

# National Drought Mitigation Center

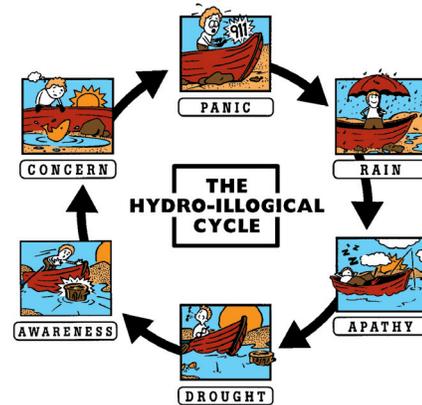
## Capabilities, Needs, Activities: Missouri River Basin Applications

<http://drought.unl.edu>

The National Drought Mitigation Center (NDMC) works to reduce societal vulnerability to drought by helping decision makers at all levels:

- implement drought early warning systems.
- understand and prevent drought impacts.
- increase long-term resilience to drought.

The NDMC is a national center founded in 1995 at the University of Nebraska-Lincoln. Mike Hayes has been director of the center since 2007. Its diverse staff of 21 includes faculty and staff with expertise in physical and social sciences and in the humanities. The NDMC conducts basic and applied research.



### NDMC Program Areas and Capabilities

#### Drought Early Warning Systems: Climatology

*Led by Mark Svoboda*

We have several climatologists on staff, including two current and one former U.S. Drought Monitor (USDM) authors. We are the original academic co-creator and partner in the USDM process, and we host the USDM Archive and associated analytic tools on our servers. Since it was established in 1999, federal agencies have increasingly relied upon the Drought Monitor to decide how to allocate drought relief. It has been continually refined, as scientists work to provide the more detailed spatial resolution that decision makers need.

**Expertise:** Climatology, Meteorology, GIS, Drought Impacts

**Needs:** We'd like to expand the network of drought observers contributing to the Drought Impact Reporter.

#### Drought Early Warning Systems: GIScience and Remote Sensing

*Led by Brian Wardlaw*

The NDMC is working to refine the accuracy of drought monitoring and early warning systems based on satellite-derived data. The Vegetation Drought Response Index (VegDRI) detects the effects of drought on vegetation at a one-kilometer resolution.

**Expertise:** Remote Sensing, Geography, Climatology, GIS

**Needs:** We're looking for people who can help refine VegDRI by providing ground truth, i.e., comparing what the VegDRI map says with observable local conditions.

#### Drought Planning and Social Science

*Led by Cody Knutson*

Since the NDMC's founding director, Don Wilhite, first published the 10-Step Guide to Drought Planning, he and the NDMC have adapted it for use by U.S. states, tribes, and national governments around the world. As policy makers and planners move beyond drought relief to building drought resilience, their focus is shifting to decisions about land and water use that are made at a local level. The NDMC has recently produced guidance documents for community-level planning and for use by individual ranchers.

**Expertise:** Geography, Hydrology, Community and Regional Planning, Anthropology, Agricultural Economics, Public Participation, Education and Outreach, Rural Sociology, Human Dimensions, Journalism, History

**Needs:** We're looking for communities and local resource-management agencies or organizations that would like to work with us to identify best practices for building drought resilience into their planning and decision-making processes.



## Activities in the Missouri River Basin

Impacts of Decade-long Drought and Wet Periods in the Missouri River Basin, a series of workshops in 2010 in collaboration with the Center for Research on the Changing Earth System

<http://drought.unl.edu/new.htm#workshops>

Workshops on the various drought management tools the NDMC is developing, sponsored by the U.S. Department of Agriculture's Risk Management Agency

<http://drought.unl.edu/new.htm#workshops>

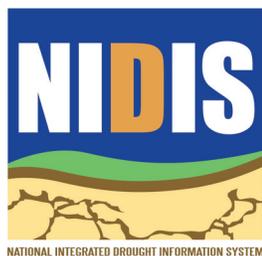
Republican River Basin Drought Information Portal

<http://go.unl.edu/vsb>



## Building Community Around Drought Preparedness

Engaging Preparedness Communities, a working group of the National Integrated Drought Information System (NIDIS), is creating opportunities for drought and water planners to express their needs (<http://drought.unl.edu/new.htm>):



- Take a survey, open through Friday, March 18. [http://drought.unl.edu/news/EPCSurvey\\_NIDIS-Portal.pdf](http://drought.unl.edu/news/EPCSurvey_NIDIS-Portal.pdf)
- Participate in a webinar, Friday, March 30, at noon, Central Standard Time, to discuss survey results and to plan for the Chicago workshop (see below). If you're interested, please email [nidis-epc@unl.edu](mailto:nidis-epc@unl.edu).
- Join us in Chicago for "Building a Sustainable Network of Drought Communities 2011," a workshop June 8-9 at the Summit Executive Centre, 205 N. Michigan Ave. <http://go.unl.edu/epcworkshop1>

## Climate-Related Links: Monitoring

U.S. Drought Monitor

<http://drought.unl.edu/dm/monitor.html>

North American Drought Monitor

<http://www.ncdc.noaa.gov/temp-and-precip/drought/nadm/>

U.S. Drought Impact Reporter

<http://droughtreporter.unl.edu/>

Vegetation Drought Response Index (VegDRI)

[http://drought.unl.edu/vegdri/VegDRI\\_Main.htm](http://drought.unl.edu/vegdri/VegDRI_Main.htm)

Coming Soon: Drought Atlas

## Climate-Related Links: Planning

*Guide to Community Drought Preparedness*

<http://drought.unl.edu/plan/DRC.htm>

*How to Reduce Drought Risk*

<http://drought.unl.edu/plan/handbook/risk.pdf>

*Drought Preparedness Planning:*

*Building Institutional Capacity*

[http://drought.unl.edu/plan/handbook/10step\\_rev.pdf](http://drought.unl.edu/plan/handbook/10step_rev.pdf)



Coming Soon: Managing Risk on the Ranch

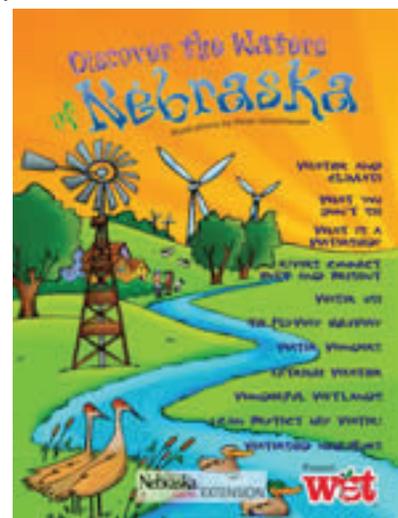
## Climate-Related Links: Education & Outreach

*Droughtscape*, the NDMC's quarterly newsletter

<http://drought.unl.edu/droughtscape/droughtscape-current.htm>

*Discover the Waters of Nebraska*, an educational booklet for students

in grades 4-6, produced by the NDMC, University of Nebraska-Lincoln Extension, the Lower Platte River Corridor Alliance, and Project WET. <http://go.unl.edu/m7u>



Drought for Kids <http://drought.unl.edu/kids>