

**“BECAUSE EVERY DROP COUNTS”**



# **COCORAHHS : UTAH'S WATER RANGERS**

**DR. JON MEYER**

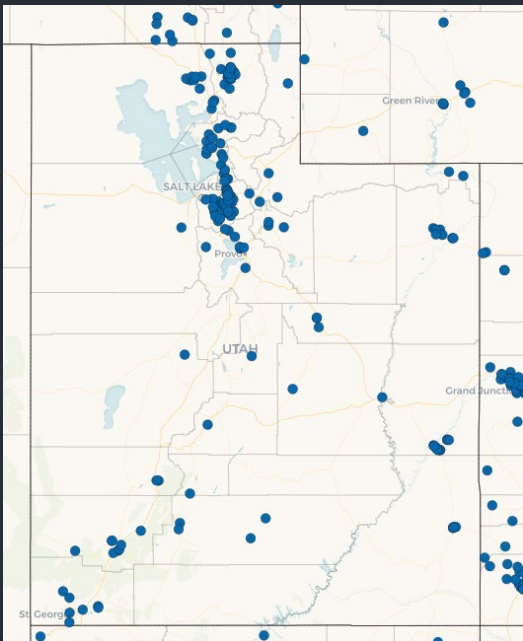


**UTAH DROUGHT MONITORING  
AND REPORTING WORKSHOP**

**12/4/2020**

# WHAT IS CoCoRaHS? **Community Collaborative Rain Hail and Snow Network**

CoCoRaHS is a network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow).



Since 1997, 22,000+ observers in all 50 states have taken part in the network, which just surpassed 50 million observations!



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

**Community Collaborative Rain Hail and Snow Network**

# THE SALES PITCH

## Why do people love CoCoRaHS?

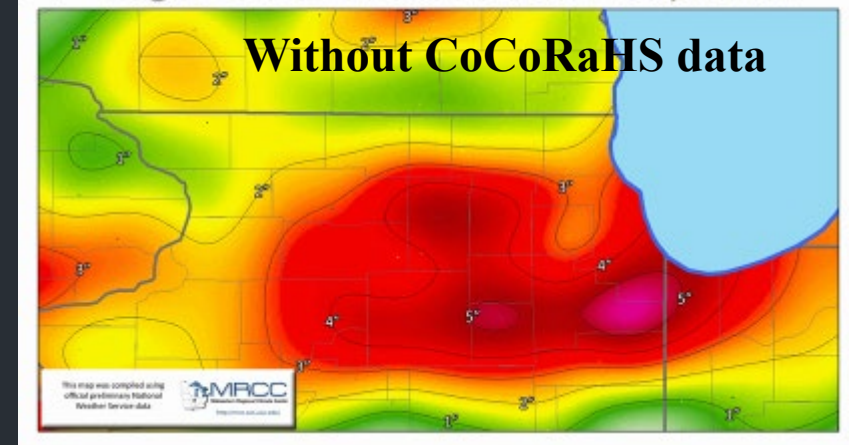
- ✗ Hassle-free & Commitment-free
- ✗ Inexpensive and unobtrusive
- ✗ Easy to learn
- ✗ Valuable to you and your community
- ✗ Fun and Educational

Utah is data sparse and has highly variable precipitation patterns

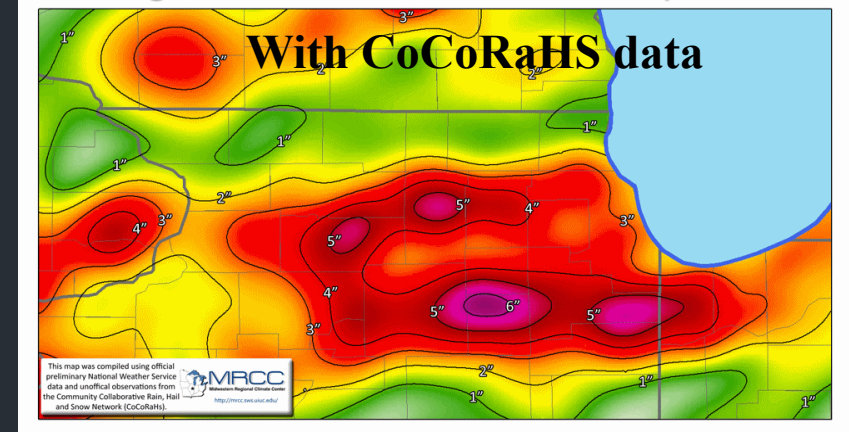
Utah's CoCoRaHS observers provide:

- ✓ A more high-definition precipitation picture
- ✓ A voice to data-sparse rural areas lacking "official" gauges

(A) August 23 & 24 Accumulated Precipitation



(B) August 23 & 24 Accumulated Precipitation



# THE EQUIPMENT

Inexpensive and durable heavy duty 4" plastic gauge includes removeable funnel and inner 1" graduated cylinder.



Optional: Snow pad and ruler or hail pad

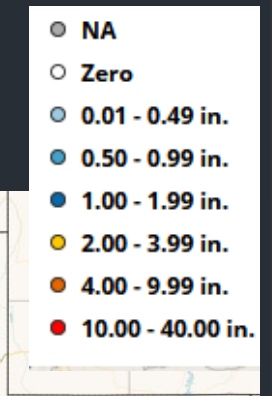
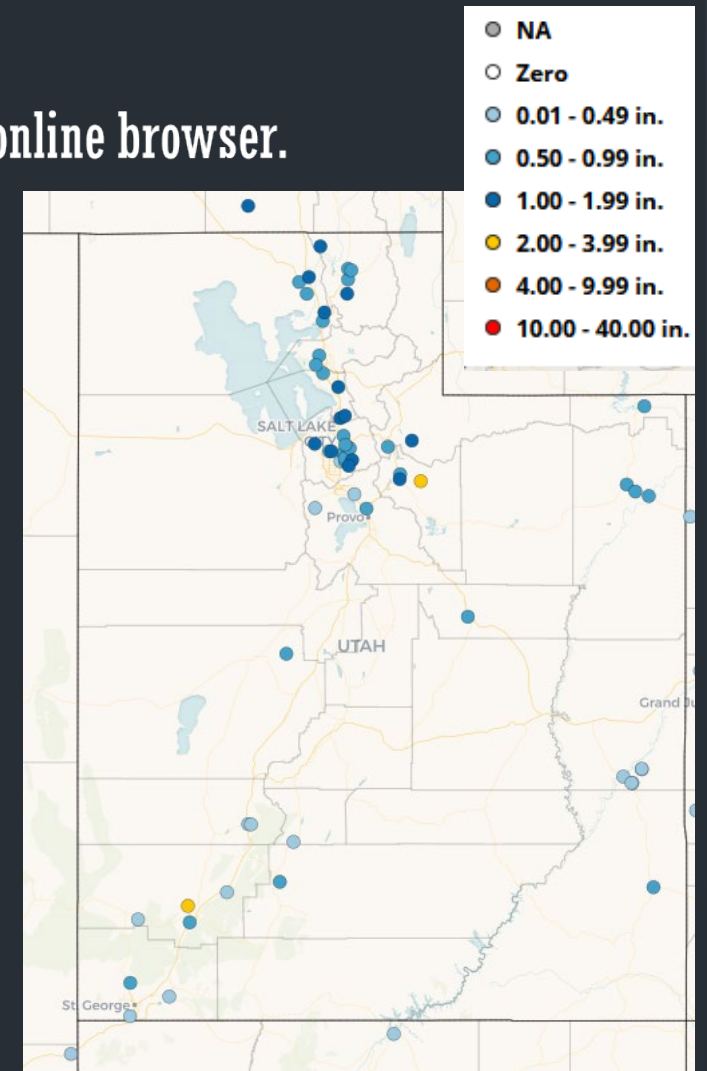
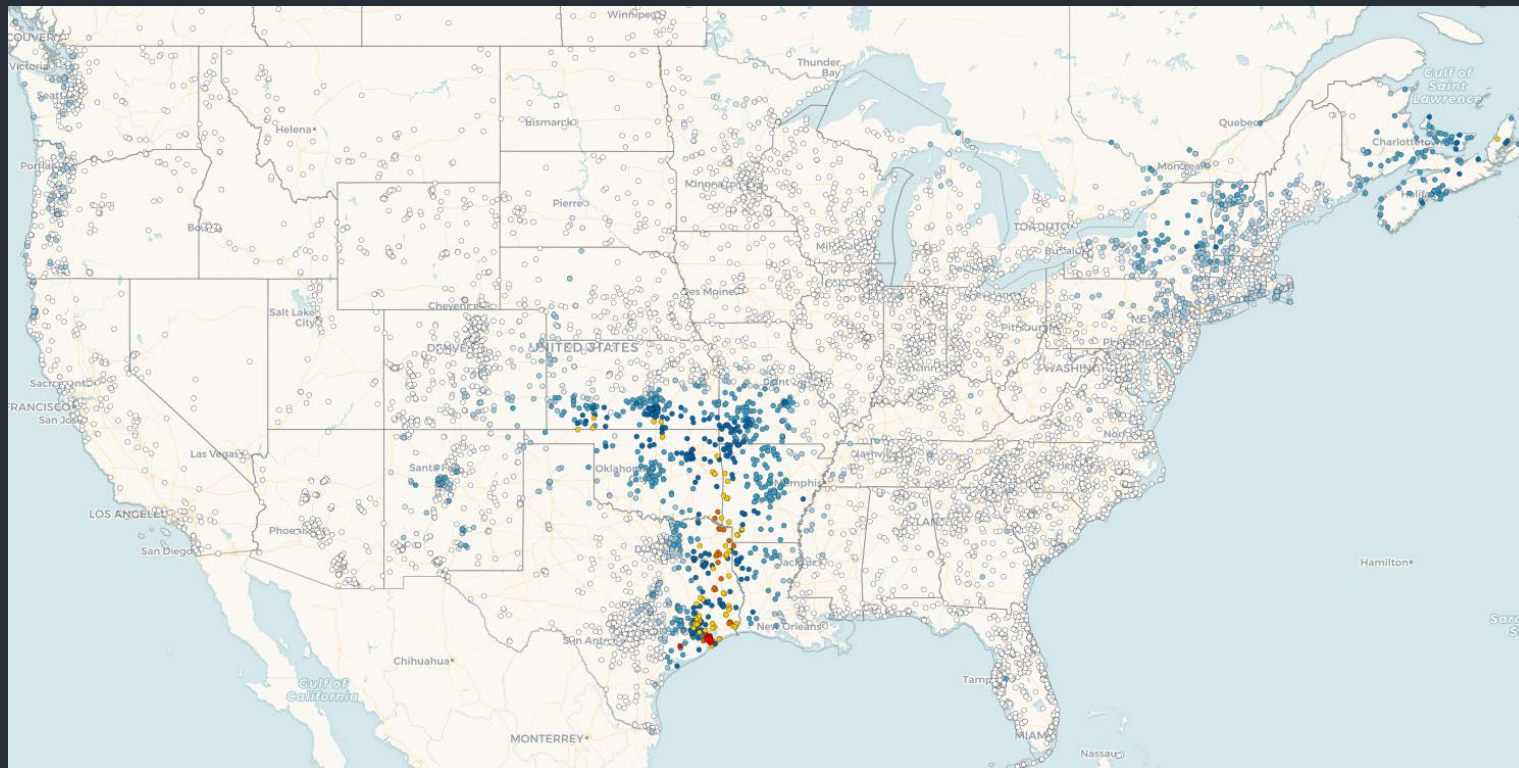


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# HOW IT WORKS

Simple observations are taken each morning and reported via mobile app or online browser.  
Daily observations are immediately mapped and public facing.



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Community Collaborative Rain Hail and Snow Network

# BENEFITS & USES

Anyone can immediately and easily access recent daily observations

- No complicated mapping interface
- Minimal delay from observation submission to online mapping (~minutes)
- Mapping tool now allows custom date range for total precipitation

Many scientific uses







- Water resources managers
- Meteorologists and hydrologists
- Emergency Managers
- USDA
- Mosquito control

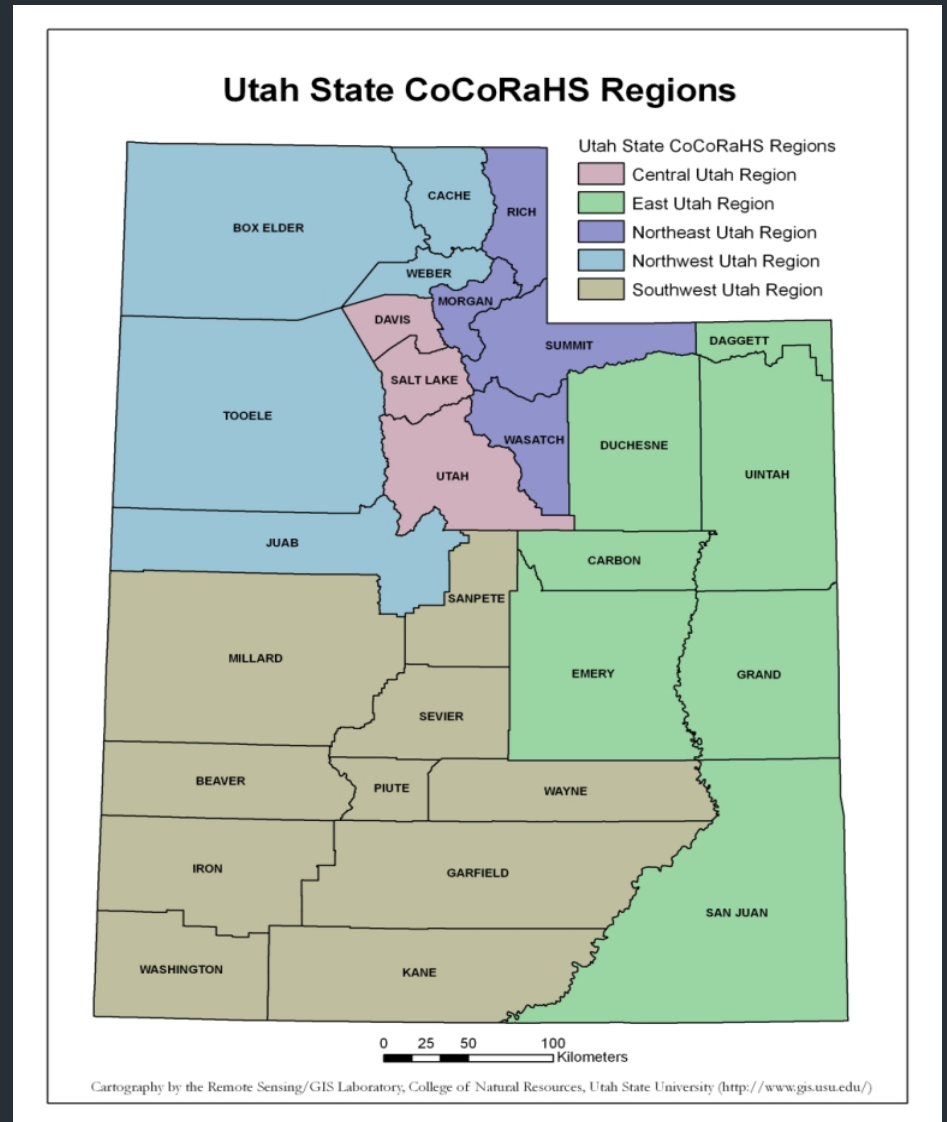
CoCoRaHS Observer at WY-AF-8



# TRAINING AND SUPPORT

Online training resources are fun and easy to follow and a network of state and regional coordinators across Utah are available

 <p>4:12</p>	 <p>4:30</p>	 <p>5:08</p>
<b>Getting Started with CoCoRaHS - The Basics of...</b> CoCoRaHS HQ 61K views • 6 years ago	<b>Measuring Hail</b> CoCoRaHS HQ 9.6K views • 5 years ago	<b>How to Measure Extreme Rainfall</b> CoCoRaHS HQ 25K views • 7 years ago
 <p>2:03</p>	 <p>1:35</p>	 <p>1:51</p>
<b>Setting up for Measuring Snow</b> CoCoRaHS HQ 14K views • 8 years ago	<b>Daily Precipitation When It Snows</b> CoCoRaHS HQ 9.8K views • 8 years ago	<b>How to Measure New Snow Depth</b> CoCoRaHS HQ 11K views • 8 years ago



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# CONDITIONAL MONITORING

An observer's knowledge of their local climate and weather can be more informative than a simple daily weather observation.

Conditional monitoring allows observers a means to qualitatively assess their local conditions based on the condition of nearby plants, trees, streams, soils, etc.

Such reporting is invaluable to drought-stricken, data-sparse regions.

### Condition Monitoring Report Form

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

**Station Number :** UT-CH-2

**Station Name :** Hills 0.9 SW

Condition monitoring reports are submitted on a regular (weekly, biweekly, monthly) basis to share information about the effects of local precipitation on the environment and society. By submitting reports on a regular basis, you create a baseline to see change through time, such as seasonal differences or changes caused by more or less precipitation. Please refer to the [Condition Monitoring training slide show](#) for more information.

*\* indicates required field*

**Report Date \***

12/3/2020

**Condition Scale Bar** [More information on the scale bar](#) [Clear Scale Bar](#)

Severely Dry	Moderately Dry	Mildly Dry	Near Normal	Mildly Wet	Moderately Wet	Severely Wet
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Description**

Please provide a description of how dry, normal or wet conditions are affecting you, your livelihood, your activities, etc. \*



# SOIL MOISTURE MONITORING

For the most dedicated observers, CoCoRaHS provides an interface to submit soil moisture observations.

More time and labor intensive while requiring additional hardware and household items so not for everyone.

Valuable to provide means to assess how much rainfall is soaking into soil.

**Soil Moisture Report Form** Submit Data Reset

Station Number : UT-CH-2

Station Name : Hills 0.9 SW

\* Denotes Required Field

12/3/2020  \*Observation Date ?

AM  \*Observation Time ?

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

**Information about where the sample was taken**

Distance from previous sample in meters:

Is the land irrigated?  Yes  No

Did you begin a new row?  Yes  No

**Soil Samples**

Depth	Soil Type	Weight Before Drying (grams)	Volume of Rocks and Roots Removed (cm3)	Weight After Drying (grams)
0-2"	Select Soil Type... <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7-9"	Select Soil Type... <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Submit Data Reset

How can  
you become part  
of the Utah  
network?



## *Five easy steps*

- 1- Simply sign-up on the  
CoCoRaHS web page  
[www.cocorahs.org](http://www.cocorahs.org)*
- 2- Obtain a 4" plastic rain gauge  
(info available on web site)*
- 3- View the "training slide show"  
or attend a training session*
- 4- Set-up the gauge in a "good"  
location in your backyard*
- 5- Start observing precipitation  
and report on-line daily*

# EVERY DROP COUNTS

THANK YOU!!

EMAIL QUESTIONS TO [JON.MEYER@USU.EDU](mailto:JON.MEYER@USU.EDU)

SIGN UP AT [WWW.COCORAHS.ORG](http://WWW.COCORAHS.ORG)