

## CLIMATE PROGRAM OFFICE

# National Integrated Drought Information System

## Where can water resource managers, farmers, forestry officials, and other planners get the information they need to plan for or mitigate drought conditions?

The National Integrated Drought Information System (NIDIS) provides dynamic and easily accessible drought information for the Nation. Among the decision makers who are benefitting from this source of authoritative, reliable information are farmers making decisions about crops, forestry professionals planning ahead for the next fire season, and urban water managers preparing for high-demand seasons. NIDIS provides data that help decision makers assess the risk of having too little water and prepare for and mitigate the effects of drought. NIDIS is continually developing more robust services and regional decision support resources.

### NIDIS Objectives

- Develop the leadership and networks required to implement an integrated drought monitoring and forecasting system at federal, state, and local levels.
- Foster and support a research environment focusing on risk assessment, forecasting, and management.
- Create Drought Early Warning Systems to provide accurate, timely, and integrated information.
- Share information with a broad range of stakeholders through the U.S. Drought Portal.
- Provide a framework for public awareness and education about droughts, impacts, and preparedness.



PRA, Wikimedia Commons

*Lake Powell, Arizona, viewed from a plane in May 2007. Lowered water levels expose a prominent "bathtub ring" on the canyon walls.*

### Approaches

NIDIS integrates basic and applied research performed by NOAA and other agencies into an adaptive decision-support environment for resource managers, farmers, and other water users. Utilizing infrastructure and data available through federal, state, and tribal partners, NIDIS provides public access to the experience and expertise of NOAA's Regional Climate Centers and Regional Integrated Sciences and Assessments teams, the U.S. Department of Interior, the U.S. Department of Agriculture, the National Drought Mitigation Center, and other research groups.

A broad range of federal, state, and local agencies, academic researchers, and other stakeholders collaborated with the NIDIS team to develop a detailed implementation plan to meet the Nation's needs for drought information. In accordance with the plan, NIDIS has been developing relevant monitoring and forecasting systems as well as education efforts to tailor drought early warning systems for specific watersheds, coastal zones, and geographic regions.

**National Integrated Drought Information System (NIDIS)** <http://www.drought.gov>

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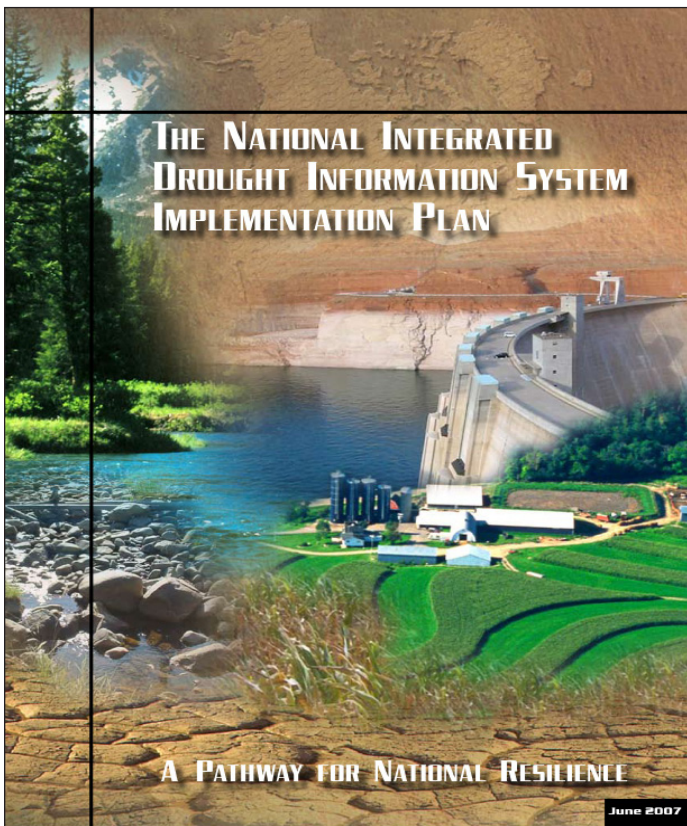
## Development of Drought Early Warning and Information Systems (DEWS)

NIDIS is developing drought early warning systems to explore and demonstrate a range of early warning and drought risk reduction strategies. Initial DEWS systems are operating in the Upper Colorado River Basin, Apalachicola-Chattahoochee-Flint River Basin, and Four Corners Tribal Lands. DEWS are currently under development in Chesapeake Bay, the Carolinas, and in four regions of California.

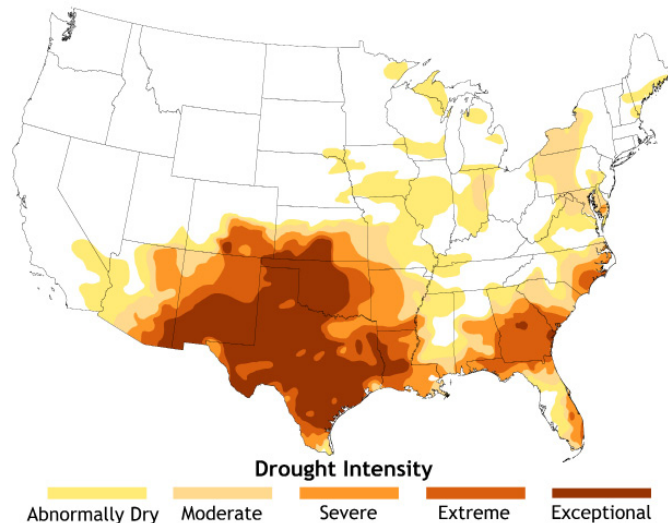
## U.S. Drought Portal

The NIDIS program hosts the U.S. Drought Portal, a Website that features a range of services related to drought. This interactive system provides:

- Early warnings on emerging and anticipated droughts;
- Announcements of upcoming Drought Assessment Webinars and Workshops;
- Quality-controlled climate data including historical drought data for comparison to current conditions;
- Decision support services for managing the impacts of drought; and
- A forum for a range of stakeholders to discuss drought-related issues.



The NIDIS Implementation Plan was released in June 2007. The document is available at [www.drought.gov](http://www.drought.gov).



In the first half of 2011, exceptional drought conditions developed from New Mexico to Georgia. This map shows the extent and severity of drought in the continental United States in late July of 2011.

## NIDIS Accomplishments

In June 2004, the Western Governors' Association described a vision of an information system that would provide water users at all levels of government with the ability to assess their drought risk in real time so they make informed decisions that may mitigate the impacts of drought. Subsequently, the NIDIS Act of 2006 (Public Law 109-430) established the NIDIS program. Since its inception, the core team:

- Established the NIDIS Program Office and Team;
- Published the NIDIS Implementation Plan;
- Launched and populated the U.S. Drought Portal;
- Began installing soil moisture and temperature sensors at 60 U.S. Climate Reference Network sites;
- Established an ongoing series of Drought Assessment Webinars for DEWS stakeholders in the Upper Colorado River and the Apalachicola-Chattahoochee-Flint River Basins;
- Organized Climate Outlook Forums and Drought Assessment Webinars for the Southern Plains states to enhance communications throughout the development of the severe drought there in 2011;
- Began publishing the NIDIS Newsletter, covering DEWS activities and NIDIS-funded research; and
- Conducted a range of topical and geographically focused Knowledge Assessment Workshops. Details and summaries of these workshops are available online at <http://www.drought.gov>.