NATIONAL INTEGRATED DROUGHT INFORMATION SYSTEM

MIDWEST DROUGHT EARLY WARNING SYSTEM

Collaborating for resilience

Interagency partnerships target drought and high-precipitation events

PARTNERS IN THE DEWS PLANNING PROCESS

FEMA

Kentucky Climate Center

MRCC Midwestern Regional Climate Center

National Drought Mitigation Center

NOAA NIDIS

National Weather Service

US Army Corps of Engineers

USDA

University of Missouri Extension

NOAA's National Integrated Drought Information System (NIDIS) is launching a **Drought Early Warning System (DEWS)** for the Midwest in February 2016. The Midwest DEWS is a collaborative federal, state and local interagency effort to improve early warning capacity and resilience to both drought and high precipitation events throughout the region. This is accomplished through local stakeholder-driven activities encompassing data collection and monitoring; research; planning for climate extremes; and communication, education and outreach. Activities will focus on areas throughout the upper Mississippi River and Ohio River basins in Minnesota, Iowa, Missouri, Wisconsin, Illinois, Indiana, Kentucky and Ohio.

High precipitation events can significantly affect the duration, severity and impacts associated with drought. The Midwest DEWS addresses the relationship between high precipitation events and drought, and how climate monitoring can inform early warning of all extreme climate events.

DEWS OBJECTIVES

- Provide a forum for a diverse group of federal, tribal, state, and local stakeholders that represent all economic sectors, including water and land resource management, to strategize and develop appropriate, relevant, useful and readily available drought, climate, weather and water-related information.
- Develop an understanding of the existing observation and monitoring networks, data, tools, research and other planning and mitigation resources available for a drought early warning system.
- Identify the economic sector-specific and geographic needs for future monitoring, prediction, planning and information resources.

WHAT IS NIDIS?

The National Oceanic and Atmospheric Administration's (NOAA) National Integrated Drought Information System (NIDIS) program was authorized by Congress in 2006 (Public Law 109-430) with an interagency mandate to coordinate and integrate drought research, building upon existing federal, tribal, state, and local partnerships in support of creating a national drought early warning information system.

WHAT IS A DROUGHT EARLY WARNING SYSTEM?

A Drought Early Warning System (DEWS) utilizes new and existing partner networks to optimize the expertise of a wide range of federal, tribal, state, local and academic partners in order to make climate and drought science readily available, easily understandable and usable for decision makers; and to improve the capacity of stakeholders to better monitor, forecast, plan for and cope with the impacts of drought.

PLANNING PROCESS AND PARTICIPANTS

The planning process included the following workshops leading up to the February 2016 Kickoff Meeting in St. Louis:

1) the Midwest Climate and Agriculture workshop hosted by NIDIS, the Midwestern Regional Climate Center (MRCC), and the USDA Midwest Climate Hub on September 29 to October 1, 2015 in Champagne, IL

2) a Midwest DEWS planning workshop in November 2015 in Bloomington, MN to receive input from the upper Mississippi Basin

3) a Midwest DEWS planning workshop in November 2015 in Louisville, KY to receive input from the Ohio Valley Basin

The planning workshops were hosted by NIDIS, MRCC and the National Drought Mitigation Center.

Organizations in attendance at the November 2015 workshops

Cooperative Institute for Meteorological Satellite Studies / Space Science & Engineering Center / University of Wisconsin-Madison
Eastern Area Coordination Center
Federal Emergency Management Agency Region 5
Indiana Department of Natural Resources, Division of Water
Iowa Department of Agriculture
Iowa Department of Natural Resources
Kentucky Climate Center / Western Kentucky University
Kentucky Department for Environmental Protection, Division of Water
Kentucky Rural Water Association
Louisville District, U.S. Army Corps of Engineers
Louisville Gas & Electric
Midwestern Regional Climate Center / University of Illinois
Minnesota Department of Agriculture
Minnesota Department of Health
Minnesota Department of Natural Resources State Climatology Office
Missouri Department of Natural Resources
National Drought Mitigation Center
National Weather Service
National Weather Service for Paducah, KY
NOAA / National Centers for Environmental Information
NOAA / National Weather Service
NOAA Office for Coastal Management
NOAA / NWS North Central River Forecast Center
NOAA / NWS Ohio River Forecast Center
Purdue University
South Dakota State University / South Dakota State Climate Office
State Climate Office of Ohio
U.S. Army Corps of Engineers
U.S. Army Corps of Engineers - St Paul District
U.S. Geological Survey
University Corporation for Atmospheric Research (UCAR)
University of Illinois
University of Kentucky
USDA / Natural Resources Conservation Service
USDA Farm Service Agency
USDA Forest Service
Wisconsin Department of Natural Resources
Wisconsin State Climatology Office

MIDWEST DEWS KICKOFF MEETING

More than 50 stakeholders from throughout the Midwest attended planning meetings which gathered input to inform the launch of the DEWS.

When: February 9-11, 2016

Where: St. Louis, MO

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The Midwest DEWS Kickoff Meeting will be held February 9-11, 2016 in St. Louis, MO to formally launch the DEWS. This multi-day event will bring together federal, tribal, state, local, and academic partners and stakeholders for an in-depth discussion on drought in the Midwest, with attention to water, climate, land resources and emergency management. Specifically, the discussions will center on improving the capacity to meet the early warning information needs of decision makers in the region.

Desired outcomes of the Midwest DEWS Kickoff Meeting include:

1. Increased knowledge and awareness of available data, monitoring activities and decision-support tools for drought and high precipitation events.

2. Identification of economic sector specific and geographic data information needs.

3. Identification of communication resources that would be most effective for conveying drought information among sectors and geographic areas.

4. Recommendations for future actions, collaborative research, and decision support to improve early warning of drought in the Midwest.

Following the formal launch of the Midwest DEWS during the February 2016 Kick-off Meeting, a two-year Midwest DEWS Work Plan will be developed to provide a roadmap on how the Midwest DEWS will improve early warning capacity and resilience to drought and high precipitation events.