# El Paso County Cooperative Extension Meeting 

Nolan J. Doesken,
State Climatologist
Colorado Climate Center
Presented to El Paso County Ranchers, August 31, 2006.

Prepared by Odie Bliss

\section*{Where Have We Been？


v
u

## 

## 都 <br>  <br> 相

 <br> 相}$$
1
$$

$$
5
$$



 $\xrightarrow{-\mathrm{Pr}}$

$$
2
$$


ri s
2
，

## 

 $=$

2


1

－


t
．

## U.S. Drought Monitor for July 1

## 2006



## 2003

U.S. Drought Monitor July 1,2003


2005
U.S. Drought Monitor

June 28,2005


## 2002

U.S. Drought Monitor Julys. 2002


2004


## 2001

July 3, 2001 Vasid 8 a.m. EDT
U.S. Drought Monitor


## 48-month SPI graph

Fraction of Colorado in Drought

## Based on 48 month SPI

(1890 - June 2006)


## Colorado Springs Water Year Precipitation*

Colorado Springs Water Year Precipitation (Adjusted Values*) from 1893-2006


* Colorado Climate Center adjusted for station changes.


## Summary

- After generous moisture in 1980s and 1990s, drier than average conditions have been dominant since fall 1999.
- Above average temperatures have also prevailed since the mid 1990s.
- Recent drought episode has been severe (with respect to recent history) with some similarities to the droughts of the 1930s, 50s and 70s.


## Where Are We Now?



# NWS National Precipitation Analysis for Past 60 days 


http://www.sth.noaa.gov/ffcshare/precip analysis new.php

## Colorado Springs Accumulated Deficit

Colorado Springs Accumulated Precipitation Deficit


## Colorado Monthly Precipitation

Colorado Springs Monthly Precipitation vs. Average Precipitation


## El Paso County Average Precipitation

El Paso County Average Precipitation, 1971-2000


## El Paso County Precipitation

## El Paso County Precipitation



## Summary of Current Conditions

- Rainfall has been spotty, but generally above average in El Paso County and most of southern and Central Colorado since early July.
- Summer rains have been sufficient to bring substantial short-term drought relief to this area.


## What Comes Next?



## Pacific Sea Surface Temperature Projections



## Multivariate ENSO Forecast



Last updated 4 August 2006
http://www.ctc.noaa.gov/people/klaus.wolter/MEI/

## CPC Sep-Nov 06 Forecast

Temperature


## Precipitation



## CPC Dec 06-Feb 07 Forecast

Temperature


## Precipitation



# CPC Mar-May 07 Forecast 

Temperature


Precipitation


## CPC Jun-Aug 07 Forecast

Temperature


Precipitation


## Summary of Forecast Information

- Weak La Nina of recent months has given way to weak El Nino - probably a positive sign
- Very dry winters (like last winter) are more likely to be followed by a wetter winter
- Prediction of next spring and summer very "Iffy"
- Long range prediction for this area will almost always be "Iffy"
- Best to be thankful for recent rains, but anticipate more dry weather ahead


# Volunteers Wanted To Help Measure El Paso County Precipitation! 



## Join

## CoCoRaHS or RainCheck!


rain check.org
http://www.rain-check.org/index.html

## For More Information, Visit the CoCoRaHS Web Site

## http://www.cocorahs.org

Support for this project provided by Informal Science Education Program, National Science Foundation and
many local charter sponsors.

# Colorado Climate Center Colorado State University 

- Data and Power Point Presentations available for downloading
- http://ccc.atmos.colostate.edu
click on "Drought"
then click on "Presentations"


