

Program Information Sheet

Program Name

National Integrated Drought Information System (NIDIS)

Coping with Drought

Program Mission

The National Integrated Drought Information System (NIDIS), authorized in 2006, is a multi-agency partnership that coordinates drought monitoring, forecasting, planning and information at national, state, and local levels across the country. The mission of NIDIS is to help the nation move to an increasingly proactive approach to understand and manage drought risks and impacts, and to improve long-term drought resilience. Since its inception (2006), and through two subsequent reauthorizations (2014, 2018), NIDIS has been working with various federal, state, local and tribal agencies as well as a network of researchers, academics, resource managers, and policymakers. The work is the basis for the regional Drought Early Warning Systems (DEWS). These systems are not simply in place to disseminate forecasts, but to encourage innovation by integrating new, locally relevant drought information and supporting the introduction of new technologies that detect and communicate drought risks and warnings.

The overarching goals of NIDIS, as defined by the public laws authorizing the program (P.L. 109-430, P.L. 113-86, and P.L. 115-423), and related to this competition are to 1) provide effective drought early warning for the nation; 2) conduct research and monitoring activities to better understand length, severity and impacts of drought and the role of extreme weather events and climate variability in drought, 3) collect, integrate, and communicate information on key indicators and impacts of drought to inform timely drought assessments, 4) support improvements in seasonal, sub-seasonal, and low flow water prediction; and 5) provide timely data, information, and products that reflect watershed differences in drought conditions.

The NIDIS Coping with Drought competition is a continuation of the competition of the same name administered by the Sectoral Applications Research Program (SARP) from FY2007-2019.

Strategic plans for each of the regional Drought Early Warning Systems are available on www.drought.gov and when applicable, applicants should be aware of and consider regional priorities laid out in those plans.

Program Authority

[Public Law 115-423](#) National Integrated Drought Information System Reauthorization Act of 2018

Focus for FY20

For FY20, the Coping with Drought competition will be focused on research to improve our understanding and use of drought indicators, thresholds and triggers, and drought impact reporting to inform more deliberate and expanded decision-making to prepare for and respond to drought. Proposals may explore one or more of the research questions below but are not expected to address all questions.

[Note: There is a related competition through the FY2020 MAPP competition, Characterizing and Anticipating U.S. Droughts' Complex Interactions. Please see relevant Information Sheet for details.]

Funding for FY20

Pending the availability of funds in FY2020, NIDIS anticipates a funding allocation of up to \$1.2 million.

Proposals may request funding for up to two-year grants in the form of Cooperative Agreements with funding up to \$650,000 for two years. A total of 3-4 projects may be funded.

Competition Information

For FY20, the Coping with Drought competition will be focused on research to improve our understanding and use of drought indicators, thresholds and triggers, and drought impact reporting to inform more deliberate and expanded decision-making to prepare for and respond to drought. Preference will be given to those proposals that focus on industry and economic sectors beyond agriculture (e.g. tourism and recreation, navigation, water utilities, manufacturing, ecosystem services, public health). For the purposes of this competition, drought indicators represent the variables or parameters used to describe drought conditions (e.g., precipitation, temperature, streamflow, groundwater or reservoir levels, soil moisture, snowpack), while triggers represent the actions taken at specific thresholds defined for those indicators guiding drought recognition and response (e.g., water restrictions, burn bans, activate state drought task force).

NIDIS is interested in research that explores questions to include but not limited to:

- 1) How can we innovate in the arena of impact reporting and purposeful analysis to move beyond cataloging impacts to inform deliberate decision making (e.g. data mining/machine learning, using social media, applying new technologies, etc.)?
- 2) How do historical physical indicators compare to impact data? Is the way impact data is being collected adequate to set thresholds and triggers in response and mitigation plans?
- 3) Can impact data be used to measure increases in resilience over time based on actions taken to decrease vulnerability and mitigate drought impacts?
- 4) Do reported impacts have value in and of themselves as early warning indicators of drought?

-
- 5) Does impact reporting reflect impacts as documented in impact assessments? And if not, how can impact reporting be strengthened through the integration of lessons learned from impact assessments and then used to streamline the impact assessment process?
 - 6) Is the current impact data collected adequate or robust enough to be used as an input into drought vulnerability assessments?
 - 7) How can biophysical indicators be better integrated into drought planning and mitigation to ensure the needs of the most vulnerable sectors, communities, ecological regions, etc. are addressed?

Please note that proposals may address one or more of these and other related research questions and should not address them all.

Guidelines for Applicants

Project funds will be awarded as Cooperative Agreements, thus ensuring a working partnership and substantial interaction between the Project PIs and the NIDIS Program, NOAA scientists, and other relevant staff. Projects will be expected to submit annual reports and respond to periodic data and information requests including quarterly calls to ensure co-production.

Proposals will:

- Include partners and decision-makers from relevant economic sectors and communities (across all levels of government) that would contribute subject matter expertise and/or who are the beneficiaries of the results of the proposed research to ensure the results are assimilated, utilized, and enhance planning, early warning, response and mitigation within the NIDIS DEWS upon completion of the project.
- Clearly demonstrate collaboration and partnership that will take place within the project team. This may include representatives from the public and private sectors; academia; local, regional, tribal, and federal governmental entities; NGOs; environmental groups; citizen groups, etc.
- Demonstrate relevance to the priorities identified for the NIDIS regional DEWS (<https://www.drought.gov/drought/regions>), and clearly state how research outcomes will be incorporated into the NIDIS regional DEWS upon completion of the research project - or - should address the research questions in a way that would benefit multiple DEWS.

Proposal may:

- Demonstrate external contributions (e.g., in-kind contributions and/or funding) to be leveraged with these federal research funds.

Successful applicants who accept a NOAA award under this solicitation will be bound by the Department of Commerce Financial Assistance Standard Terms and Conditions. This document will be provided in the award package in NOAA's Grants Online system at

<http://www.ago.noaa.gov> and at <http://go.usa.gov/hKbj>. Specifically, pursuant to 2 CFR § 200.315(d)(1), NOAA will have the right to obtain, reproduce, publish, or otherwise use all data produced under an award under this solicitation. Additionally, pursuant to 2 CFR § 200.315(b), NOAA will have a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use any copyrightable work developed under this award for Federal purposes. Federal purposes under this solicitation include collecting and integrating information on the key indicators of drought in order to make usable, reliable, and timely drought forecasts and assessments of drought, including assessments of the severity of drought conditions and impacts; and communicating those drought forecasts, drought conditions, and drought impacts to stakeholders including the public. (P.L. 109-430, P.L. 113-86, and P.L. 115-423).

Product and Deliverable Accessibility

Where applicable, products, tools and results will be hosted on the U.S. Drought Portal (www.drought.gov). Accordingly, all products, tools and deliverables produced via this competition are required to be 508 compliant.

This competition lead will be holding an informational webcast to discuss the background of the programs and expectations for this competition, as well as to address questions related to the development and submission of letters of intent and proposals. For times and accessibility, please monitor the [Climate Program Office Grants website](#).

The National Integrated Drought Information System (NIDIS) Coping with Drought will be managed by Britt Parker, britt.parker@noaa.gov.