

# Drought is “Cuckoo for CoCoRaHS”



Drought Monitoring: How CoCoRaHS is helping

## MEASURE PRECIPITATION IN YOUR BACKYARD VOLUNTEER OBSERVERS NEEDED !



[www.cocorahs.org](http://www.cocorahs.org)

Join thousands around the nation  
Five minutes a day!  
It's easy and fun!  
All ages welcome  
No experience necessary  
Sign-up today!

**CoCoRaHS:**  
Volunteers of all ages and  
backgrounds measuring  
precipitation with 4" plastic rain  
gauges right in their own  
backyards



## WANTED!

**VOLUNTEERS OF ALL AGES  
TO HELP SCIENTISTS STUDY STORMS**

*The exploration begins in your back yard with CoCoRaHS!*

The **Community Collaborative Rain, Hail and Snow Network (CoCoRaHS)** needs you! Everyone can participate, both young, old, and in-between. The only requirements are an enthusiasm for watching and reporting weather conditions and a desire to learn more about how weather can affect and impact our lives.

**CoCoRaHS needs your help !**



To learn more or to become a volunteer  
observer, please visit our web site at:

[www.cocorahs.org](http://www.cocorahs.org)

Funding for  
CoCoRaHS  
provided by:



# The 4" CoCoRaHS Gauge



Holds a total of eleven inches

# CoCoRaHS "Daily" 24 Hour Precipitation Reports

**My Data Entry : Daily Precipitation Report Form**

**Precipitation Report Form**

Station Number : CO-LR-610  
 Station Name : Fort Collins 3.5 SW

\* Denotes Required Field

9/24/2009 \*Observation Date  
 7:00 AM \*Observation Time

0.74 \*Rain and Melted Snow to the nearest hundredth inch that has  
 gauge during the past 24 hours

Yes  No Report was taken at registered location?

Observation Notes: (This will be available to the public)  
 Heavy rain off and on thru 10AM. Lots of Lightning!

**New Snowfall**

NA Accumulation of new snow in inches to the nearest tenth

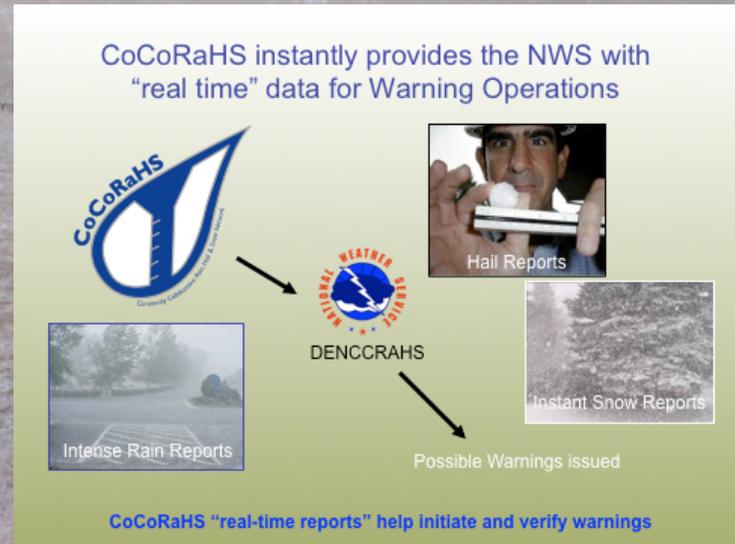
**Maps : Daily Precipitation**

Total Snow an: NA

Map Location: Colorado, Date: 9/24/2009, Colors: Standard

0.0 Trace 0.01-0.05 0.06-0.10 0.11-0.20 0.27-0.60 0.64-0.96 0.98-1.06

# CoCoRaHS "Real Time" Intense Precipitation Reports



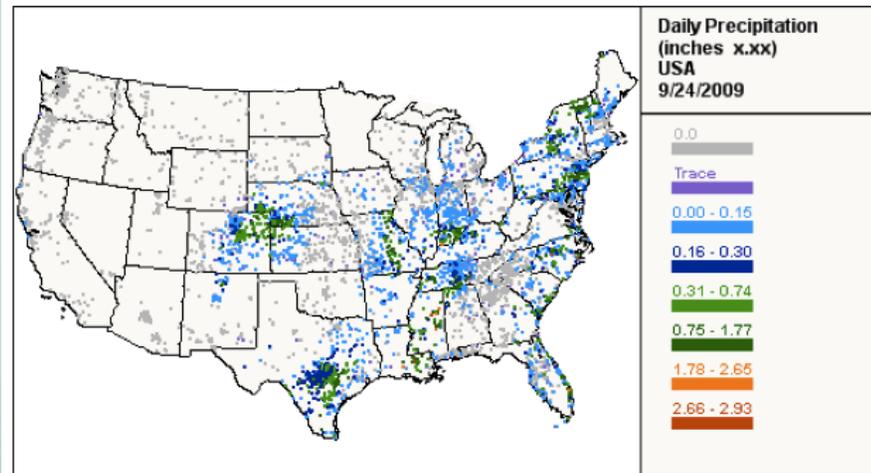
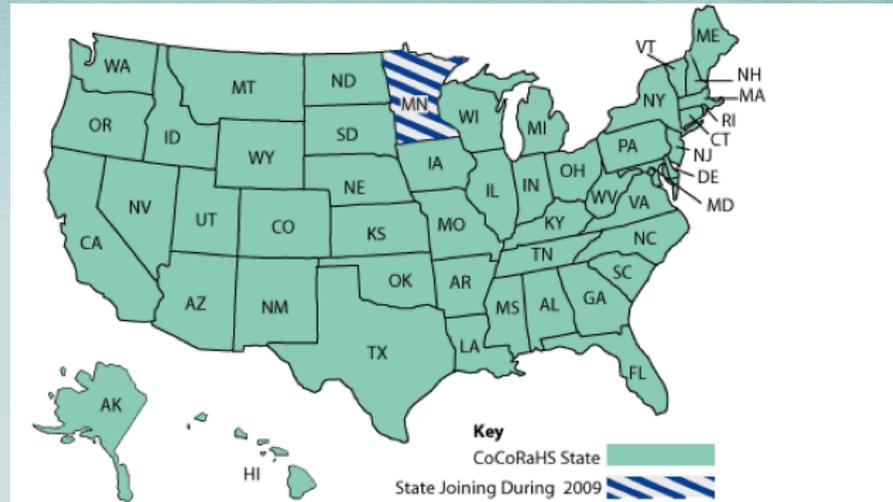
# CoCoRaHS across the country

14,000+ observers

All 50 states with the  
addition of Minnesota



**COCORAHS  
MINNESOTA  
COMING SOON!**



OCTOBER 8, 2009

# COCORAHS

## DROUGHT

### South Texas in D3

*Recent September rains in Central and South Texas have helped the year long drought . .*

**Page 2**

### Heavy Rain in Georgia

*Torrential rains in Northeast Georgia have caused major flooding over the past two weeks*

**Page 3**

### CoCoRaHS Data

*CoCoRaHS Volunteers continue to see their observations used by the National Weather Service*

**Page 3**

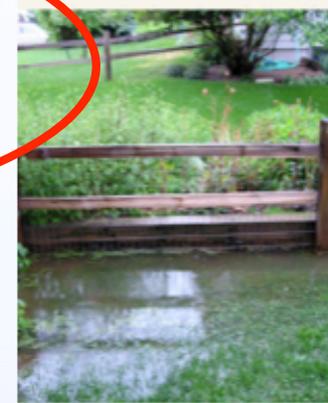
### Phoenix and Arizona

*In it's first month in Arizona citizens have set a record as they sign up to be observers in this*

**Page 4**

## COCORAHS HELPS US TRACK WHERE DROUGHT IS EASING AND WHERE IT IS DEVELOPING . . .

CoCoRaHS is proving to be a terrific vehicle for tracking drought across the United States. With over 14,000 volunteers armed with backyard rain gauges, citizens are playing a valuable role with their daily measurements and comments regarding drought impacts in their states.

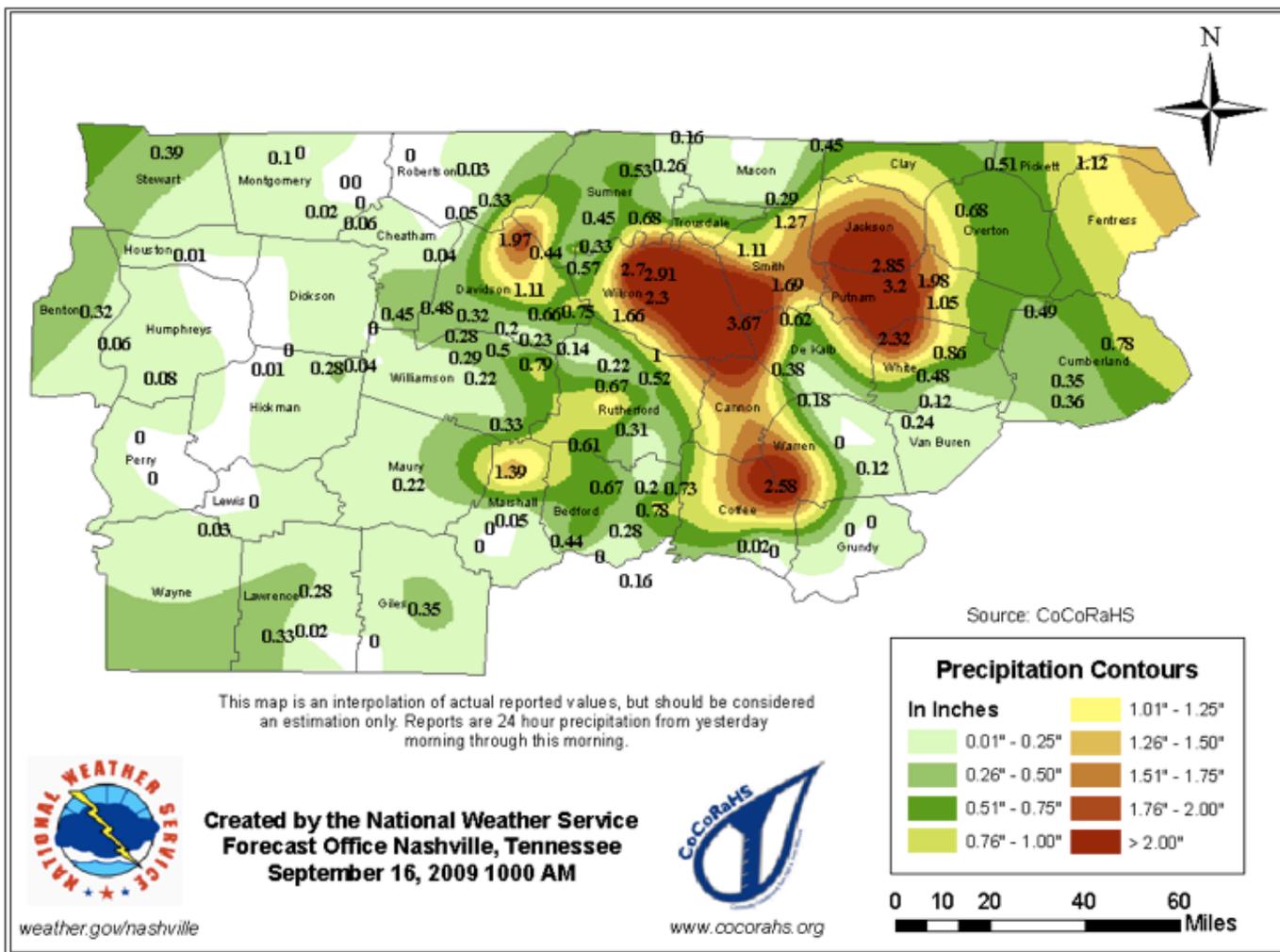


Adiam sedimentum



CoCoRaHS and Drought Easement

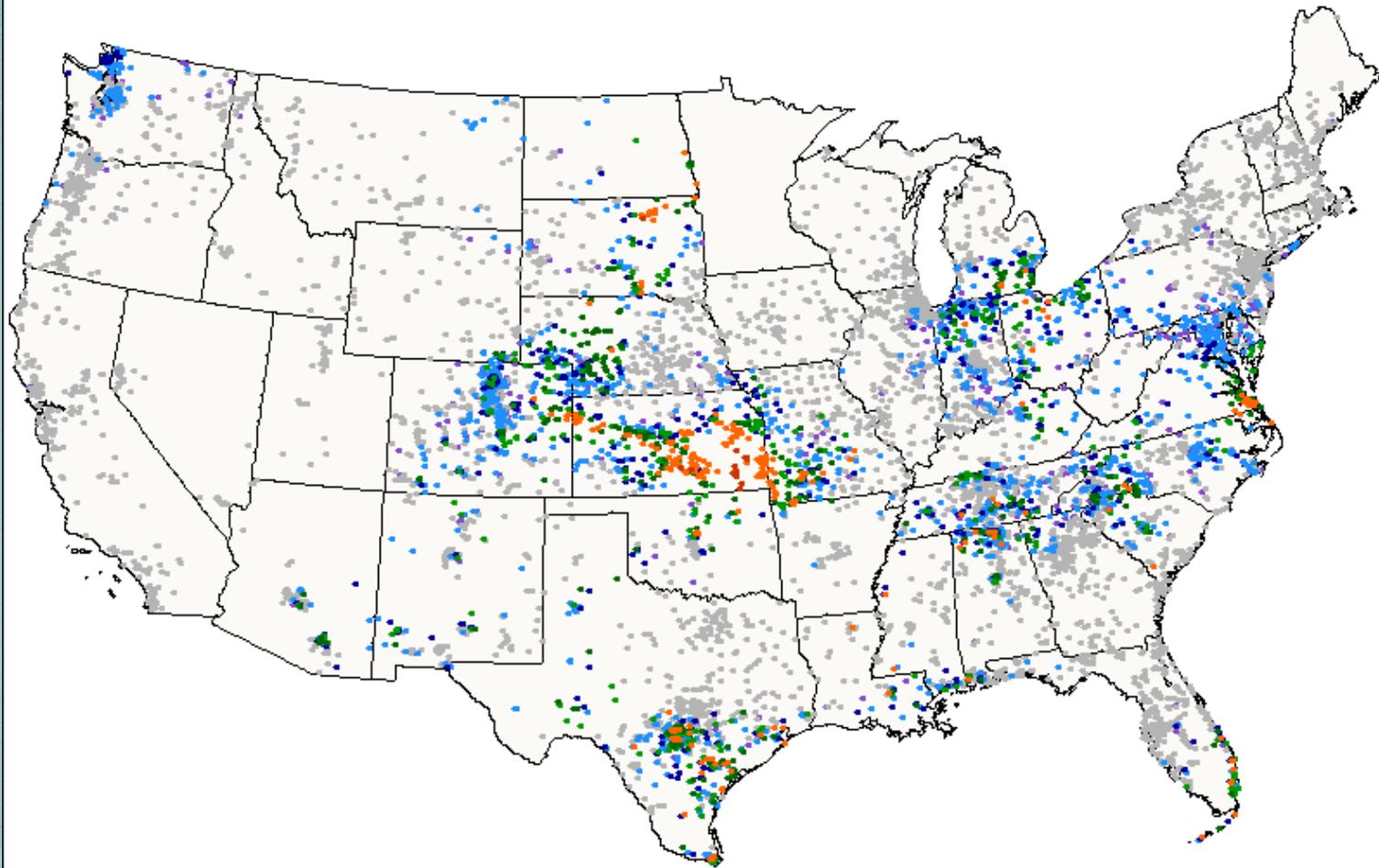
## 24 Hour Rainfall Through This Morning



Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am

USA 9/9/2009

0.0 Trace 0.01 - 0.10 0.11 - 0.25 0.26 - 0.50 0.51 - 1.00 1.01 - 4.00 4.01 - 16.00

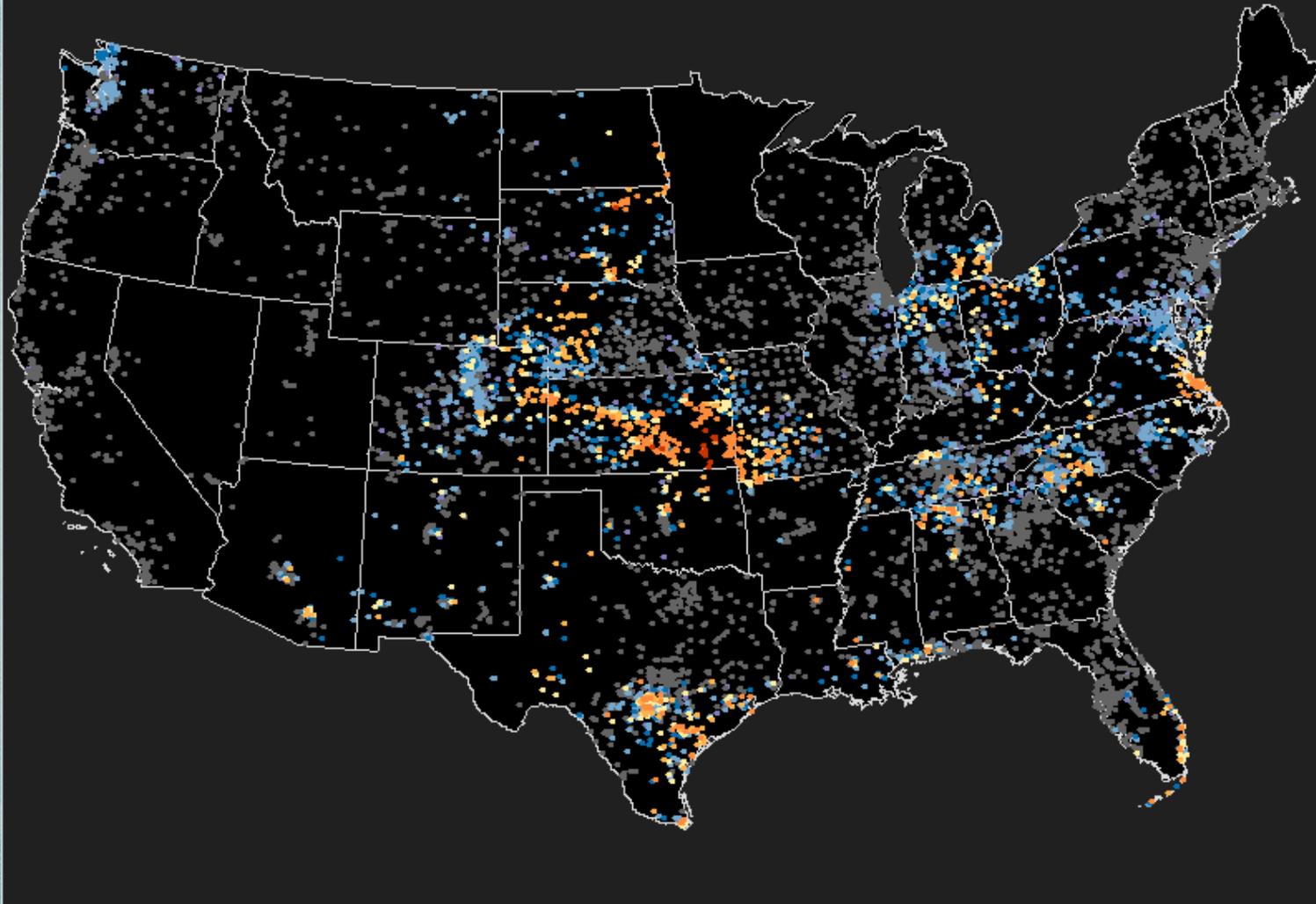


Two weeks across the nation – September 9-23, 2009

Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am

USA 9/9/2009

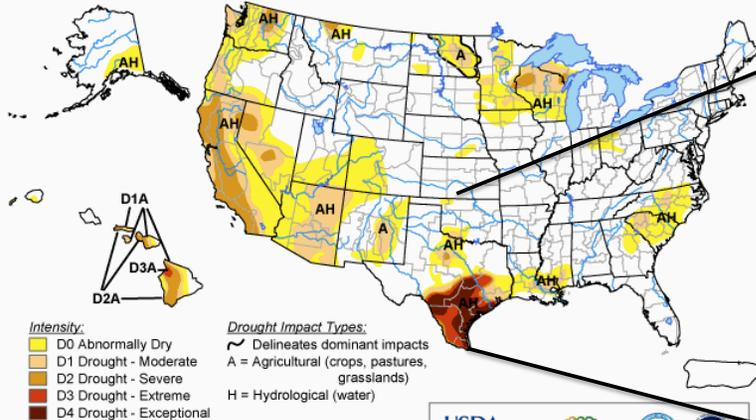
0.0 Trace 0.01 - 0.10 0.11 - 0.25 0.26 - 0.50 0.51 - 1.00 1.01 - 4.00 4.01 - 16.00



Two weeks across the nation – September 9-23, 2009

# U.S. Drought Monitor

September 8, 2009  
Valid 8 a.m. EDT

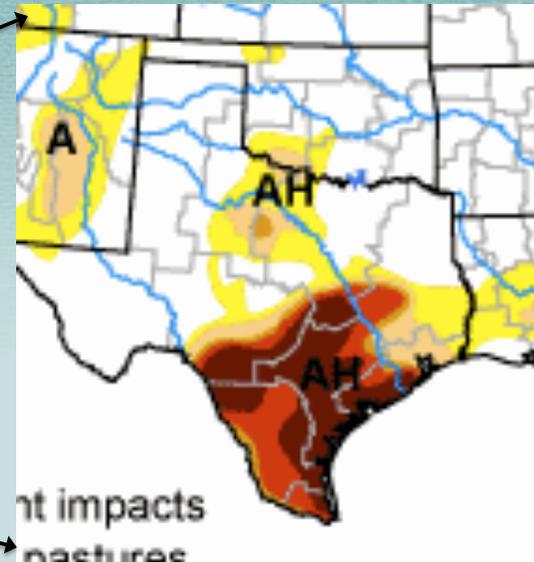


The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



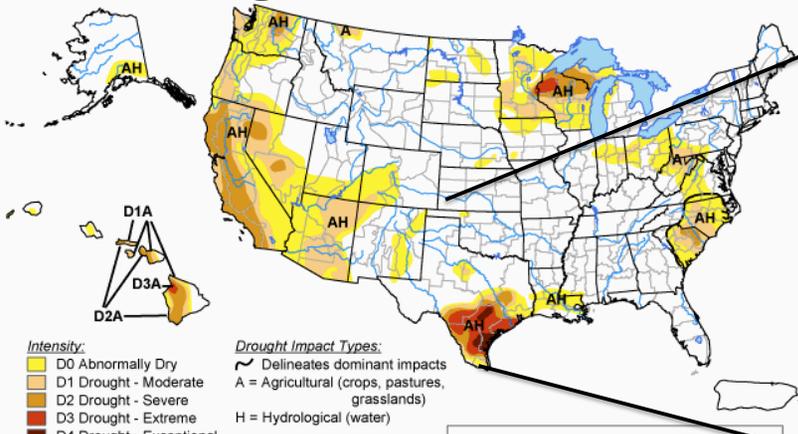
Released Thursday, September 10, 2009  
Author: Rich Tinker, CPC/NCEP/NWS/NOAA



nt impacts  
pastures

# U.S. Drought Monitor

September 22, 2009  
Valid 8 a.m. EDT

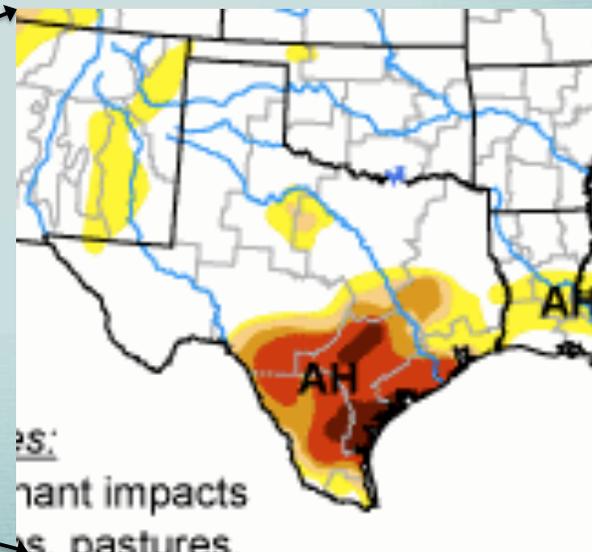


The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>

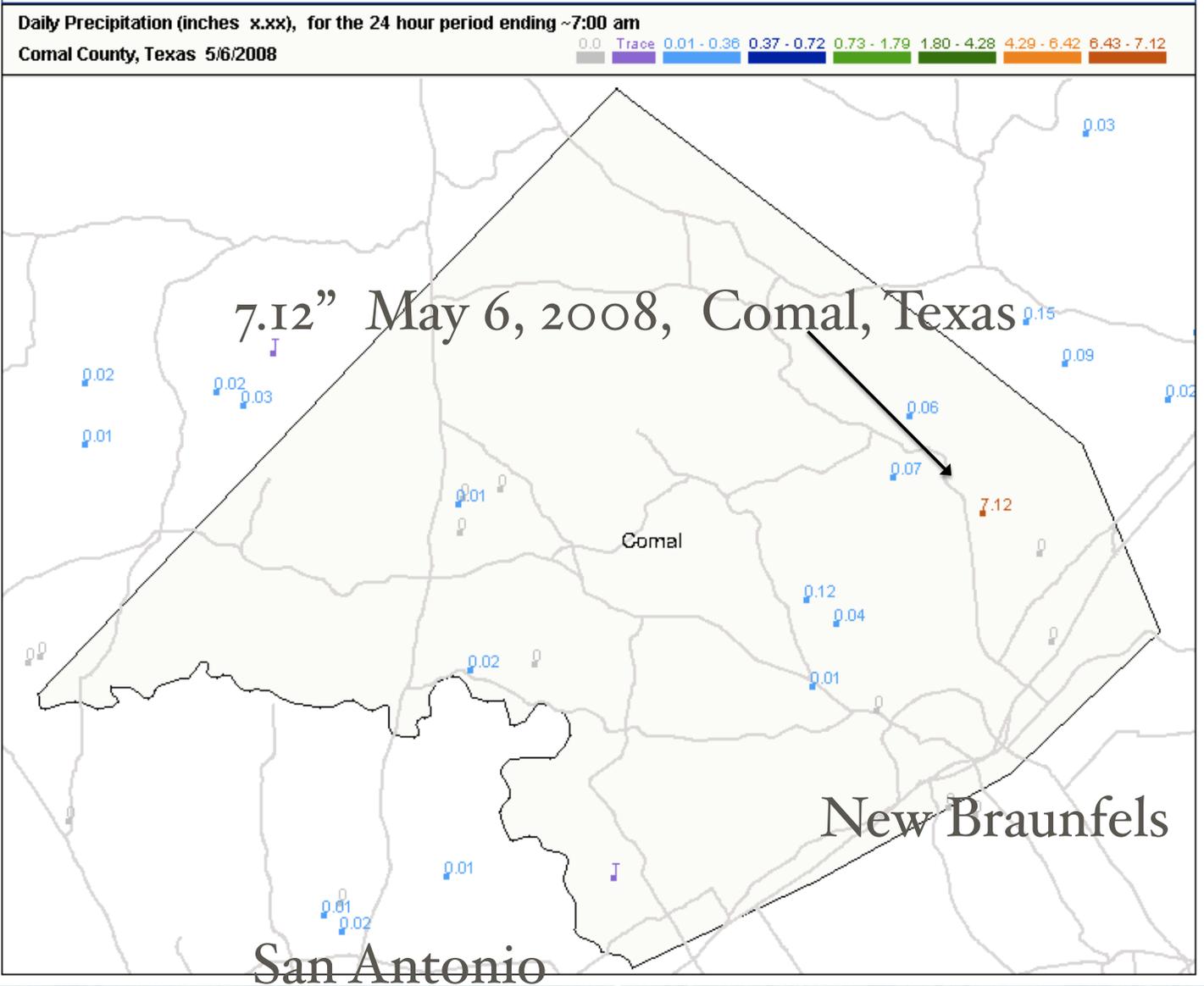


Released Thursday, September 24, 2009  
Author: David Miskus, JAWF/CPC/NOAA



S:  
nant impacts  
as pastures.

Thanks a high density of observers in many areas CoCoRaHS can pick up a storm that other gauges may have missed



# How about CoCoRaHS and the onset of drought?



# CoCoRaHS is helping the nation to identify the onset of drought

MONTHLY NEWSLETTER

VOL. 7

## DROUGHT FINDER

*Call us if it's DROUGHT you are looking for!*

OCTOBER 2009  
FT. COLLINS, CO

### Rain Wanted

**Monday**



**Crops Wither**  
A Kansas farmer's corn crop has withered away and he will now sell the stalks for broom handles at the local coop.

**Tuesday**

**Ponds are Empty**  
Nisi rhoncus turpis est, vel elit, congue wisi enim nunc ultricies sit, magna tincidunt. Maecenas aliquam maecenas.

**Wednesday**



**Watering Rationed**  
All use of water to wash cars and water lawns was given the



Lack of Precipitation = Drought

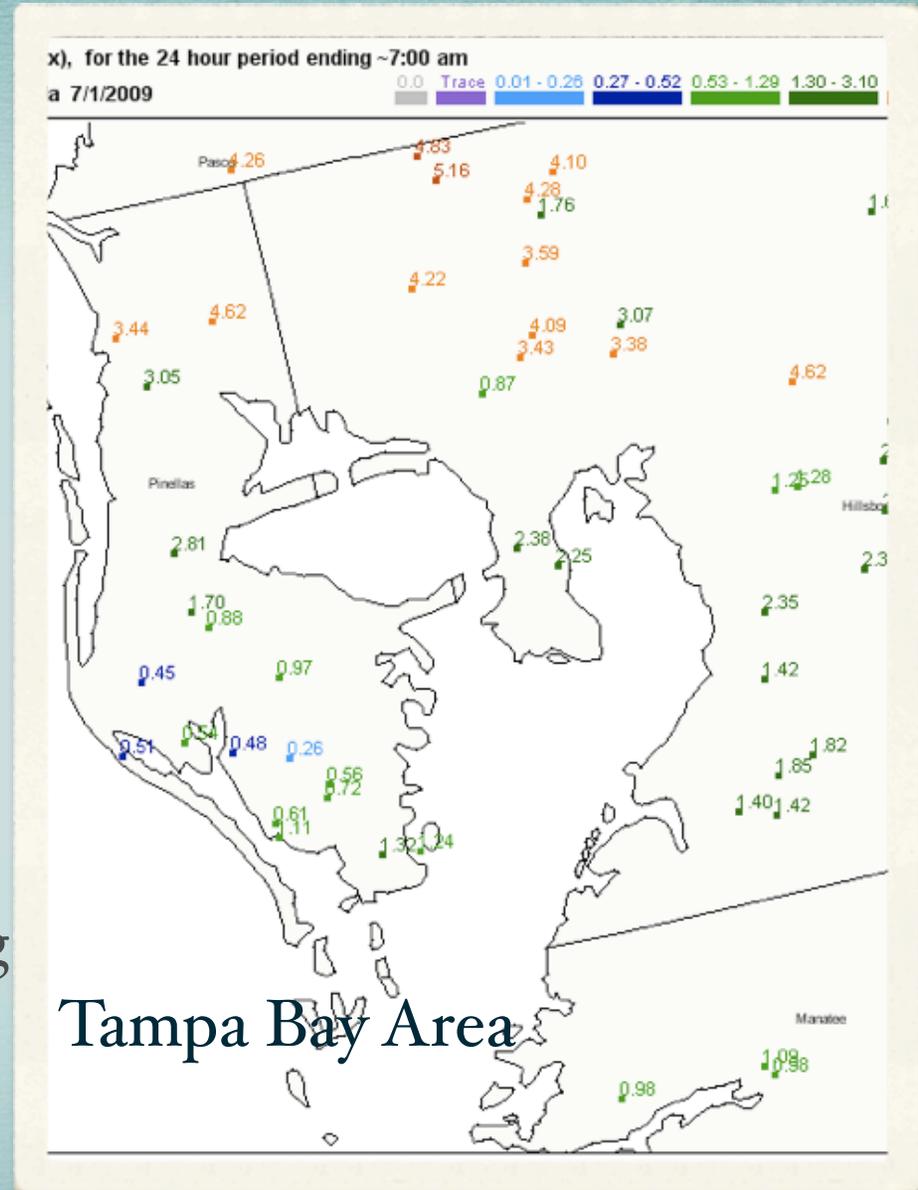
**CoCoRaHS IDENTIFIES DROUGHT**  
SEVERAL YEARS IN THE MAKING

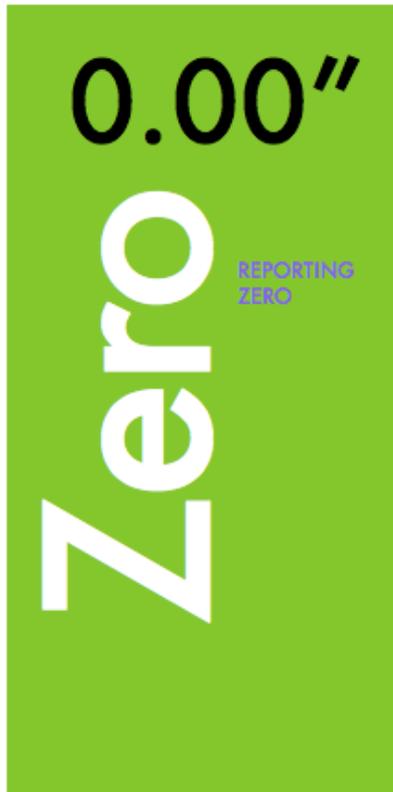
A CoCoRaHS observer recently helped identify drought in his community. It was dressed in a dusty overcoat and headed west

**THERE'S DUST IN MY SHOES!**

# CoCoRaHS Sub-county Precipitation Reports

Improved drought monitoring  
on a truly local scale





It's important to report your observation to CoCoRaHS even when it hasn't rained. Please report those zeros to help us out



Zero is better than nothing ! . . . Remember to report 0

An emphasis on reporting when it hasn't rained

#### Message of the Day

 **Message of the Day:**

[CoCoRaHS Blog](#) | [Go to end of message](#)

#### **ZERO IS BETTER THAN NOTHING**

Thanks for participating in CoCoRaHS and for entering your precipitation report today.

We realize that it takes time to enter your data each day. It may be more interesting to measure and report precipitation when there is something in your gauge. But keep in mind that it is just as important to know when and where it DIDN'T rain or snow (Yes, that season is coming soon) than to know where it DID. We even care about trace (T) amounts. Your reports of 0.00" for dry days are greatly appreciated.

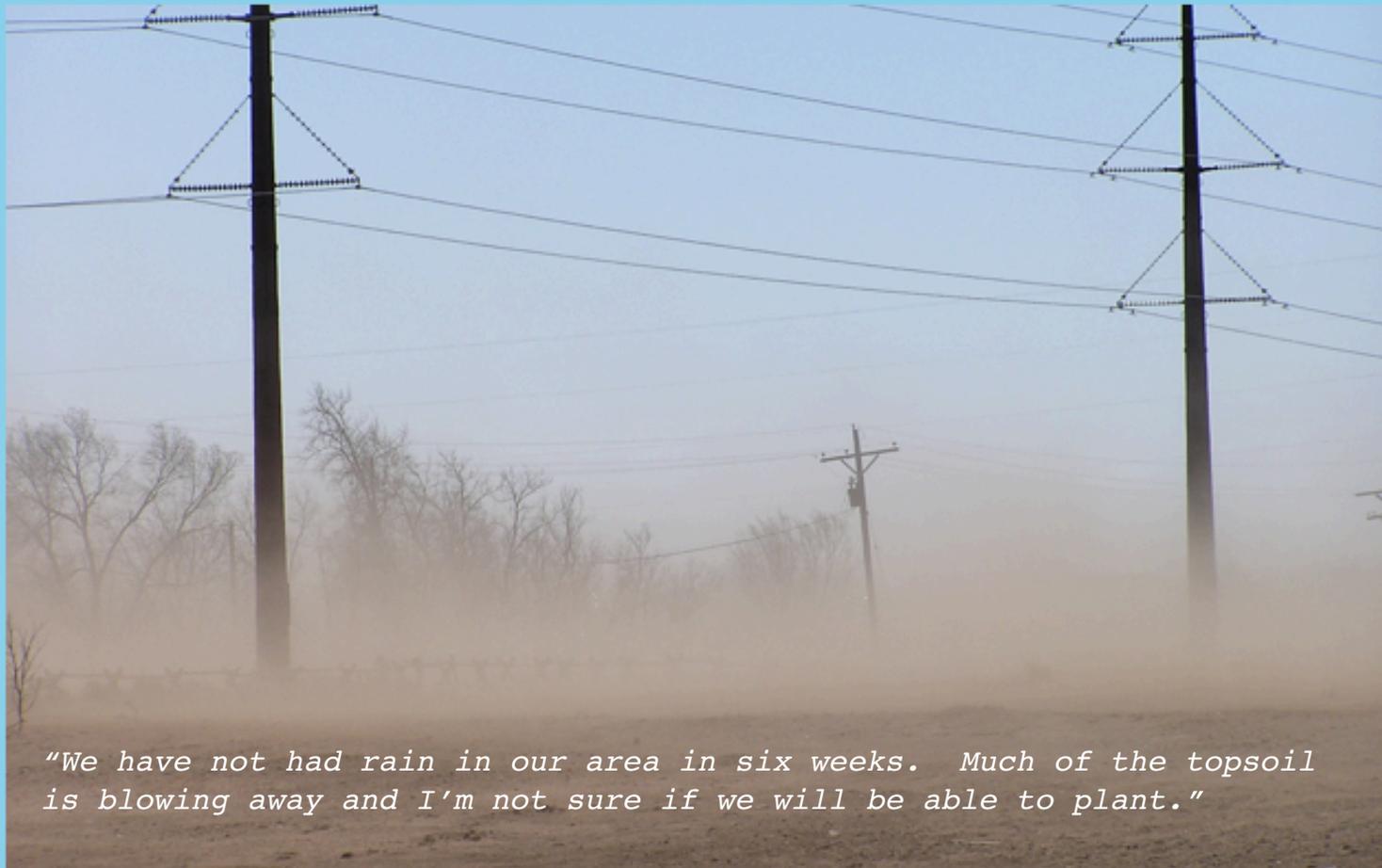
If you don't have time to enter each day, we have a feature entry report that makes it easy to enter zeros. Feel free to use the "Monthly Zeros" report. This is also a quick way to view your precipitation reports one month at a time.

The emphasis on reporting “zeros” helps CoCoRaHS show where drought may be developing



# Drought Impacts

**“CoCoRaHS -- a great gathering tool”**



*“We have not had rain in our area in six weeks. Much of the topsoil is blowing away and I’m not sure if we will be able to plant.”*

# CoCoRaHS teams-up with NDMC

## Impacts Reporting

Drought Impact Reporter  
National Drought Mitigation Center 

14,000  
additional  
eyes in the field



**DROUGHTSCAPE**  
*The Newsletter of the National Drought Mitigation Center*

Spring 2009

### NDMC, CoCoRaHS Sign Drought Impacts Reporting Agreement

The National Drought Mitigation Center and the Community Collaborative Rain, Hail and Snow (CoCoRaHS) Network are pleased to announce a partnership agreement that will add drought impacts to the observations that CoCoRaHS volunteer weather observers can submit.

"We're excited about this because the Drought Impact Reporter would like to build its user-submitted content," said Mark Svoboda, NDMC climatologist and leader of the group's Monitoring program area. "And we have tremendous respect for CoCoRaHS's ability to recruit, train and motivate volunteers. We're really looking forward to working with them on this."

"We view this is a two-way street, not just having weather watchers report impacts, but to help recruit qualified weather watchers, people whose jobs and obligations make them better suited to report drought impacts," said Nolan Doesken, Colorado state climatologist and CoCoRaHS founder. He added that the network would especially benefit from additional volunteers in rural and agricultural areas.

CoCoRaHS, a volunteer grassroots precipitation monitoring network developed by Colorado State University, as of April 2009 was operating in 42 states with more than 13,000 volunteers, and it was expected to expand to six more states by the end of 2009.



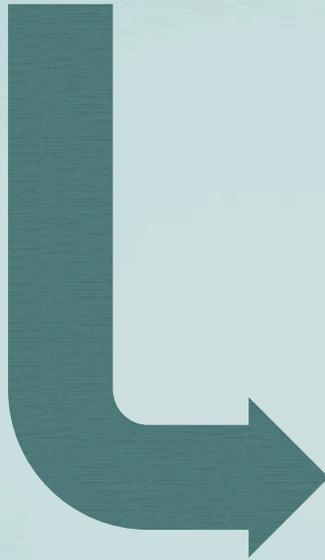




Observers list how drought is impacting them

*“It is so dry that my cows are now giving powdered milk!”*

# CoCoRaHS drought impact reports



**Drought Impact Reporter**  
National Drought Mitigation Center 

[View Drought Impacts](#) | [Add A Drought Impact](#) | [Time-Lapse Animation](#) | [About](#) | [Help](#) | [User Login](#)

**Map Options**

**Impact Categories:**

- Agriculture
- Fire
- Water/Energy
- Social
- Environment
- Other

Source: All Sources

Time Period: Last Month

Submit

[Show Drought Monitor Layers](#)

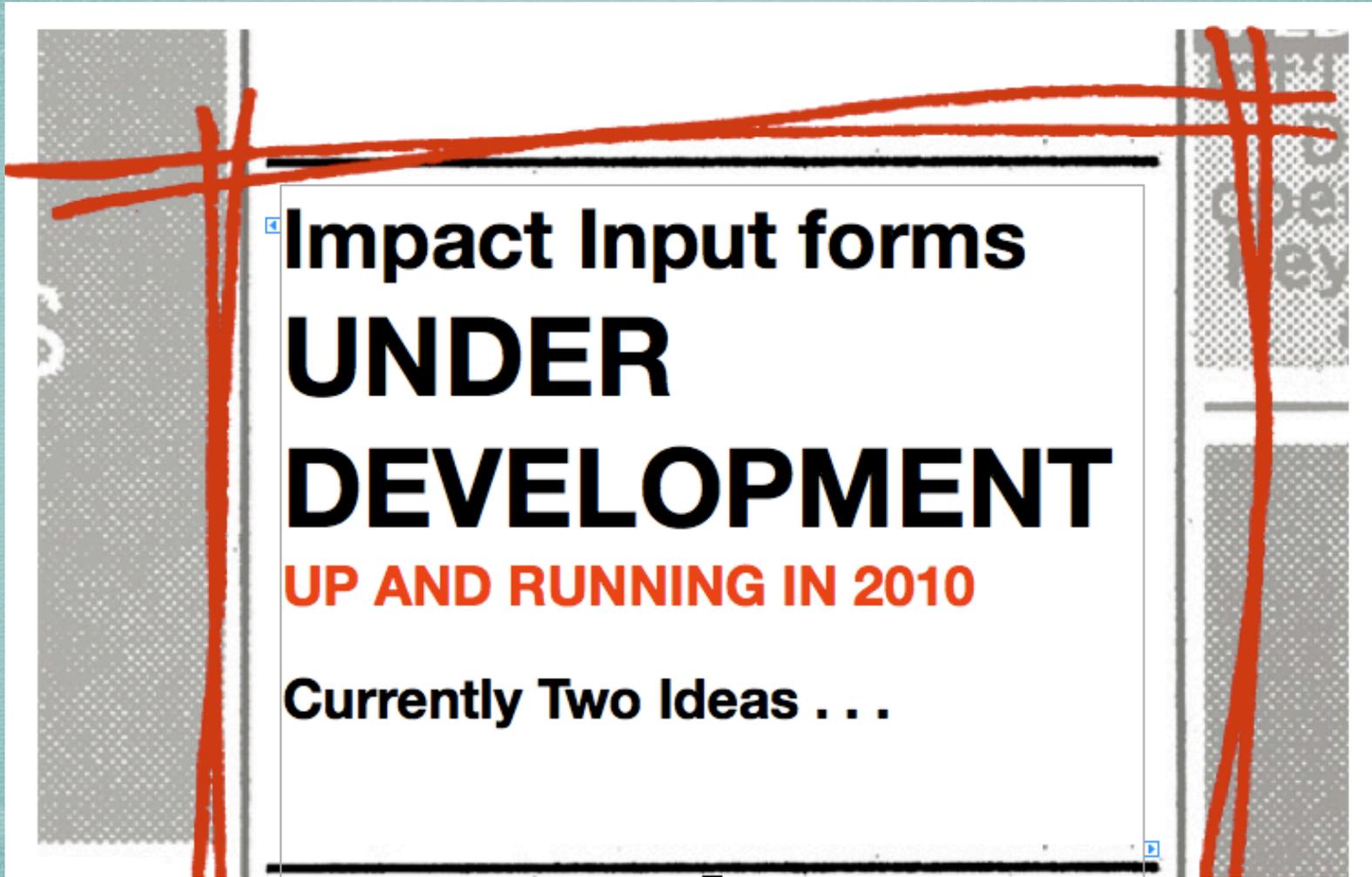
**Legend**

- No reported impacts
- 1 - 19 reported impacts
- 20 - 37 reported impacts
- 38 - 56 reported impacts
- 57 - 74 reported impacts
- 75 - 93 reported impacts

**Instructions:** Click on a state to see the reported drought impacts that affect that state.

created by  **GIS** Workshop

UNIVERSITY OF **Nebraska** Lincoln



**Impact Input forms**  
**UNDER**  
**DEVELOPMENT**

**UP AND RUNNING IN 2010**

**Currently Two Ideas . . .**



### My Data Entry : Daily Precipitation Report Form

#### Enter My New Reports

- [Daily Precipitation](#)
- [Hail](#)
- [Intense Precipitation](#)
- [Multi-Day Accumulation](#)
- [Monthly Zeros](#)
- [Drought Impact Report](#)

#### List/Edit My Reports

- [Daily Precipitation](#)
- [Hail](#)
- [Intense Precipitation](#)
- [Multi-Day Accumulation](#)

#### Precipitation Report Form

Submit Data    Reset

Station :

\* Denotes Required Field

\*Observation Date ?

AM \*Observation Time ?

\*Rain and Melted Snow to the nearest hundredth inch that has fallen in the gauge during the past 24 hours ?

Yes  No Report was taken at registered location?

Observation Notes: (This will be available to the public) ?

Check if the notes include a description of a drought impact ?

#### New Snowfall

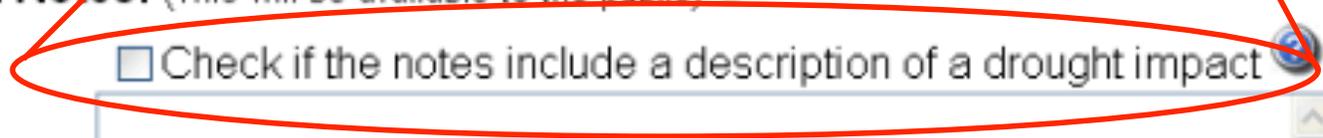
Accumulation of new snow in inches to the nearest tenth ?

gauge during the past 24 hours ?

Yes  No Report was taken at registered location?

Observation Notes: (This will be available to the public) ?

Check if the notes include a description of a drought impact ?





### My Data Entry : Drought Impact Report Form

#### Enter My New Reports

- [Daily Precipitation](#)
- [Hail](#)
- [Intense Precipitation](#)
- [Multi-Day Accumulation](#)
- [Monthly Zeros](#)
- [Drought Impact Report](#)

#### List/Edit My Reports

- [Daily Precipitation](#)
- [Hail](#)
- [Intense Precipitation](#)
- [Multi-Day Accumulation](#)

#### Precipitation Report Form

Submit Data    Reset

Station : CO-LR-607 : Fort Collins 3.8 SSW

\* indicates required field

#### Duration

Drought is a gradual, slow-moving phenomenon. The start date is an approximation. End dates are not required.

Start Date 9/20/2009 \*

End Date 9/23/2009

#### Description

What effects of drought are you experiencing? \*

#### Report Categories

Please check any and all categories that apply to the report you are submitting. For more information on categories of drought impacts and reports, please click on the blue help icon.

Submit baseline reports when you're not experiencing drought so we can compare your drought reports with them. Please select at least one category along with baseline report.

If an amount of money is associated with the impact, please consider providing that information in the box to the right of the category. Including a dollar amount means you agree to allow it to be used as a summary statistic.

Baseline Report

Agriculture \$ 0

Business & Industry \$ 0

Energy \$ 0

Fire \$ 0

Plants & Wildlife \$ 0

Relief, Response & Restrictions \$ 0

Society & Public Health \$ 0

#### Enter My New Reports

- [Daily Precipitation](#)
- [Hail](#)
- [Intense Precipitation](#)
- [Multi-Day Accumulation](#)
- [Monthly Zeros](#)
- [Drought Impact Report](#)

#### List/Edit My Reports

- [Daily Precipitation](#)
- [Hail](#)
- [Intense Precipitation](#)
- [Multi-Day Accumulation](#)

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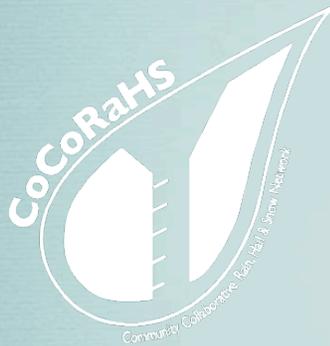
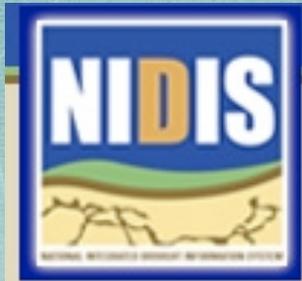
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9/24/

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## Upper Colorado River Basin Pilot

The Upper Colorado River Basin Pilot was successfully launched in October 2008

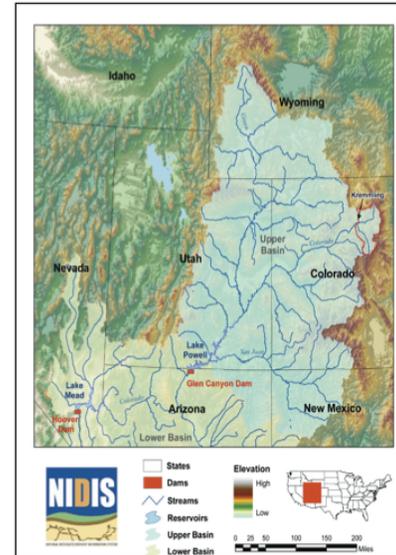
### Upper Colorado River Basin Scoping Workshop

1-2 October, 2008, NOAA David Skaggs Research Center, Boulder, Colorado

For more information: [http://www.drought.gov/portal/server.pt/community/drought.gov/co\\_pilot\\_workshop](http://www.drought.gov/portal/server.pt/community/drought.gov/co_pilot_workshop)

Fifty-six people representing twenty-two different state, local and federal agencies gathered in October of last year to discuss the design and implementation of a drought early warning information system for the Upper Colorado River Basin (UCRB). The southern boundary of the UCRB is near Lake Powell, but since reservoir operations at Lakes Powell and Mead are coordinated, the pilot includes the river main stem down to Lake Mead. The first day of the meeting focused on the Upper Colorado River basin as a whole, with an emphasis on Lakes Powell and Mead. The second day focused on the UCRB above Kremmling, CO, the initial focus area of the pilot, and the Colorado-Big Thompson project in particular.

A wide range of topics and time scales were covered in the pre-



Map of the Upper Colorado River Basin (shaded in light blue). The locations of Kremmling, CO, Lake Mead and Lake Powell are shown.

### Colorado State Climatologist is Key to the Success of the UCRB Pilot

Nolan Doesken, Colorado state climatologist based at the Colora-

## CoCoRaHS is playing a role in the NIDIS Upper Colorado River Basin Pilot project

- 1) Encouraging individual and community involvement in drought monitoring
- 2) Improving the documentation and reporting of drought impacts
- 3) Climate education and better public understanding of drought.

As we help our volunteers to  
“bring out their impacts  
of drought”

we welcome your suggestions

