

Introduction to the Drought Impact Reporter

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The National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln was established to help people and institutions reduce their vulnerability to drought through preparedness and risk management. A risk management approach, which strongly emphasizes improved monitoring and preparedness, requires more timely information on the severity and spatial extent of drought and its associated impacts. Toward that end, the NDMC recently unveiled the Drought Impact Reporter (<http://drought.unl.edu/>), a database to archive the impacts of drought throughout the United States.

What is the purpose of the Drought Impact Reporter? The Drought Impact Reporter was created to fulfill the need for a national database of drought impacts. “With NIDIS (National Integrated Drought Information System) and potential Congressional legislation calling for better drought impact assessment, we believe this tool will help meet that need,” said Mark Svoboda of the NDMC. It is the first step in creating a comprehensive database and archive for impacts on local, regional, and national levels. Evidence shows that drought impacts are generally increasing in magnitude and complexity. The Drought Impact Reporter is intended to help policy

and decision makers better understand and respond to those impacts.

What are the sources of the listed drought impacts? A wide variety of drought impacts are being collected, analyzed, and organized by the NDMC staff. The sources include stories from more than 5,000 online sources; scientific publications; old news clippings and reports; and members of the public or government agencies, such as the National Oceanic and Atmospheric Administration and the U.S. Department of Agriculture. NDMC staff are populating the database, beginning with the most recent impacts

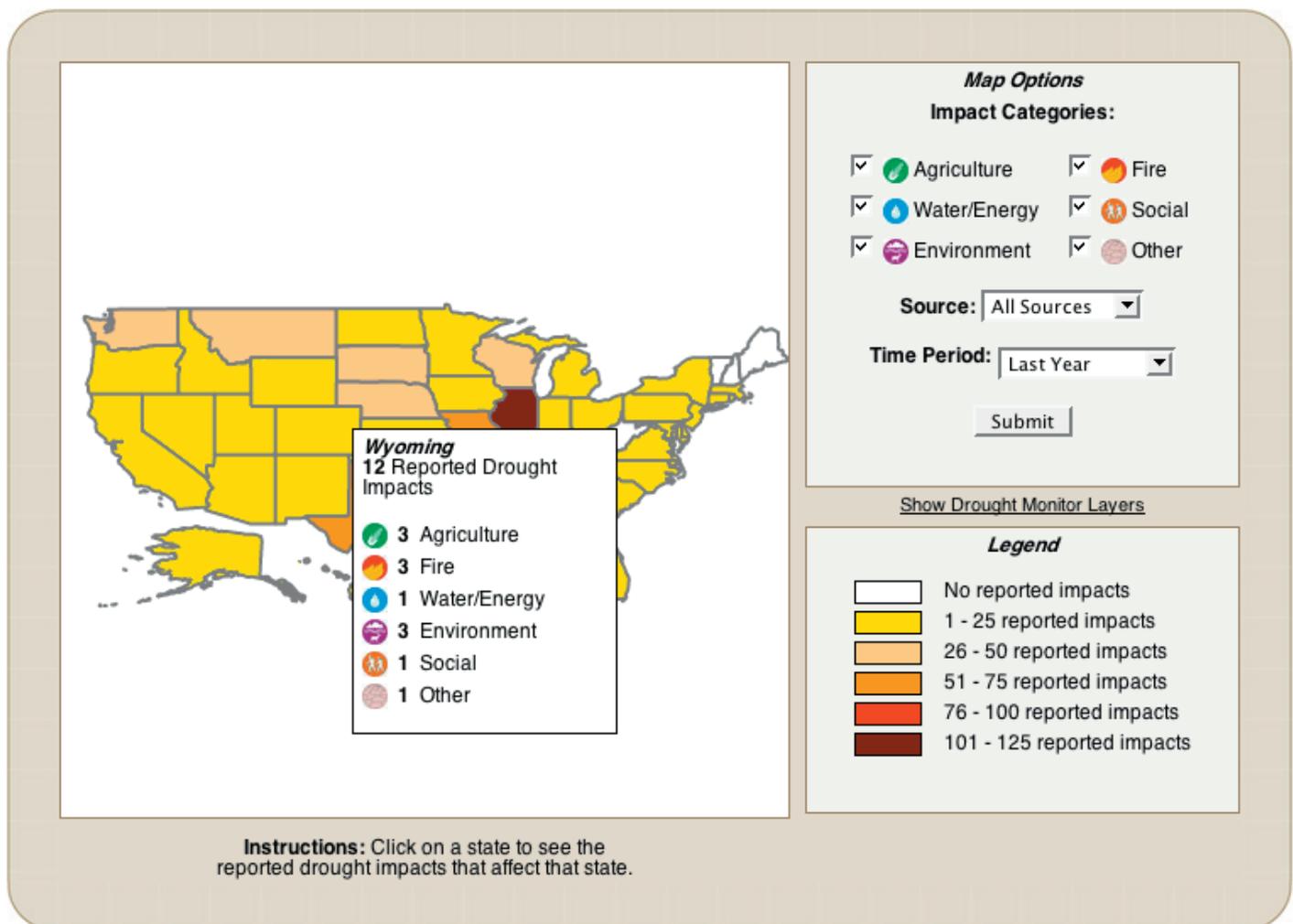


Figure 1a. Homepage of the Drought Impacts Reporter website, highlighting the number and types of drought impacts for the past year in Wyoming. A user can see the types of drought impacts for each state by scrolling over the map on the homepage.



and working back.

How are the impacts categorized?

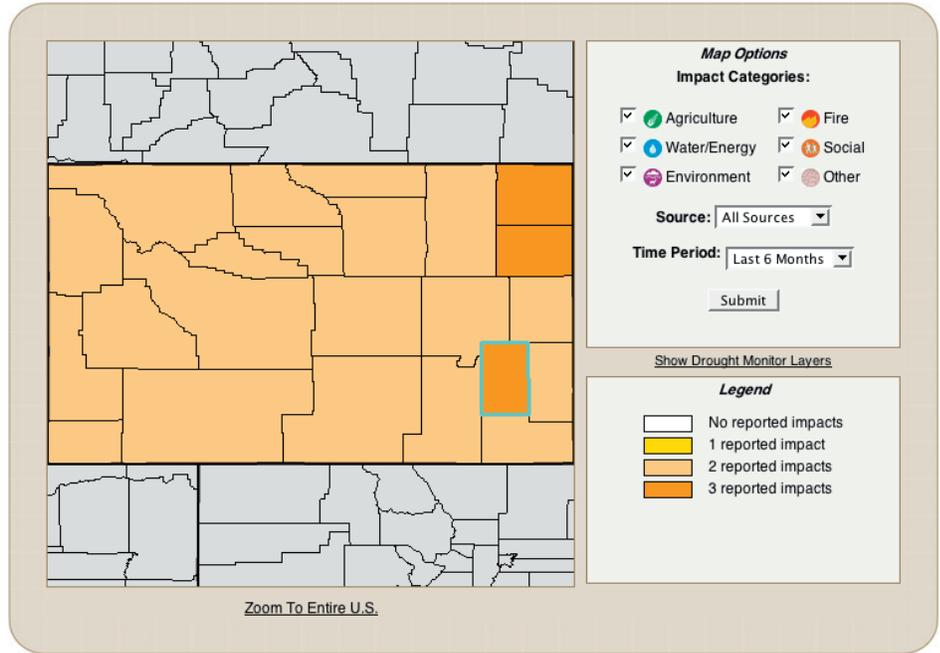
The impacts are put into one or more of six impact categories: agriculture, energy and water, environment, fire, social, or other impacts. The definitions and examples of the categories are as follows:

- **Agricultural** impacts are associated with farming and ranching. One example of an agricultural impact for late July 2005 notes that more than 117,000 Illinois farmers have reported production losses, with 74,000 estimating losses of 30% or more; 16 farmers have lost all their crops because of drought. This example was one of 20 agricultural impacts for the state of Illinois during that month.

- **Energy and water** impacts are associated with surface or subsurface water supplies, stream levels or streamflow, hydropower generation, or navigation. For example, in mid-July 2005 more than 100 people in Suamico, WI, reported dry wells. Also in the Midwest, the navigation seasons on the Missouri and Mississippi rivers were cut short because of low water levels.

- **Environmental** impacts are associated with wildlife, fisheries, forests, and other fauna. An example of an environmental impact was in southwestern Montana, where the water temperature of a popular fishing river reached 73 degrees on three consecutive days. In late July 2005, the state fish and wildlife department decided to prohibit fishing from noon until midnight until further notice to reduce stress on the fishery. Fish caught and released when warm water temperatures decrease oxygen to critical levels are unlikely to survive after release.

- **Fire** impacts are associated with forest and range fires that occur during drought events. For example, at the end of September 2005 the Texas Forest Service catego-



Sources: All Sources, Categories: All Categories
Date Range: April 5, 2005 to October 5, 2005

3 reported drought impacts for Platte County, Wyoming:

1. [Lincoln Electric Services was forced to buy cooling water for...](#) (click to read more)
Categories: Water/Energy
Source: Media
Dates of Impact: 2005-06-09 to 2005-06-09
External URL: <http://www.journalstar.com/articles/2005/06/09/lo...>
2. [At least eight small fires have ignited this summer in...](#) (click to read more)
Categories: Fire
Source: Media
Dates of Impact: 2005-07-31 to 2005-07-31
External URL: <http://www.laramieboomerang.com/news/more.asp?Sto...>

Figure 1b. Example from the Drought Impact Reporter website of the drought impacts reported in Wyoming for the past six months. A user can see the number of drought impacts by county in each state by clicking on a state from the homepage. The three impacts reported in Platte County are highlighted and summarized below the map by clicking on that county from the state map.

rized North Texas at the highest potential risk for grassfires because of maximum drought conditions. Outdoor burning bans are in place in 103 Texas counties.

- **Social** impacts are associated with the public or the recreation and tourism sector. An example of a social impact was in July 2005, when the county commissioner for Clark County, Nevada introduced a new ordinance that would bar new golf courses from being built unless they use reclaimed water.

- **Other** impacts are impacts that do not easily fit into any of the other categories

and usually include general statements of drought emergencies being declared. Other impacts also include various widespread economic impacts, such as the 34,000 layoffs in the green or landscaping industry in Colorado since 2002.

How does the online tool work?

The online Drought Impact Reporter has many useful options for displaying the impacts. The initial screen allows the user to pick any combination of impact categories, the preferred source of the impacts, and the time-period over which

(Continued on p.19)

On the Web

- Drought Impacts Reporter: <http://droughtreporter.unl.edu/>
- U.S. Drought Monitor: <http://www.drought.unl.edu/dm/monitor.html>
- NIDIS: <http://www.nws.noaa.gov/ost/climate/NIDIS/>



(Continued from Focus p.18)

reached 16 million hits annually on the web. In addition to the weather observations the products available through the webpage include current climate summary maps, Automatic Weather Data Network maps, 30-year normals, climate atlas, historical data summaries, and links to other federal agencies' data. Within this information is not only weather data, but crop water use and crop performance for major crops, pest development, livestock conditions, soil water, and heat indices. One example of climate summary maps available from the HPRCC, is the recent temperature maps found in every edition of the Intermountain West Climate Summary (See page 4). Figures 14a-b show some other examples of climate summary maps users can create on the HPRCC website.

September Maximum Temperature (°F)

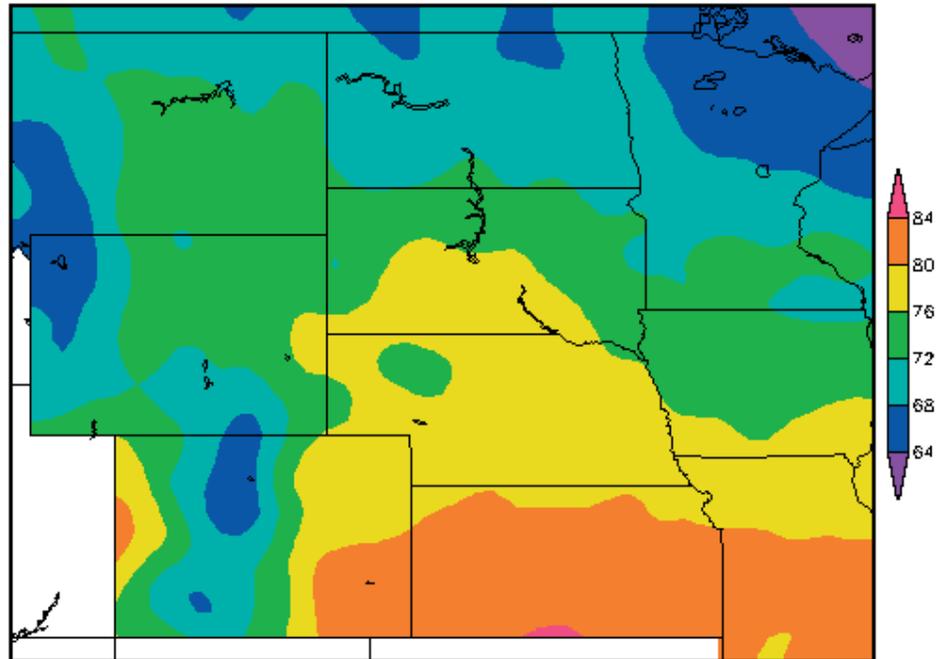


Figure 14b. An example of a map '30-year Normals' found on the HPRCC website under "Climate Products." This map shows the average maximum daily temperature in September.

(Continued from Feature Article p.3)

the impacts occurred. On the map display, the user can move the mouse over any state to see the number and types of drought impacts that were reported in each state (see Figure 1a, on page 2). The user can then click on a state to zoom in and see the location of the impacts by county. To find more information on the impacts for each county, the user clicks on that county to see a list at the bottom of the page with details surrounding the impact, including a link to the source (see Figure 1b, on page 3). Figure 1c is an example of a detailed description of a drought impact. The user can also see an animation of drought impacts through time. While looking at any view of the map, the user can select "show drought monitor layers," which will plot contours showing the severity and locations of drought as determined by the current U.S. Drought Monitor over the drought impacts.

The website also has a section ("Add a Drought Impact") for the public to provide information on drought impacts, which the NDMC team enters into the database. You can assist the NDMC by passing on the Drought Impact Reporter URL to other users and by submitting drought impact reports and suggestions through the website to help improve this work-in-progress.

Drought Impact Event

The state of Wyoming is dealing with an outbreak of pine beetles killing thousands of acres of pine trees statewide. Officials are quite concerned that the mounting dead timber will increase fire potential. According to officials, portions of the Shoshone National Forest east of Yellowstone National Park have experienced a 70-percent mortality rate due to the infestation. According to the Medicine Bow forest spokeswoman, beetle epidemics are a natural occurrence, however the current outbreak has exacerbated by the drought. Most of the state of Wyoming has been in drought for the last five years. The pine beetles target weak or stressed trees. When in drought, pine trees become stressed and do not have the energy to produce resin to fend off the beetles.

Categories: Environment
Source: Media
Dates of Impact: 2005-10-04 to 2005-10-04
External URL:
<http://www.casperstartribune.net/articles/2005/10...>

([See Affected Areas](#))

Wyoming: Entire State

Figure 1c. A detailed description of a drought impact affecting the entire state of Wyoming since the beginning of October 2005. A user could get to this kind of description at the Drought Impact Reporter website by clicking in one of the drought impacts listed by county for each state map, like in Figure 1b.

