

What is your landscape's current

# CONDITION?

Tell us by submitting a "CoCoRaHS Condition Report"

WET?  
NORMAL?  
DRY?



## A Guide to Monitoring your Local Conditions



# REPORTING LANDSCAPE CONDITIONS AT YOUR LOCATION

Welcome to our short tutorial on  
“Condition Monitoring”

This short slide show will help you understand the difference between the varying conditions of your landscape . . . wet, normal, dry and in-between. It will also discuss their impacts. We will show how to file a “condition report” via the CoCoRaHS Website. Finally, we will review our Mapping System and Condition Monitoring Summary Reports



# CONDITION MONITORING

To understand the impacts of drought on plants, animals, and people, it is very helpful to monitor conditions regularly, whether the weather is wet or dry. This allows us to see how a drought year differs from a normal year, and we learn how different plants, animals and people respond to the onset, intensification, and recovery of drought.

Regular condition monitoring can also help identify expected seasonal changes versus changes caused by unseasonably wet or dry conditions.

This type of monitoring can also help to identify long-term or cumulative effects of drought.

# CONNECTING WEATHER AND CLIMATE WITH THE ENVIRONMENT

Your knowledge about the local environment and how weather influences it can reveal much more than can be learned from recording daily rainfall alone.



# GUIDANCE ON CHANGING CONDITIONS

Changing conditions - the following slides will talk about seven different, but somewhat similar categories over the range of dry, normal and wet, while giving you guidance on how to distinguish between each category. Local conditions will change from wetter to drier, or drier to wetter, with varying amounts of rain or snowfall, or as seasons change. A lack of rainfall may lead to drier conditions more quickly in warmer summer months. In the case of an extreme event such as a hurricane or tropical storm, conditions may transition more quickly (e.g., moderately dry to severely wet).



# SEVEN CATEGORIES

MILDLY DRY

MODERATELY DRY

SEVERELY DRY

NEAR NORMAL

MILDLY WET

MODERATELY WET

SEVERELY WET



K. Rodgers

# DRY CONDITIONS

DRY CONDITIONS

MILDLY DRY

MODERATELY DRY

SEVERELY DRY



# DRY CONDITIONS

## MILDLY DRY

Growth may have slowed for plants, crops or pastures.

Local plants, pastures, or crops may have not fully recovered if conditions are changing from drier to wetter.

Soil is somewhat dry.

Precipitation or water deficits may be present.





# DRY CONDITIONS

## MODERATELY DRY

Plants may be brown due to dry conditions.

Voluntary water use restrictions may be in place.

Plants, crops, or pastures may be stressed.

Streams, reservoirs, or well water levels may be low.

Water shortages may be present.

Soil is dry.



# DRY CONDITIONS

## SEVERELY DRY

Soil moisture is absent.

Ponds, lakes, streams and wells may be nearly empty or dry.

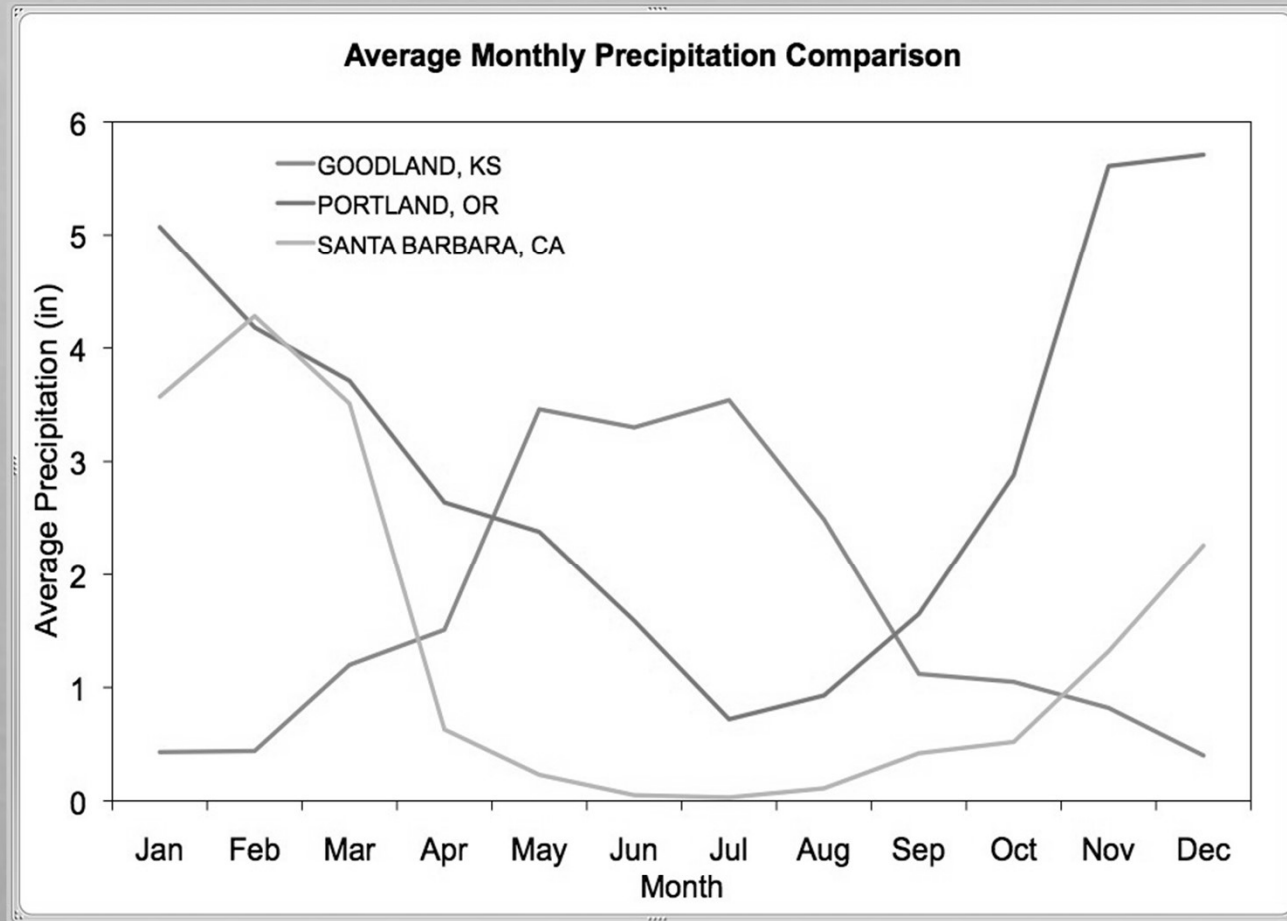
Crop or pasture losses may be experienced.

Mandatory water restrictions may be in place.

Water shortages or water emergencies are present or possible.



# IS THIS DROUGHT?



Several regions across the country go through “normal dry periods” each year. This is not considered drought. Drought will look different depending on the location and region of the country.

# NEAR NORMAL CONDITIONS

## NEAR NORMAL

Observed conditions are expected for this time of year.



# WET CONDITIONS

WET CONDITIONS

MILDLY WET

MODERATELY WET

SEVERELY WET



# WET CONDITIONS

## MILDLY WET

Local plants, crops, or pastures are healthy, recovering from dry conditions or draining from wet conditions.

Soil moisture is above normal.



# WET CONDITIONS

## MODERATELY WET

Local plants, crops, or pastures are healthy and lush.

Soil is very damp.



Standing water may be present in low areas and ditches.

Water bodies may be slightly more full than normal.

The ground is partially saturated with water.



# WET CONDITIONS

## SEVERELY WET

Water bodies are very elevated.

Standing water is severe and abundant.

Flooding may be present, leading to plant, crop, or pasture damage.

Soil is wet.

Ground is completely saturated with water.



B. Haywood





# TIME TO FILE A REPORT

It's very easy to do . . . Just observe, then report!



**Observe**

**Condition Monitoring Report Form** Submit Data Reset

Station Number : CO-LR-610  
Station Name : Fort Collins 3.5 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 \*  
9/7/2017

**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. \*

**Report Categories**  
Please check at least one report category. If you check a category, please provide supporting information in the description. [More information on condition monitoring categories.](#)

- General Awareness
- Agriculture
- Business & Industry
- Energy
- Fire
- Plants & Wildlife
- Relief, Response & Restrictions
- Society & Public Health
- Tourism & Recreation
- Water Supply & Quality

Submit Data Reset

**Report**

# HOW OFTEN SHOULD I FILE A CONDITION MONITORING REPORT?

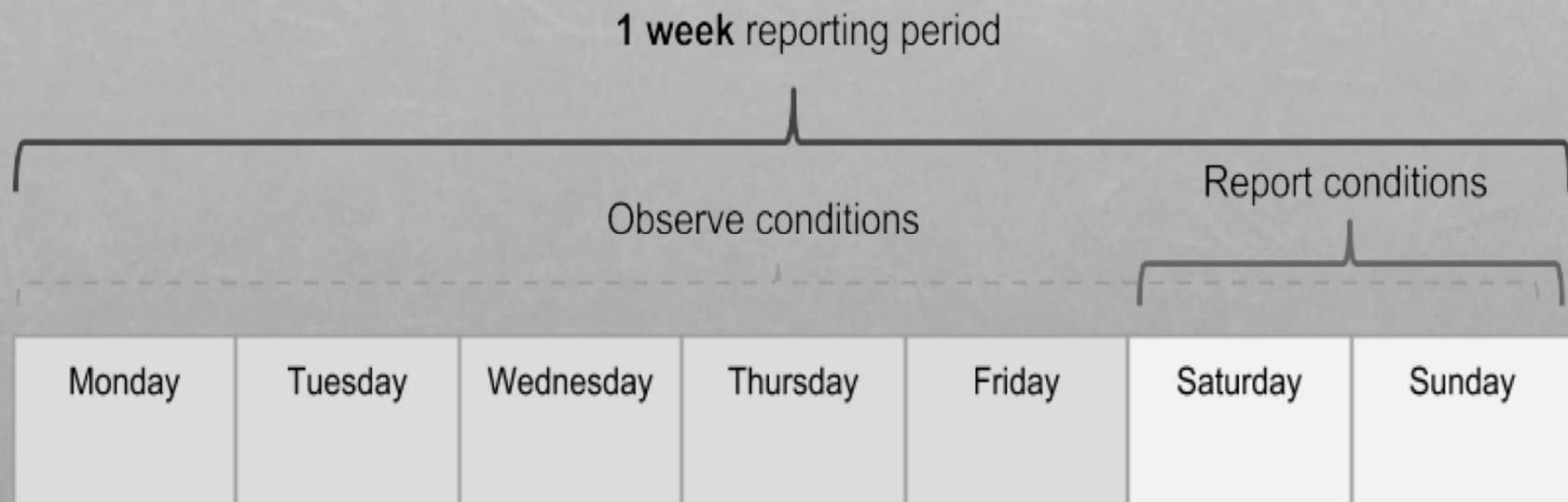
Great Question!

Weekly or as conditions change . . . It's up to you, but the more often you report, the better picture we'll get of your landscape's conditions. To be really helpful (see next slide) . . .



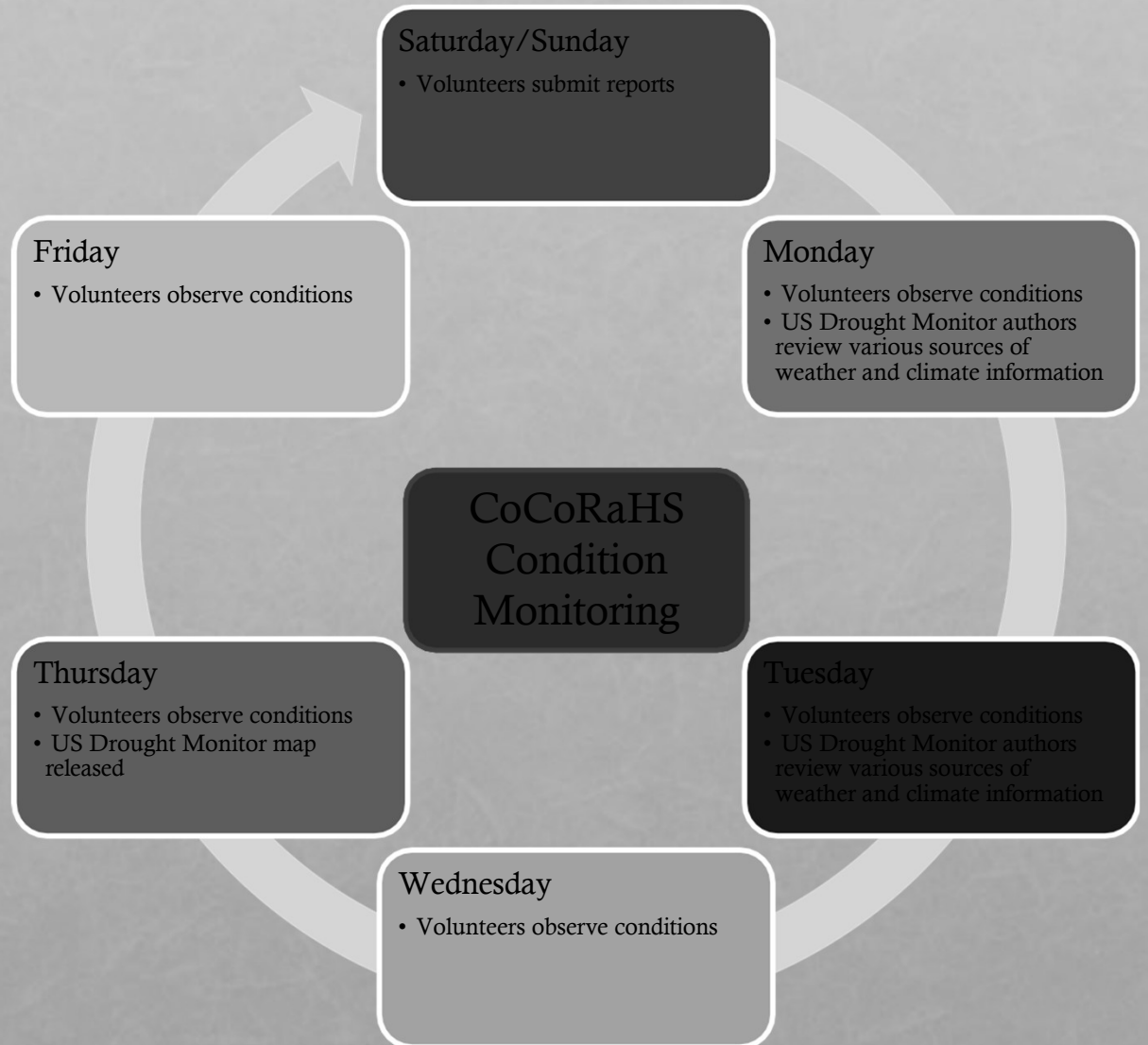
# A HELPFUL REPORTING SUGGESTION

One idea to improve reporting consistency is to ask that you report conditions for a one week reporting period. In doing so you would submit reports on either Saturday or Sunday.



# WHY SUBMIT REPORTS ON SATURDAYS AND SUNDAYS ?

- This will ensure that up-to-date information is available to US Drought Monitor authors, who review the information at the beginning of week in order to publish the Drought Monitor map on Thursdays.
- Having all observers submit condition monitoring reports on a weekly basis will also make condition reports more reliable and timely, thus more useful in scientific research.



# HOW DO I FILE A “CONDITION MONITORING REPORT” ?

First click on “My Data” from the menu at the top of the CoCoRaHS Web page



# CHOOSE “CONDITION MONITORING REPORT” FROM THE “ENTER MY NEW REPORTS” PANEL



**Condition Monitoring Report Form** Submit Data Reset

**Station Number :** CO-LR-610

**Station Name :** Fort Collins 3.5 SW

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*\* indicates required field*

**Report Date \***  
9/7/2017

**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. \*

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Please check at least one report category. If you check a category, please provide supporting information in the description. [More information on condition monitoring categories.](#)

- General Awareness
- Agriculture
- Business & Industry
- Energy
- Fire
- Plants & Wildlife
- Relief, Response & Restrictions
- Society & Public Health
- Tourism & Recreation
- Water Supply & Quality

Submit Data Reset

# CONDITION MONITORING REPORT FORM

Condition Monitoring Report Form							Submit Data	Reset
Station Number : CO-LR-610								
Station Name : Fort Collins 3.5 SW								
<p>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 <a href="#">Condition Monitoring training slide show</a> for more information.</p> <p><i>* indicates required field</i></p>								
<b>Report Date *</b>								
9/7/2017								
<b>Condition Scale Bar</b> <a href="#">More information on the scale bar</a> <input type="button" value="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"/>		
<b>Description</b>								
<p>Please provide a description of how dry, normal or wet conditions are affecting you, your livelihood, your activities, etc. *</p> <div style="border: 1px solid black; height: 40px;"></div>								
<b>Report Categories</b>								
<p>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></p> <ul style="list-style-type: none"><li><input type="checkbox"/> General Awareness</li><li><input type="checkbox"/> Agriculture</li><li><input type="checkbox"/> Business &amp; Industry</li><li><input type="checkbox"/> Energy</li><li><input type="checkbox"/> Fire</li><li><input type="checkbox"/> Plants &amp; Wildlife</li><li><input type="checkbox"/> Relief, Response &amp; Restrictions</li><li><input type="checkbox"/> Society &amp; Public Health</li><li><input type="checkbox"/> Tourism &amp; Recreation</li><li><input type="checkbox"/> Water Supply &amp; Quality</li></ul>								
							Submit Data	Reset

# ENTER REPORT DATE

**Condition Monitoring Report Form** Submit Data Reset

**Station Number :** CO-LR-610

**Station Name :** Fort Collins 3.5 SW

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*\* indicates required field*

**Report Date \***

9/6/2017

**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. \*



# SELECT FROM THE CONDITION MONITORING SCALE BAR

**Condition Monitoring Report Form** Submit Data Reset

Station Number : CO-LR-610

Station Name : Fort Collins 3.5 SW

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\* indicates required field

Report Date \*

9/6/2017

**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. \*

The condition scale bar is used to provide a standardized form of condition reporting. You can select from one of the seven categories representing a range of dry, wet, or normal conditions.

There is a link to additional guidance to help you select from the different categories.



Severely Dry	Moderately Dry	Mildly Dry	Near Normal	Mildly Wet	Moderately Wet	Severely Wet
●	●	●	●	●	●	●

Dry Conditions	Normal Conditions	Wet Conditions
<b>Mildly Dry</b> <ul style="list-style-type: none"> <li>• Soil is somewhat dry.</li> <li>• Growth may have slowed for plants, crops, or pastures.</li> <li>• Precipitation or water deficits may be present.</li> <li>• Local plants, pastures, or crops may not have fully recovered if conditions are changing from drier to wetter.</li> </ul>	<b>Near normal</b> <p>Observed conditions are expected for this time of year.</p>	<b>Mildly Wet</b> <ul style="list-style-type: none"> <li>• Soil moisture is above normal.</li> <li>• Local plants, crops, or pastures are healthy, recovering from dry conditions, or draining from wet conditions.</li> </ul>
<b>Moderately Dry</b> <ul style="list-style-type: none"> <li>• Soil is dry.</li> <li>• Plants may be brown due to dry conditions.</li> <li>• Plants, crops, or pastures may be stressed.</li> <li>• Streams, reservoirs, or well water levels may be low.</li> <li>• Water shortages may be present.</li> <li>• Voluntary water use restrictions may be in place.</li> </ul>		<b>Moderately Wet</b> <ul style="list-style-type: none"> <li>• Soil is very damp.</li> <li>• The ground is partially saturated with water.</li> <li>• Standing water may be present in low areas and ditches.</li> <li>• Local plants, crops, or pastures are healthy and lush.</li> <li>• Water bodies may be slightly more full than normal.</li> </ul>
<b>Severely Dry</b> <ul style="list-style-type: none"> <li>• Soil moisture is absent.</li> <li>• Crop or pastures losses may be experienced.</li> <li>• Ponds, lakes, streams, and wells may be nearly empty or dry.</li> <li>• Mandatory water restrictions may be in place.</li> <li>• Water shortages or water emergencies are present or possible.</li> </ul>		<b>Severely Wet</b> <ul style="list-style-type: none"> <li>• Soil is wet.</li> <li>• Ground is completely saturated with water.</li> <li>• Standing water is severe and abundant.</li> <li>• Water bodies are very elevated.</li> <li>• Flooding may be present, leading to plant, crop, or pasture damage.</li> </ul>

Further detail on the seven categories

# WRITE A CONDITION MONITORING DESCRIPTION

<b>Condition Monitoring Report Form</b>						
<input type="button" value="Submit Data"/> <input type="button" value="Reset"/>						
<b>Station Number :</b> CO-LR-610						
<b>Station Name :</b> Fort Collins 3.5 SW						
<p>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 <a href="#">Condition Monitoring training slide show</a> for more information.</p> <p><i>* indicates required field</i></p>						
<b>Report Date *</b>						
9/6/2017 <input type="button" value="v"/>						
<b>Condition Scale Bar</b> <a href="#">More information on the scale bar</a> <input type="button" value="Clear Scale Bar"/>						
<b>Severely Dry</b>	<b>Moderately Dry</b>	<b>Mildly Dry</b>	<b>Near Normal</b>	<b>Mildly Wet</b>	<b>Moderately Wet</b>	<b>Severely Wet</b>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Description</b>						
Please provide a description of how dry, normal or wet conditions are affecting you, your livelihood, your activities, etc. *						
<input type="text"/>						

# WRITING DESCRIPTIONS

When writing descriptions you can use the report categories as a guide:



Were there agricultural impacts this week?



Was business and industry affected?



Did you notice any public health impacts?



Was there fire?

- General Awareness
- Agriculture
- Business & Industry
- Energy
- Fire
- Plants & Wildlife
- Relief, Response & Restrictions
- Society & Public Health
- Tourism & Recreation
- Water Supply & Quality

# OBSERVATION GUIDANCE

If possible, consistently report from specific locations:



Report on specific  
bodies of water



Report on  
specific plant life



Report on specific  
businesses

Please note the differences between your last report and the current conditions.

# DESCRIPTION EXAMPLES



**Madison County, NC – March 8, 2015:** This has been a week of extremes – from a high of 73° to a low of 18° with a covering of snow and ice. The good news is that ***definite signs of spring*** are finally appearing. Song sparrows are starting to sing. Crocuses are blooming. And, best of all, ***wood frogs have returned to our pond and laid eggs.*** This is late. According to my records over 10 years, the average date for wood frogs coming to the pond is February 18.

**Buncombe County, NC – November 30, 2015:** We continue in the all or nothing weather pattern. 6" rain, a week of unseasonably warm and dry, 2" 15 days warm and dry and a quick 2 day cool down, and now 2+ precip again. ***In between the rain it has been alarming how quickly the streams and creeks go back to below normal levels.*** Birds are emptying the feeders quickly, and I am still seeing snakes, groundhogs and one bear sighting. We ate our thanksgiving dinner on the porch. sunsets and sunrises have been spectacular. ***Tourists*** are enjoying the warm dry spells for hiking and shopping. ***Farmers*** are shaking their heads! ***Most everyone has a sniffle*** - seasonal whiplash

# MORE DESCRIPTION EXAMPLES

## **Pickens County, SC, April 20-June 10, 2014 –**

Incipient drought is now occurring in western Pickens County, SC. Except for a 3.14" single day rainfall on May 15, only 2.12" of rain has fallen during a 51 day span from April 20 to June 10. Irrigation has become an increasingly normal activity for both agriculture and (in my case) horticulture. Year to date rainfall at SC-PC-1 is only 20.71" or about 7 inches below normal.

## **Rio Grande County, CO, December 17, 2015 –**

In the last four weeks I have recorded only 0.02" of moisture. Without snow cover, crops started this fall suffer desiccation and vulnerability to winter kill. This coupled with laws preventing supplemental irrigation in winter has me concerned about my perennial and fall seeded crops.

**DRY  
CONDITIONS**

## **WET CONDITIONS**

**Nash County, NC, February 3, 2016 –** Rain total for last week is 2.64. The creek (Flat Rock Branch) is back to normal. The Pond at Rocky Mount Memorial Park is full. Minor flooding last Friday in nearby fields. Minor flash flooding on roads last week. The daffodils are at their peak of flowering, brightening the yard with yellow flowers.

**Richland County, SC, October 31, 2015 –** Our station had 19.38" in October, almost 16" of which fell in the first six days. We've had 1.55" during the last five days of the month. Our neighborhood has plenty of springs, but they only appear when it's really wet. The neighborhood has "bled" all month, although only the most persistent springs are still active. We have one French drain that runs when it's really wet and it's still going strong, but it's drawing water from a foot or more under the surface.



**Report Categories**

Please check at least one report category. If you check a category, please provide supporting information in the description. [More information on condition monitoring categories.](#)

- General Awareness
- Agriculture
- Business & Industry
- Energy
- Fire
- Plants & Wildlife
- Relief, Response & Restrictions
- Society & Public Health
- Tourism & Recreation
- Water Supply & Quality


A more detailed look at each category follows in the slides ahead.



**LAST STEP: REVIEW THE CATEGORIES AND CHECK ALL THAT APPLY**

# REPORT CATEGORIES

General Awareness      Fire      Agriculture  
Energy      Tourism and Recreation  
Plants and Wildlife      Business and Industry  
Water Supply and Quality      Relief, Response &  
Society and Public Health      Restrictions

 **Report Categories**

Please check at least one report category. If you check a category, please provide supporting information in the description. [More information on condition monitoring categories.](#)

- General Awareness
- Agriculture
- Business & Industry
- Energy
- Fire
- Plants & Wildlife
- Relief, Response & Restrictions
- Society & Public Health
- Tourism & Recreation
- Water Supply & Quality

# GENERAL AWARENESS

The “General Awareness” option provides a box to check when conditions may not have changed or if the other report categories are not appropriate for the content of your report.

## Ideas for what to monitor

- Precipitation measurements or other weather observations
- General reports about local conditions, events, or news
- Information from drought forecasts or monitoring assessments

# AGRICULTURE

Varying precipitation conditions can effect agriculture, farming, aquaculture, horticulture, forestry and ranching.

Examples of agricultural impacts, including some backyard gardens may include: damage to crop quality; income changes for farmers due to reduced crop yields or abundant yields; reduced productivity of cropland; flooded fields; insect infestation; plant disease; increased/decreased irrigation costs; Changes in productivity of rangeland; forced reduction of foundation stock; closure/limitation of public lands to grazing; and high cost/unavailability of water for livestock, Christmas tree farms, forestry, raising domesticated horses, bees, fish/shellfish and horticulture.

## Ideas for what to monitor

- Irrigated crop progress, appearance
- Unirrigated crop progress, appearance
- Availability or quality of forage or hay for livestock
- Availability of water for livestock
- Availability of water for irrigation

# BUSINESS & INDUSTRY

Examples of precipitation/drought impacts affecting non-ag businesses, lawn care businesses, sales of recreational vehicles/other recreational gear or plant nurseries, etc.

Examples of precipitation-induced business impacts could include: physical damage due to flooding, reduction/loss of employees, change in sales/business, variation in number of calls for service, early closure/late opening for the season or vice-versa, bankruptcy, permanent store closure and economic impacts.

## Ideas for what to monitor

- Pounds of bait sold
- Number or quality of fish catch, or the need to diversify species or business activities
- Number of watercraft rented (canoes, kayaks, pontoon boats)
- Effects on landscaping business, such as number of plants replaced or planted, people employed
- Prices or availability of agricultural products
- High or low irrigation costs

# ENERGY

Precipitation/drought effects which are associated with power production, electricity rates, energy revenue, and purchase of alternate sources of energy.

Examples include hydropower and non-hydropower production when affected by drought or flood, electricity rates, revenue shortfalls and/or windfall profits and the purchase of electricity when hydropower generation is down. Power outages due to severe weather or extreme events. Physical damage due to flooding.

## Ideas for what to monitor

- Needing to heat or cool your home when temperatures are colder or hotter
- Turning off the A/C or heat when temperatures are mild

# FIRE

These include precipitation/drought effects contributing to forest, range, rural, or urban fires, fire danger, and burning restrictions.

Examples of fire impacts include: Increase of possible fuels during wet season, Enactment/easing of burning restrictions, fireworks ban, increased/decreased fire risk, occurrence of fire (# of acres burned, # of wildfires compared to average, people displaced, etc.), increase/decrease in fire fighting personnel, state of emergency during periods of high fire danger and the closure of roads land due to fire occurrence or risk. Increased potential for flooding and debris/rock/mud slides in and downstream of burn areas.

## Ideas for what to monitor

- Information about prescribed burns in your area
- Presence or absence of burn bans
- Wildfire

# PLANTS & WILDLIFE

Wetness/drought effects which are associated with wildlife, fisheries, forests and other fauna.

Examples include: loss of biodiversity of plants or wildlife; health of trees, shelterbelts, wooded conservation areas; reduction and population of fish and wildlife; Variations of feed and drinking water; In drought conditions greater mortality due to increased contact with agricultural producers, as animals seek food from farms and producers are less tolerant of the intrusion; disease; change in vulnerability to predation (from species concentrated near water); migration and concentration (loss of wildlife in some areas and too many wildlife in other areas); Changes in stress to endangered species; and salinity levels affecting wildlife, wildlife encroaching into urban areas, loss or gain of wetlands.

## Ideas for what to monitor

- Height or density of natural vegetation, one particular plant or patch
- Presence or absence of a certain kind of plant, to include invasive species
- Landscape or garden plants, height, progression through growth cycles  
Ex: Frequency of lawn mowing
- Whether landscape or garden plants need watering  
Ex: Brown spots on lawns
- How close wildlife are coming to human populations in search of food and water  
Ex: deer in yards      Ex: Number of bears looking for food or water
- Number of animals species at a drinking water source  
Ex: Number of birds species at birdbath or feeder
- Presence or absence of aquatic species at a favorite fishing hole; number or size of a certain species; number of species counted      Presence or absence of mosquitoes, grasshoppers, other insects with life-cycles related to dry and wet weather



# RELIEF, RESPONSE & RESTRICTIONS

Some precipitation/drought effects associated with disaster declarations, aid programs, requests for disaster declaration or aid due to flood or drought, water restrictions and fire restrictions.

Impacts include: Disaster declarations, aid programs, USDA Secretarial disaster declarations, SBA disaster declarations, government relief and response programs, state-level declarations or “state of emergency”, county-level declaration or “state of emergency”, requests for declarations or aid, non-profit organization based relief, water restrictions, flood or drought declarations, fire restrictions and declaration of drought watches/warnings.

## Ideas for what to monitor

- Presence or absence of burn bans, or fireworks bans
- Presence or absence of watering restrictions

# SOCIETY & PUBLIC HEALTH

Precipitation/drought effects associated with the public and human health.

Examples of precipitation/drought-induced social impacts include: health-related problems, loss of human life (e.g., from heat stress, suicides, floods, drownings); increased respiratory ailments; mosquito and water borne illnesses; increased disease caused by wildlife concentrations; population migrations (rural to urban areas, migrants into the United States); loss of aesthetic values; change in daily activities, elevated stress levels, meetings to discuss flooding or drought, communities creating drought plans and flood mitigation and storm water management strategies, communities opening shelters, cancellation/alteration of events, festivals or holiday traditions, stockpiling water, public service announcements and drought/flood info websites.

## Ideas for what to monitor

- Water supply quality and quantity for human consumption: Need to haul or boil water
- Air quality related to dust, aerosols, smoke, or pollen: Whether outdoor activities are accessible or need to be curtailed due to air quality
- Mood: How do farmers, ranchers, neighbors, family, etc. sound when they talk about the weather? (i.e., normal, glad, amazed, depressed, scared, relieved)

# TOURISM & RECREATION

Precipitation/drought effects associated with people's recreational activities and tourism.

Examples of tourism and recreation impacts include: public safety threats caused by flooding; water access or navigation problems for recreation; bans on recreational activities; reduced license, permit, or ticket sales (e.g. hunting, fishing, ski lifts, etc.); losses related to curtailed activities (e.g. bird watching, hunting and fishing, boating, etc.); reduced park visitation (trails closed due to flooding); delayed or early opening for ski resorts; increase/decrease in artificial snow generation; and cancellation or postponement of sporting events/tournaments.

## Ideas for what to monitor

- Water-based recreation: Number of people boating, canoeing, swimming, fishing at a certain spot
- Outdoor recreation: Number of people hiking, camping, etc.

# WATER SUPPLY & QUALITY

Here are some precipitation/drought effects associated with water supply and water quality.

Dry and wet examples include: Dry wells, saturated septic leach fields, water restrictions, changes in water rates (usually drought), easing of water restrictions as conditions get wetter, increase in requests for new well permits, changes in water use, water demand, and water allocation/allotments. Installation/alteration of water pumps or water intakes, changes to allowable water contaminants, water line damage/repairs due to drought stress, drinking water turbidity, change in water color or odor, declaration of drought watches/warnings and mitigation activities. Runoff increasing pollution in lakes and streams.

## Ideas for what to monitor

- Water supply quality and quantity for human consumption:  
Need to haul or boil water
- Water quality and characteristics: Changes in taste, odor, color, chemical content (if a well is tested annually)
- Municipal supply: Voluntary or mandatory watering restrictions
- Availability of water for livestock
- Availability of water for irrigation



## Report Categories

Please check at least one report category. If you check a category, please provide supporting information in the description. [More information on condition monitoring categories.](#)

- General Awareness
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- Energy
- Fire
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Submit Data

Reset

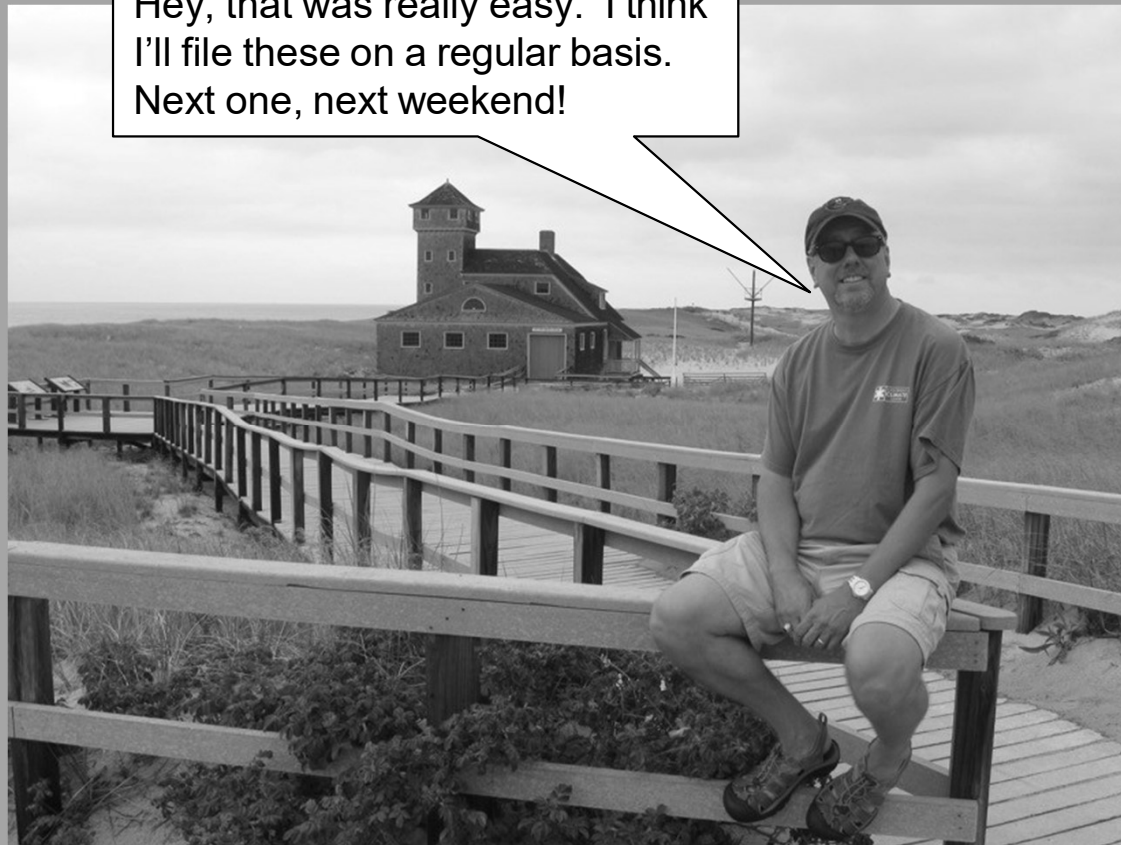


**FINALLY CLICK ON THE SUBMIT DATA BUTTON  
TO FILE YOUR REPORT**

# CONGRATULATIONS!

YOU'VE JUST FILED A CONDITION REPORT!

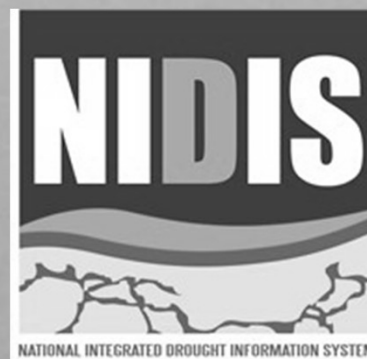
Hey, that was really easy. I think I'll file these on a regular basis. Next one, next weekend!



IT'S PRETTY SIMPLE AND GETS EASIER THE MORE OFTEN YOU FILE ONE

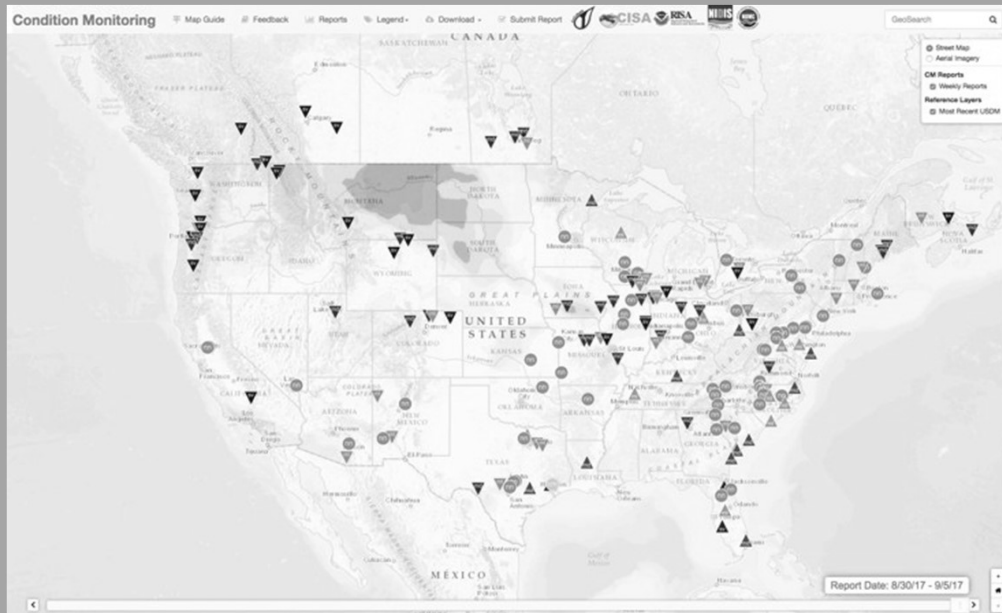
# WHO WILL USE MY CONDITION REPORTS ?

They will be used by many entities interested in climate and landscape conditions.

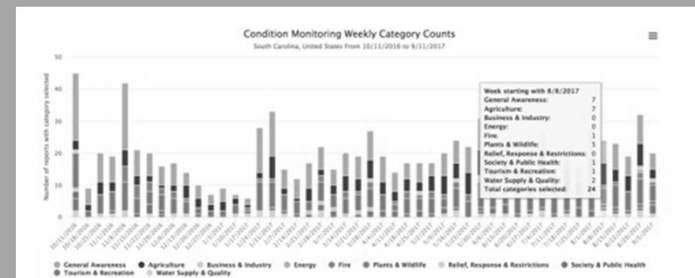
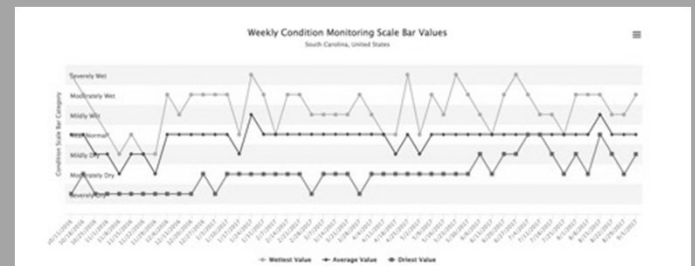
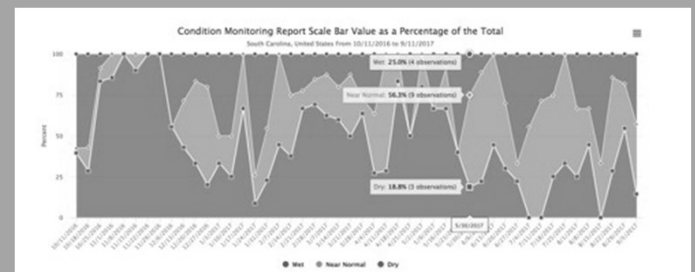


# ADDITIONAL TOOLS

## Condition Monitoring Summary Reports

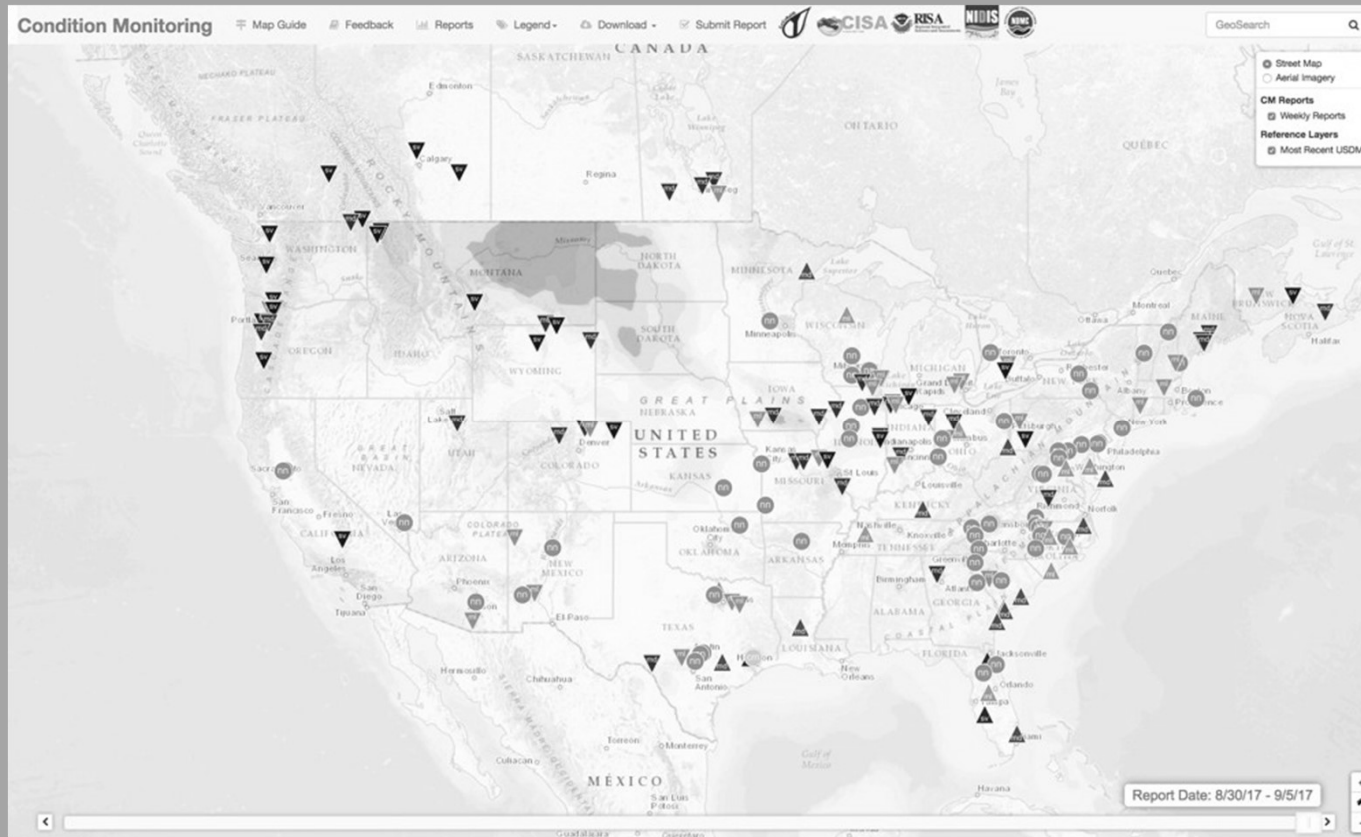


The Interactive Web Map





# USING THE WEB MAP



The web map is a tool intended to depict local, community-level conditions and how recent weather and climate events have affected those communities. Volunteer observers provide weekly reports through the Community Collaborative Rain, Hail, and Snow (CoCoRaHS) network website. The web map spatially displays the reports and provides the current US Drought Monitor Map that can be used in the monitoring of drought onset, intensification, and recovery.



Click the image to learn more

## CoCoRaHS Data

The condition monitoring web map is designed to work primarily with CoCoRaHS condition monitoring data.

This data includes qualitative descriptions of local conditions reported by observers, "Condition Monitoring Reports". Click the observer point location in the web map to read the condition report in a pop up. Filter reports by searching keywords, counties, station number, and report category in the left "Reports of Interest" box. Only the reports currently displayed on the map can be searched.

**Condition Monitoring** | Map Guide | Feedback | Reports | Legend | Download | Submit Report | CISA | RISA | NIDIS | USMC | GeoSearch

**Reports of Interest**

Search Reports

to dry conditions. Plants, crops, and pastures were becoming stressed. We had gone 9 days without rain and with rapid drying. Then on Thursday, we had 1.24 inches of rain bringing on significant recovery.

OH-HM-24 -- General Awareness, Agriculture

▼ **Detroit Lakes 5.7 N**  
2017-08-20T00:00:00Z

I've had 1.56" of rain the last week. River water levels are low in western Becker County, but normal to high in eastern

**Filter reports for the displayed week by searching keywords, county, station, and report category.**

**Open and close condition monitoring reports.**

**Click on observer points to read reports or read from the reports column. Hover over a report in the column to see it highlighted on the map.**

Local streams dry. Sackett river starting to slow down. Grass in direct sun is brown, shaded doing OK. About 1.3" of rain here in part 4 weeks as storms either track north or south of us, or just fall apart before they reach us. Town watering restrictions in place, odd/even days with no weekend watering allowed.

MA-PL-22 -- General Awareness

▼ **Farmville 1.0 SSW**  
2017-08-19T00:00:00Z

Report Date: 8/17/17 - 8/23/17

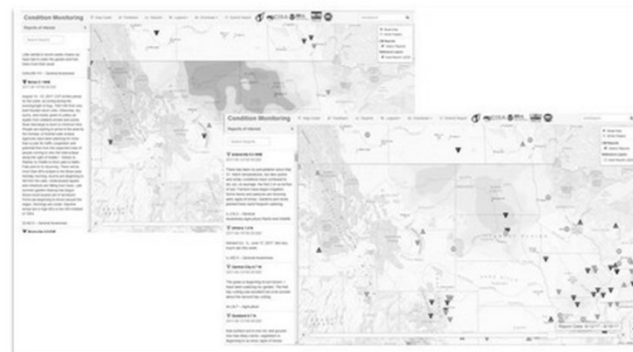
Street Map | Aerial Imagery | CM Reports | Weekly Reports | Reference Layers | Most Recent USDM

CISA | Attribution

# Time Slider

The slider at the bottom of the map can be used to view reports and the US Drought Monitor Map on a weekly basis. When you open the web map, the last 7 days of reports will be displayed. Use the time slider at the bottom of the page to view reports from previous weeks.

Weeks start Tuesday and end Monday. CoCoRaHS volunteers are asked to submit their reports Saturday, Sunday, and Monday so that they can be considered for the US Drought Monitor on Tuesday.



Click the image to learn more

**Callout 1:** The initial report dates will be the last 7 days. Once you scroll the weeks will show data on the dates shown after "Report Date".

**Callout 2:** The slider at the bottom of the page shows reports and the USDM layer one week at a time. Track changes in drought and reports through time.

**Callout 3:** Scroll through by clicking and holding on the slider and dragging it along the timeline OR by clicking on the arrows on either side of the timeline.

**Map Content:** The map displays various reports with details such as:
 

- Boise 2.1 NNE** (2017-06-19T00:00:00Z): August 13 - 19, 2017: 0.07 inches precip for the week, occurring during the evening night of Aug. 13th/14th from very brief thunder storm cells. General: dry, sunny, and mostly green to yellow air quality from wildfire smoke and ozone. River discharge is down to minimum flow. People are starting to arrive in the area for the Monday (21st) total solar eclipse. Agencies have been planning for more than a year for traffic congestion and potential fires from the expected mass of people coming to view the total eclipse along the path of totality. Visitor to Stanley to Challis to Mud Lake to Idaho Falls and on to Wyoming. There will be more than 90% eclipse in the Boise area Monday morning. Acorns are beginning to fall from the oaks. Underdeveloped apples and chestnuts are falling from trees. Late summer garden cleanup has begun. Brown eyed sunans are in full bloom. Firms are beginning to brown around the edges. Mornings are cooler. Daytime temps are in high 50's or low 90's instead of 100's.
- Central City 6.7 W** (2017-06-12T00:00:00Z): The grass is beginning to turn brown. I have been watering my garden. The first hay cutting was excellent but a bit worried about the second hay cutting.
- Godsard 0.7 N** (2017-06-12T00:00:00Z): Sub-surface soil is now dry and ground now has deep cracks. vegetation is beginning to show signs of stress.



Click the image to learn more

## Map Controls

There are numerous ways to interact with the map. The side bar allows users to toggle map layers on and off and the zoom buttons at the side of the map enable users to see a more specific area of the map. The top of the map provides options to give feedback, view legends explaining the map symbols, and submit your own condition monitoring report. All of the report data can be downloaded as a .csv file and queried using computer software such as Microsoft Excel. Alternatively, the CoCoRaHS data website has a query box for searching reports by station, location, category, and date. More download options are currently under construction.

**Condition Monitoring** | Map Guide | Feedback | Reports | Legend | Download | Submit Report | CISA | RISA | NIDIS | SMC

GeoSearch

Reports of Interest

Search Reports

to dry conditions. Plants, crops, and pastures were becoming stressed. We have gone 9 days without rain and with rapid drying. Then on Thursday, we had 1.24 inches of rain bringing on significant recovery.

OH-HM-24 -- General Awareness, Agriculture

▼ Detroit Lakes 5.7 N  
2017-08-20T00:00:00Z

I've had 1.56" of rain the last week. River water levels are low in western Becker County, but normal to high in eastern Becker. Wheat harvest continues, corn and soybeans look good.

MIN-BK-10 -- General Awareness, Agriculture, Water Supply And Quality

▼ East Bridgewater 0.3 WSW  
2017-08-20T00:00:00Z

Local streams dry. Satucket river starting to slow down. Grass in direct sun is brown, shaded doing OK. About 1.3" of rain here in part 4 weeks as storms either track north or south of us, or just fall apart before they reach us. Town watering restrictions in place, odd/even days with no weekend watering allowed.

MA-PL-22 -- General Awareness

▼ Farmville 1.0 SSW  
2017-08-19T00:00:00Z

Learn more about using the map with the "Map Guide" and provide feedback on the map by clicking on the buttons in the navigation bar.

Find the legends for the US Drought Monitor and condition monitoring reports in the navigation bar. Download summary data of the reports and submit reports.

Turn off and on the reports, change the map background, and view the most recent US Drought Monitor map using the control panel.

Zoom in and out on the map by clicking the + and - on the zoom control. Zoom to original map extent by click the "home" in the zoom control.

Report Date: 8/17/17 - 8/23/17

Street Map  
Aerial Imagery  
CM Reports  
Weekly Reports  
Reference Layers  
Most Recent USDM

Report Date: 8/17/17 - 8/23/17

CISA Attribution

# U.S. Drought Monitor

The National Drought Mitigation Center (NDMC) publishes a weekly report of US drought conditions through the U.S. Drought Monitor (USDM). It is jointly produced by NDMC at the University of Nebraska-Lincoln, the US Department of Agriculture, and the National Oceanic and Atmospheric Administration (NOAA). The USDM map is available as a layer in the web map, allowing a comparison of condition monitoring reports with USDM drought designations. Use the time slider to sort through weekly time intervals.



Click the image to learn more

# CONDITION MONITORING SUMMARY REPORTS

CoCoRaHS Condition Monitoring Summary Report

Filter Condition Monitoring Data

By Station Field:  
SC-CR-88  Station Number  Station Name

By Location:  
All Countries

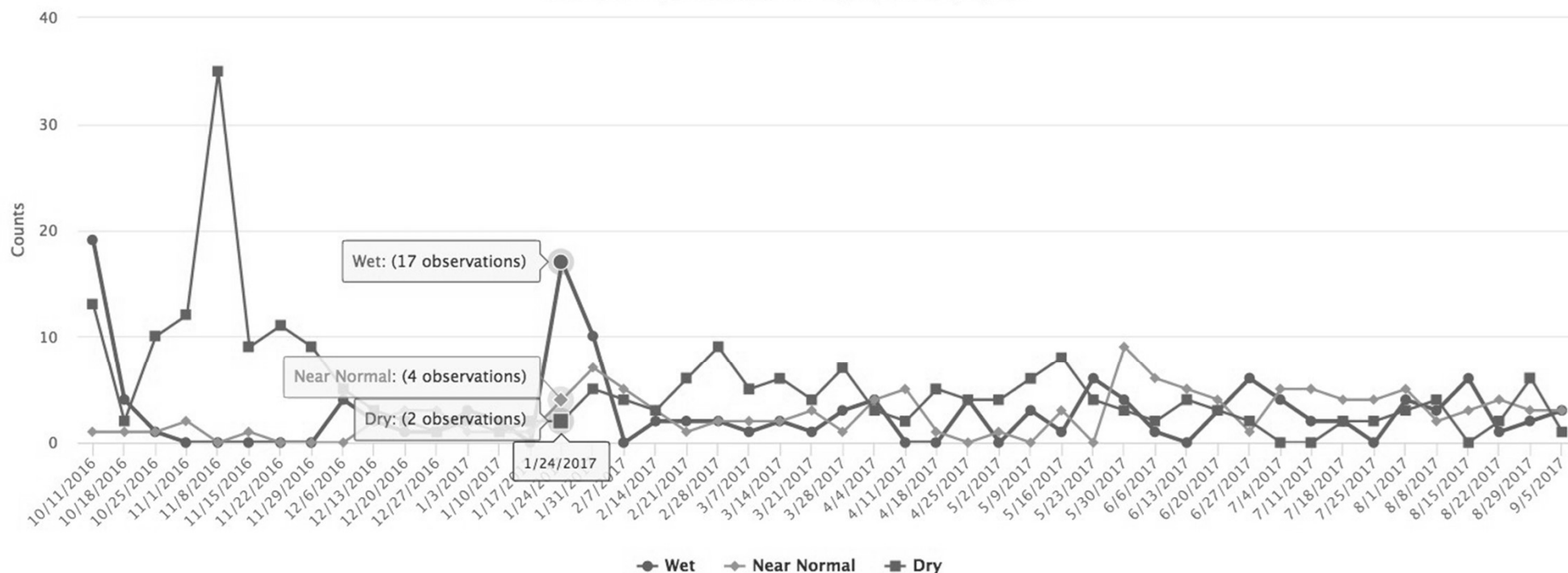
Generate Report

You can generate reports by using the station number or name or by location

# CONDITION MONITORING REPORT SCALE BAR VALUE FREQUENCY DISTRIBUTION

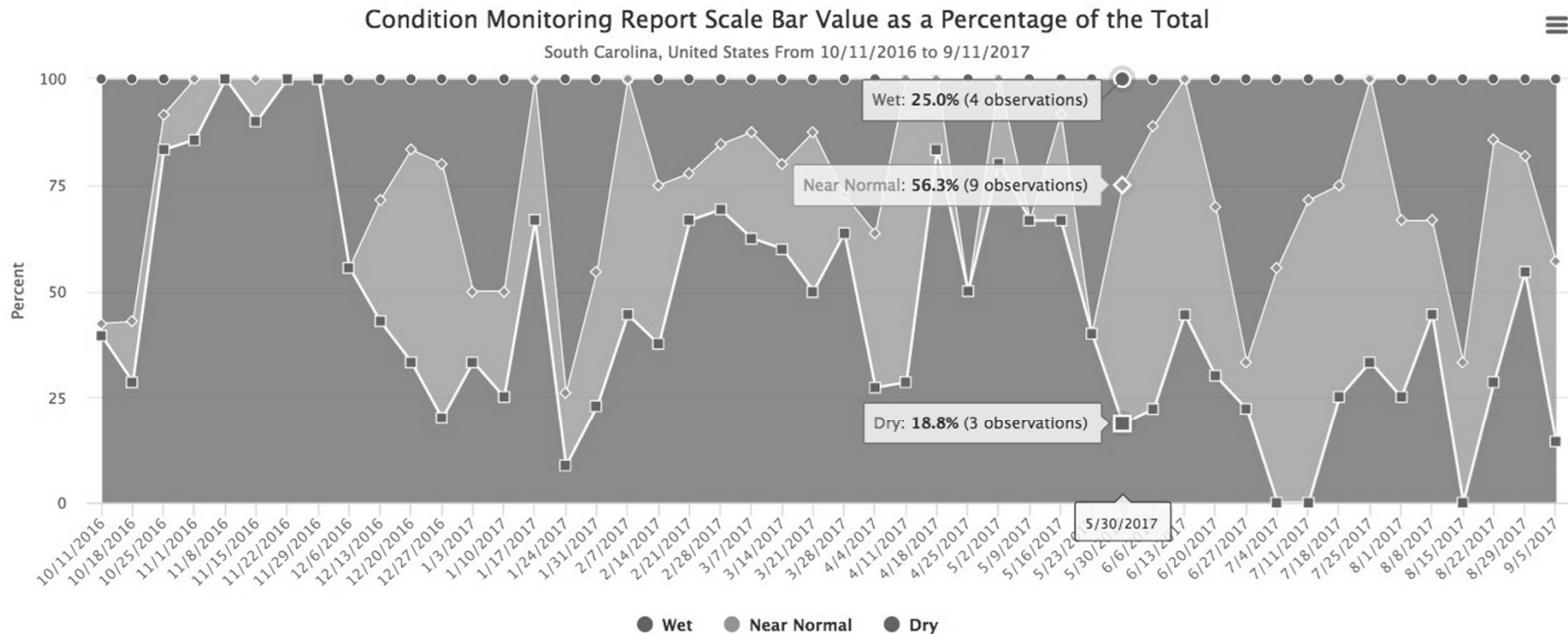
Condition Monitoring Report Scale Bar Value Frequency Distribution

South Carolina, United States From 10/11/2016 to 9/11/2017



This chart displays observers' scale bar selections for each week. The chart can give the viewer an idea of how conditions might have changed from dry to wet, or wet to dry, for the selected geographic scale (i.e., nation, state, county, or individual station). The wet and dry values from the condition monitoring scale bar have been grouped in this chart. That is to say, all reports with scale bar selections of either mildly dry, moderately dry, or severely dry are represented by the "dry" category in this chart.

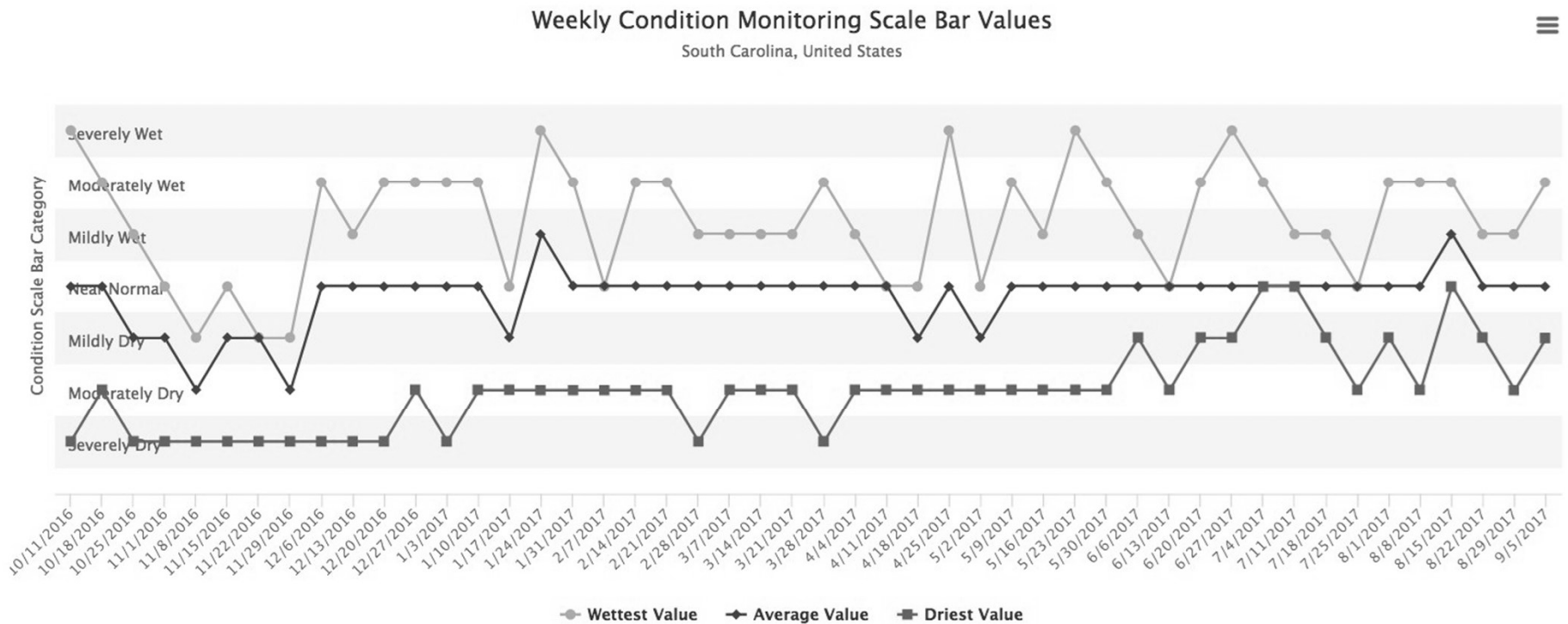
# CONDITION MONITORING REPORT SCALE BAR VALUE AS A PERCENTAGE OF TOTAL



This chart displays observers' scale bar selections as a percentage of the total number of reports submitted for that week. For instance, if there were 10 reports submitted for a single state in a given week with 5 reports indicating dry conditions, 2 reports indicating wet conditions, and 3 reports indicating near normal conditions, the chart would display 50% dry, 20% wet, and 30% near normal values for that week. This chart can give the user a sense of change in conditions over time as observer selections change from wet to dry or dry to wet.



# WEEKLY CONDITION MONITORING SCALE BAR VALUES

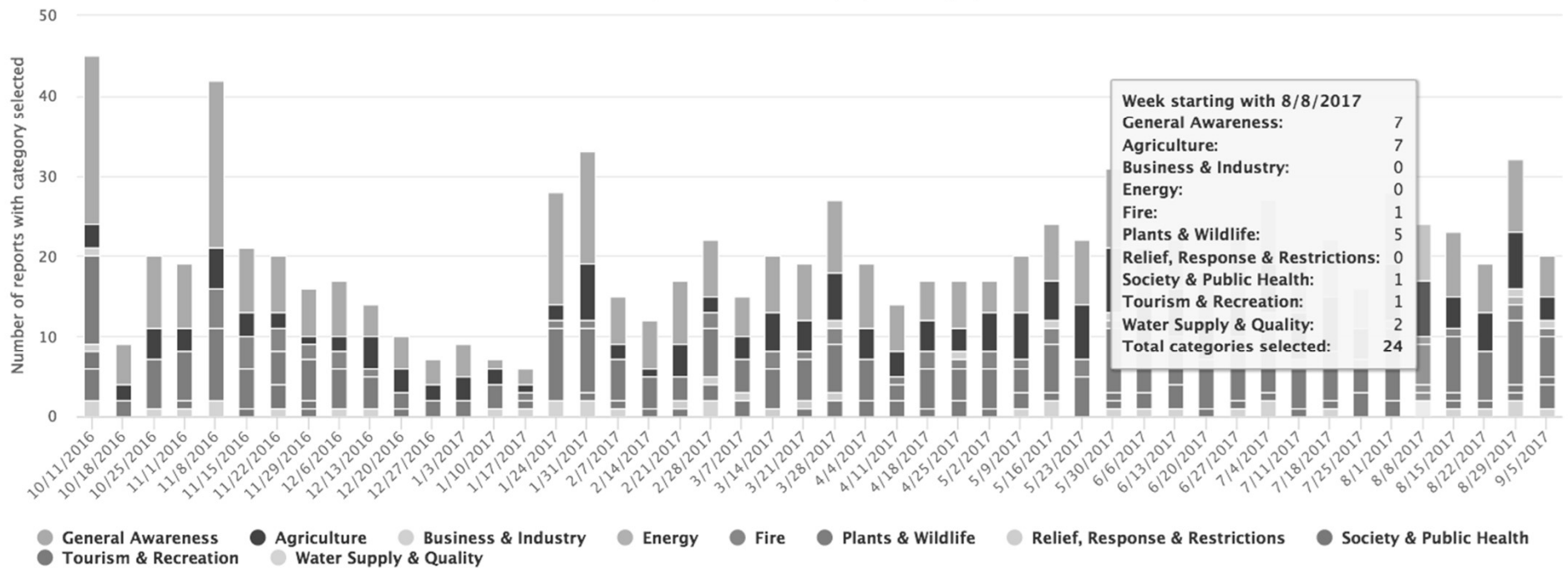


This chart shows the wettest and driest weekly scale bar selections for the chosen geographic scale (i.e., nation, state, county, or individual station). The Average Value graphed line helps visualize when scale bar selections are predominantly wet or predominantly dry.

# CONDITION MONITORING WEEKLY CATEGORY COUNTS

Condition Monitoring Weekly Category Counts

South Carolina, United States From 10/11/2016 to 9/11/2017



This chart displays which of the ten report categories observers selected to indicate the type of information included in their condition monitoring report.

# TABLE OF WEEKLY SUMMARIES

Table of Weekly Summaries

Start of Week ...	Report Count	Wet Count	Neutral Count	Dry Count	Avg Value	Wettest Value	Driest Value
09/05/2017	6	3	2	1	Near Normal	Moderately Wet	Mildly Dry
08/29/2017	11	2	3	6	Near Normal	Mildly Wet	Moderately Dry
08/22/2017	7	1	4	2	Near Normal	Mildly Wet	Mildly Dry
08/15/2017	9	6	3	0	Mildly Wet	Moderately Wet	Near Normal
08/08/2017	9	3	2	4	Near Normal	Moderately Wet	Moderately Dry
08/01/2017	12	4	5	3	Near Normal	Moderately Wet	Mildly Dry
07/25/2017	6	0	4	2	Near Normal	Near Normal	Moderately Dry
07/18/2017	8	2	4	2	Near Normal	Mildly Wet	Mildly Dry
07/11/2017	7	2	5	0	Near Normal	Mildly Wet	Near Normal
07/04/2017	9	4	5	0	Near Normal	Moderately Wet	Near Normal

Weekly Summary

Extreme Value

You will find this table helpful as a summary of Condition Monitoring reports over time with weekly summaries of report, category and value counts.

# WE LOOK FORWARD TO YOUR CONDITION REPORTS IN THE NEAR FUTURE!

With all the extra “CoCoRaHS eyes and ears” out there you can make a real difference though condition monitoring! Thanks so much!!



B. Haywood

Thanks to our sponsors



# THE END

**Click on your “*back browser*” button to return to  
“Condition Monitoring Reporting Resources”**

