



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. Still in its initial phases, 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 an “early warning system” on drought and drought impacts to provide accurate, timely, and integrated information.
- Develop interactive systems, such as the U.S. Drought Portal, as part of the early warning system.
- 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 existing infrastructure and data available through federal, state, and tribal partners, NIDIS provides one-stop 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 that will meet the Nation’s needs for drought information. In accordance with the plan, NIDIS recently conducted the Nation’s first assessment on the status of drought early warning systems. The assessment will serve as a guide for development of relevant monitoring and forecasting systems as well as education efforts that can be tailored for specific watersheds, coastal zones, or geographic regions.

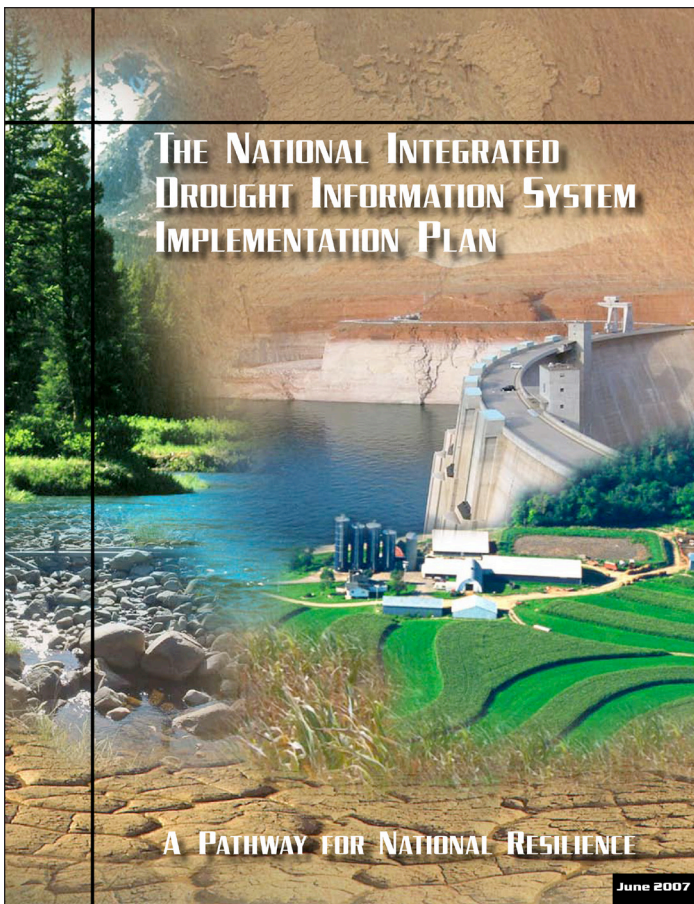
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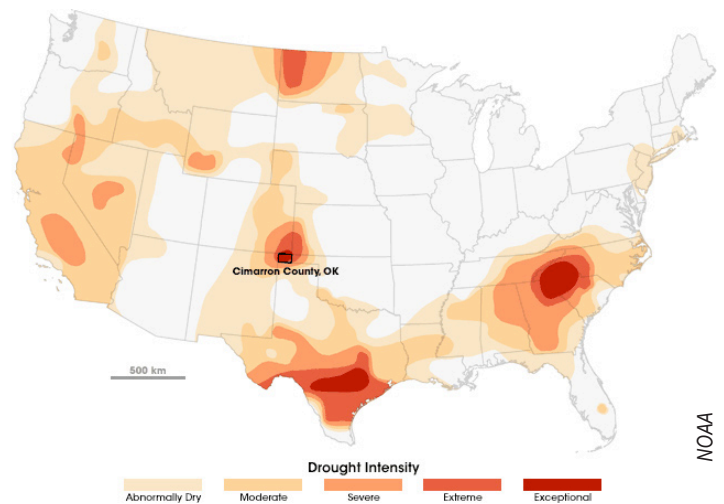
U.S. Drought Portal

Initial goals of the NIDIS program include completing development of the U.S. Drought Portal, a Website that features a range of services related to drought. This interactive system will provide:

- Early warning about emerging and anticipated droughts;
- Quality-controlled data about droughts from climate observations as well as projections from computer models;
- Historical data on past droughts for comparison to current conditions;
- Decision support services for managing the impacts of droughts; and
- A forum for a range of stakeholders to discuss drought-related issues.



Cover of the NIDIS Implementation Plan, released in June 2007. The document is available at www.drought.gov.



In the first half of 2008, an exceptional drought descended on the High Plains, centered on Cimarron County, Oklahoma. This map shows the extent of drought in the continental United States on July 22, 2008.

NIDIS Accomplishments

In June 2004, the Western Governors' Association envisioned an information system that would provide water users at all levels of government with the ability to assess their drought risk in real time and before the onset of drought, in order to make informed decisions that may mitigate a drought's impacts. 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, involving more than 40 agencies, states, and tribes;
- Developed and released the NIDIS Implementation Plan;
- Launched the publicly accessible U.S. Drought Portal and upgraded its operation to include Web Map Services;
- Completed the procurement process for the first set of soil moisture and temperature sensors to be installed at 60 U.S. Climate Reference Network sites; and
- Conducted user needs assessments for stakeholders at a range of workshops. Goals of these workshops were to generate an initial design for a drought early warning system for the southeastern U.S., reconcile climate projections over the Colorado Basin, and assess seasonal potential for wildfire across North America. Details and summaries of these workshops are available online at <http://www.drought.gov>.