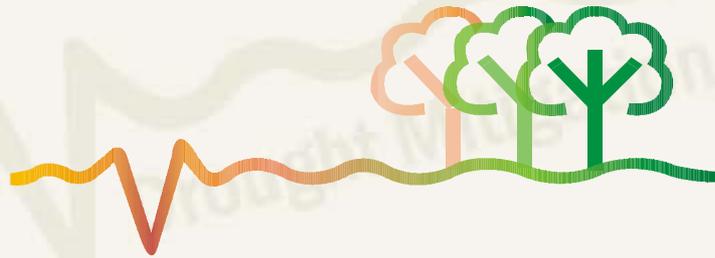
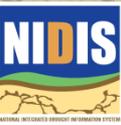


# The National Drought Mitigation Center Information Services and Activities

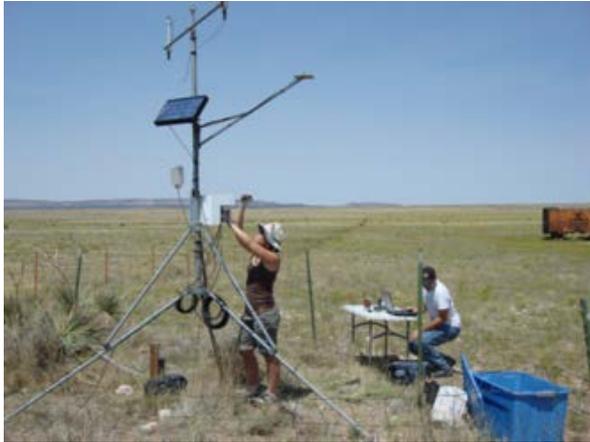
Deborah Bathke  
National Drought Mitigation Center  
University of Nebraska-Lincoln



*Drought Outlook and Management Considerations for  
Rangeland Livestock Production*  
Socorro, NM, May 29, 2013



# About Me



## Appendix C: Drought Task Force Monitoring Work Group Members

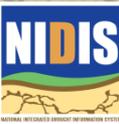
MONITORING WORK GROUP				
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Don Gallegos	US Army Corps of Engineers 4101 Jefferson Plaza, NE Albuquerque, NM 87109	505-342-3383	505-342-3195	Donald.J.Gallegos@spa02.usace.army.mil
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## New Mexico Drought Task Force

## New Mexico Drought Plan



Update: December 2006



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# Drought worsens in New Mexico; no relief in sight

Print Font Size 9 Remaining

Recommend 87 Tweet 7 +1 0 Pin It 0 Share 36



Associated Press | Updated: Thursday, May 9, 2013 7:00 pm | 10:10 pm, Thu May 9, 2013  
**ALBUQUERQUE** — Major stretches of river have already gone dry, farmers are leaving land fallow, and cities are clamping down on water as things in New Mexico just from bad to worse Thursday.

**El Paso Times**  
elpasotimes.com  
Home News Opinion Sports Business Entertainment Communities Living Spanish Obits

Recommend Send 15 people recommend this. Be the first of your friends. Share Tweet 9

## A deep water fall

## New Mexico, El Paso farmers cut crops, use wells in drought

By Ramón Rentería | El Paso Times  
Posted: 05/06/2013 12:12:49 AM MDT



Although Elephant Butte Lake's water levels have risen recently, the drought conditions in the area were so bad that the Elephant Butte Irrigation District was dismal. (Mark)

# HispanicBusiness.com

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- Most Popular Stories**
1. SEO Traffic Lab Celebrate Wins at Digital Marketing Event 'Internet World 2013' in London
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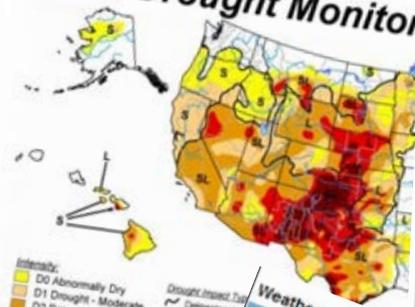
News Column  
**New Mexico Drought Is Worst Since 1950s**  
April 25, 2013

# The U.S.: A Nation Divided By Drought

Published: May 17th, 2013, Last Updated: May 16th, 2013

## U.S. Drought Monitor

May 14, 2013 6:07 A.M. EDT



## N.M.'s drought worst in U.S.

By John Fleck / Journal Staff Writer on Fri, May 3, 2013

We're No. 1. This is not a good thing.

New Mexico on Thursday passed Nebraska to stand alone in first place in the U.S. drought derby, with 82 percent of New Mexico in "extreme" drought or worse, according to the weekly federal Drought Monitor....

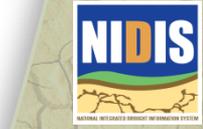
Like 8,342 people like this. Be the first of your friends.

Answer truthfully. No registration. No hassle. OR Avoid the questions by logging in to the Journal.

Weather: LAS CRUCES, NM | Now: 86°F | High: 91°F | Low: 57°F | 5-Day Forecast  
Home News Business Sports Entertainment Lifestyle Opinion  
today's DEALS STEAK HOUSE

## New Mexico setting new records with drought

By The Associated Press  
Posted: 05/22/2013 07:52:24 AM MDT



# About the NDMC



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NDMC Director  
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**Email**  
[Vitae](#)

## NDMC Program Area Leaders



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**Contact:**  
402.472.3383  
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[Vitae](#)

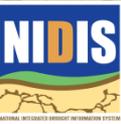


**Nicole Wall**  
Outreach and Research Specialist  
(Public Participation focus)  
**Contact:**  
402.472.6776  
**Email**



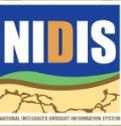
**Deborah Wood**  
Publication Specialist  
**Contact:**  
402.472.6705

- Established in 1995
- Current Director: Dr. Mike Hayes
- Staff: 16 people, tremendous diversity
- Located at the University of Nebraska-Lincoln

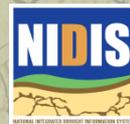
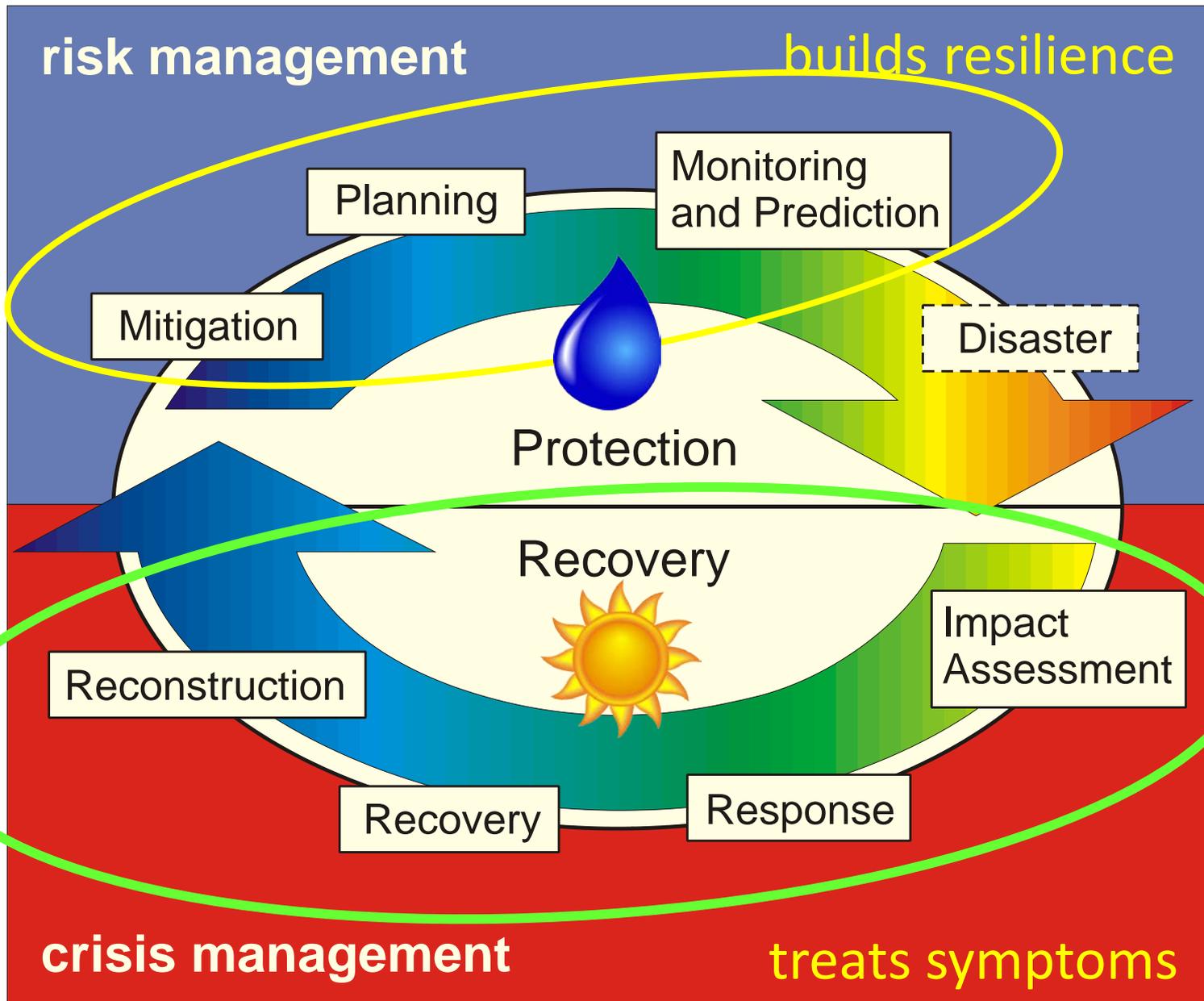


# NDMC Mission

To lessen societal vulnerability to drought by promoting planning & the adoption of appropriate risk management techniques



# The Cycle of Disaster Management



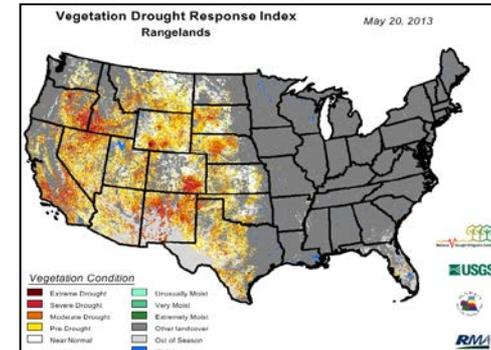
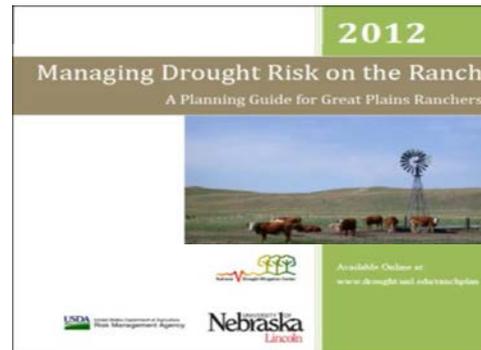
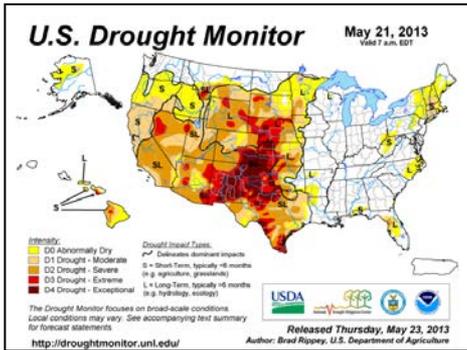
# Program Areas

## National Drought Mitigation Center

### Monitoring

### Planning and Social Science

### GIS Science



Research

Applications

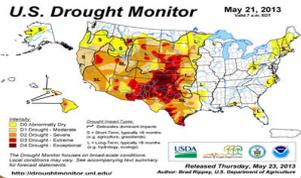
Operations

Education

UNIVERSITY OF  
**Nebraska**  
Lincoln



# NDMC Program Objectives



Improve the science of drought monitoring, planning, and mitigation

Impacts | New Mexico  
04-22-2013 - 05-22-2013

<b>Total Impacts</b>	<b>27</b>
<b>Statewide Impacts</b>	<b>8</b>
<b>Category</b>	
Agriculture	12
Business & Industry	1
Fire	10
Plants & Wildlife	8
Relief, Response & Restrictions	13
Society & Public Health	3
Water Supply & Quality	9

Build *awareness* of drought & its *impacts* on society and the environment, and how human actions affect our *vulnerability* to drought



Focus the attention of policy makers on the importance of *drought policy and planning* in the wise stewardship of natural resources

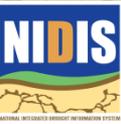
WHEN  
May 29, 2013

WHAT  
Attendance is free. Refreshments and lunch are provided by the New Mexico Department of Game Management for \$10 at the time (cash or check only).

NEW MEXICO DROUGHT WORKSHOP  
Drought Outlook and Management Considerations for Rangeland Livestock Production

Capacity is limited to 200 participants, so please register online at the following location as soon as possible:  
<http://rsvp.nmsu.edu/rsvp/drought>

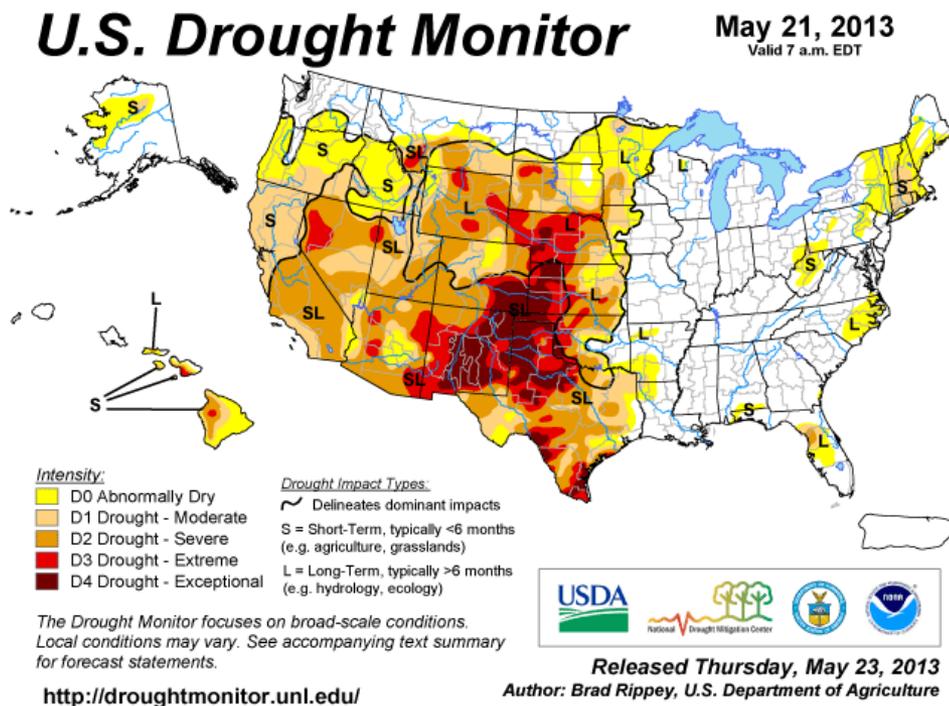
Conduct and maintain operational tools, research, outreach and training



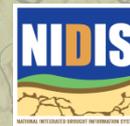
# Monitoring Tools

## U.S. Drought Monitor (USDM)

- **State-of-the-art** drought assessment
  - Since 1999
  - Collaborative effort
- **Composite indicator**
  - indicators & indices
  - input from over **350** experts
- **Policy implications**
  - Farm Bill/USDA, IRS, NOAA-NWS, & several state drought task forces
- **“Go to source”** for media and the public



<http://drought.gov>

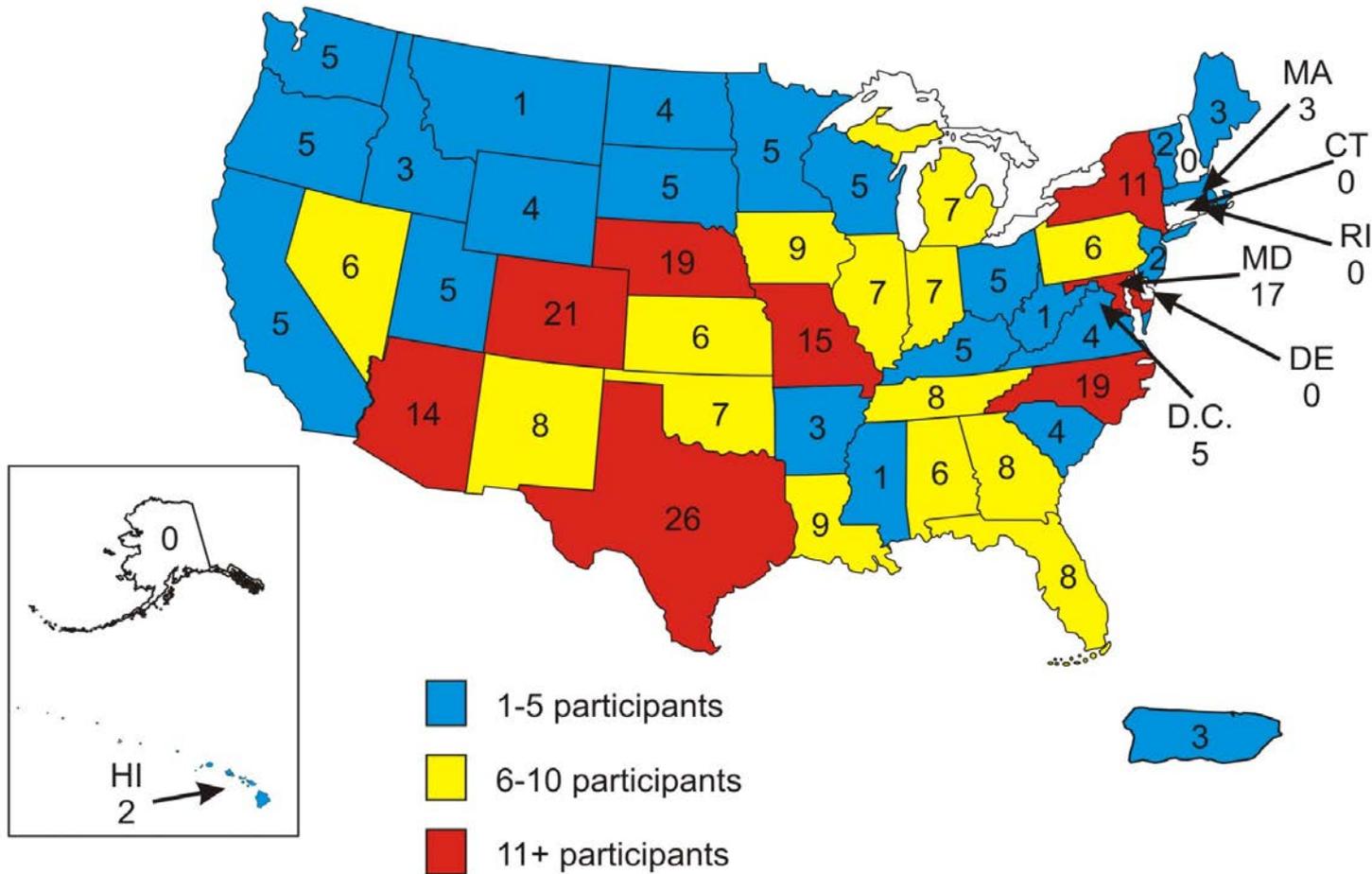


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# USDM Listserve Subscribers

(as of August 10, 2012)



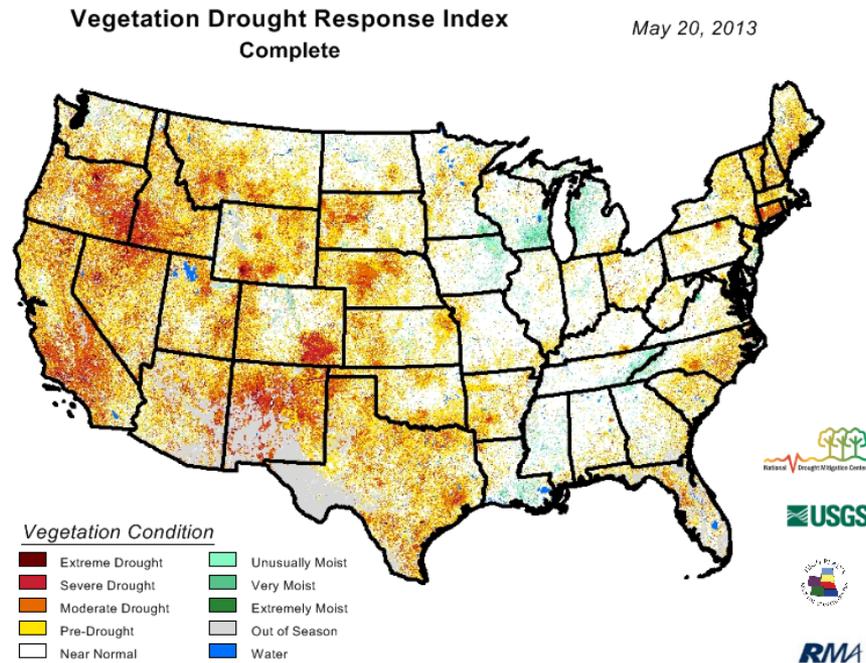
**Total: 335 (does not include 1 participant from Canada)**



# Monitoring Tools

## Vegetation Drought Response Index (VegDRI):

- **Detects vegetation stress**
- **Hybrid indicator**
  - satellite, biophysical, & climate indicators
- **Archive back to 1989**
- **Value-added products:**
  - National, state and sub-state maps
  - Change maps
  - Area statistics
  - Descriptive narrative
  - Animations
- **Partnership**

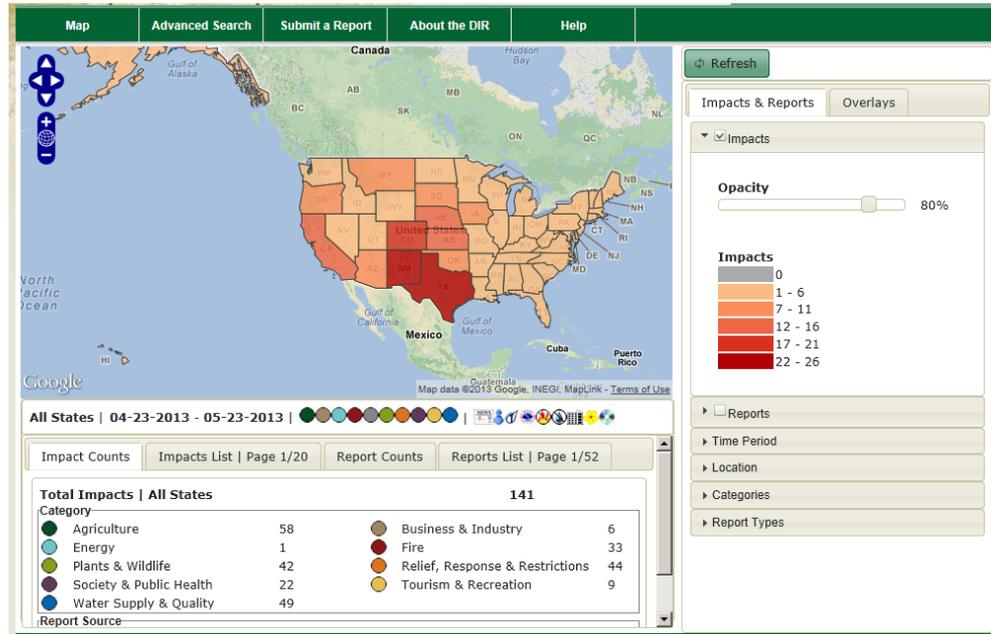


[vegdiri.unl.edu](http://vegdiri.unl.edu)

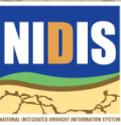
# Monitoring Tools

## Drought Impact Reporter (DIR)

- On-line since 2005
  - 17,045 media reports
  - 15,991 impacts
- Establish a baseline of drought impacts
- Ground truth
  - Indices
  - Remote Sensing
- Quantitative AND qualitative
- Open to the public!

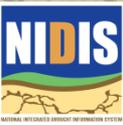
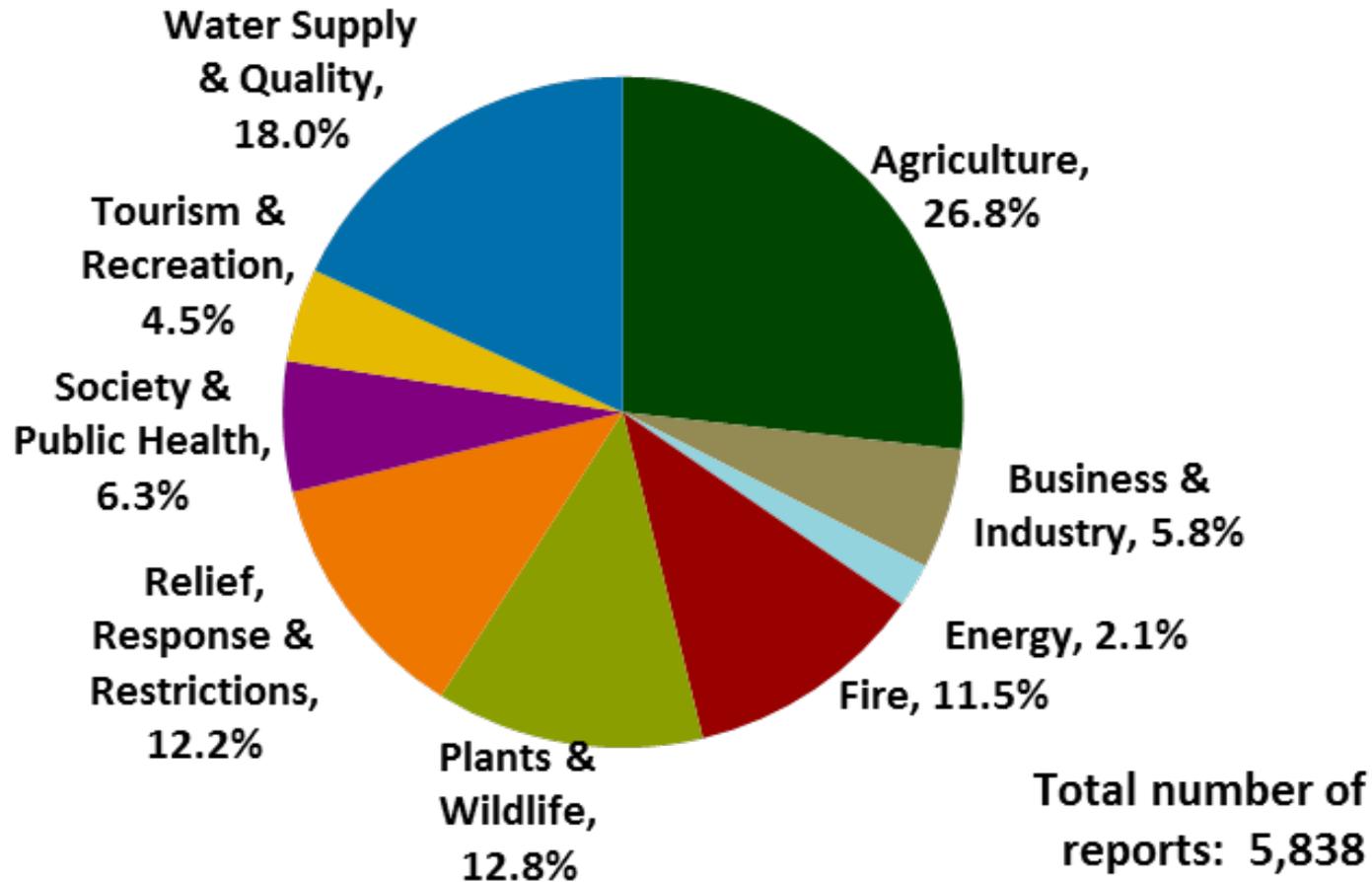


[droughtreporter.unl.edu](http://droughtreporter.unl.edu)



# 2012 U.S. Drought Reports by Sector

## Category analysis for 2012 reports



# Drought Risk Atlas

- ~3000 stations archived
- Created to answer questions about the characteristics of drought:
  - Frequency/return periods
  - Duration
  - Trends
  - Intensity
  - Spatial extent

Friday, February 01, 2013

**Drought Risk Atlas**

Home | Climate | Data | Methodology | About | Help

Current Location » Home

### Welcome to the Drought Risk Atlas

#### Introduction

The idea of updating and expanding a national drought atlas was developed from the original Drought Atlas that was done in conjunction with United States Army Corps of Engineers by Hoskings, Wallis and Guttman in the early 1990s. The original Drought Atlas consisted of those stations in the Historical Climate Network (HCN), numbering approximately 1,000 stations. The period of record at the time was limited, as many stations only had records from the 1940s to present, and these data points were put into their respective climate divisions. A monthly time step was used to calculate the Palmer Drought Severity Index (PDSI). With the new Drought Atlas, bringing precise data down to spatial scales that would allow decision makers to use this tool to better understand drought in their respective region and to make a better decision.

For the new National Drought Atlas, the idea was to expand the data both in the number of stations analyzed and the period of record to include the most complete long-term stations, some of which are not part of the HCN. Using a weekly time-step to calculate multiple drought indices at each station location, not on a climate division scale, allows for a more precise representation of drought histories. The Standardized Precipitation Index (SPI), Palmer Drought Severity Index (PDSI), Deciles, the United States Drought Monitor and other Climatological data are included in the new drought atlas. Along with the Climatological data, gridded maps created on a weekly time-step are available for the entire United States.

**Climate Data Map**

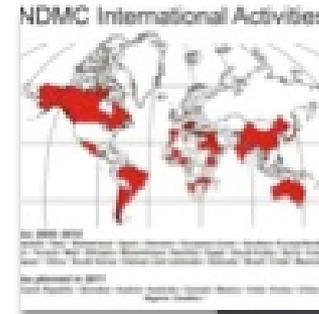
The National Drought Mitigation Center | 3310 Holdrege Street | P.O. Box 830988 | Lincoln, NE 68583-0988  
phone: (402) 472-6707 | fax: (402) 472-2946 | Contact Us

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▶ **Coming Soon!**

# Planning Tools

- ▶ Planning at *all scales*
- ▶ All droughts are *“local”*
- ▶ Planning should start local and involve the *“locals”*
- ▶ Planning is a *“living”* process



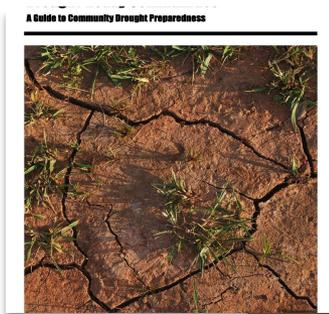
Nation



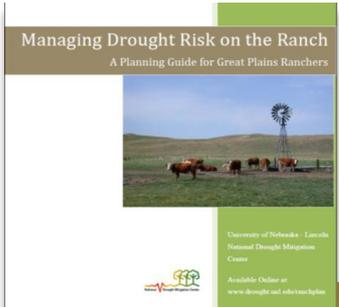
Basin



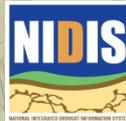
State



Community



Individual



# Education and Outreach

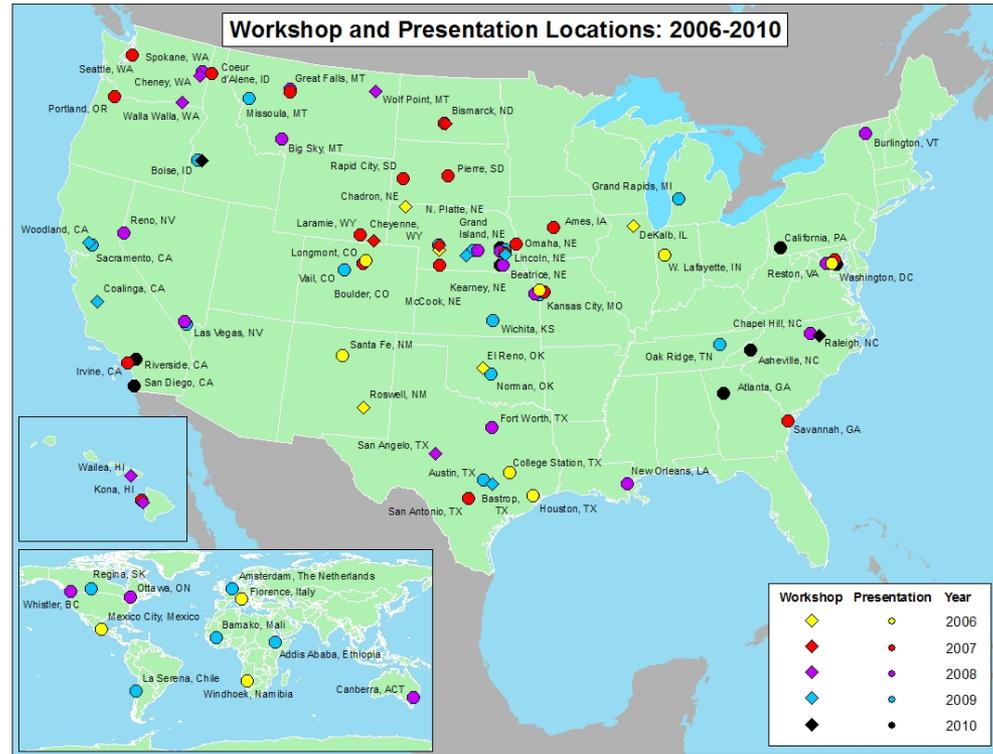
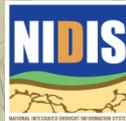
## Managing Drought Risk on the Ranch Professional Development Webinar Series

**10 am Central Time**  
**January - May, 2013**  
**Last Wednesday of each month**

**January 30:** Managing Drought Risk on the Ranch: The Planning Process  
Jerry Volesky, Range and Forage Specialist at the West Central Research and Extension Center, and Lynn Myers, Tippetts-Myers Ranch

**February 27:** Avoiding Analysis Paralysis: Monitoring and Setting Critical Dates for Decision Making During Drought  
Dwayne Rice, Rangeland Management

Each session will include a briefing on current drought status, followed by a session on a specific topic or tool related to drought planning.

# Contact Information:

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402-472-6199

National Drought Mitigation Center  
School of Natural Resources  
University of Nebraska-Lincoln

