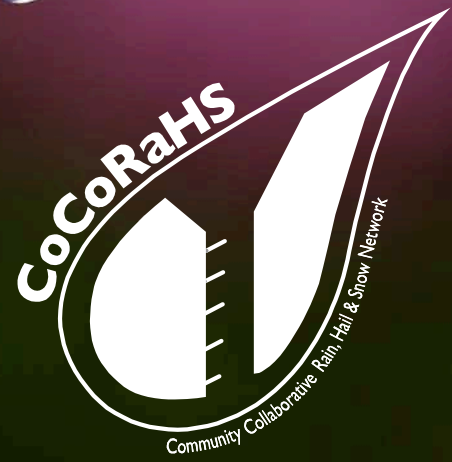


CoCoRaHS

Helping Monitor Drought
Across the Nation

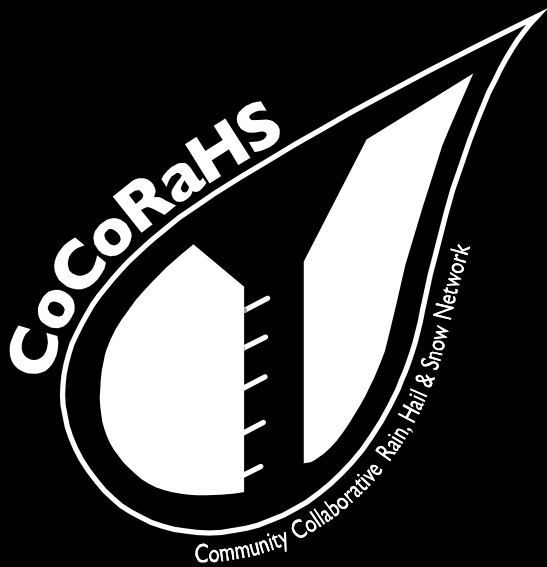




What is CoCoRaHS?

CoCoRaHS is a non-profit, volunteer organization located in all 50 states.

Over 15,000 observers take daily measurements of precipitation in their own backyards using simple measurement tools.




4-inch diameter
High capacity rain gauges




Aluminum foil-wrapped
Styrofoam hail pads

Our volunteers report their daily observations on our interactive Web site:
www.cocorahs.org



COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"



Home | States | View Data | Maps
My Data | My Account | Admin | Logout

Welcome to CoCoRaHS! "Volunteers working together to measure precipitation across the nation."

Main Menu

- [Home](#)
- [About Us](#)
- [Join Cocorahs](#)
- [Contact Us](#)
- [Donate](#)

Resources

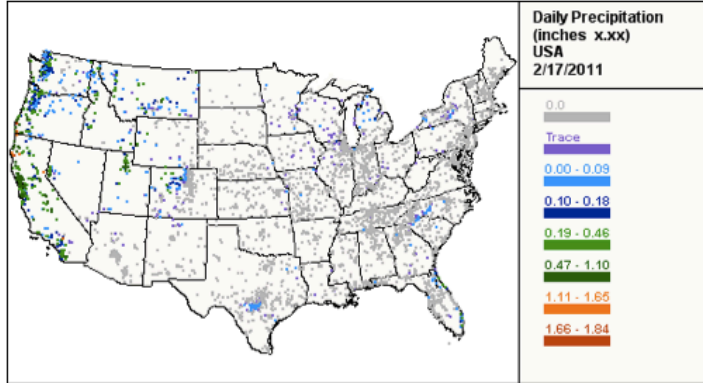
- [FAQ / Help](#)
- [Education](#)
- [Training Slide-Shows](#)
- [Training Video](#)
- [Drought Impacts](#)

- [Volunteer Coordinators](#)
- [Hail Pad](#)
- [Distribution/Drop-off](#)
- [Help Needed](#)
- [Printable Forms](#)

- [The Catch](#)
- [Message of the Day](#)
- [Data Analysis](#)
- [CoCoRaHS Blog](#)
- [Web Groups](#)
- [State Newsletters](#)
- [State Climate Series](#)

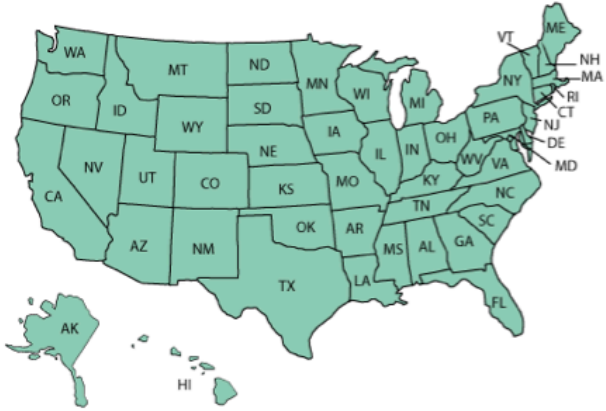
- [Sponsors](#)
- [Links](#)
- [CoCoRaHS Store](#)


CoCoRaHS March Madness 2011
 March 1-31, 2011
 How many new volunteers can you recruit in your state?



Daily Precipitation (inches x.xx) USA 2/17/2011

0.0
Trace
0.00 - 0.09
0.10 - 0.18
0.19 - 0.46
0.47 - 1.10
1.11 - 1.65
1.66 - 1.84





Join CoCoRaHS
Click Here


TRAINING
SLIDE-SHOWS

Things to know about...

Rain

Hail

Snow



FIND OUT MORE ABOUT NOAA PRODUCTS

Purchase an official CoCoRaHS 4" Rain Gauge
 "The official CoCoRaHS Rain Gauge supplier"

WEATHERYOURWAY

 .COM

Fast, Friendly service from a meteorologist and fellow CoCoRaHS Observer

Purchase an official CoCoRaHS 4" Rain Gauge

ambient weather

My Data Entry : Daily Precipitation Report Form

Precipitation Report Form

[Submit Data](#)[Reset](#)

Station Number : CO-LR-610

Station Name : Fort Collins 3.5 SW

* Denotes Required Field

10/20/2010

*Observation Date ?

7:00

AM

*Observation Time ?

0.78

*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) ?

Early morning steady rain. Gusty winds with occasional lightning to the Northwest. Temperatures holding steady overnight.

New Snowfall

NA

Accumulation of new snow in inches to the nearest **tenth** ?

NA

Melted value from core to the nearest **hundredth** ?

Total Snow and Ice on Ground at Observation Time

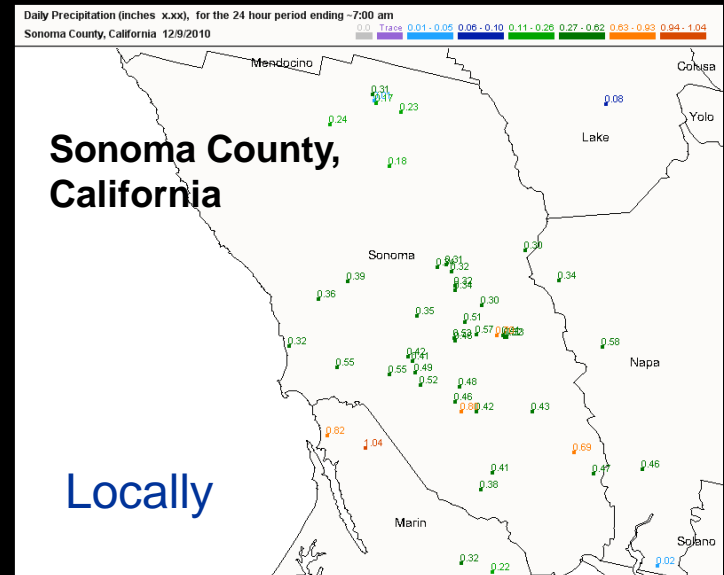
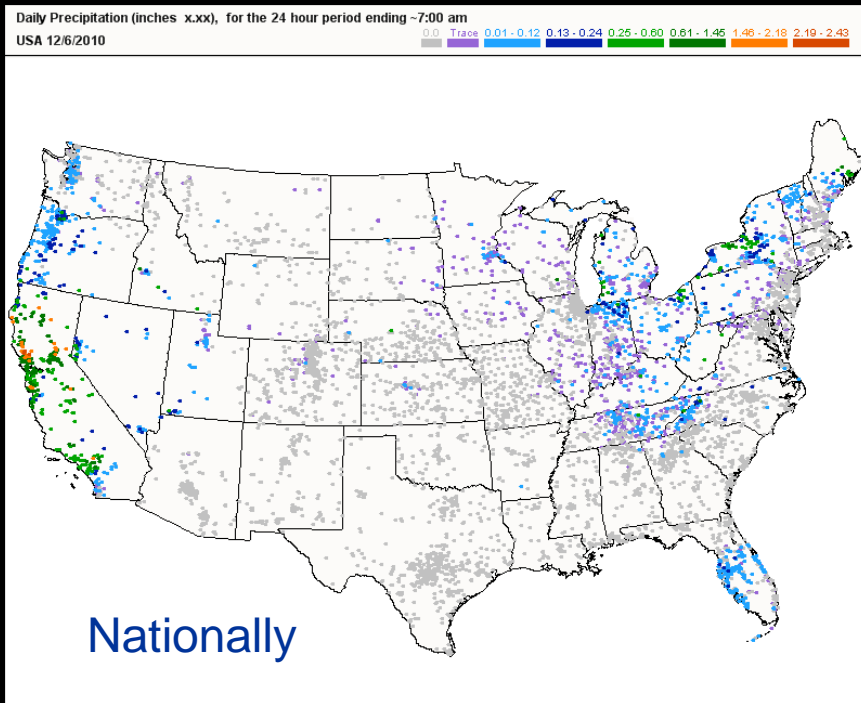
NA

Depth of total snow and ice (new and old) in inches to the nearest **half inch** ?

NA

Melted value from core to the nearest **hundredth** ?

Date	Time	Station Number	Station Name	Total Precip .ins	New Snow .in	Total Snow .in	State	County	View
12/9/2010	7:00 AM	CA-SN-71	Rohnert Park 0.9 SW	0.80	NA	NA	CA	Sonoma	
12/9/2010	7:00 AM	CA-SN-87	Santa Rosa 2.0 NE	0.70	NA	NA	CA	Sonoma	
12/9/2010	7:15 AM	CA-SN-84	Sonoma 1.9 NNW	0.69	NA	NA	CA	Sonoma	
12/9/2010	6:00 AM	CA-SN-61	Santa Rosa 1.3 NW	0.57	NA	NA	CA	Sonoma	
12/9/2010	7:10 AM	CA-SN-46	Sebastopol 3.0 SW	0.55	NA	NA	CA	Sonoma	
12/9/2010	8:00 AM	CA-SN-88	Occidental 2.8 SW	0.55	NA	NA	CA	Sonoma	
12/9/2010	8:00 AM	CA-SN-31	Sebastopol 2.6 SSE	0.52	NA	NA	CA	Sonoma	
12/9/2010	7:00 AM	CA-SN-28	Santa Rosa 3.1 NW	0.51	NA	NA	CA	Sonoma	
12/9/2010	7:00 AM	CA-SN-49	Sebastopol 1.1 SSE	0.49	NA	NA	CA	Sonoma	



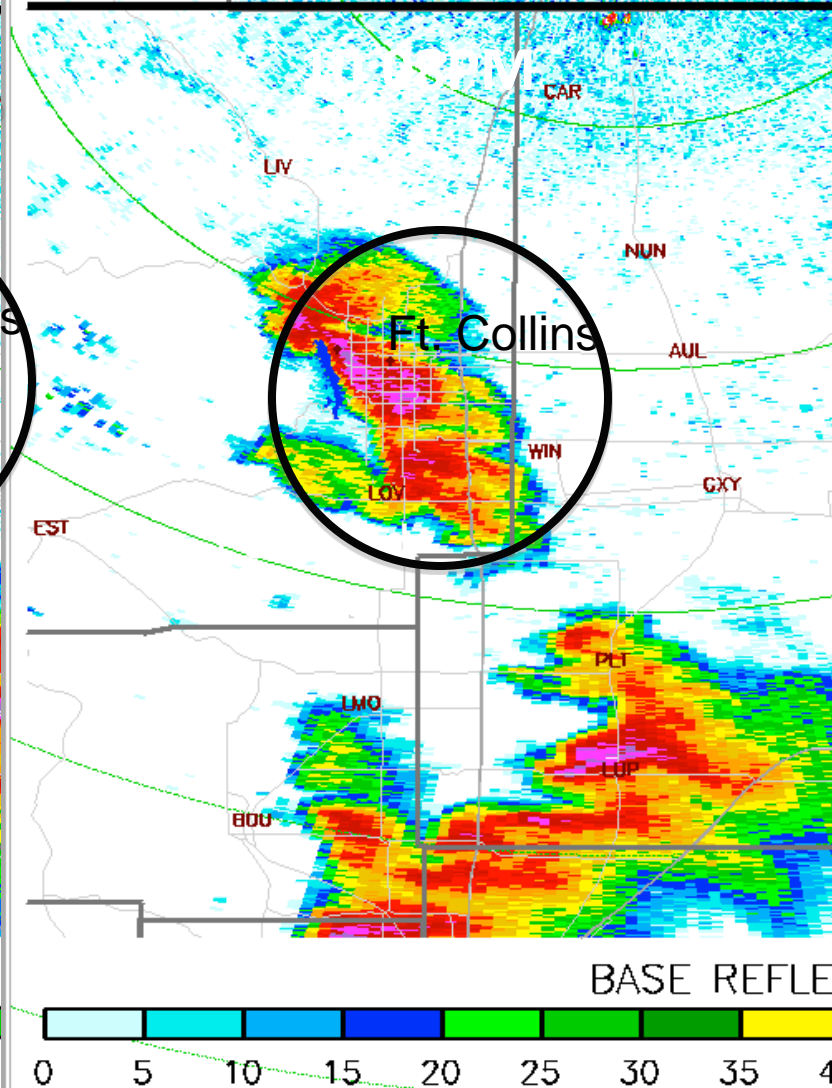
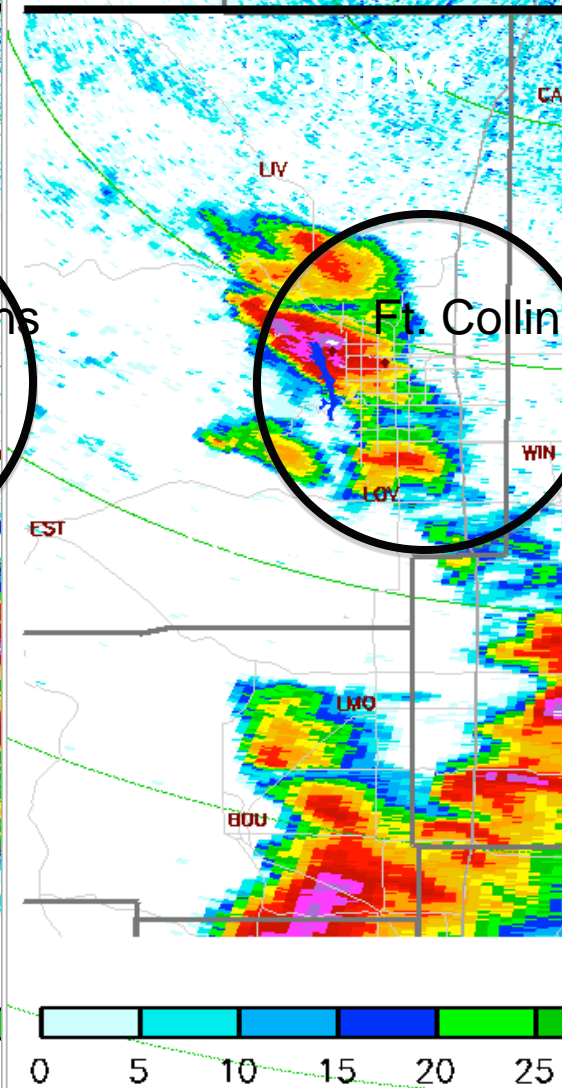
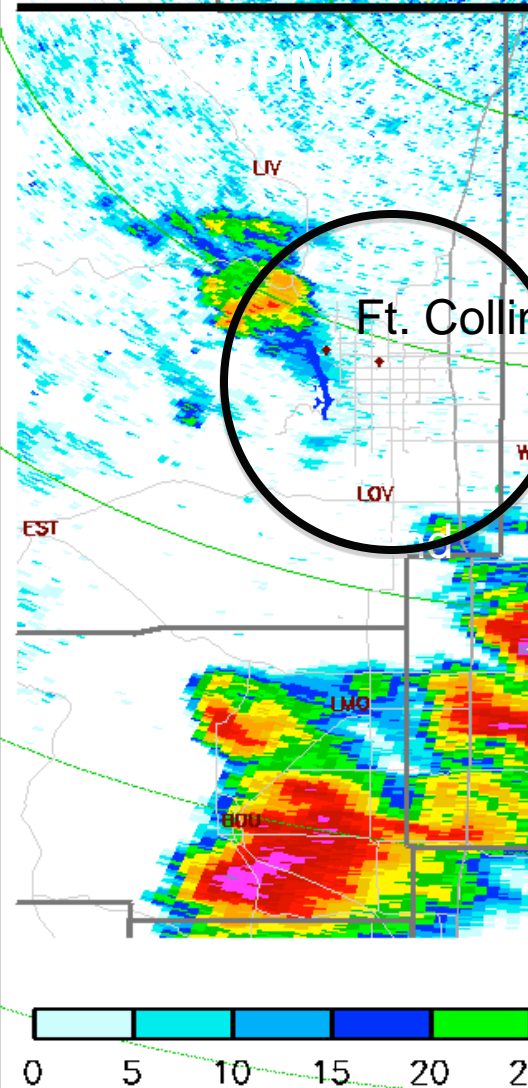
Volunteer's observations are immediately available in map and table form for the public to view.

21 JUL 2009 03:00

21 JUL 2009 03:00

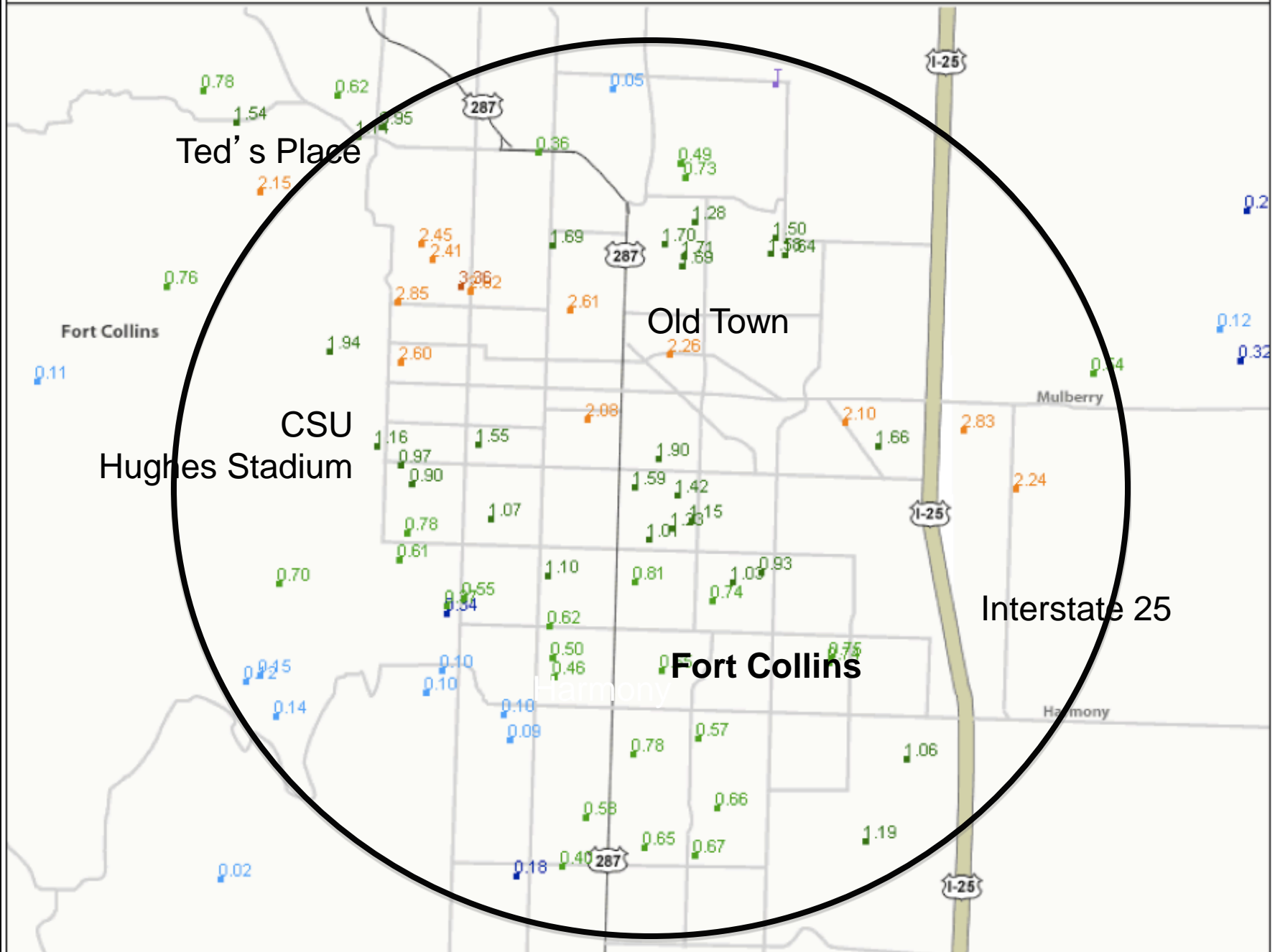
21 JUL 2009 04:08 UTC --

Severe Thunderstorm over Fort Collins, Colorado Monday, July 20, 2009



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

Fort Collins, Colorado 7/21/2009



Can CoCoRaHS Data Be Exported?

CoCoRaHS data can be exported in the following forms:

.CSV

.xml

.json

.shef



You can customize the data by: reports, date, state, county, status, etc.

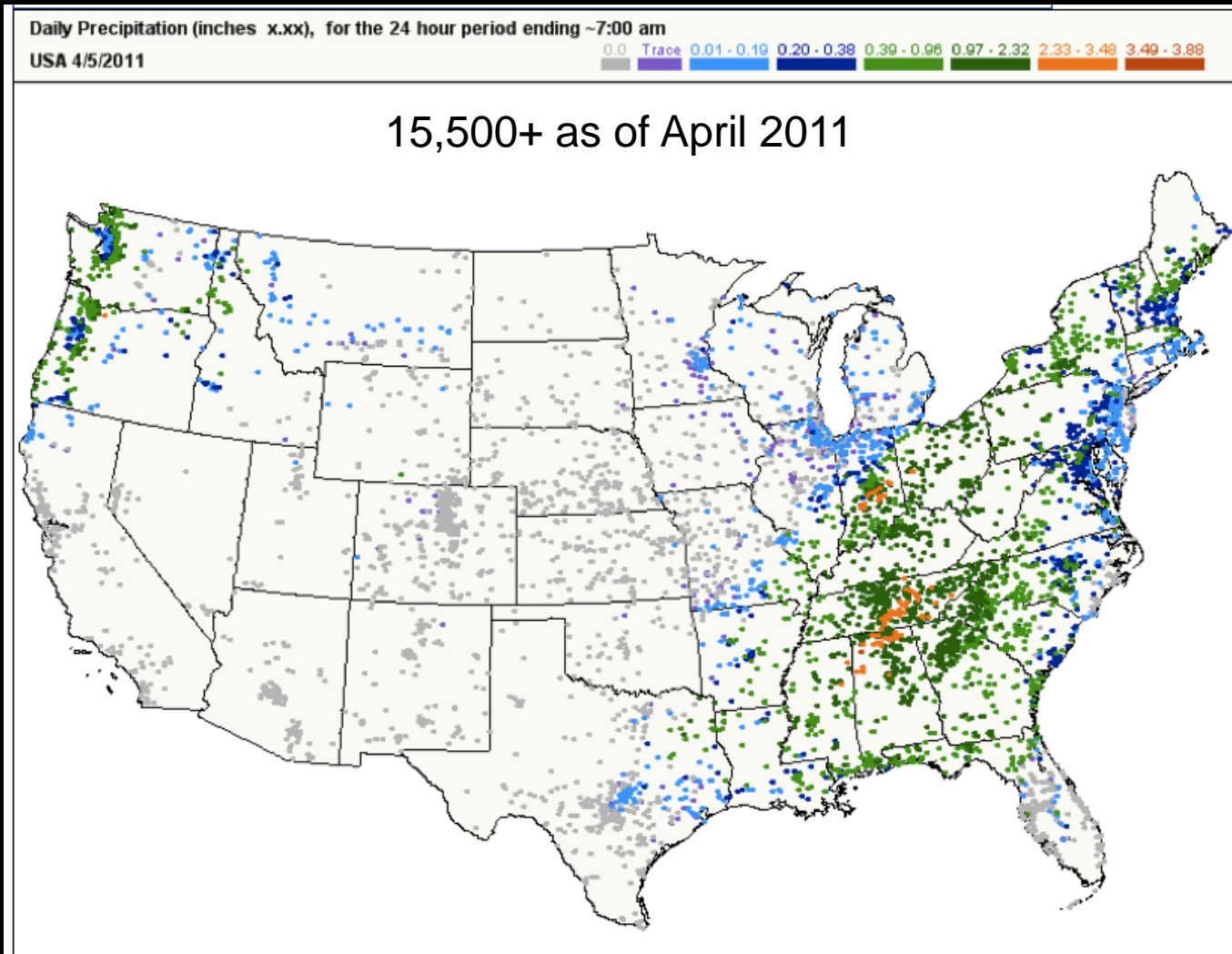
Contact our office for more info on importing our data

Since we last met in October 2009

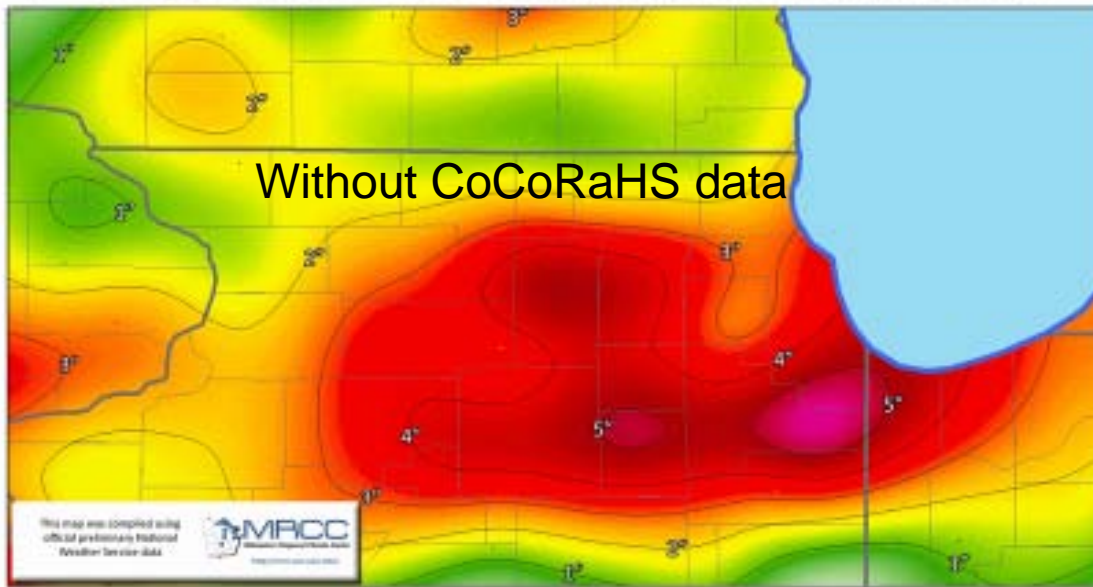


- We've added an additional 2,000 volunteer observers
- Are now operating in all 50 states!
- Have been awarded grants from NSF and NOAA/OED
- Have become the largest source of daily precipitation measurements in the United States

Even with over 15,000 observers there still are many gaps to fill

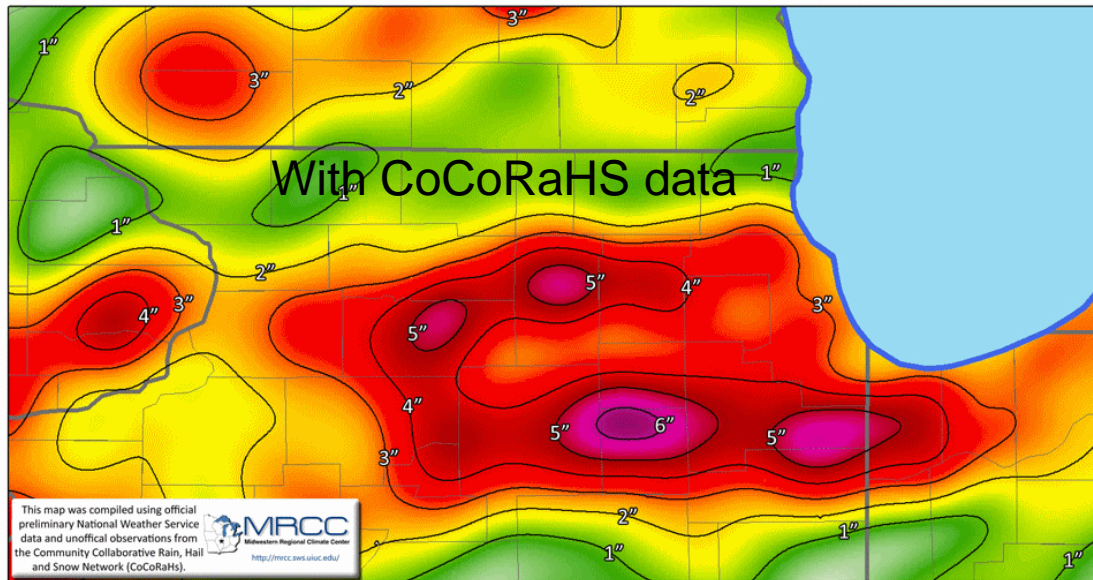


(A) August 23 & 24 Accumulated Precipitation



“With CoCoRaHS it’s like increasing the number of pixels on your digital camera.”

(B) August 23 & 24 Accumulated Precipitation



“You get a much clearer picture of where precipitation did and did not fall!”

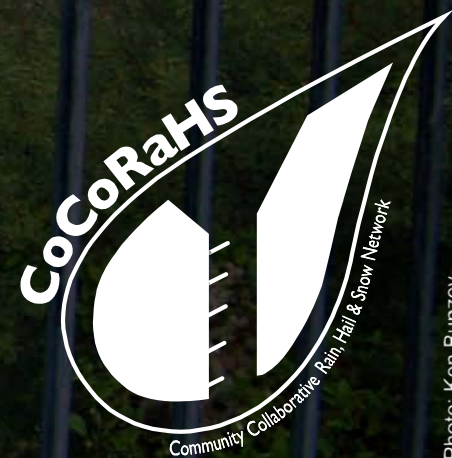


Photo: Ken Bunzey

What about CoCoRaHS & drought?

0.00"

Zero

REPORTING
ZERO



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 0.00"

We emphasize 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

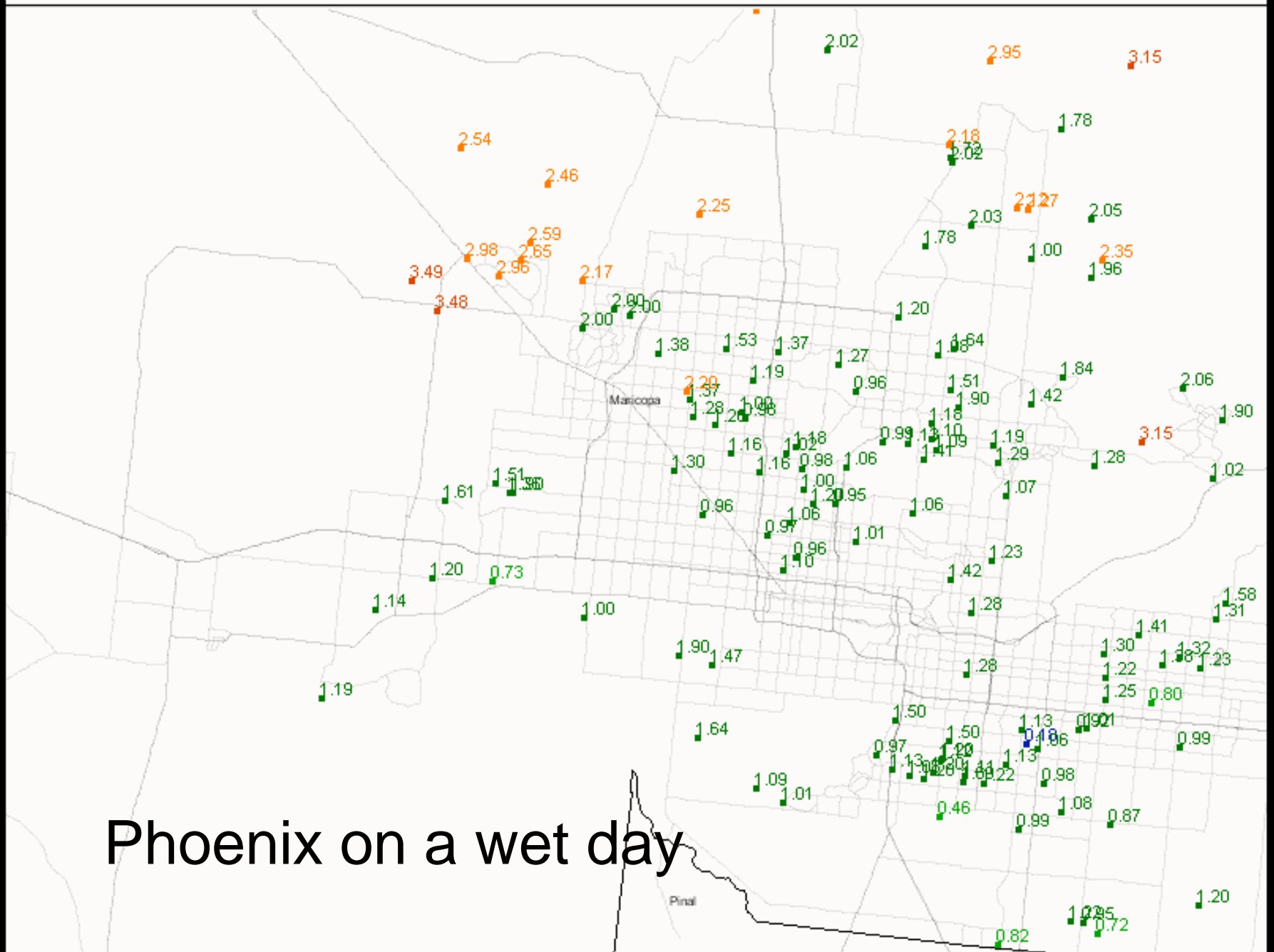
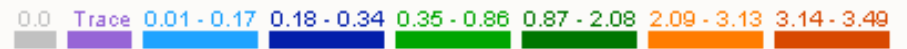
Thanks for participating in CoCoRaHS and for entering your precipitation report today.

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 were 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.

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

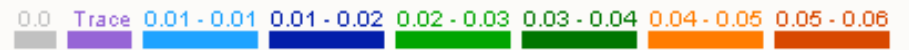
Phoenix, Arizona 1/22/2010



Phoenix on a wet day

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

Phoenix, Arizona 1/15/2010



Phoenix on a dry day

March 12, 2011

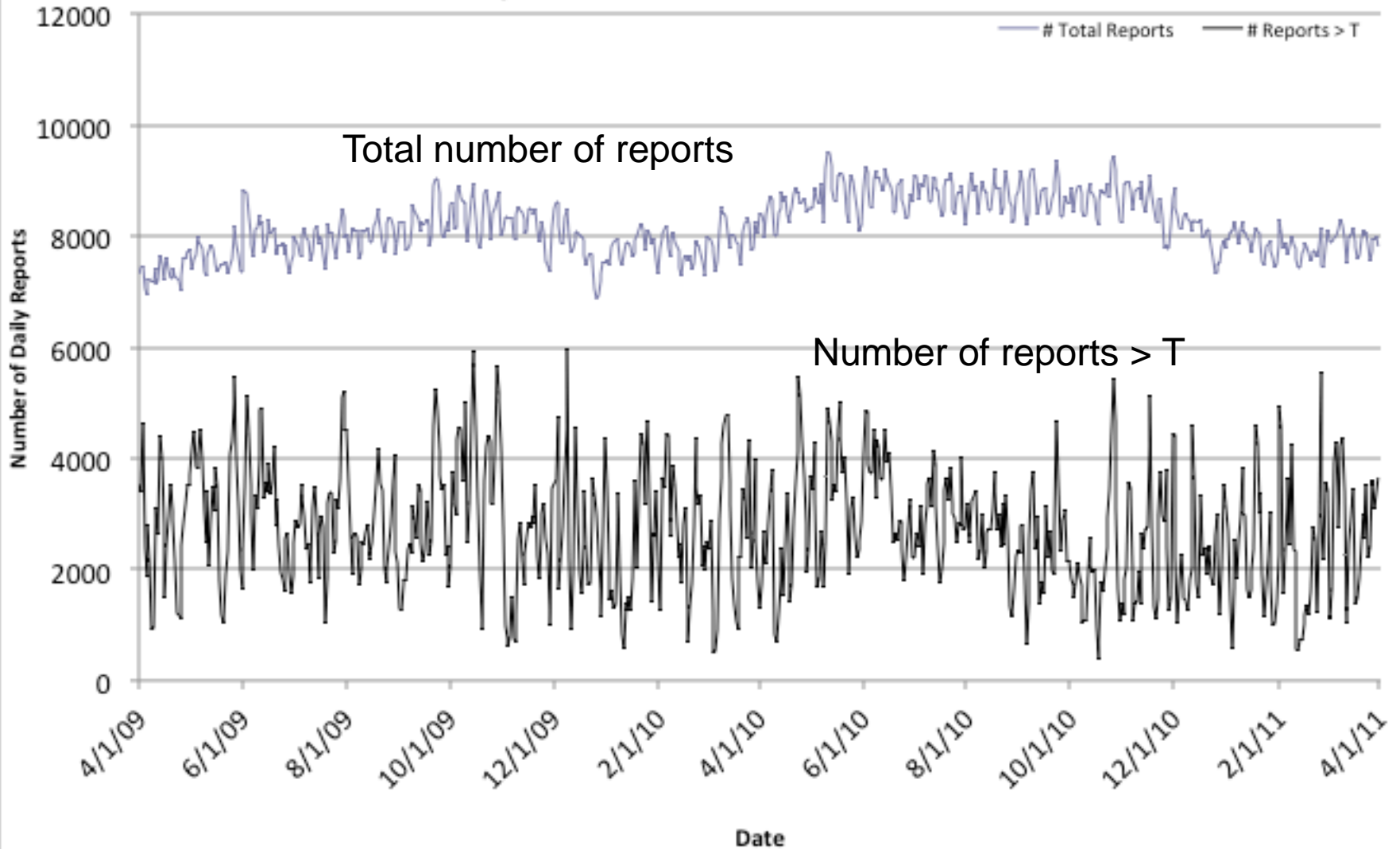
0.00''

Approximately 7,500 CoCoRaHS observations reported.

Of these entries, 6,500 observers reported zero!

Our daily reports averaging around 8,000 nationwide.

CoCoRaHS Daily Report Amounts April 1, 2009 - March 31, 2011



Improved Drought Awareness

A collaborative effort between CoCoRaHS and NDMC



Training in Drought Awareness

“On-line training on how to report how drought is effecting your community”



REPORTING
DROUGHT
IMPACTS

A Guide to Reporting



DRINKING WATER TASTE DUSTY?

CoCoRaHS Drought Impacts

Report how drought is impacting your community with a "Drought Impact Report"

Water Supply and Water Quality

*The effects of drought have significant impacts on our **water supply and water quality.***

Examples of drought-induced water supply and quality impacts include: Dry wells, water restrictions, changes in water rates, easing of water restrictions, increase in requests for new well permits, changes in water use in water use due to water restrictions, greater water demand, decrease



What is
DROUGHT?

DROUGHT IMPACT REPORT FORM

Enter the approximate date when the impacts you are observing were first noted. If the impacts are ongoing leave the end date blank.

My Data Entry : Drought Impact Report Form

Drought Impact Report Form

Submit Data

Reset

Station Number : CO-LR-610

Station Name : Fort Collins 3.5 SW

The significance of drought is tied directly to the impacts that it causes. Identifying and documenting impacts as they first appear and as they continue is essential for comprehensive drought monitoring. Please refer to the [CoCoRaHS training slide show](#) for reporting drought impacts.

** indicates required field*

Duration

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

Start Date

2/10/2010

*

End Date

← Leave end date blank if impact is still ongoing.

Observers are reporting and letting us know where drought is lurking and effecting their communities

Drought Impact Report

Station Number: TX-BND-5

Station Name: Bandera 3.9 E

Start Date: 12/10/2010

End Date:

Submitted: 12/10/2010 7:31 AM

Description

Have curtailed outside burning. Native plants are suffering, large and small wildlife are attracted to any available water source, smaller ponds and creeks are drying up, level of Medina river (about 1/2 mile from property) is noticeably dropping. Local roads are deep in dust.

Drought Impact Categories:  Fire : \$0.00
 Plants and Wildlife : \$0.00



Future Efforts . . . what lies ahead?



New Grants 2011- 2013



Additional 20-30,000 new volunteers

Expand our volunteer base to new unreached audiences through mobile device technology, social networking and targeted recruiting efforts.



Enhanced training through video and webinars to improve the connection between scientists and volunteers.

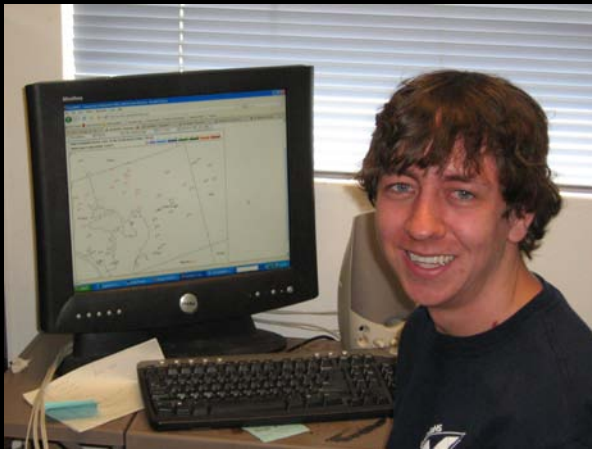
ET



Addition of **Evapotranspiration** to our suite of measurements. to improve water balance monitoring we could help improve mesoscale and regional scale modeling, as well as help “ground truth” satellite measurements.

Pilot begins in Colorado this summer

Improved QC



QC Technician

QC Tkt	Date QC Filed	Report Error Date	Station	Entered By	Status	Date/Time Last
312	2011-04-10	2011-04-10	WY-PK-14	Goble	OPEN	2011-04-10 10:55AM
308	2011-04-08	2011-04-08	CO-LP-57	Goble	OPEN	2011-04-08 10:55AM
306	2011-04-07	2011-04-04	CO-MF-21	Goble	OPEN	2011-04-07 10:55AM

QC ticketing pilot project

Topic: [CoCoRaHS QC Tip of the Week - March 20, 2011](#)

Steve Hilberg <hberg@isws.illinois.edu> Mar 22 10:55AM -0500 ▲

/*Here is your CoCoRaHS QC Tip for the week of March 20, 2011*/

Keep an eye out for stations that consistently report to the nearest .05, .10, or other even increments. This could be because the observer is reading the rain gauge incorrectly, rounding, or not using the 4-inch rain gauge. For example, an observer who reports to the nearest .01 for amounts 0.20 inch and under, and to the nearest .02, .05 or .10 inch for higher amounts may be using the Tru-Chek wedge gauge, which has a variable scale. A regular pattern of amount in increments of .10 may indicate that they are using an inexpensive "garden" rain gauge. If a pattern is apparent, then the local coordinator should contact the observer to determine if there is a measurement issue or if a non-standard rain gauge is being used.

QC tip of the week



Over 200 sets of eyes –
CoCoRaHS State & Regional Coordinators

May 25-27, 2011

WERA 1012:
*"Managing and Utilizing Precipitation
Observations from Volunteer Networks"*
Annual Conference



Precip. Conference

May 23-25, 2011 - Estes Park, CO



What's next . . .

*"Hey, there might be water
on the moon!"*



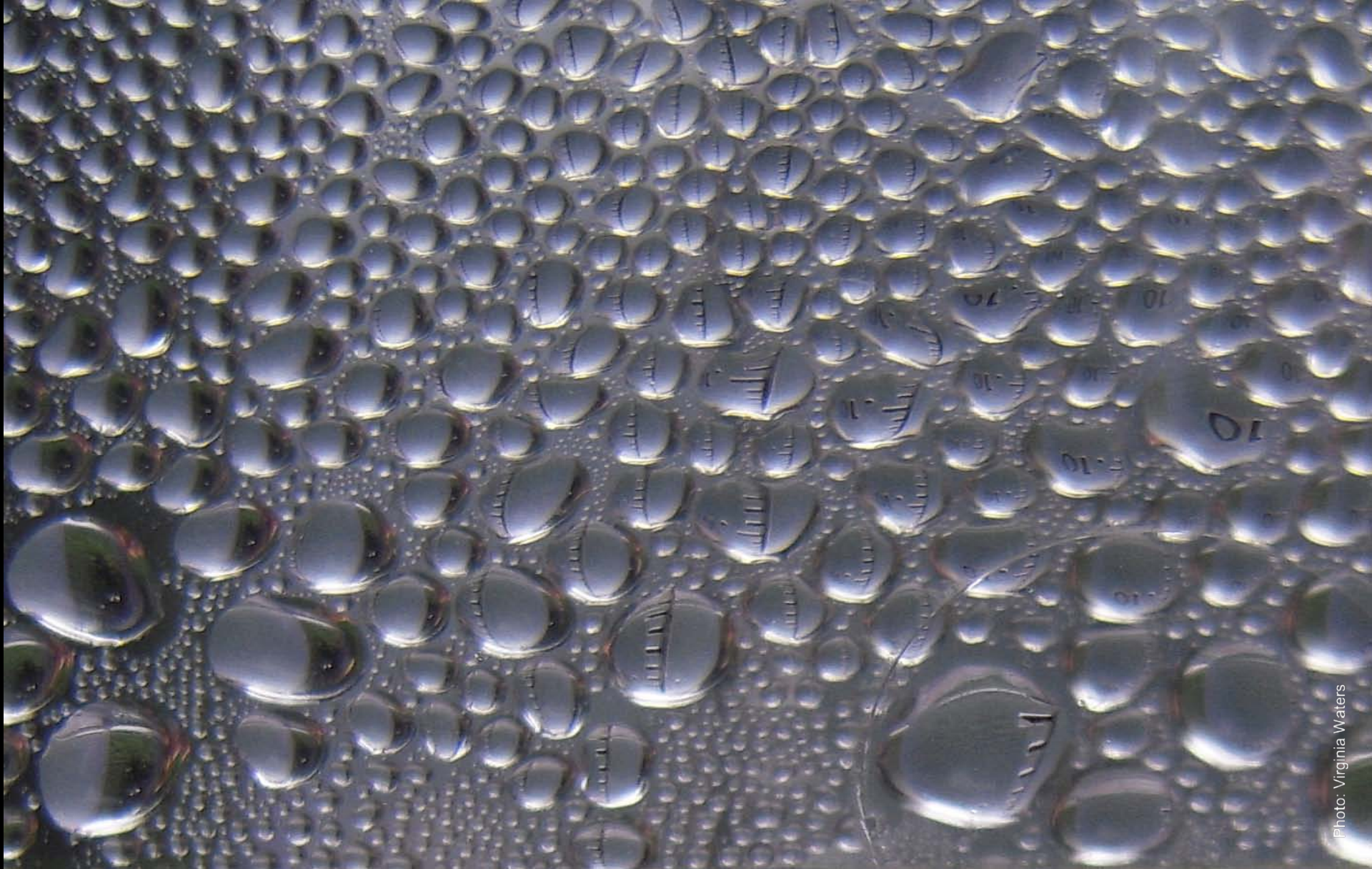


Photo: Virginia Waters

For more info contact: Henry Reges
hreges@atmos.colostate.edu