

NRCS – Snow Survey & Water Supply Forecasting

Mike Gillespie

Colorado Drought Task Force Meeting
March 20, 2009

The 2009 Water Year

October – Near average precipitation during the first half of the month, followed by dry conditions during the second half. Below average snowpack accumulations during the month.

November – Below average precipitation statewide. Minimal gains in mountain snowpack.

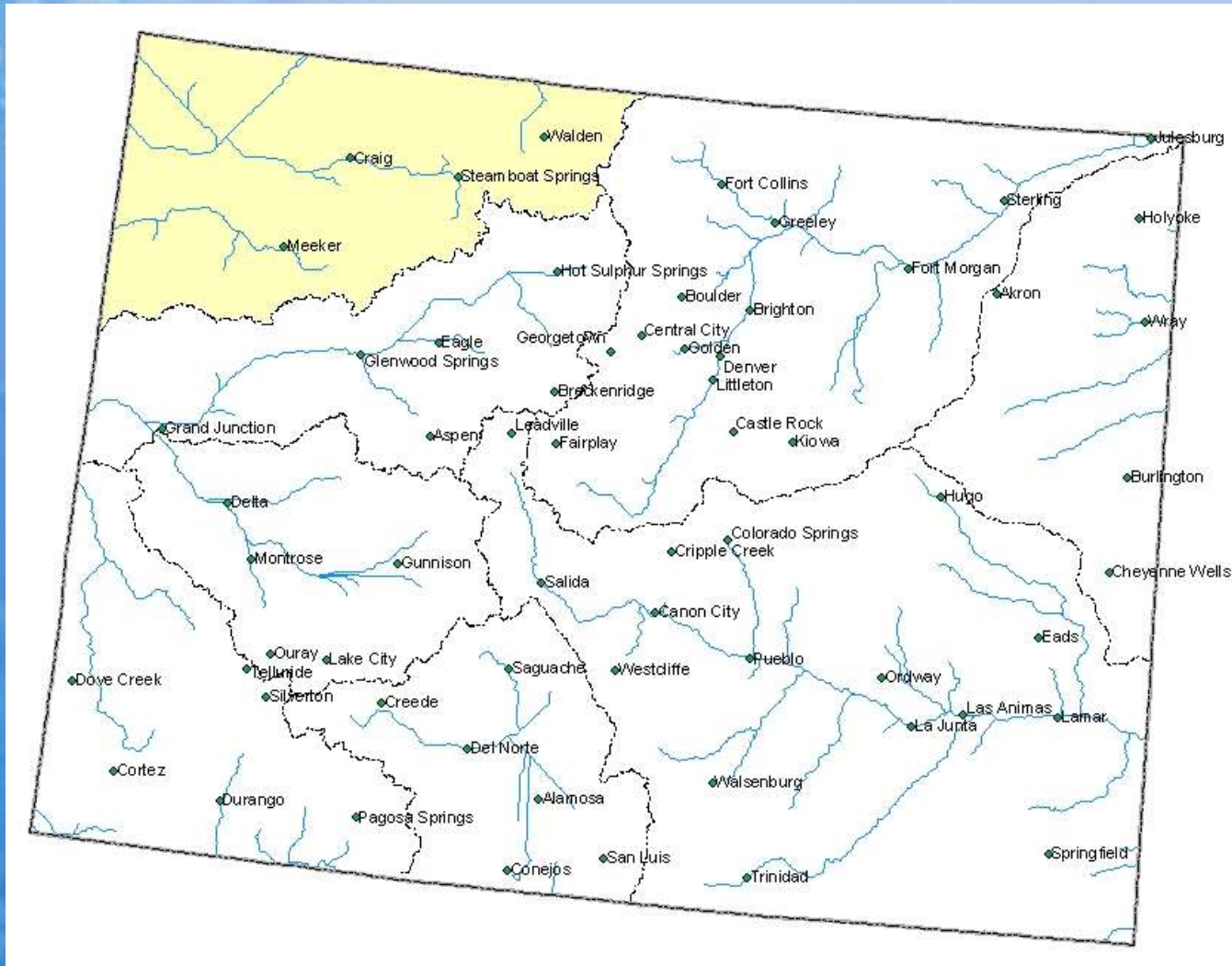
December – Heavy snow storms in the southern mountains. Nearly a repeat of last year!!

January – A good start to the month, followed by a “January Thaw”. Sizable snowpack increases at month’s end.

February – Generally below average snowfall, especially across southern mountains.

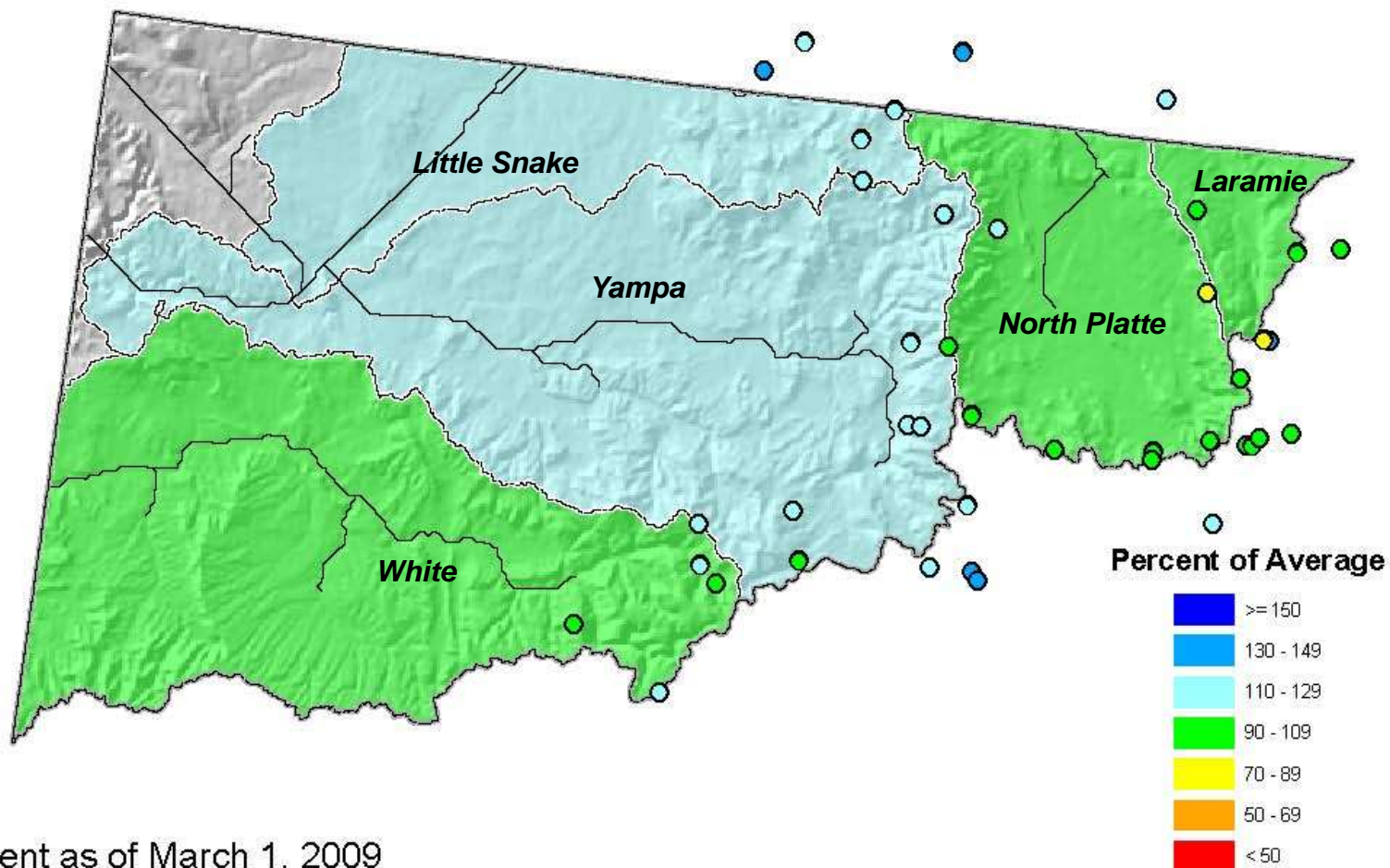
March – Warm and dry statewideso far!!

Yampa, White & North Platte River Basins Summary



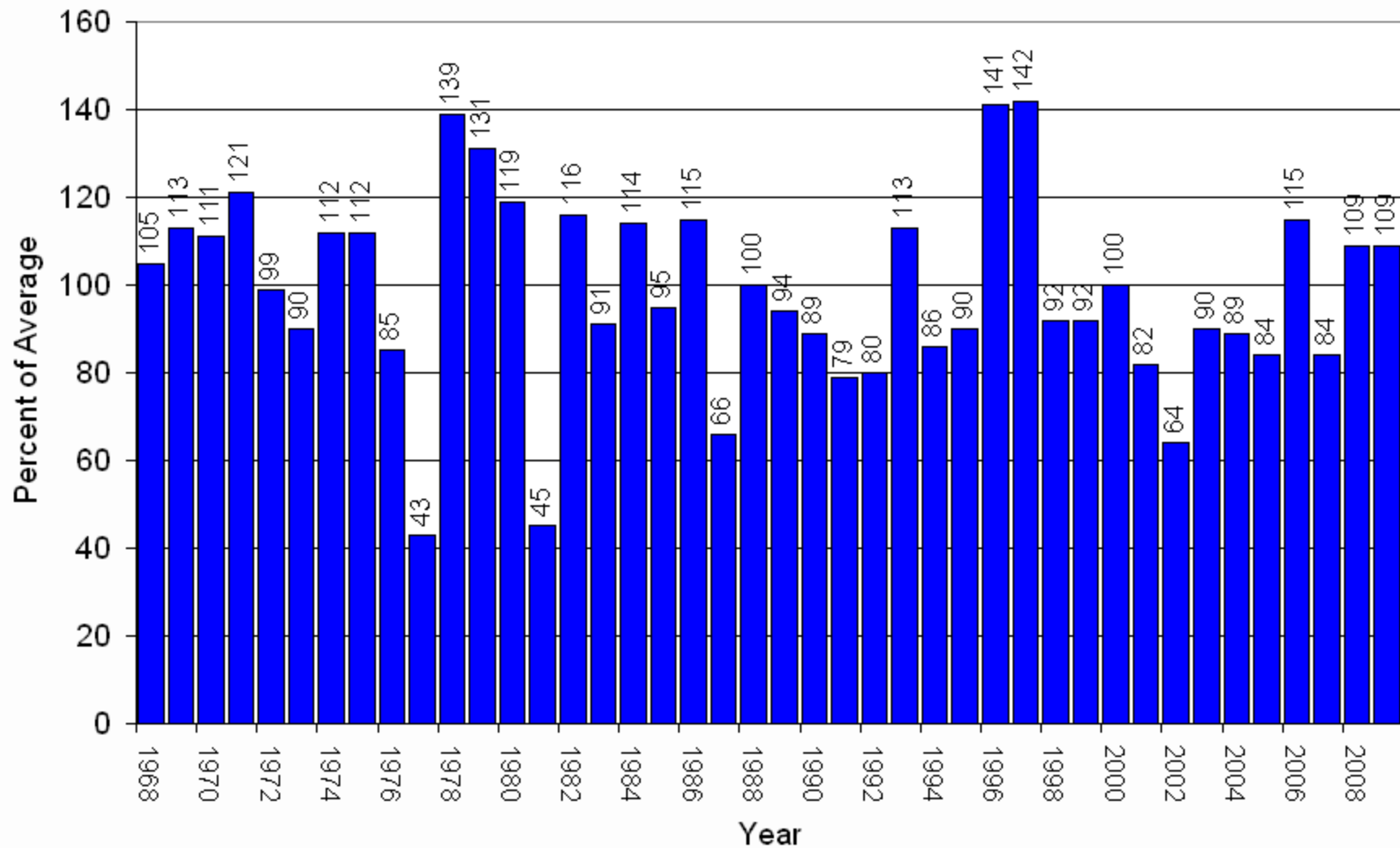
Yampa, White and North Platte River Basins Snowpack Map

*Provisional Data
Subject to Revision*



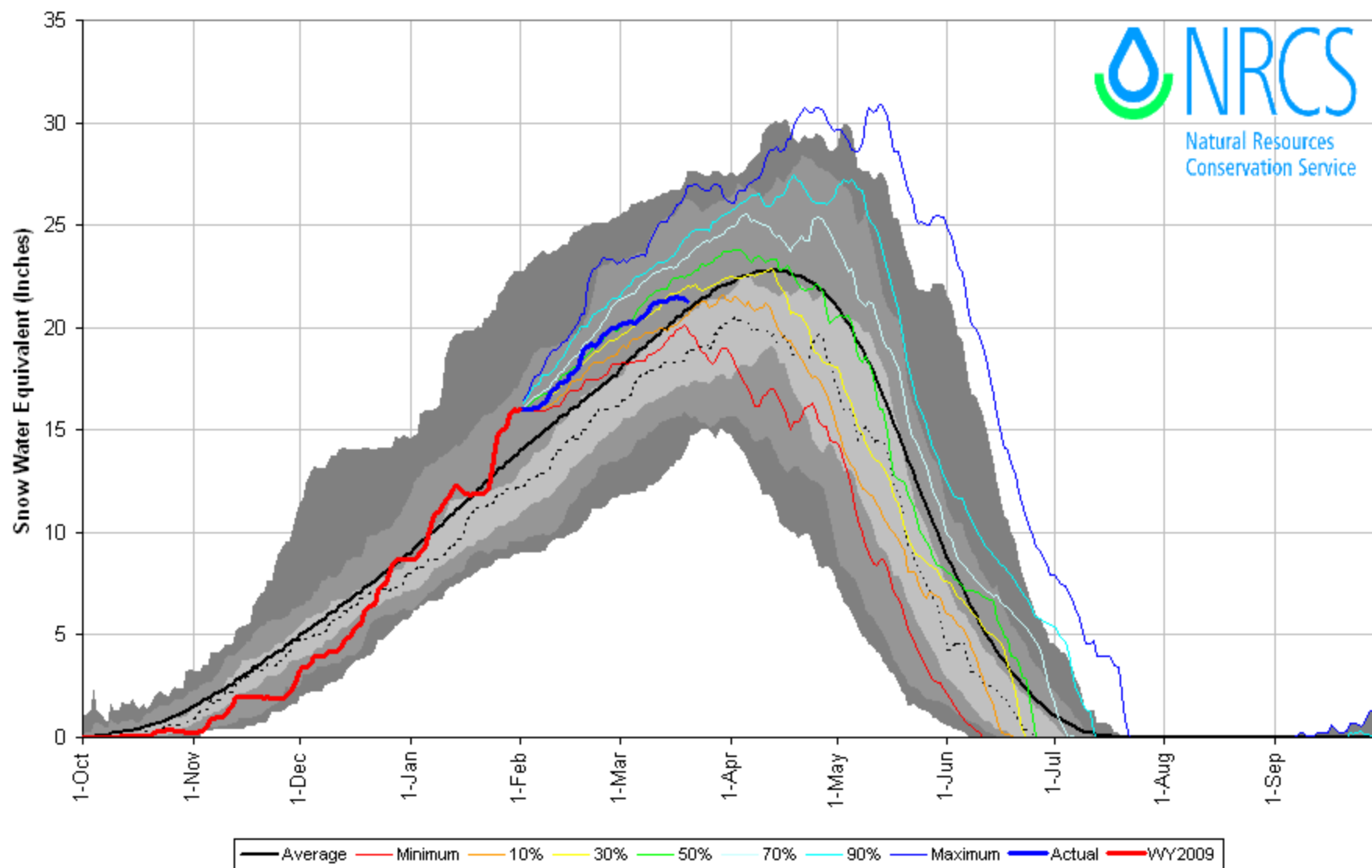
Current as of March 1, 2009

March 1 Total Yampa & White River Basins Snowpack



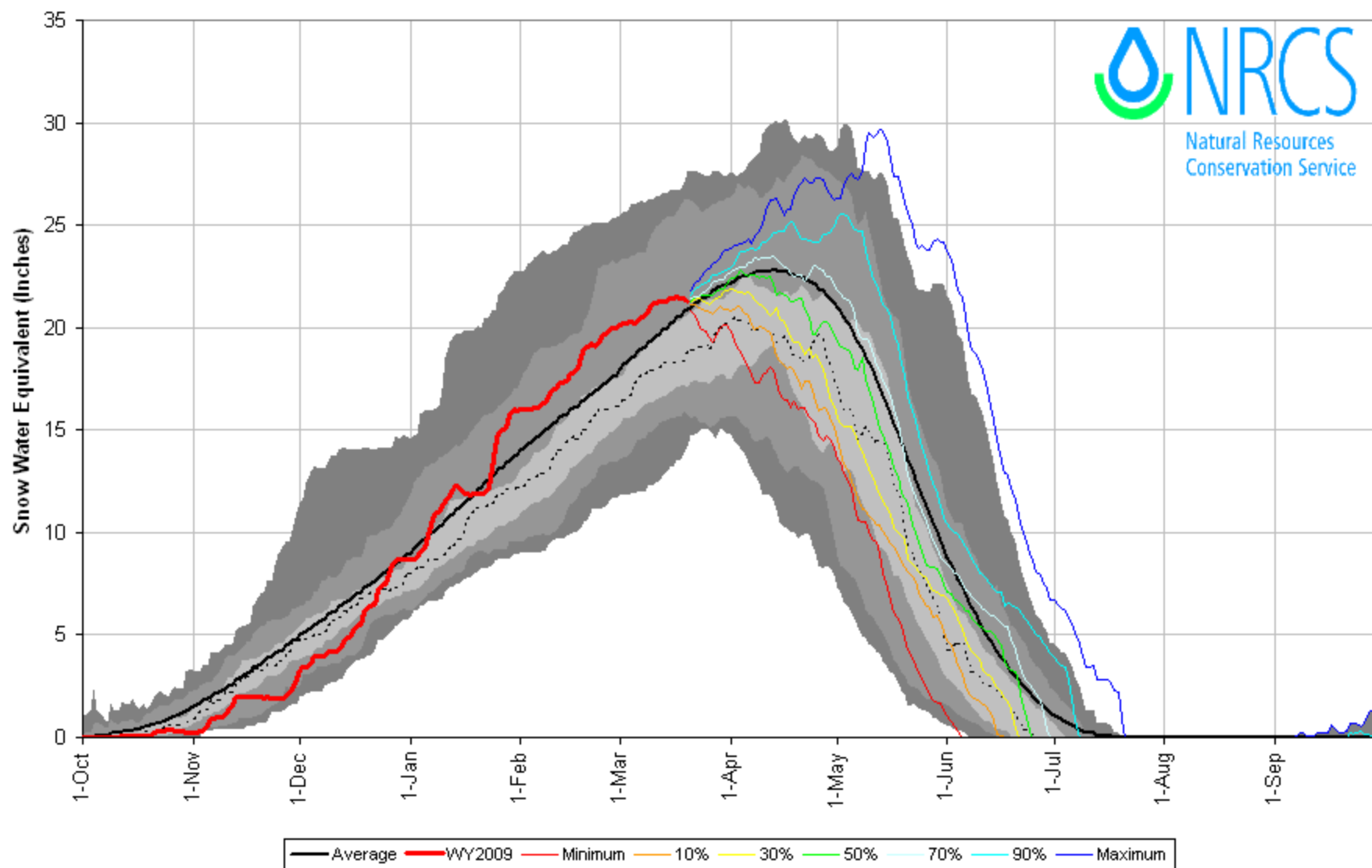
Yampa and White River Basins with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



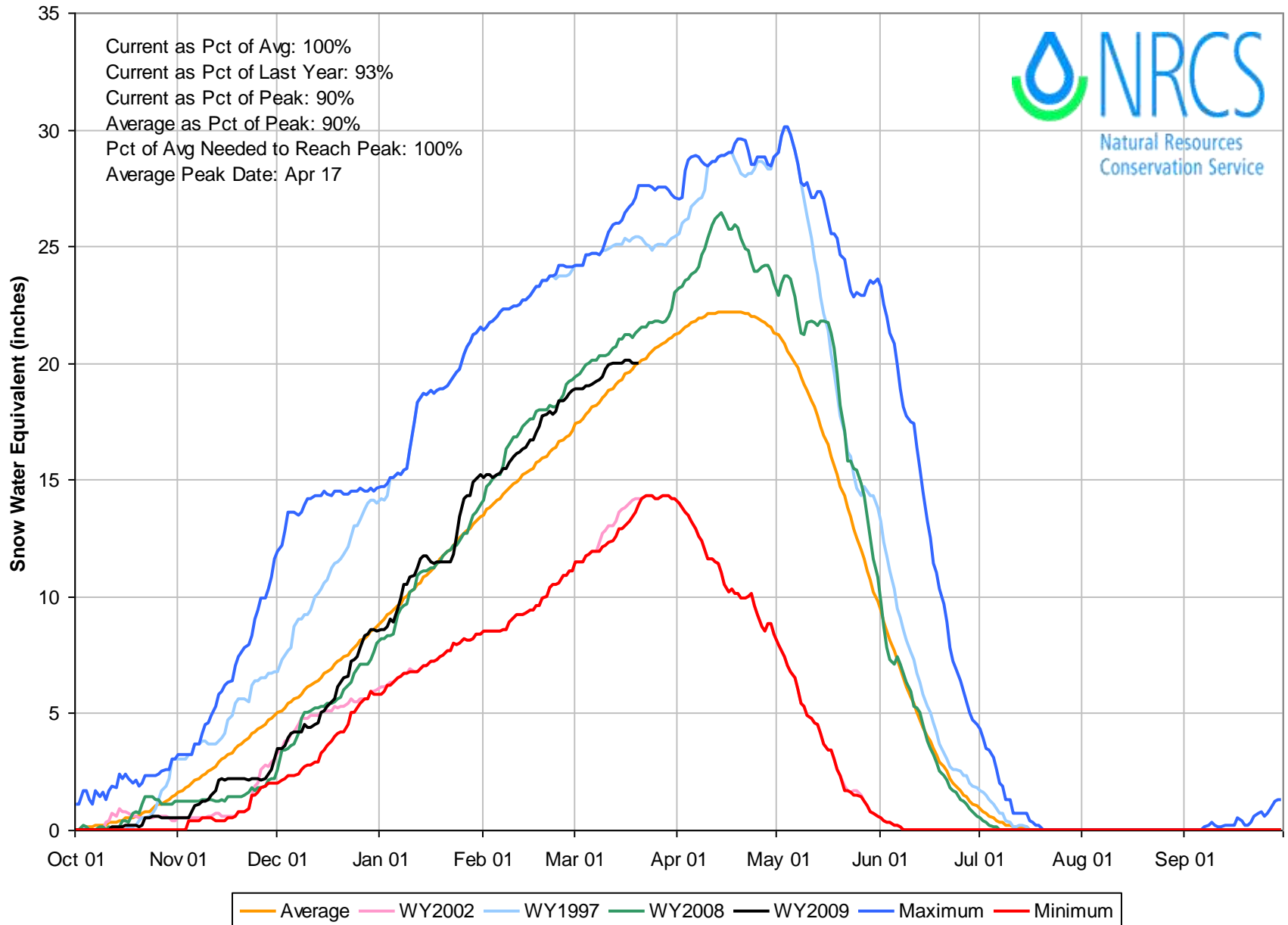
Yampa and White River Basins with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



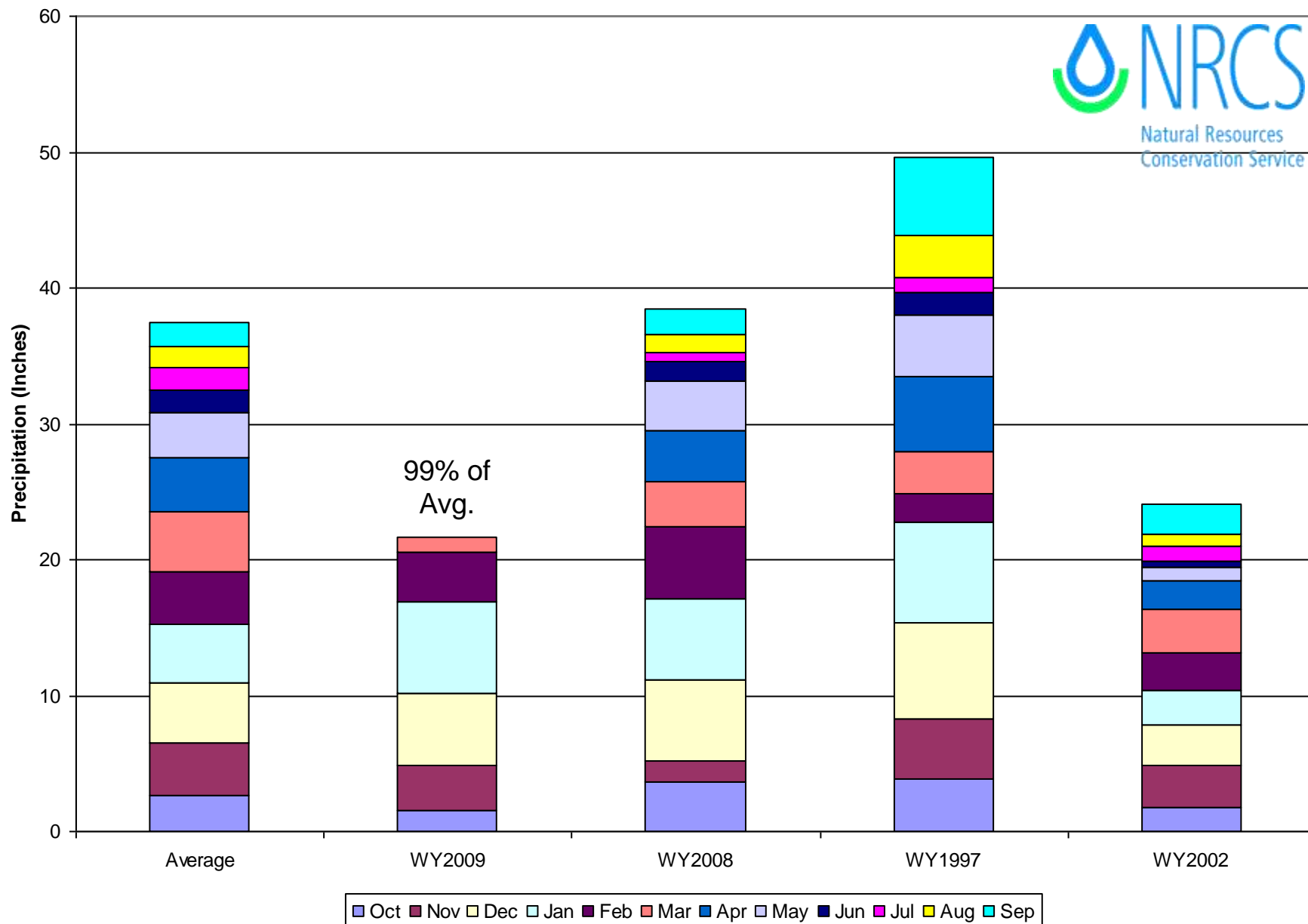
Yampa, White & North Platte River Basins High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Mar 20, 2009



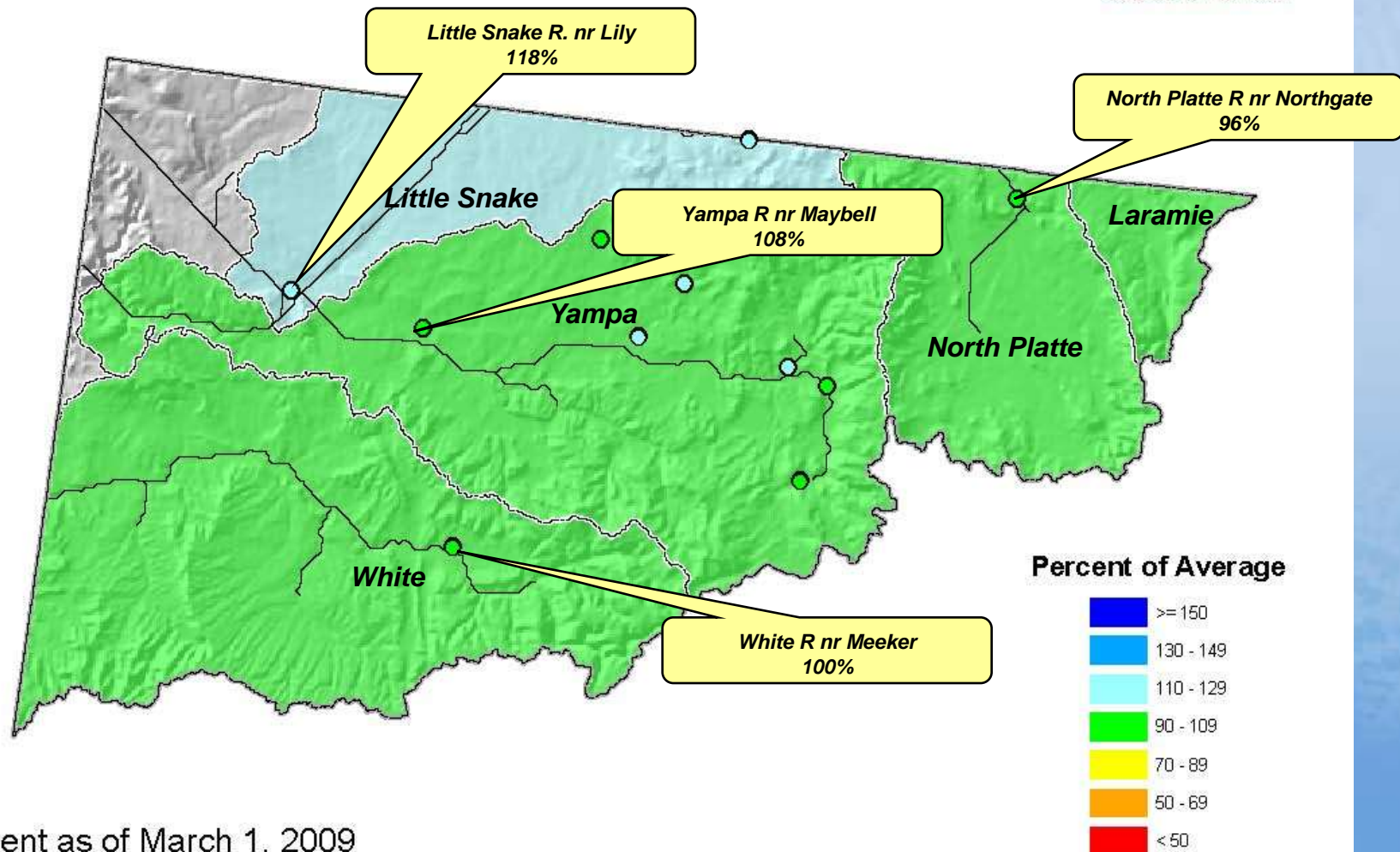
Yampa and White River Basins High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Mar 20, 2009



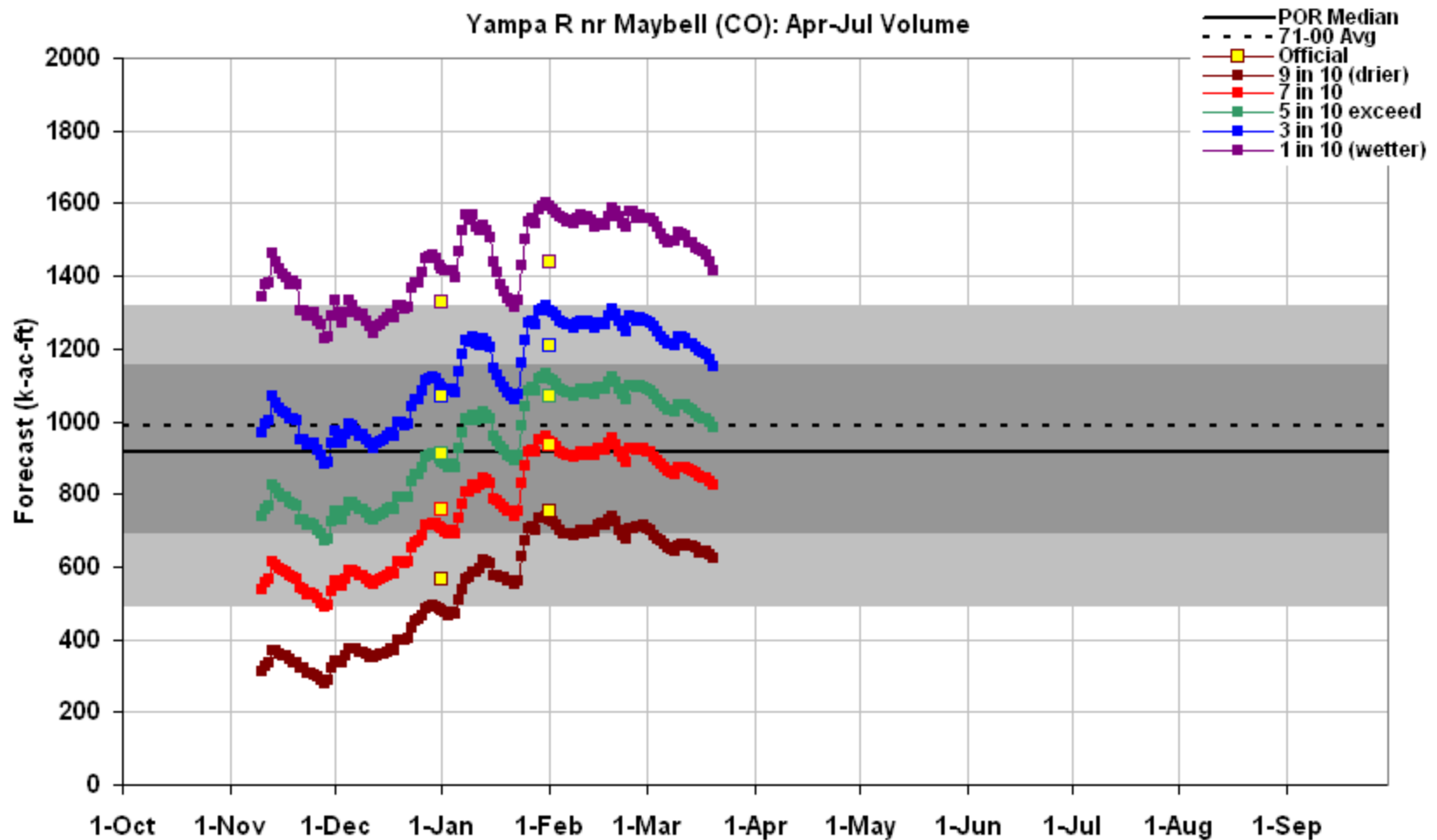
Yampa, White and North Platte River Basins Streamflow Map

*Provisional Data
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Current as of March 1, 2009

Yampa R nr Maybell (CO): Apr-Jul Volume



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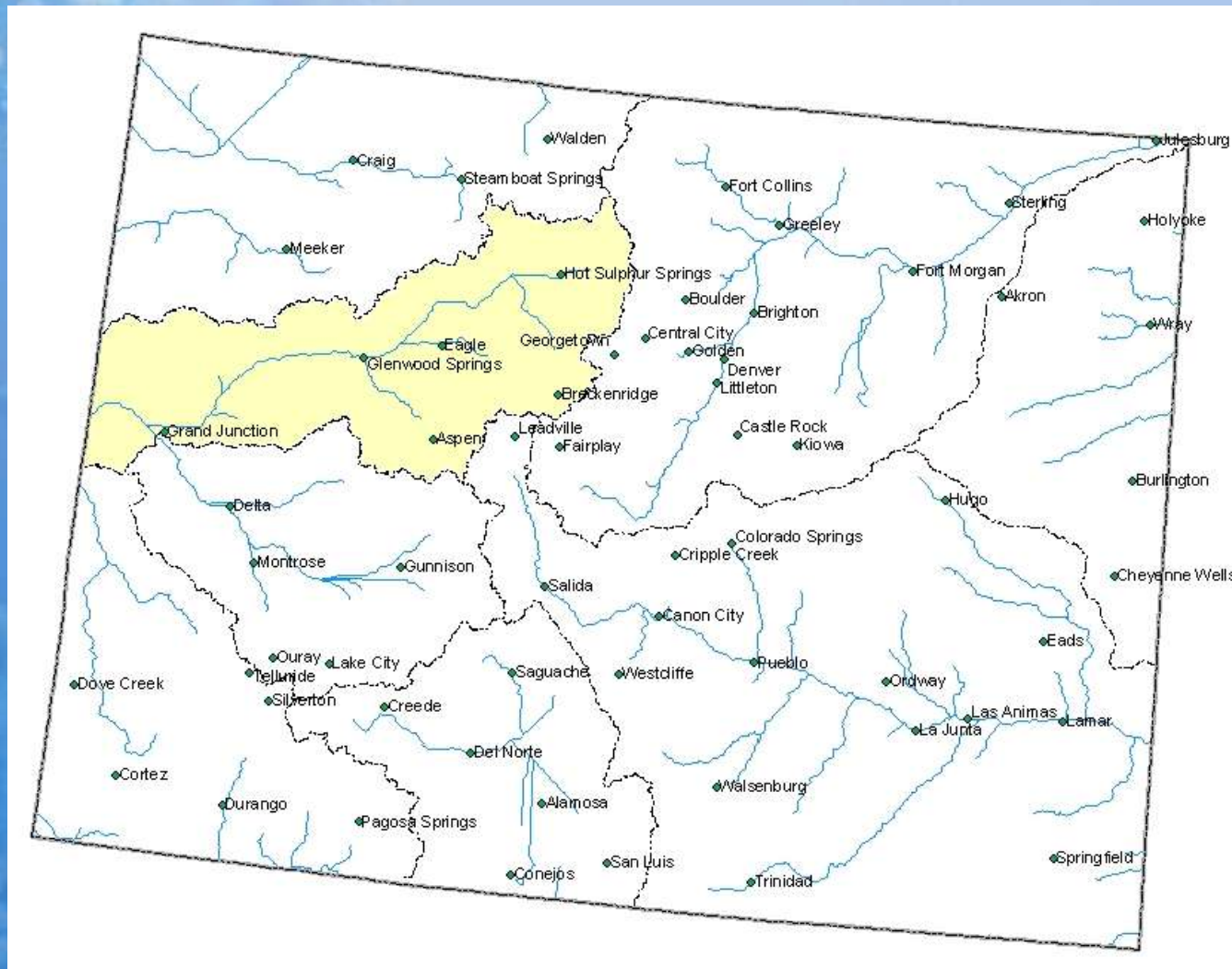
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Science Contact: Jim.Marron@por.usda.gov www.wcc.nrcs.usda.gov/wsf/daily_forecasts.html

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Colorado River Basin Summary

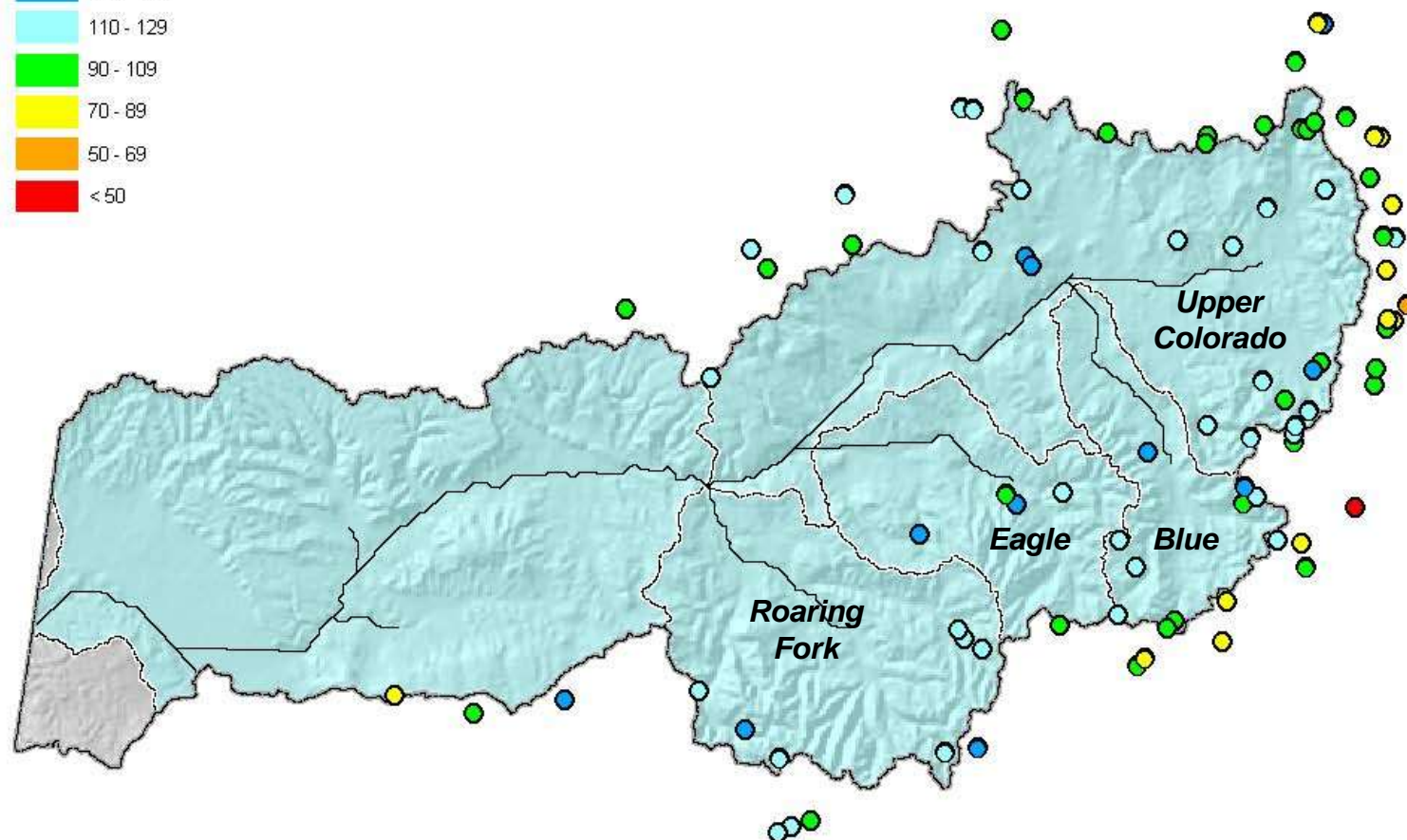


Colorado River Basin Snowpack Map

Percent of Average

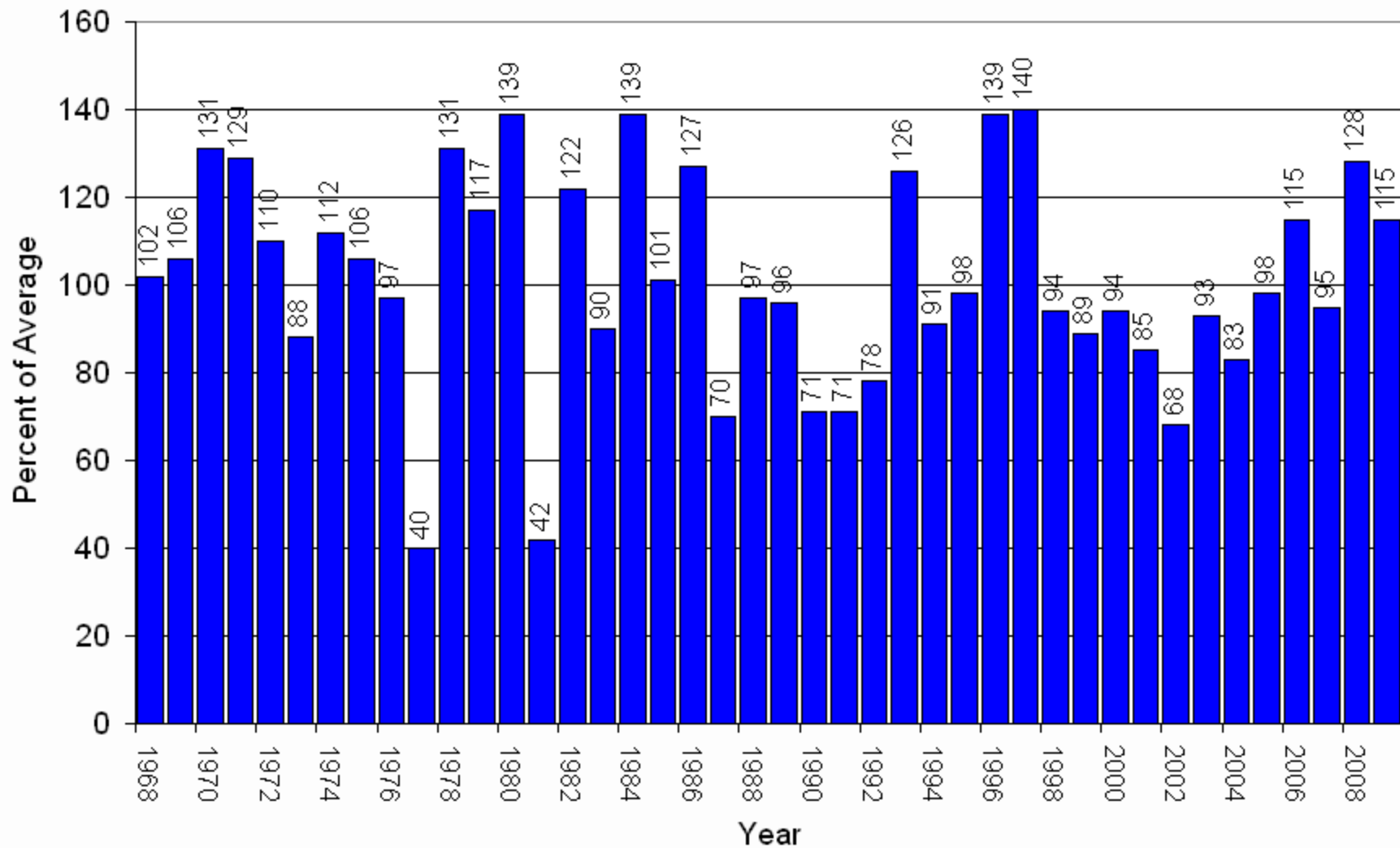


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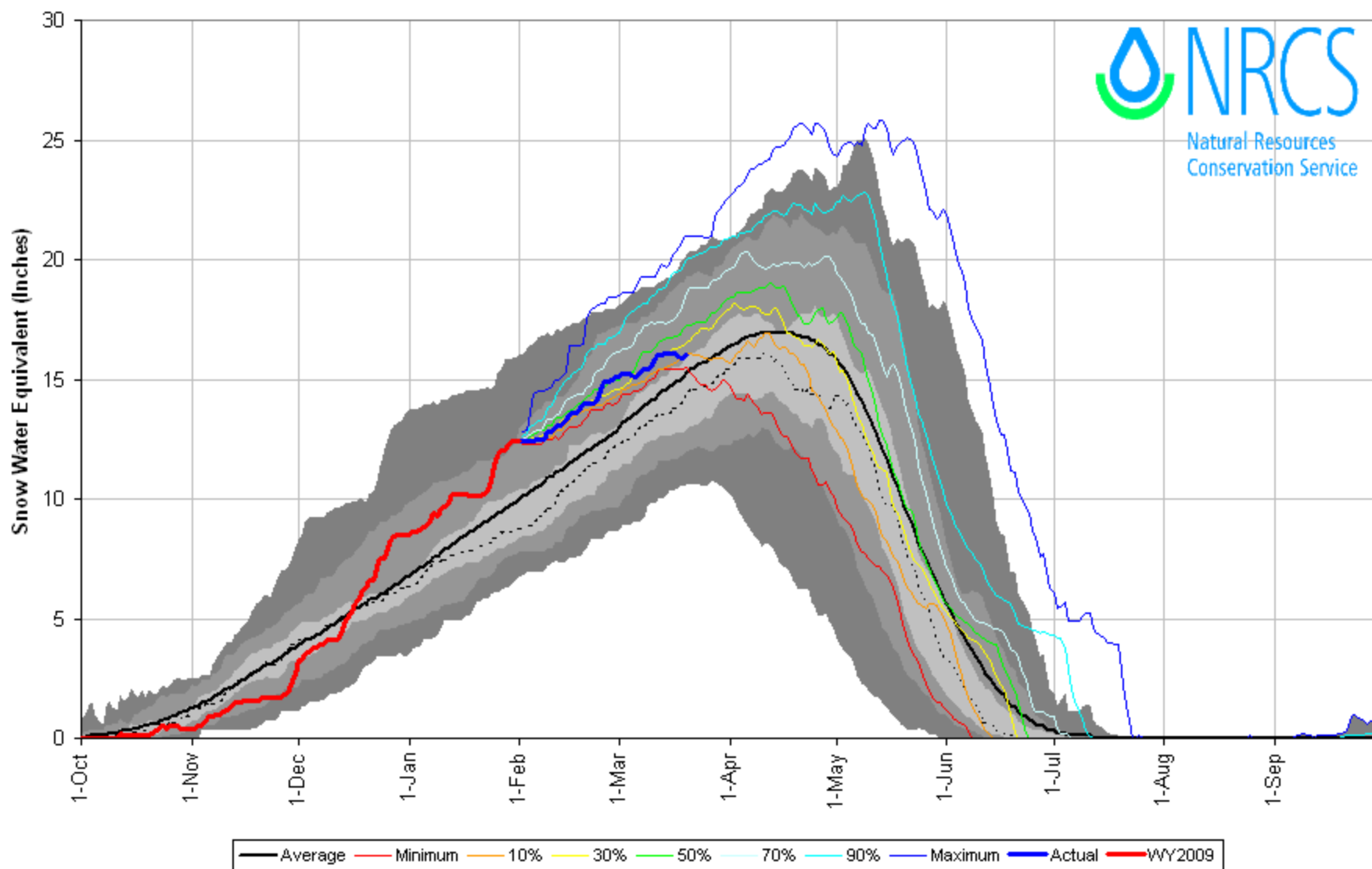
Current as of March 1, 2009

March 1 Total Colorado River Basin Snowpack



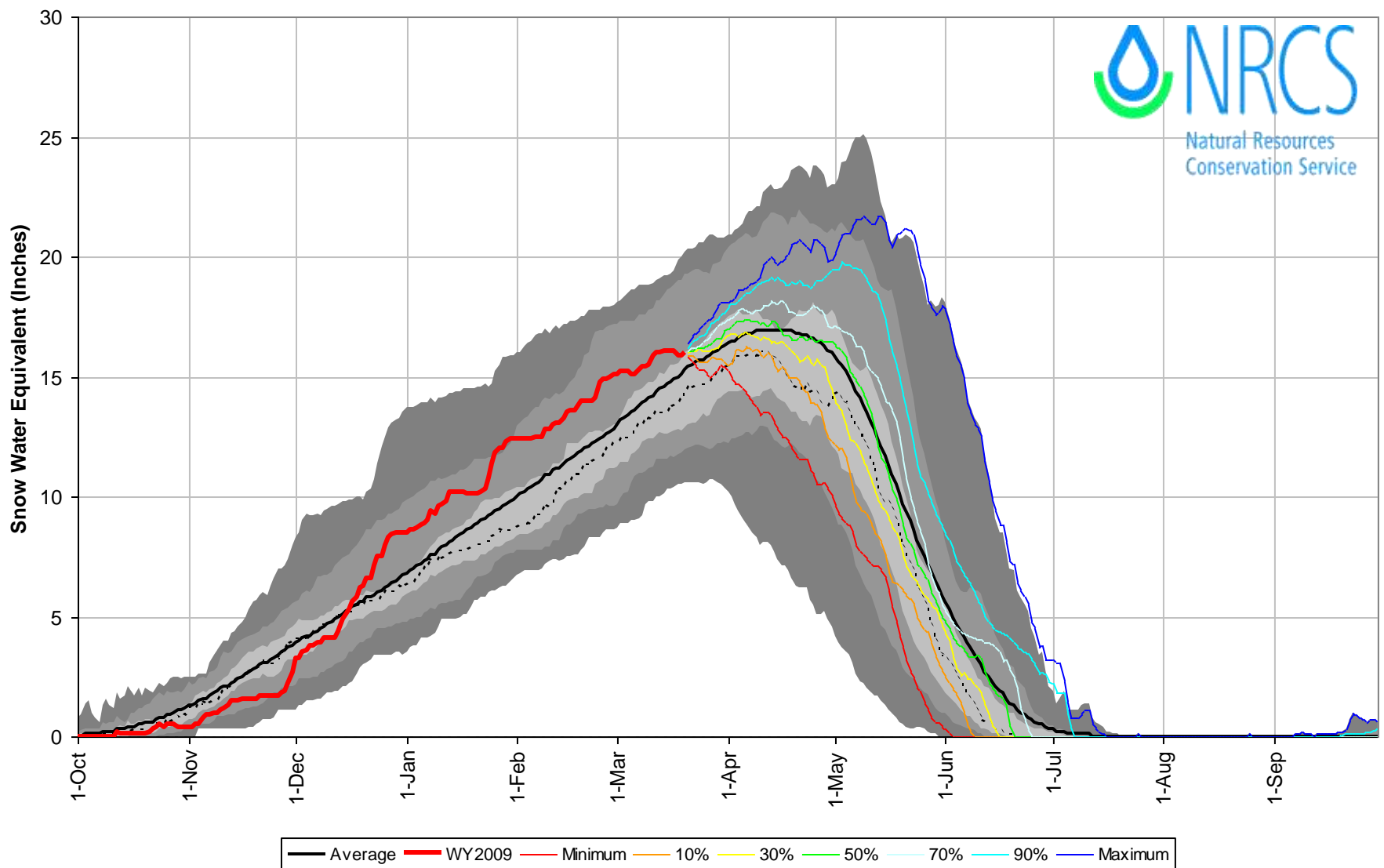
Colorado River Basin with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



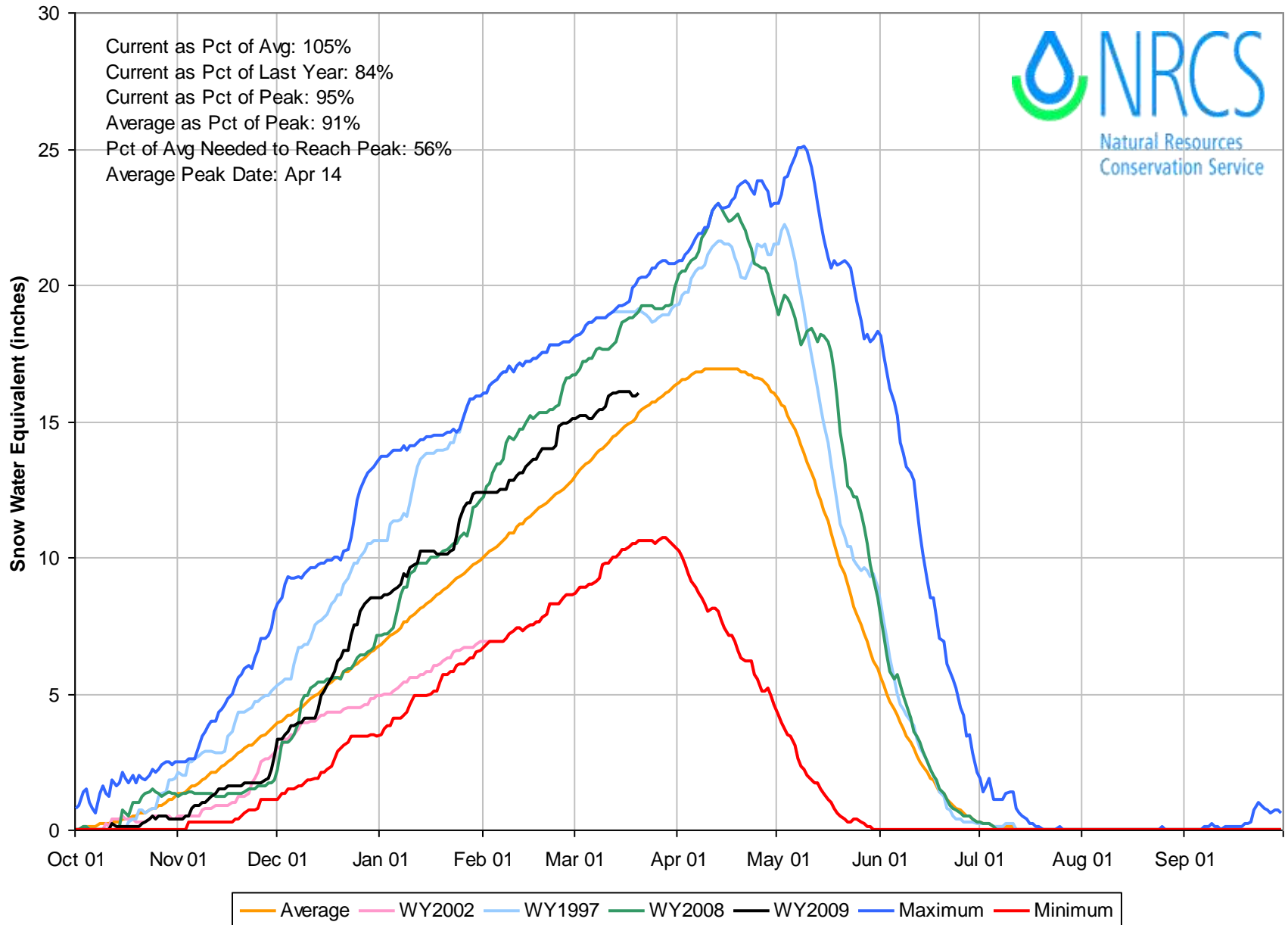
Colorado River Basin with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



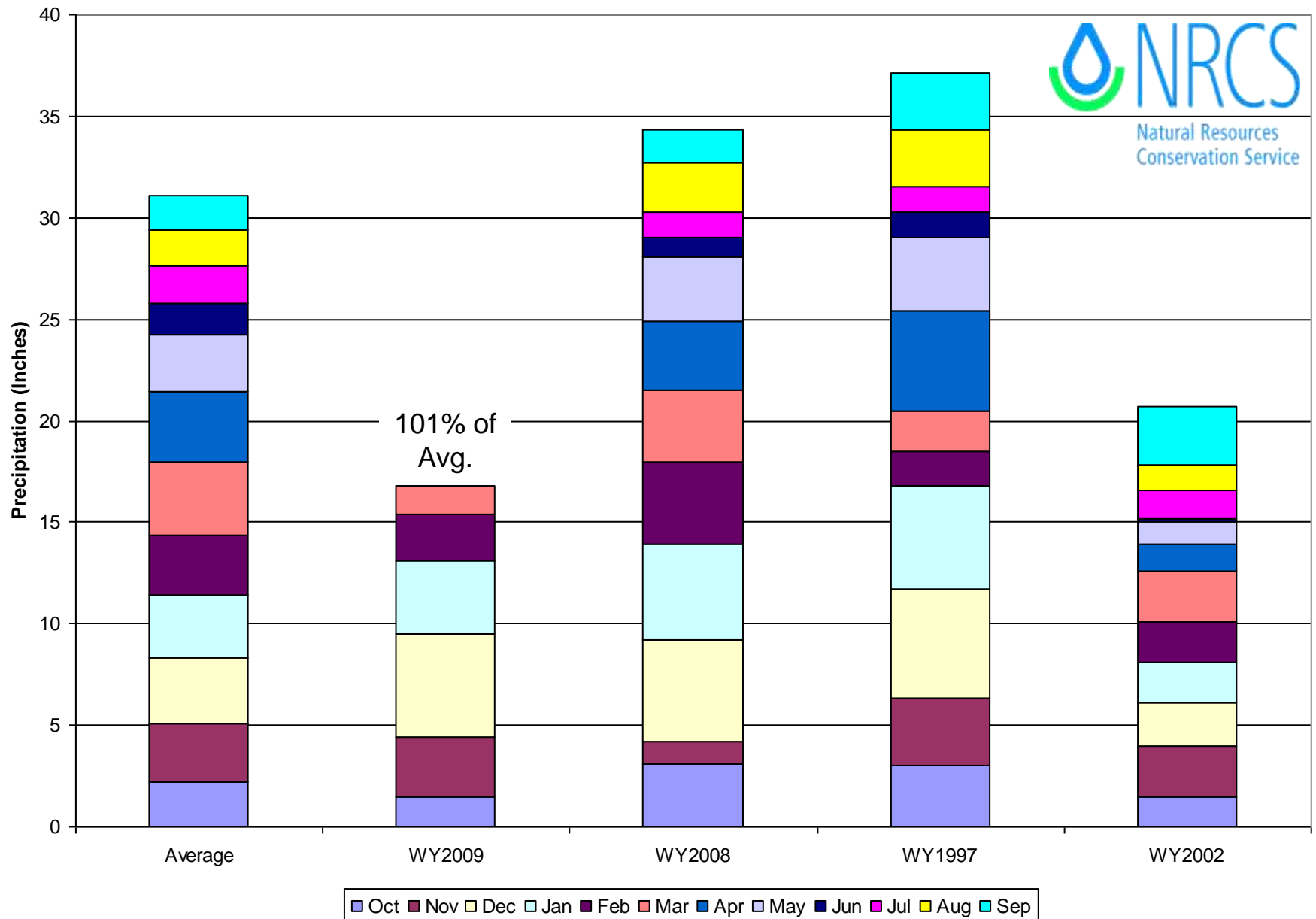
Upper Colorado River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Mar 20, 2009



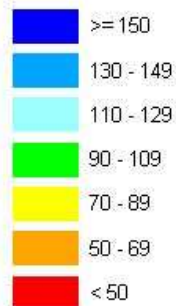
Upper Colorado River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Mar 20, 2009

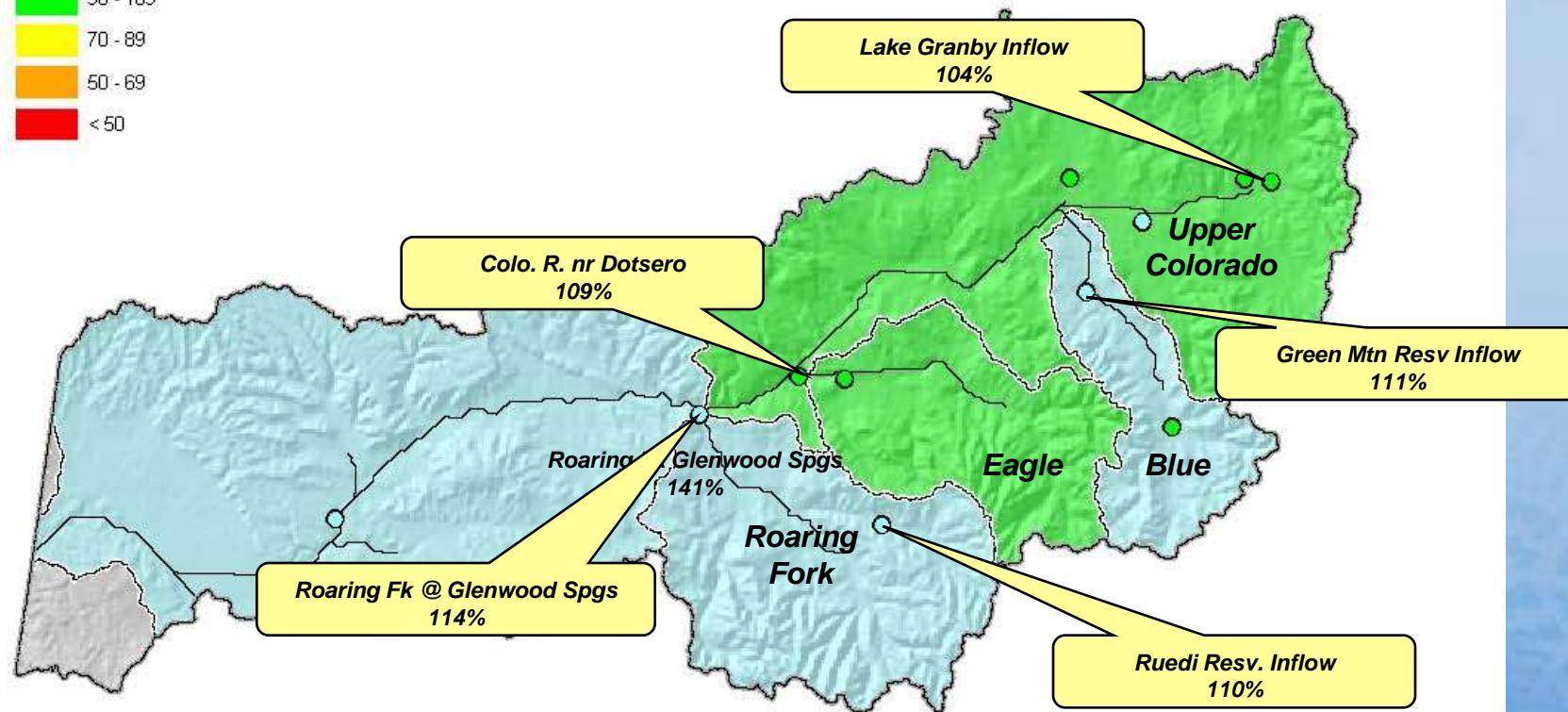


Colorado River Basin Streamflow Forecast Map

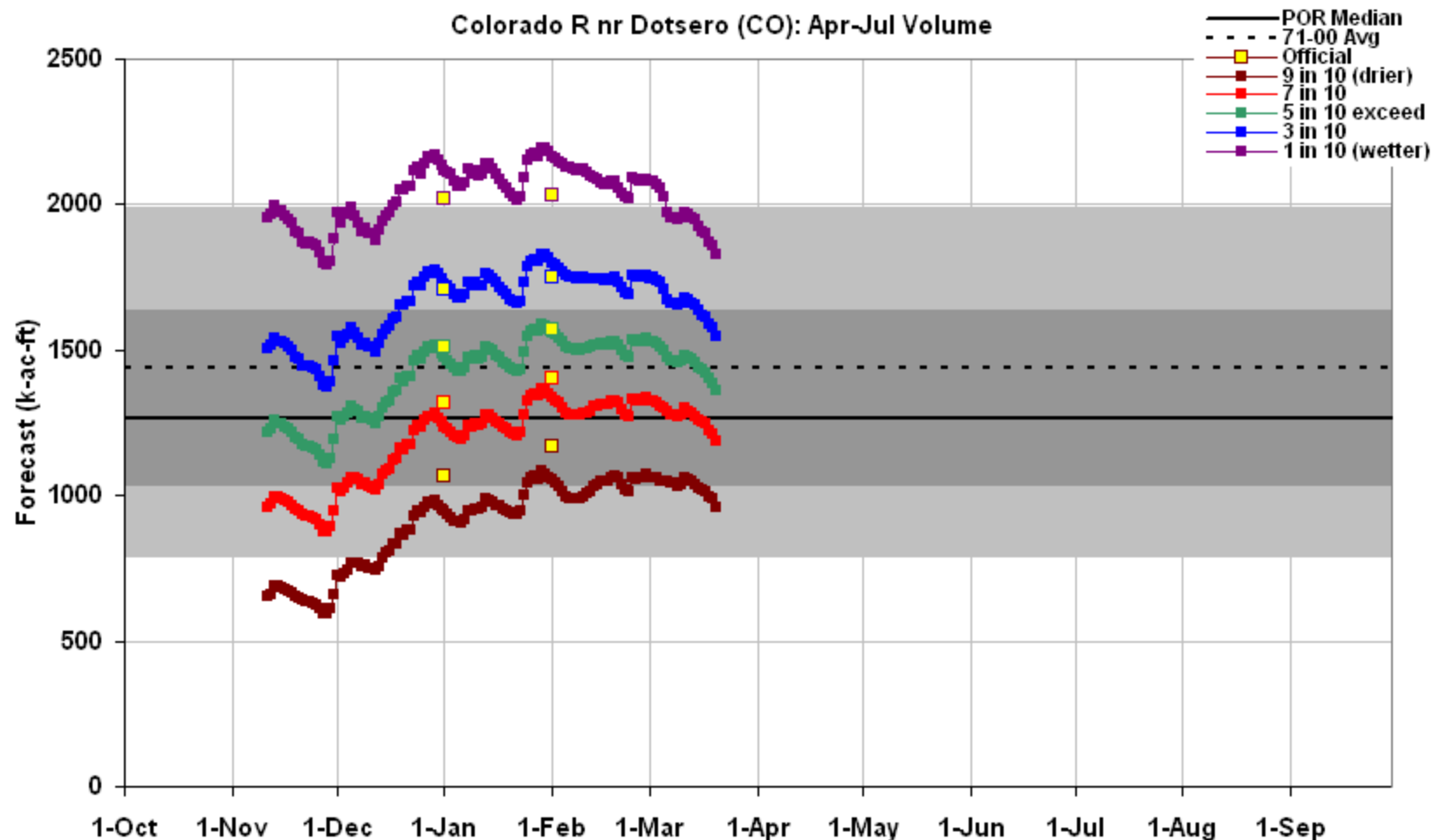
Percent of Average



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Current as of March 1, 2009



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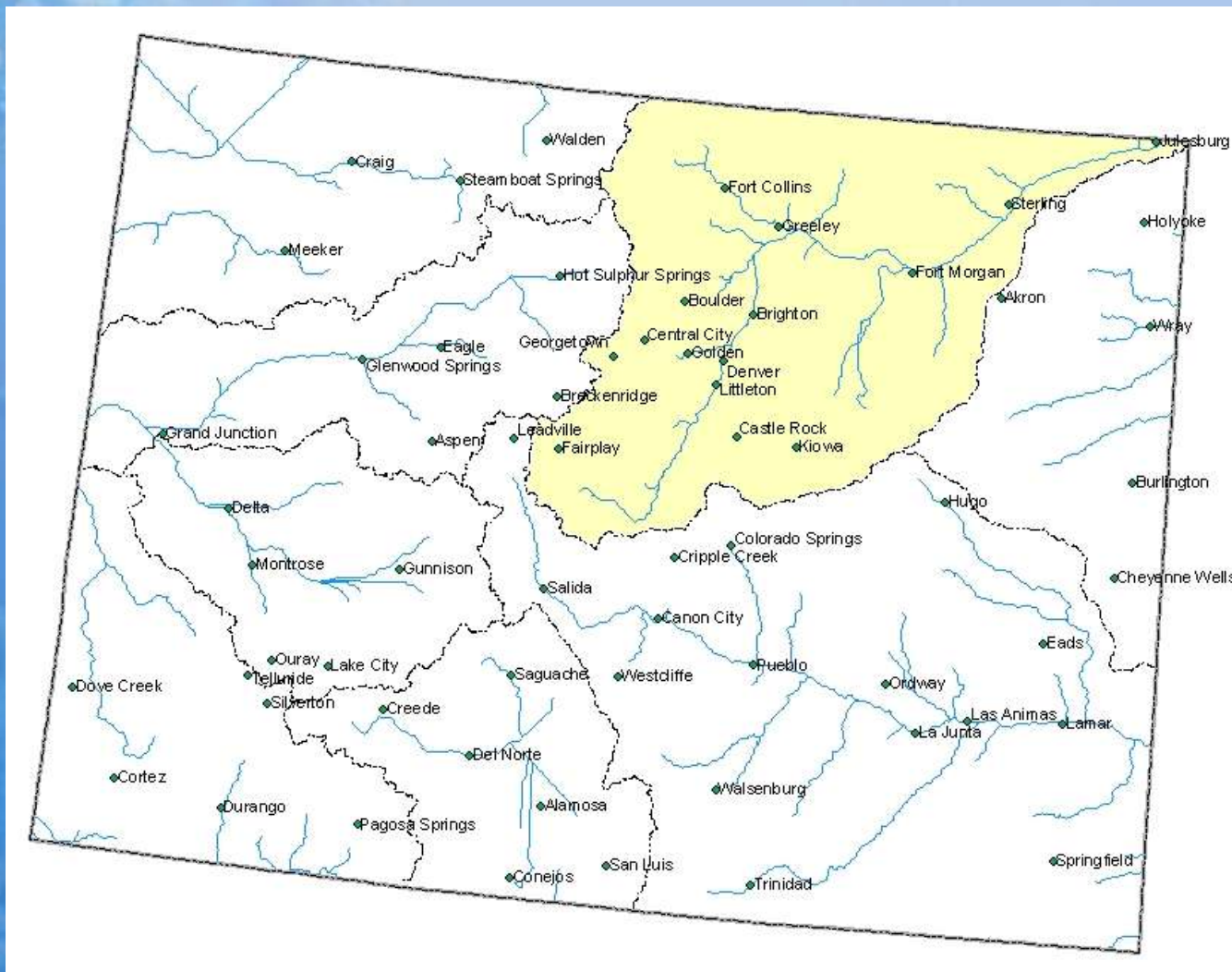
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South Platte River Basin Summary

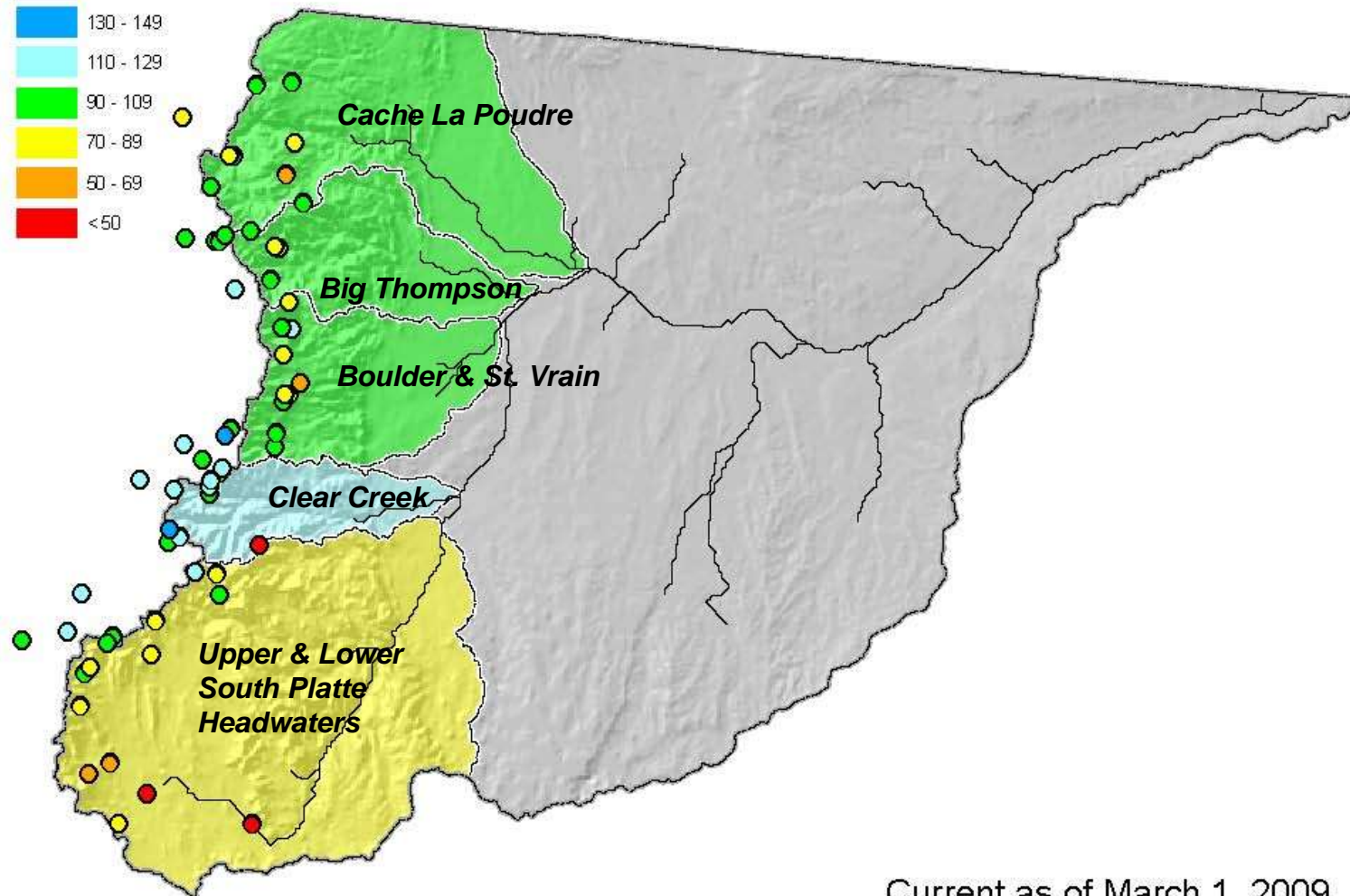


South Platte River Basin Snowpack Map

Percent of Average

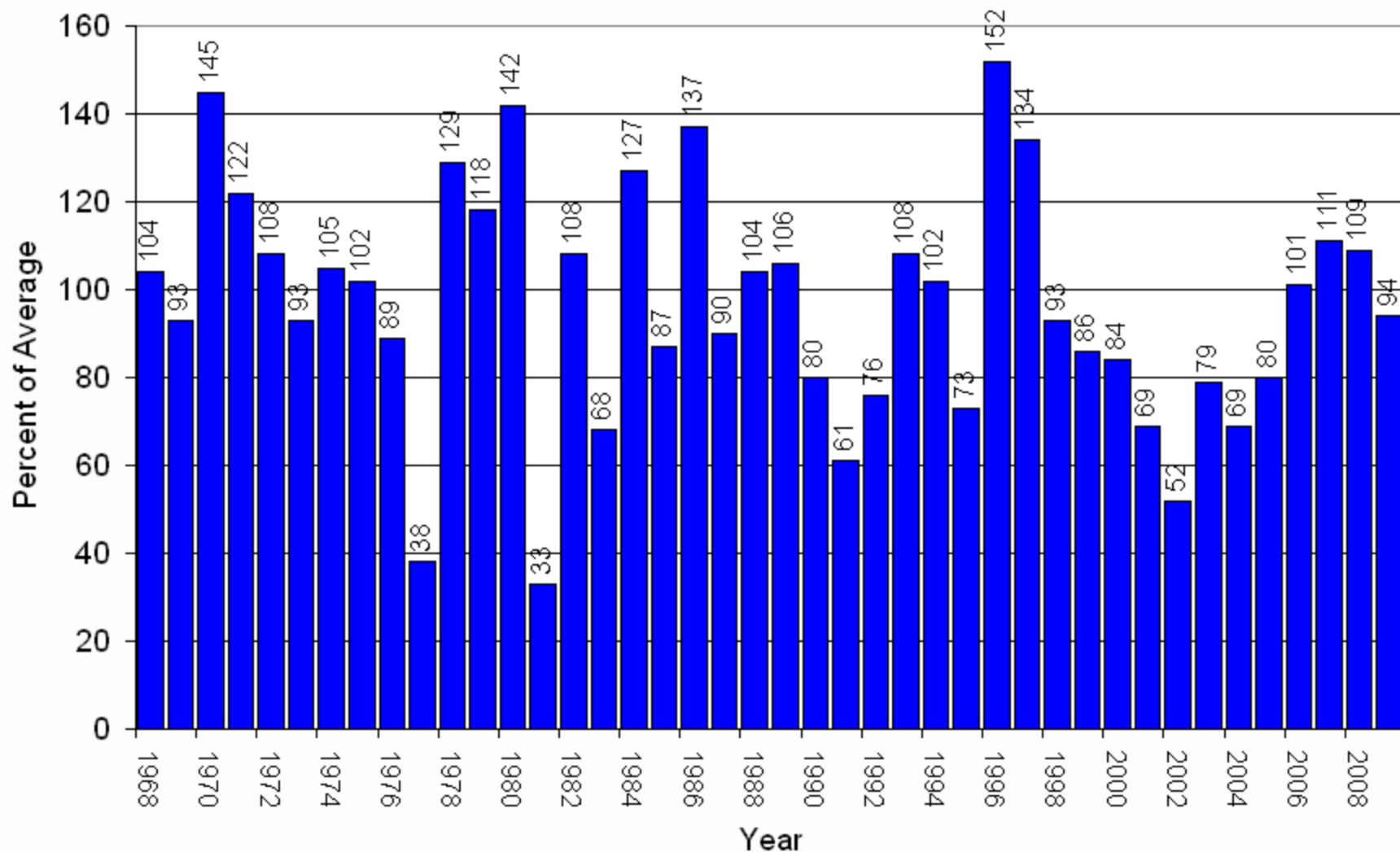


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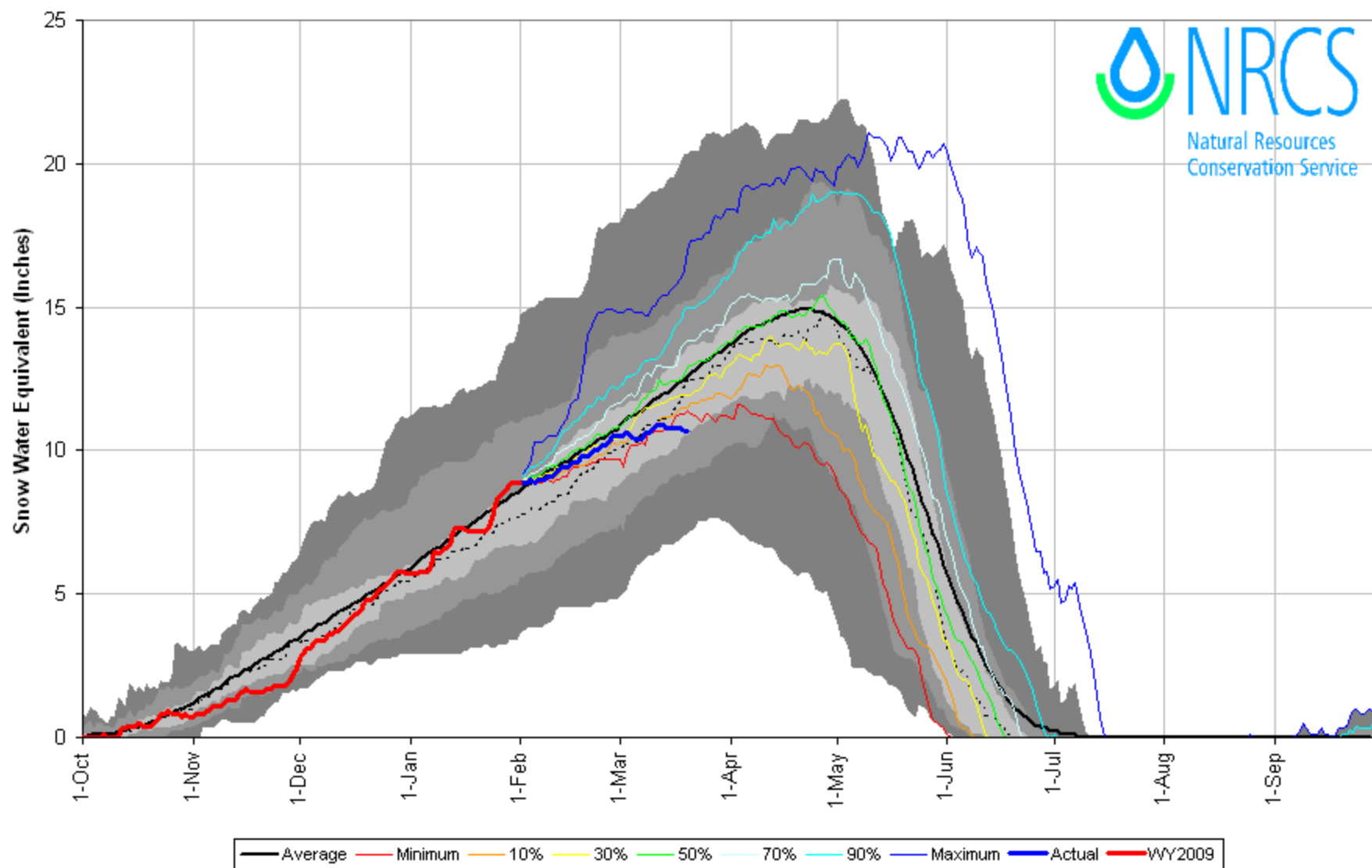
Current as of March 1, 2009

March 1 Total South Platte River Basin Snowpack



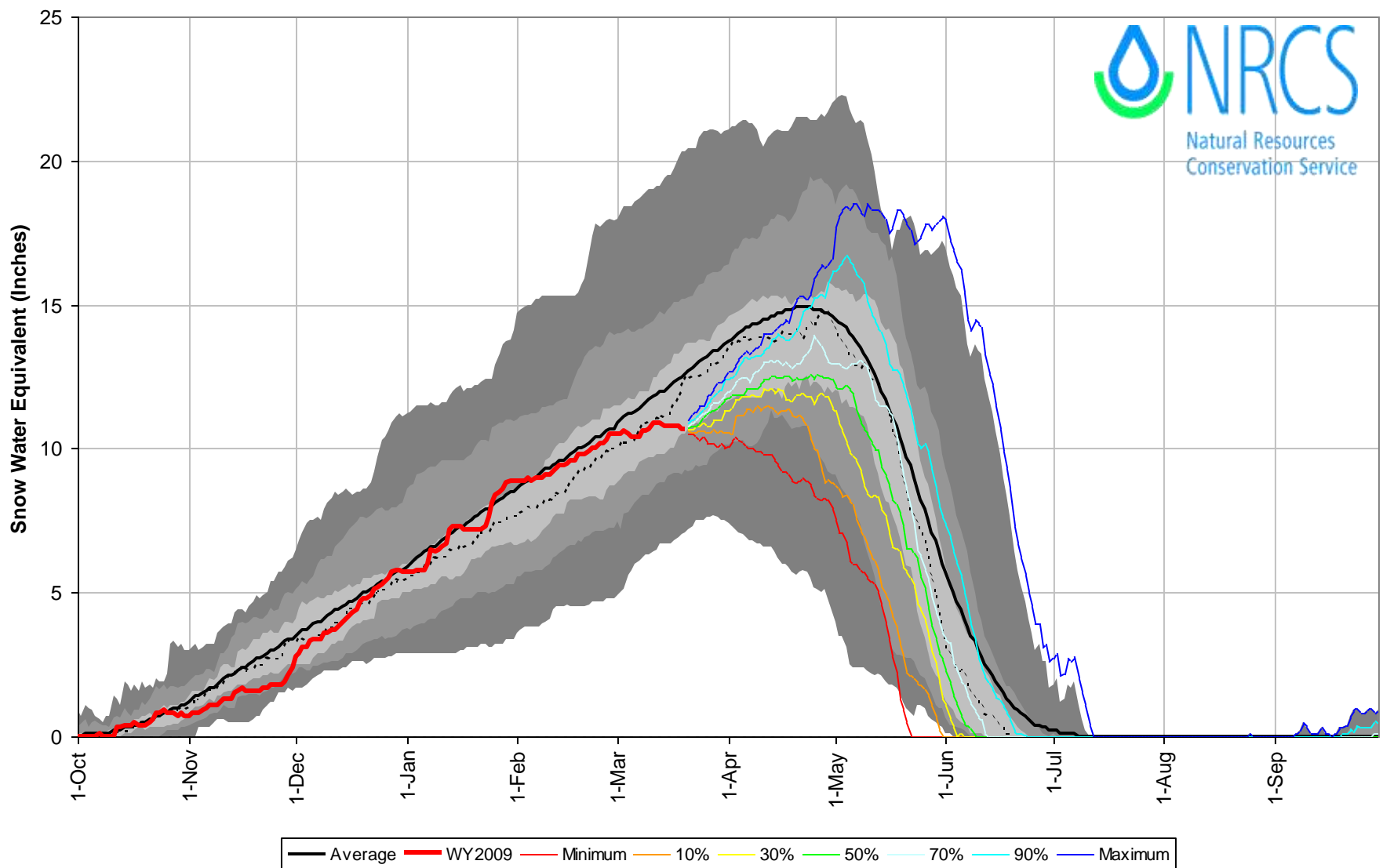
South Platte River Basin with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



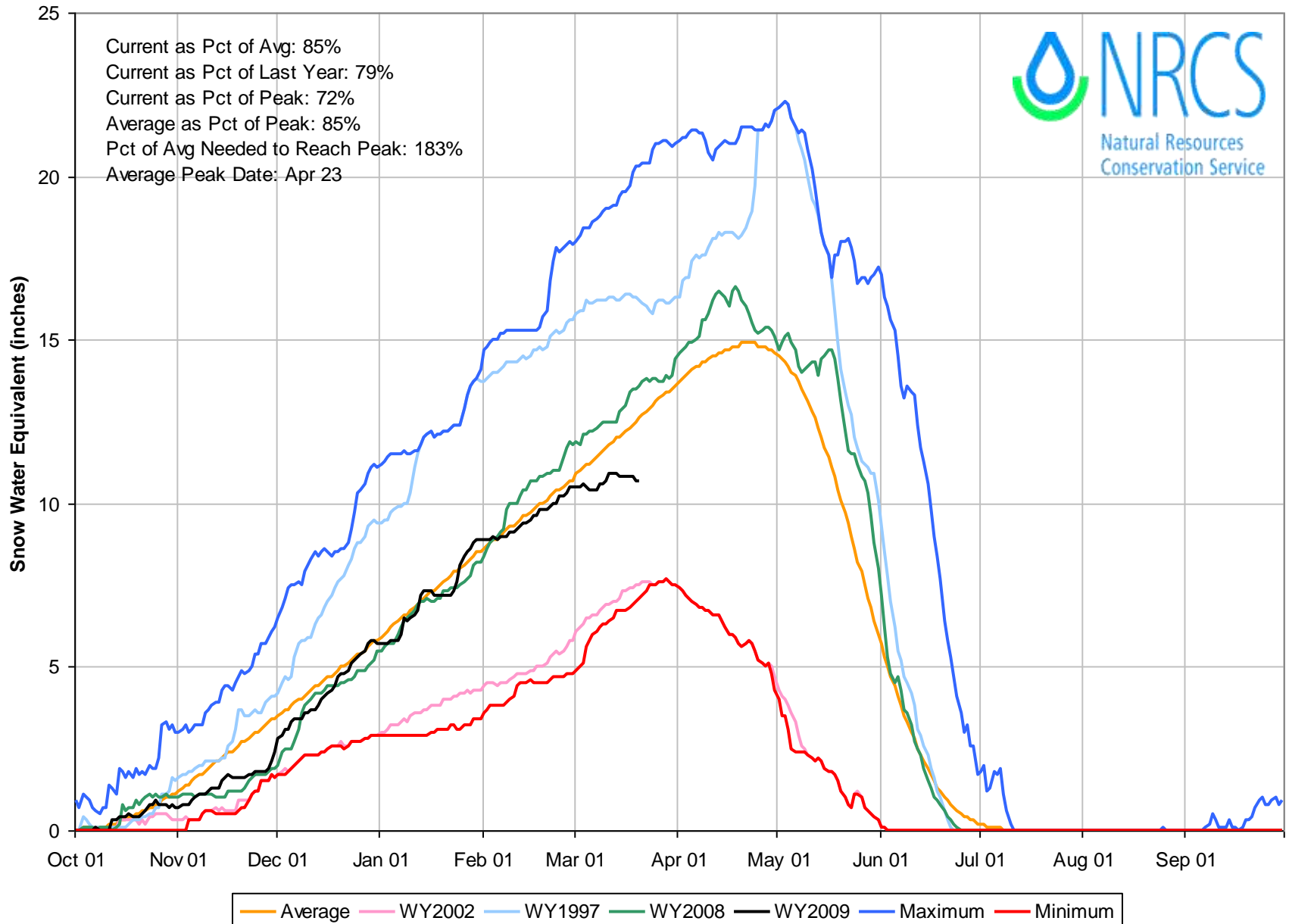
South Platte River Basin with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



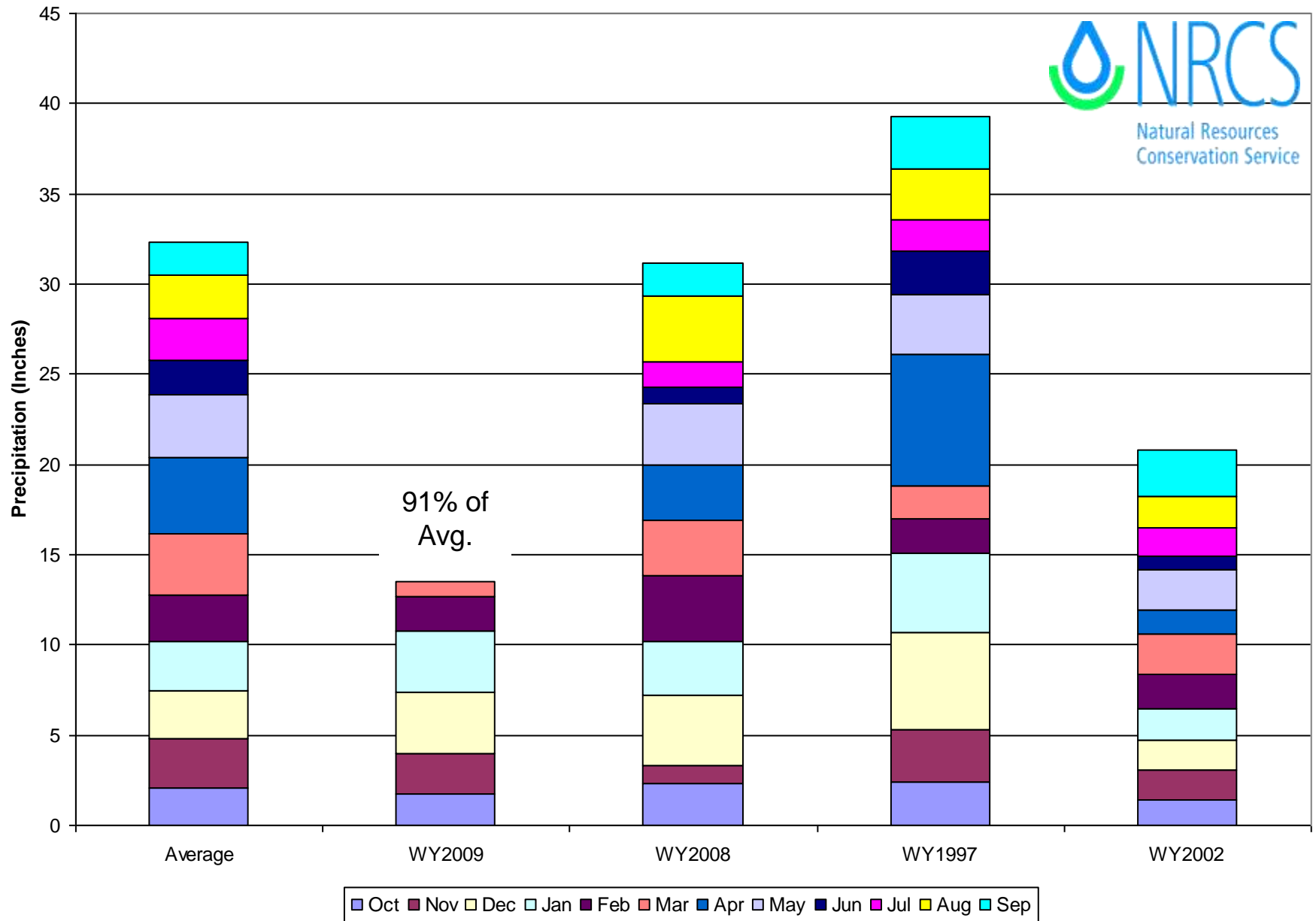
South Platte River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Mar 20, 2009



South Platte River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Mar 20, 2009

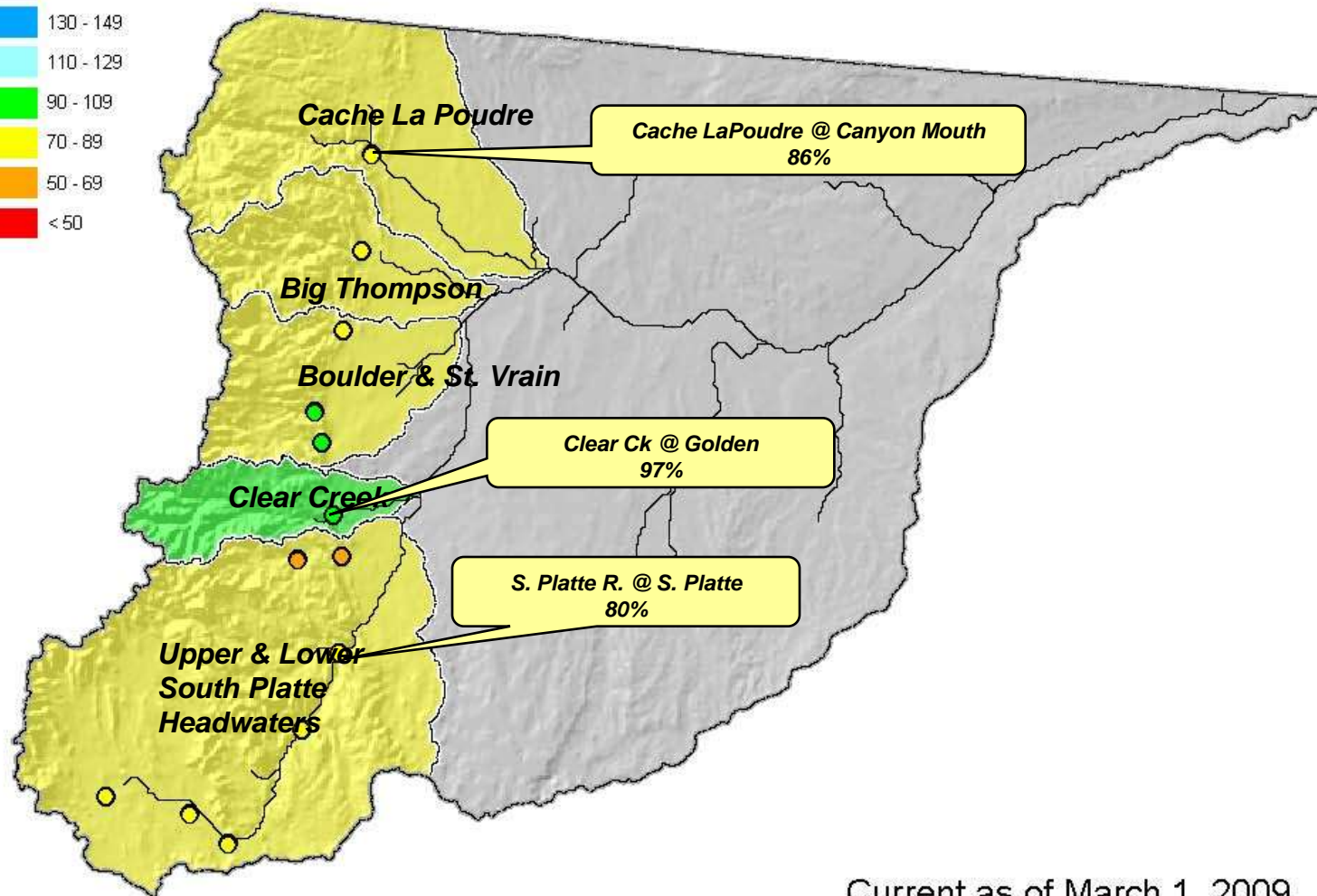


South Platte River Basin Streamflow Forecast Map

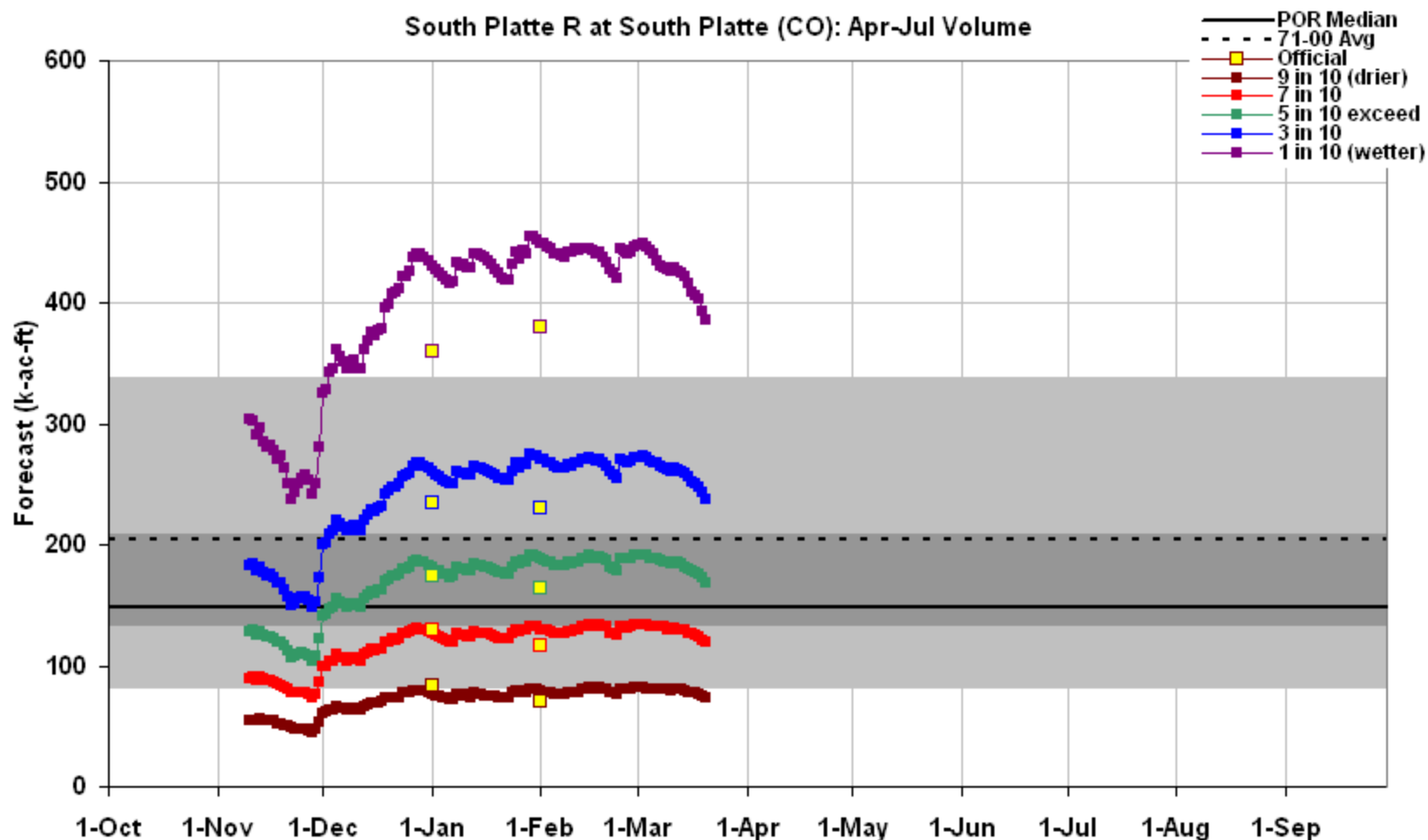
Percent of Average



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Current as of March 1, 2009



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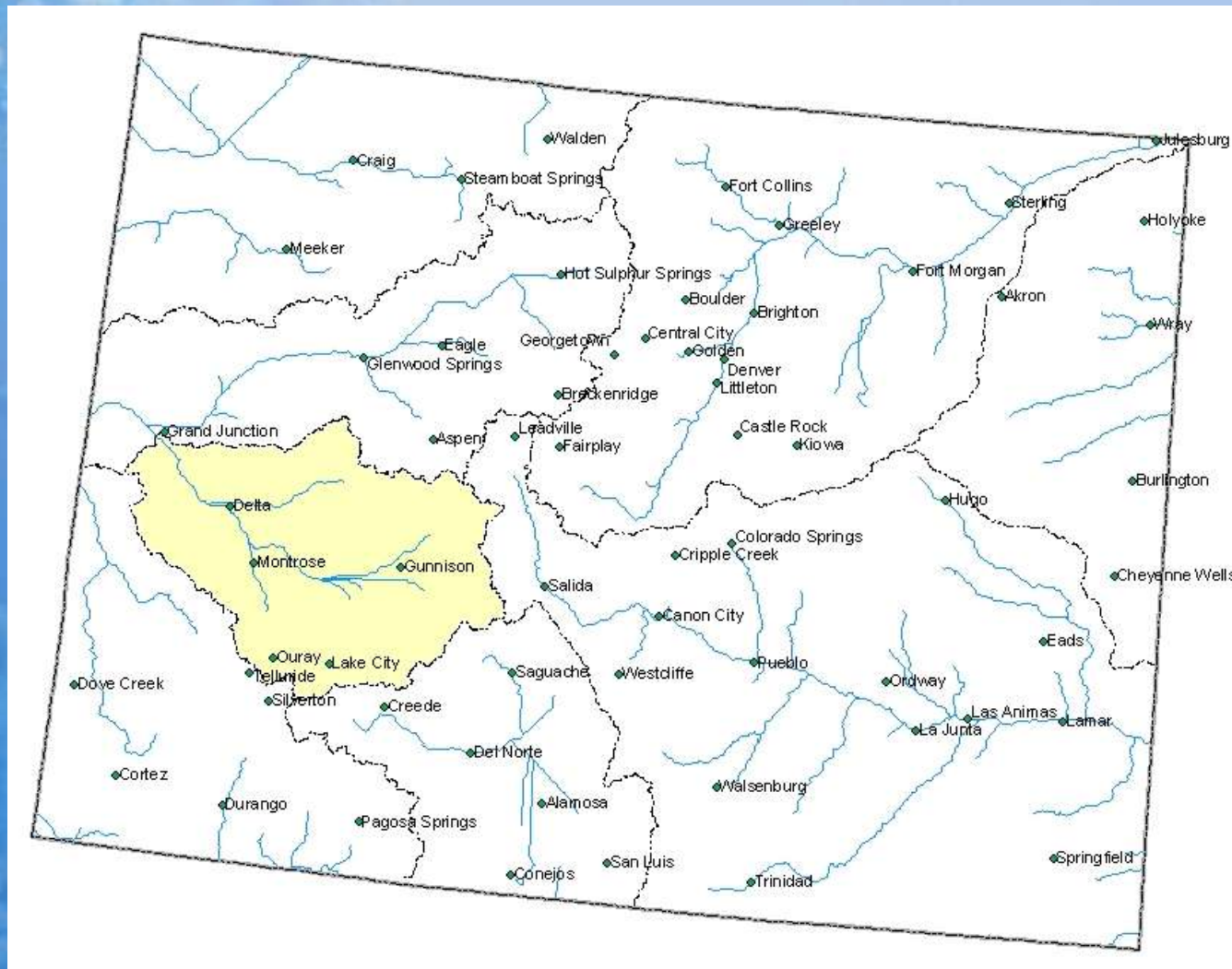
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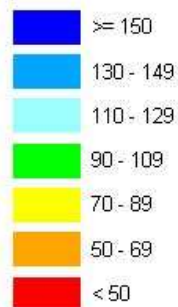


Gunnison River Basin Summary

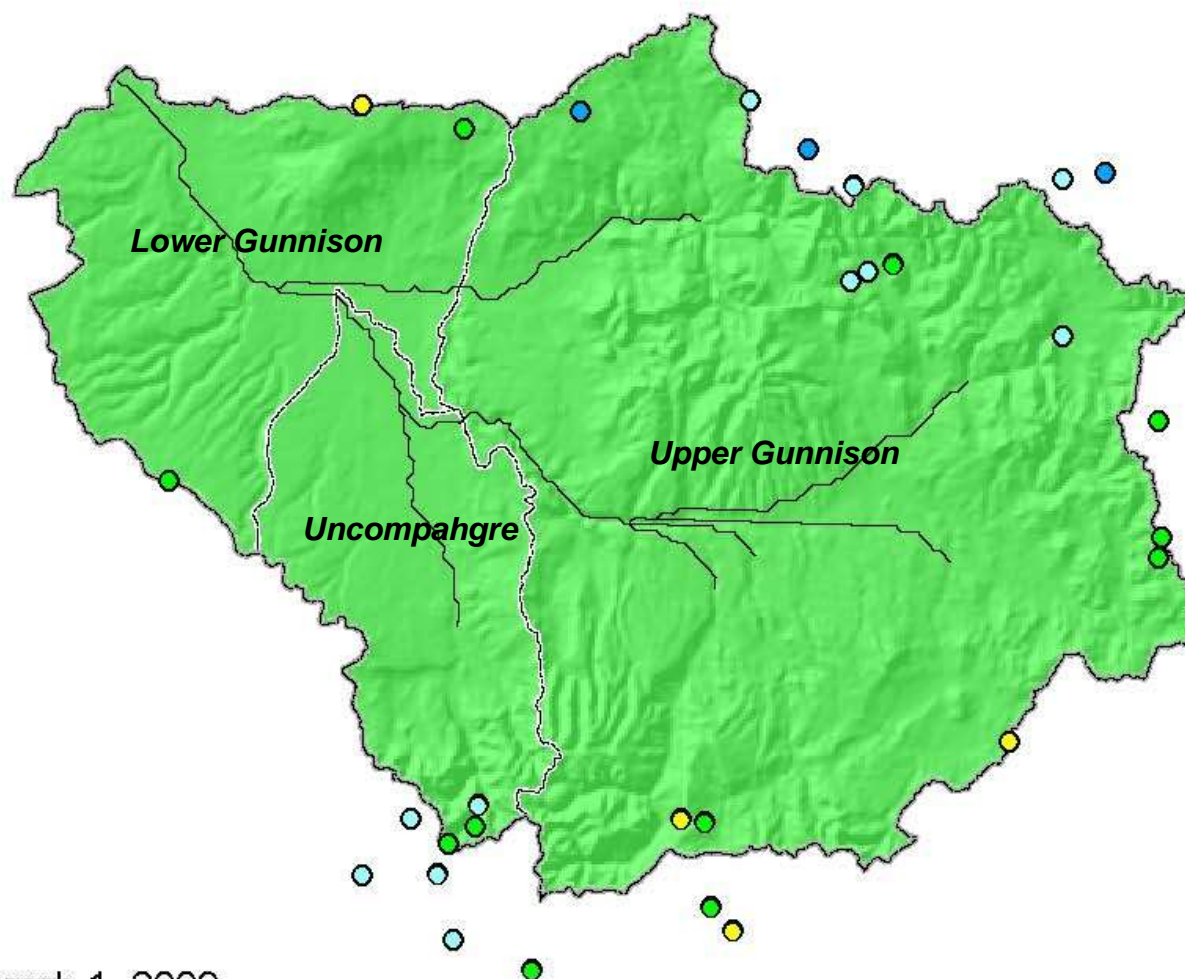


Gunnison River Basin Snowpack Map

Percent of Average

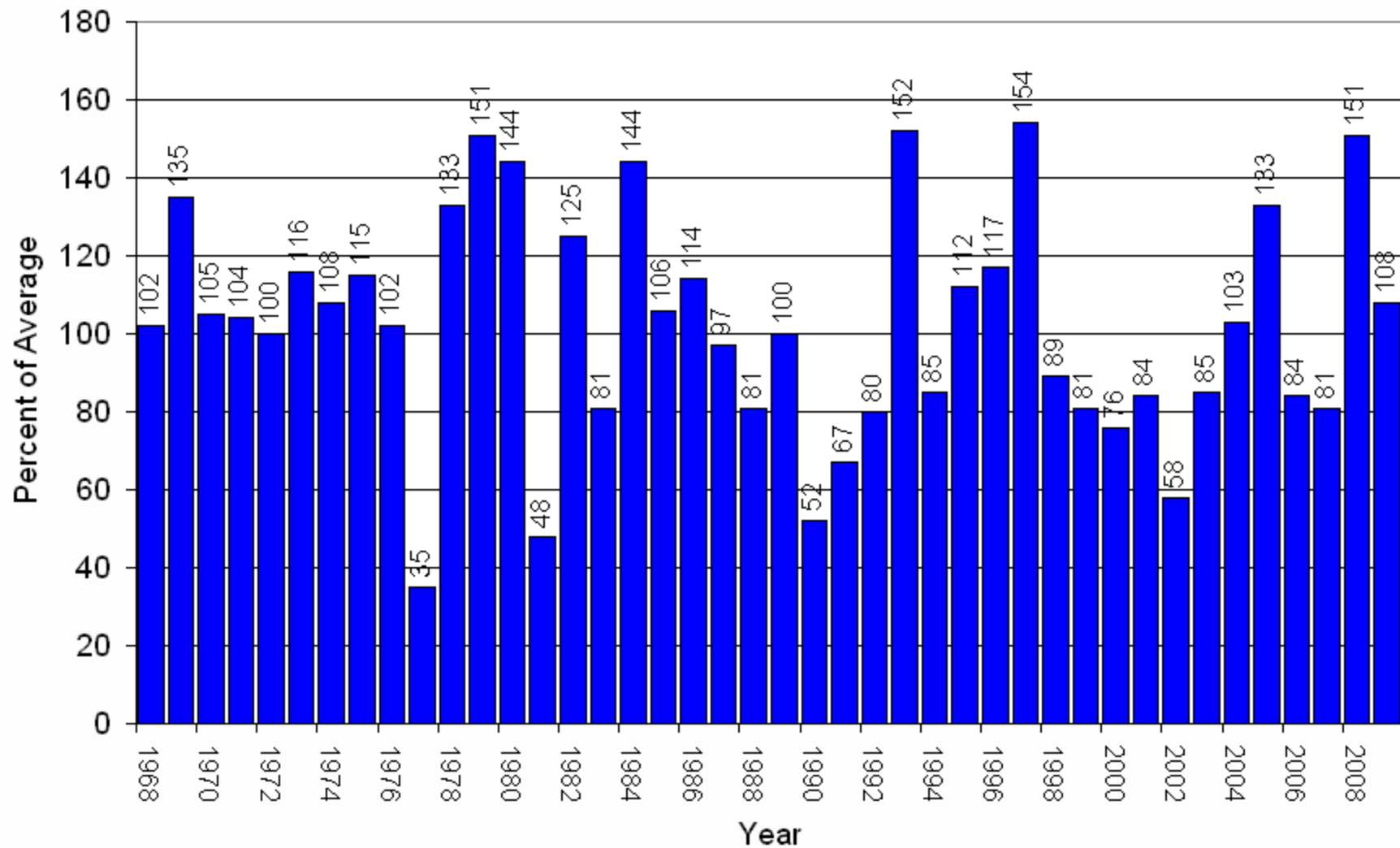


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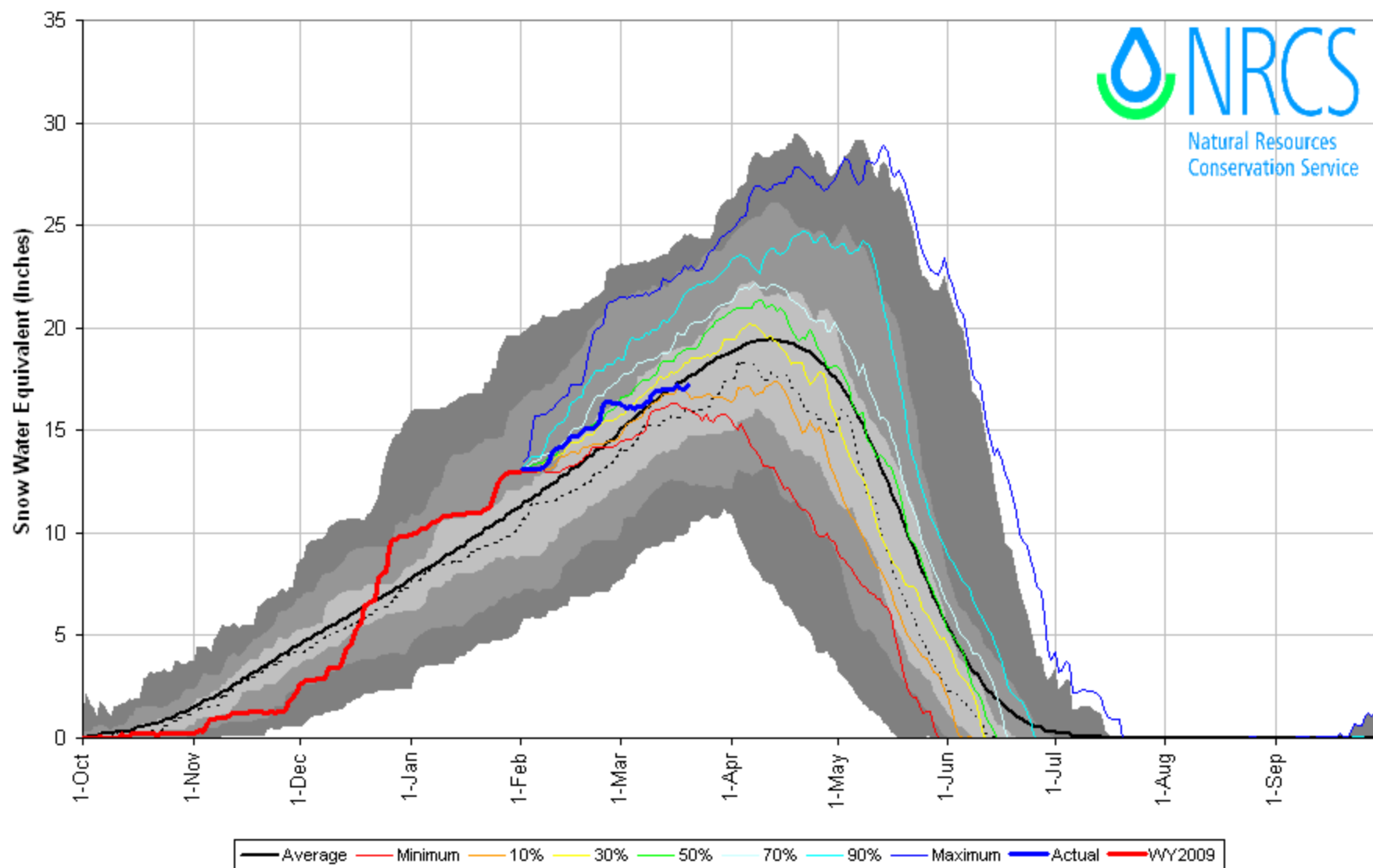
Current as of March 1, 2009

March 1 Total Gunnison River Basin Snowpack



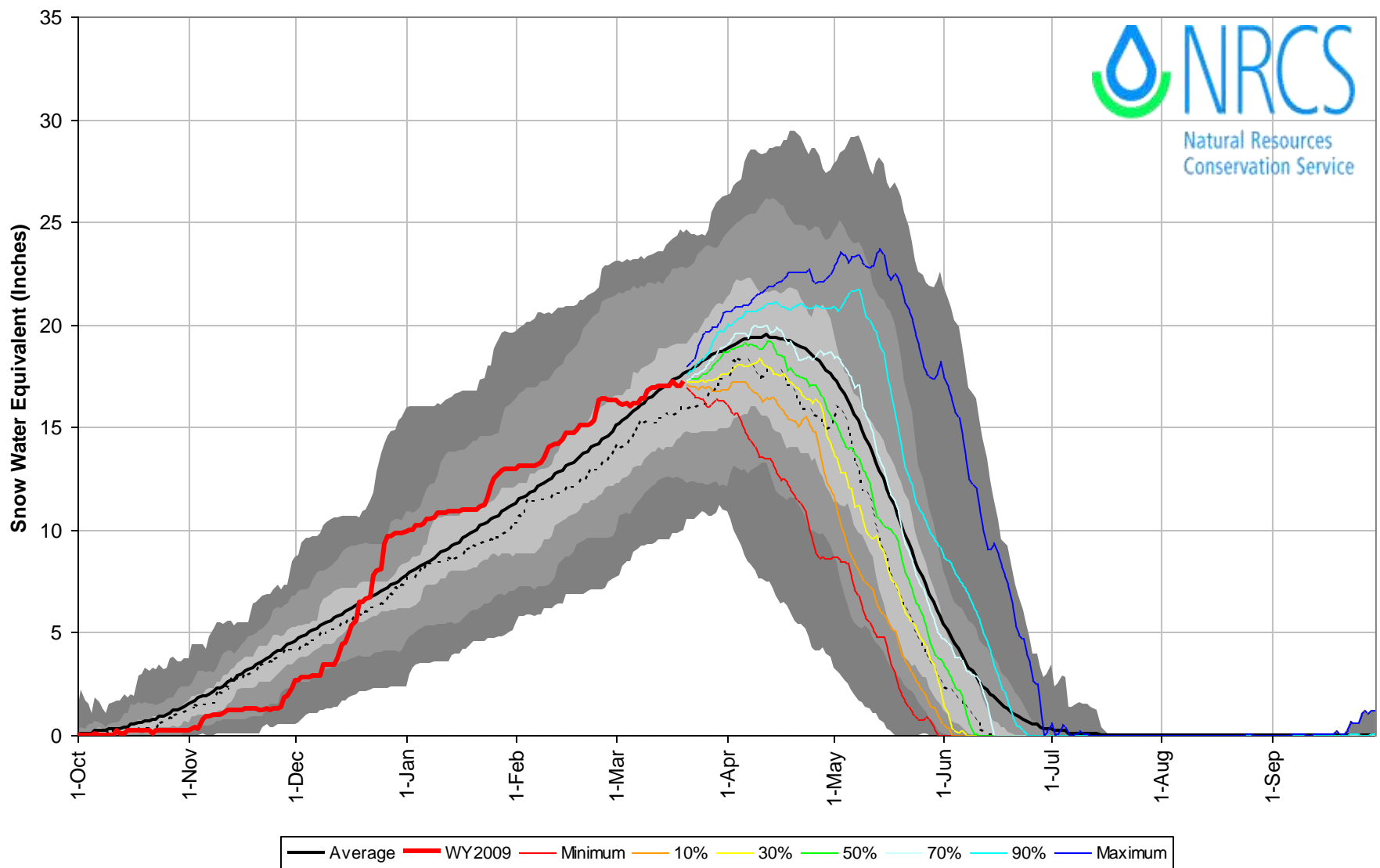
Gunnison River Basin with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



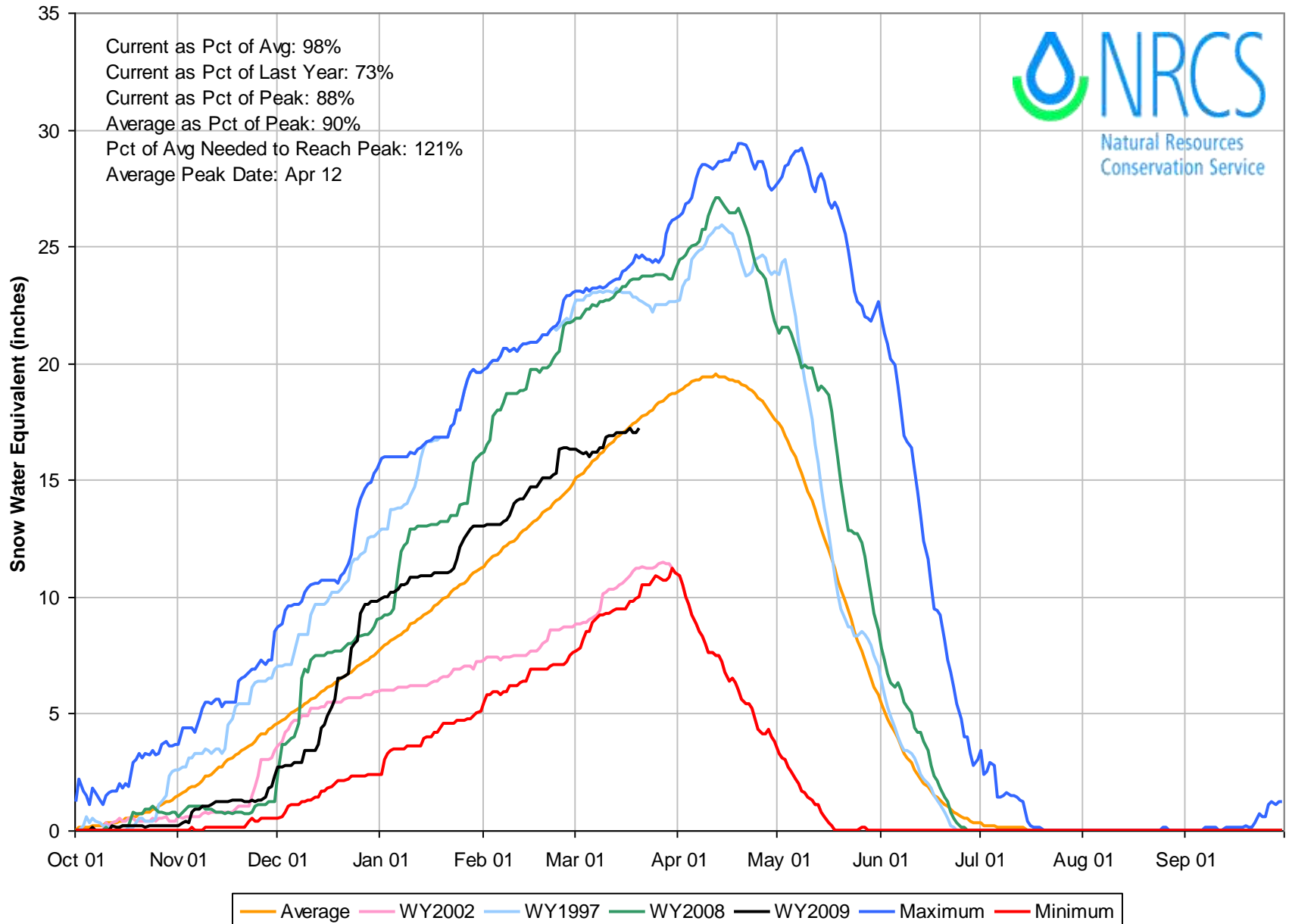
Gunnison River Basin with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



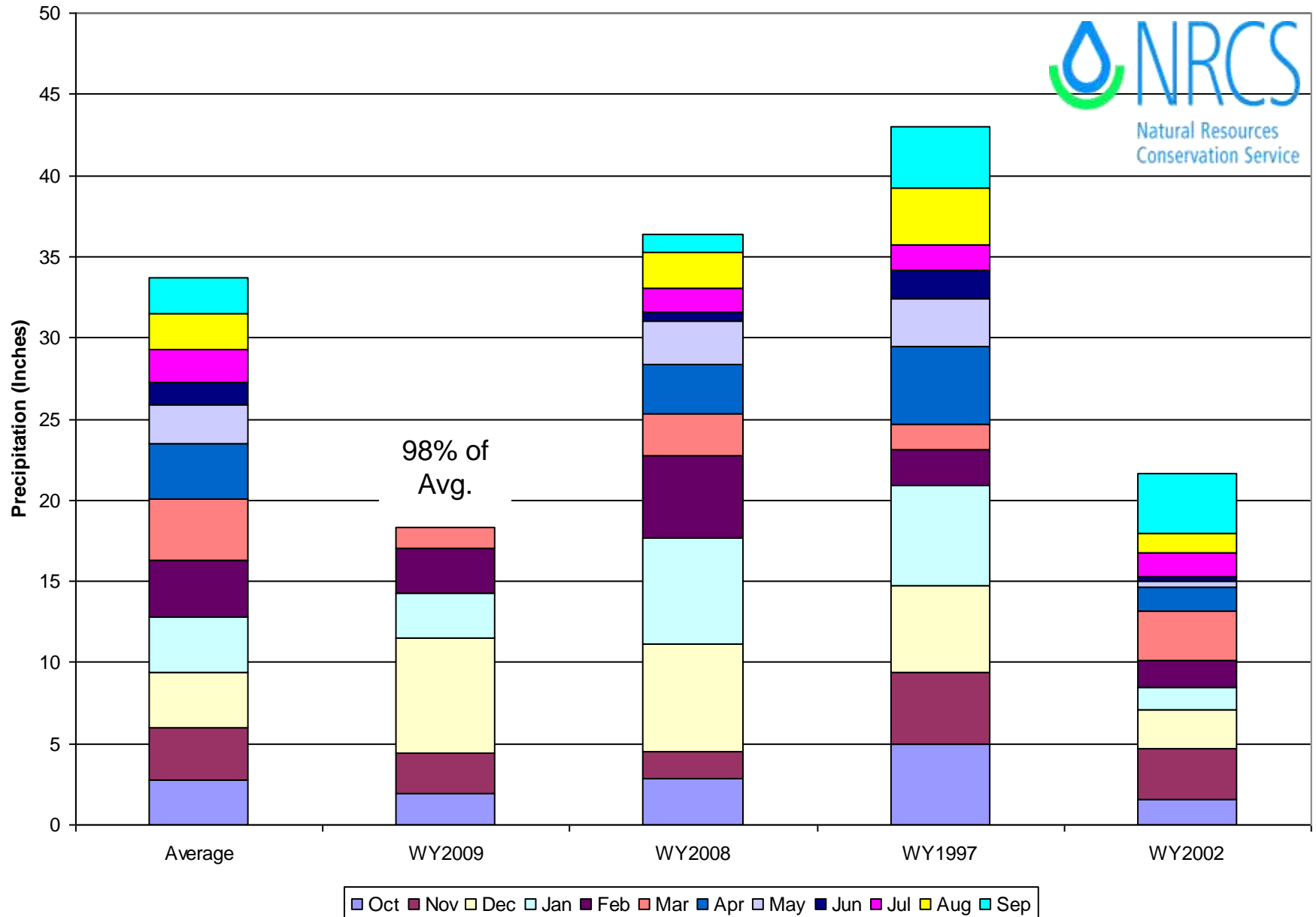
Gunnison River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Mar 20, 2009



Gunnison River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Mar 20, 2009

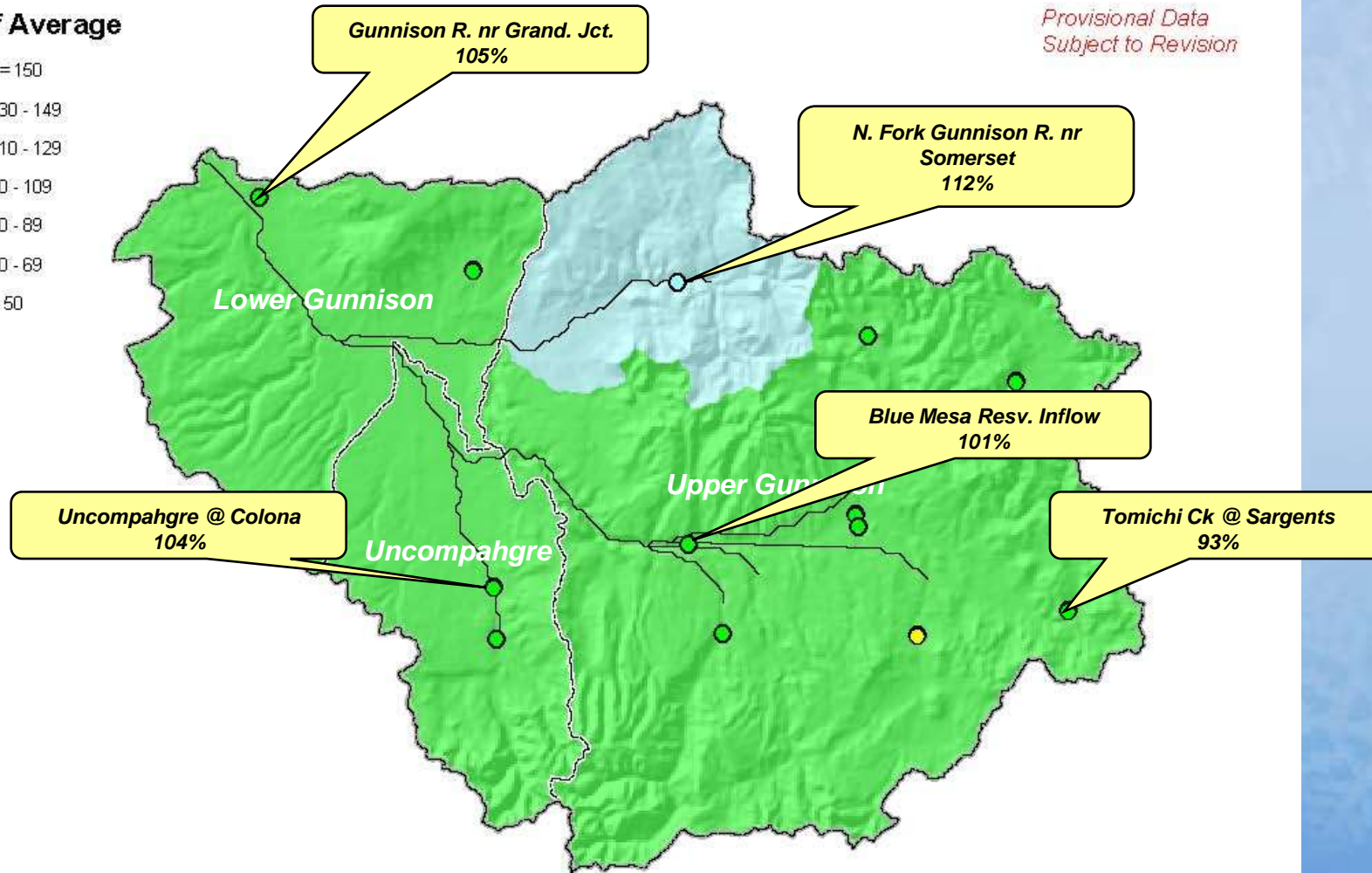


Gunnison River Basin Streamflow Forecast Map

Percent of Average

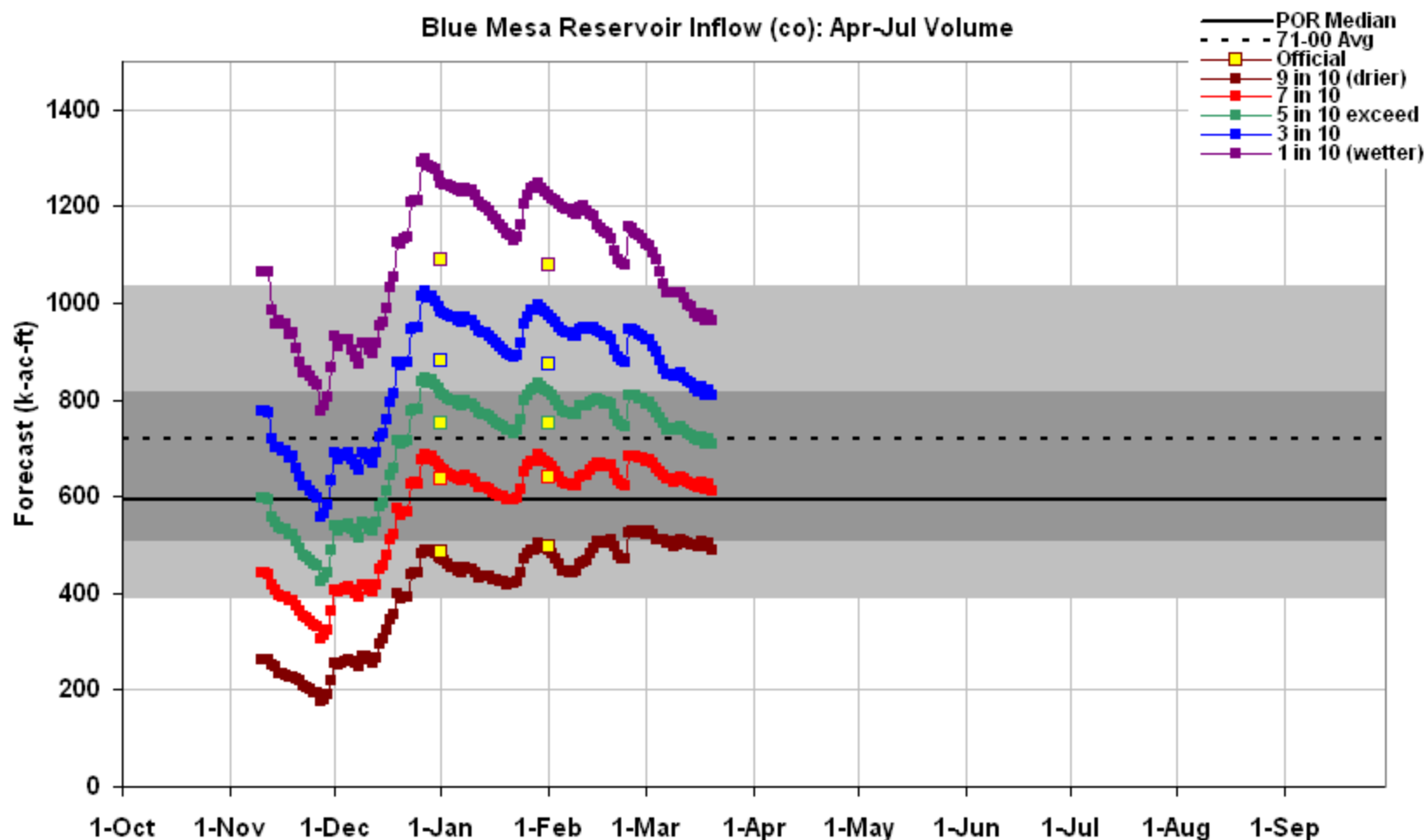


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Current as of March 1, 2009

Blue Mesa Reservoir Inflow (co): Apr-Jul Volume



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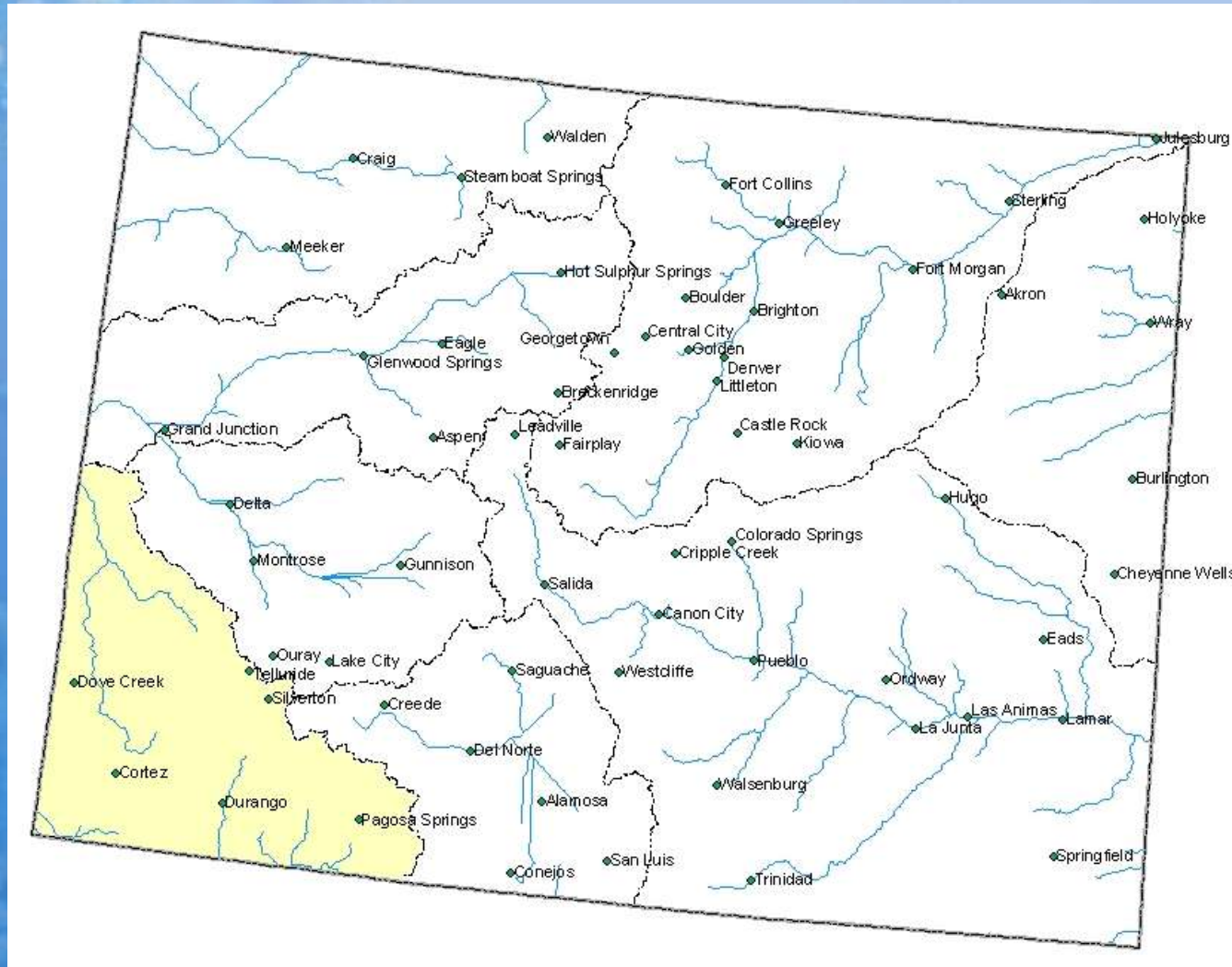
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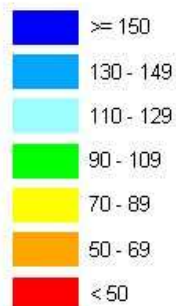


San Miguel, Dolores, Animas & San Juan River Basins Summary

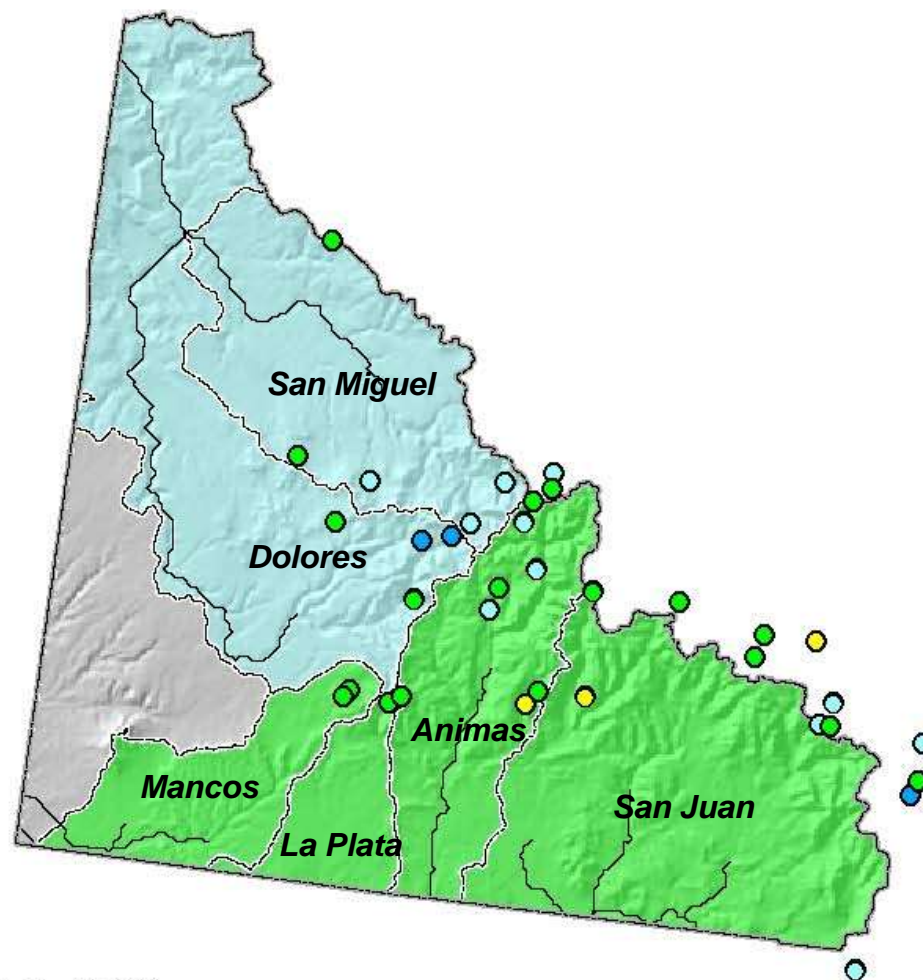


San Miguel, Dolores, Animas and San Juan River Basins Snowpack Map

Percent of Average

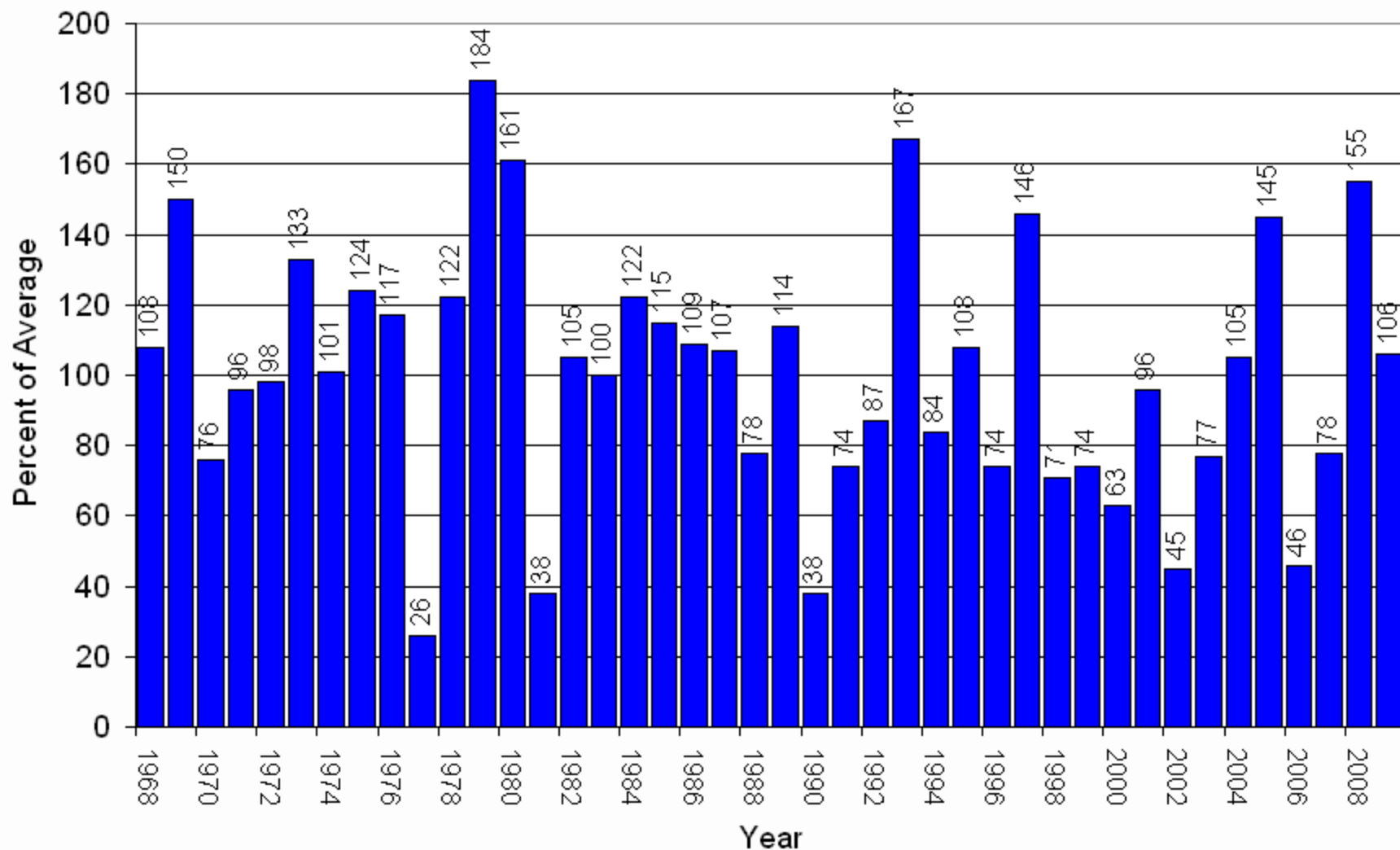


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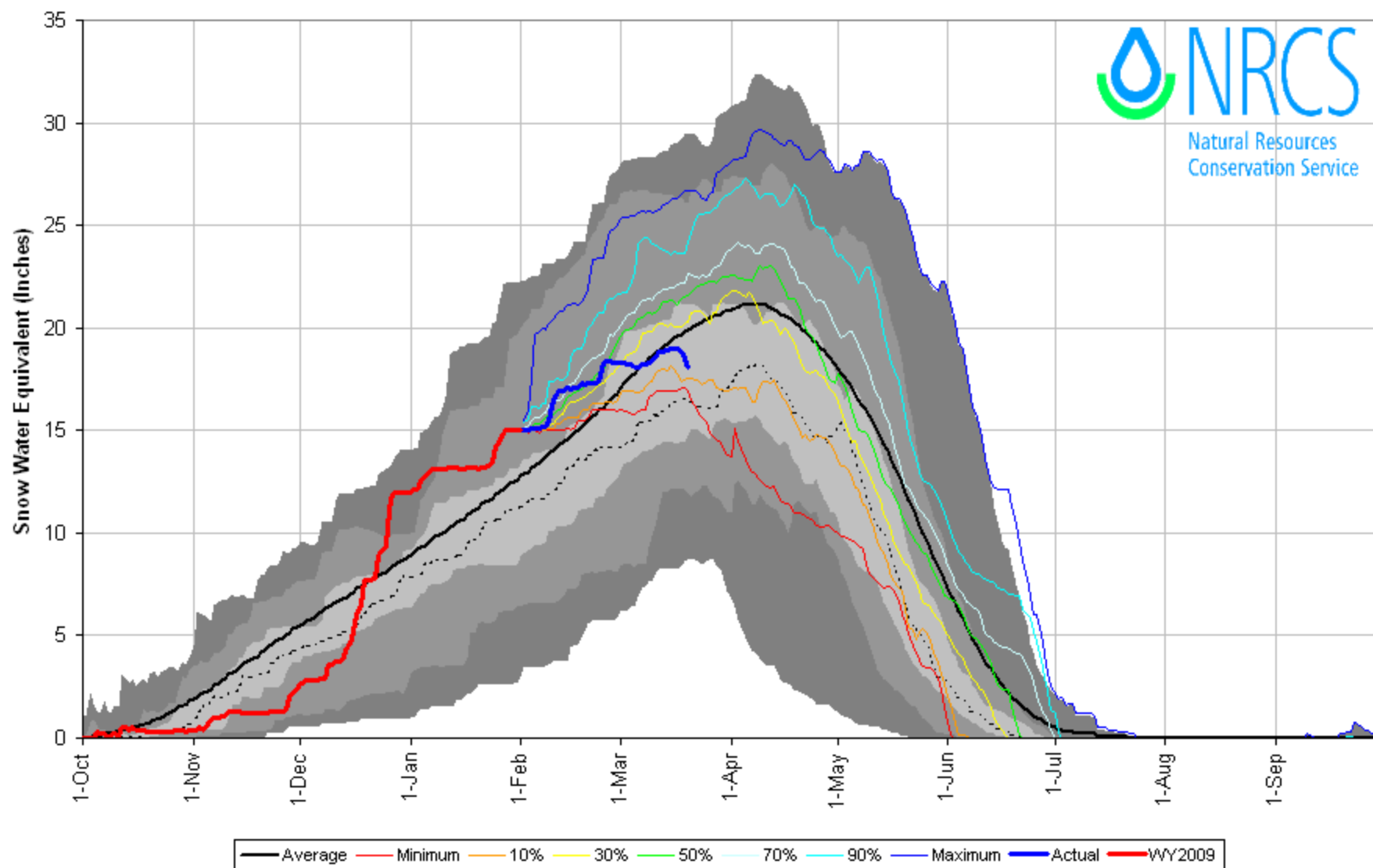
Current as of March 1, 2009

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



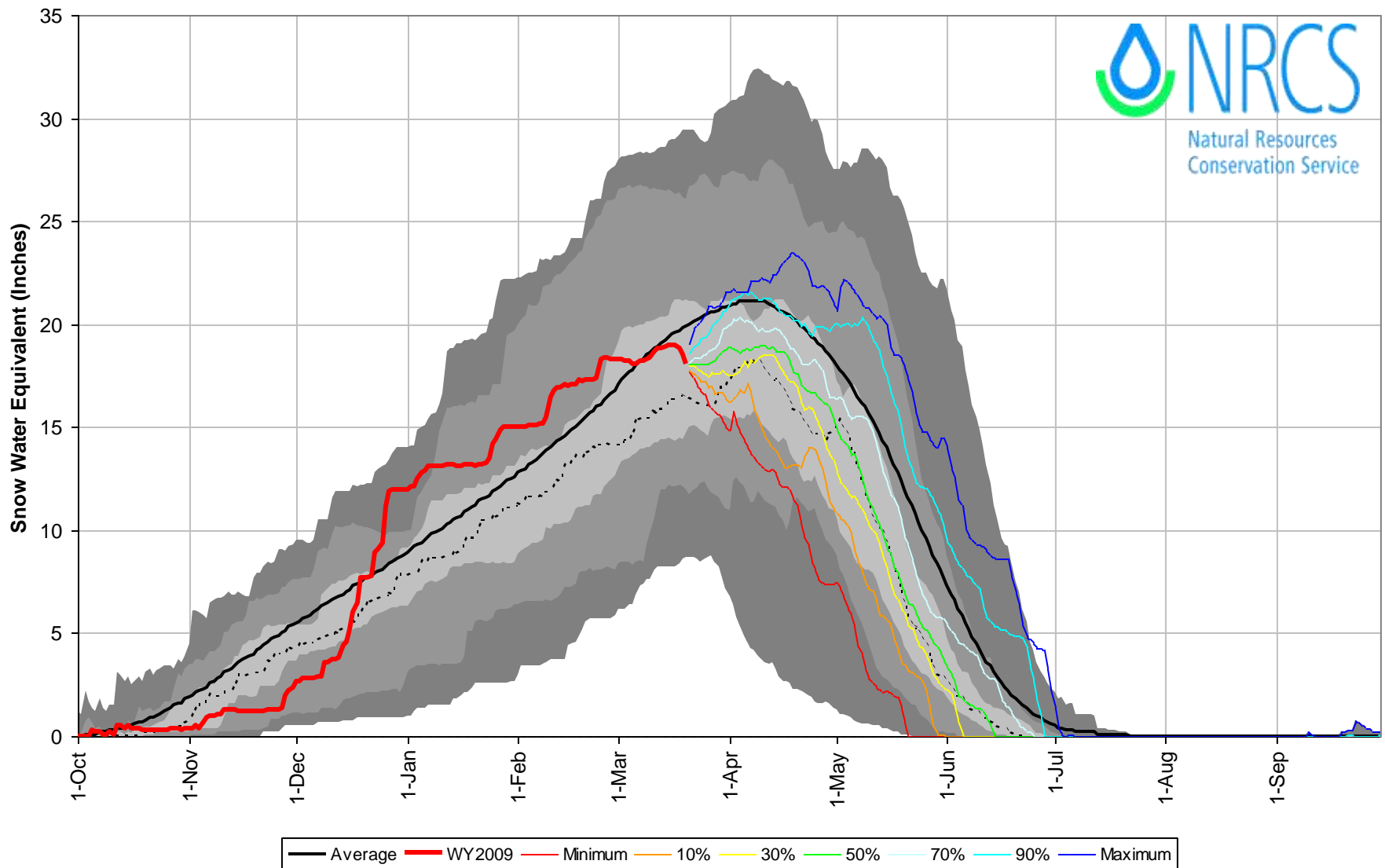
San Miguel, Dolores, Animas & San Juan River Basins with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



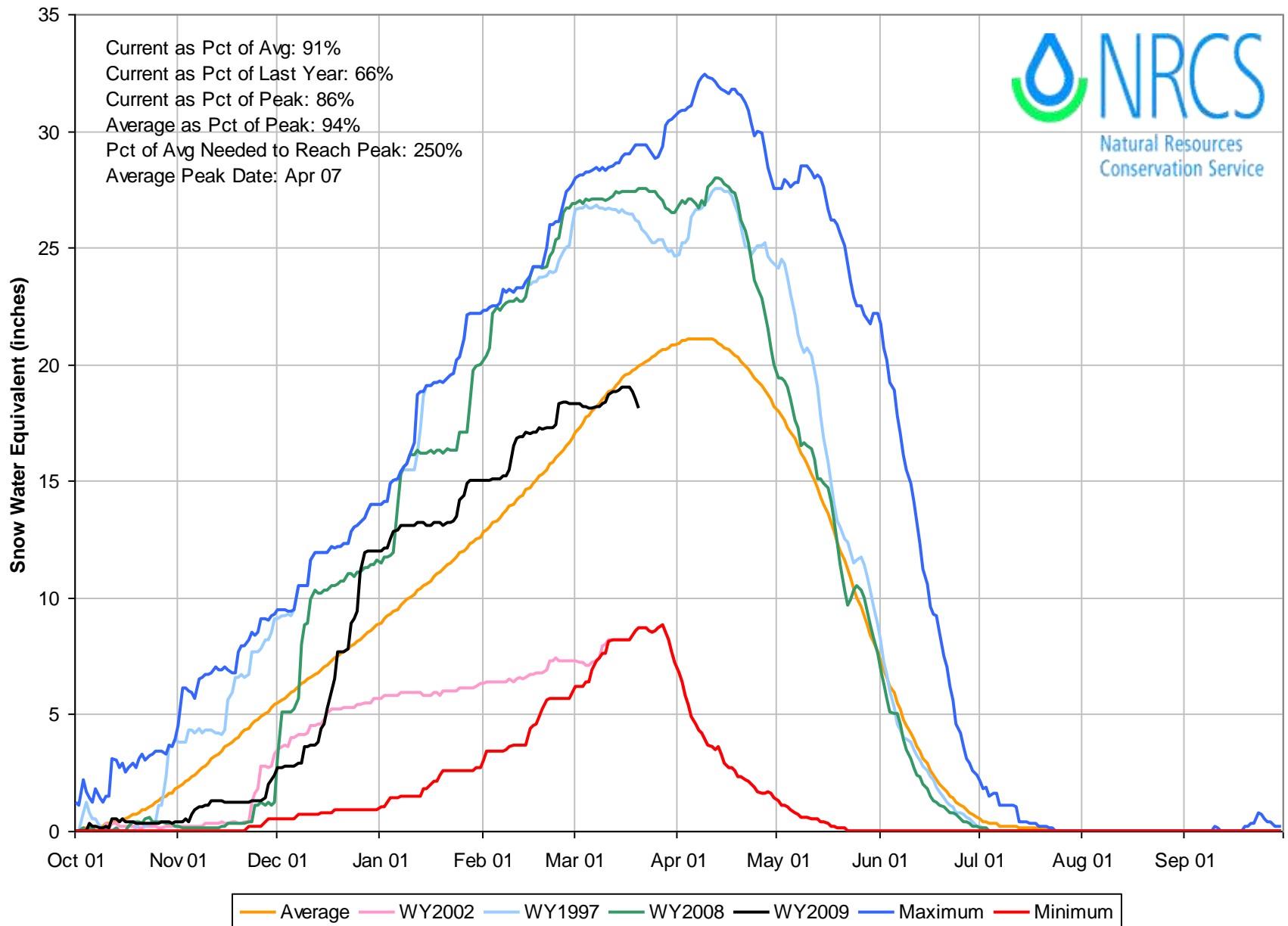
San Miguel, Dolores, Animas & San Juan River Basins with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



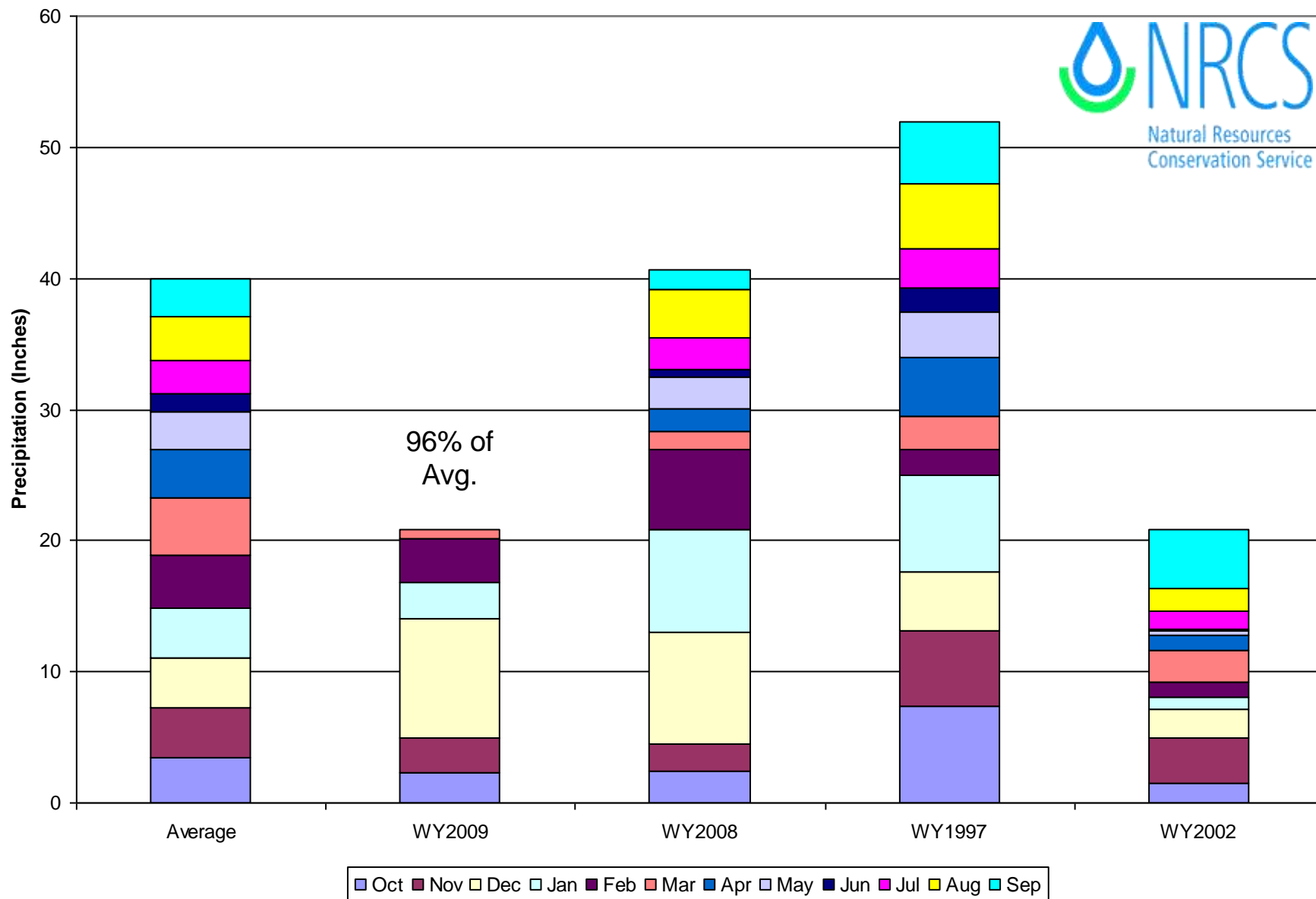
San Miguel, Dolores, Animas & San Juan River Basins High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Mar 20, 2009



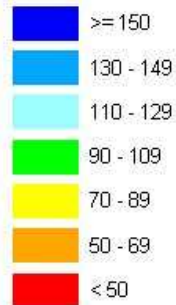
San Miguel, Dolores, Animas and San Juan River Basins High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Mar 20, 2009

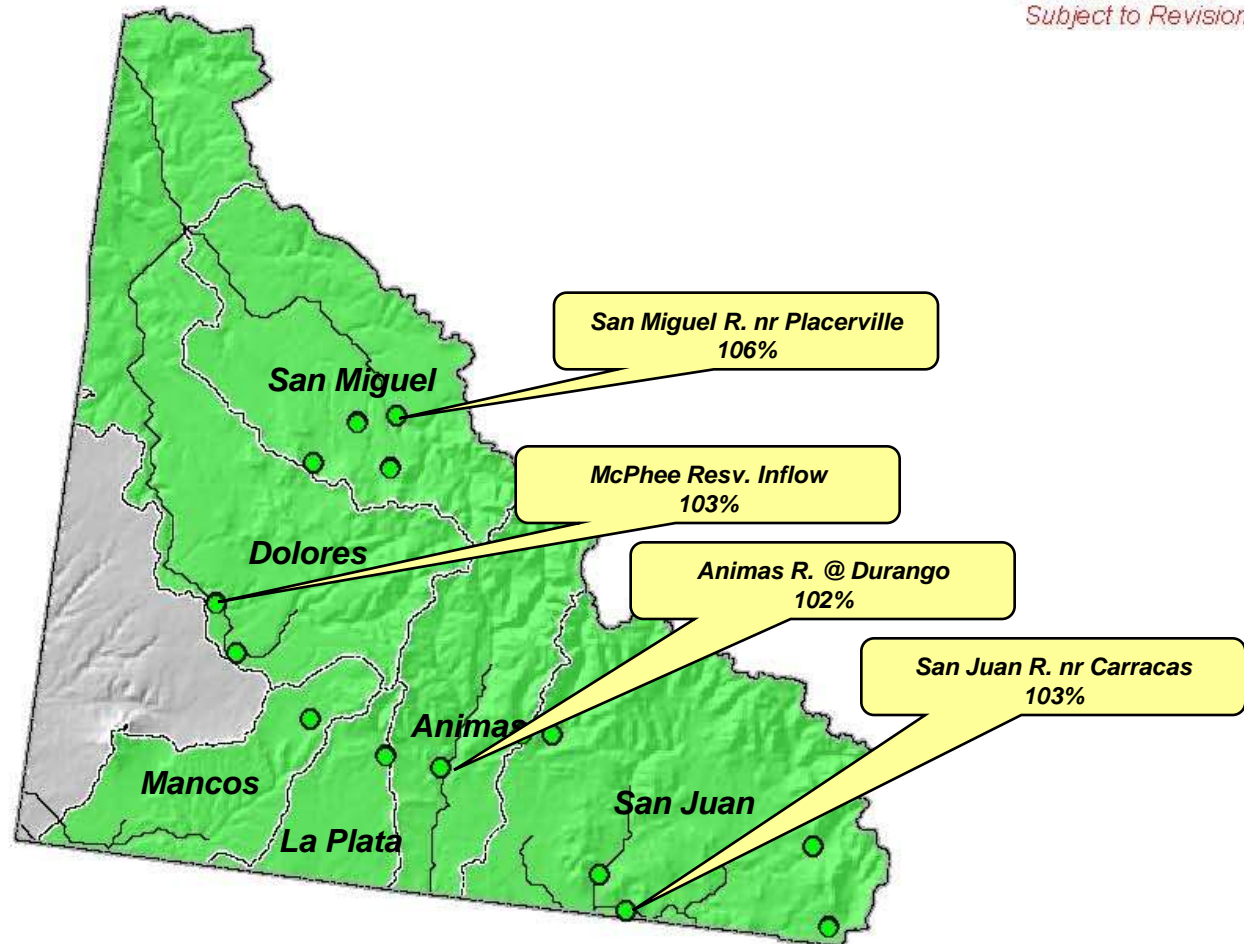


San Miguel, Dolores, Animas and San Juan River Basins Streamflow Forecast Map

Percent of Average

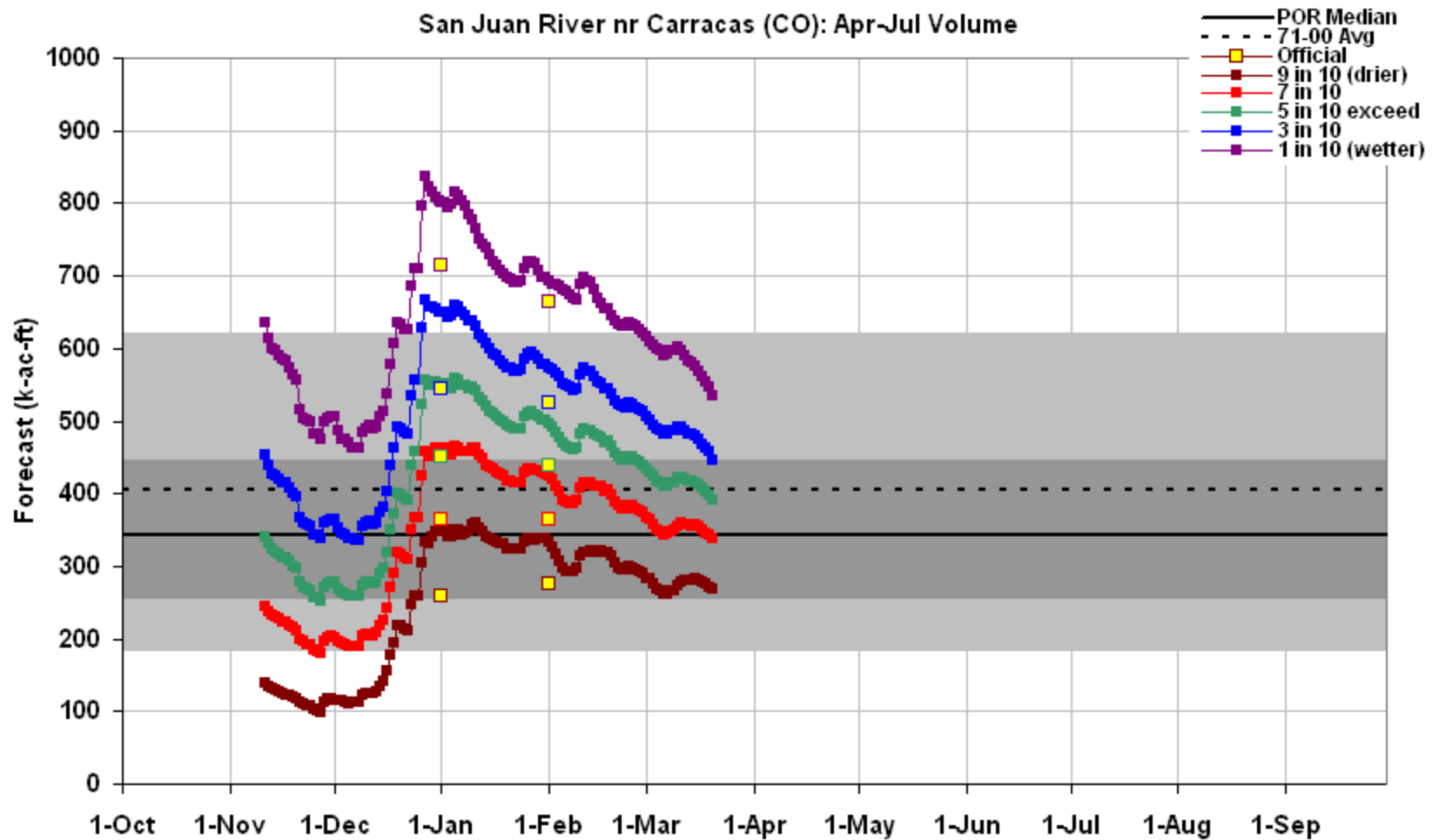


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Current as of March 1, 2009

San Juan River nr Carracas (CO): Apr-Jul Volume



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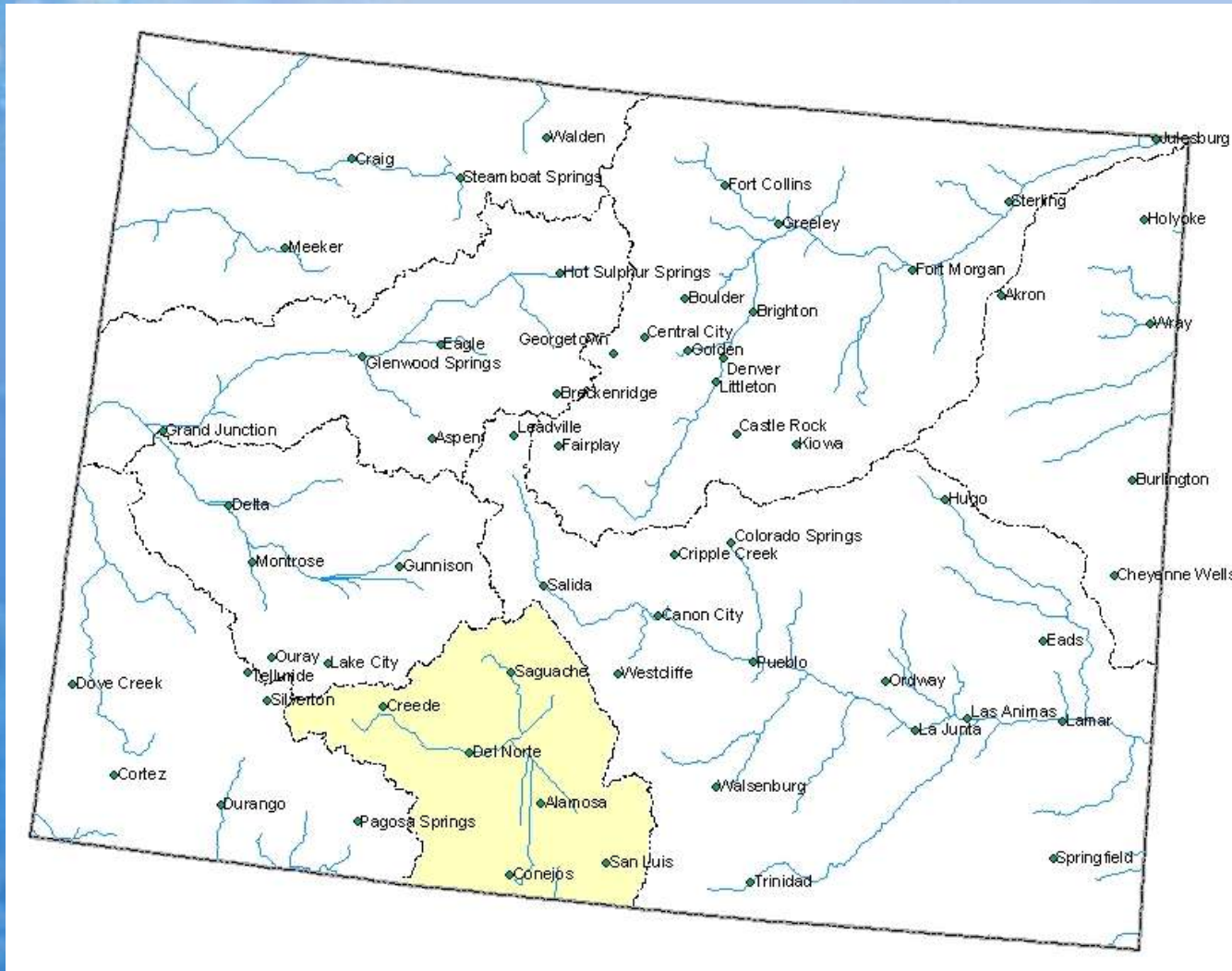
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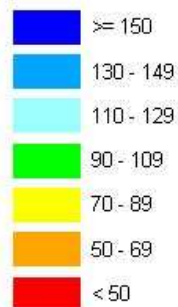


Upper Rio Grande Basin Summary

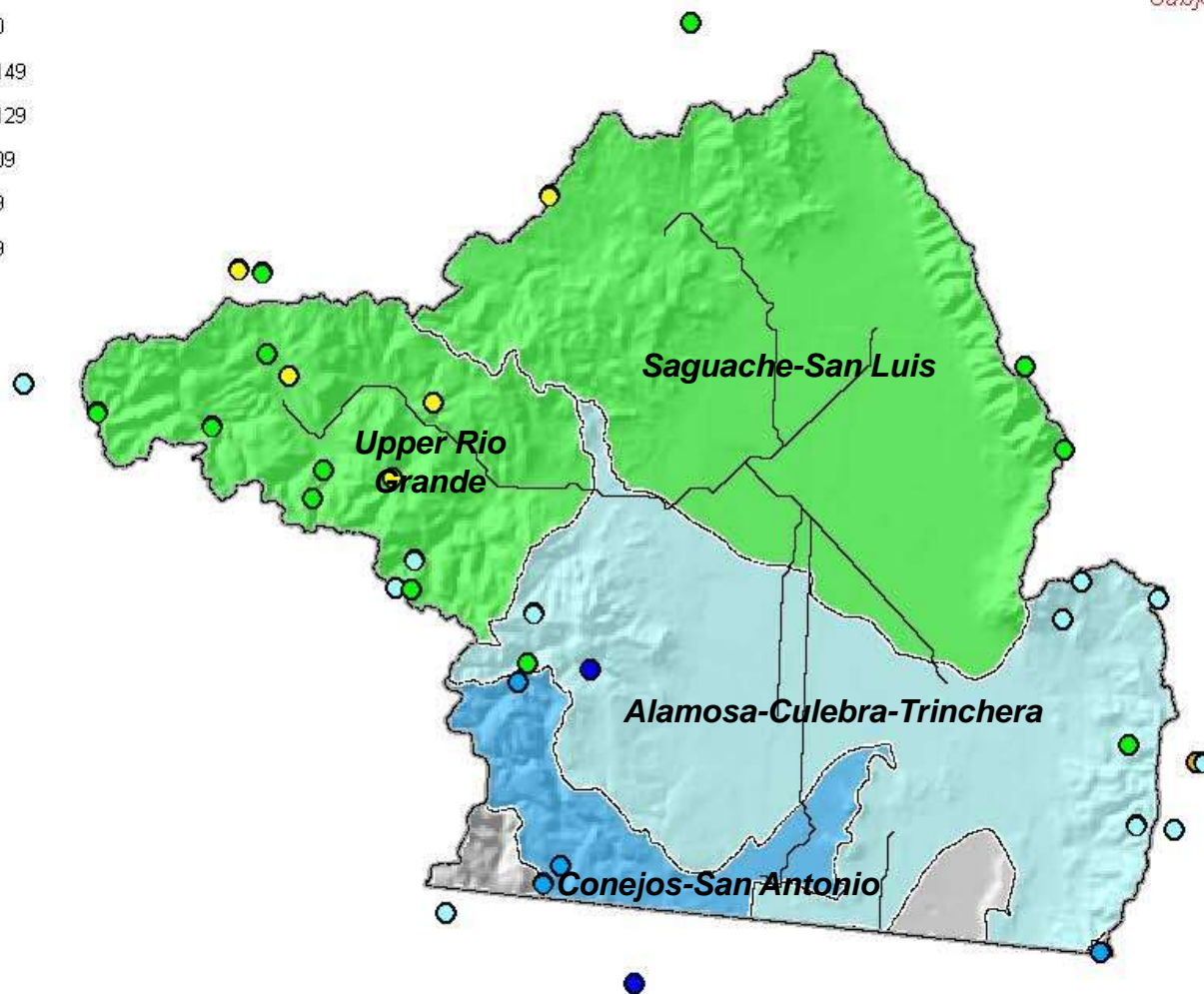


Upper Rio Grande Basin Snowpack Map

Percent of Average

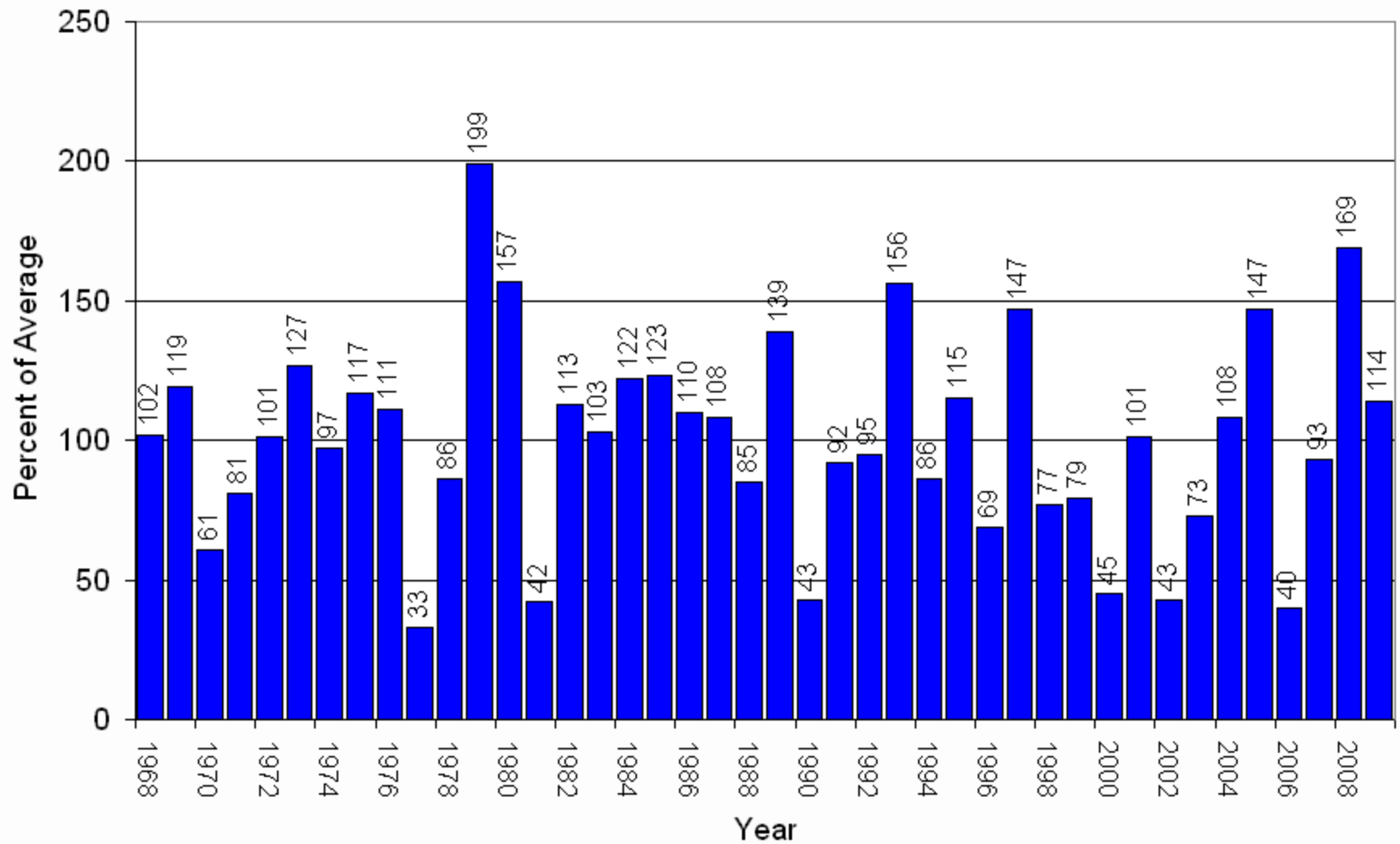


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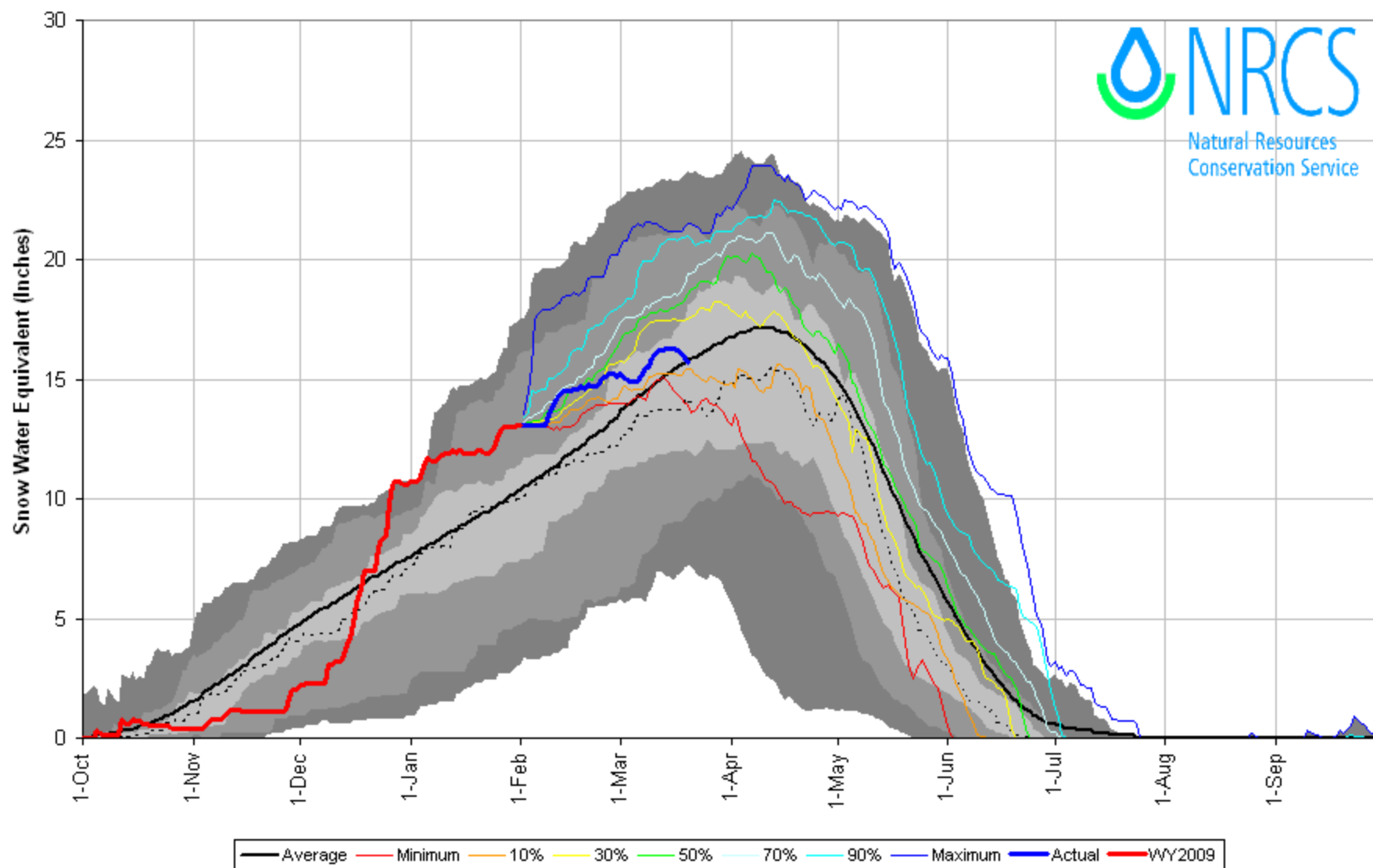
Current as of March 1, 2009

March 1 Total Upper Rio Grande Basin Snowpack

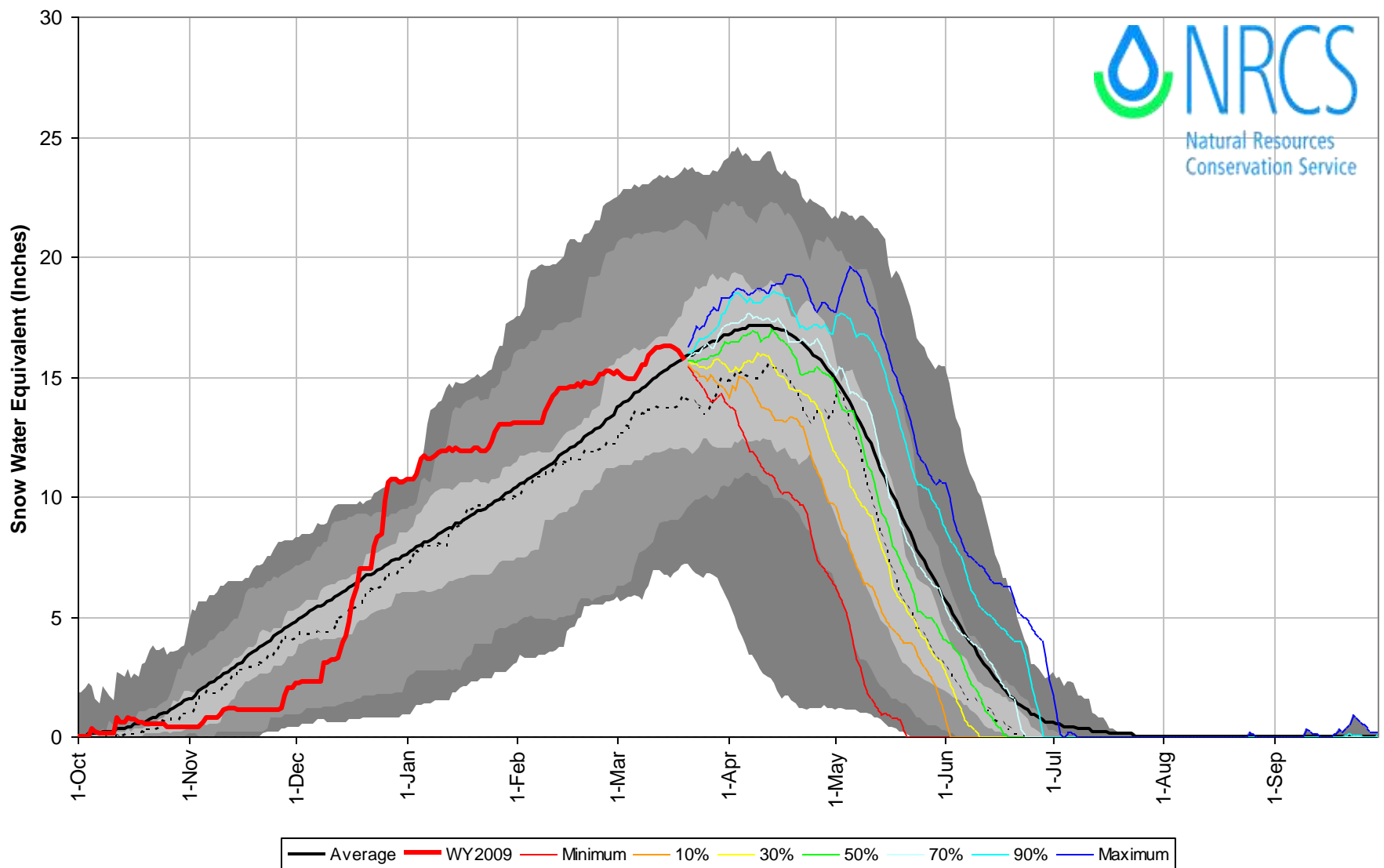


Upper Rio Grande Basin with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009

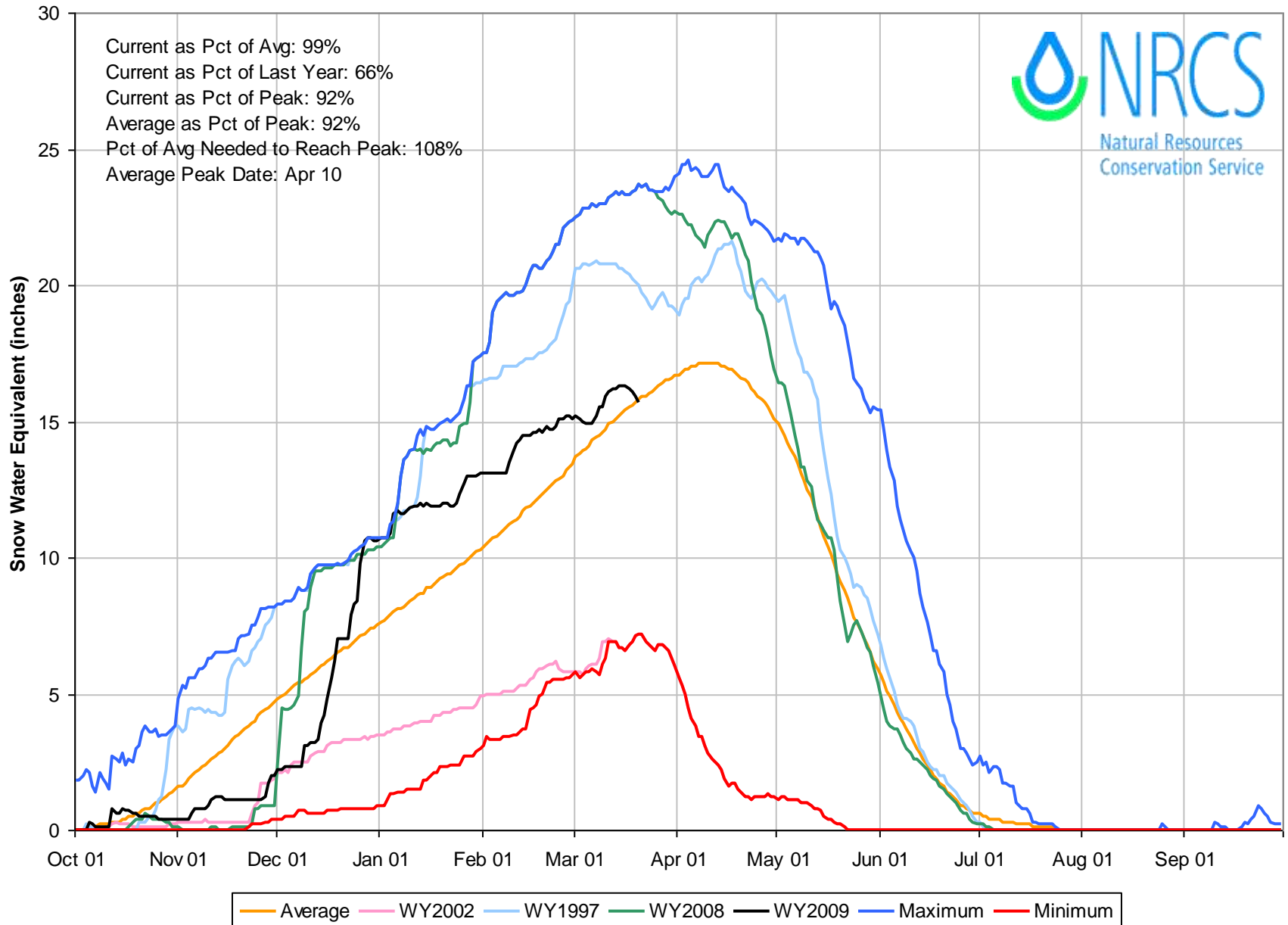


Based on Provisional SNOTEL Data as of Mar 20, 2009



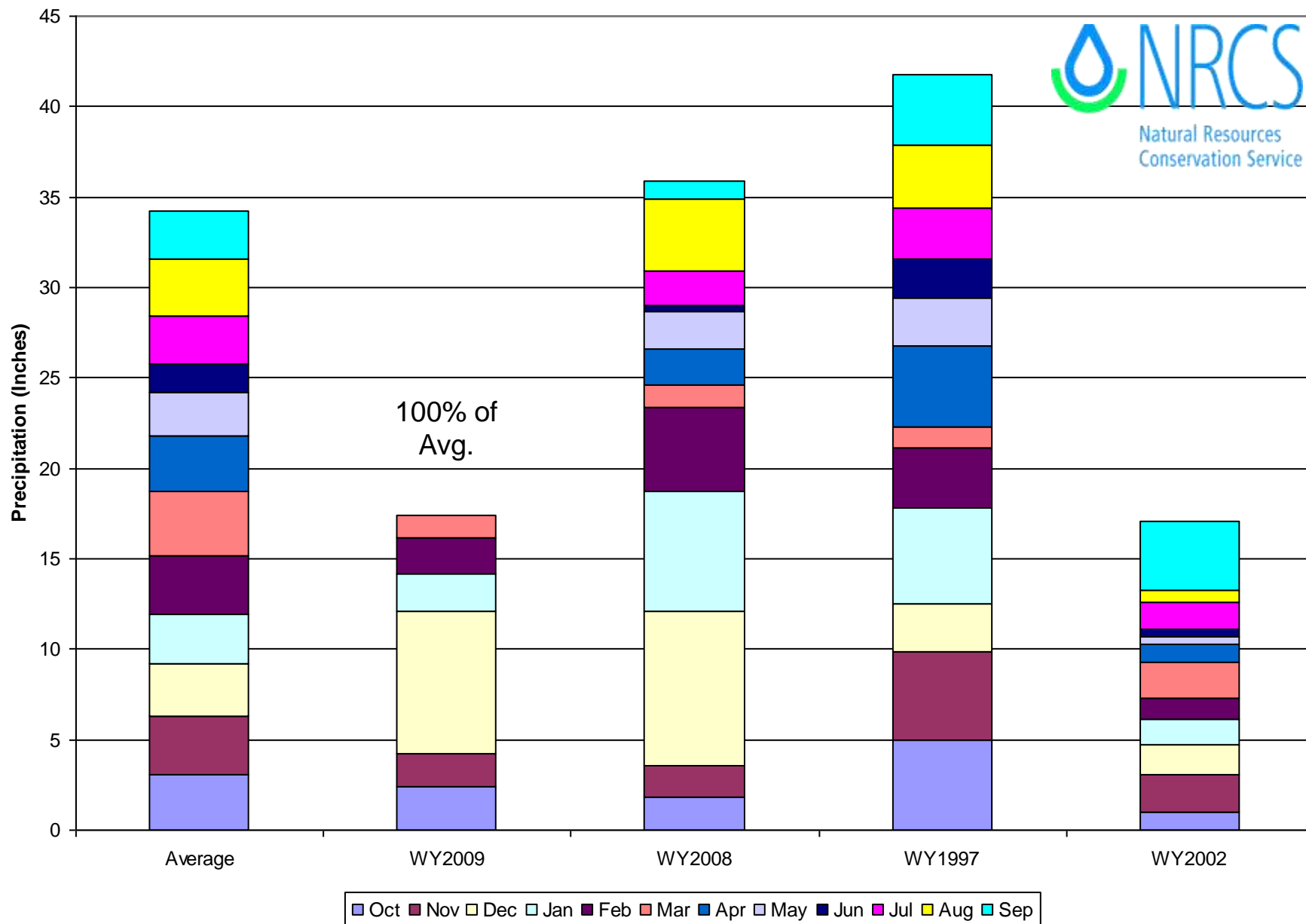
Upper Rio Grande Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Mar 20, 2009



Upper Rio Grande Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Mar 20, 2009

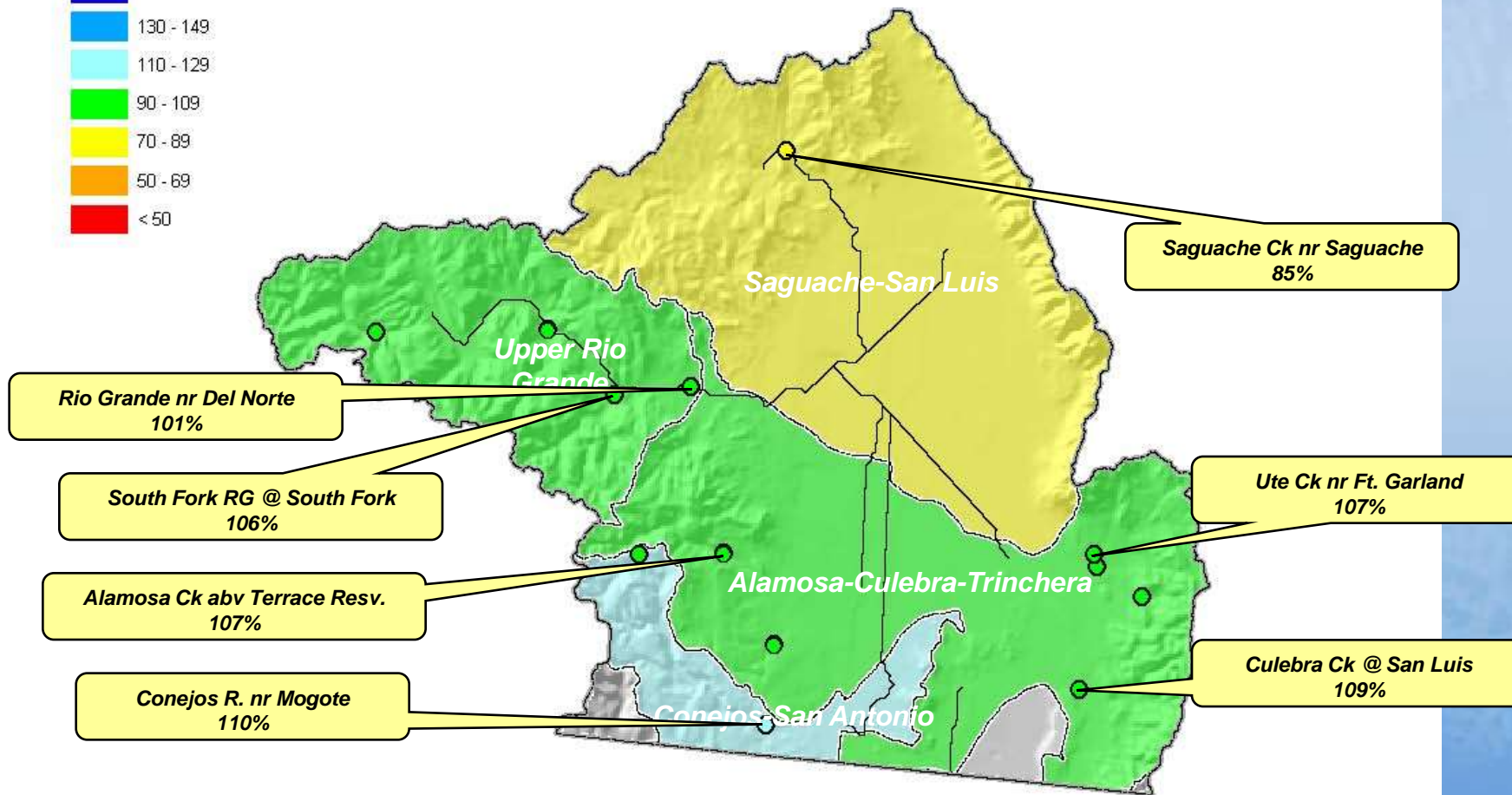


Upper Rio Grande Basin Streamflow Forecast Map

Percent of Average

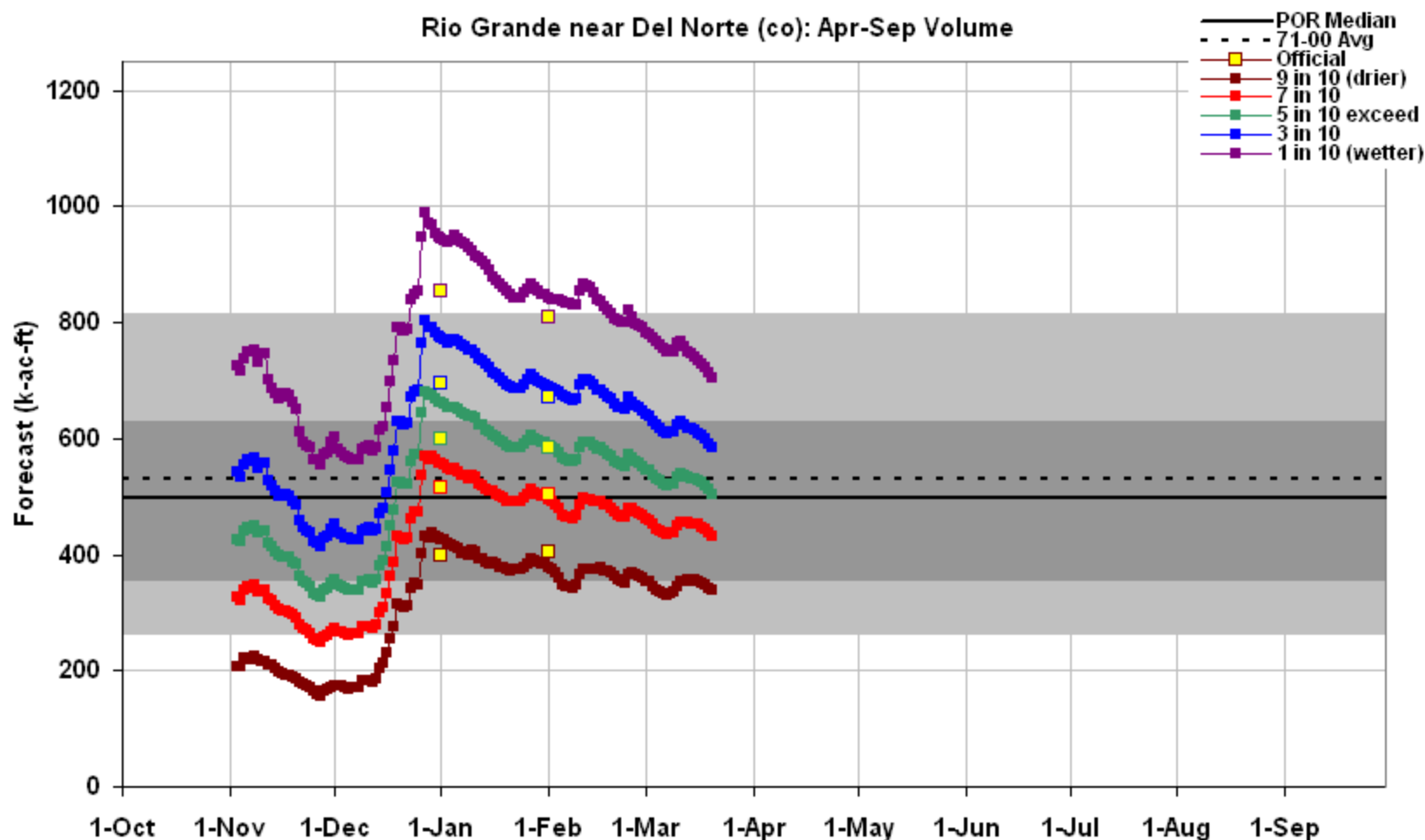


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Current as of March 1, 2009

Rio Grande near Del Norte (co): Apr-Sep Volume



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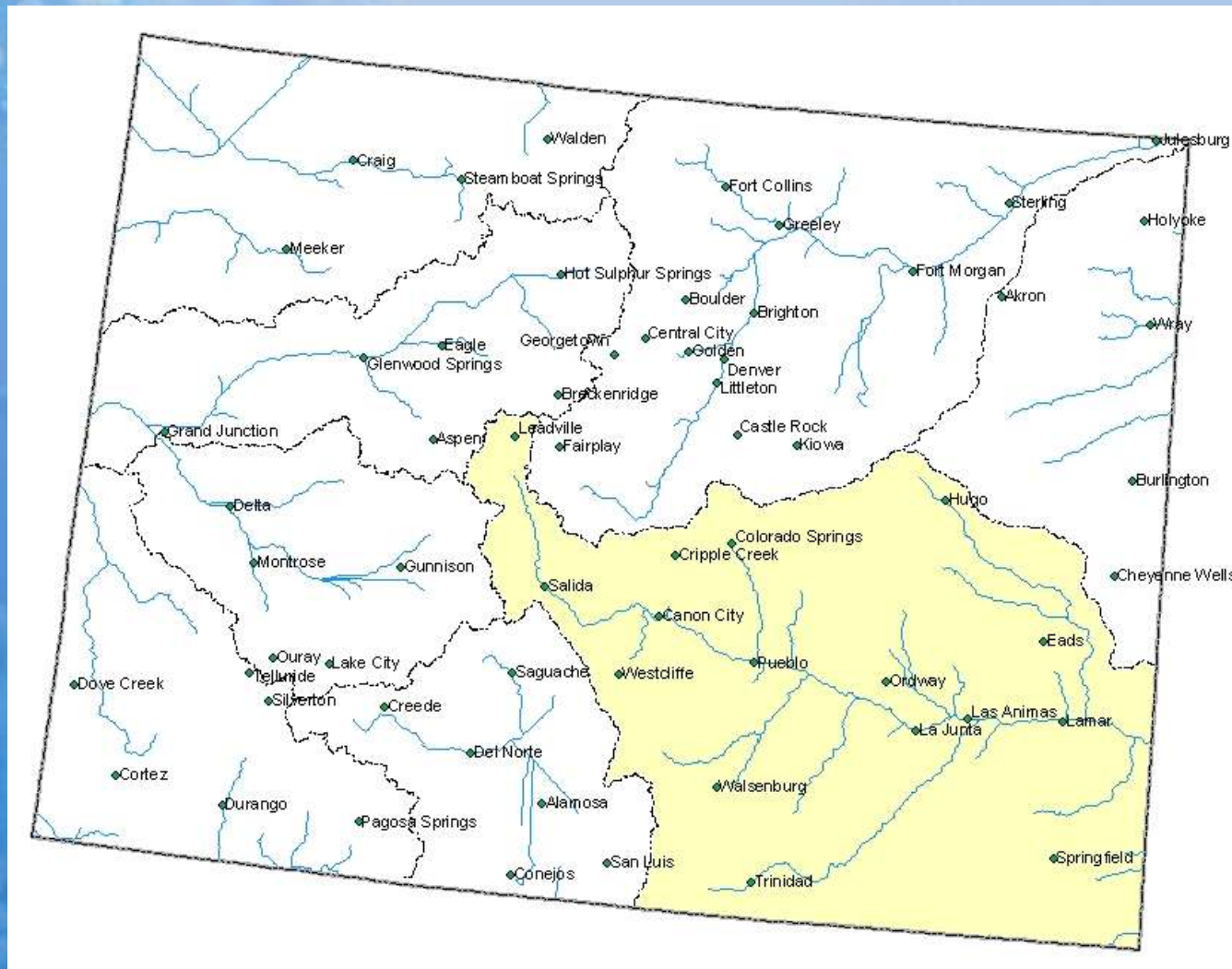
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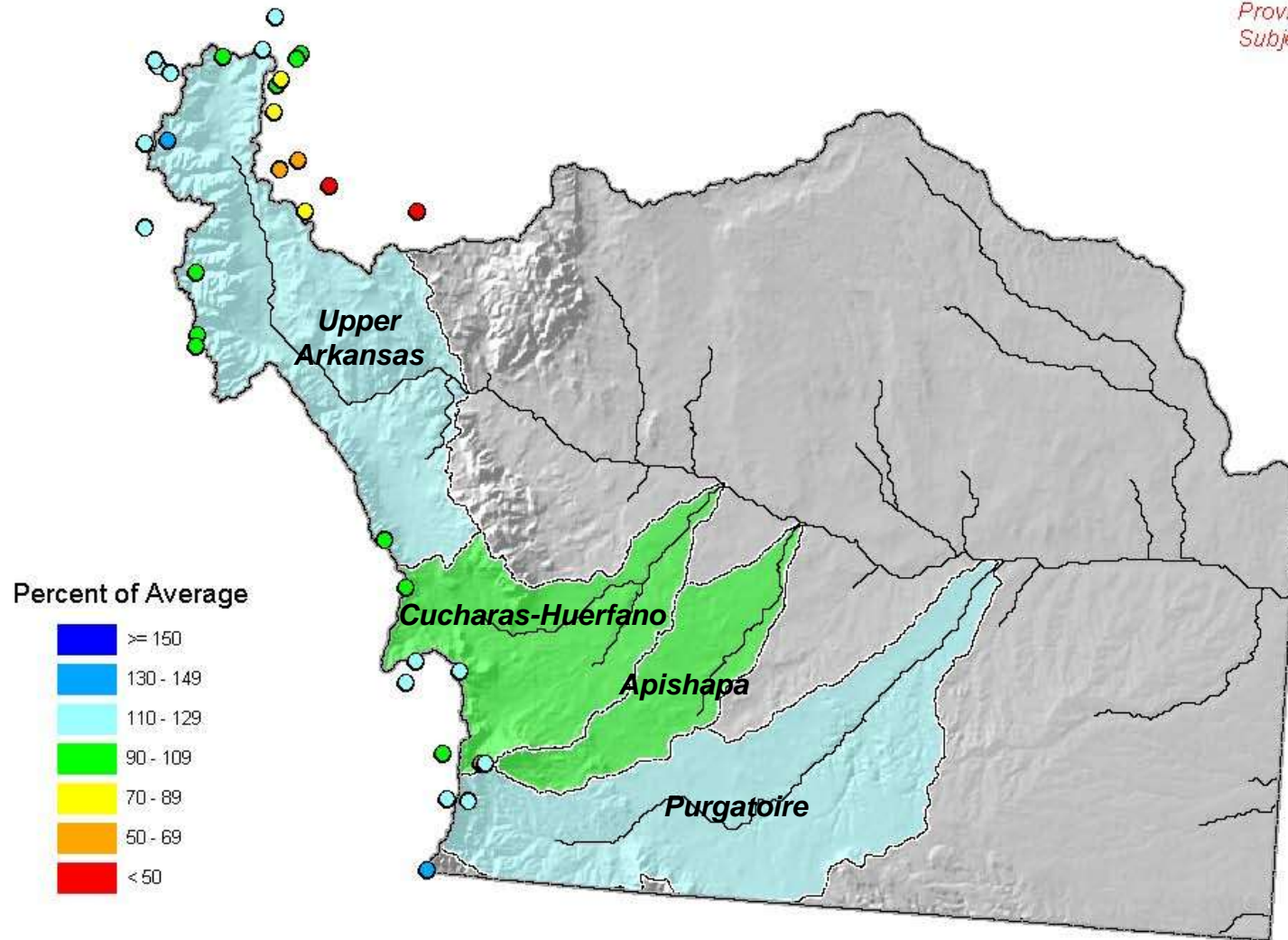


Arkansas River Basin Summary



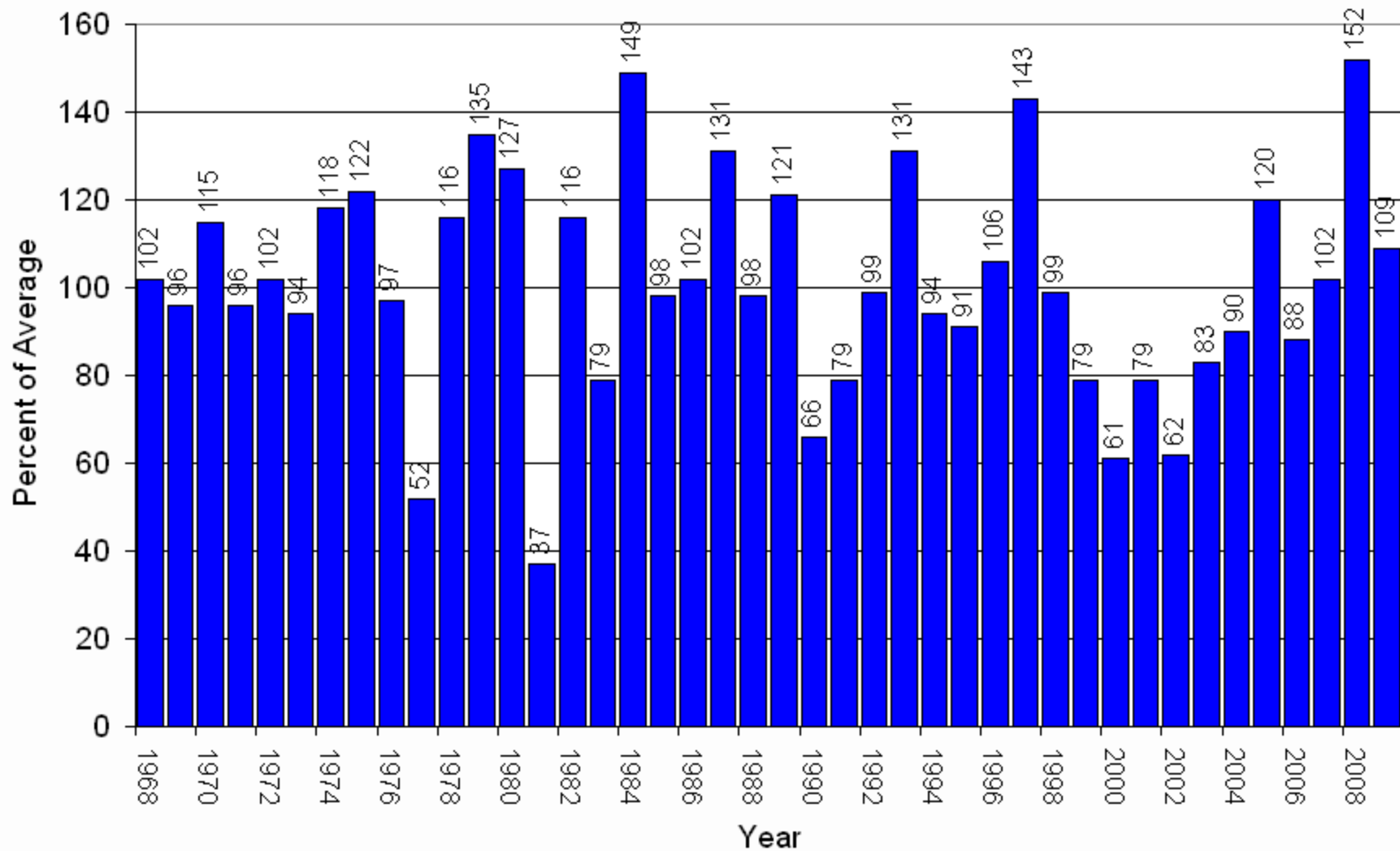
Arkansas River Basin Snowpack Map

*Provisional Data
Subject to Revision*



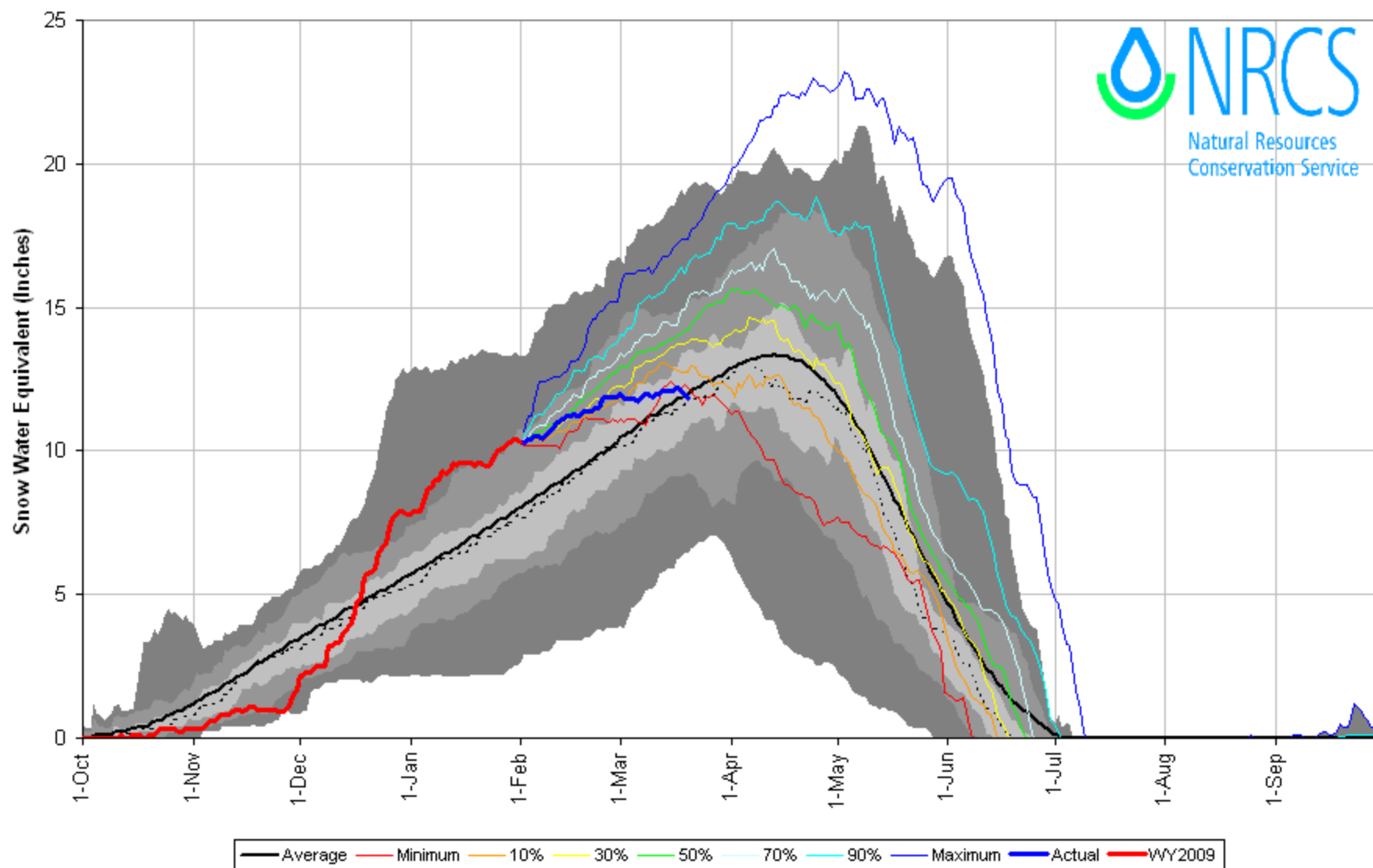
Current as of March 1, 2009

March 1 Total Arkansas River Basin Snowpack



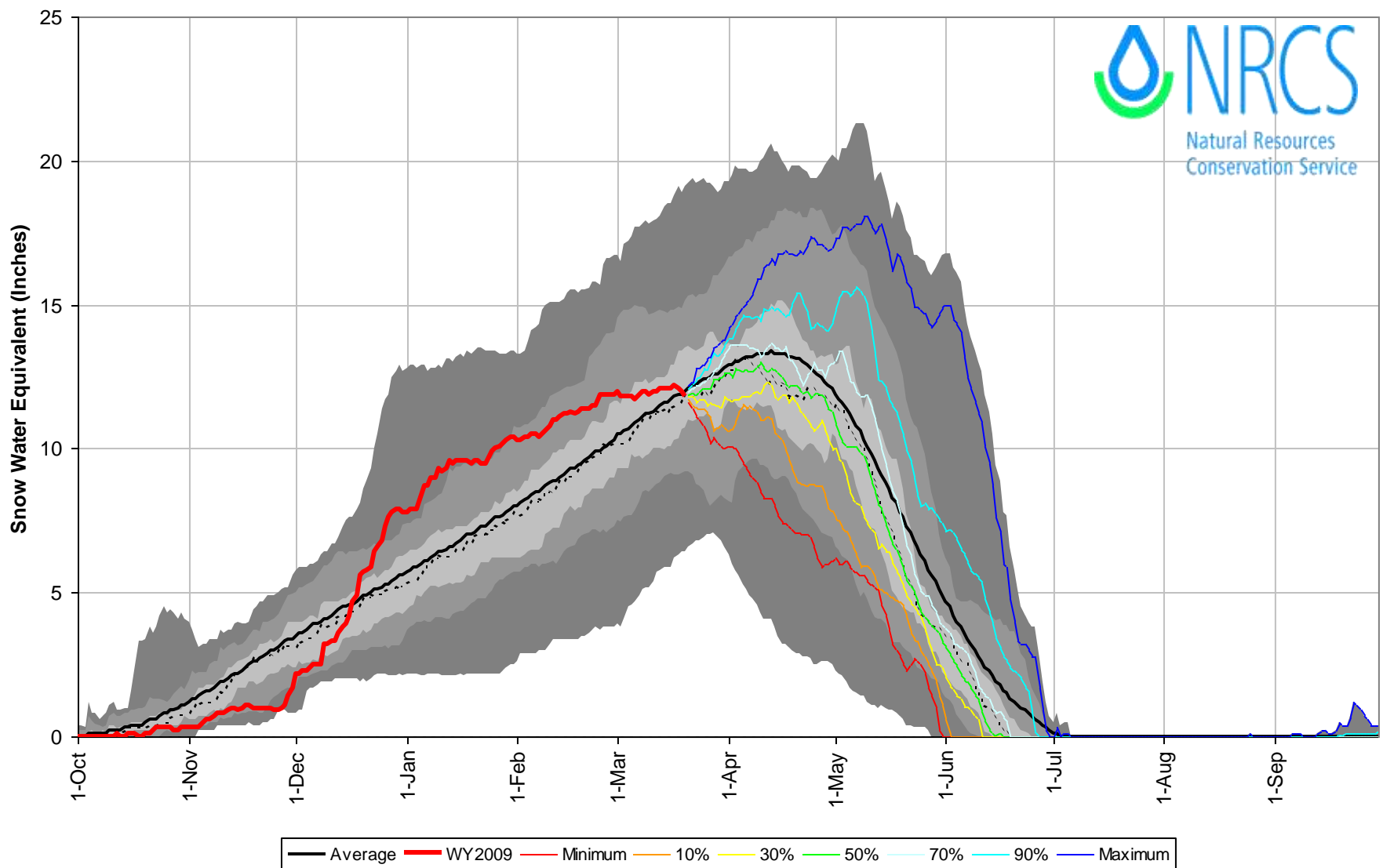
Arkansas River Basin with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Mar 20, 2009



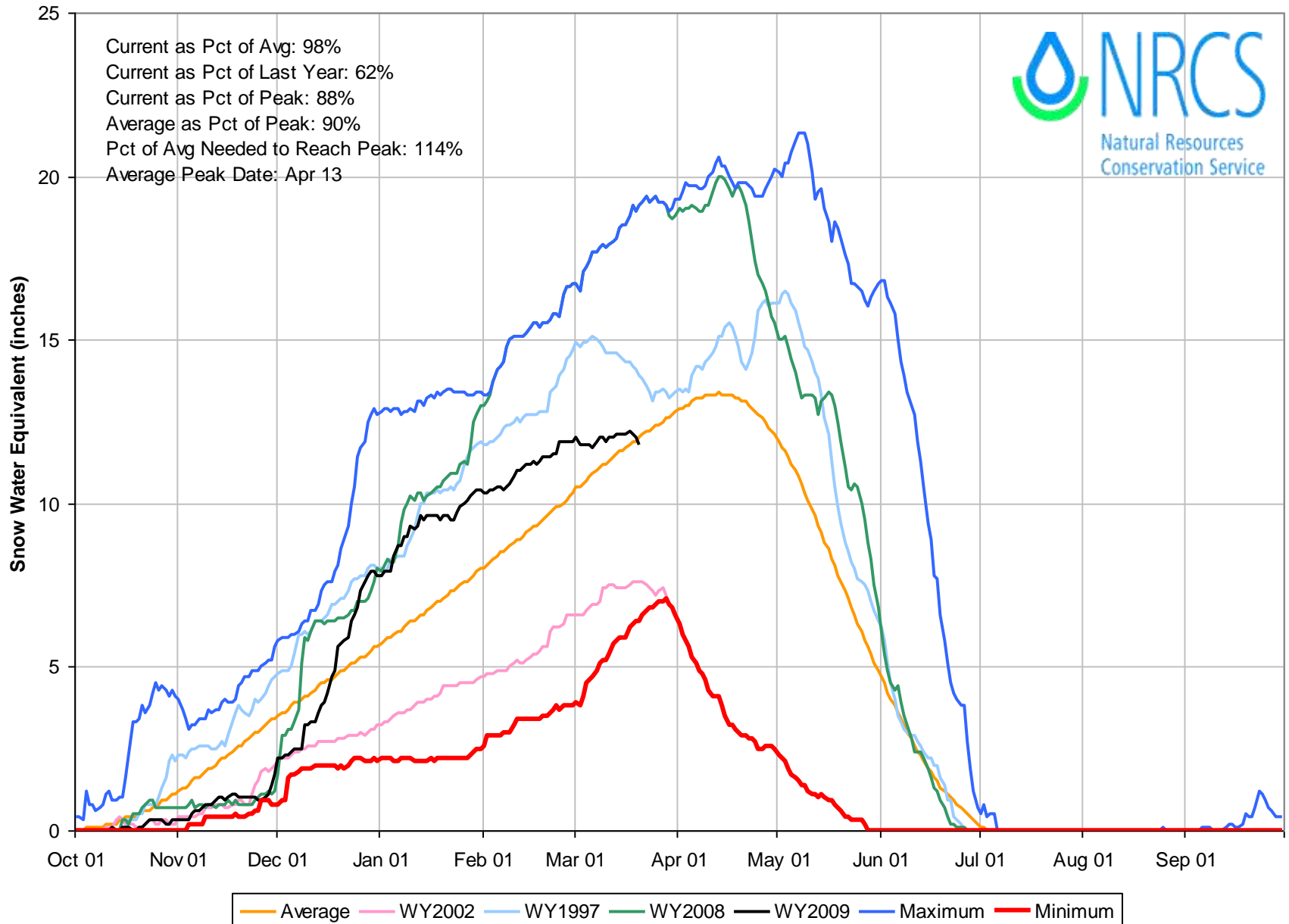
Arkansas River Basin with Non-Exceedence Projections

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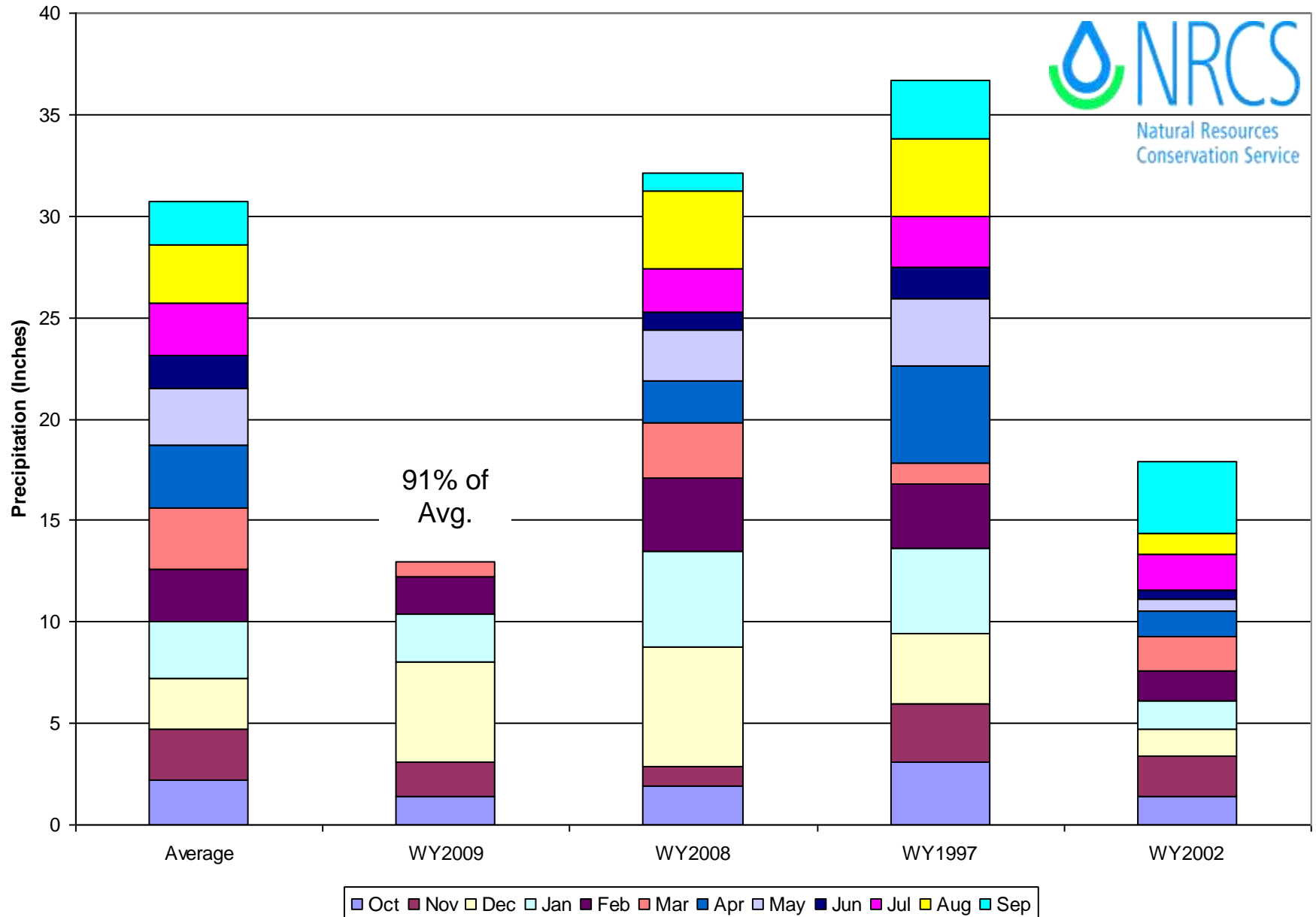
Arkansas River Basin High/Low Snowpack Summary

Based on Provisional SNOTEL data as of Mar 20, 2009



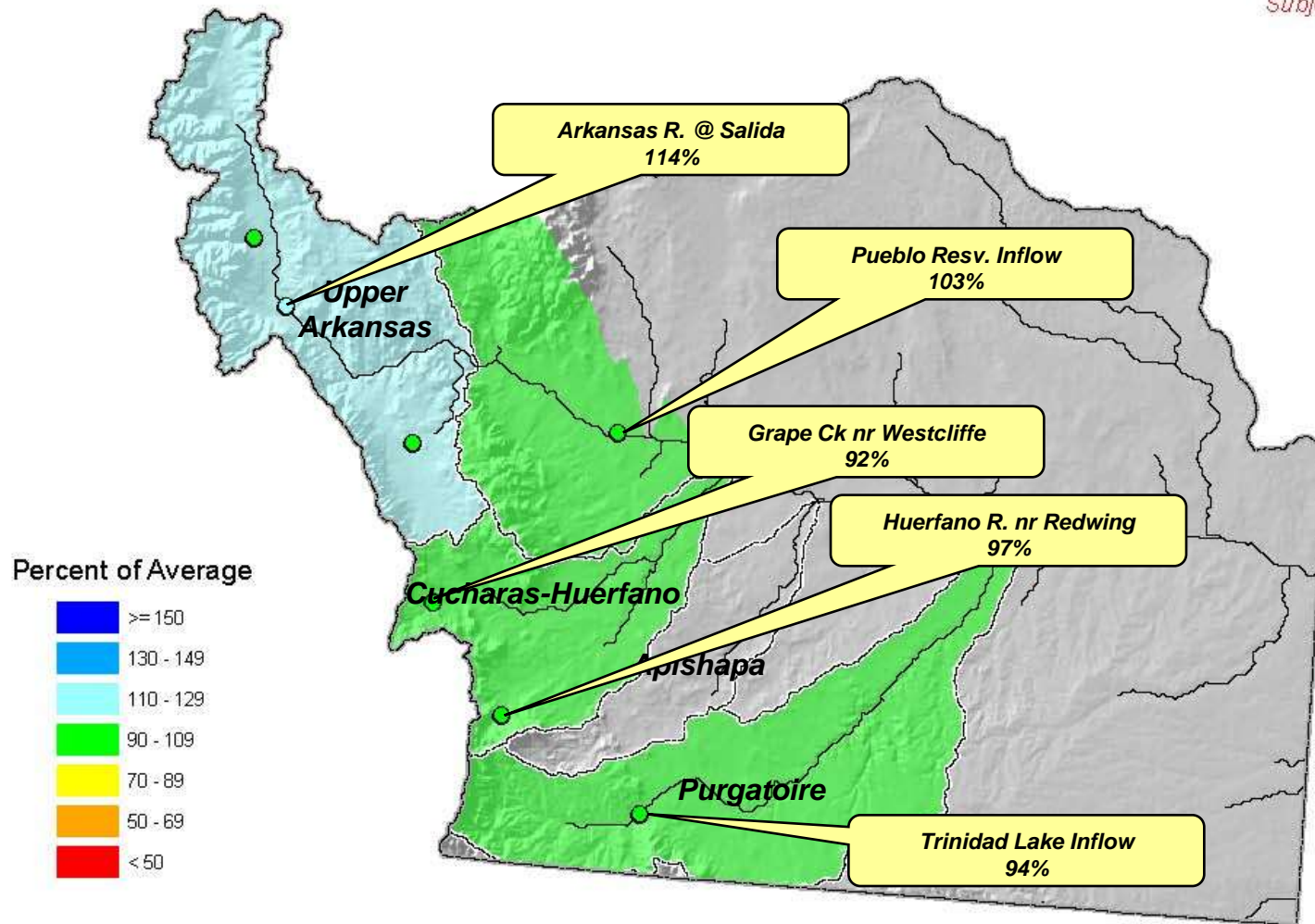
Arkansas River Basin High/Low Monthly Precipitation Summary

Based on Provisional SNOTEL data as of Mar 20, 2009



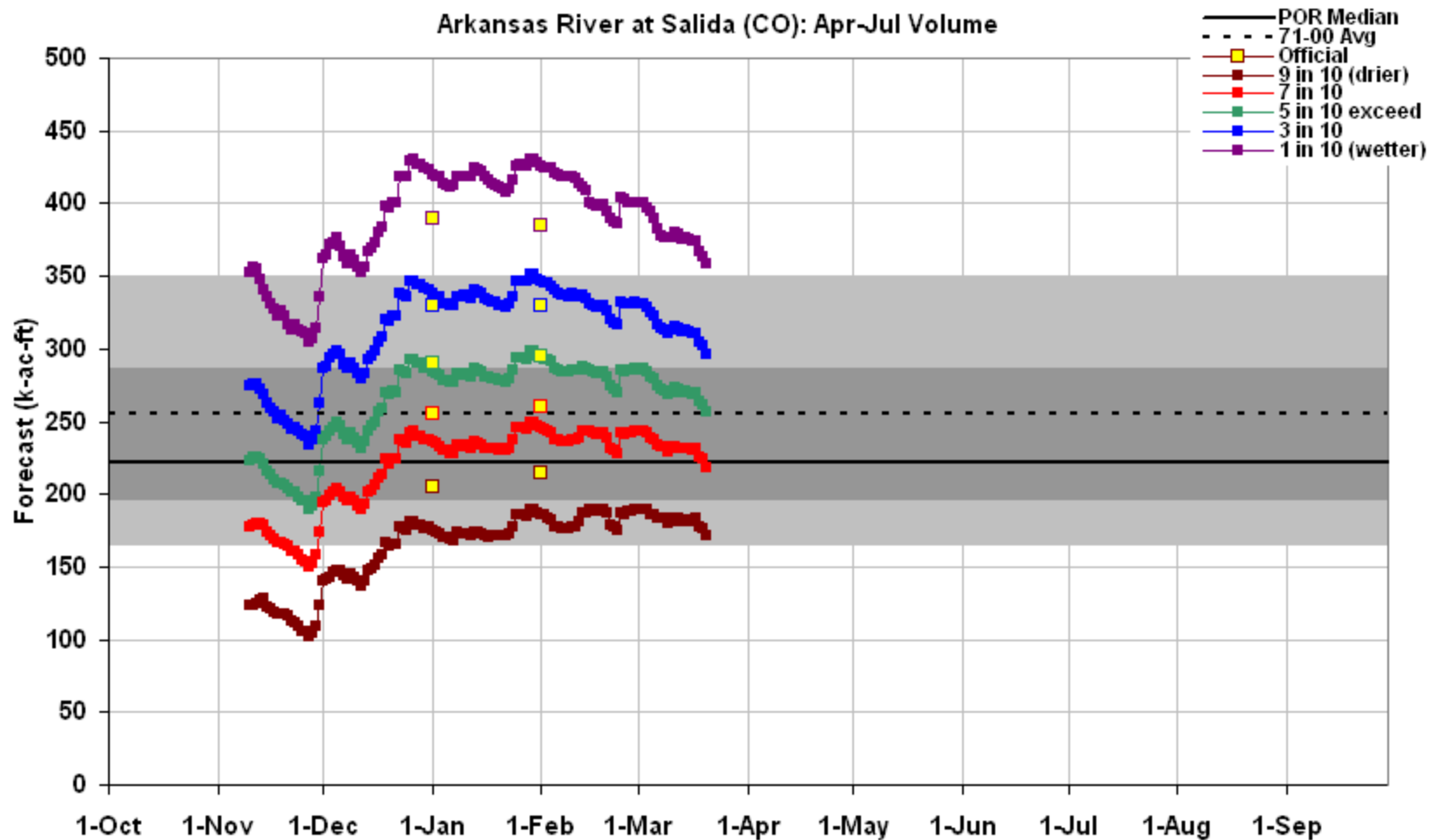
Arkansas River Basin Streamflow Forecast Map

*Provisional Data
Subject to Revision*



Current as of March 1, 2009

Arkansas River at Salida (CO): Apr-Jul Volume



This is an automated product based solely on SNOTEL data, provisional data are subject to change.

This product is a statistically based guidance forecast combining indices of snowpack and precipitation.

Yellow squares are the official outlooks. **Gray background** is the historical period of record variability.

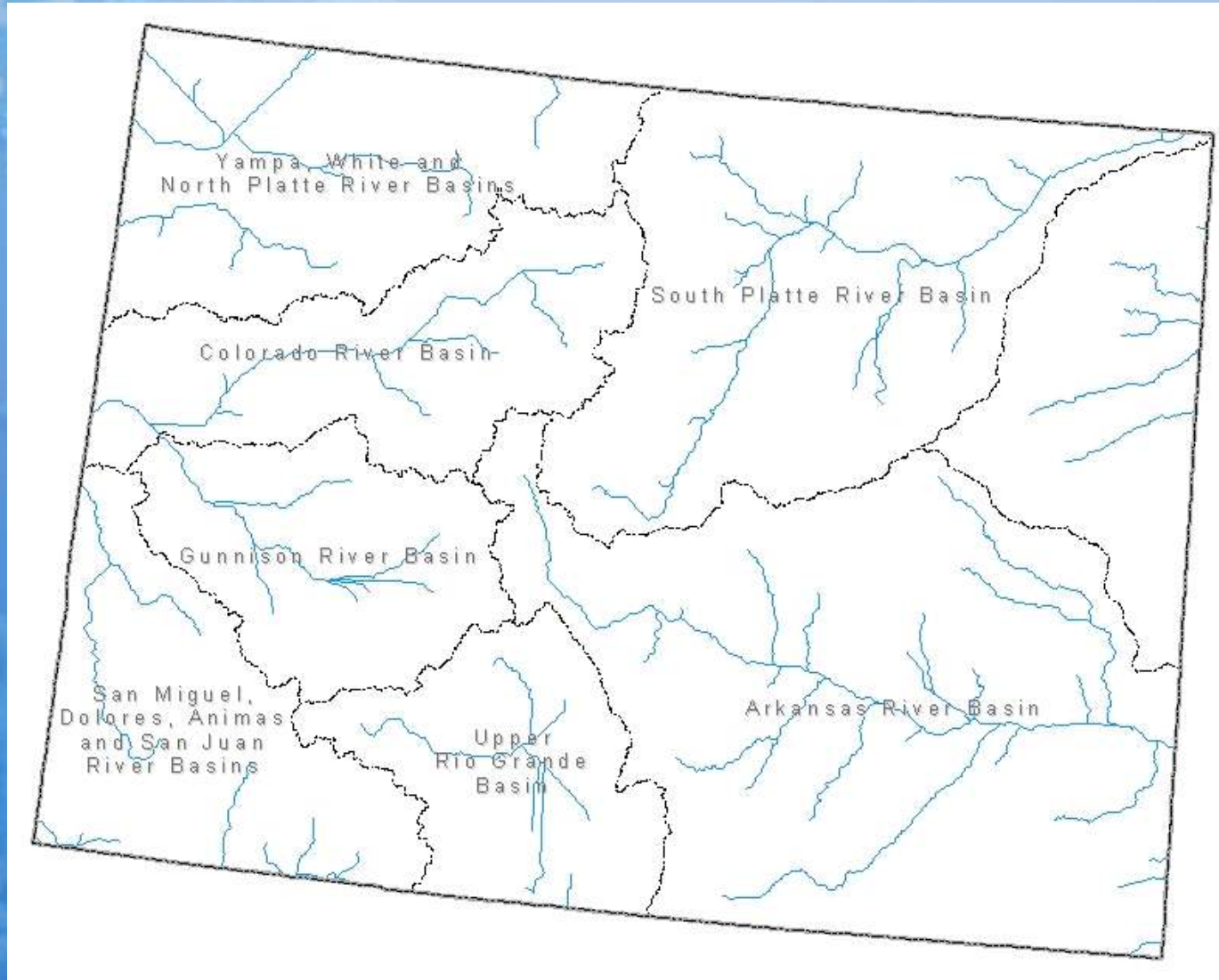
This product does not consider climate information such as El Nino or short range weather forecasts, or a variety of other factors considered in the official forecasts. This product is not meant to replace or supercede the official forecasts produced in coordination with the National Weather Service.

Science Contact: Jim.Marron@por.usda.gov www.wcc.nrcs.usda.gov/wsf/daily_forecasts.html

Created 6:52 Mar 20 2009

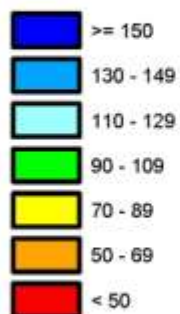


Colorado Statewide Summary

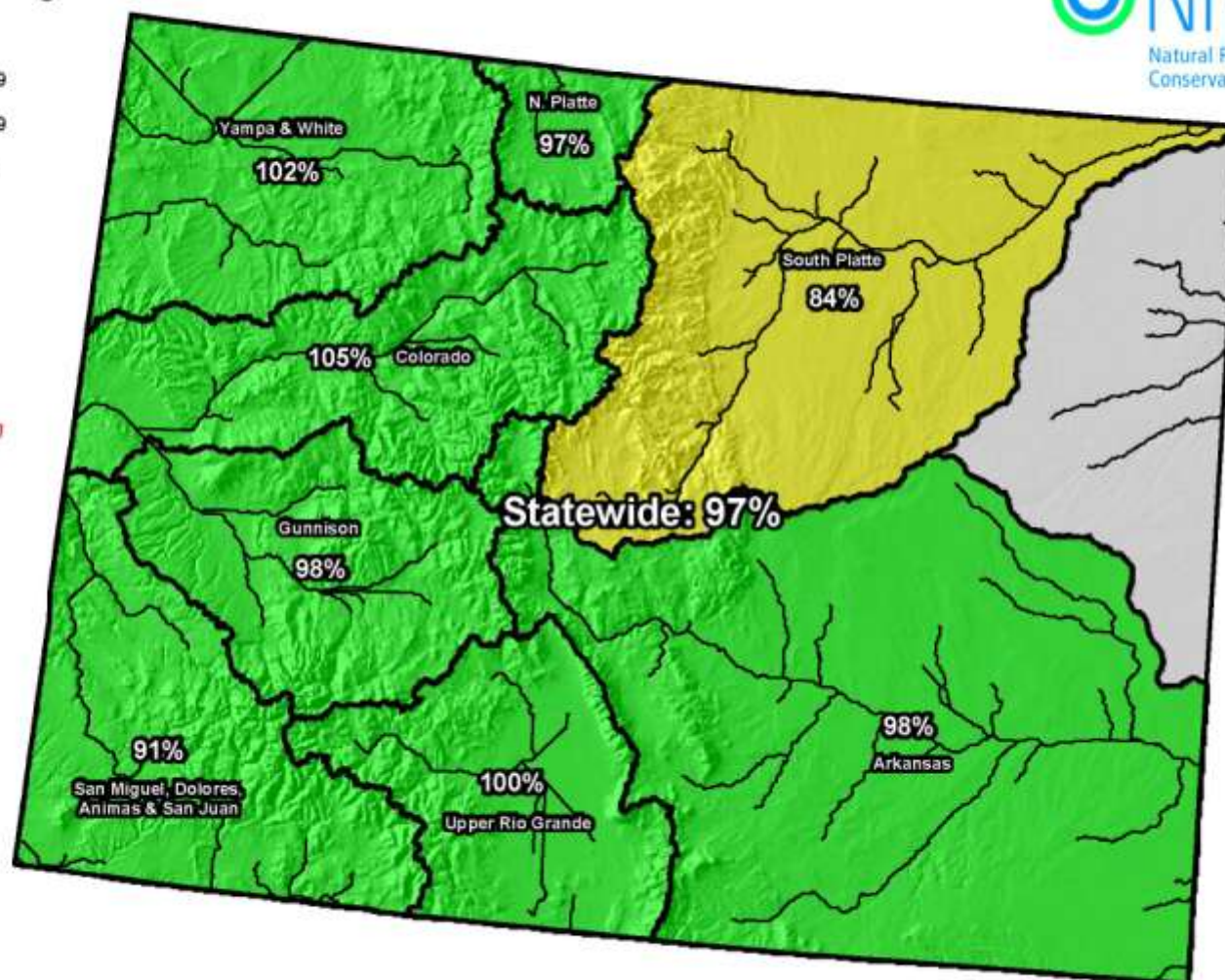


Colorado SNOTEL Snowpack Update Map

Percent of Average



*Provisional Data
Subject to Revision*

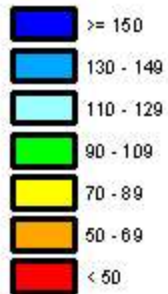


Current as of Mar 20, 2009

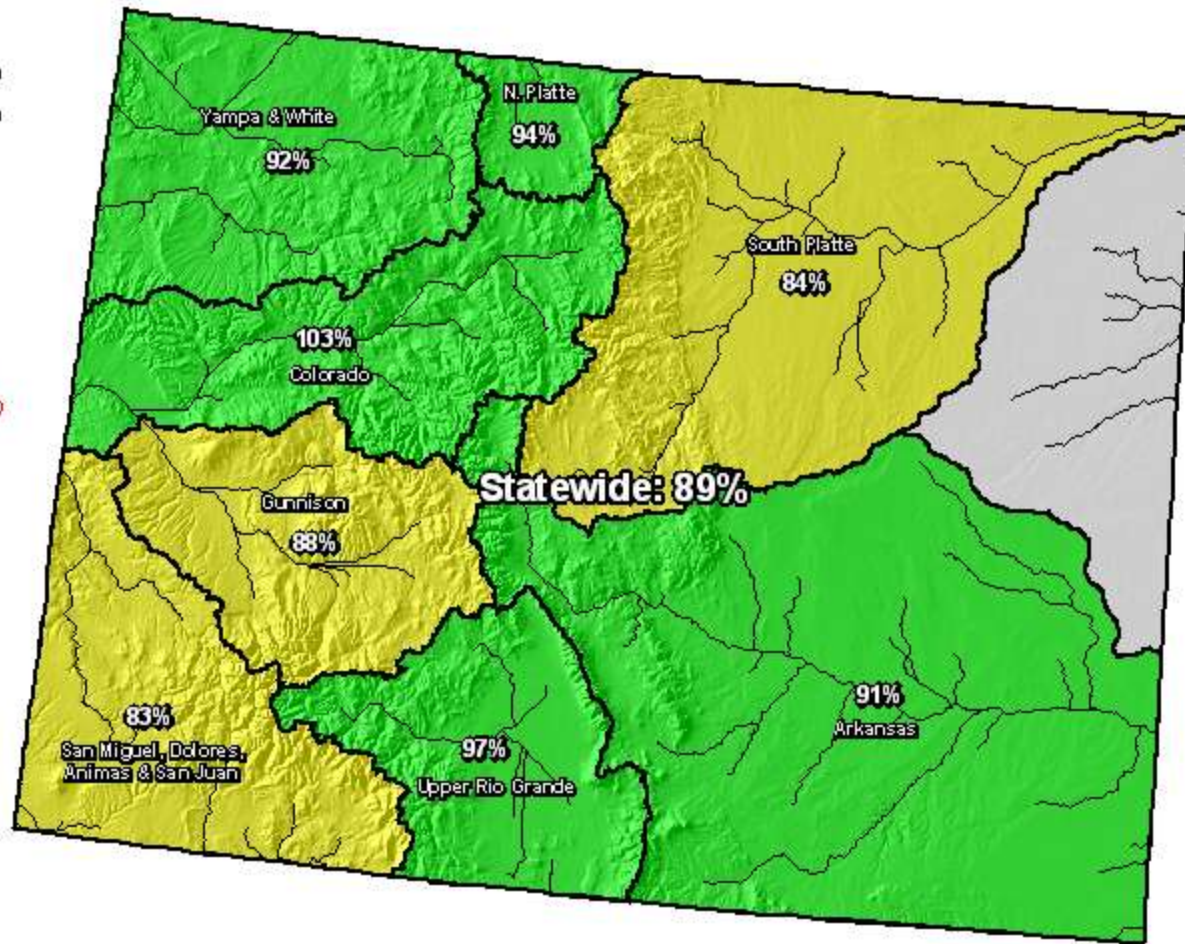
*Data may not provide a valid measure of conditions

Colorado SNOTEL May 1 Snowpack Projection Map*

Percent of Average



*Provisional Data
Subject to Revision*



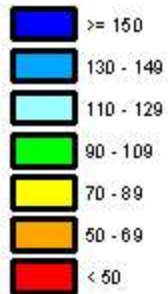
Current as of March 20, 2009

*Based on 50% Non-Exceedence Projections

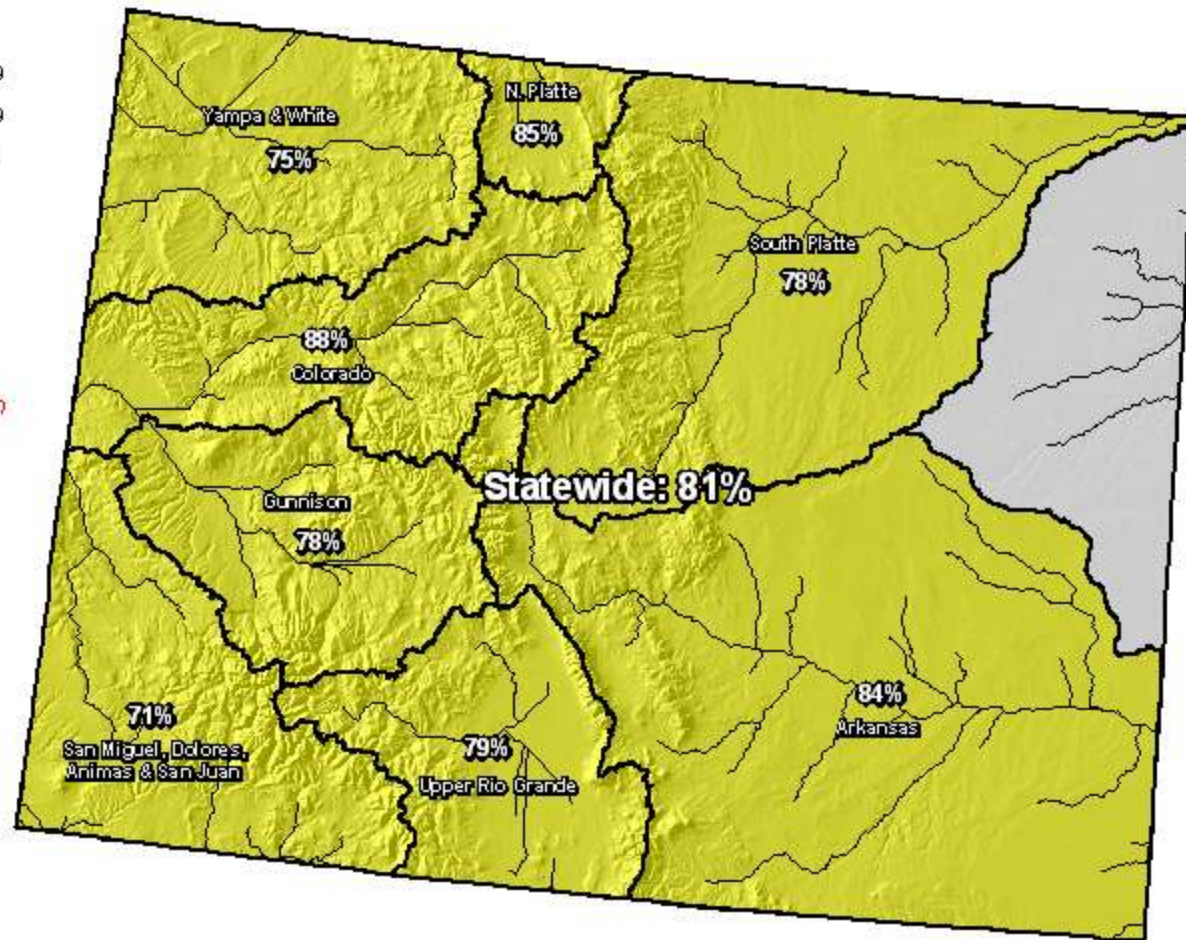
Future precipitation = Median

Colorado SNOTEL May 1 Snowpack Projection Map*

Percent of Average



*Provisional Data
Subject to Revision*



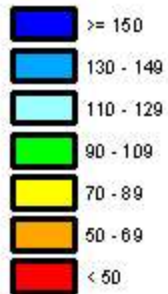
Current as of March 20, 2009

*Based on 30% Non-Exceedence Projections

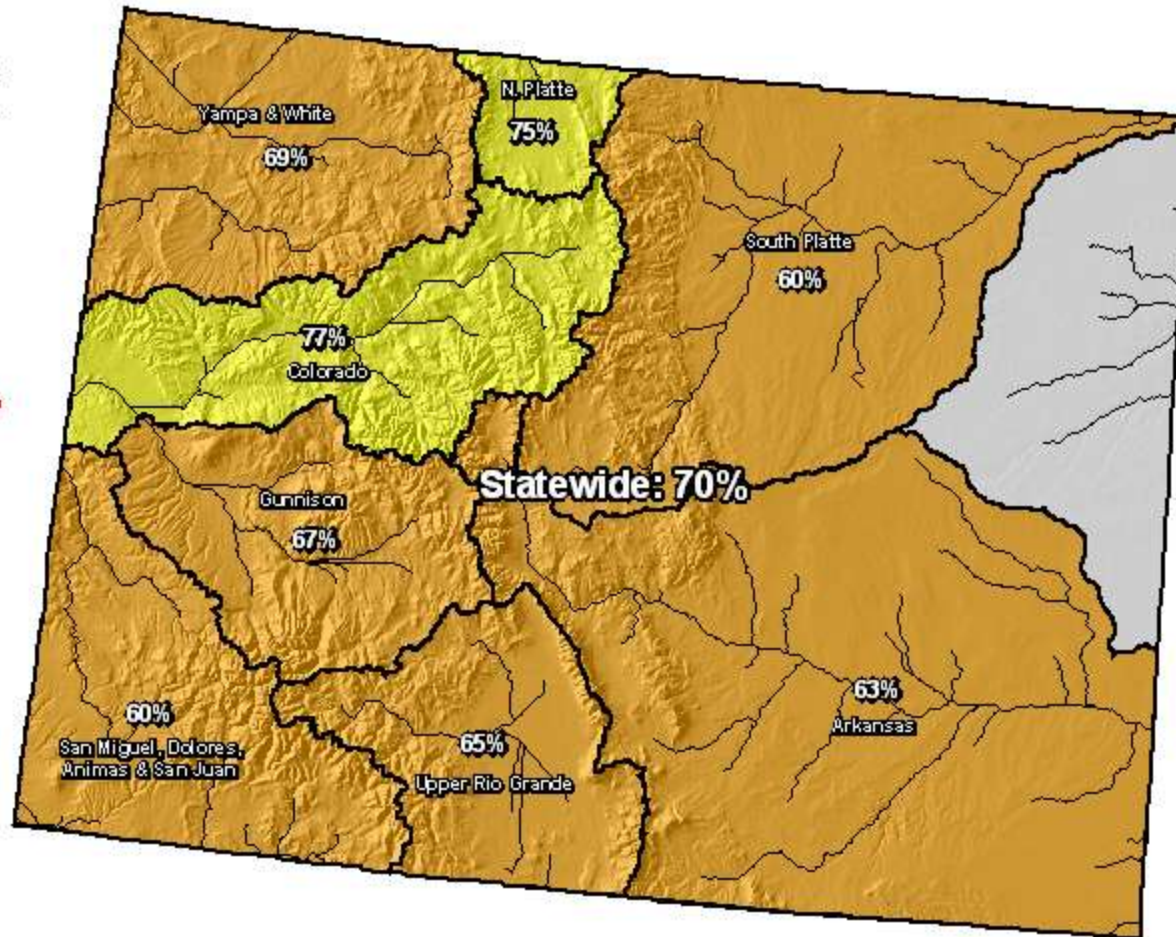
Future precipitation = Dryer 30% of the time

Colorado SNOTEL May 1 Snowpack Projection Map*

Percent of Average



*Provisional Data
Subject to Revision*



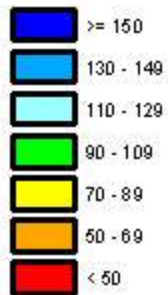
Current as of March 20, 2009

*Based on 10% Non-Exceedence Projections

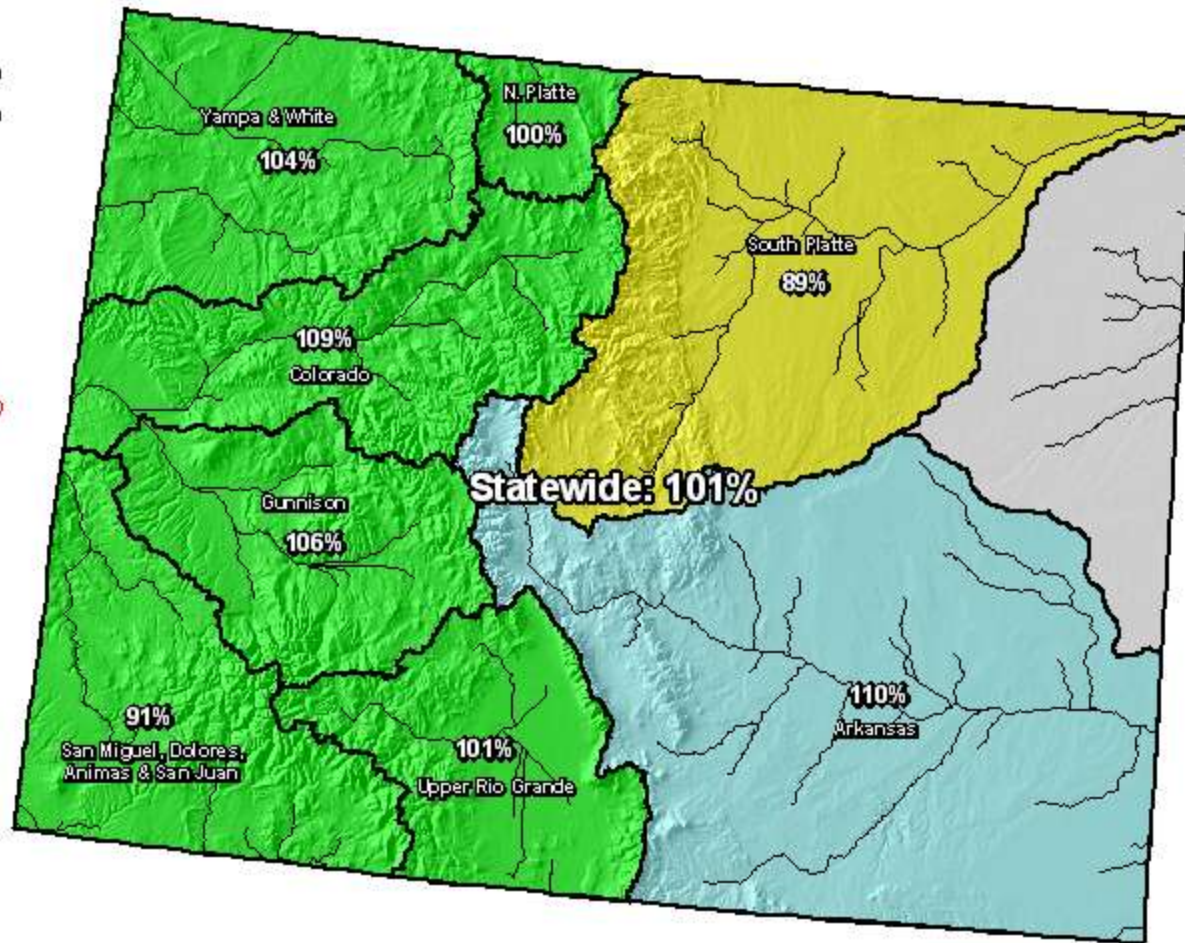
Future precipitation = Dryer 10% of the time

Colorado SNOTEL May 1 Snowpack Projection Map*

Percent of Average



*Provisional Data
Subject to Revision*



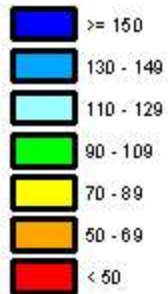
Current as of March 20, 2009

*Based on 70% Non-Exceedence Projections

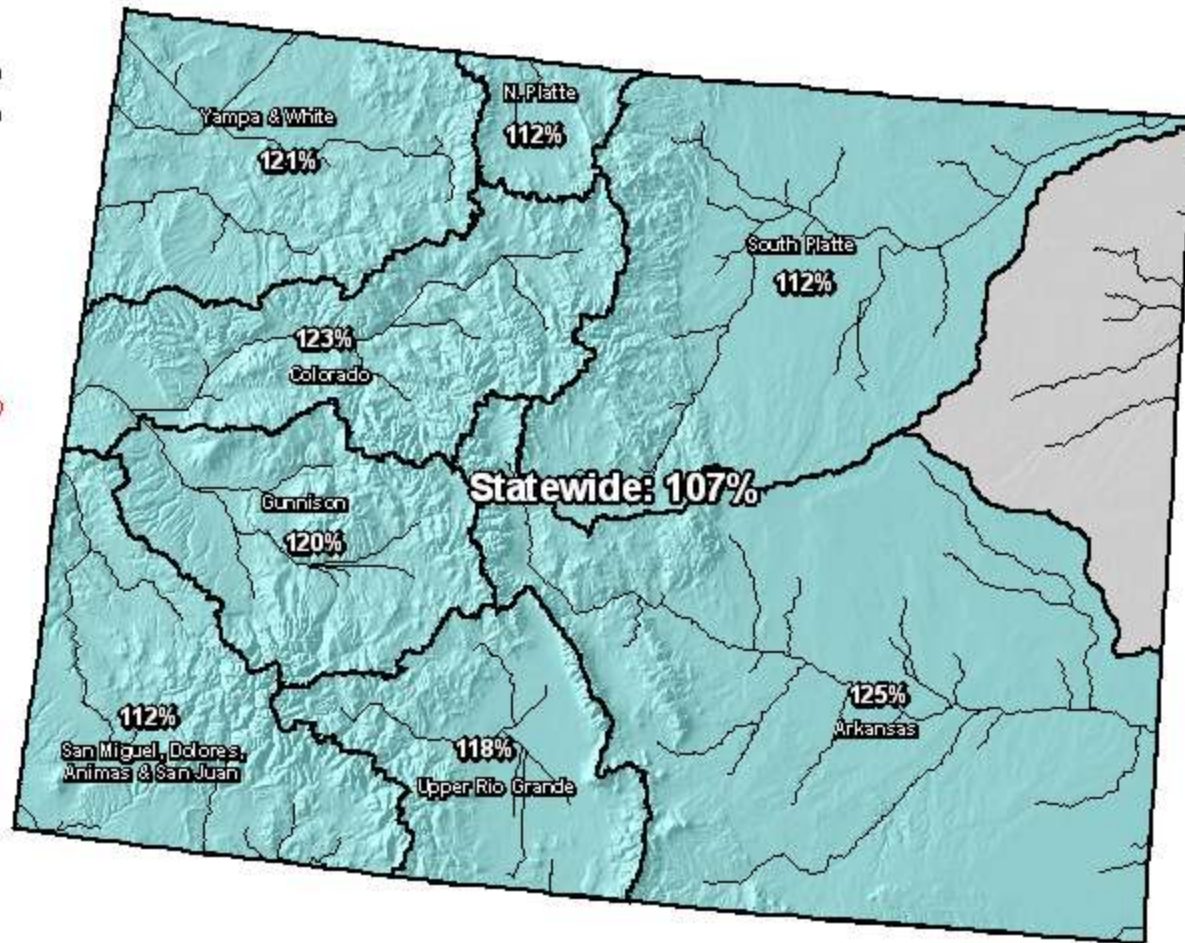
Future precipitation = Wetter 30% of the time

Colorado SNOTEL May 1 Snowpack Projection Map*

Percent of Average



*Provisional Data
Subject to Revision*



Current as of March 20, 2009

*Based on 90% Non-Exceedence Projections

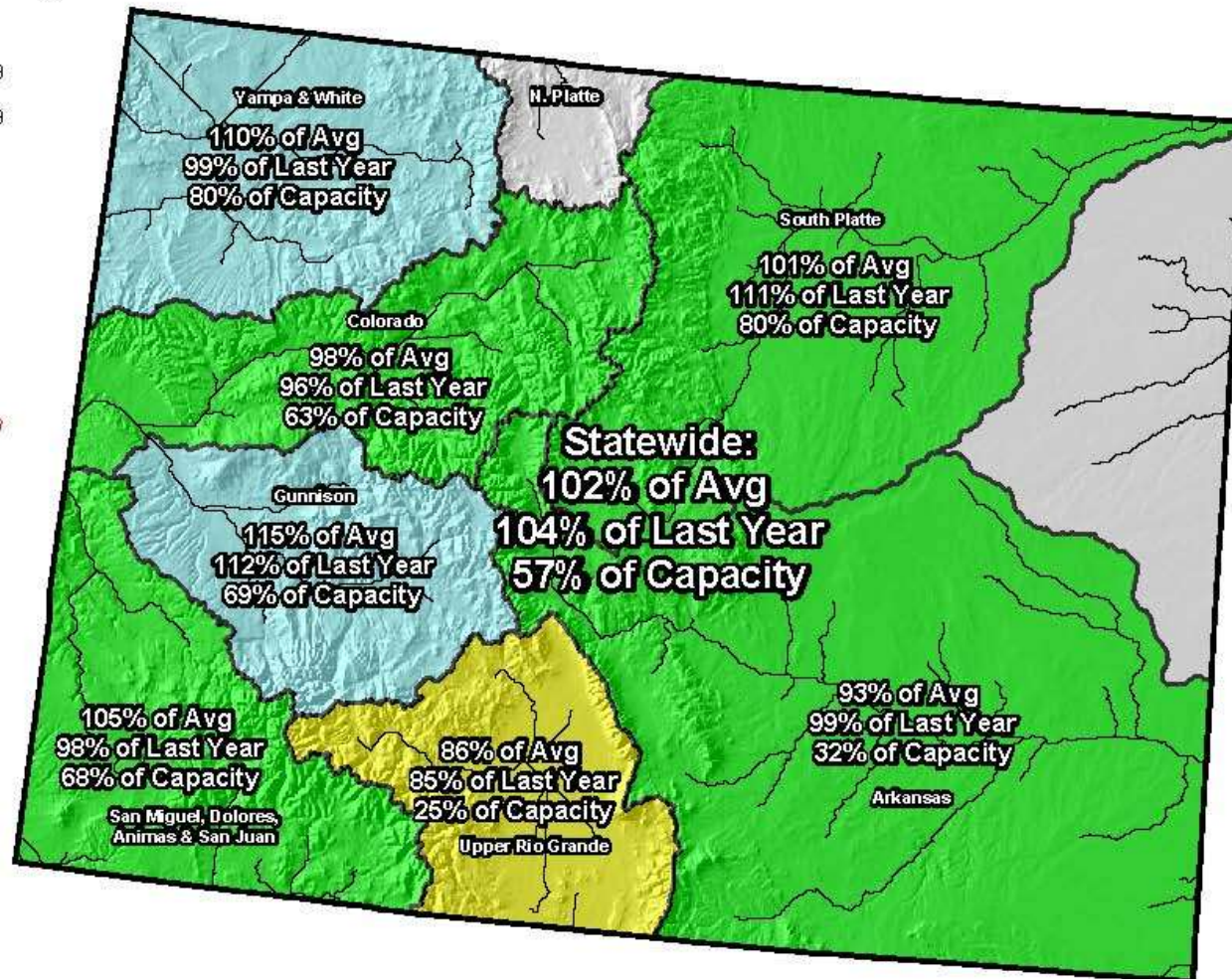
Future precipitation = Wetter 10% of the time

Colorado Reservoir Storage Map

Percent of Average



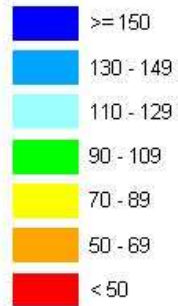
*Provisional Data
Subject to Revision*



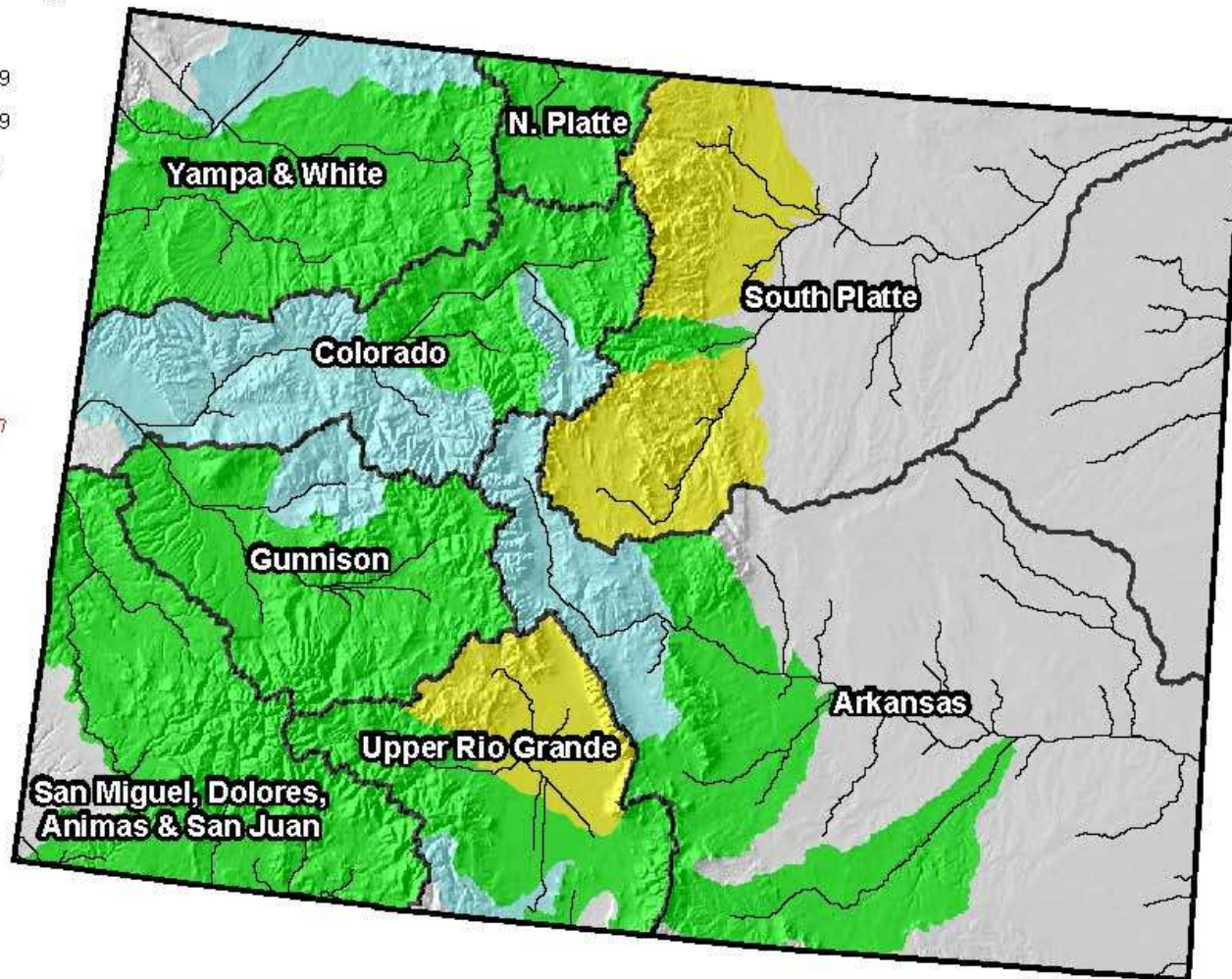
End of February 2009

Colorado Streamflow Forecast Map

Percent of Average



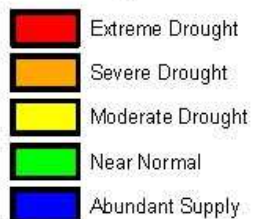
*Provisional Data
Subject to Revision*



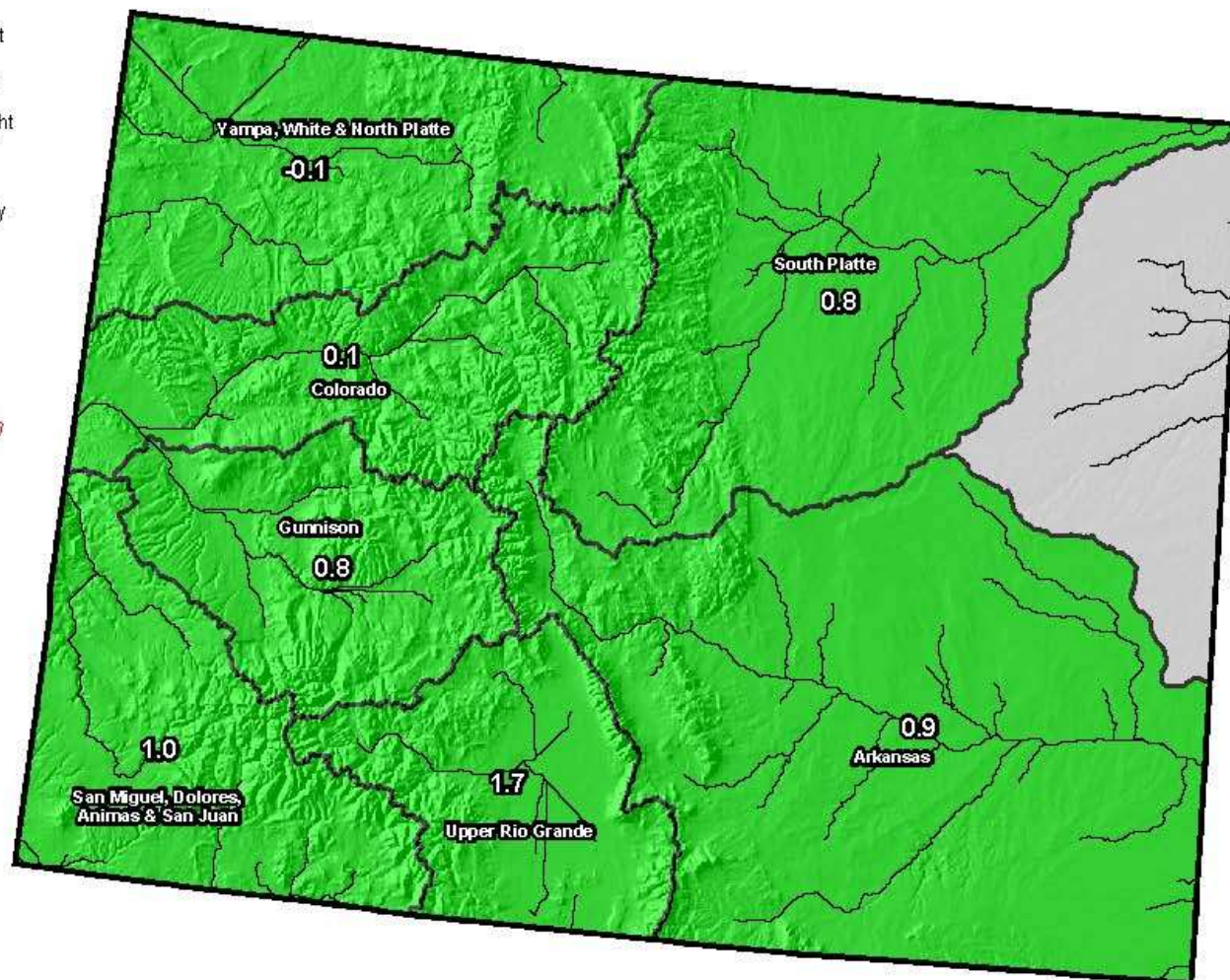
Current as of March 1, 2009

Colorado Surface Water Supply Index (SWSI) Map

Legend



*Provisional Data
Subject to Revision*



Current as of March 1, 2009