



# Communicating and Reporting about Drought: Tools and Resources

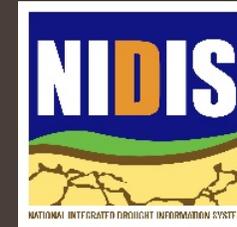
February 5, 2019

US Drought Monitor Workshop: Forecasting, Monitoring,  
and Responding to Drought in the Southeast

# Introduction to Drought Impact Reporting

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What have  
we heard  
so far?

- Local impacts: Maps may not reflect local observations and experiences
- Flash drought: difficult to assess and depict
- Communications: opportunities and challenges

# Impacts

validate and  
inform USDM &  
other processes

target aid

identify vulnerable  
sectors & locations





# Challenges – Gaps – Needs



**The Missing Piece:**  
Drought Impact Monitoring  
Report from a Workshop in Tucson, AZ  
MARCH 5-6, 2013

Kirsten Lackstrom, Amanda Brennan,  
Mike Crimmins, Lisa Darby, Kirstin Dow, Daniel Ferguson, Keith Ingram,  
Alison Meadow, Henry Reges, Mark Shafer, Kelly Smith



- 1) Fragmented and disparate efforts to collect and communicate information
- 2) Understanding sectoral and regional differences
- 3) Defining impacts and connecting to drought indicators
- 4) Linking impacts information to decision making



# The “Citizen Science-Condition Monitoring” Project

## Objectives

- 1) Test a new way of collecting drought impacts information from citizen science volunteers
- 2) Build public awareness of drought impacts
- 3) Generate information to better understand the linkages between drought and on-the-ground-impacts



An existing network of volunteers and resources

- Community Collaborative Rain, Hail & Snow Network (CoCoRaHS)

Other partners

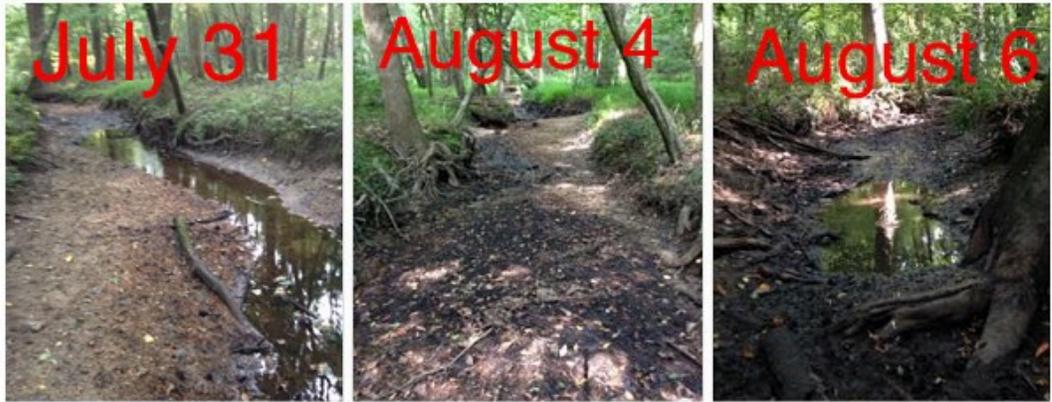
- National Drought Mitigation Center (NDMC)
- State Climate Offices
- National Integrated Drought Information System (NIDIS)

## My Data Entry : Condition Monitoring Report Form

Condition Monitoring Report Form						
Station : CO-LR-607 : Fort Collins 3.8 SSW						
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. <i>* indicates required field</i>						
Observation Date *						
4/13/2016						
Condition Scale Bar <a href="#">More information on the scale bar</a>						
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. *						
<input type="text"/>						
Report Categories						
Please check at least one report category. If you check a category, please provide supporting information in the description. <a href="#">More information on condition monitoring categories.</a>						
<input type="checkbox"/> General Awareness						
<input type="checkbox"/> Agriculture						
<input type="checkbox"/> Business And Industry						
<input type="checkbox"/> Energy						
<input type="checkbox"/> Fire						
<input type="checkbox"/> Plants And Wildlife						
<input type="checkbox"/> Relief Response						
<input type="checkbox"/> Society And Public Health						
<input type="checkbox"/> Tourism And Recreation						
<input type="checkbox"/> Water Supply And Quality						
Submit Data Reset						

## The process

- 1) Daily precipitation measurements
- 2) Weekly condition monitoring reports
- 3) The scale bar provides a standardized metric for reporting dry, wet, or near normal conditions
- 4) Report categories provide a guide for qualitative descriptions



Weekly observations help to monitor and identify

- early signs of drought
- deteriorating conditions
- Improving conditions
- lingering impacts

# Condition Monitoring



Jump to...

Go!

Reports of Interest



NC-RW-2

Awareness, Fire, Plants And Wildlife

## Anderson 10.5 SE

Sat Sep 28 2019

Another week with no rain. At this point, we've had only 0.16 inches of rain in the whole month of September! In fact, that's all the rain we've had since August 28! Folks are kicking up dust when they mow, deer leave their tracks in dusty places on the driveway, and fields are looking very brown. Lake Hartwell is now 3.73 feet below full pool. We need some rain!

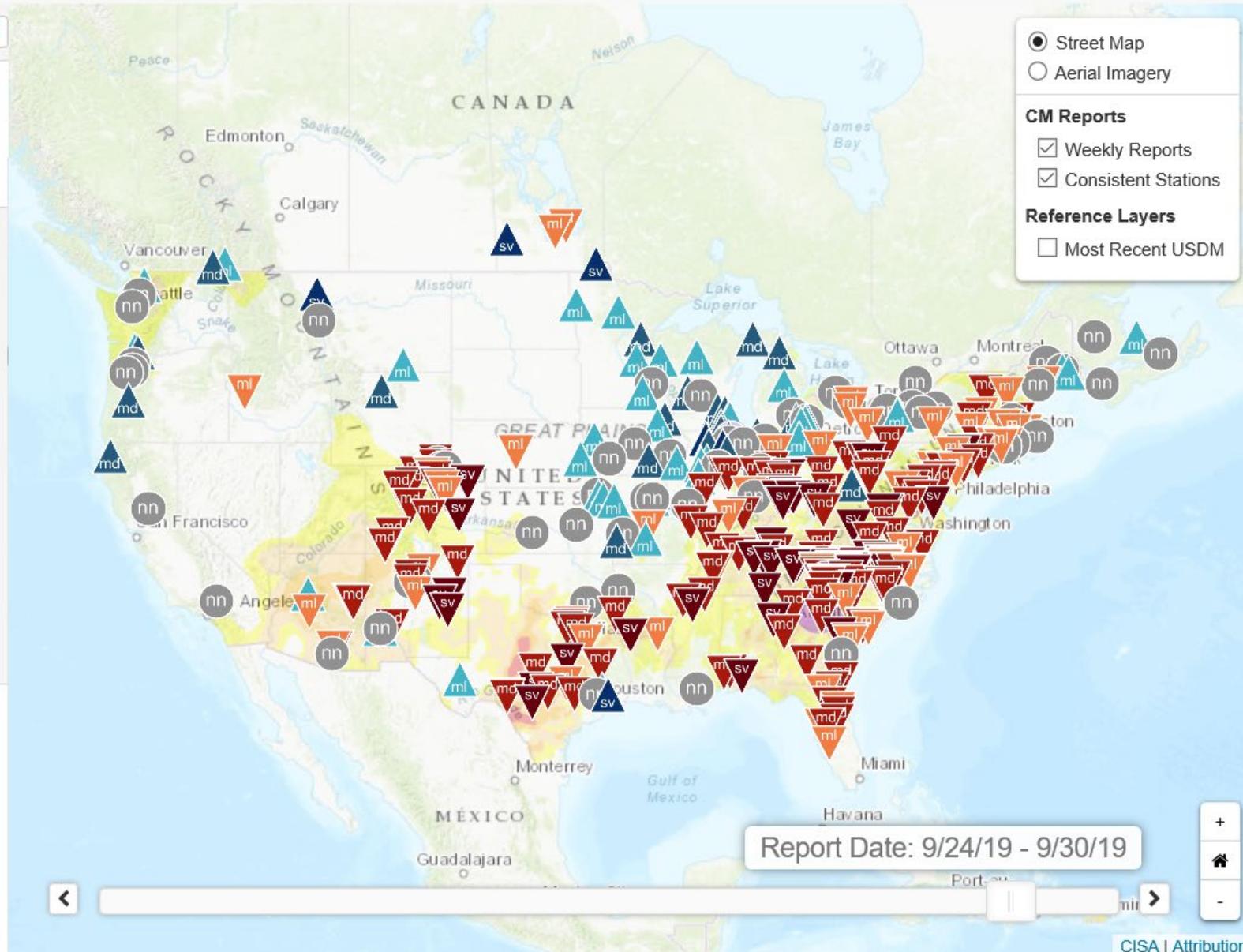
SC-AN-21 -- General Awareness, Plants And Wildlife, Water Supply And Quality

## Asheville 5.6 NNW

Thu Sep 26 2019

Another week with no measurable rain. Less than 0.2" in the past month. Accelerated leaf fall from yellow poplars.

NC-BC-1 -- General Awareness, Plants And Wildlife



CISA | Attribution

Condition Monitoring Interactive Web Map, <https://www.cocorahs.org/Maps/conditionmonitoring/>

# Example Reports

## Post- Hurricane Matthew, October 2016

### Severely Wet

“No direct impact on me, but numerous people in the southeast portion of the state are severely impacted by the aftermath of Hurricane Matthew. Roads are blocked, farmers’ fields are inundated, homes are under water, and beaches are eroded.”

*Brunswick County, NC, October 15, 2016*

### Severely Dry

“Worsening drought conditions have caused local communities to implement voluntary water restrictions. Continued dry conditions have dried lawns & gardens, reduced river levels to below normal, caused local farmers to import hay and/or reduce their herds, and continue to increase wildland fire risk.”

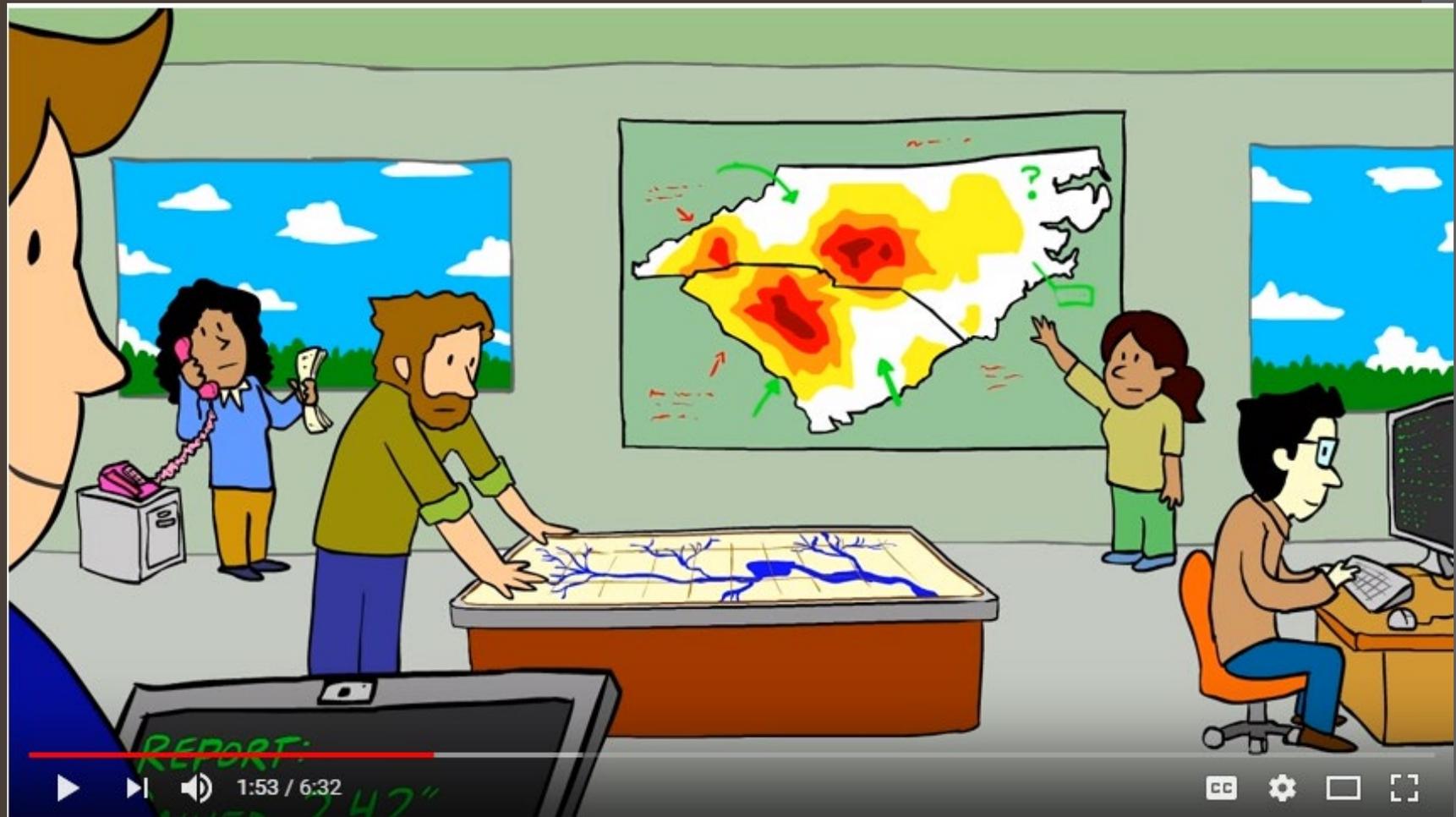
*Henderson County, NC, October 16, 2016*

# Who Uses the Reports?

US Drought Monitor

State Climate  
Offices

National Weather  
Service



Condition Monitoring [Training Animation](#)

## Who Uses the Reports?

“...reports are indirectly validating what we bring in as far as other data. And it gives you another perspective that is sometimes very hard to capture unless you have people, boots on the ground ....”

*US Drought Monitor Author*

“To me, it goes back to the question, is some information that is a bit subjective **better than no information?** In my opinion, yes!”

*NC State Climate Office*

“Although the process can be quite subjective, I rely on the observers to provide the best condition [reports] based on their observations.”

*National Weather Service*

# For More Information

## Carolinas Integrated Sciences & Assessments (CISA)

- Amanda Farris, [afarris@sc.edu](mailto:afarris@sc.edu)
- Kirsten Lackstrom, [lackstro@mailbox.sc.edu](mailto:lackstro@mailbox.sc.edu)
- [www.cisa.sc.edu](http://www.cisa.sc.edu)

## CoCoRaHS Condition Monitoring page

- <https://www.cocorahs.org/Content.aspx?page=condition>

## Sign up for CoCoRaHS!

- <https://www.cocorahs.org/Content.aspx?page=application>



# Who Uses the Reports?

“I think these reports are **indirectly validating** what we bring in as far as other data. And it gives you another perspective that is sometimes very hard to capture unless you have people, boots on the ground so to speak, talking with a lot of people to get that same kind of perspective.”

*US Drought Monitor Author*

“To me, it goes back to the question, is **some information** that is a bit subjective **better than no information**? In my opinion, yes!”

*NC State Climate Office*

“Although the process can be quite subjective, **I rely on the observers** to provide the best condition [reports] based on their observations.”

*National Weather Service*