How we got into this drought!
Fort Collins Total Water Year Precipitation (Oct-Sep)
Fraction of Colorado in Drought
Based on 3-month SPI
Through 1999
Fraction of Colorado in Drought Based on 48-month SPI

Through 1999
Water Year 1999
Precipitation Percent of Average for 1961-1990 Averages
Water Year 2000
Precipitation Percent of Average for 1961-1990 Averages

Precip % of Average
Water Year 2001
(Oct. 2000 - Sept. 2001)
Precipitation Percent of Average for 1961-1990 Averages
Water Year 2002
Precipitation Percent of Average for 1961-1990 Averages
Statewide Reservoir Levels for Colorado

Reservoir Storage

Provisional Data Provided by NRCS
Colorado Statewide Annual Temperatures through 2002

From NOAA, National Climatic Data Center
Summer Temperatures
Fort Collins, 1889-2002
Where do we stand now?
Oct 2002 - Jan 2003 Precipitation as percent of average
Temperature - Water Year 2003

![Graph showing temperature departures from average for different regions throughout the year for Eastern Plains, Foothills, Mountains, and Western Valleys.]
Water Year 2003

UPPER SAN JUAN SNOTEL

UPPER SAN JUAN SNOTEL for Water Year 2003

*** Provisional Data, Subject to Change ***

The graph shows the accumulation of precipitation (Precip) and snow water equivalent (SWE) from October 1 to September 30 for Water Year 2003. The data is provisional and subject to change.
Water Year 2003

HOOSIER PASS SNOTEL

HOOSIER PASS SNOTEL for Water Year 2003

*** Provisional Data, Subject to Change ***
Water Year 2003

JOE WRIGHT SNOTEL

JOE WRIGHT SNOTEL for Water Year 2003

*** Provisional Data, Subject to Change ***
Snowpack
February 1, 2003

Statewide: 71% of Average
121% of Last Year

Legend:
- > 150% of Average
- 130 - 150% of Average
- 110 - 129% of Average
- 90 - 109% of Average
- 70 - 89% of Average
- 50 - 69% of Average
- < 50% of Average
- Not Surveyed

Major Basin Boundary
Watershed Boundary
Grand Lake 1 NW
2003 Water Year
(through October '02-January '03)

Accumulated Precipitation (Inches)

- 30 Year Averages-1971-2000
- Max Year - 1984
- Min Year - 2002
- Period of Record Average - 1941 - 2002
- 2003 Water Year Accumulated

Months

Accumulated Precipitation (Inches)

OCT  NOV  DEC  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP
Akron 4E
2003 Water Year
(through October '02-January'03)

- 30 Year Averages-1971-2000
- Max Year - 1915
- Min Year - 1966
- Period of Record Average - 1906 - 2002
- 2003 Water Year Accumulated

Accumulated Precipitation (Inches)
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://drought.unl.edu/dm

U.S. Drought Monitor

February 11, 2003

Valid 7 a.m. EST

Released Thursday, February 13, 2003

Author: Mark Svoboda, NDMC
What May Be Ahead in 2003
Monthly Average Precipitation for Selected Sites in the South Platte Basin
A few storms contribute a large fraction of annual precipitation while many small events contribute a small fraction.
Greeley Daily Accumulated Precipitation

Accumulated Daily  
1999  
2000  
2001  
2002

Day

Precipitation (inches)
What Happens Next

- We have never experienced 2 consecutive extreme statewide drought years.
- Past multi-year drought, characterized by one extreme year preceded and followed by other dry year.
- Entire State rarely all recovers quickly and at the same time.
- *Hope for the best, plan for the worst!!*
Greeley, Colorado
Monthly Accumulated Precipitation for Water Year 2003
vs. 30-year Averages (1971-2000).
Positive Indicators

- Late winter snows
- Cool spring
- Multi-day precipitation
- Low intensity rainfall
- Light winds
- High humidity
- Abundant cloud cover
Negative Indicators

- Little late winter snow
- Missed opportunities
- Warm spring
- Brief, sporadic precipitation
- High intensity rainfall
- Frequent, strong winds
- Low humidity
- Abundant sunshine
Current Indicators

- El Niño still present
- Unfavorable Pacific decadal oscillation
- Missed opportunities
- February not a good indicator
- Wet often follows dry
- Most extreme dry periods last one year (Exceptions: SE CO)
Temperature
March-May 2003

From the Colorado Prediction Center
Precipitation
March-May 2003

From the Colorado Prediction Center
Temperature
June-Aug 2003

From the Colorado Prediction Center
Precipitation
June-Aug 2003

From the Colorado Prediction Center
Breaking This Drought Will Be Tough

- A wet spring is essential to begin that process.
COAGMET
Weather Data for Agriculture

- Automated weather stations with daily and hourly readings of:
  - Temperature
  - Humidity
  - Wind
  - Precipitation
  - Solar energy
  - Evapotranspiration

http://www.COAGMET.com
Colorado Climate Magazine

- Good bedtime reading about the climate of Colorado -- recent and historic
- $15/year subscription pays printing and mailing costs
Volunteers of all ages helping scientists study storms. The exploration begins in your back yard!

The Community Collaborative Rain and Hail Study (CoCoRaHS) needs you! Everyone can participate, both young and old. The only requirements are an enthusiasm for watching and reporting weather conditions and a desire to learn about the power and beauty of our natural world.

CoCoRaHS needs your help!

To register as an observer, please visit out web site at:

http://www.cocorahs.com

Funding for CoCoRaHS provided by:

Colorado Climate Center, Department of Atmospheric Science
Colorado State University, Ft. Collins, CO 80523-1371
Phone: 970-491-8545  FAX: 970-491-8649
CoCo RaHS
YOU CAN HELP!

http://www.cocorahs.com
Colorado Climate Center
Colorado State University

- Data and Power Point Presentations available for downloading

http://climate.atmos.colostate.edu
  click on “Drought”
  then click on “Presentations”