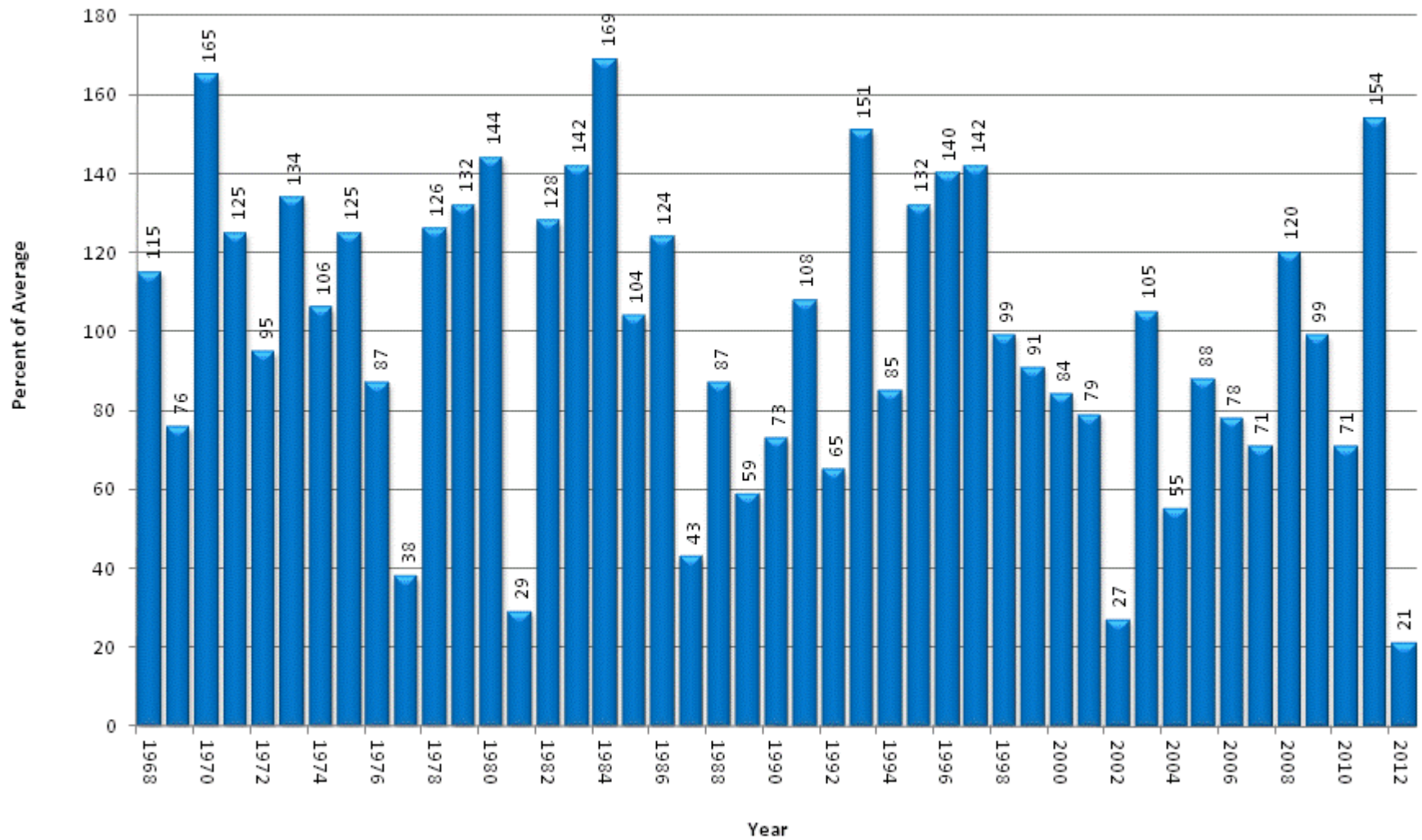
*Provisional Data
Subject to Revision*



Current as of May 1, 2012

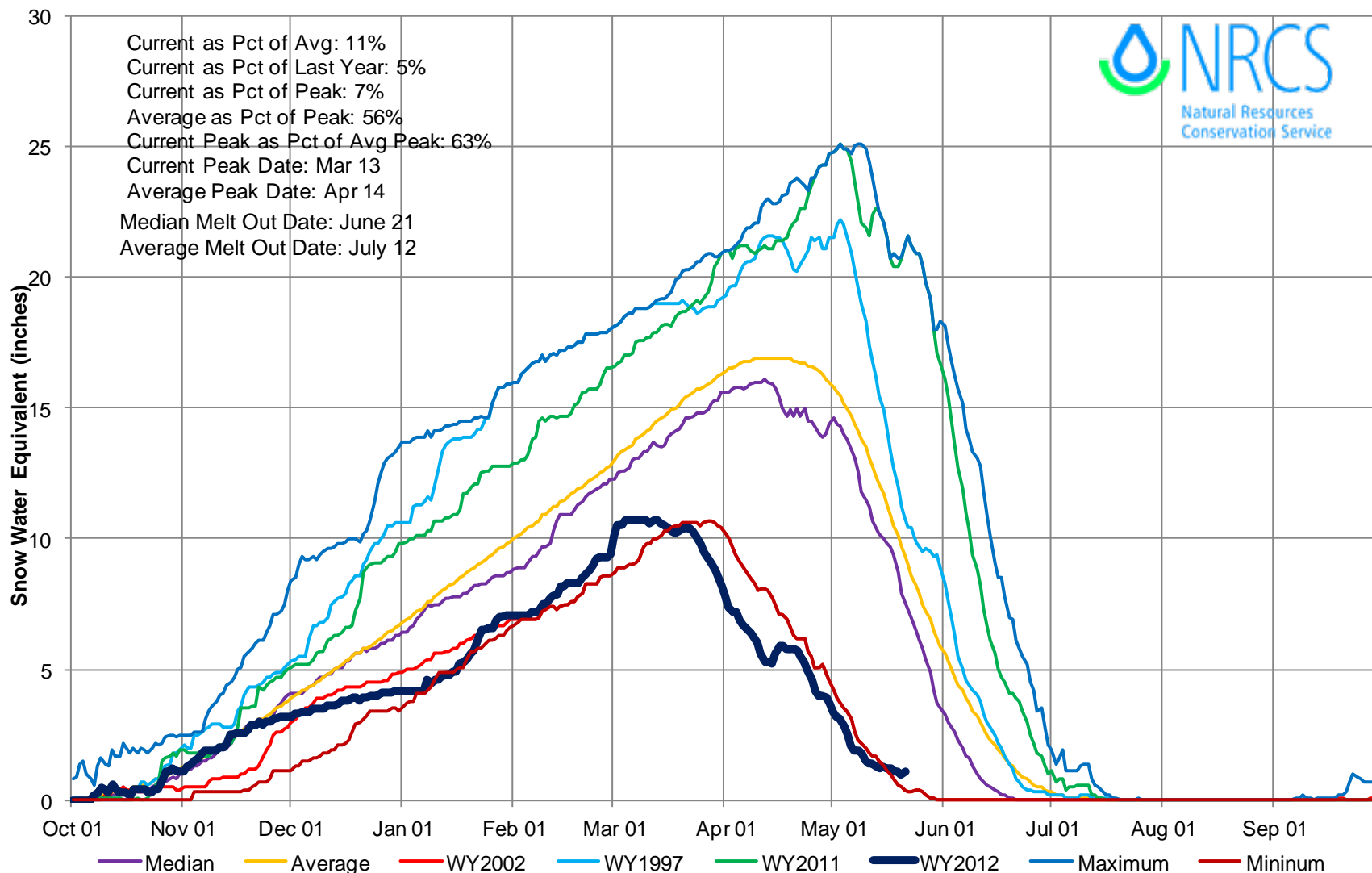
Lake Powell Inflow: Apr – Jul = 2260 ac-ft, 32% average

May 1 Total Colorado River Basin Snowpack



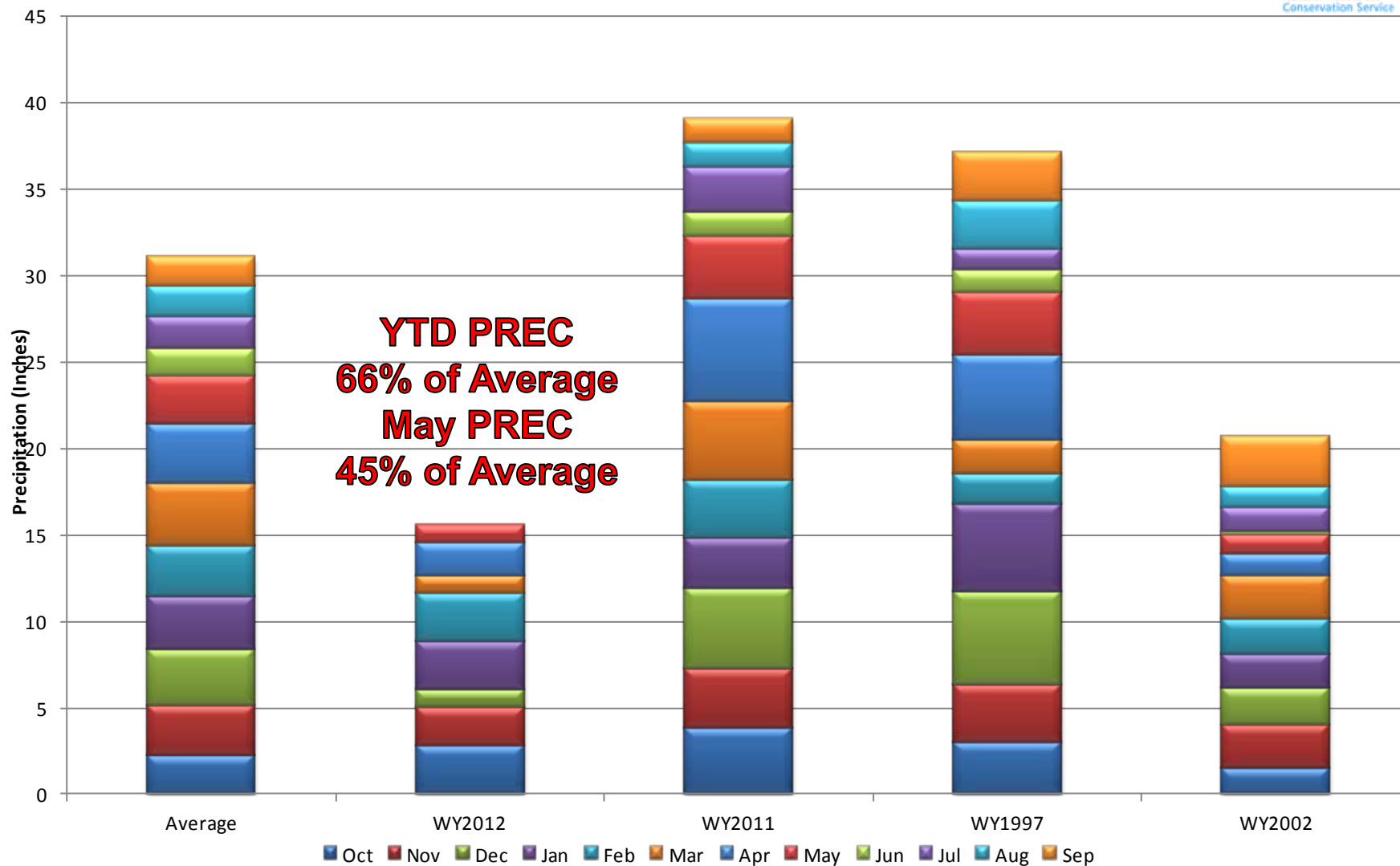
Upper Colorado River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of May 21, 2012



Upper Colorado River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of May 21, 2012



Colorado River Basin Reservoir Storage Map



Percent of Average



*Provisional Data
Subject to Revision*



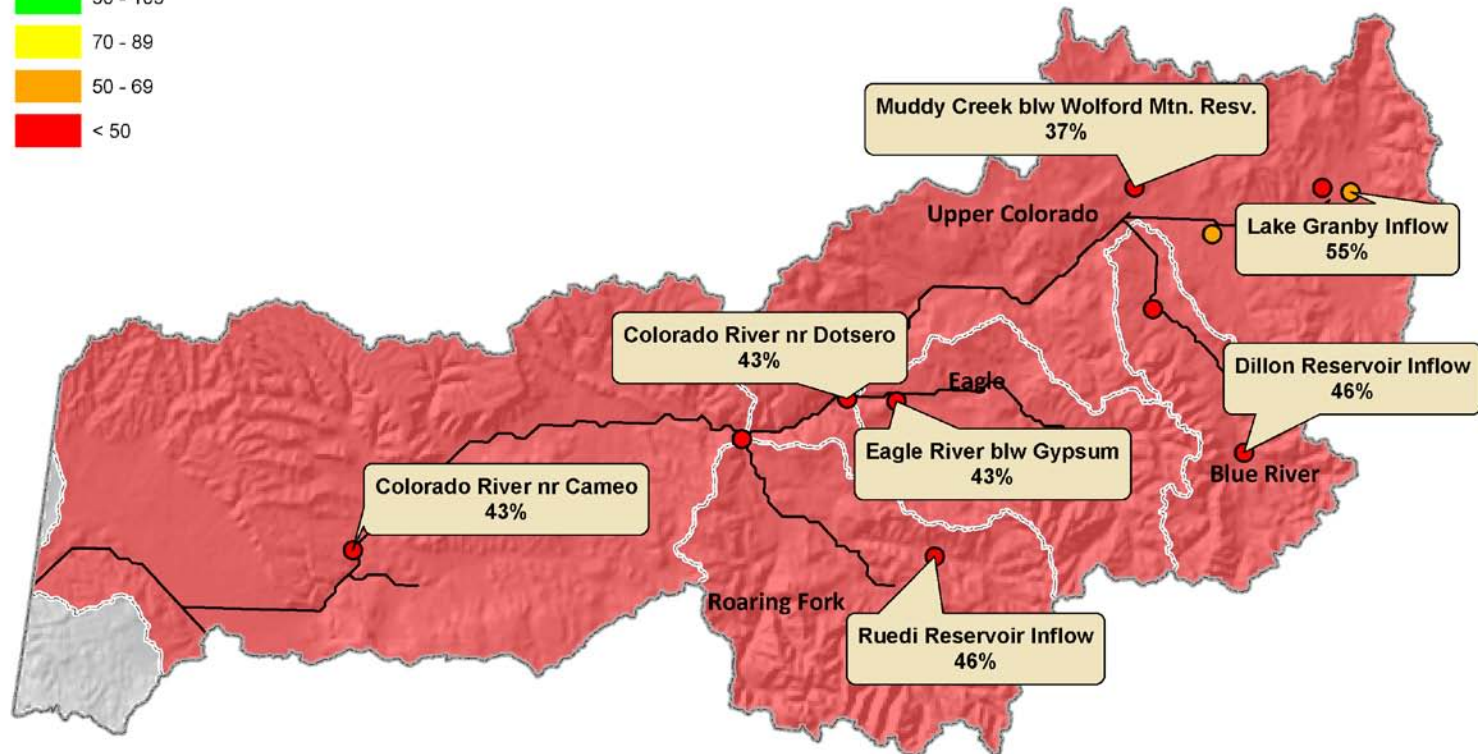
End of April 2012

Colorado River Basin Streamflow Forecast Map

Percent of Average

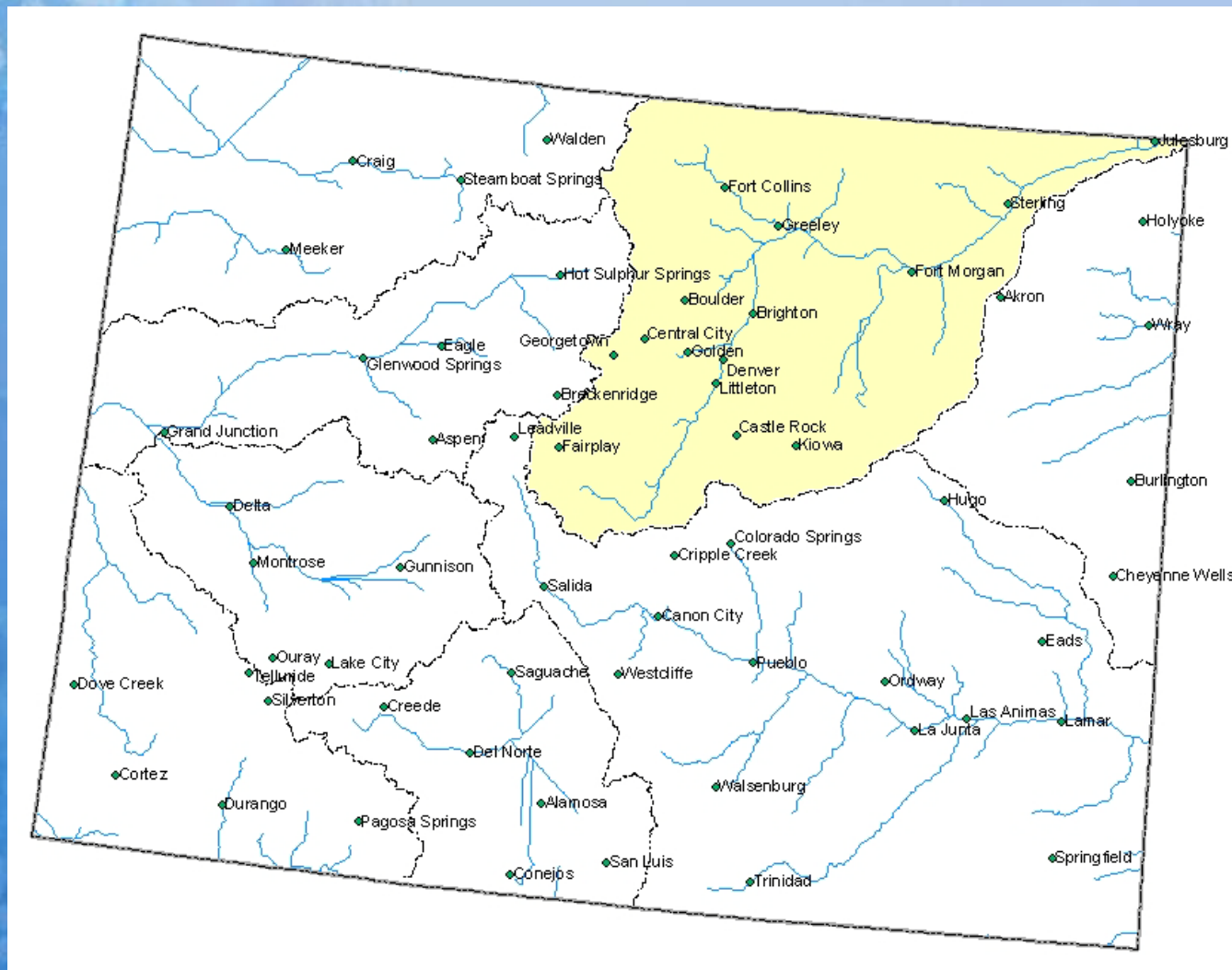


*Provisional Data
Subject to Revision*



Current as of May 1, 2012

South Platte River Basin Summary



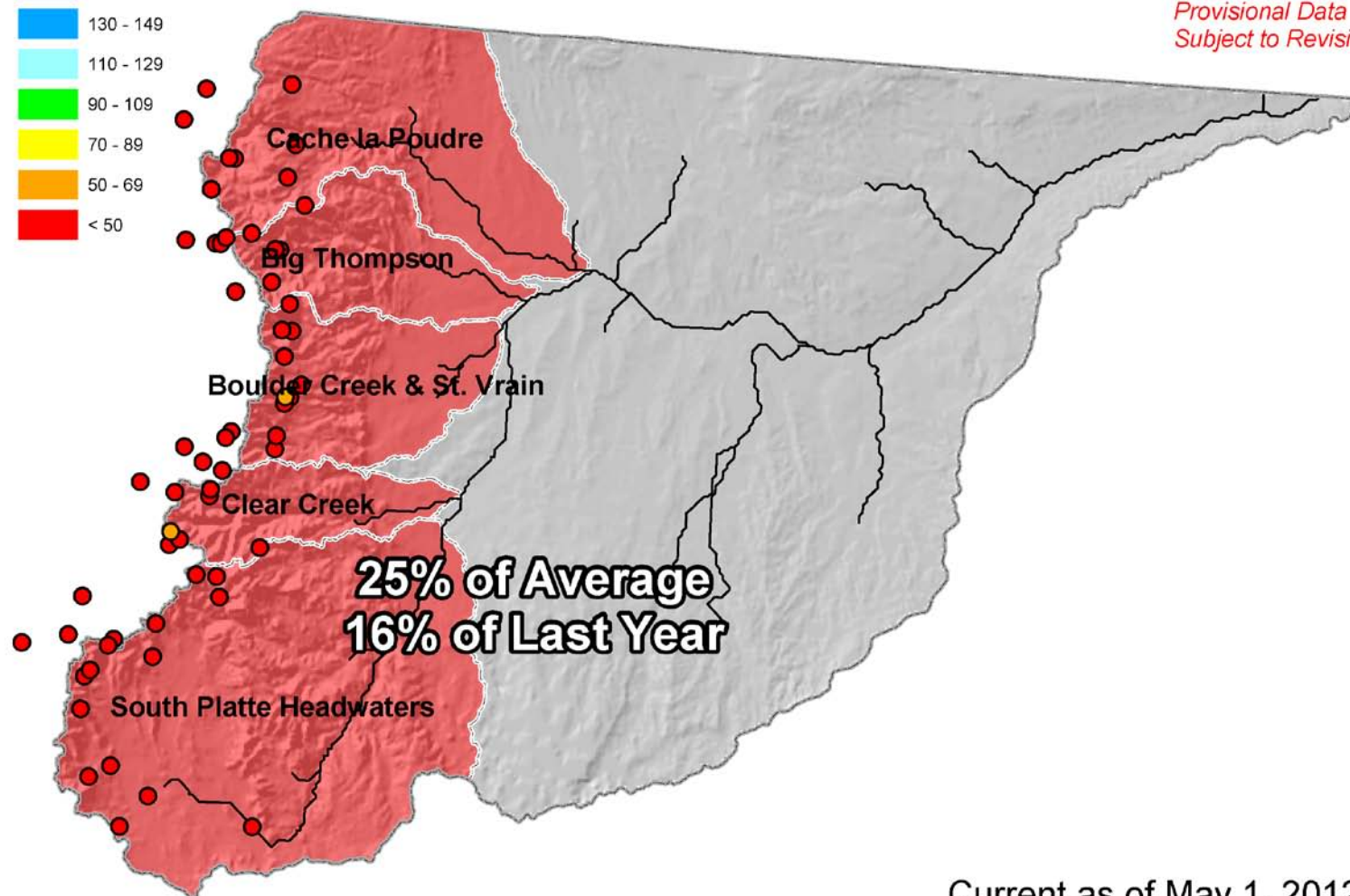
South Platte River Basin Snowpack Map



Percent of Average

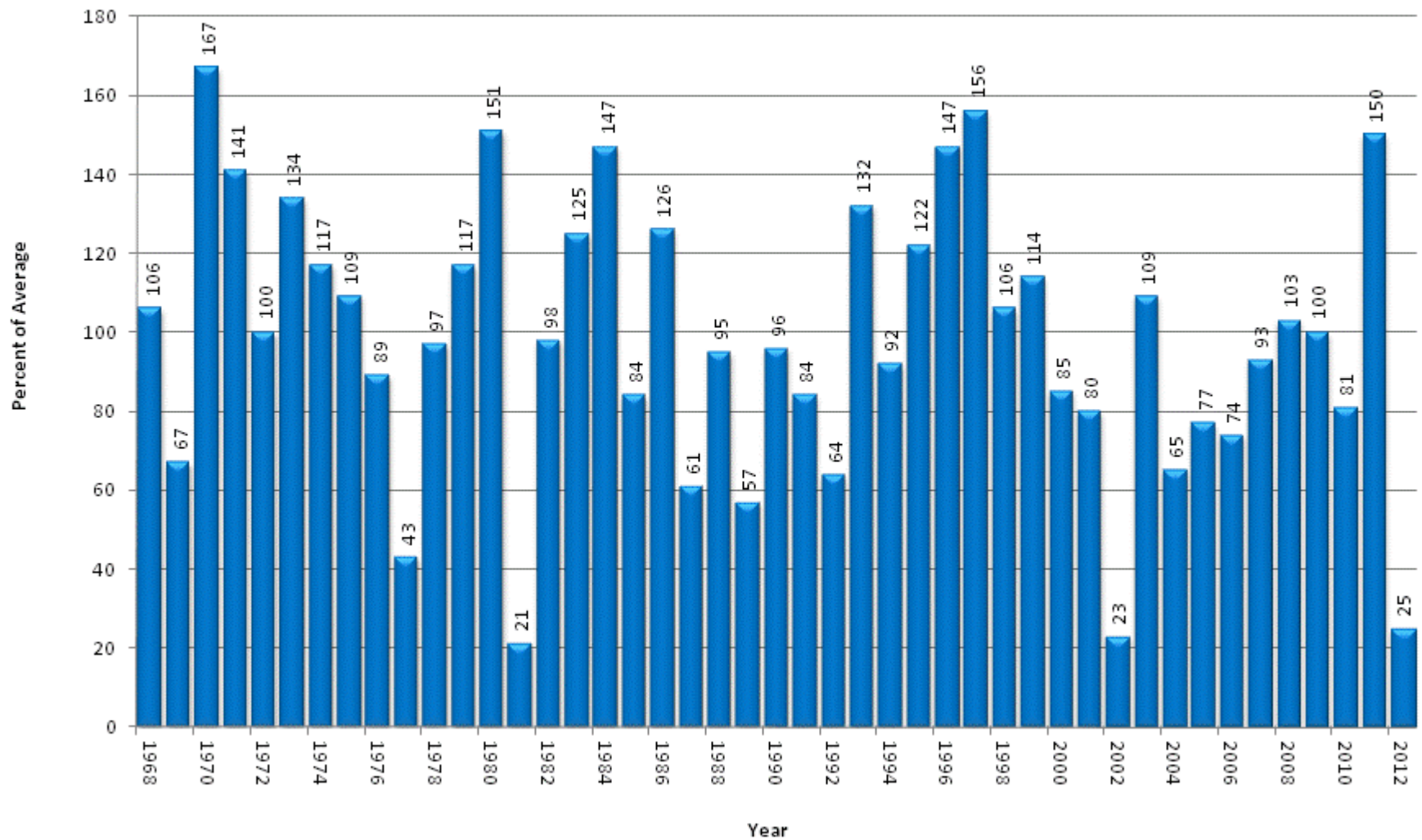


*Provisional Data
Subject to Revision*



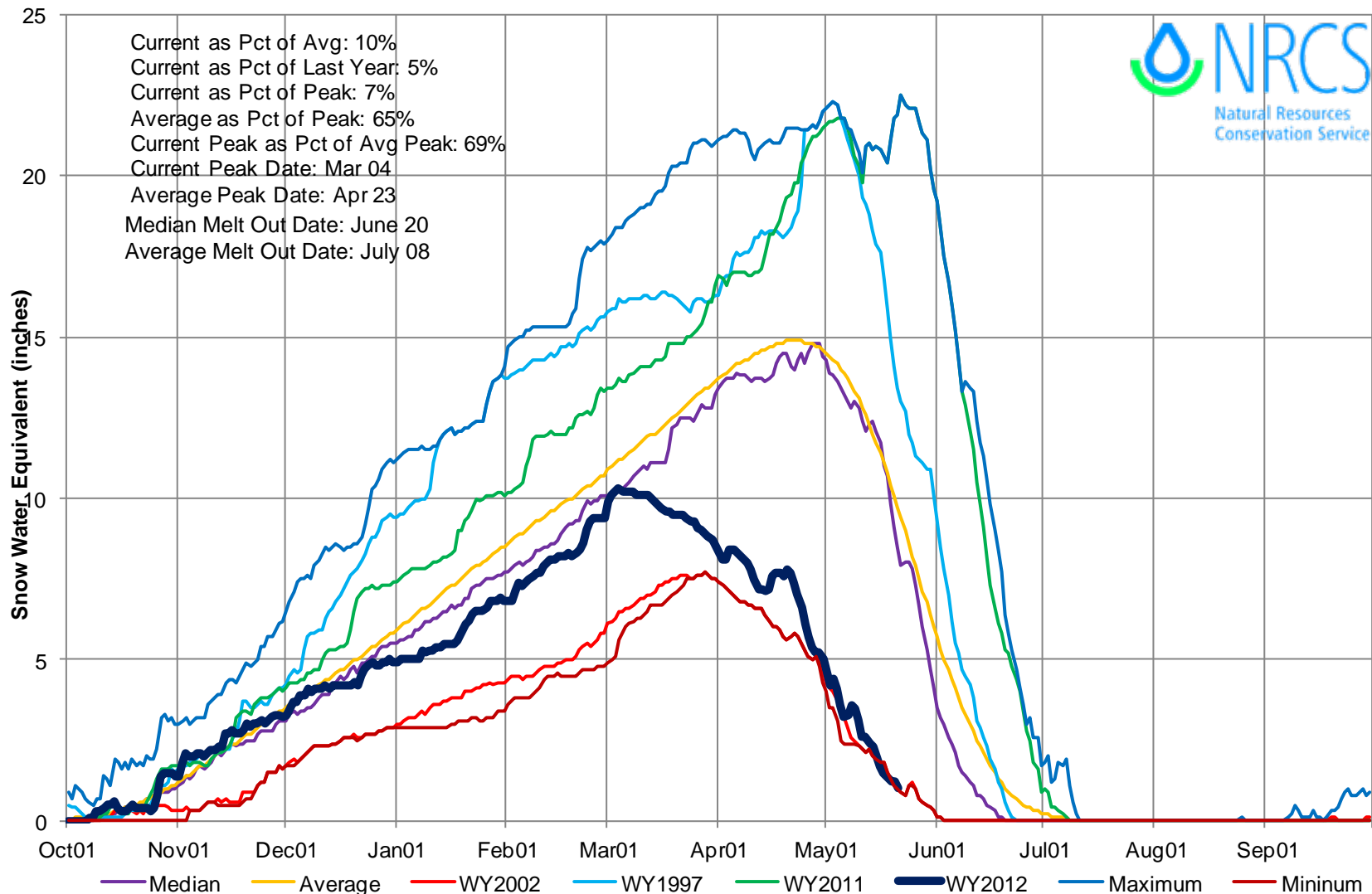
Current as of May 1, 2012

May 1 Total South Platte River Basin Snowpack



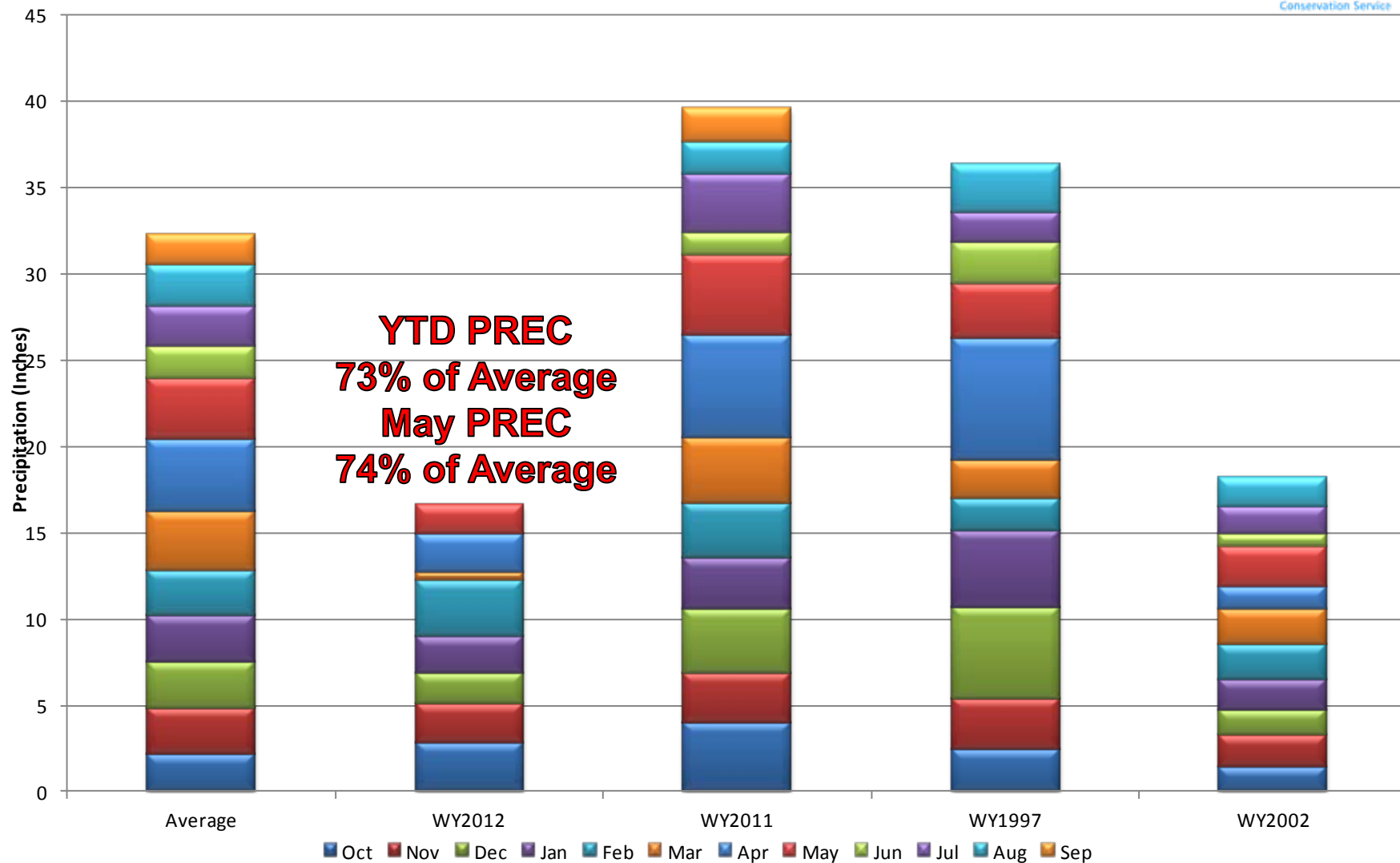
South Platte River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of May 21, 2012



South Platte River Basin High/Low Monthly Precipitation Summary

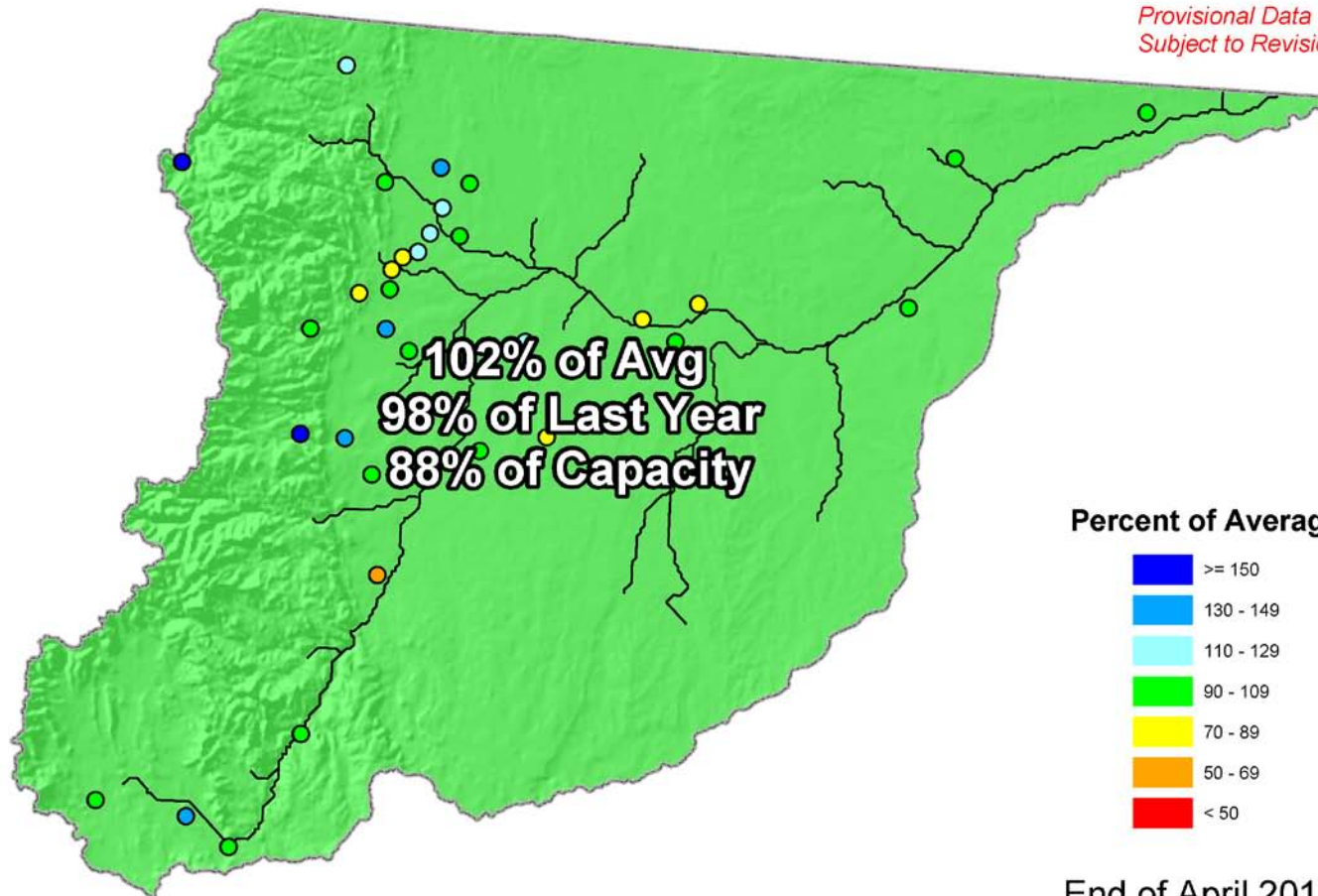
Based on Provisional SNOTEL data as of May 21, 2012



South Platte River Basin Reservoir Storage Map



*Provisional Data
Subject to Revision*

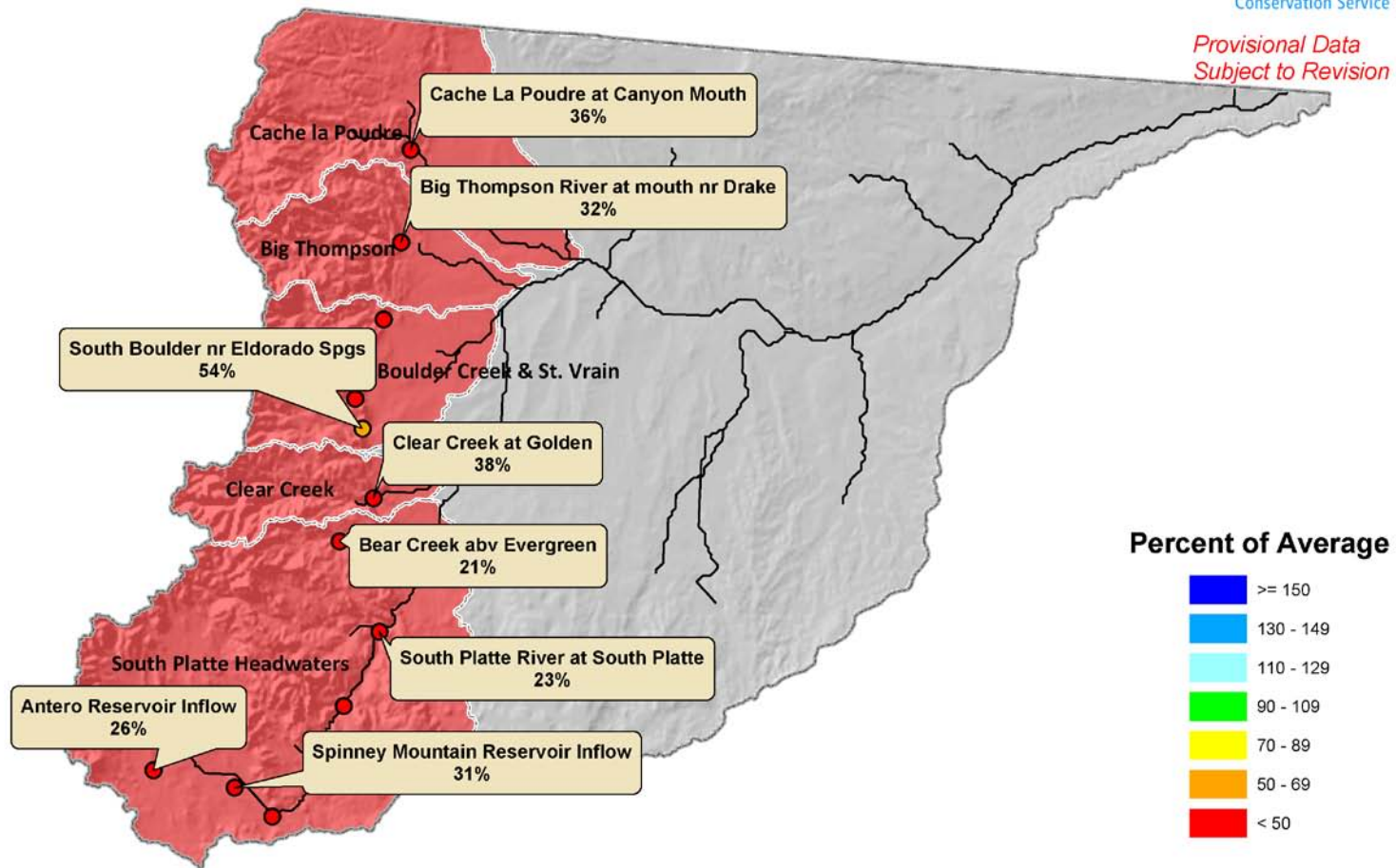


End of April 2012

South Platte River Basin Streamflow Forecast Map

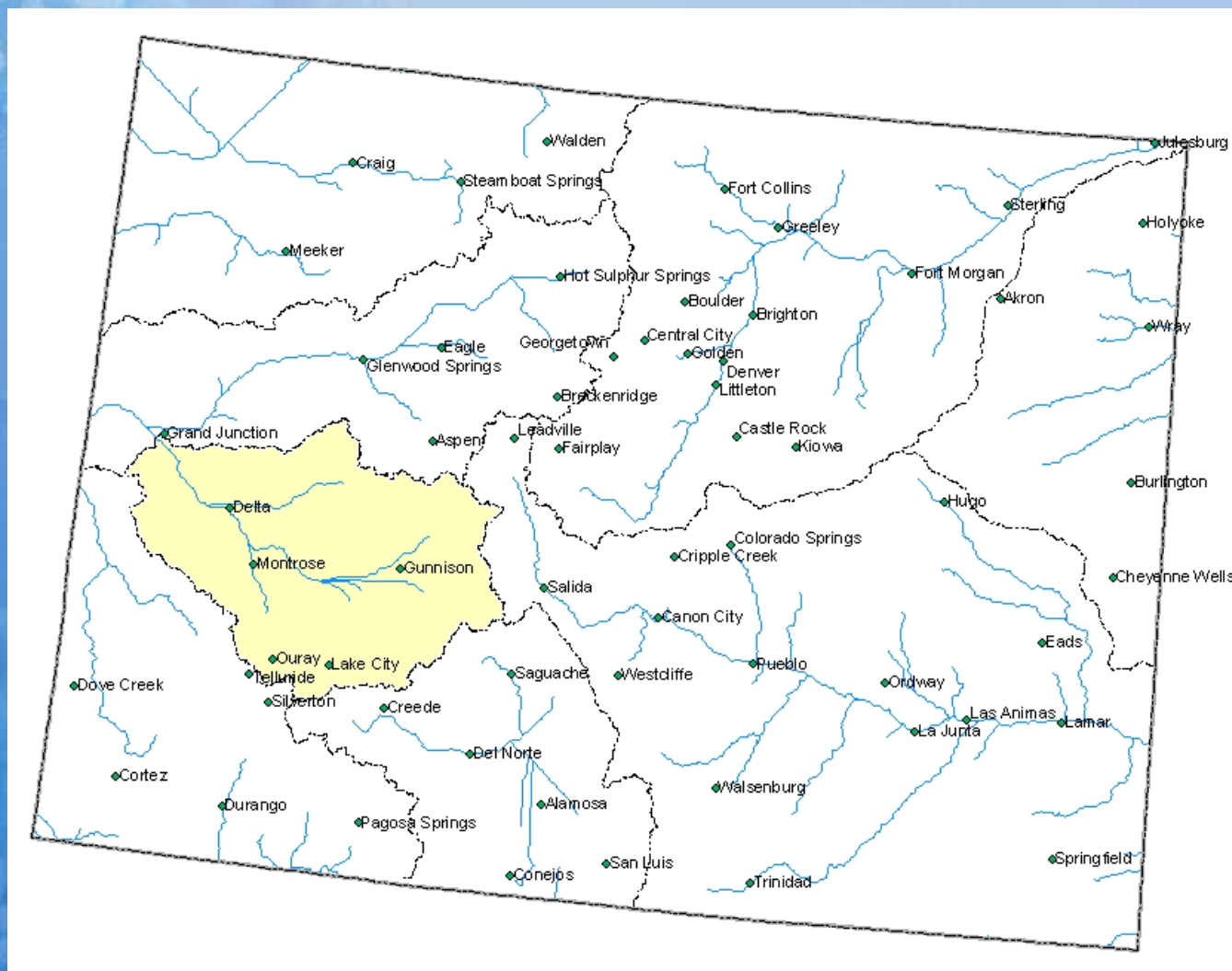


*Provisional Data
Subject to Revision*



Current as of May 1, 2012

Gunnison River Basin Summary



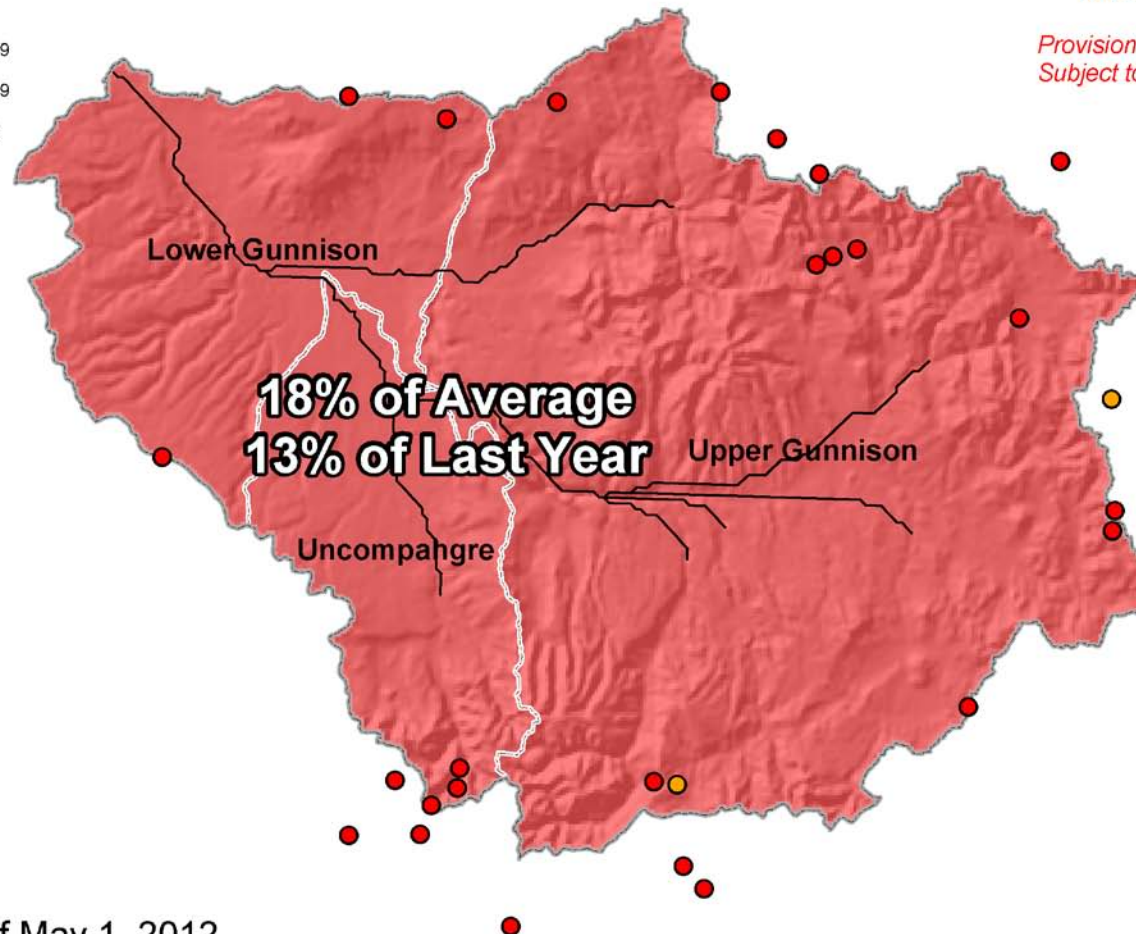
Gunnison River Basin Snowpack Map



Percent of Average

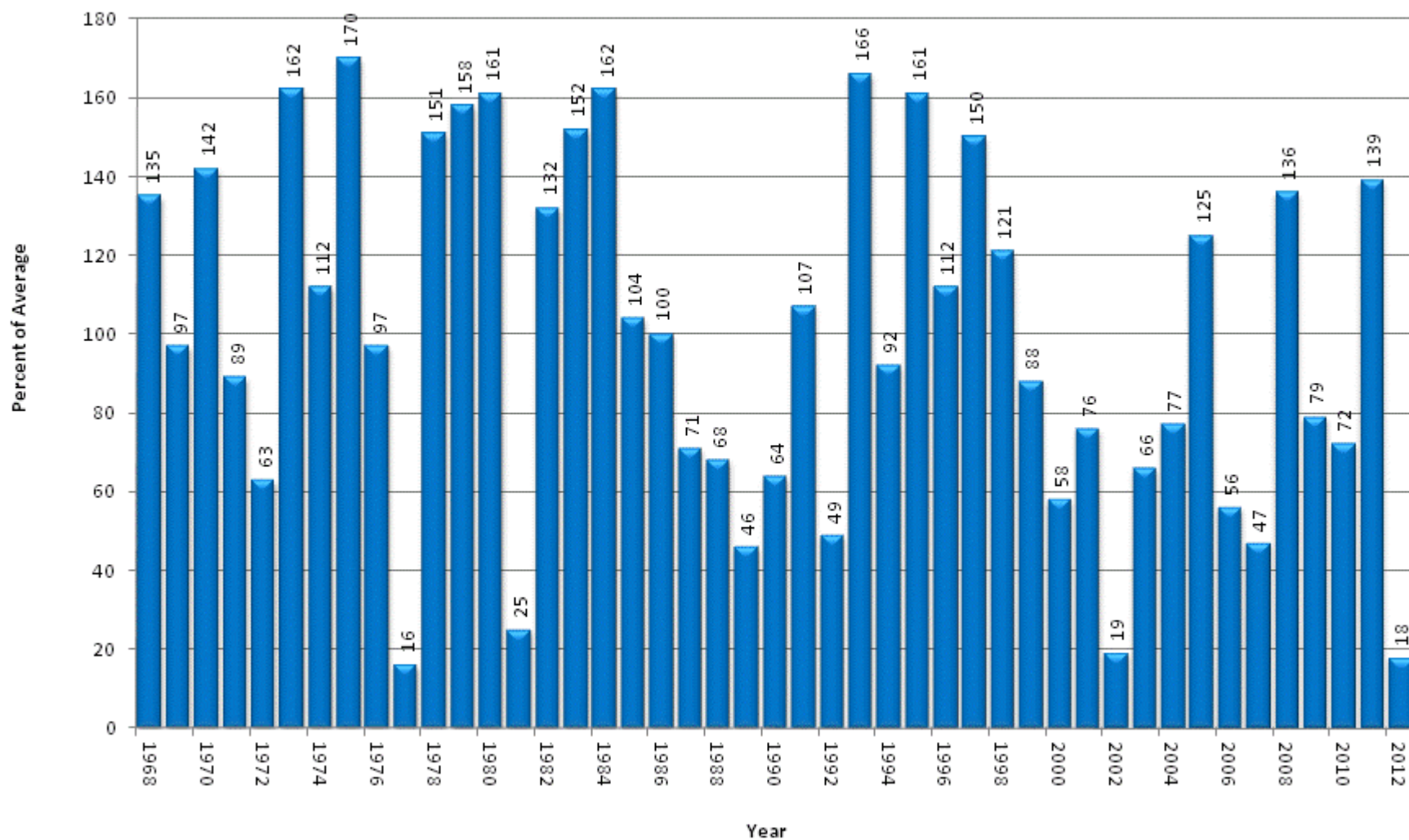


*Provisional Data
Subject to Revision*



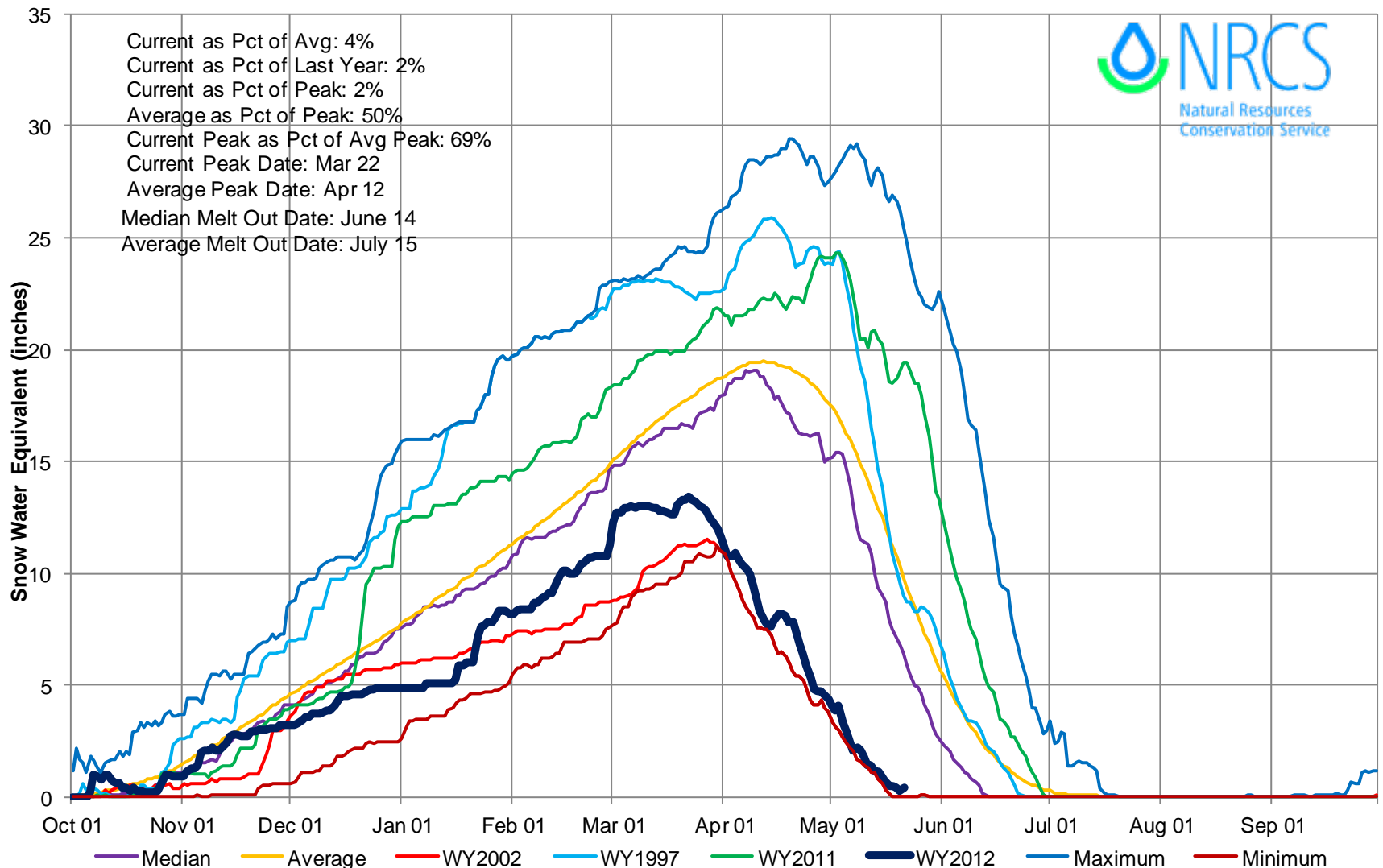
Current as of May 1, 2012

May 1 Total Gunnison River Basin Snowpack



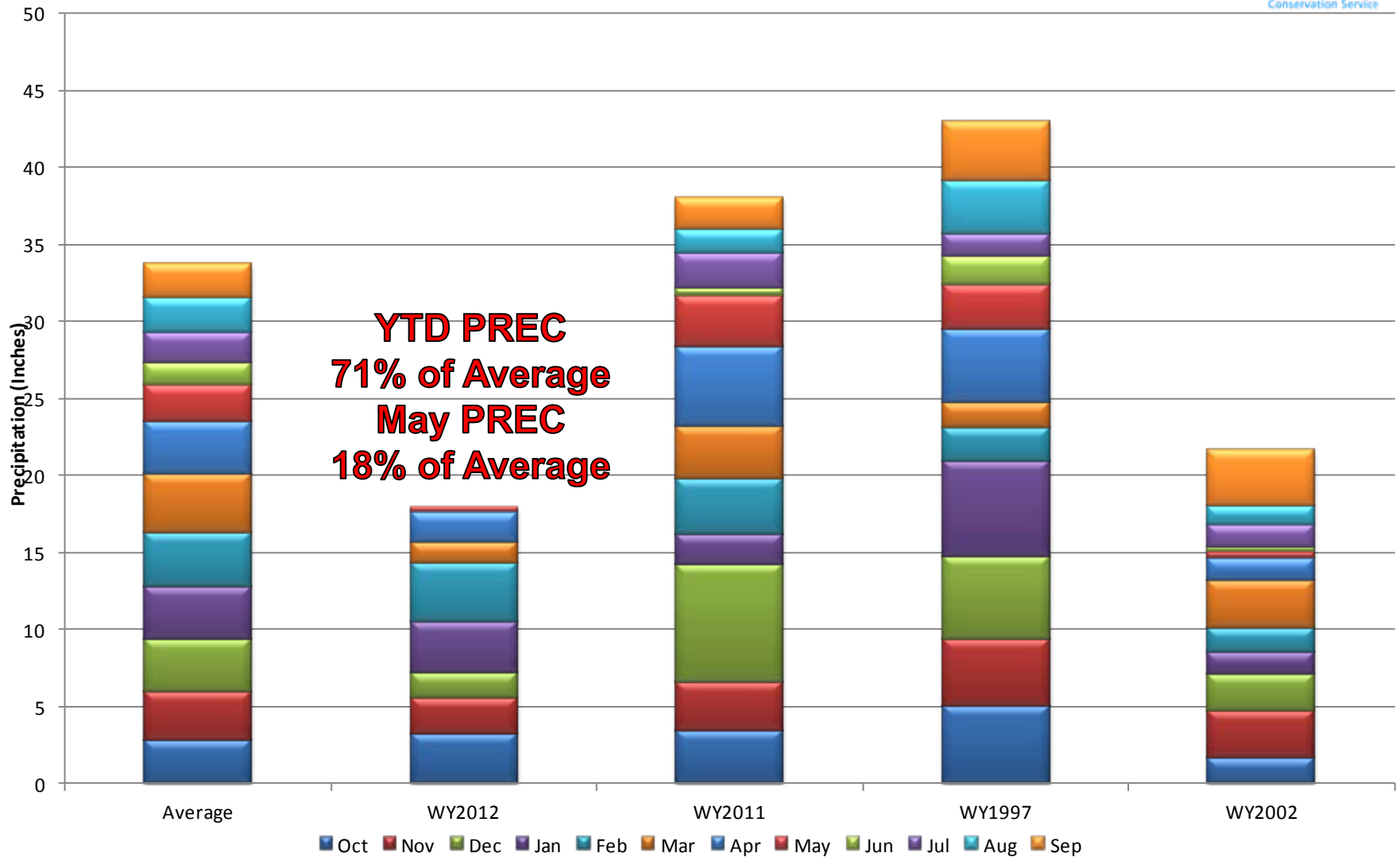
Gunnison River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of May 21, 2012



Gunnison River Basin High/Low Monthly Precipitation Summary

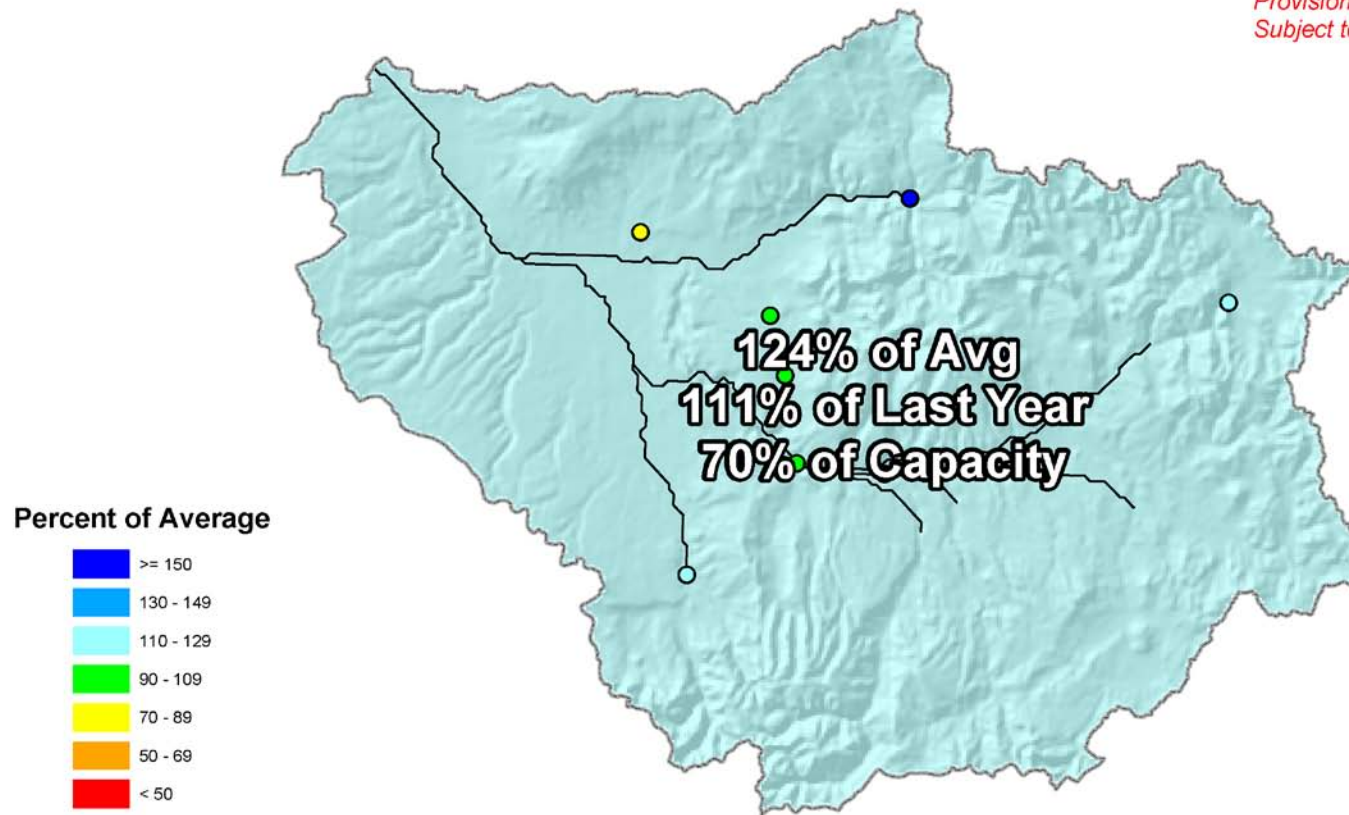
Based on Provisional SNOTEL data as of May 21, 2012



Gunnison River Basin Reservoir Storage Map



*Provisional Data
Subject to Revision*

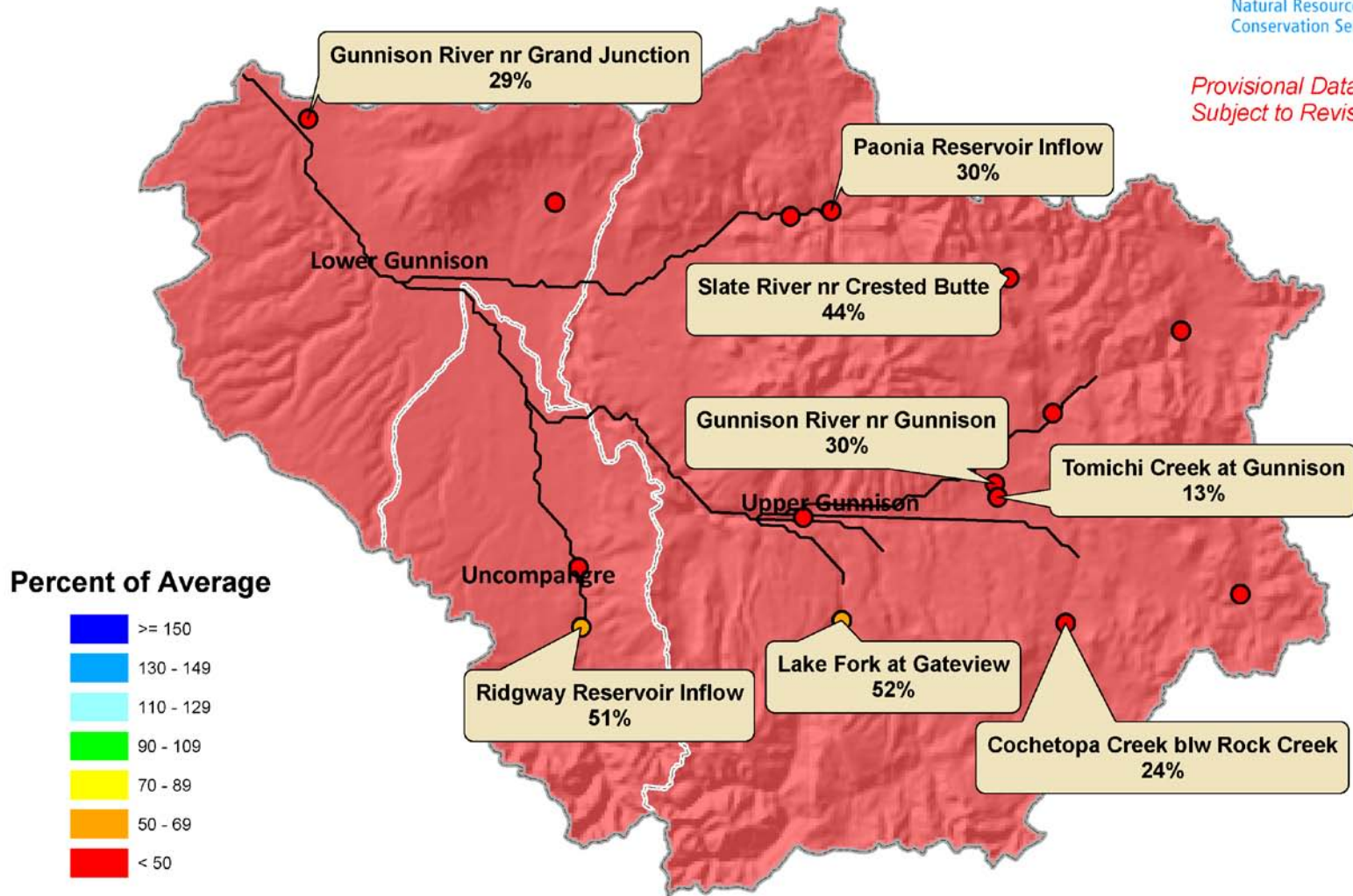


End of April 2012

Gunnison River Basin Streamflow Forecast Map

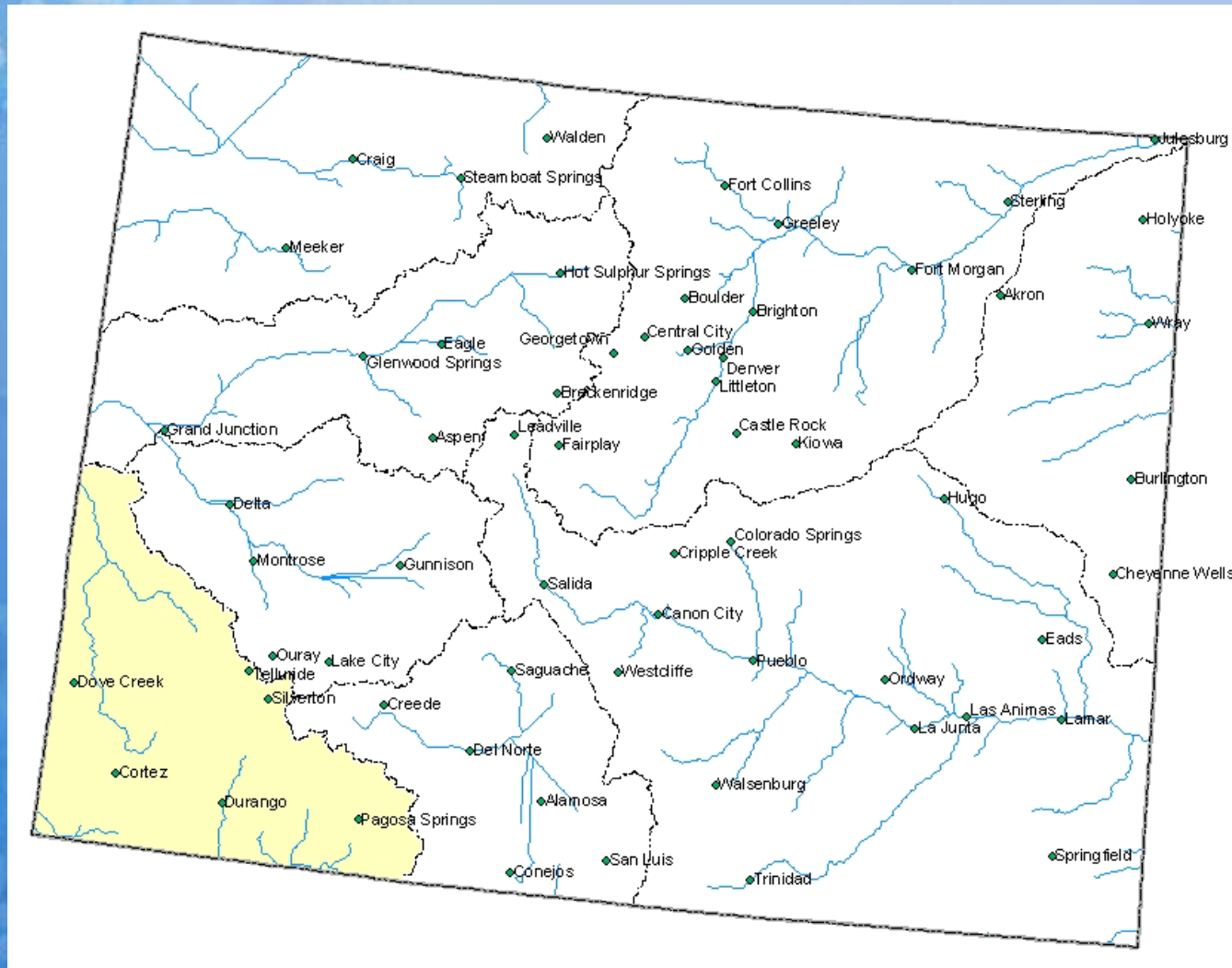


*Provisional Data
Subject to Revision*



Current as of May 1, 2012

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

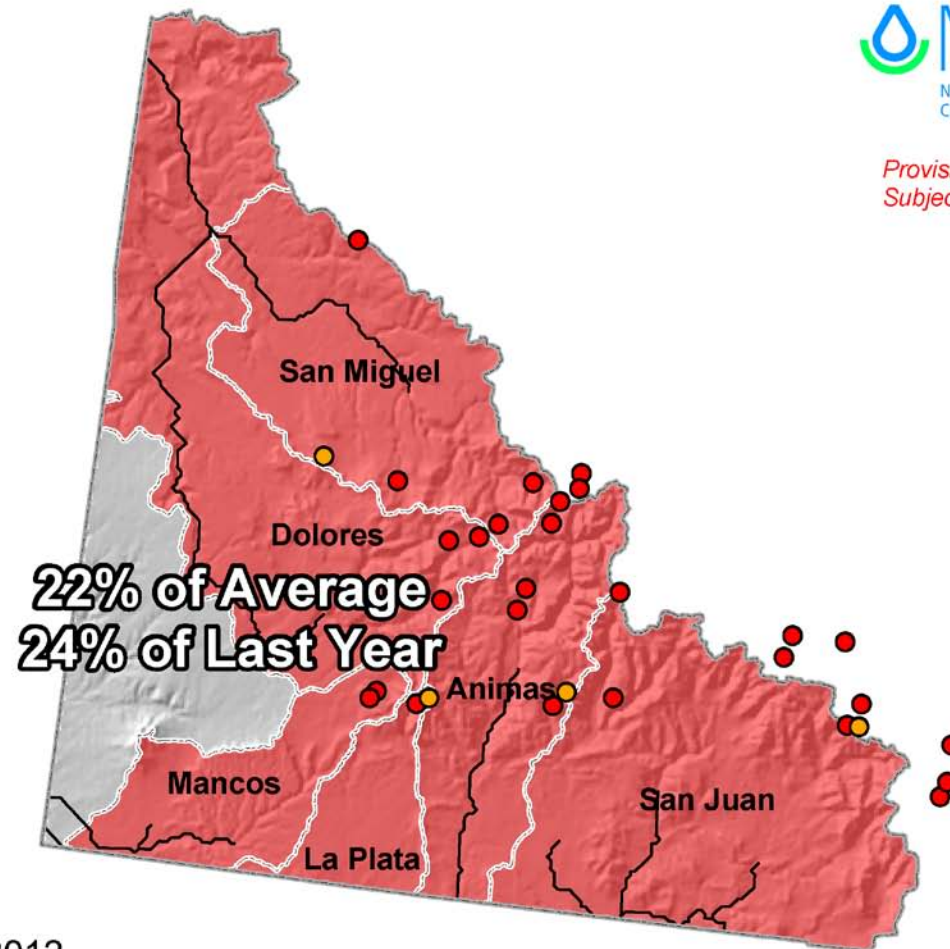


San Miguel, Dolores, Animas and San Juan River Basins Snowpack Map

Percent of Average

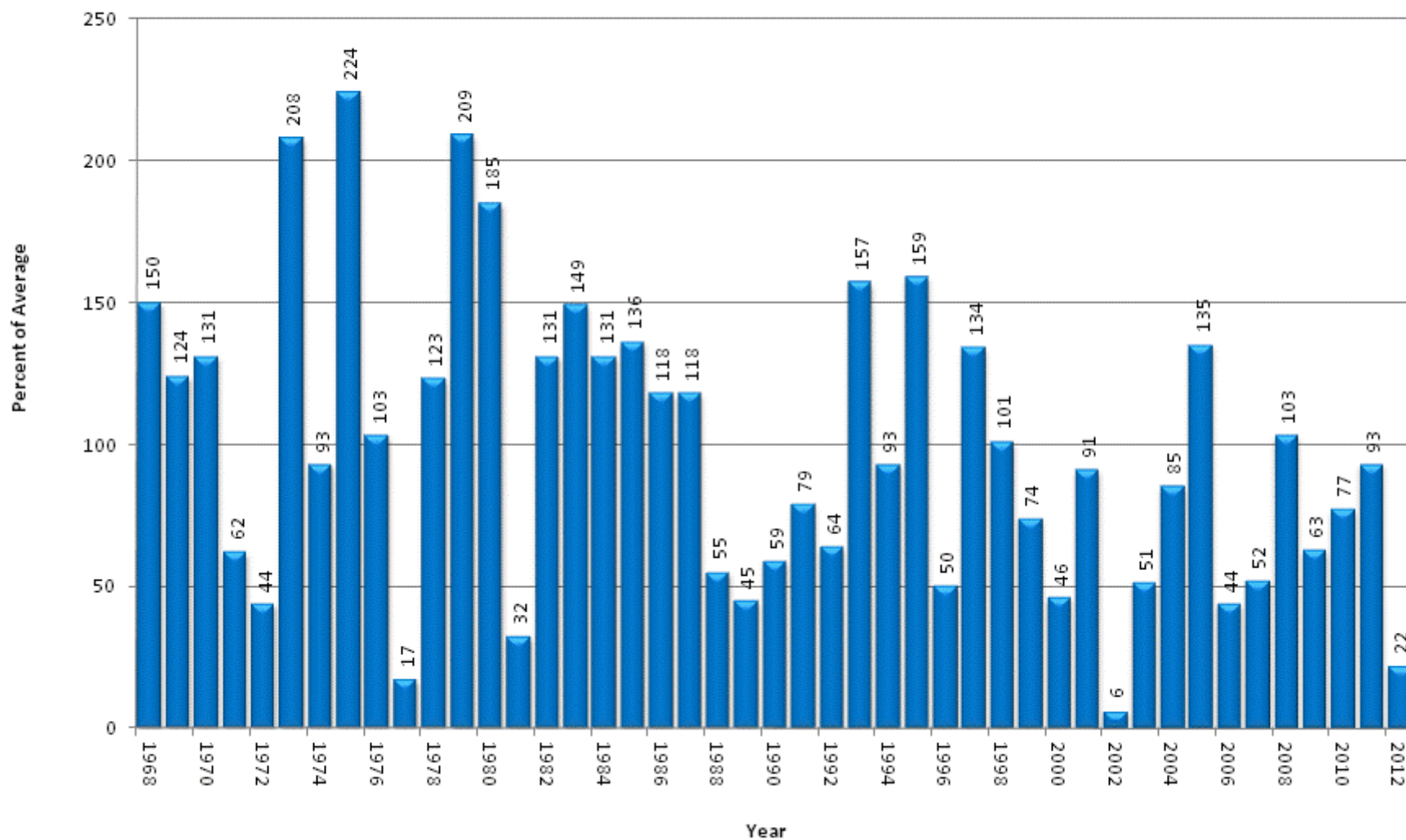


*Provisional Data
Subject to Revision*



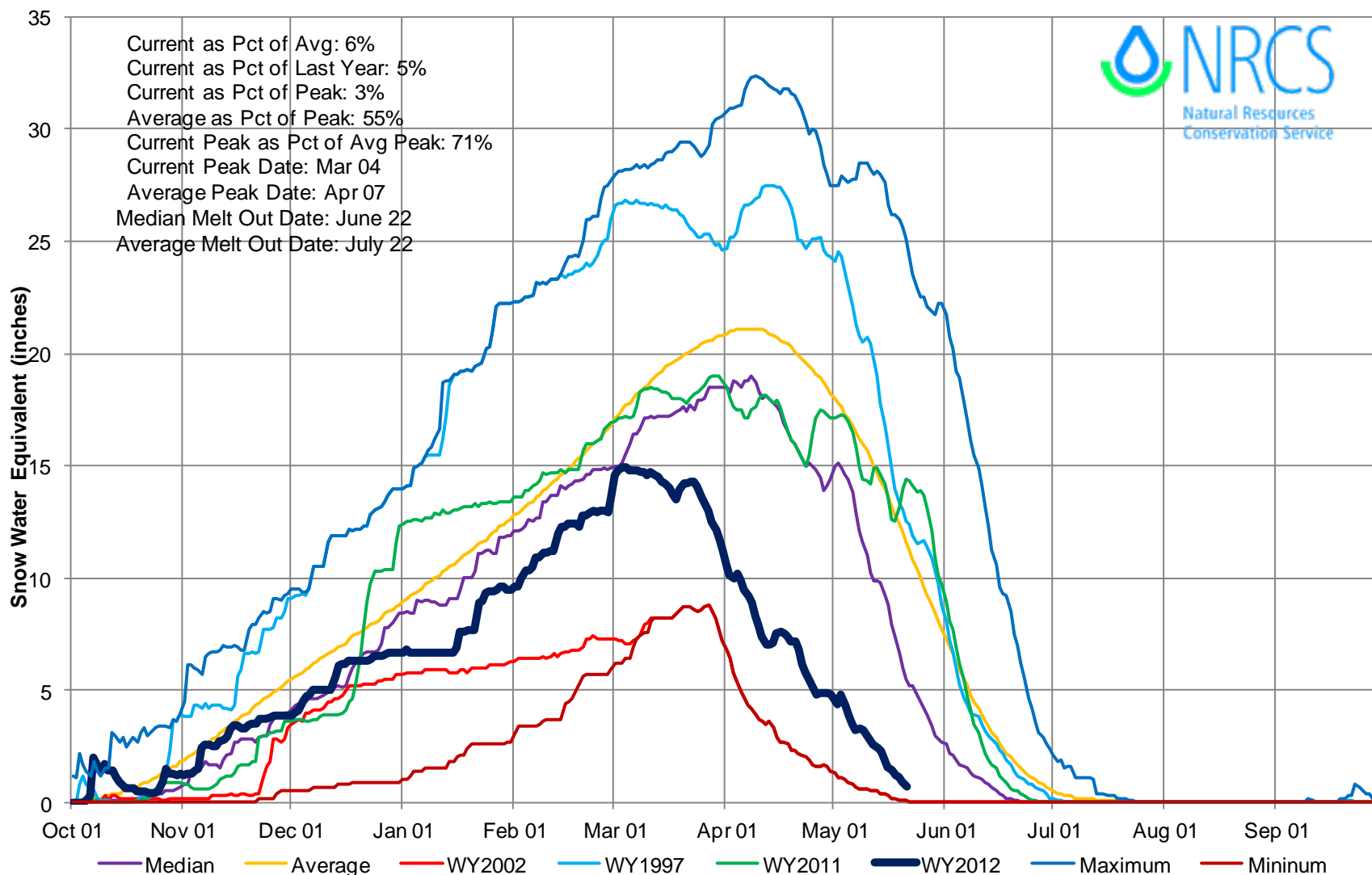
Current as of May 1, 2012

May 1 Total San Miguel, Dolores, Animas & San Juan River Basins Snowpack



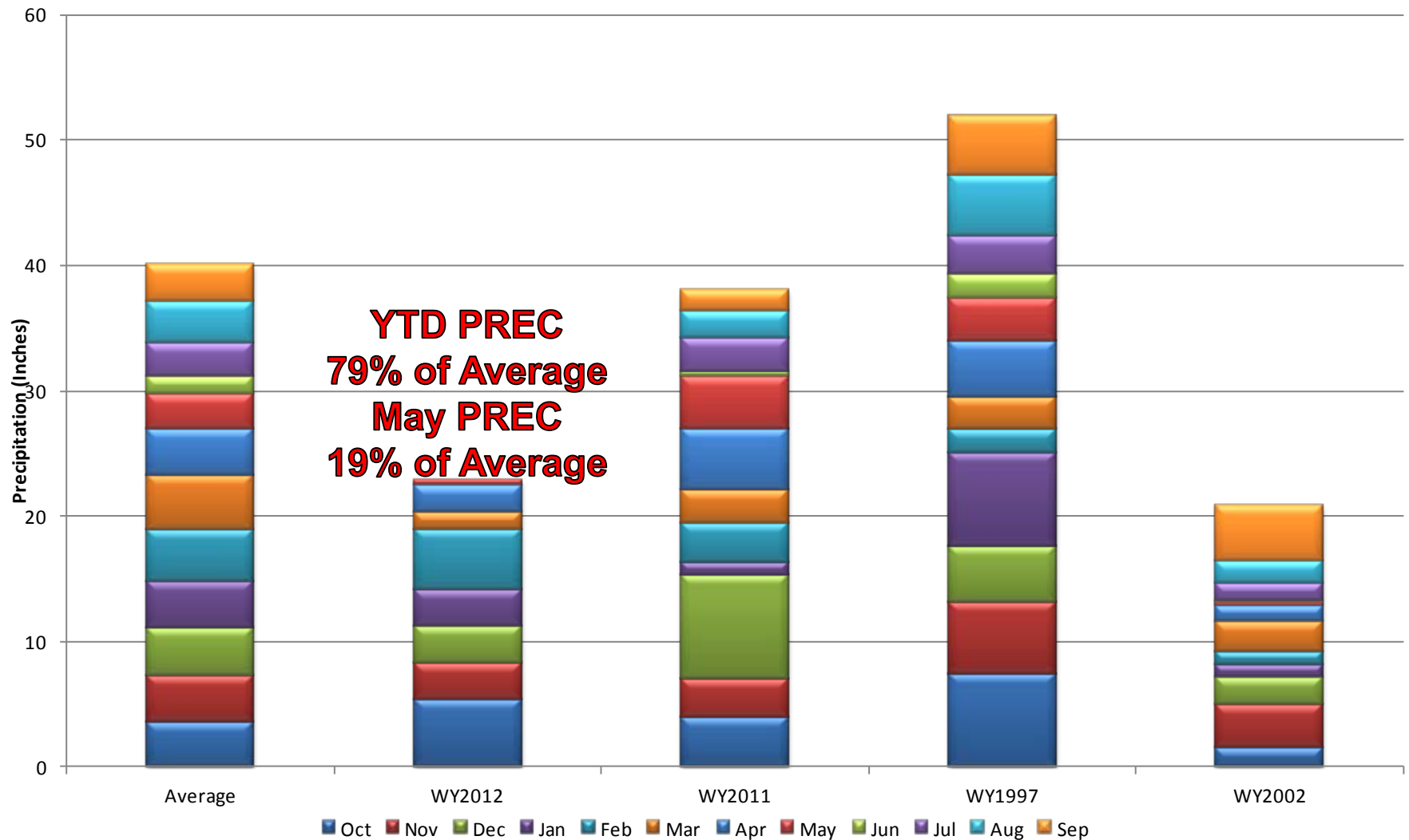
San Miguel, Dolores, Animas & San Juan River Basins High/Low Snowpack Summary

Based on Provisional SNOTEL data as of May 21, 2012



San Miguel, Dolores, Animas & San Juan River Basins High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of May 21, 2012



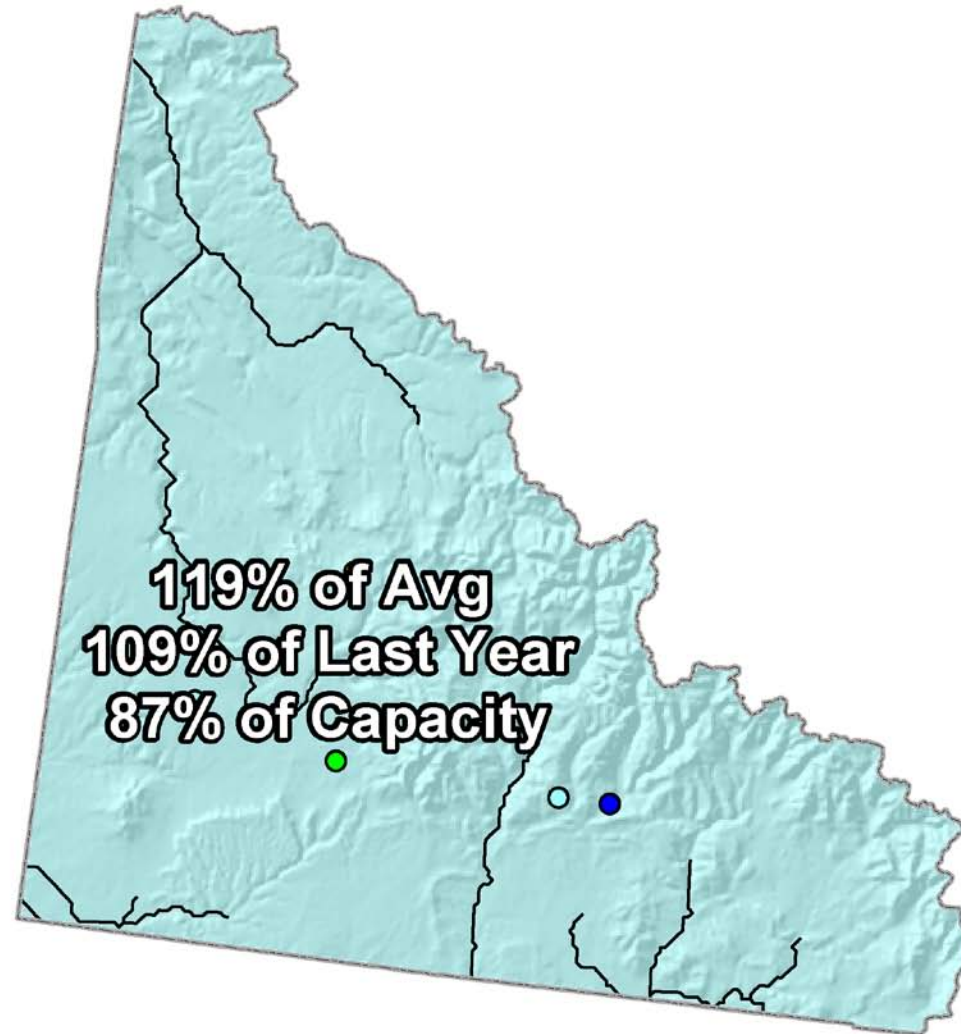
San Miguel, Dolores, Animas and San Juan River Basins Reservoir Storage Map



Percent of Average



*Provisional Data
Subject to Revision*



End of April 2012

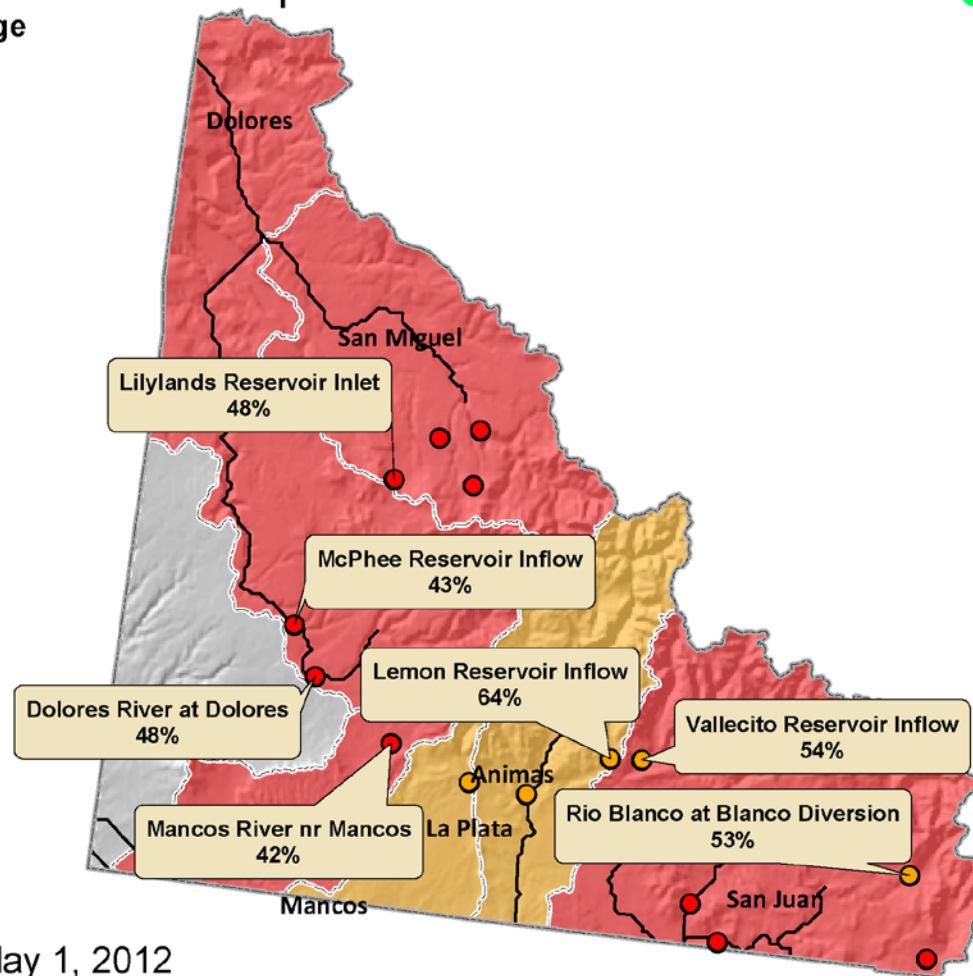
San Miguel, Dolores, Animas and San Juan River Basins Streamflow Forecast Map



Percent of Average

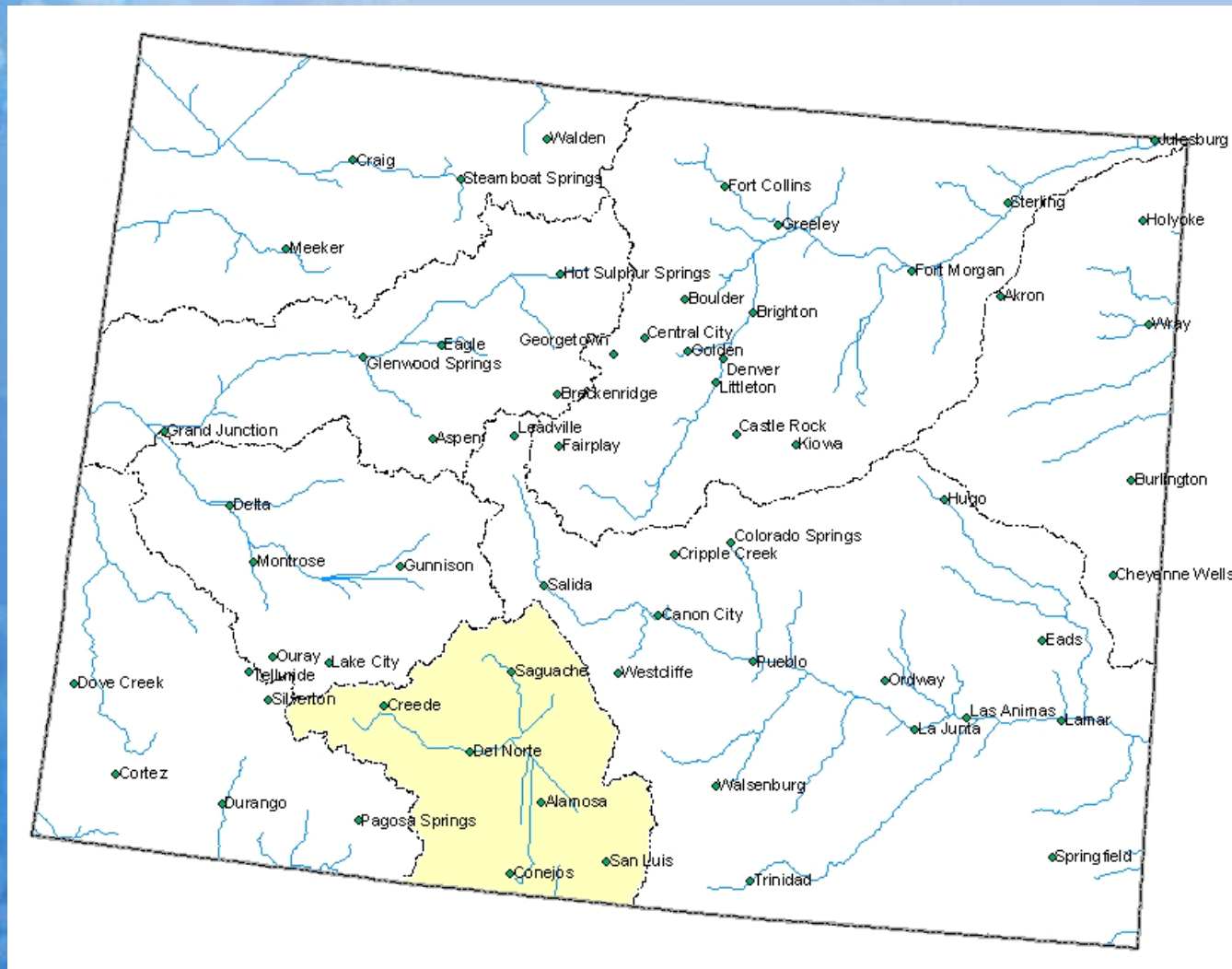


*Provisional Data
Subject to Revision*



Current as of May 1, 2012

Upper Rio Grande Basin Summary



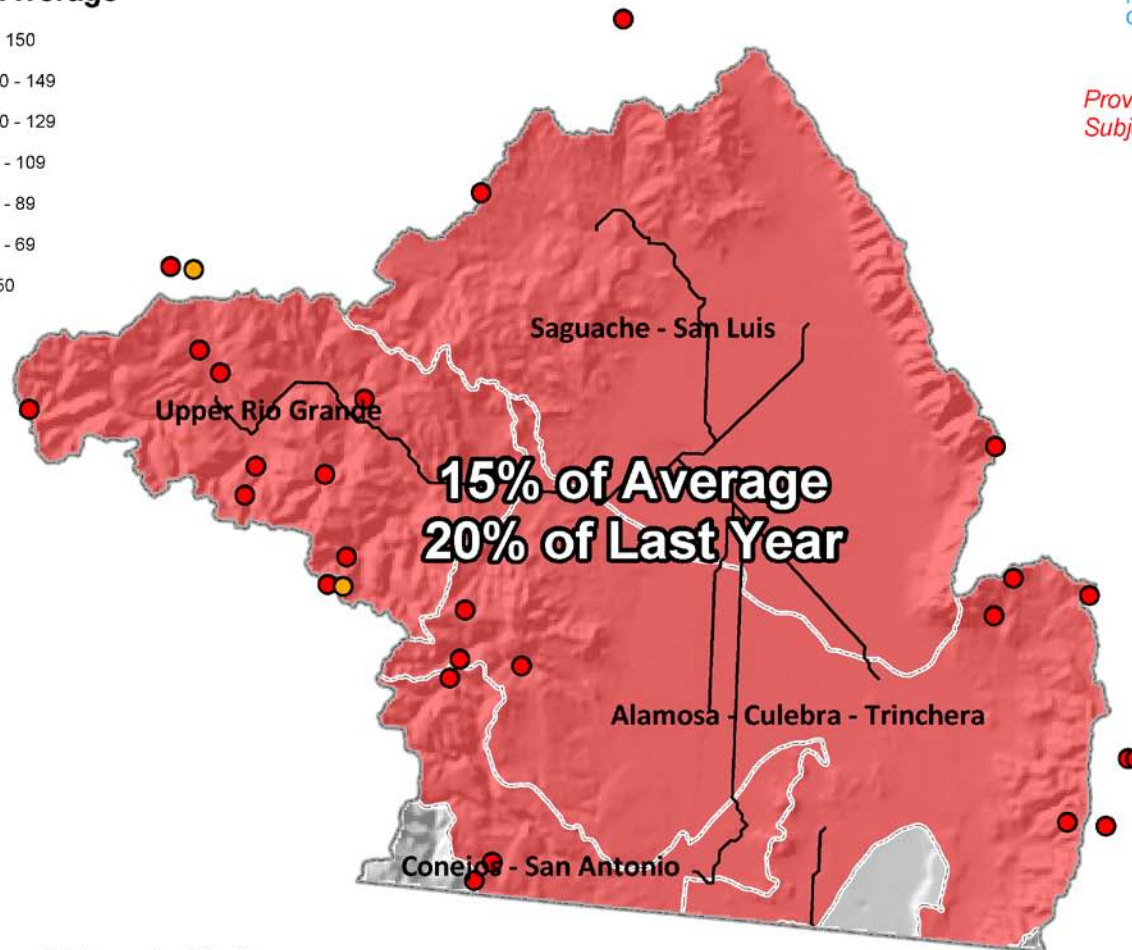
Upper Rio Grande Basin Snowpack Map



Percent of Average

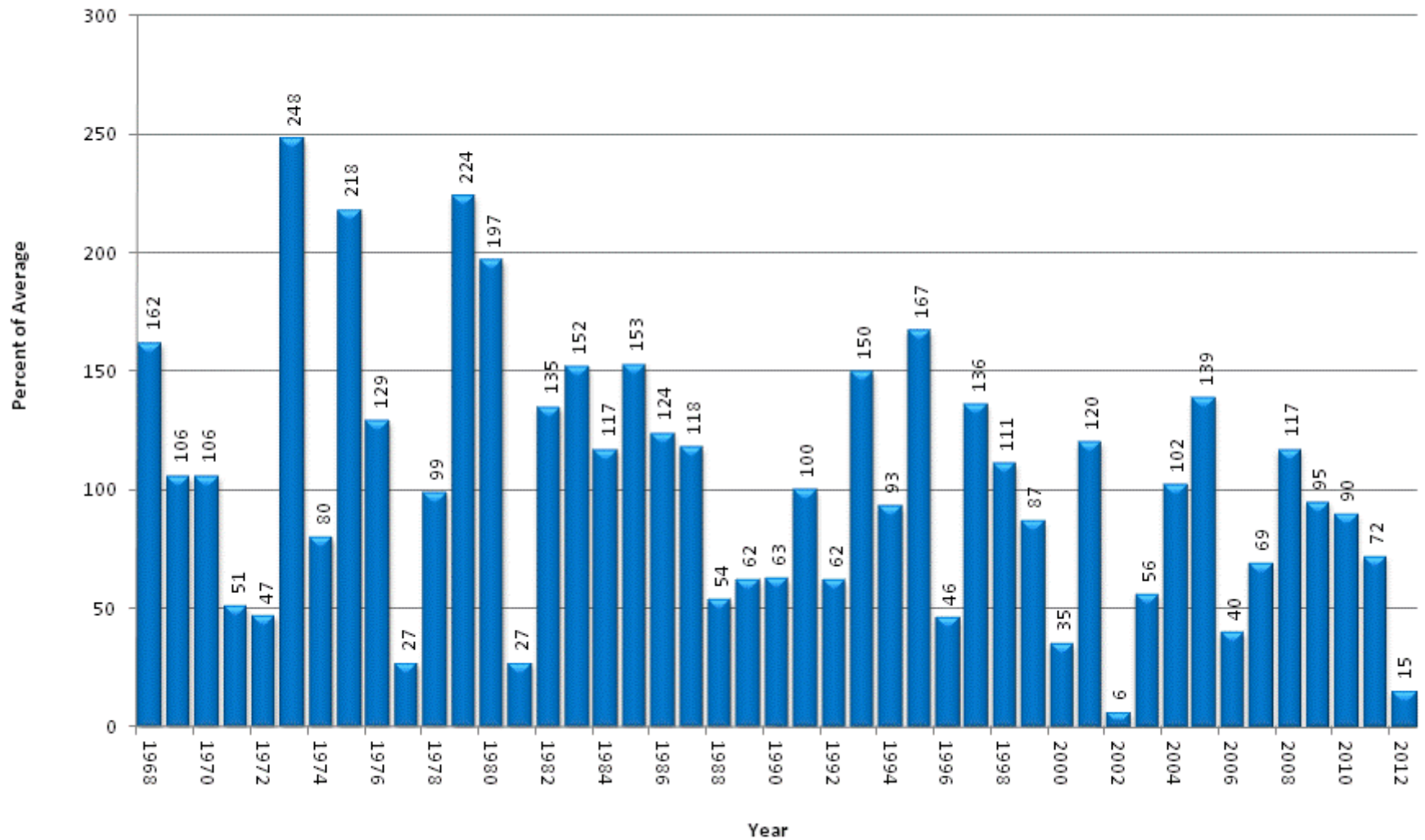


*Provisional Data
Subject to Revision*



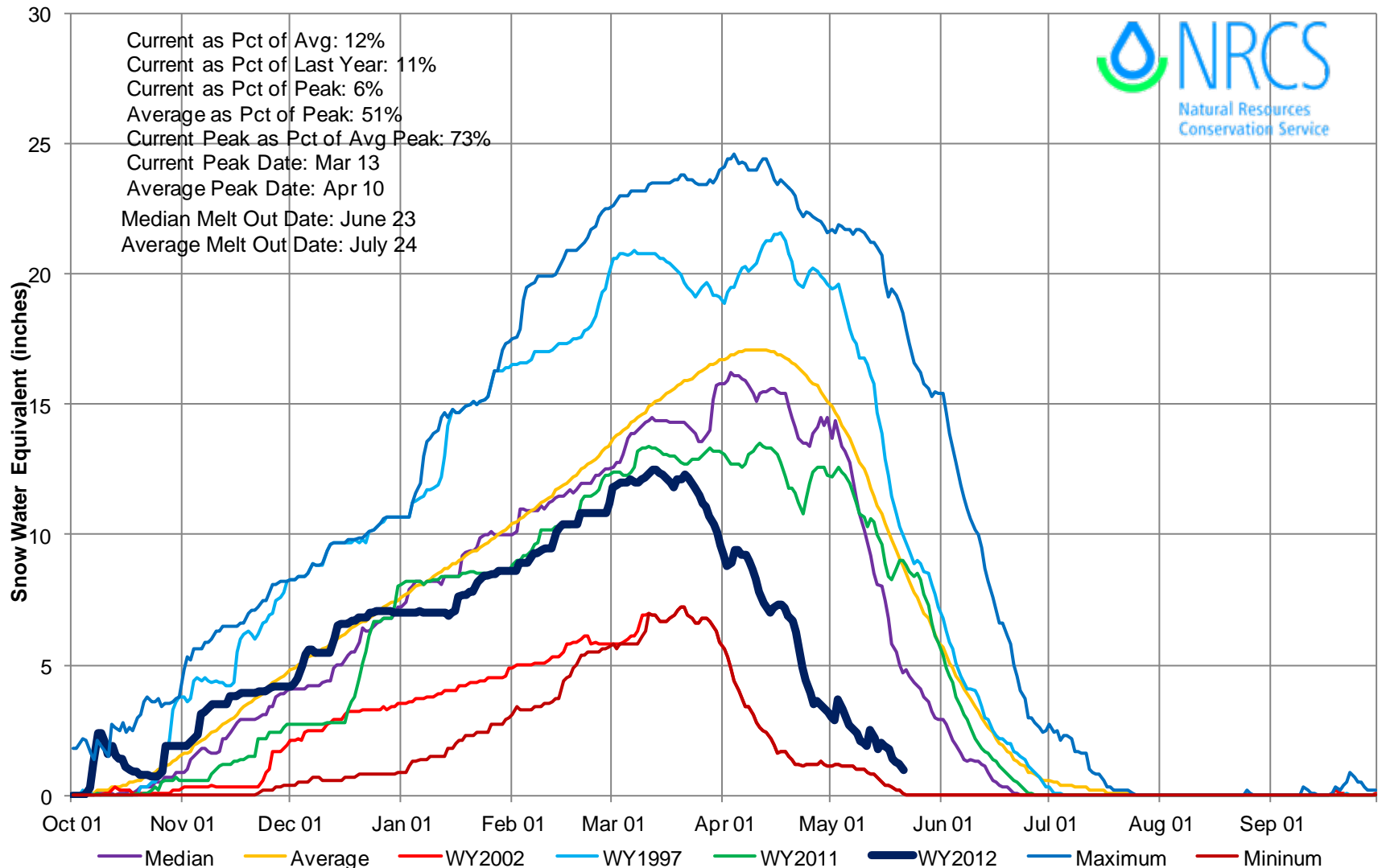
Current as of May 1, 2012

May 1 Total Upper Rio Grande Basin Snowpack

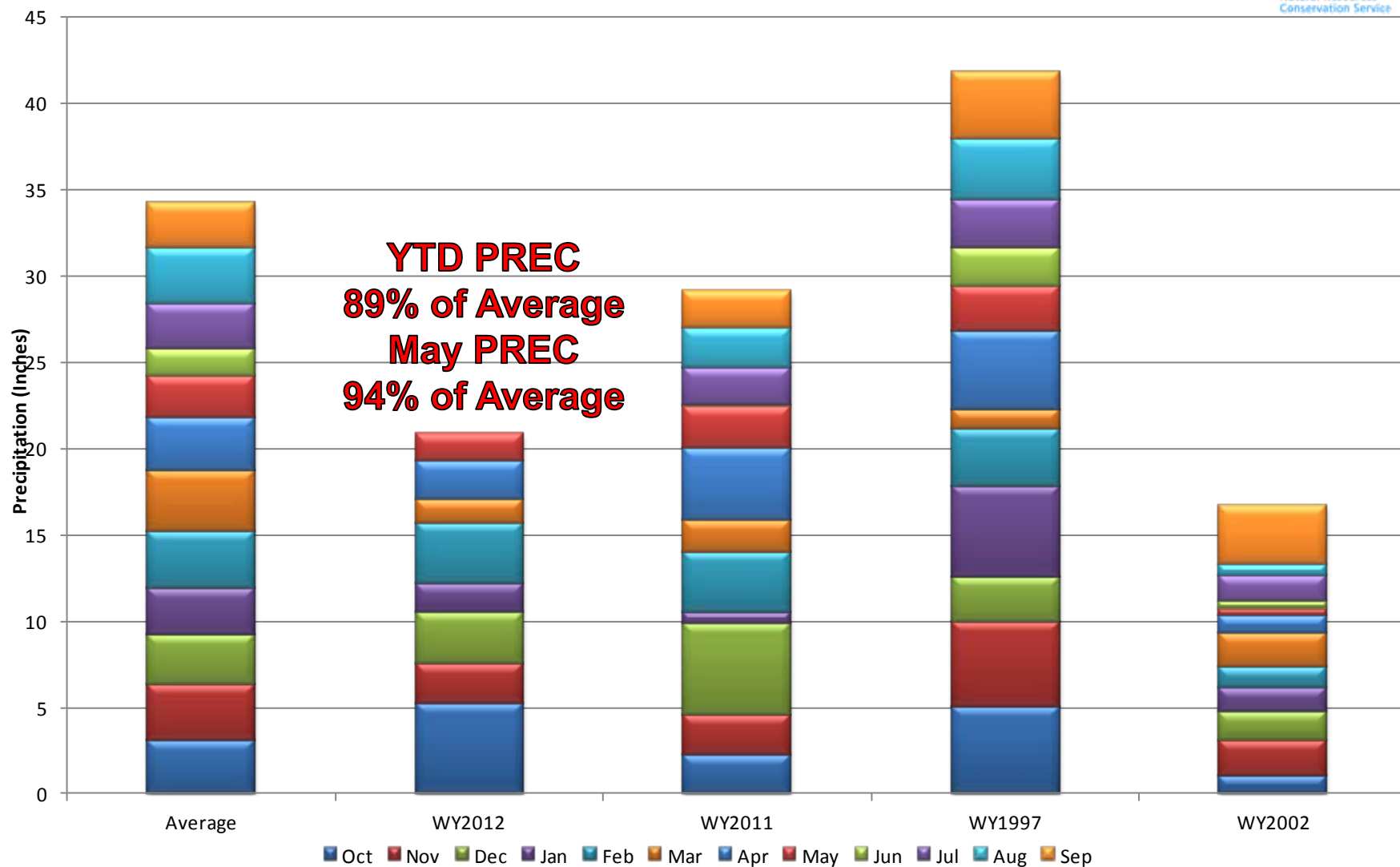


Upper Rio Grande Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of May 21, 2012



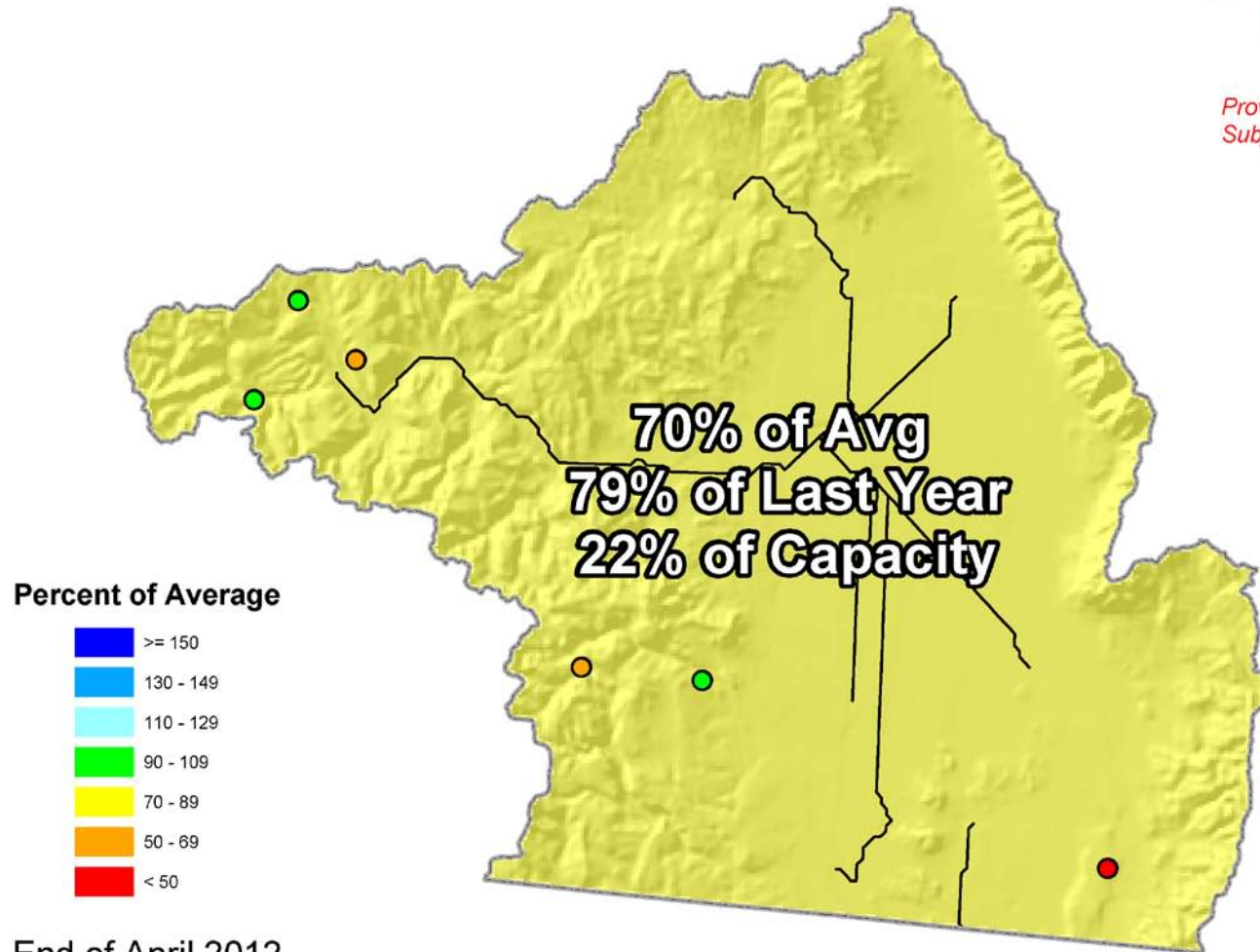
Based on Provisional SNOTEL data as of May 21, 2012



Upper Rio Grande Basin Reservoir Storage Map



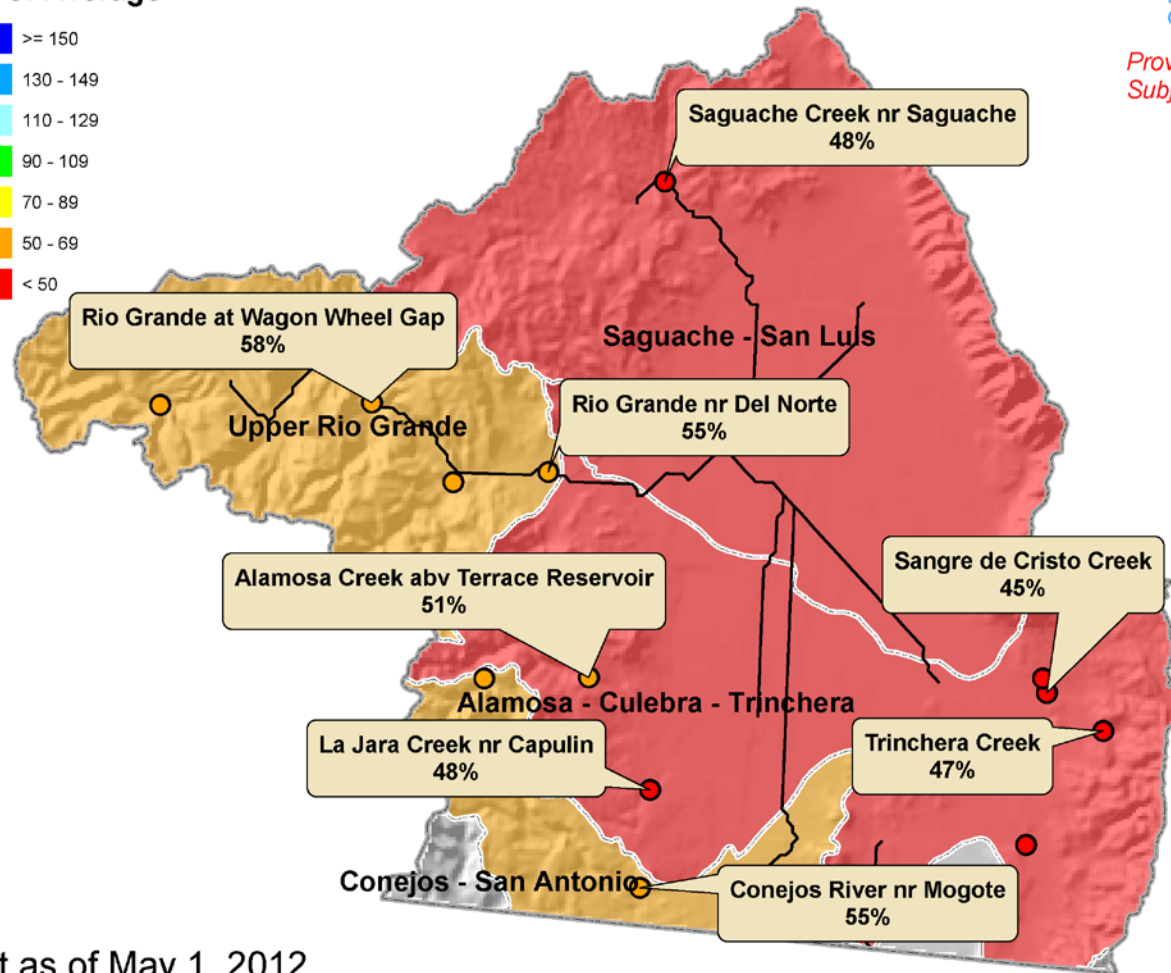
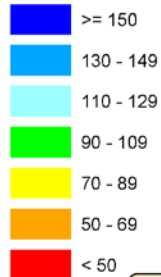
*Provisional Data
Subject to Revision*



End of April 2012

Upper Rio Grande Basin Streamflow Forecast Map

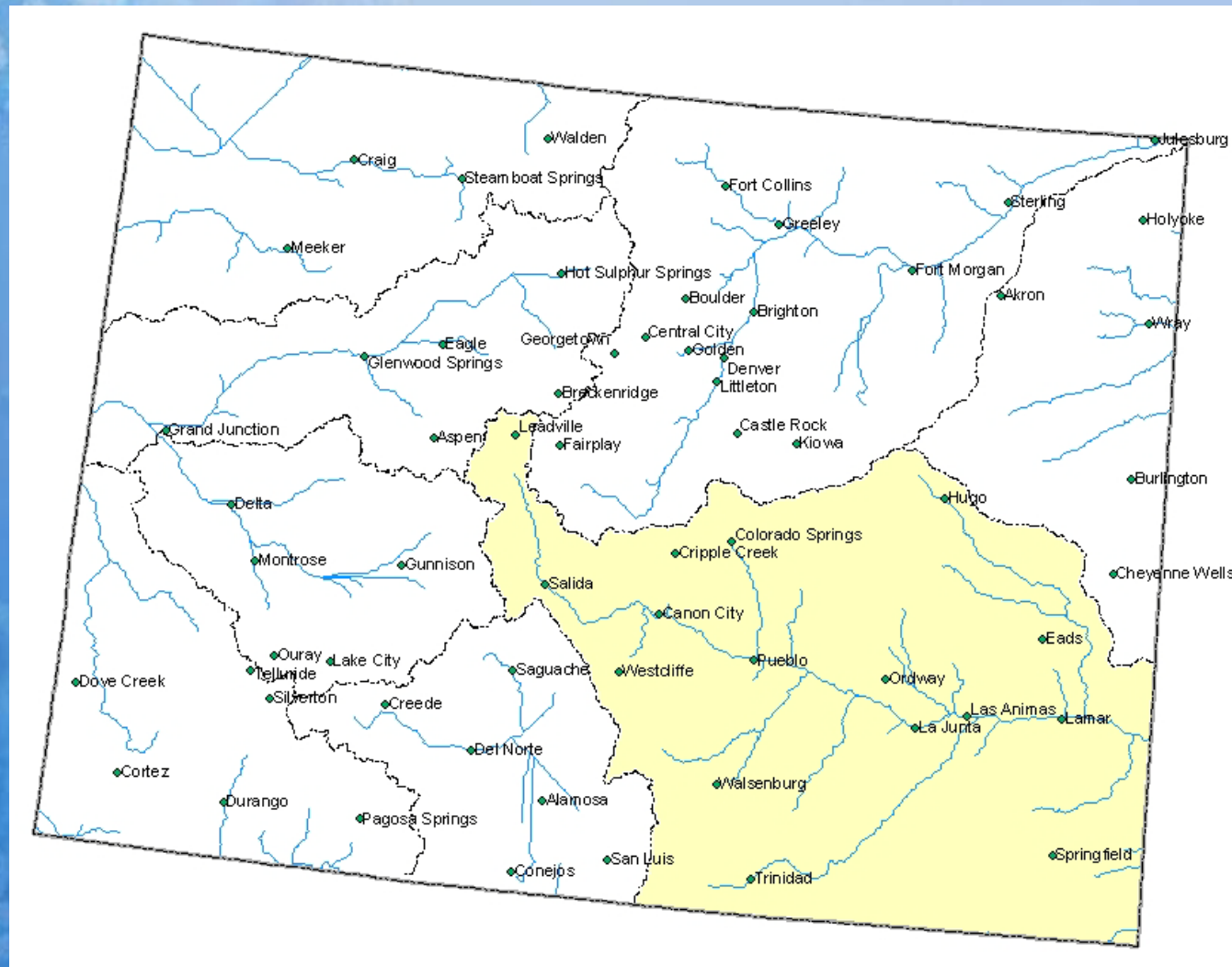
Percent of Average



*Provisional Data
Subject to Revision*

Current as of May 1, 2012

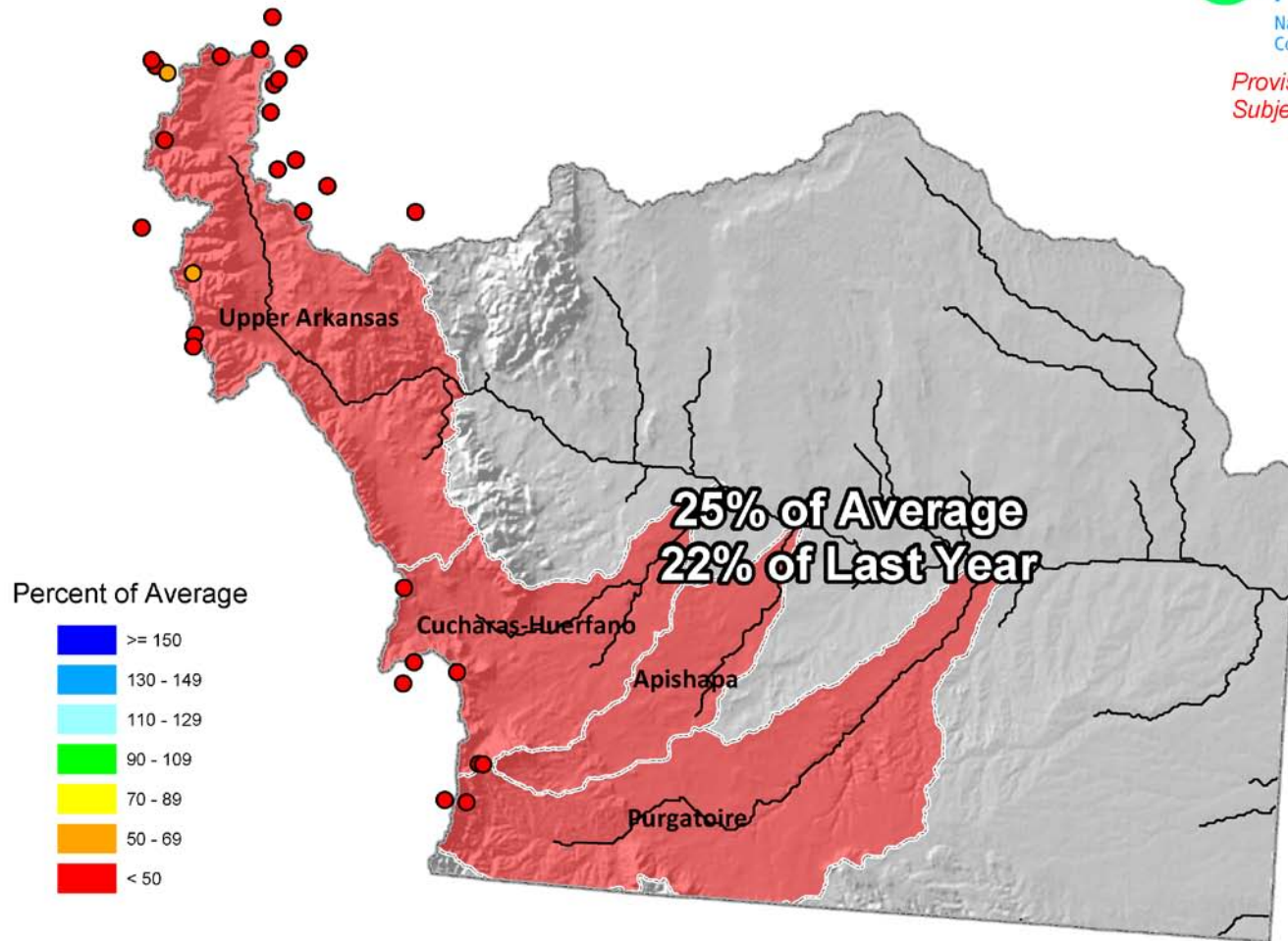
Arkansas River Basin Summary



Arkansas River Basin Snowpack Map

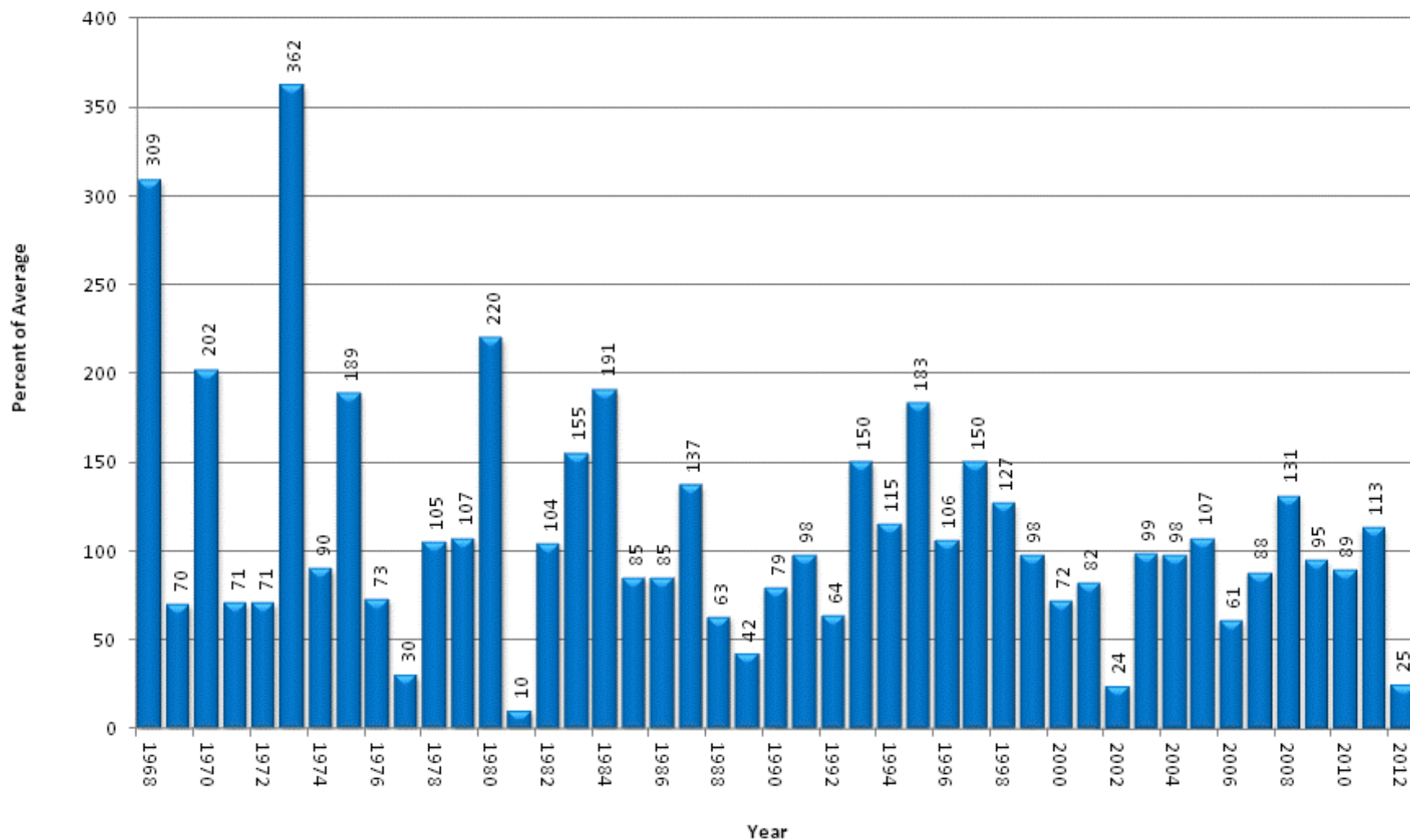


*Provisional Data
Subject to Revision*



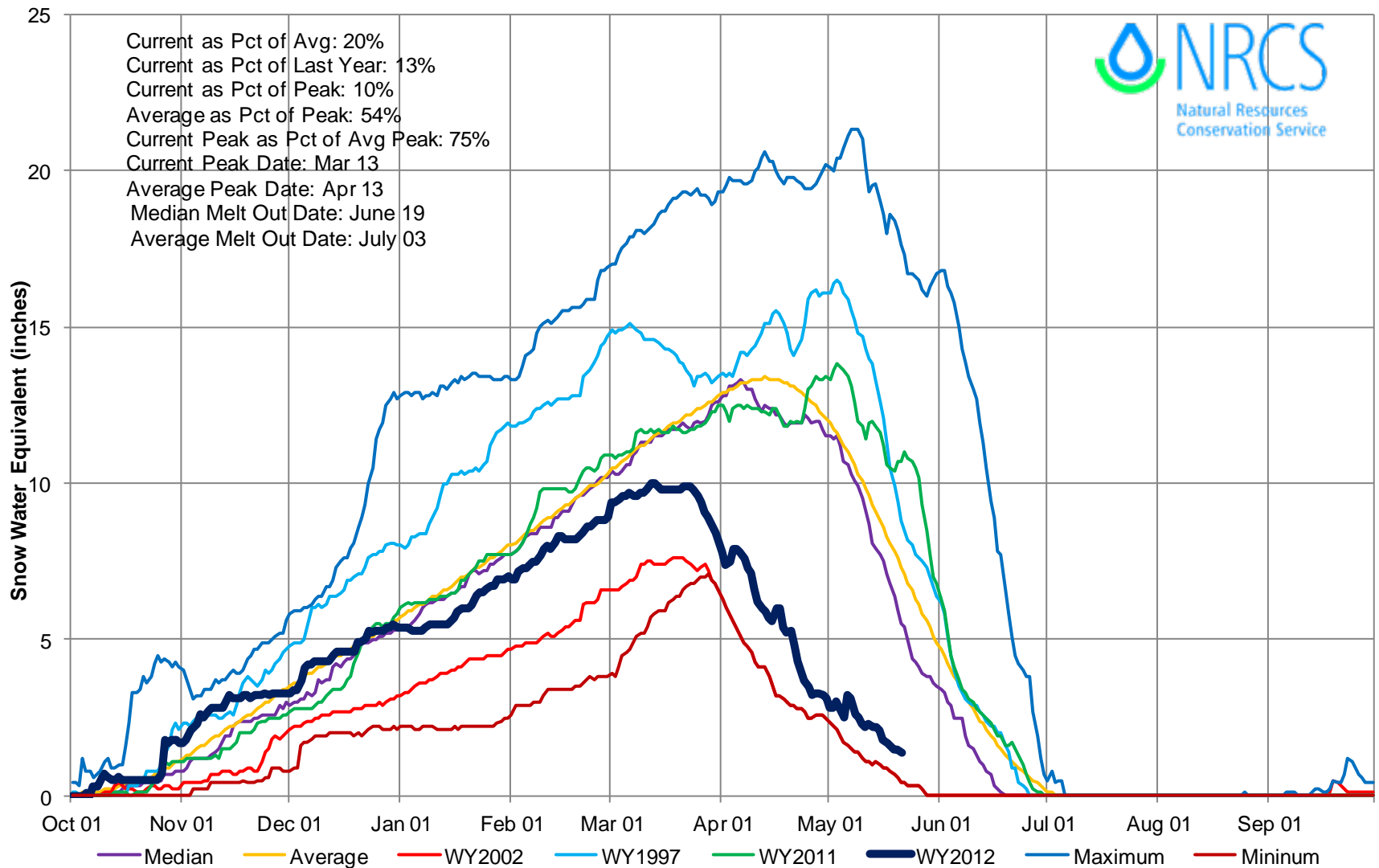
Current as of May 1, 2012

May 1 Total Arkansas River Basin Snowpack



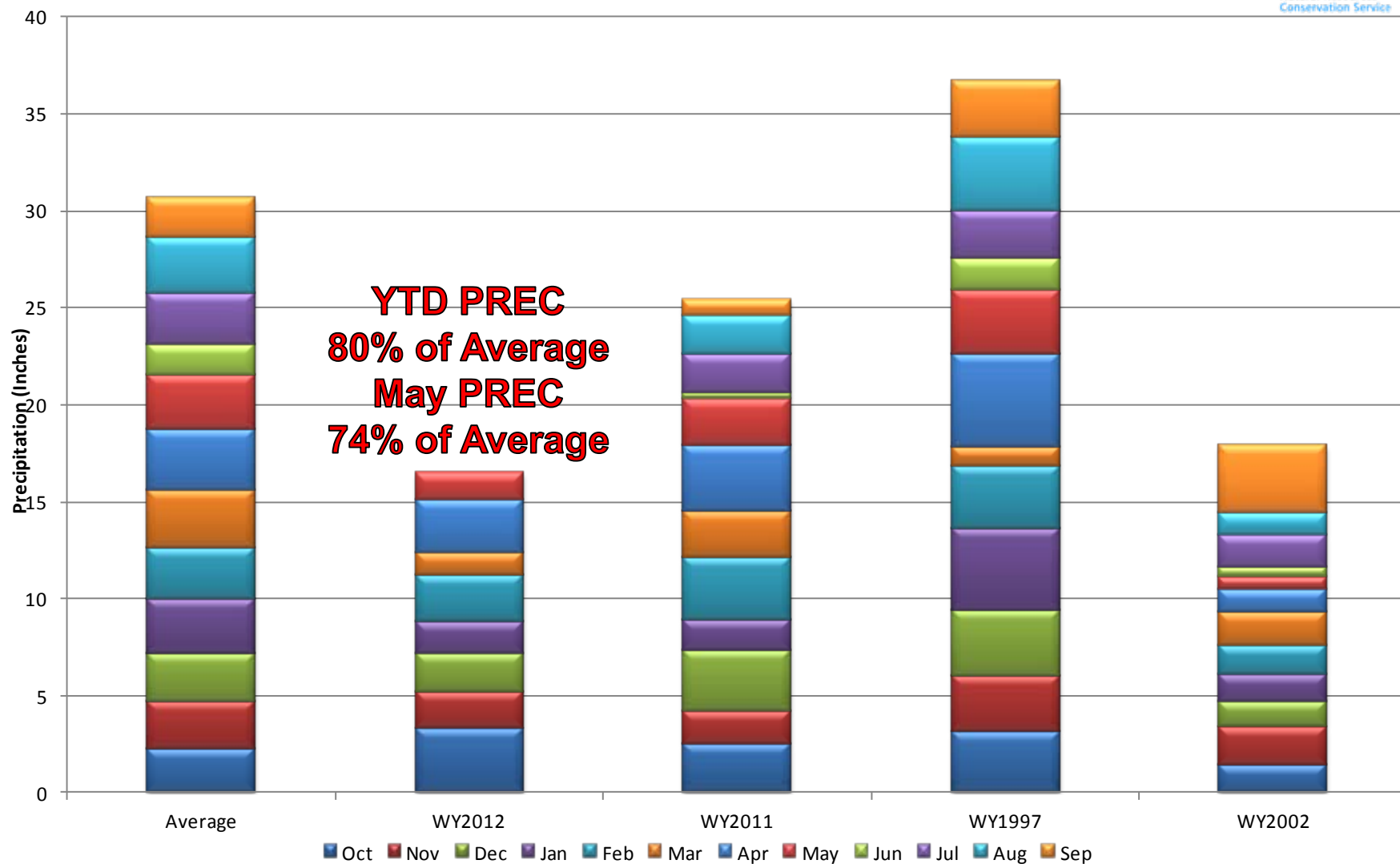
Arkansas River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of May 21, 2012



Arkansas River Basin High/Low Monthly Precipitation Summary

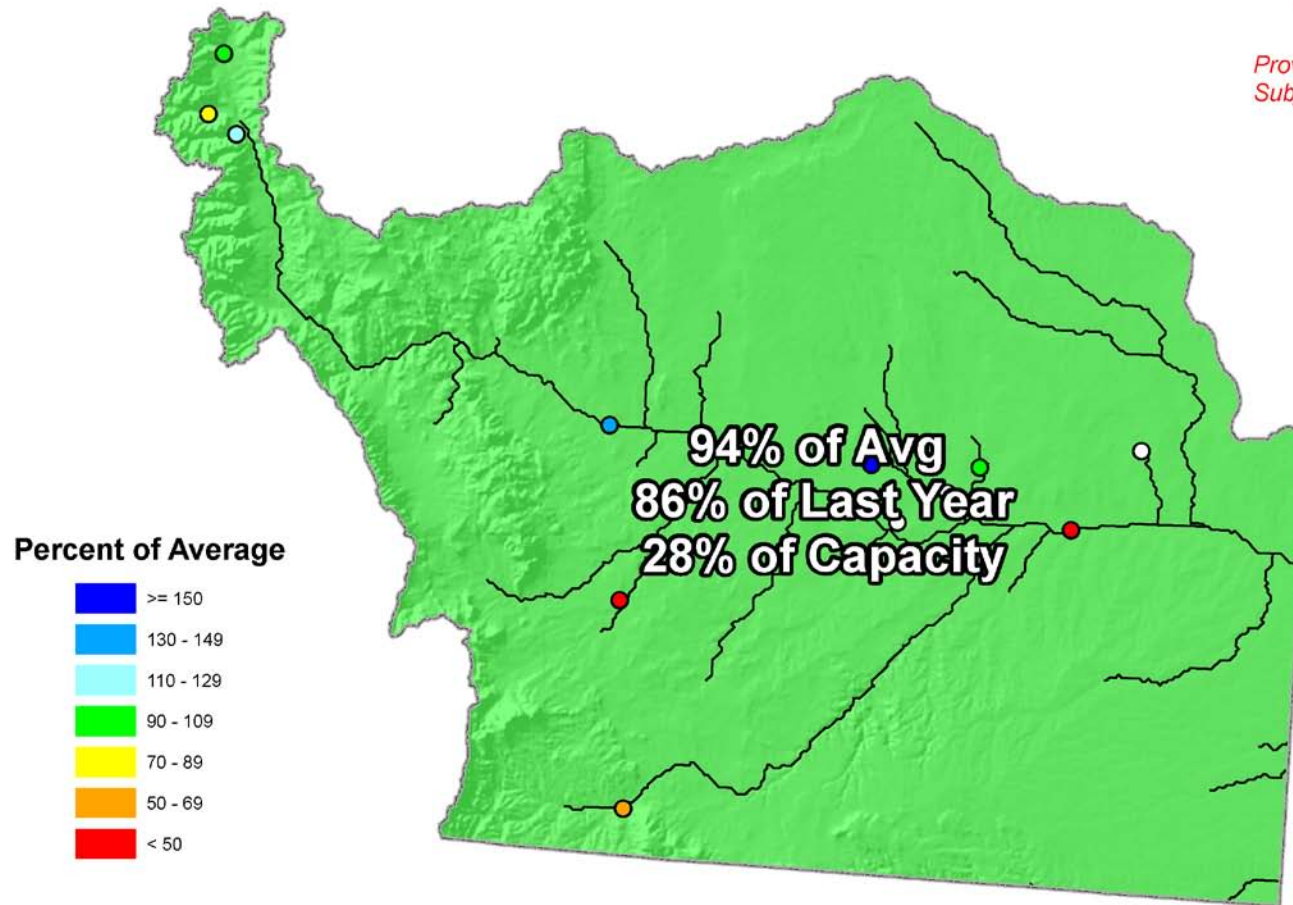
Based on Provisional SNOTEL data as of May 21, 2012



Arkansas River Basin Reservoir Storage Map



*Provisional Data
Subject to Revision*

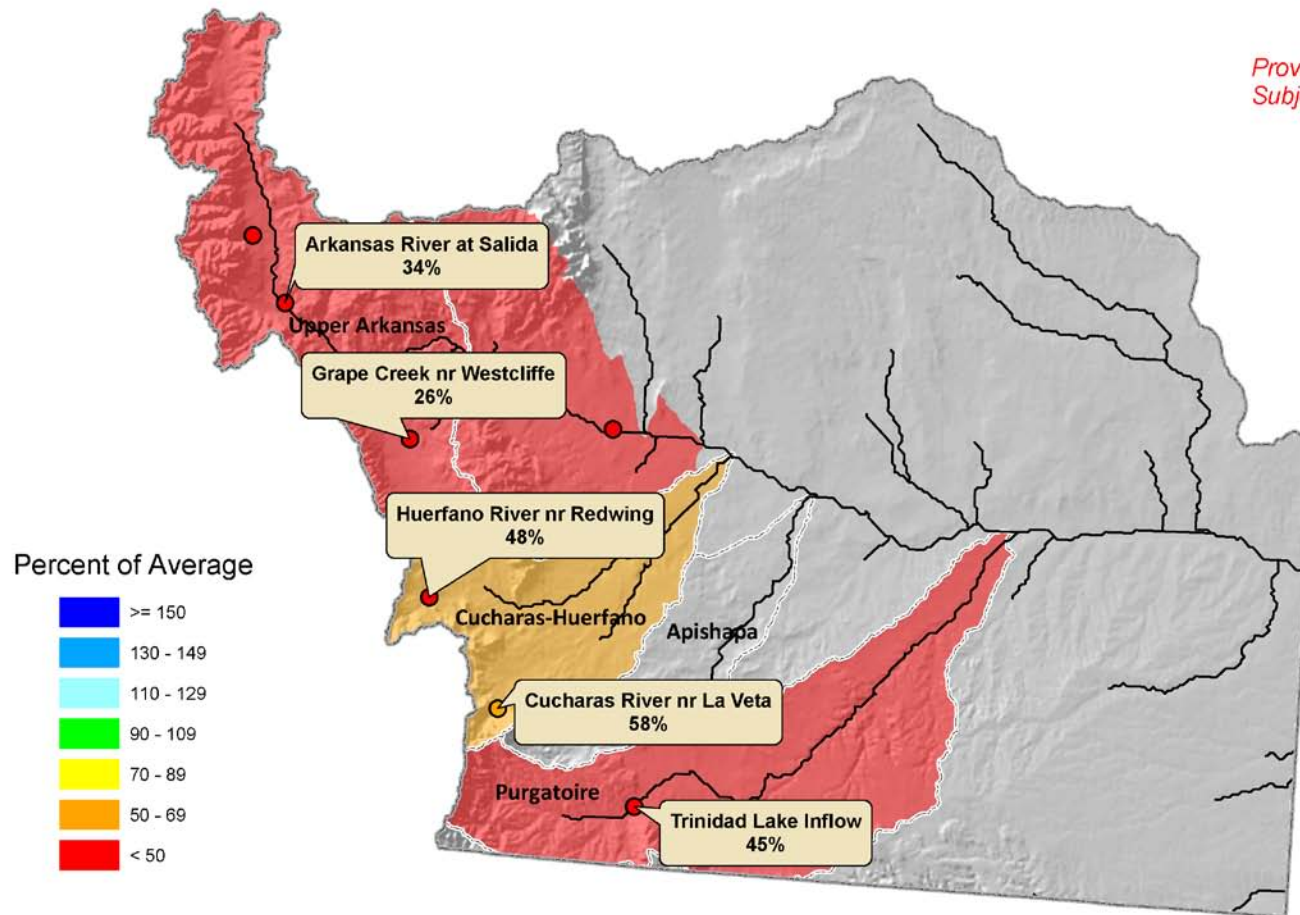


End of April 2012

Arkansas River Basin Streamflow Forecast Map

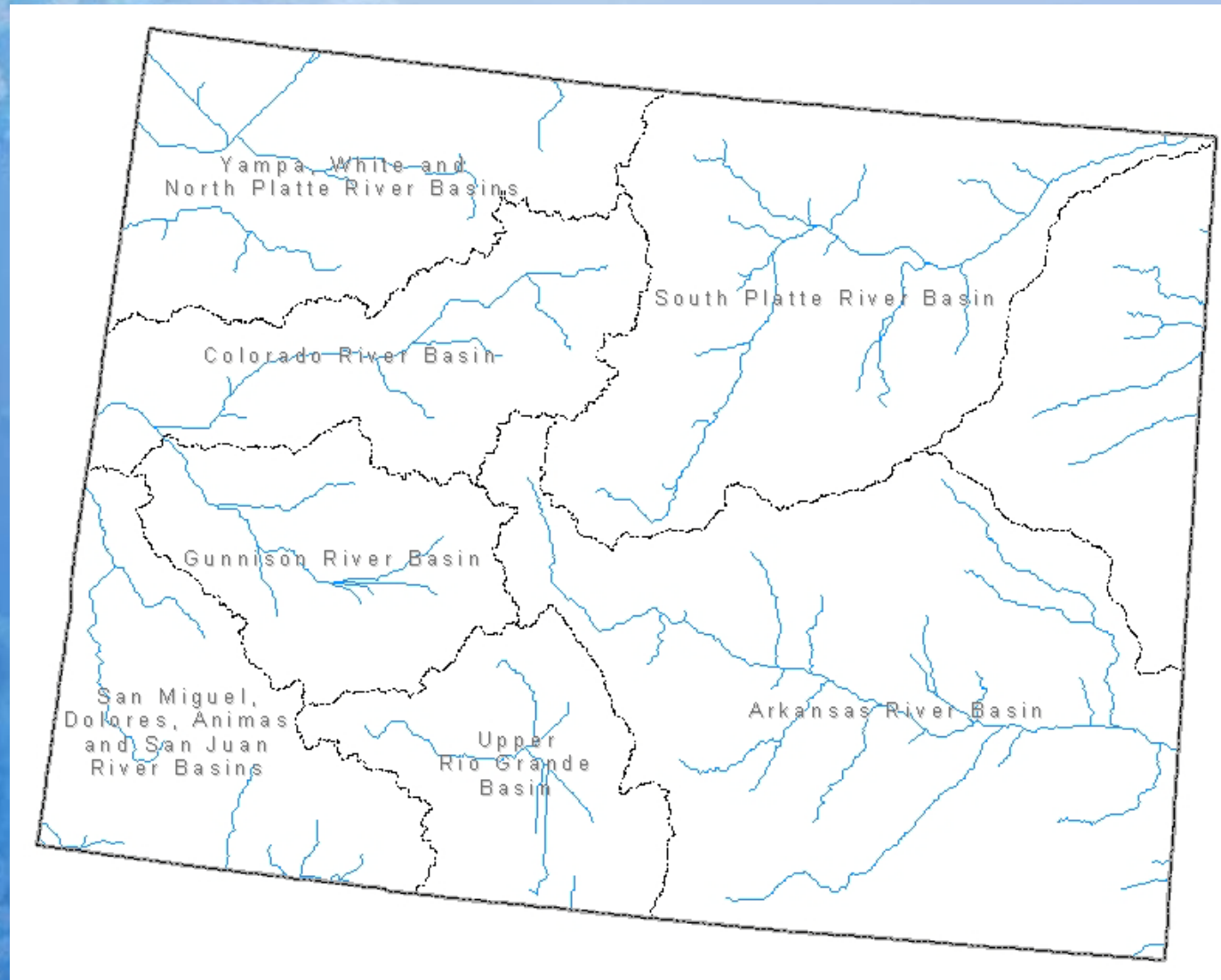


*Provisional Data
Subject to Revision*



Current as of May 1, 2012

Colorado Statewide Summary



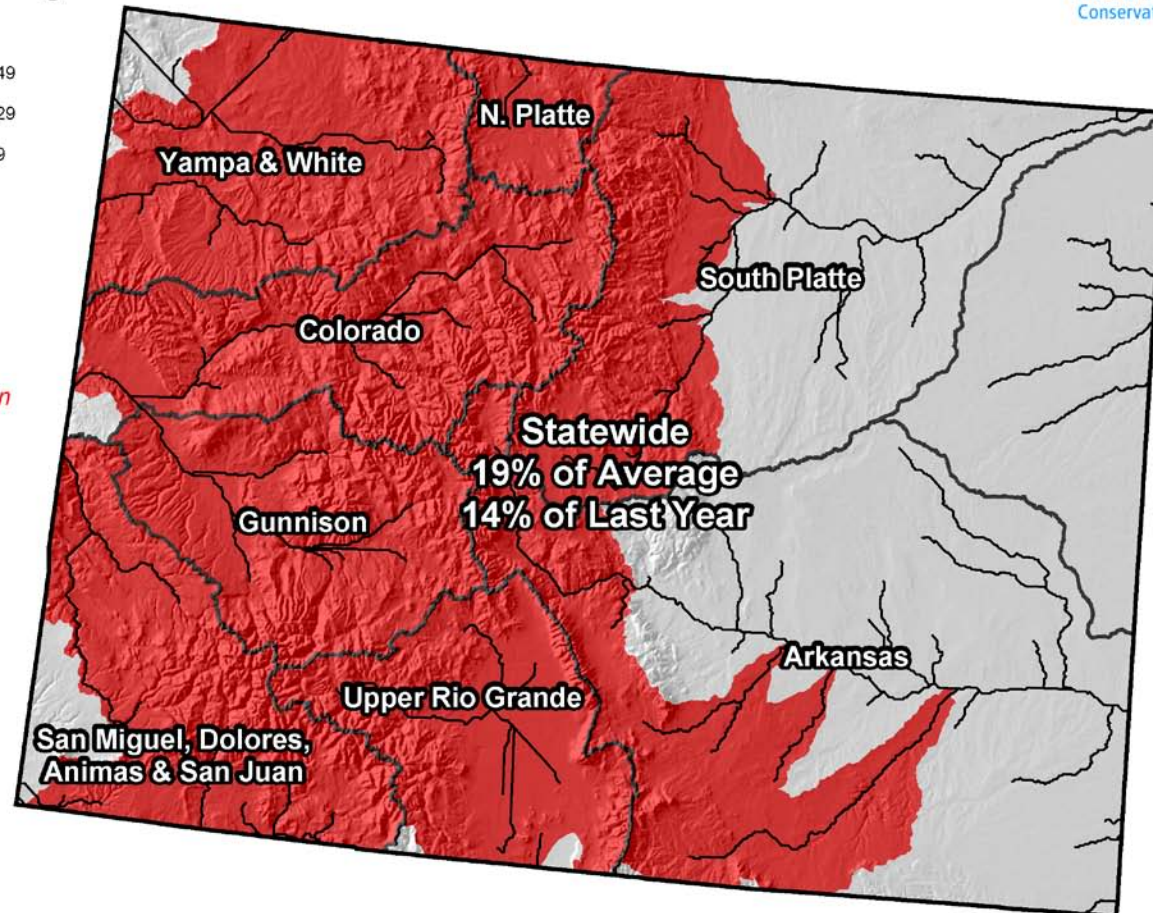
Colorado Snowpack Map



Percent of Average



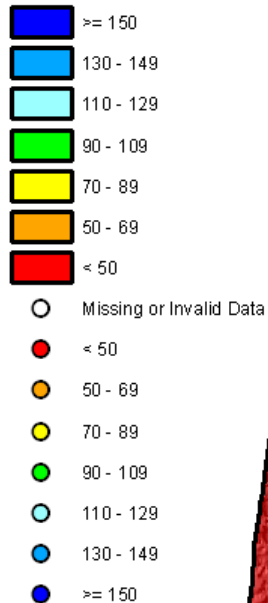
*Provisional Data
Subject to Revision*



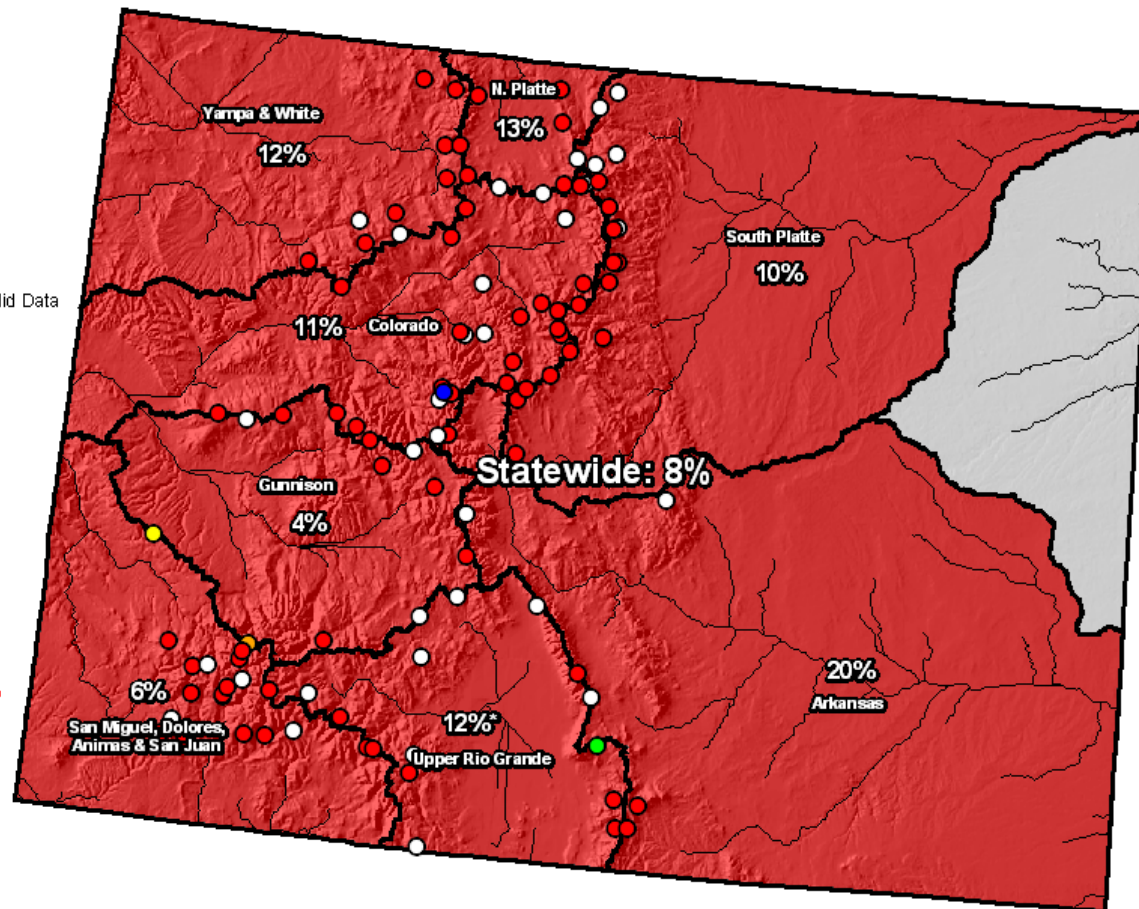
Current as of May 1, 2012

Colorado SNOTEL Snowpack Update Map with Site Data

Percent of Average



*Provisional Data
Subject to Revision*

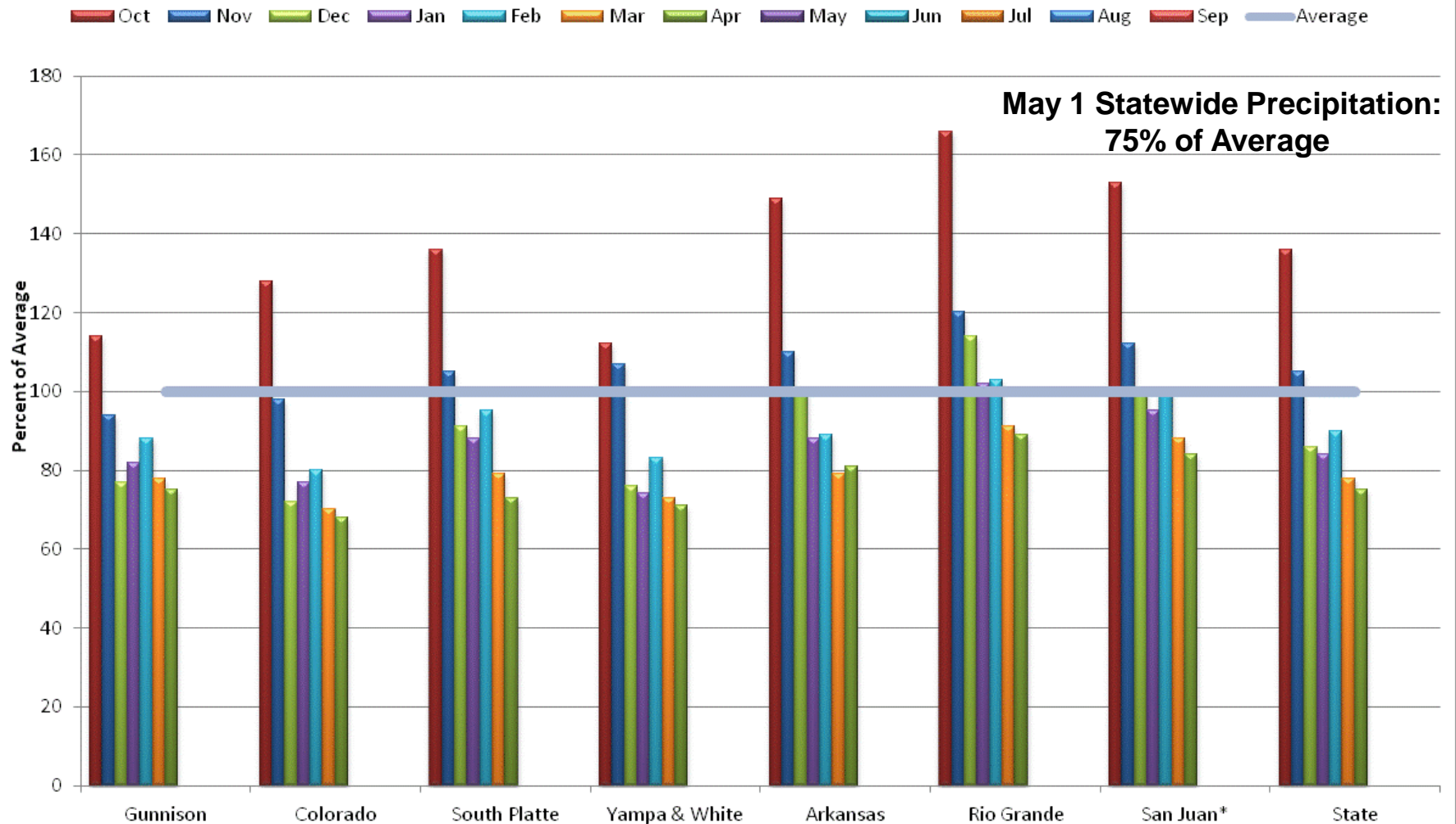


Current as of May 21, 2012

*Data may not provide a valid measure of conditions

Colorado Year-to-Date Precipitation Summary for WY2012

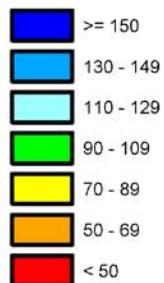
USDA Natural Resources Conservation Service



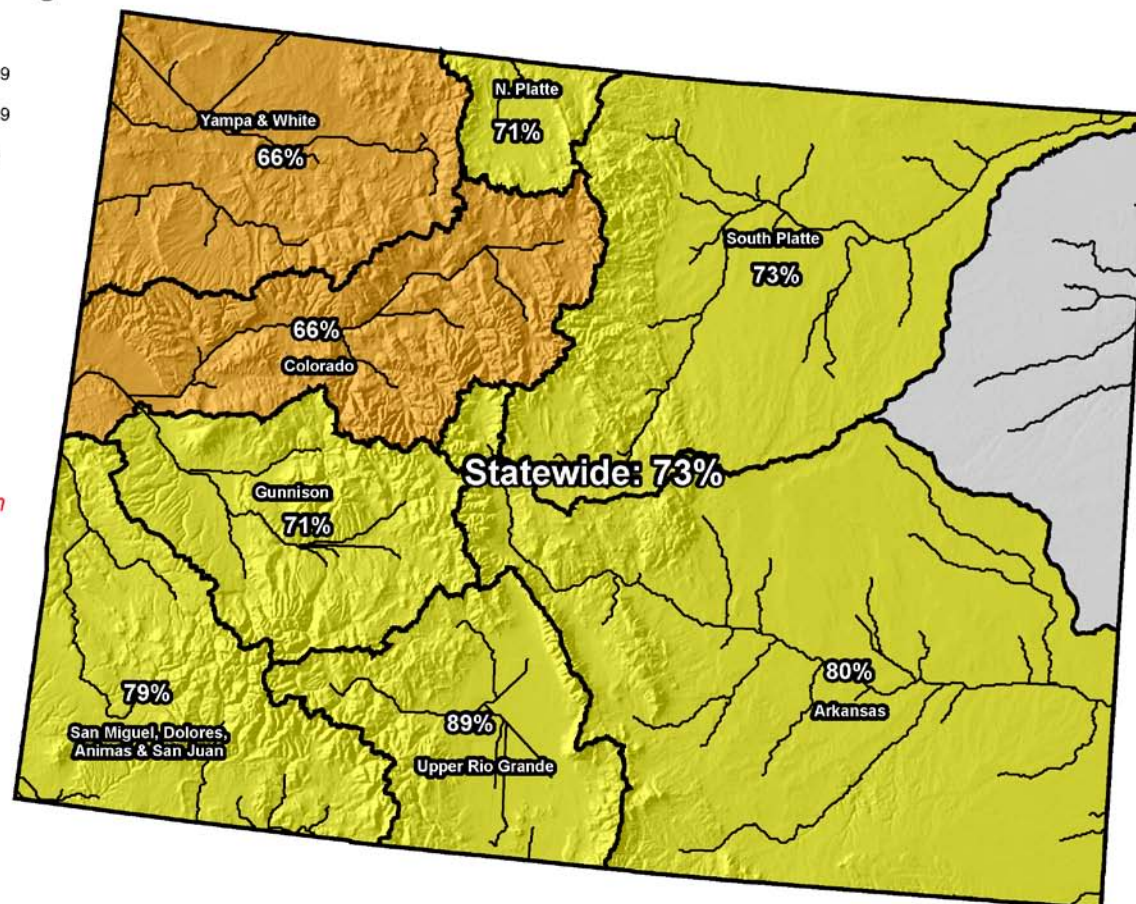
*Includes Animas, Dolores, San Miguel Basins

Colorado SNOTEL Water Year-to-Date Precipitation Update Map

Percent of Average



*Provisional Data
Subject to Revision*



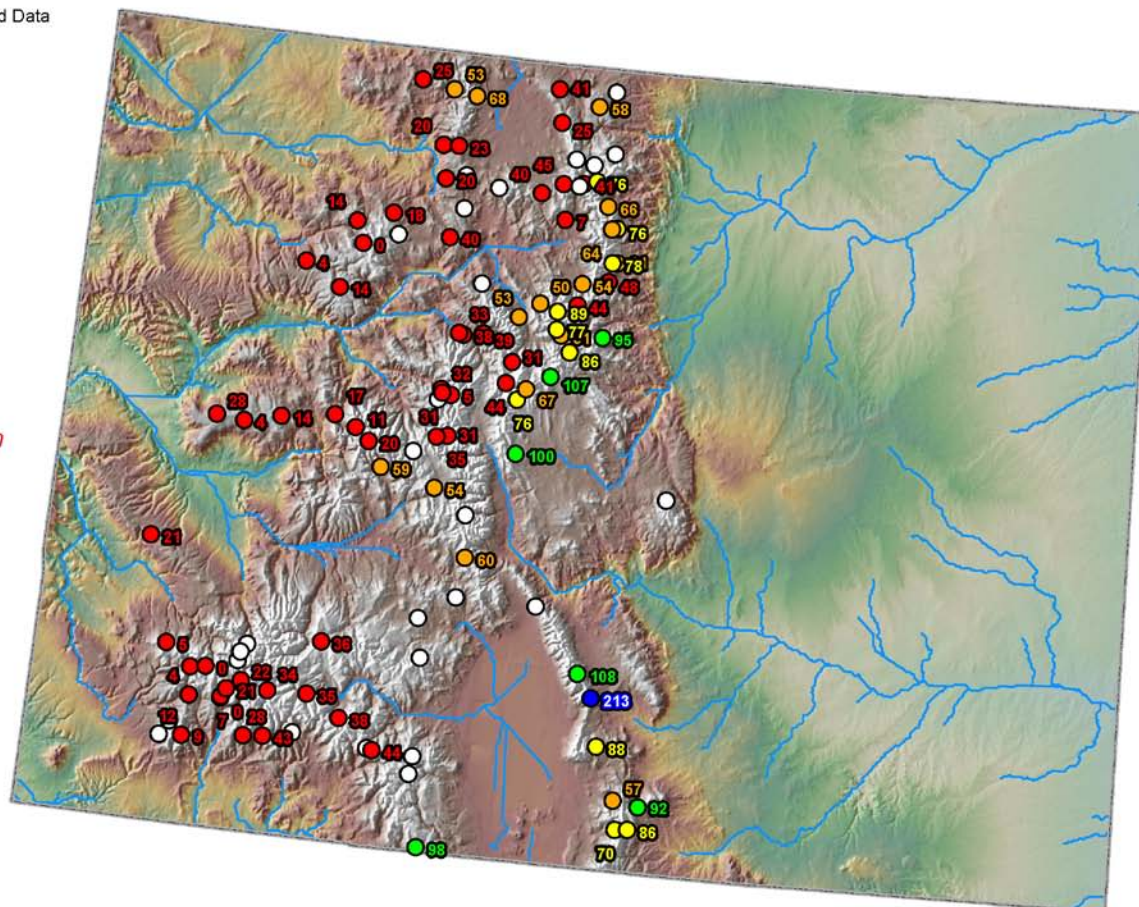
Current as of May 21, 2012

Colorado SNOTEL Month-to-Date Precipitation

Percent of Average

- Missing or Invalid Data
- < 50
- 50 - 69
- 70 - 89
- 90 - 109
- 110 - 129
- 130 - 149
- ≥ 150

*Provisional Data
Subject to Revision*



Current as of May 21, 2012

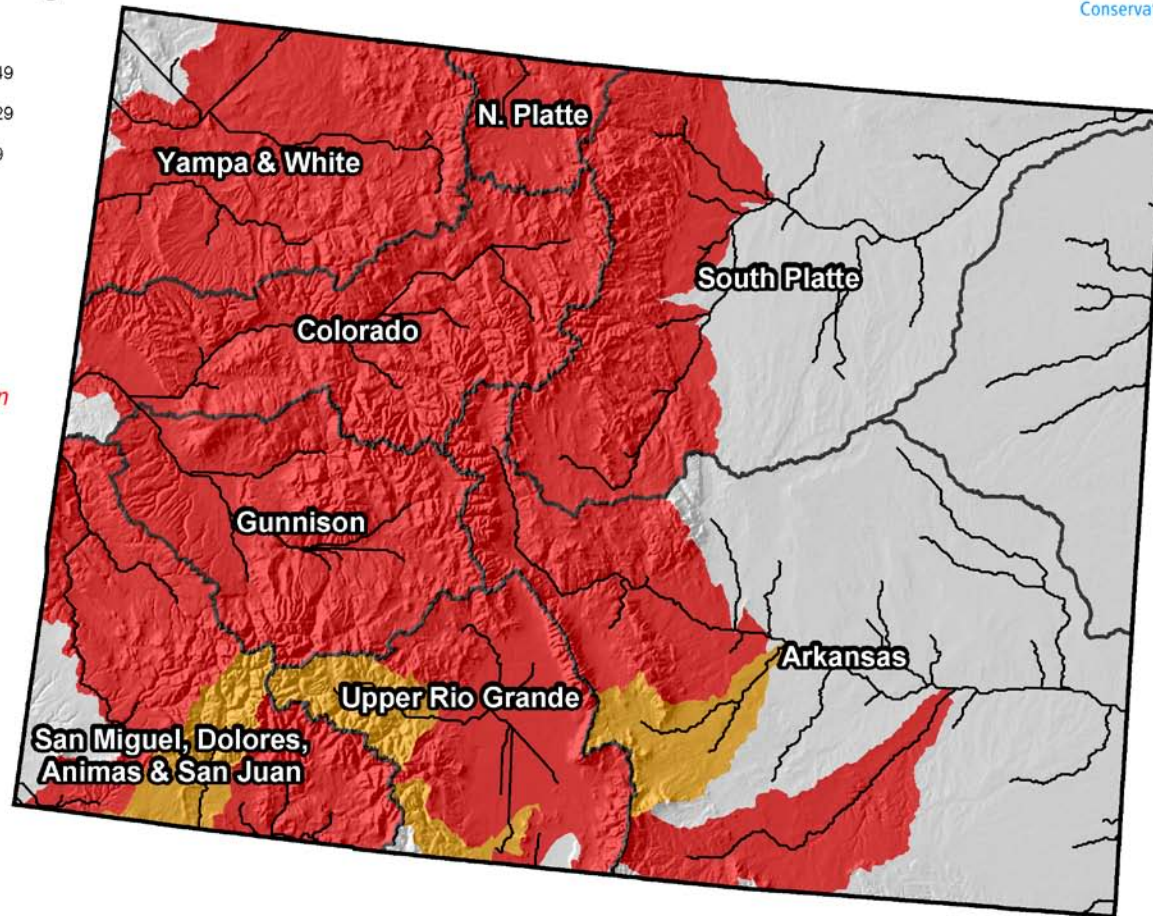
Colorado Streamflow Forecast Map



Percent of Average



*Provisional Data
Subject to Revision*

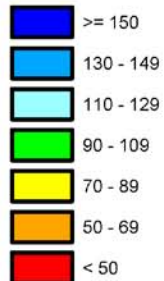


Current as of May 1, 2012

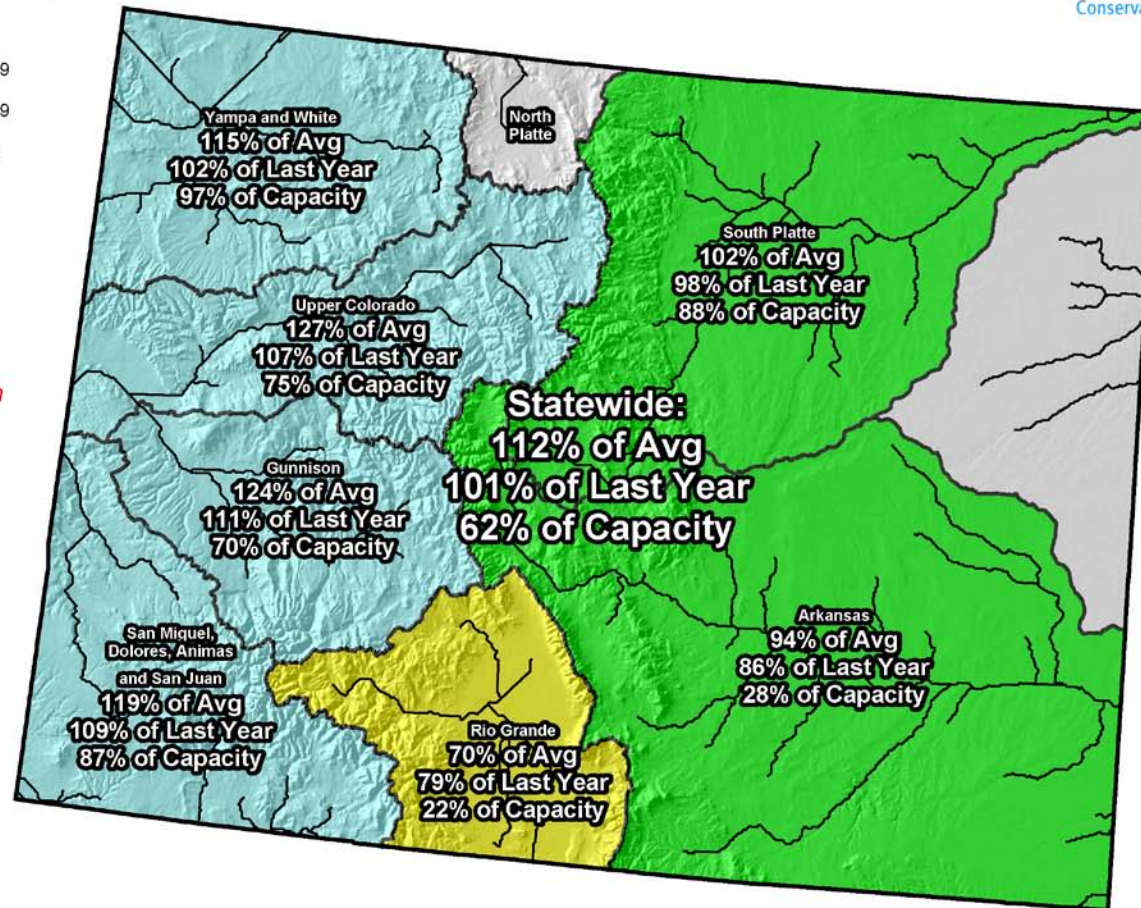
Colorado Reservoir Storage Map



Percent of Average



*Provisional Data
Subject to Revision*

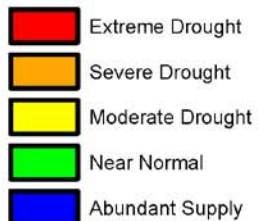


End of April 2012

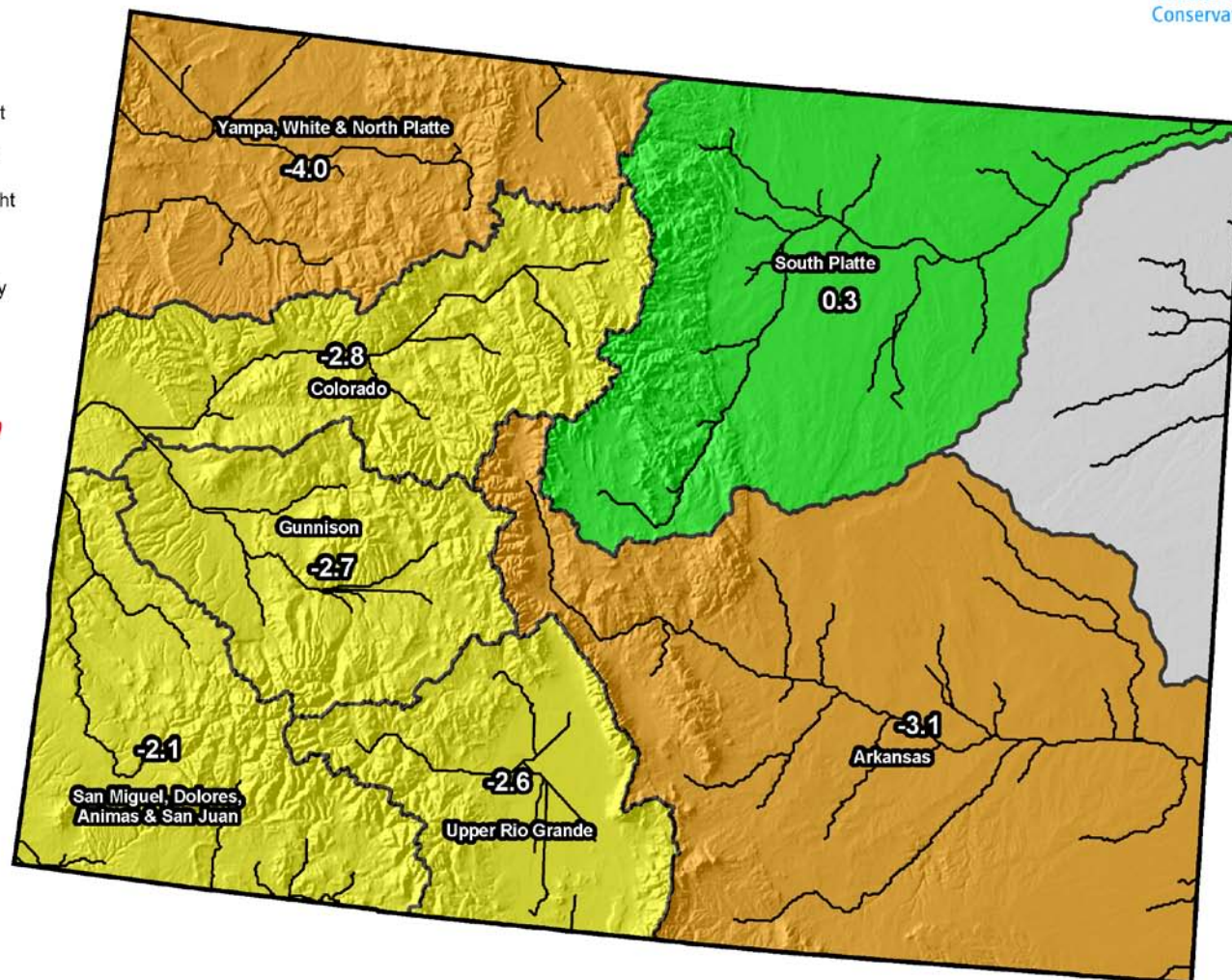
Colorado Surface Water Supply Index (SWSI) Map



Legend

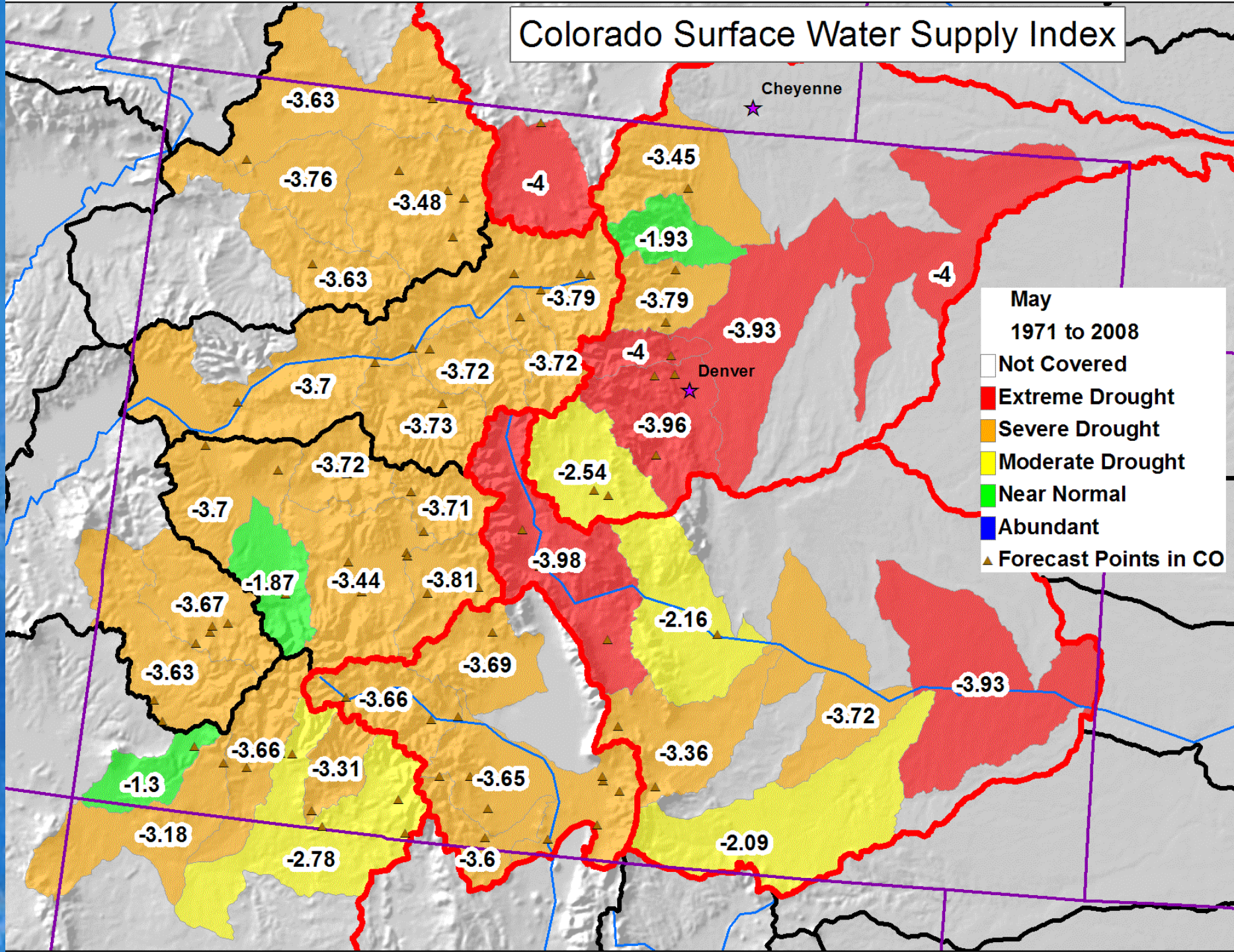


*Provisional Data
Subject to Revision*



Current as of May 1, 2012

Colorado Surface Water Supply Index



The 2012 Water Year

- **October** - Well above average precipitation in all basins. Upper Rio Grande, Arkansas and South Platte basins had above average SWE also. All other basins had below average SWE.
- **November** - Cumulative precipitation was near or above average in all basins. November was drier than average across the state, except for in the Yampa/White. Statewide, SWE was tracking along at average until the last week in Nov when things dried up and ended Nov below average.
- **December** - DRY across the state. The only basin to see average precip during Dec was Upper Rio Grande. The Yampa/White recorded just 29% of average precip. SWE as of Jan 1 was below average in all basins. The Arkansas & Upper Rio basins were near average (~90%). Yampa/White was at just 57%.
- **January** - Dry until ~16th across the state. The Gunnison and Colorado basins saw well above average snowfall the last half of Jan. All other basins returned to typical accumulation. Feb 1 measured SWE was still below average in all basins. Southern basins had dropped 13 -15 percentage point since Jan 1. Precip in Gunnison and Colorado basins was near average in Jan all other basins were below average.
- **February** - Had near or above average snowfall and precipitation across the state. The Colorado and Upper Rio Grande basins reported snowfall totals at 97% of average. Boosted snowpack totals in all basins, greatest increases in the Yampa and San Juan basins. Statewide the snowpack increased by 9 percentage points.
- **March** - Extremely DRY month! Little to no additional snow accumulation across the state. All basins snowpack percentages decreased significantly and look to have reached peak SWE in early to mid March, two to seven weeks early!
- **April** - Below average precipitation across the state. Streamflow forecasts across the state dropped 20 - 50 percent from those issued on March 1. Yampa, White, and Colorado basins are fairing the worst with snowpack's below 50% of average.
- **May** - Many basins reported record low snowpack percentages on May 1. Well below average precipitation for the western basins so far this month. South Platte and Arkansas still below average but not as bad and prec for the Upper Rio is near average. Streamflow forecasts across the state have dropped for the second month; 5 - 15 percent on average from those issued on April 1. The South Platte forecasts took the biggest hit and are on average 25 percent lower this month.