COLORADO

# Colorado Water Availability Task Force

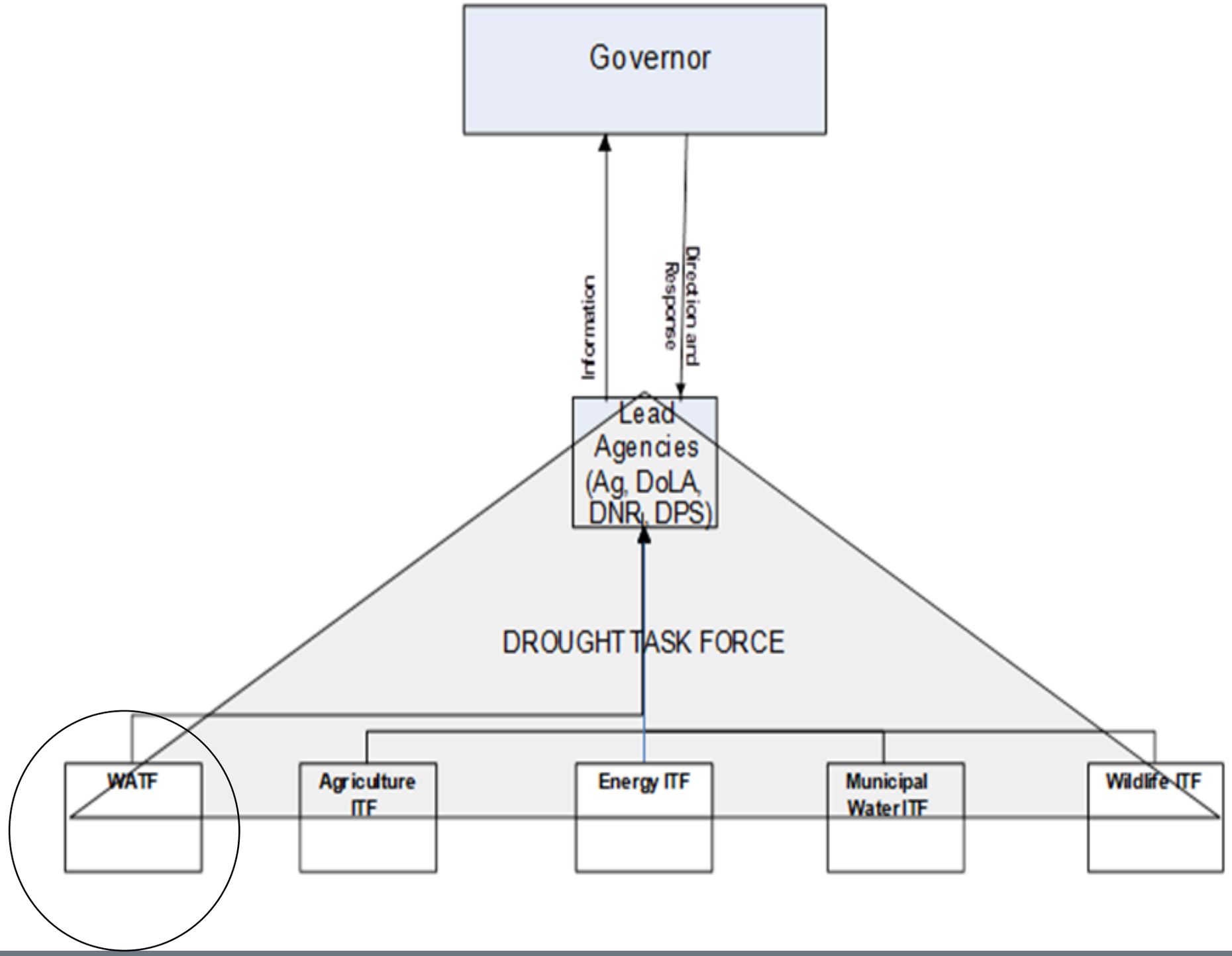
IMW DEWS Mtg 2016


## Taryn Finnessey

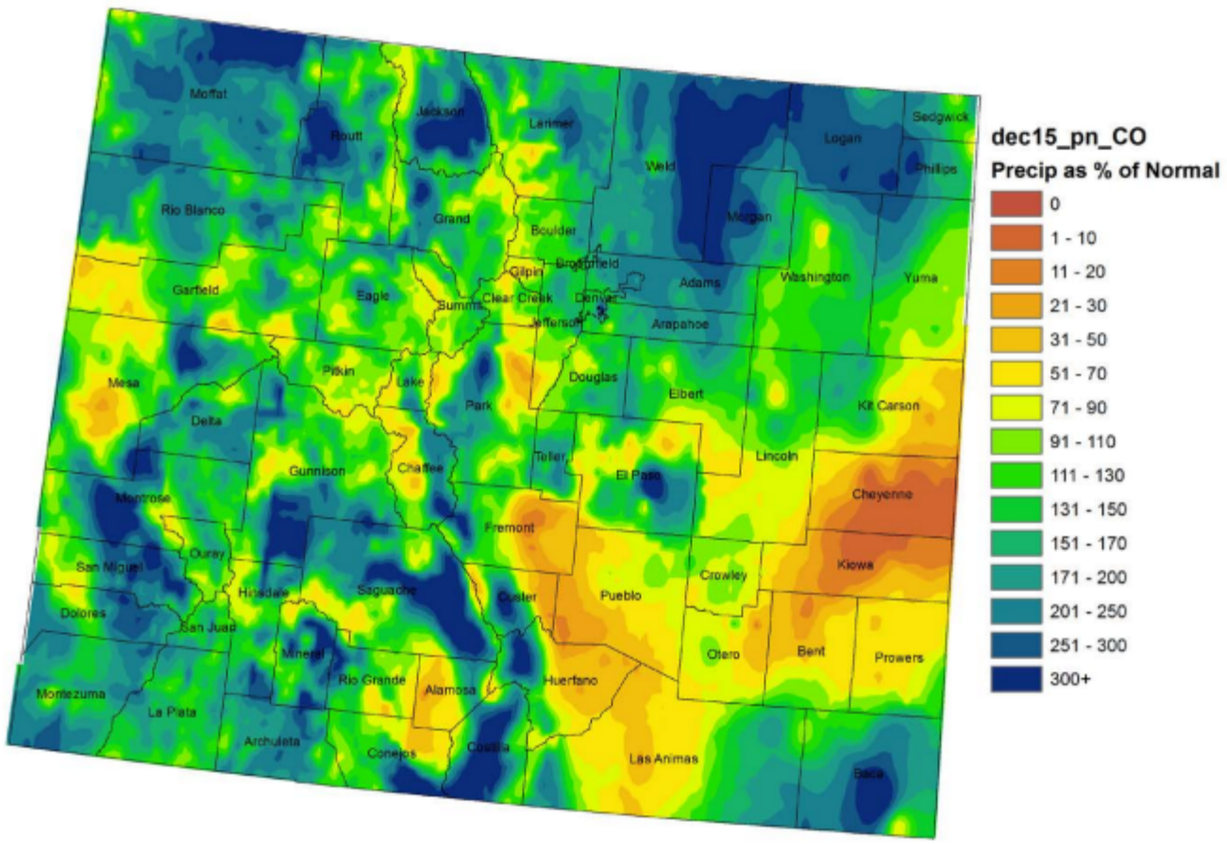
Climate Change Risk Management Specialist

COLORADO
Department of Natural Resources

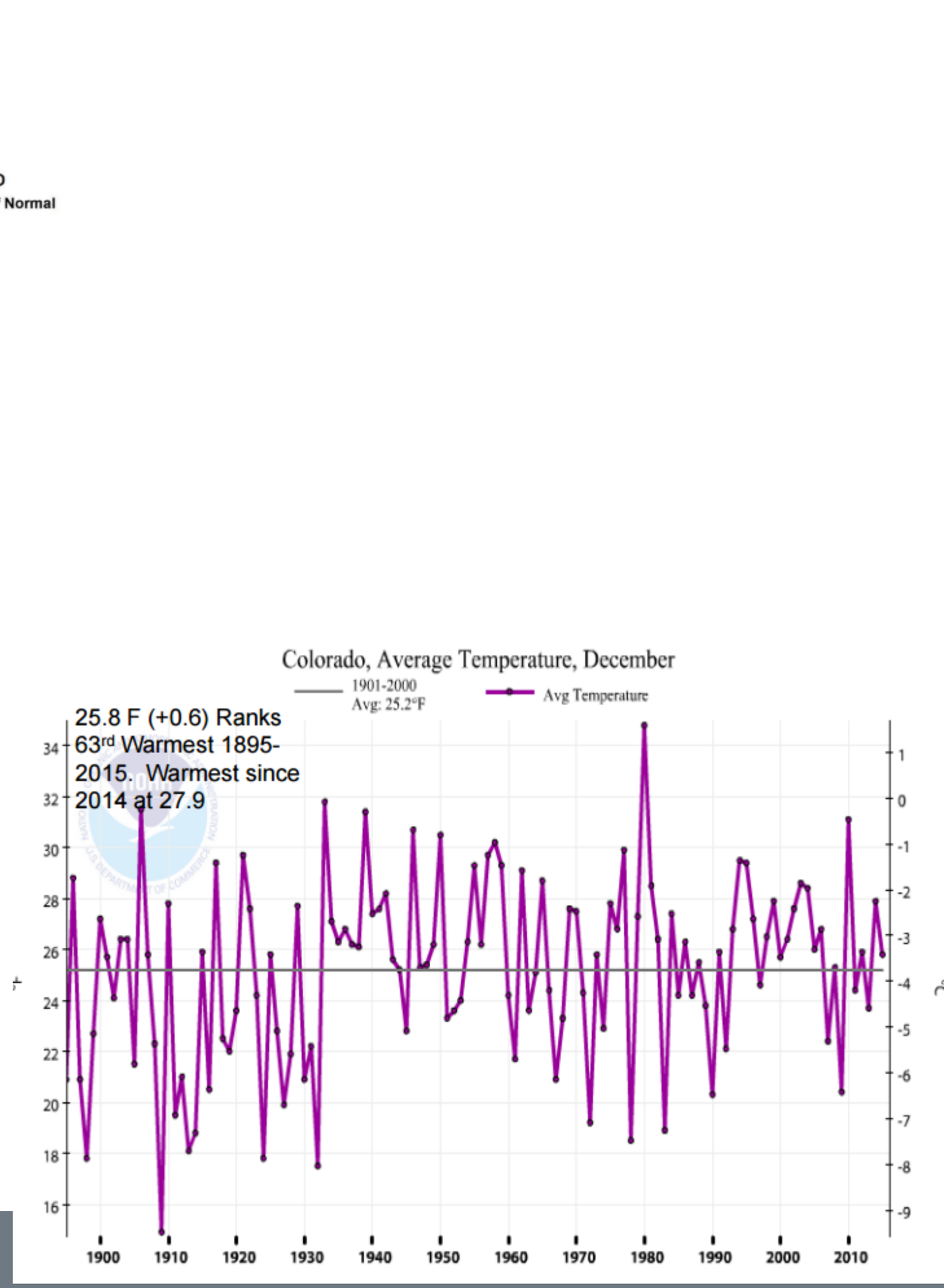
# *Current Response Framework*

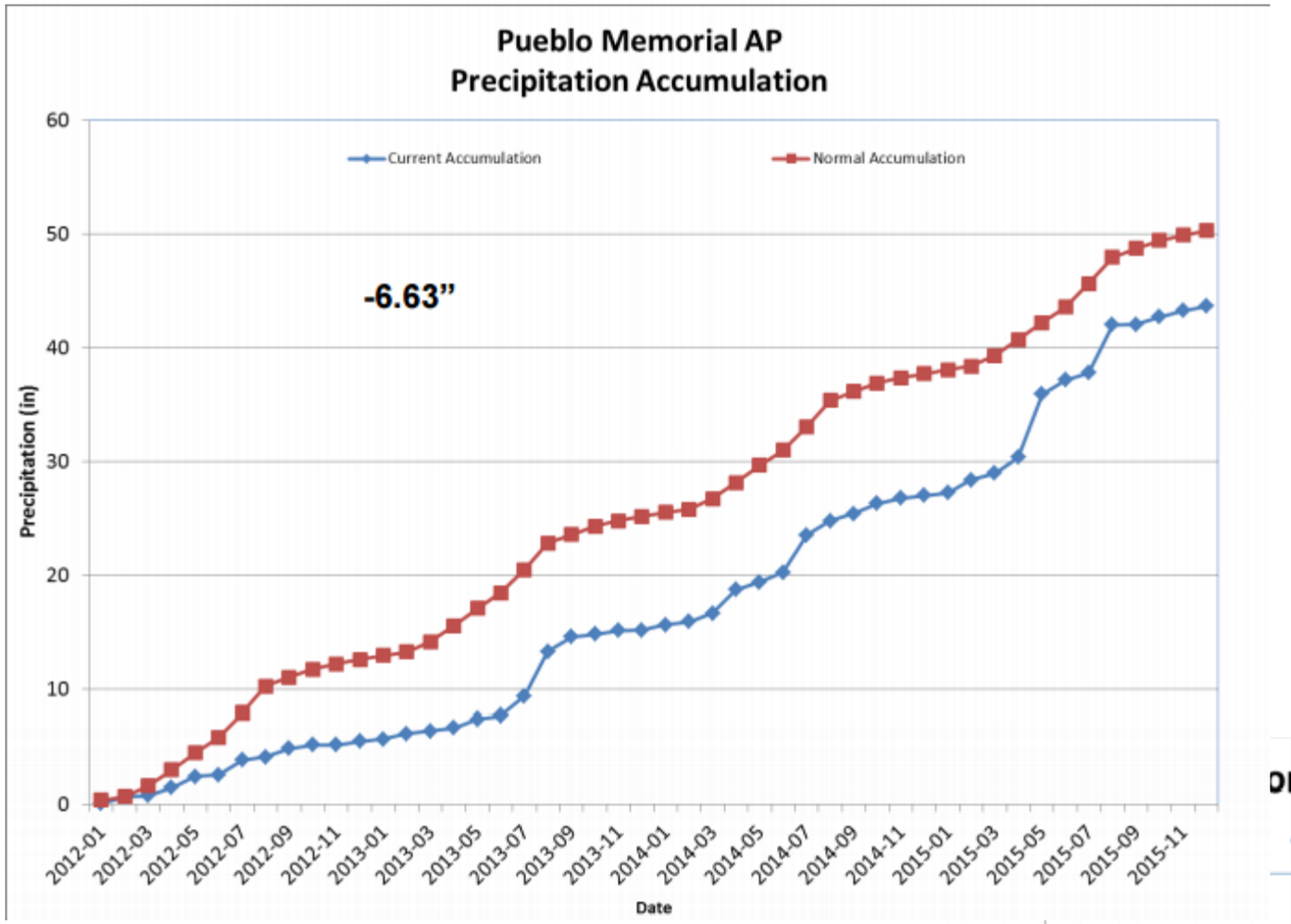


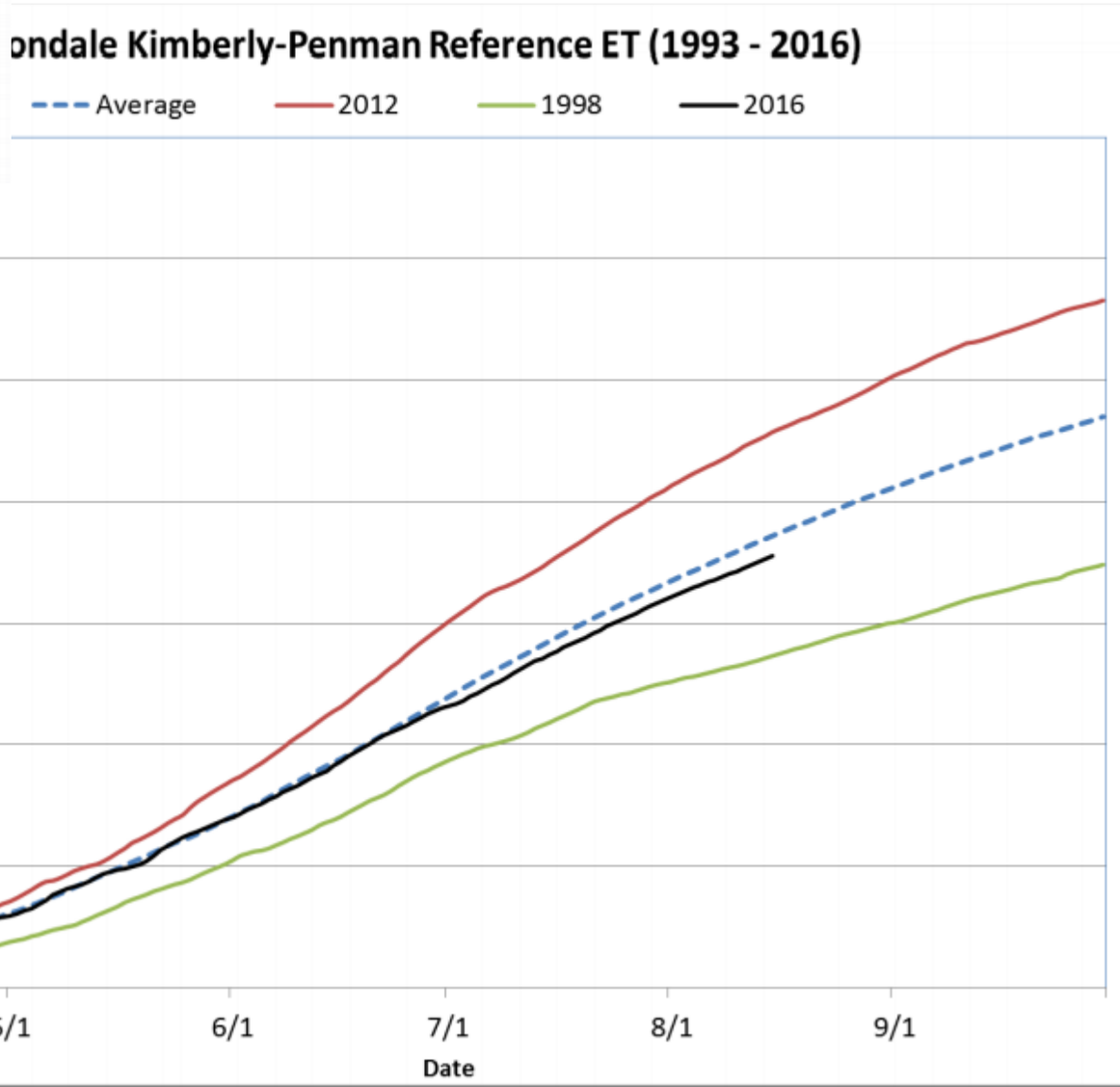
## Colorado December 2015 Precipitation as a Percentage of Normal




## Colorado, Average Temperature, December




Pueblo Memorial AP
Precipitation Accumulation
Current Accumulation
Normal Accumulation
-6.63”
Precipitation (in)
0
10
20
30
40
50
60
2012-01
2012-03
2012-05
2012-07
2012-09
2012-11
2013-01
2013-03
2013-05
2013-07
2013-09
2013-11
2014-01
2014-03
2014-05
2014-07
2014-09
2014-11
2015-01
2015-03
2015-05
2015-07
2015-09
2015-11
Date


ondale Kimberly-Penman Reference ET (1993 - 2016)
Average
2012
1998
2016
Kimberly-Penman Reference ET (in)
0
10
20
30
40
50
60
4/1
5/1
6/1
7/1
8/1
9/1
Date

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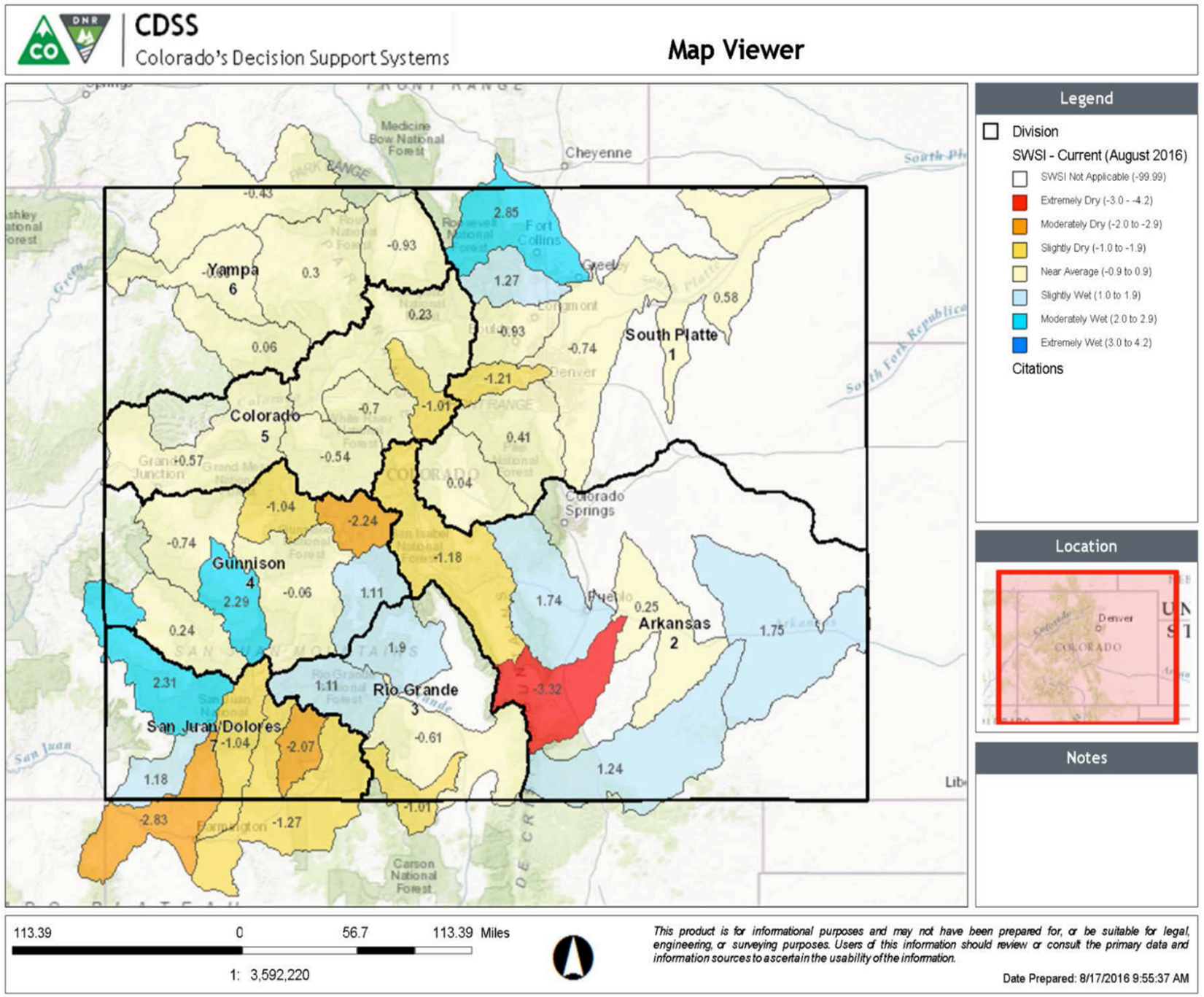
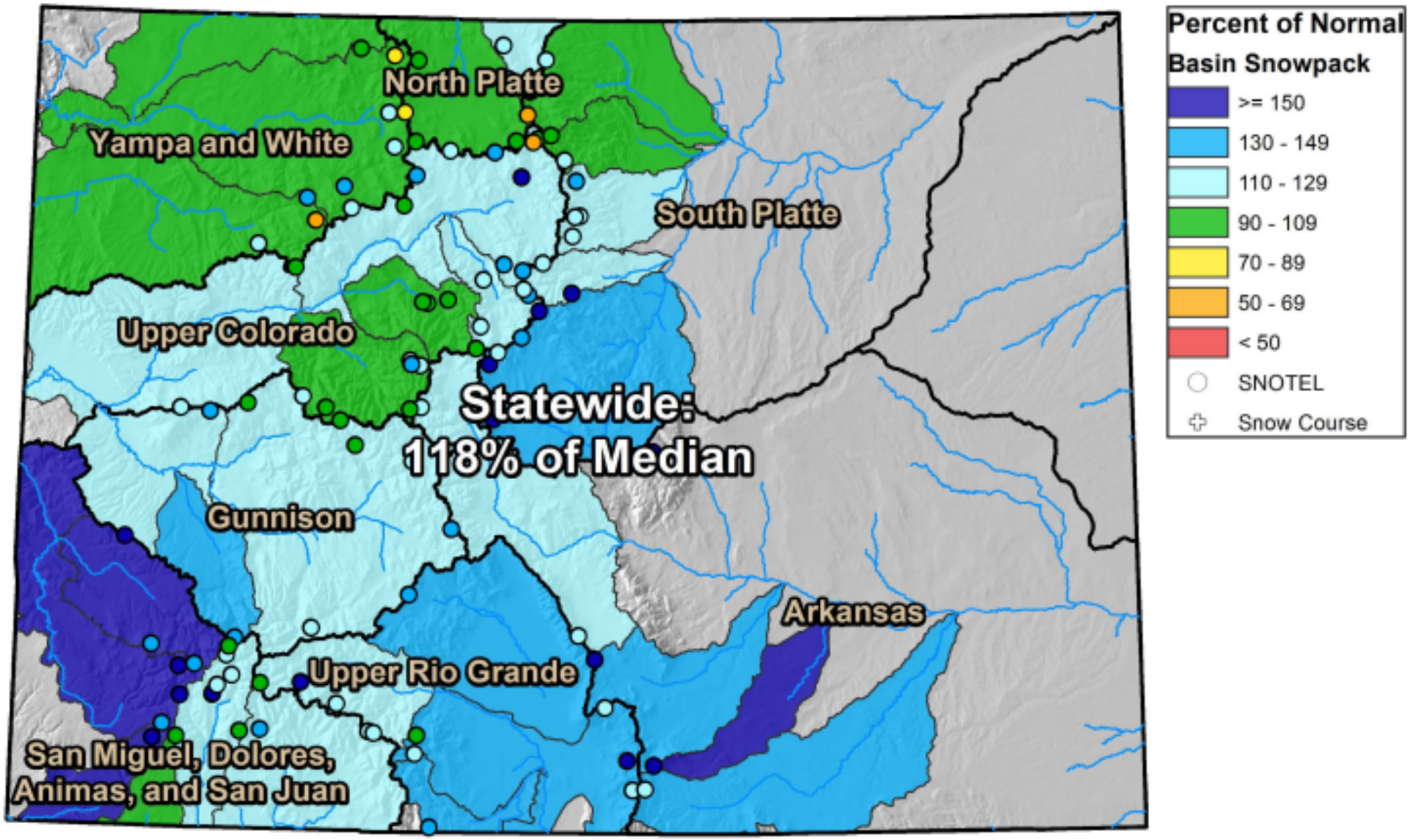
# *Surface Water Supply Index (SWSI)*



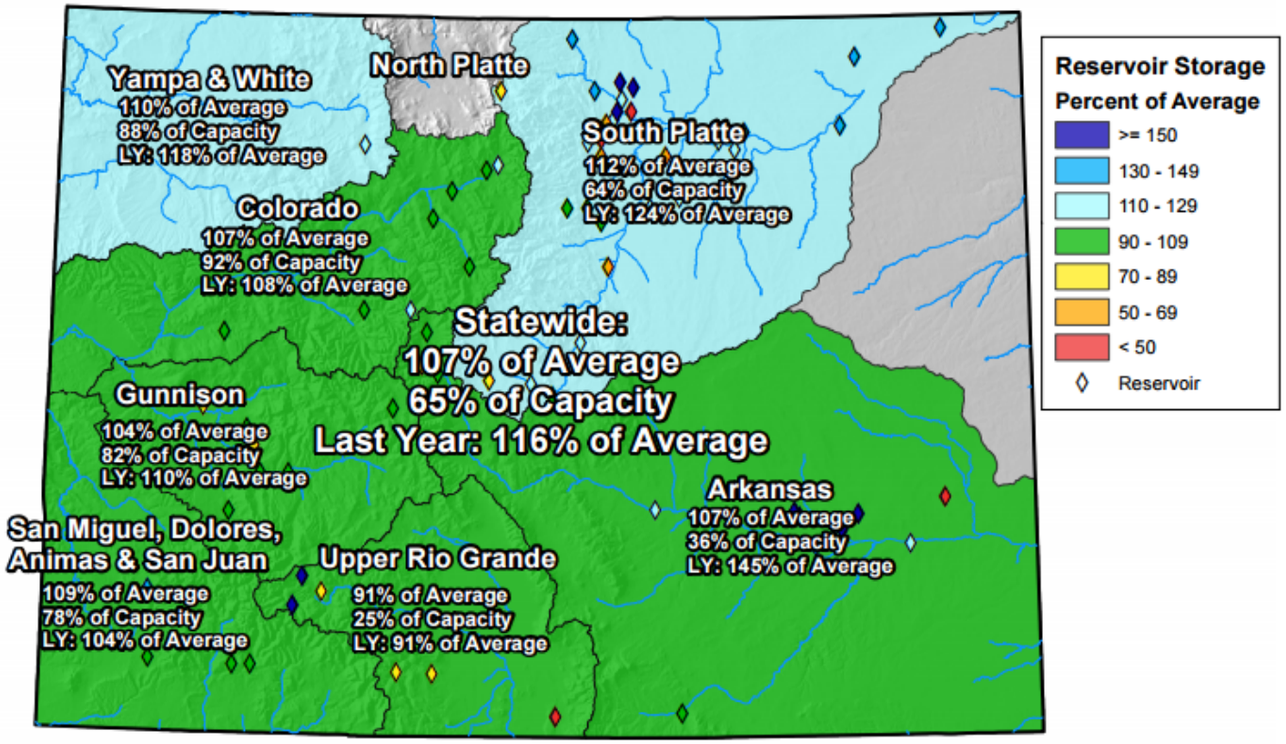
# Colorado Snowpack Summary
January 1, 2016




USDA United States Department of Agriculture
Natural Resources Conservation Service

# Colorado Monthly Reservoir Storage Summary

End of August 2016



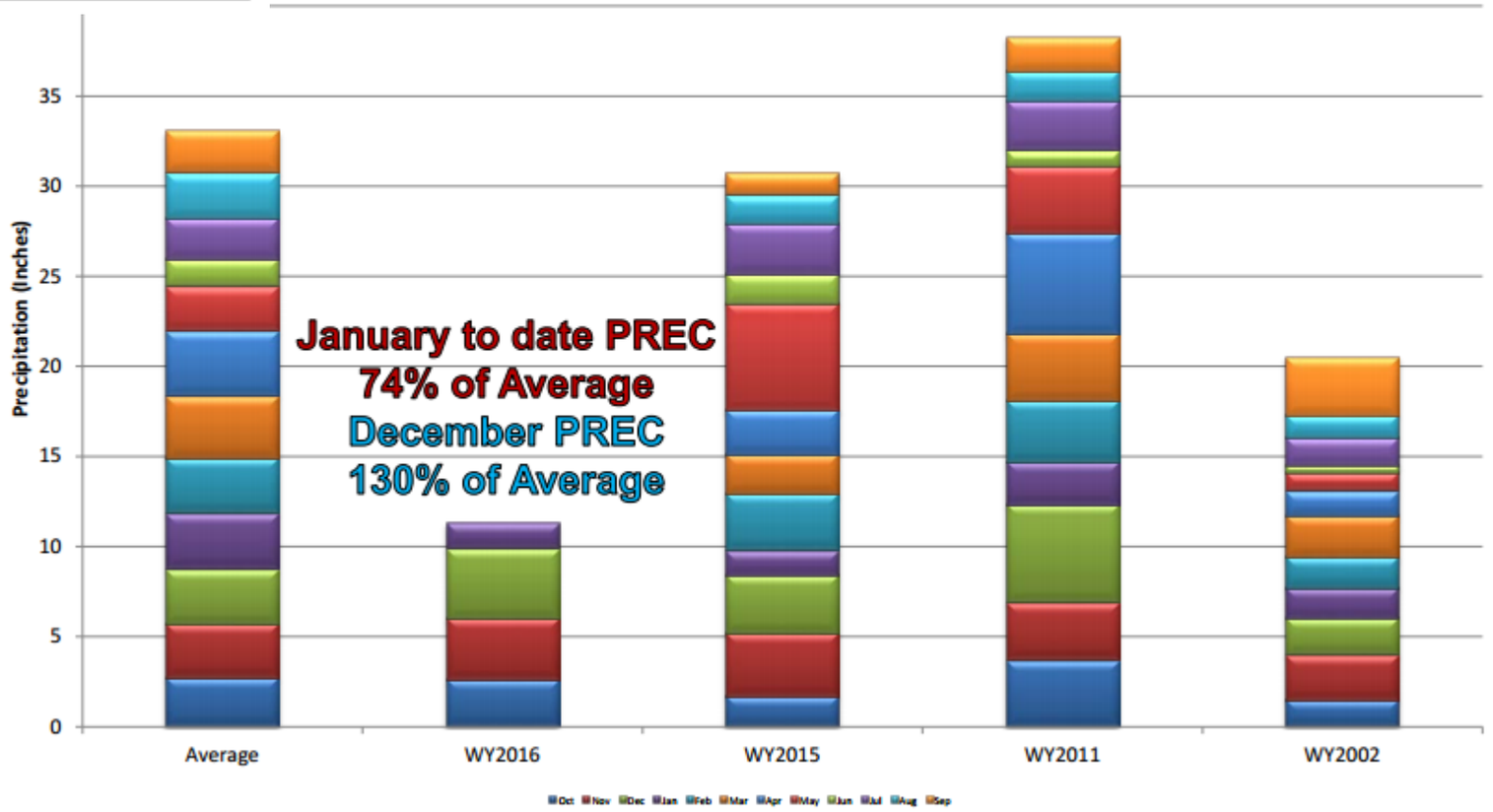

USDA United States Department of Agriculture

Natural Resources Conservation Service

## Colorado Statewide High/Low Monthly Precipitation Summary

*Based on Provisional SNOTEL data as of Jan 19, 2016*

NRCS Natural Resources Conservation Service

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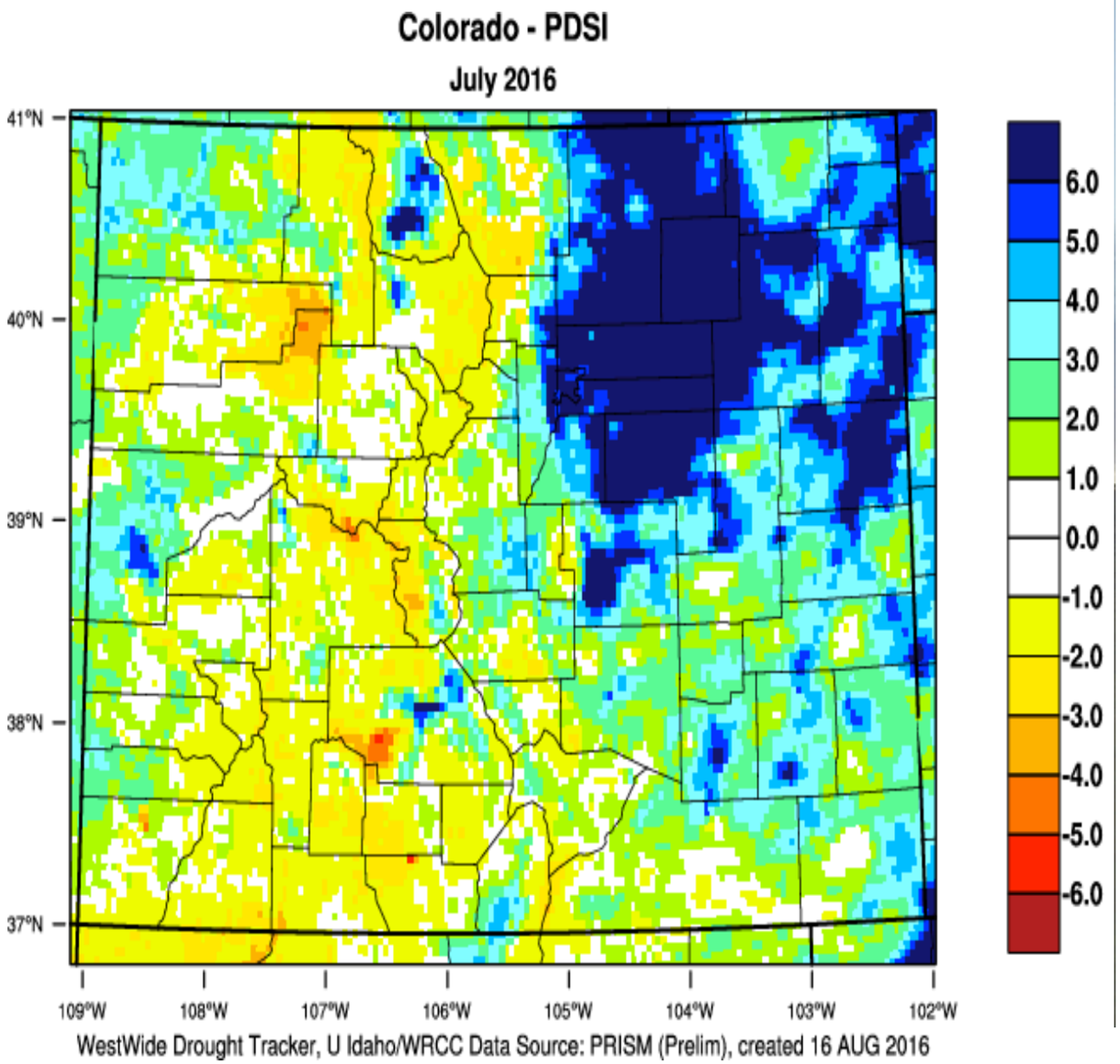
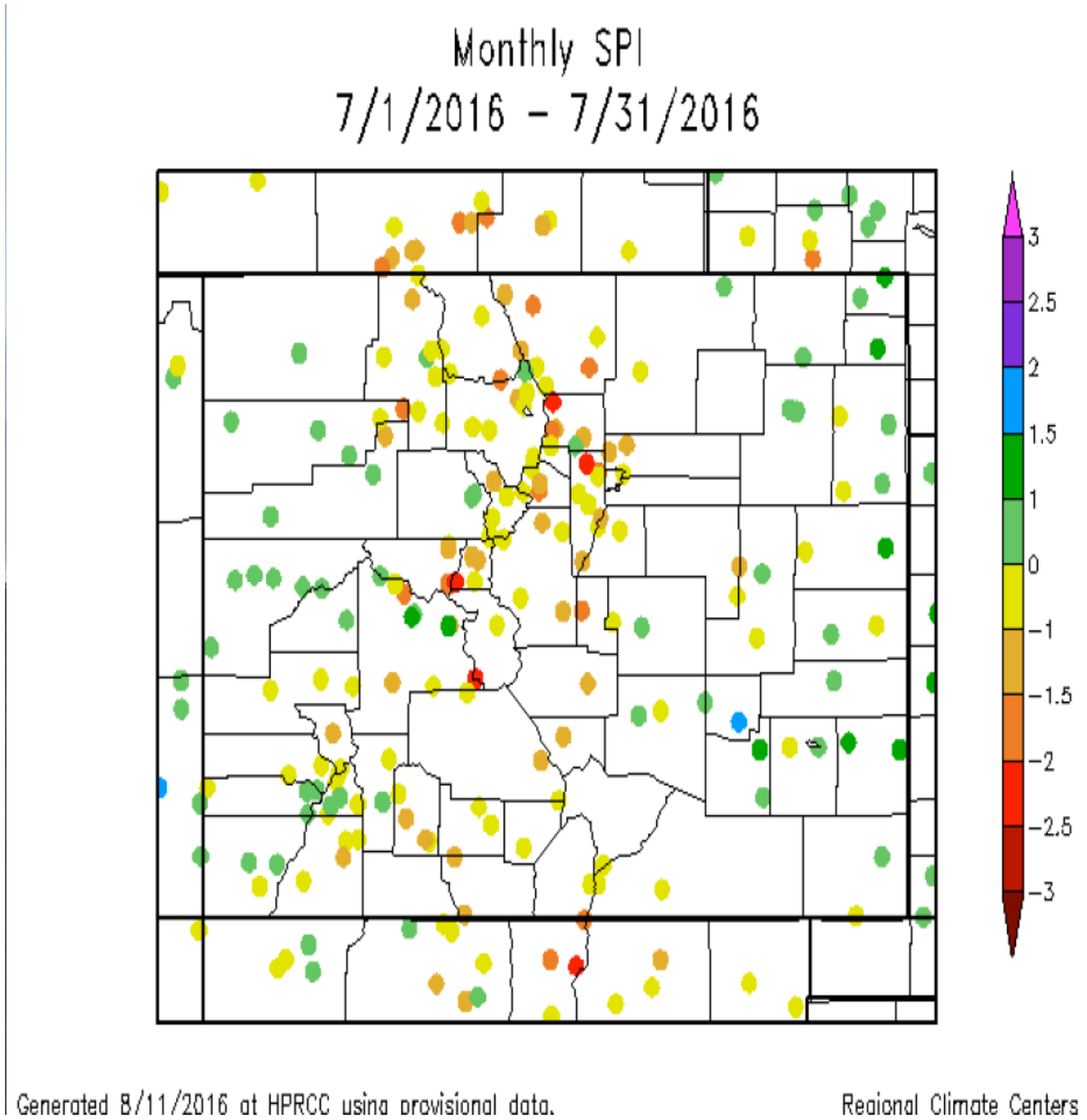
# *PDSI & SPI*

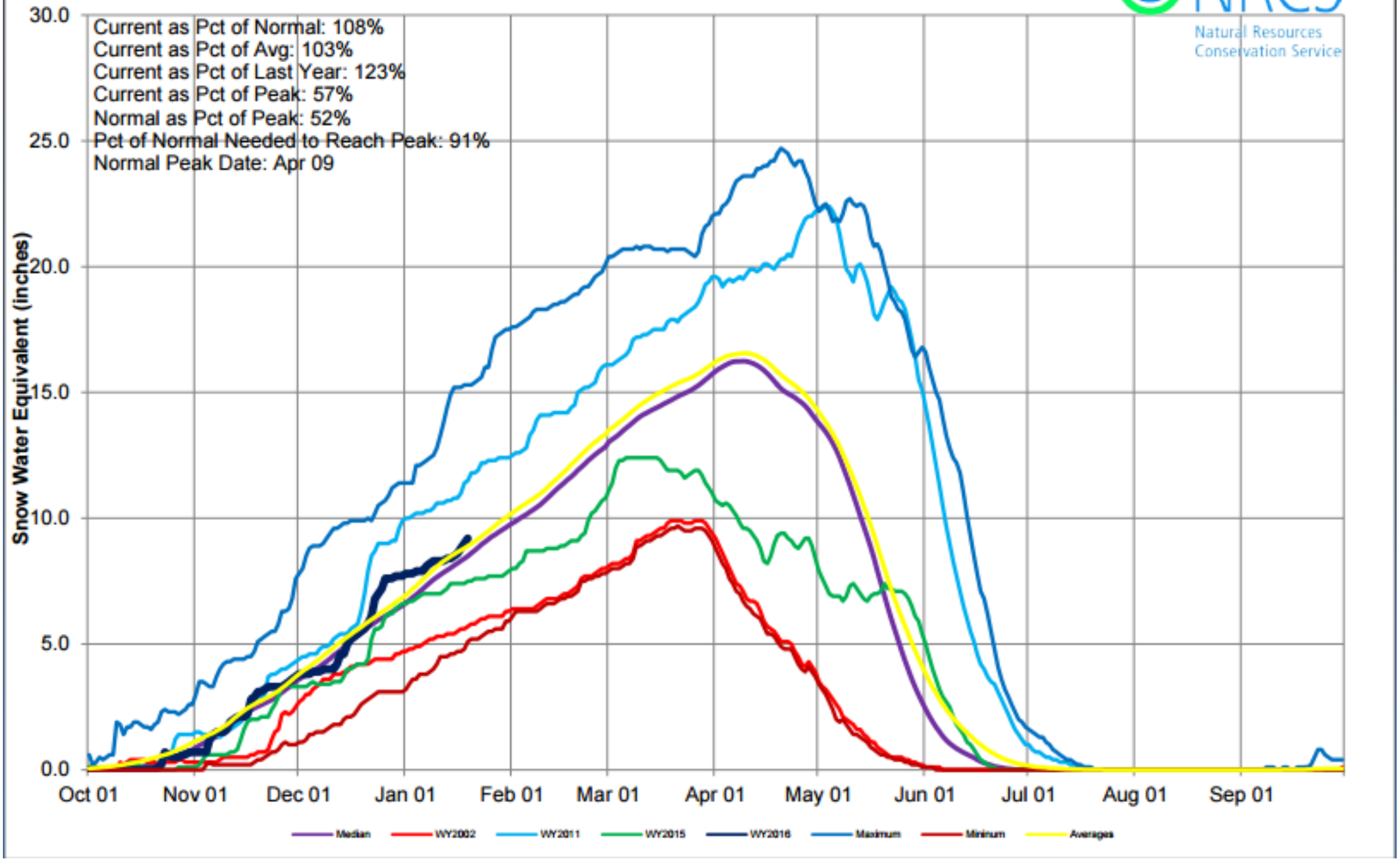

Colorado - PDSI
July 2016
41°N
40°N
39°N
38°N
37°N
109°W
108°W
107°W
106°W
105°W
104°W
103°W
102°W
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
-4.0
-5.0
-6.0
WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 AUG 2016


Monthly SPI
7/1/2016 - 7/31/2016
3
2.5
2
1.5
1
0
-1
-1.5
-2
-2.5
-3
Generated 8/11/2016 at HPRCC using provisional data.
Regional Climate Centers

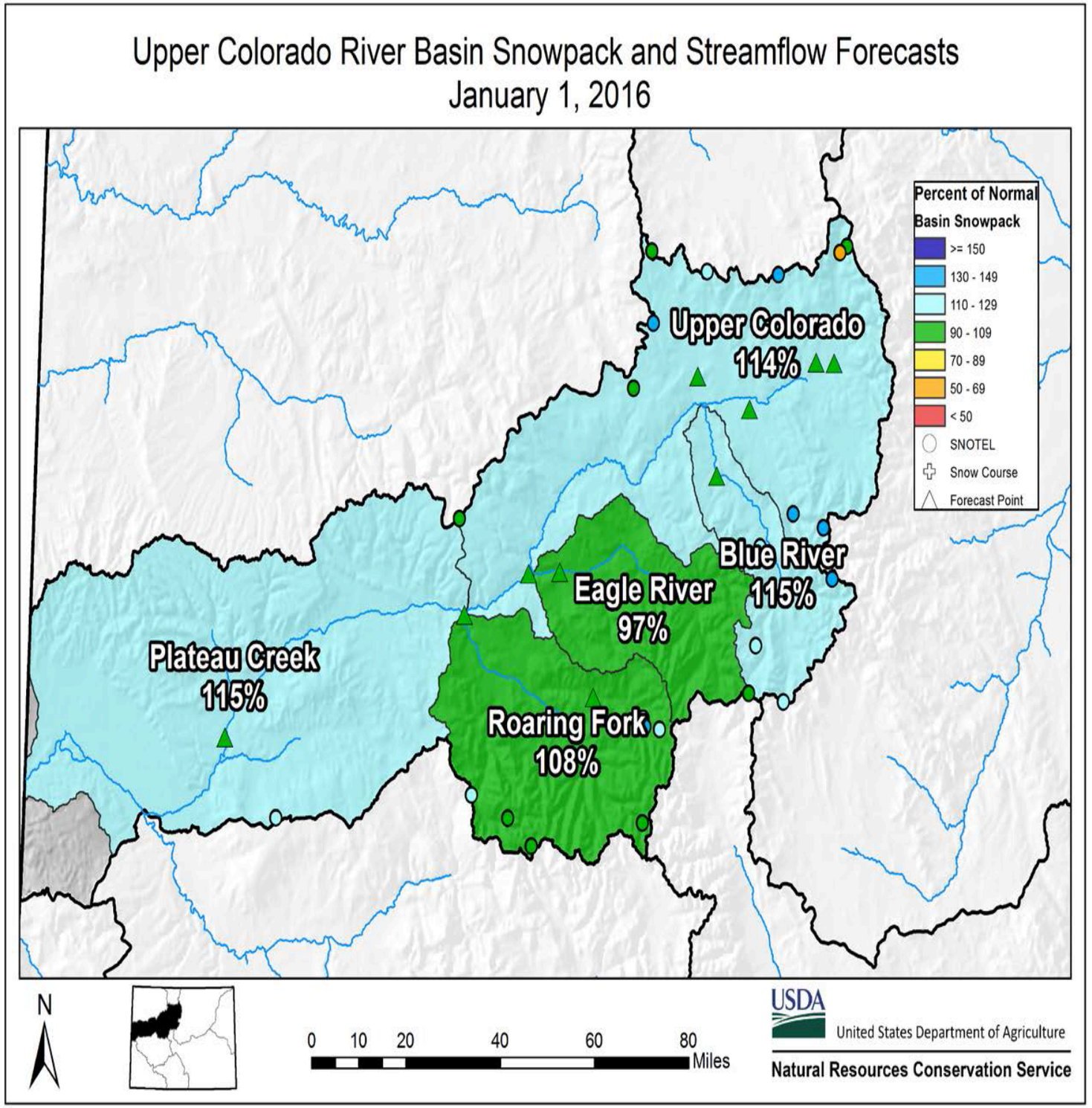
## Colorado Statewide High/Low Snowpack Summary

*Based on Provisional SNOTEL data as of Jan 19, 2016*

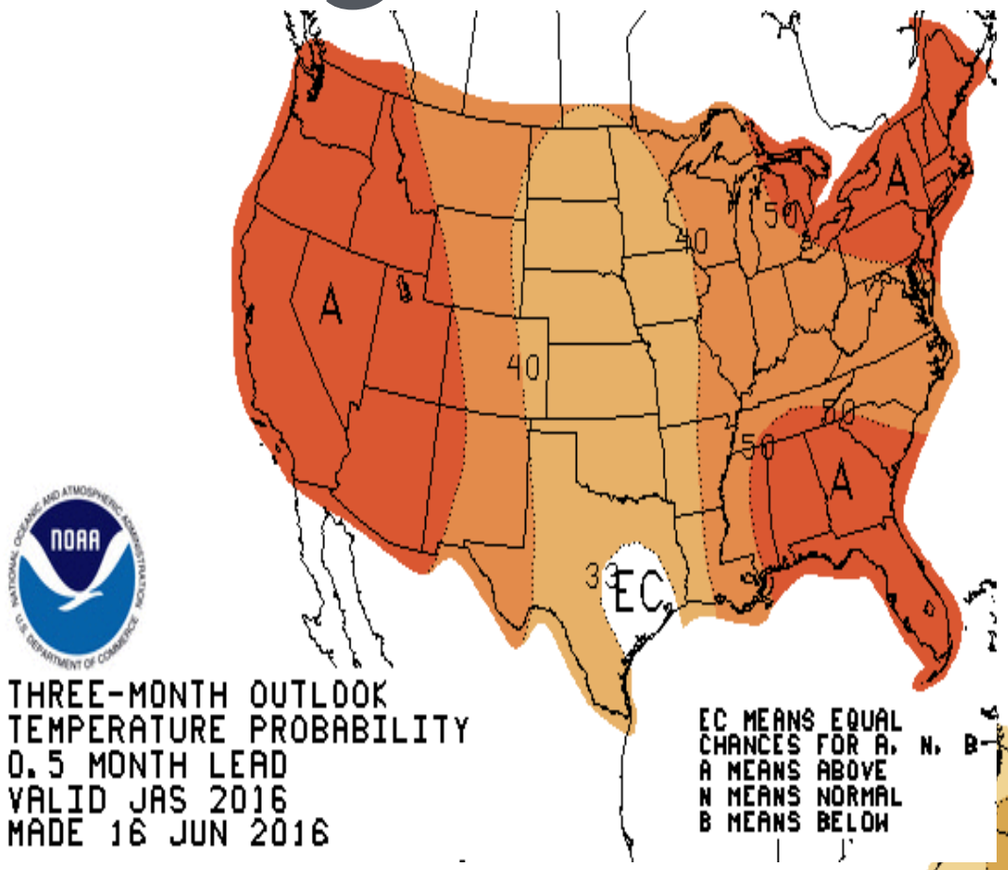
NRCS
Natural Resources Conservation Service



# *Forward Looking Indices – Short Term*

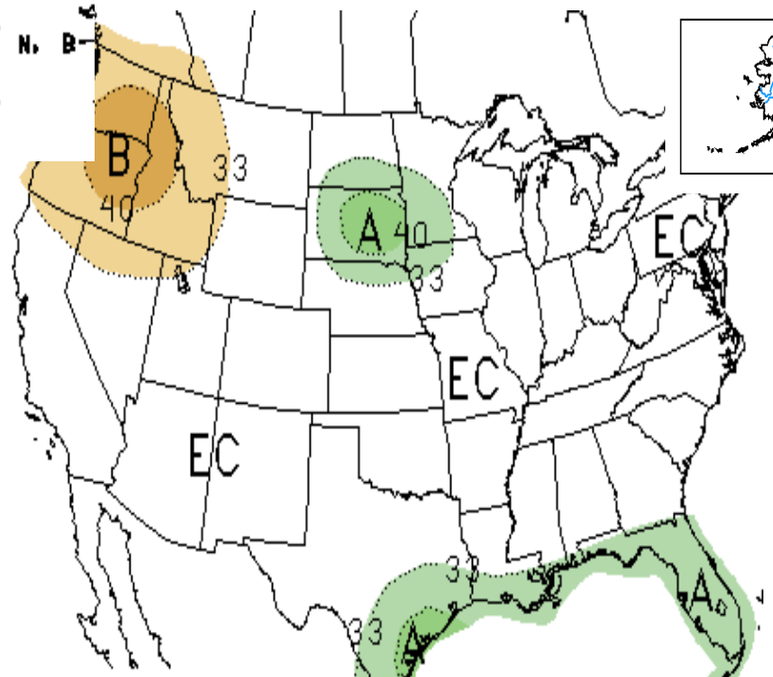


# Forward Looking Indices: Long Term Forecasting



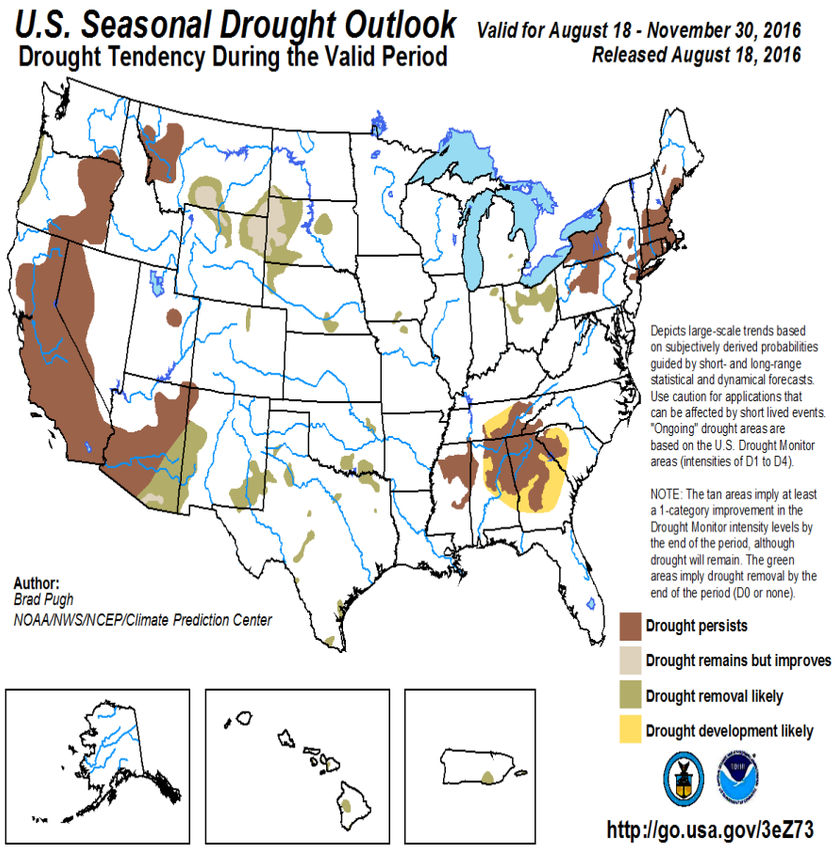

THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID JAS 2016
MADE 16 JUN 2016

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW




THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID JAS 2016
MADE 16 JUN 2016

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

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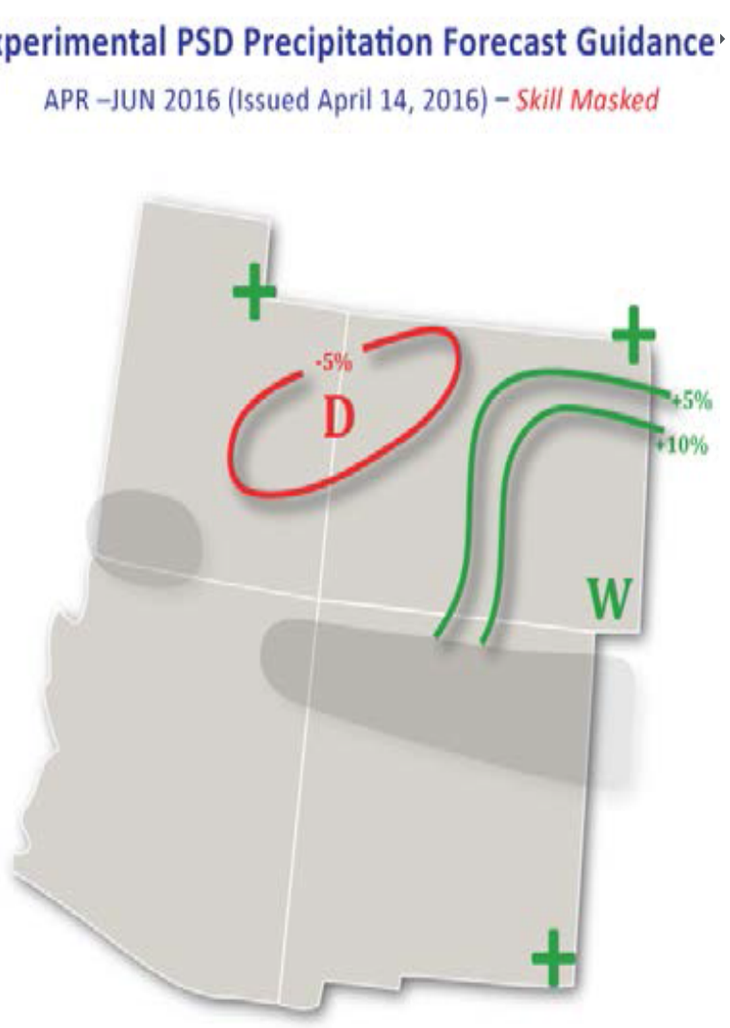
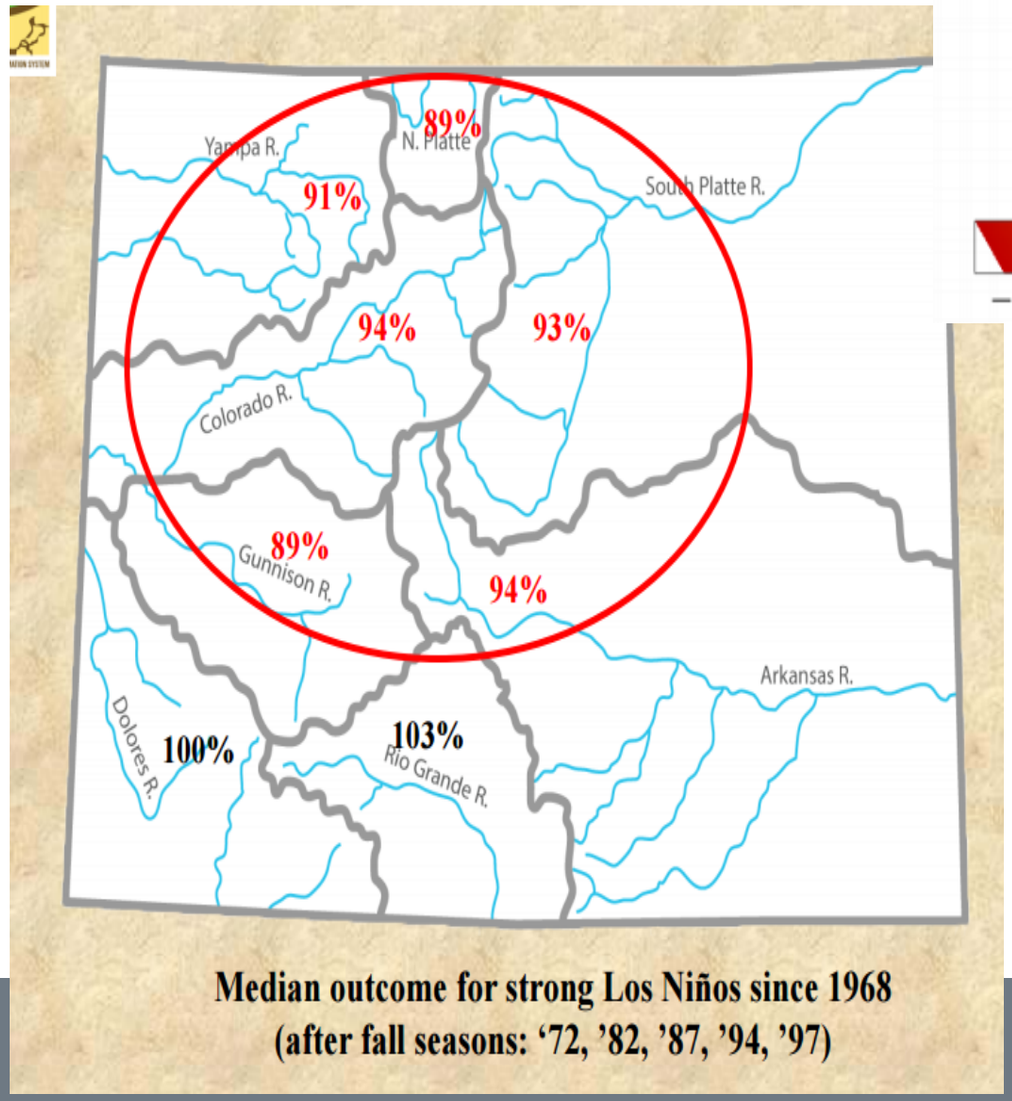
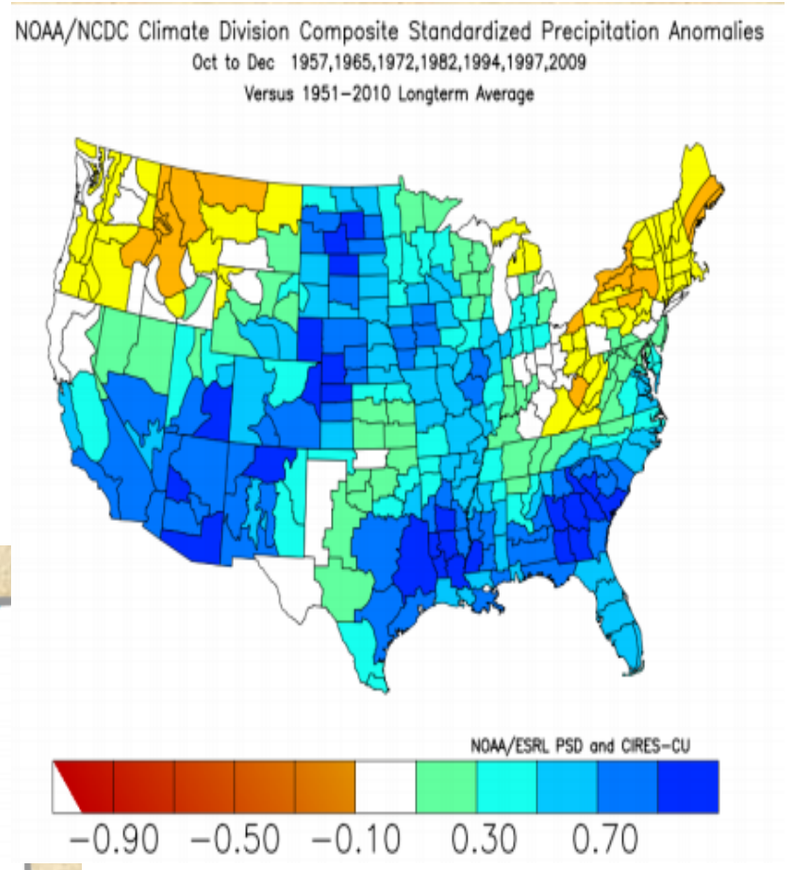
Department of Natural Resources

# Experimental Long Term

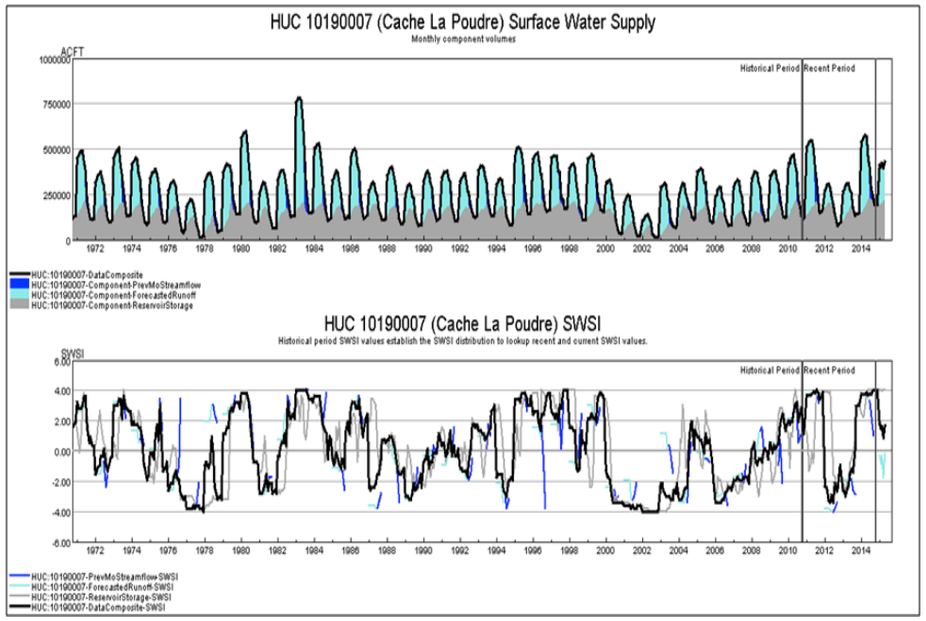


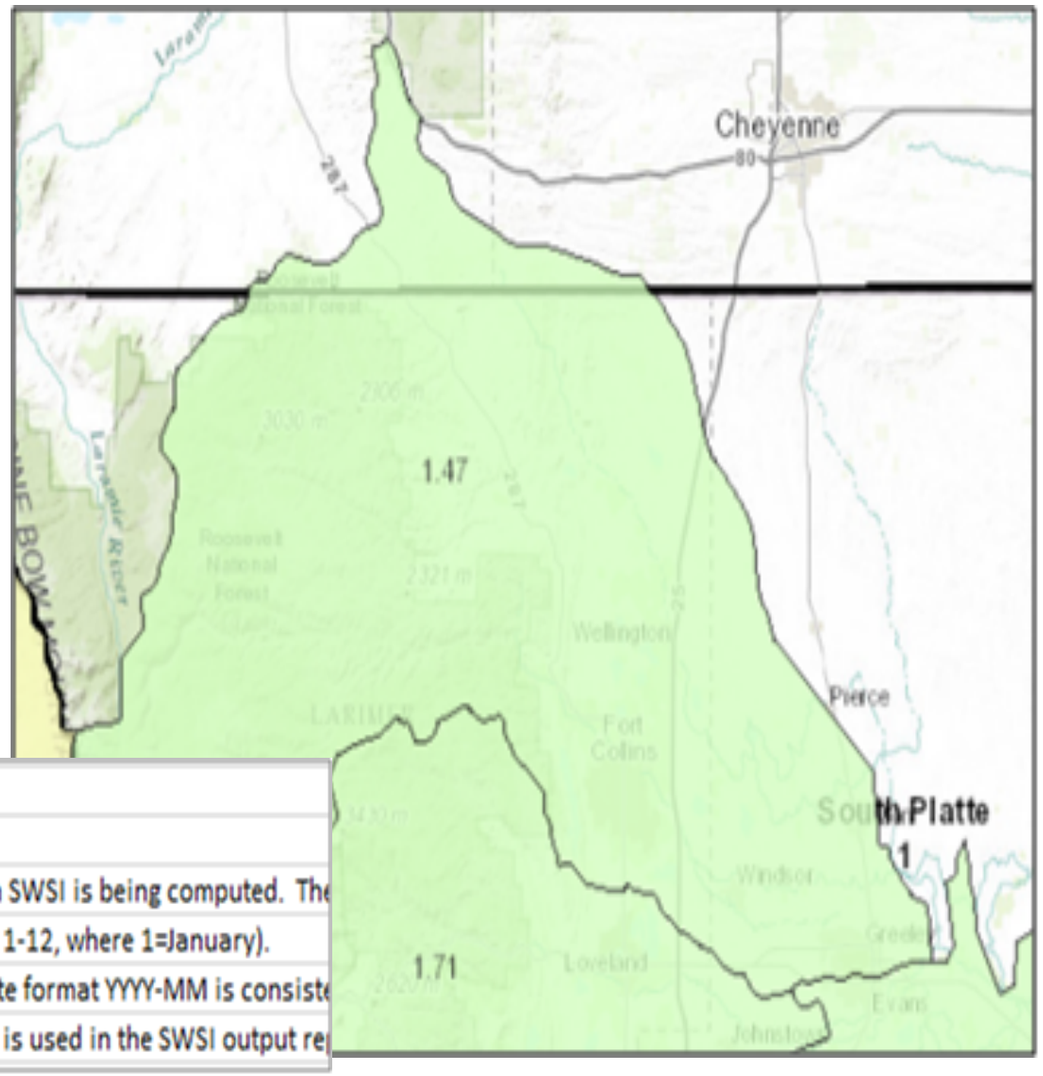

March 1 SWE forecast based on Fall El Nino Composites



# SWSI Automation Tool (2015)



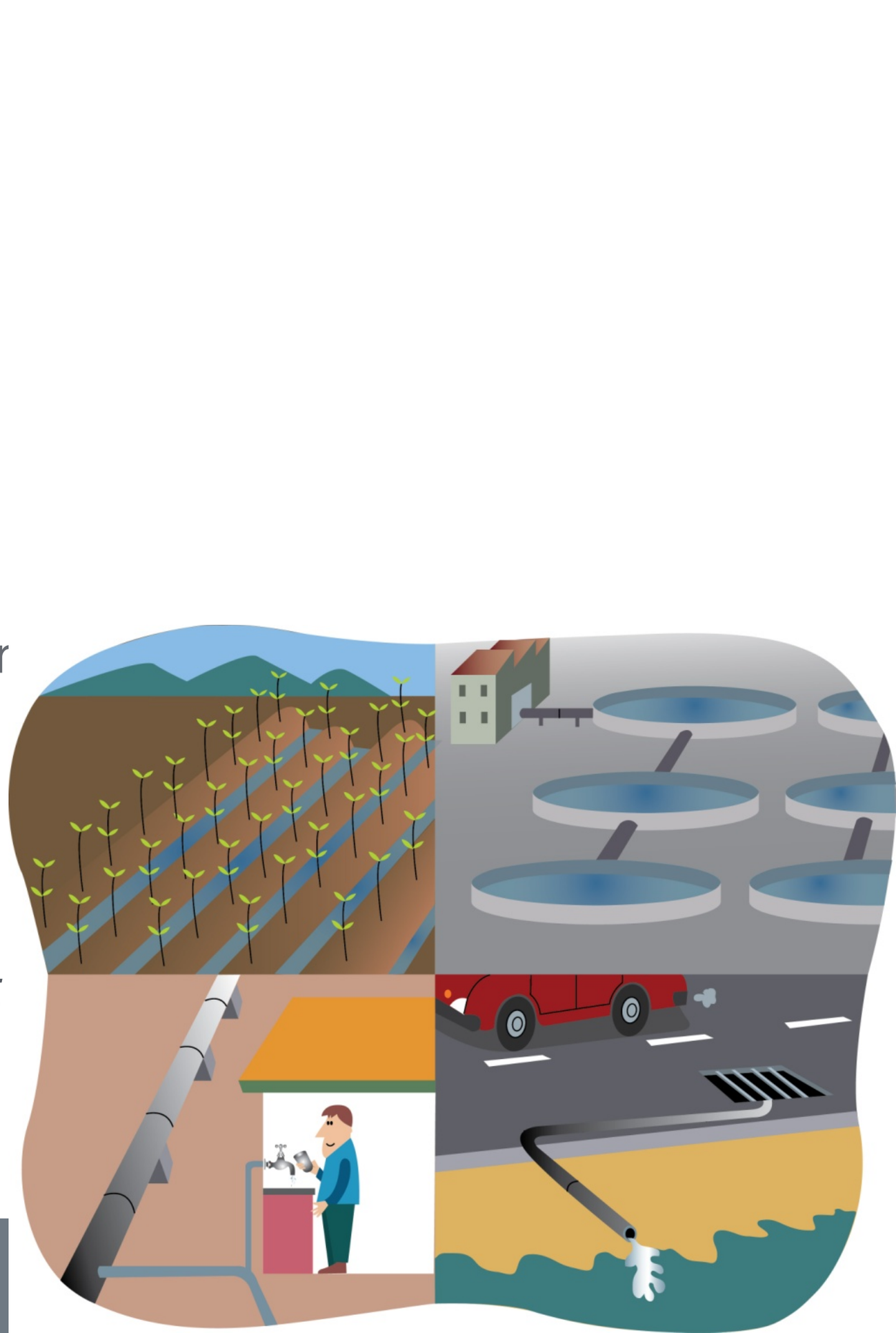

| TSTool Configuration Property Name | | Property Value | Property Value (Text) | Property Description |
|---|---|---|---|---|
| | | | | |
| CurrentMonthDate | = | 2015-09 | 2015-09 | Current month (as date) for which SWSI is being computed. The |
| CurrentMonth | = | 9 | 09 | Current month (as month number 1-12, where 1=January). |
| PreviousMonthDate | = | 2015-08 | 2015-08 | Previous month (as date). The date format YYYY-MM is consiste |
| PreviousYearMonthDate | = | 2014-09 | 2014-09 | Previous year (as date). This date is used in the SWSI output re |

| F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|
| Data Type | ID | Station Name | State | Datastore | Datastore ID | Datastore Source | Datastore Data Type |
| ForecastedNaturalFlow | 06707500 | SOUTH PLATTE RIVER AT SOUTH PLATTE | CO | NrcsAwdb | CO-06707500 | USGS | SRVO |
| ForecastedNaturalFlow | 06710385 | BEAR CREEK ABV EVERGREEN | CO | NrcsAwdb | CO-06710385 | USGS | SRVO |
| ForecastedNaturalFlow | 06719505 | CLEAR CREEK AT GOLDEN | CO | NrcsAwdb | CO-06719505 | USGS | SRVO |
| ForecastedNaturalFlow | 06724000 | SAINT VRAIN CREEK AT LYONS | CO | NrcsAwdb | CO-06724000 | USGS | SRVO |
| ForecastedNaturalFlow | 06727000 | BOULDER CREEK NEAR ORODELL | CO | NrcsAwdb | CO-06727000 | USGS | SRVO |
| ForecastedNaturalFlow | 06729500 | SOUTH BOULDER CK NR ELDORADO SPRINGS, CO | CO | NrcsAwdb | CO-06729500 | USGS | SRVO |
| ForecastedNaturalFlow | 06738000 | BIG THOMPSON R AT MOUTH, NR DRAKE, CO | CO | NrcsAwdb | CO-06738000 | USGS | SRVO |
| ForecastedNaturalFlow | 06752000 | CACHE LA POUDRE R AT CANYON MOUTH | CO | NrcsAwdb | CO-06752000 | USGS | SRVO |

# *Reports from:*

- ✓ Water providers
- ✓ Impact Task Forces
- ✓ The Gov's Water Policy Advisor
- ✓ Other Federal Partners

*During times of drought it is not uncommon for media to attend*



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# Questions?


## Taryn Finnessey

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taryn.finnessey@state.co.us


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