

National and Regional Droughts: An Overview



Michael Hayes
National Drought Mitigation Center
University of Nebraska-Lincoln



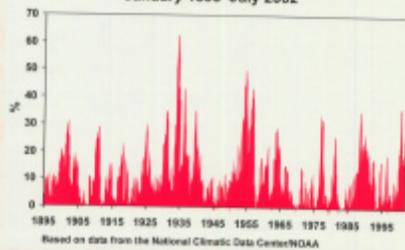
Recent Drought Losses in the U.S.

1988: \$39.2 billion nationwide
1993: \$1 billion across the Southeast
1996: \$10 billion across the Southwest
1998: \$6-8 billion across the South
1999: \$1 billion along the East Coast
2000: \$1 billion each in Nebraska, Oklahoma,
Texas, and Georgia
Average annual losses: \$6-8 billion (FEMA)



Percent Area of the United States in Severe and Extreme Drought

January 1895–July 2002



2002 Drought Losses

Wildfires: 6.7 million acres, \$1.25 billion
Agricultural:
South Dakota: \$1.8 billion
Nebraska: \$1.2 billion
Montana: \$2.0 billion
Kansas: \$1.4 billion
Colorado: \$1.1 billion
Navajo Nation: 7,000 stock ponds dry
**Recreation and Tourism, Environmental,
Transportation, Public Health, Municipal
Supplies, Private Wells,...**



Drought Differs From Other Natural Hazards

- slow onset or "creeping phenomenon"
 - absence of a precise, universal definition
 - impacts are nonstructural and spread over large areas—makes assessment and response difficult
 - impacts are complex and affect many people
- Therefore, planning and mitigation difficult



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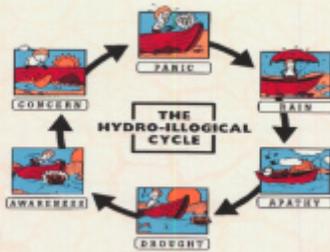
The National Drought Mitigation Center (NDMC) helps people and institutions develop and implement strategies to reduce societal vulnerability to drought. The NDMC, based at the University of Nebraska-Lincoln, provides information about risk management and drought relief strategies.

What is Drought? - Assessment of drought - Droughts - National Drought Mitigation Center
Preparing for Drought - How do we plan for drought - The 10-Step Planning Process - Drought Mitigation Center
Measuring Drought - How do we measure drought - The U.S. Drought Index - Drought Mitigation Center
Understanding Drought - Understanding drought impacts - Current and historical drought impacts in the United States and around the world
Mitigating Drought - How do we mitigate drought - Drought Mitigation Center and other drought mitigation organizations - Drought Mitigation Center

About the NDMC
Contact Information
NDMC Home
Site Map
Search the Site
Drought Network News
Publications

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

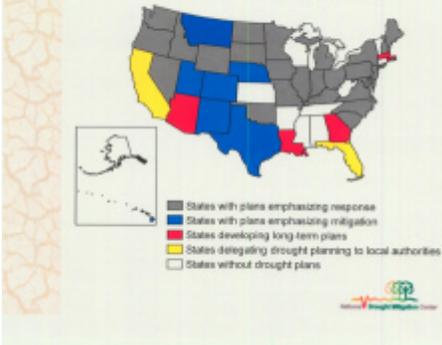
Quick Links For Media - Other Drought-related Sites - U.S. Drought Monitor - Impact National Drought Council



Status of State Drought Planning 1982



Status of Drought Planning: May 2002



Benefits of Drought Plans



- proactive, emphasize mitigation and response
- improve coordination between and within levels of government → organizational framework
- enhance early warning through integrated monitoring efforts
- involve stakeholders



Components of Drought Plans



- Monitoring/early warning
 - Foundation of a drought mitigation plan
 - Indices linked to impacts and triggers
- Risk and impact assessment
 - Who and what is at risk and why
- Mitigation and response
 - Actions/programs that reduce risk and impacts and enhance recovery



Benefits of Drought Plans

--continued--



- identify areas, groups, sectors at risk
- reduce conflicts between water users
- improve information dissemination → better delivery systems
- build public awareness of the need for improved drought and water management



Additional Drought Planning Activities

- Native American
- Regional
- Municipal
- National?



Drought Monitoring Questions

- Where are we now?
- How did we get here?
- What is the historical perspective for the current situation?
- What are the most likely outcomes from the current situation?

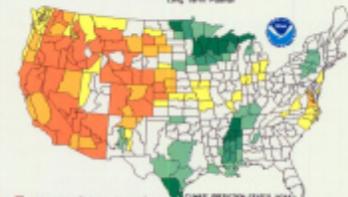


Droughts differ in terms of:

- **INTENSITY**
- **Duration**
- **Spatial Extent**

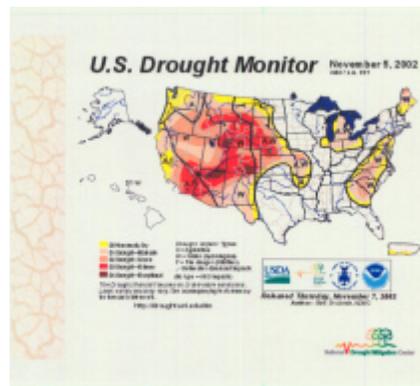
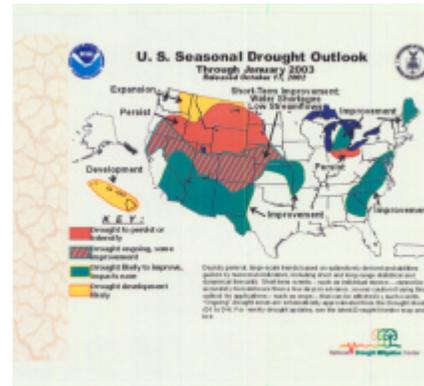


Drought Severity Index by Division
Weekly Value for Period Ending 10 SEP 2002
Long Term Pattern

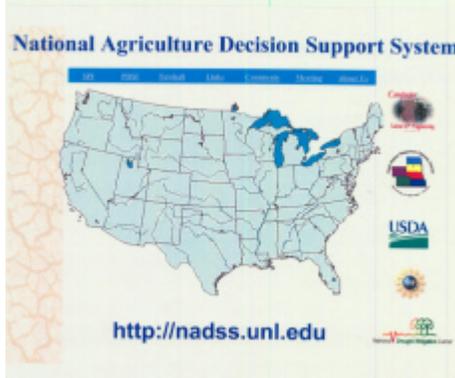


Key Variables For Monitoring Drought

- climate data
- soil moisture
- stream flow
- ground water
- reservoir and lake levels
- snow pack
- short, medium, and long range forecasts
- vegetation health/stress and fire danger

National Agriculture Decision Support System



Legend:

- Blue: High Risk
- Orange: Moderate Risk
- Yellow: Low Risk

Other Key:

- High Risk: Areas where high risk is present
- Moderate Risk: Areas where moderate risk is present
- Low Risk: Areas where low risk is present

<http://nadss.unl.edu>



