

Drought Preparation and Response in the Western States

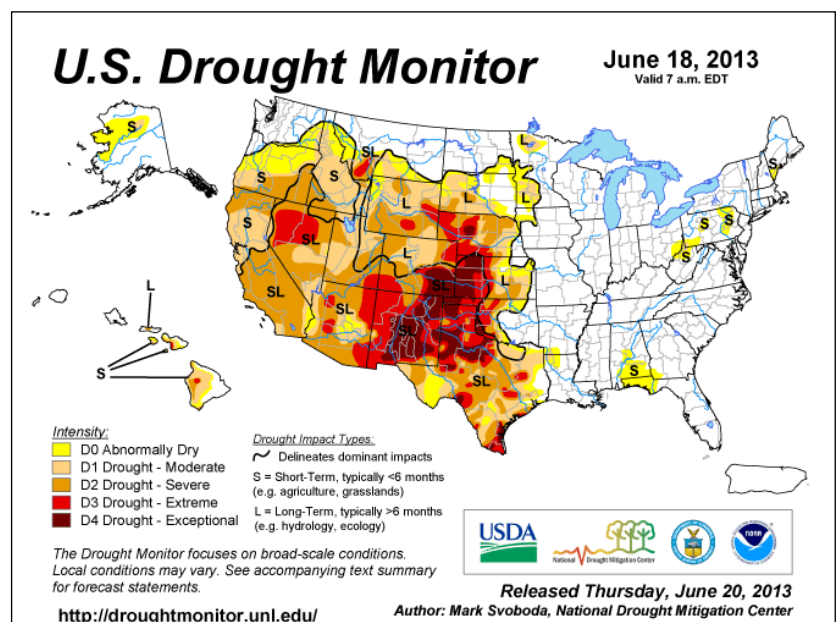
Information Needs and Policy Priorities for the Western Governors

A report by the Western Governors' Association as a product of the Memorandum of Understanding with the National Oceanic and Atmospheric Administration

Introduction

In 2011, the Western Governors entered a Memorandum of Understanding (MOU) with the National Oceanic and Atmospheric Administration (NOAA). The MOU was designed to increase collaboration between the western states and NOAA, helping to boost existing efforts to ensure that Governors and other state and local decision makers are better able to plan for drought, flood, wildfire and severe storms. Since execution of the MOU, the West has been impacted by several severe weather events.

None have had more far-reaching consequences than the drought of 2012, which still persists across much of the region today. Given this ongoing threat, much of the Western Governors' Association (WGA)-NOAA partnership to date has focused on drought preparedness and response (including WGA's co-sponsorship of the National Drought Forum in December 2012 and the regular publication/distribution of the *Quarterly Climate Impacts and Outlook*). This report examines how Western Governors individually



The 2012 drought affected more than two-thirds of the nation at its height last year; now it has receded from the eastern states but still persists across much of the West.

prepare for, and respond to, the threats associated with drought.

WGA staff interviewed top policy advisors for a number of Western Governors about drought preparation and response in their states. Offices were also surveyed regarding the usefulness of the information being provided by NOAA to their state's efforts.

The results of those interviews, recorded here, indicate that the information currently provided by NOAA is well regarded and relationships are strong. Some states had specific suggestions for additional data and policy needs, which are recorded here as well.

The information gathered in these interviews will help inform the next step of the WGA-NOAA partnership. The input provided by states' drought policy experts will help shape the next stage of application of the Governors' MOU with NOAA, with more focus on energy impacts, wildfires, or other potential topics that NOAA's expertise and information could inform.

Methods

This report assesses the needs of the Governors' policy staff in the western states which have Regional Drought Early Warning Systems, or are candidates for those systems. The states interviewed include Arizona, California, Colorado, Kansas, Montana, North Dakota, New Mexico, Oklahoma, South Dakota, Texas, Utah and Wyoming.¹

WGA staff asked members of the WGA Governors' Staff Advisory Council to connect them with Governors' policy leads for drought preparedness and response. In some cases, the leads were the Staff Advisory members themselves; in other cases WGA was directed to state water managers, advisors in state Departments of Natural Resources, advisors in state Departments of Agriculture, and, in Montana's case, the Lieutenant Governor.²

Questions posed to policy staff were:

1. What are the primary resources that your Governor's office uses to prepare for/respond to drought?

¹ Note: Nebraska was contacted but did not respond to WGA's interview request.

² For a full list of interviewees, please see the Appendix.

2. What is the highest priority for your Governor's office regarding drought?
3. How can NIDIS and NOAA better coordinate with your Governor's office to provide drought information?
4. How can WGA better coordinate with your Governor's office to provide drought policy support and/or a connection to the scientists at NIDIS and NOAA?

Results

Resources and Methods States Use to Prepare for and Respond to Drought

Many states have established their own drought response task forces as the key resource for evaluating drought conditions and making recommendations for gubernatorial action. Such task forces have different names and processes, but in all cases they gather officials from state agencies, including those responsible for agriculture, water management, emergency services, and climatology. In some states, federal agencies, local officials and stakeholders are also included on the task force.

Typically, the task forces are responsible for reviewing drought data and information, then sending recommendations to their state's Governor for consideration. Most states have drought plans that provide guidance for the actions that the Governor and the state's drought task force can take.

States reported that they use a variety of information resources to assess drought conditions. Many cited the National Drought Mitigation Center's U.S. Drought Monitor, NOAA's U.S. Seasonal Drought Outlook, the U.S. Geological Survey's Streamflow data, Natural Resources Conservation Service's SNOTEL (snow telemetry), and the National Weather Service's Weather Prediction Center information, among other products.

Many of the high-level state policy advisors rely extensively on data and information on drought provided by water professionals within their state agencies. Thus, they emphasized the overarching importance of NOAA maintaining strong relationships with state agencies, as opposed to simply providing specific resource products. Some states, including South Dakota and Wyoming, noted that they rely heavily upon information from state employees in the field for drought response, particularly regarding agricultural impacts.

Governors' Priorities on Drought

Many states with large urban populations cited their main priority as ensuring municipal supplies for drinking water. For states with rural populations, the priority was often to respond to drought and meet the needs of farmers and ranchers.

That trend was not the rule, however. In Arizona, a state with large urban populations, officials cited agricultural needs as the largest priority because the groundwater banking they've done ensures citizens will have enough water for municipal supplies.

New Mexico, a state with particularly harsh drought conditions, indicated its priorities are providing drinking water for citizens and working with stakeholders regarding available supplies for agriculture, business and industry. Additionally, the state indicated that communicating drought conditions to the public – in order to better inform business and citizens in their decision making – is a priority.

Several states also reported that wildfire preparedness and information are important components of their drought planning. This is particularly true for Montana, where the Governor's Drought Advisory Committee was formed in following the devastating Yellowstone wildfires in 1988.

Governors' Relationships with NOAA and New Ways to Meet Needs

All of the states interviewed indicated a positive perception of NOAA's drought information resources, and many states reported a productive working relationship with the agency. States requested continued production of NOAA's data products. Some states had more specific requests:

- Arizona: Streamflow data and groundwater monitoring data are needed, in addition to the need to expand the precipitation data grid.
- Kansas: More stations and data gathering are needed in rural areas in order to provide more accurate information to the U.S. Drought Monitor.
- New Mexico: Needs include: better forecasting of the monsoon; a longer-range product on the potential for red flag-styled conditions (specifically wind outlooks); and incorporation of soil moisture information for rangeland conditions.

- Texas: Needs include: improved spatial resolution on Drought Monitor and Weather Prediction products; weekly updates on drought and forecast information; and a request for the federal government to no longer produce groundwater depletion maps based on Gravity Recovery and Climate Experiment (GRACE) satellite data from NASA, which are not accurate in Texas. This inaccuracy causes confusion in explaining drought impacts.

In general, states are interested in maintaining and strengthening their already positive relationships with NOAA. California in particular expressed concerns about the impact of federal budget cuts on NOAA's ability to interact closely with the state. Additionally, North Dakota said that if there was a significant change in drought conditions, the Governor's office would likely appreciate direct contact from NOAA experts.

WGA's Role in Providing Drought Information and Policy Support to the States

Most states seemed pleased with WGA's current work on drought and the partnership under the NOAA MOU. Many said that they were interested to learn about any ideas generated from this report, especially best practices and innovations in other states.

The following states identified specific priorities for WGA's policy support and leadership:

- Arizona: Need increased capacity to drill emergency wells for rural communities in order to quickly respond to drought by accessing groundwater resources.
- California: Ensure NIDIS is funded and viable; continue to maintain good relationships between California's Department of Water Resources and NOAA, and ensure there is adequate funding to do so.
- Kansas: WGA support for viable and active crop insurance would help keep Kansas's economy flowing, even in the event of drought.
- Oklahoma: Would appreciate high-level drought information be sent directly to the Governor's office and appropriate cabinet secretaries.
- Montana: Interagency coordination within the state has been effective and the same would likely be true at the regional and national level, which is a place where WGA can play a role. Continued funding is also important.

- New Mexico: The collective voice of the states in the WGA and WSWC should be utilized to effect relevant policy changes at the federal level on issues such as forest health and watershed/forest management, drought-induced disaster mitigation, water quality regulation, and infrastructure financing and funding.
- South Dakota: Monitoring the issue of US Army Corps of Engineers management of Missouri Basin and the possibility of USACE charging for surplus water. (This issue is South Dakota's top priority regarding the Farm Bill).

Next Steps

The positive perception of WGA, NOAA and the MOU is a strong basis for the next step of the WGA-NOAA partnership. WGA and NOAA have discussed a closer focus on drought's impacts on energy management. WGA's solid background on energy, particularly following the release of its *10-Year Energy Vision for the West* in June 2013, would make this a productive next step in the implementation of the MOU.

WGA staff also suggests taking a closer look at the connections between drought and wildfire. Many states linked wildfire and drought in their interview responses, listing safety in the face of wildlife one of the priorities in their Governor's drought response.

A key goal of the Governors-NOAA MOU was to begin to develop a national strategy for engaging states and stakeholders in the development and implementation of a strong drought planning process. Whatever the focus that the WGA-NOAA partnership takes in the future, the past two years under the MOU – and this series of interviews – provide a strong foundation for continued work.

The interview process helped WGA staff identify key policy advisors in the Governors' offices with whom WGA can continue to engage during the next step of the WGA-NOAA partnership. This will be a useful addition to the networks that WGA and NOAA have already developed with state water managers through both organizations' strong relationships with Western States Water Council.

Appendix: List of States and Persons Interviewed

Arizona

Kevin Kinsall, Policy Advisor to the Governor on Natural Resources

Sandra Fabritz-Whitney, Director, Arizona Department of Water Resources

Ryan Serote, Director of Federal Relations, Governor's Office

California

Todd Ferrara, Deputy Secretary for External Affairs, California Natural Resources Agency

Colorado

Bob Randall, Deputy Director, Department of Natural Resources

Kansas

Tracy Streeter, Director, Kansas Water Office

Montana

John Walsh, Lieutenant Governor

North Dakota

Andrea Travnicek, Senior Policy Advisor to the Governor

Jason Nisbet, Research Analyst, Governor's Office

New Mexico

Heather Hall, Governor's Office

Oklahoma

Tyler Powell, Deputy Secretary of Environment

South Dakota

Nathan Sanderson, Policy Advisor to the Governor on agriculture, environment and natural resources, and energy issues

Texas

Dan Wilmot, Director, Washington D.C. Office (Submitted email response with input from Texas Commission on Environmental Quality and Texas Water Development Board)

Utah

Alan Matheson, Senior Environmental Advisor to the Governor

Wyoming

Doug Miyamoto, Deputy Director, Department of Agriculture