

Testimony by
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On Behalf of
THE STATE OF OKLAHOMA, OKLAHOMA WATER RESOURCES BOARD
RE: Reauthorization of the National Integrated Drought Information System

Before the
House Committee on Science, Space, and Technology
July 25, 2012

Mr. Chairman and members of the Committee, thank you for the opportunity to appear before you today to discuss an issue of critical importance to Oklahoma and other western states—drought monitoring, forecasting and coordination. My name is J.D. Strong, and I serve as the Executive Director of the Oklahoma Water Resources Board.

In addition to coordinating state drought monitoring activities, the OWRB administers water rights authorizing the use of surface and groundwater across Oklahoma; conducts studies of stream systems and groundwater basins to determine water available for allocation; licenses water well drillers; coordinates floodplain management activities; administers a dam safety program; develops and maintains Oklahoma’s Water Quality Standards; directs water quality monitoring programs to prioritize pollution control and mitigation activities; supports state activities in four interstate stream compacts; updates the Oklahoma Comprehensive Water Plan and participates in cooperative water planning studies; and administers the state's most popular financing program to fund water and wastewater projects. To varying degrees, drought impacts virtually every one of our programs and responsibilities.

While I am testifying today as Director of Oklahoma’s water management agency, I know through our involvement and close coordination with the Western Governors’ Association and Western States Water Council that many western States share similar thoughts and concerns about reauthorization of the National Integrated Drought Information System (NIDIS).

Drought in Oklahoma

Before I comment on NIDIS reauthorization, I would like to underscore the significance of drought. Unlike other natural disasters—such as floods, tornadoes, and hurricanes, which strike suddenly and generally end within minutes or days—the effects of drought settle in slowly and often subtly over months or even years. It is often difficult to know when a drought has started, and even more challenging to know when droughts will end. Our society often falls into what we call the “hydro-illogical cycle;” that is, we ignore drought until the situation is dire, lament the impacts, justifiably call for help, and clamor for emergency funding. But invariably it rains, at which point we forget there was ever a problem and go back to business as usual. We must break this cycle.

Oklahomans are notoriously well-acquainted with drought, its devastating impacts and often lasting effects. Some 80 years removed from the infamous Dust Bowl era, drought has become a routine and lasting event in our state, every bit as much as floods or tornadoes, and its social, economic and environmental repercussions pose an unyielding threat.

Oklahoma, like many other southern plains states, is experiencing at least its third major drought episode within just six short years. According to the National Climatic Data Center, the 2011 drought and heat wave in the southern plains and southwest states resulted in more than \$12 billion in damages and 95 deaths. This doesn't even include most of the damages resulting from wildfires.

Virtually every year, one-quarter or more of Oklahoma is classified in at least the "severe" drought category and in three of the last 13 years, including 2011, the entire state has been in that category. Water tables, still recovering from an extended dry period in 2006, are once again being depleted. This summer, most of the state has experienced less than a third of normal rainfall, resulting in meager streamflows and rapidly falling reservoir levels. The Oklahoma Climatological Survey reported last week that 64 percent of the state is now considered in severe drought and about 15 percent in extreme drought. Yet again, crops are wilting (especially corn and cotton), cattle are thirsting, and cities and towns are rationing supplies—and we have yet to reach our typically driest and hottest part of the year when the fire danger will most certainly be extreme. While the U.S. Department of Agriculture has declared a disaster for more than 1,000 counties throughout the country, including most of my state, Oklahomans don't require a declaration to know we're experiencing a disaster. With early rough damage estimates approaching \$50 billion nationally, this year will far surpass the drought of 2011.

Although Oklahoma is often victimized by drought, as well as other natural disasters, out of necessity we've done much to mitigate its impacts. Oklahoma's world-renowned weather research community, utilizing data supplemented by 120 Mesonet climate monitoring stations scattered across the state, has developed advanced tools utilizing real-time information on precipitation, temperature, soil moisture, and many other parameters impacting water management. Augmenting the value of this essential weather data and research conducted at the National Weather Center is streamflow information collected via the U.S. Geological Survey's Cooperative Streamgaging Program, U.S. Army Corps of Engineers reservoir gages, Landsat thermal imaging for evapotranspiration, and numerous other sources. In addition, large and small communities alike have taken advantage of Oklahoma's robust water and wastewater financing programs, particularly almost \$2.8 billion in loans and grants from the OWRB, to implement projects that help shield them from disruptive water shortages.

Still, Oklahoma, like the nation in general, remains largely vulnerable to the vagaries of drought and its annual multi-billion dollar impacts. Reducing those impacts requires improved insight into this phenomenon—targeted research, long-term monitoring, and development of tools that enhance our ability to predict the probability of drought, or at least detect its early onset, so that states can effectively mitigate those disasters. That is the goal of the still relatively new NIDIS program.

NIDIS Background

Thanks largely to the foresight and resolve of Congress, and with much input and assistance from organizations like the Western Governors' Association, the National Integrated Drought Information System Act was enacted into law in 2006.

Specifically, NIDIS was created to:

- Develop the leadership and partnerships to ensure successful implementation of an integrated national drought monitoring and forecasting system;
- Foster, and support, a collaborative research environment that focuses on impact mitigation and improved predictive capabilities;

- Create a drought early warning system capable of providing accurate, timely and integrated information on drought conditions to facilitate proactive decision-making;
- Provide interactive delivery systems, including an Internet portal, of easily comprehensible, standardized products, such as forecasts and outlooks; and
- Provide a framework for education and information exchange between drought experts and the affected community.

In short, NIDIS utilizes research to advance our predictive capabilities while establishing a communication link between the scientific community and those commonly affected by drought.

NIDIS Benefits

From data integration to improved communication of outlooks, to engagement with local, state, tribal and regional federal offices, NIDIS has worked to establish a more coordinated and effective drought monitoring and response network throughout the U.S. In Oklahoma, NIDIS has a strong presence due to the active involvement of climate scientists at the National Weather Center as well as funding the program provides to the Southern Climate Impacts Planning Program (SCIPP), one of NOAA's Regional Integrated Sciences and Assessments (RISA) teams who work to connect scientific expertise with stakeholder needs on a range of regionally specific climate issues. For SCIPP, the University of Oklahoma and Louisiana State University partner to serve stakeholders in Texas, Oklahoma, Louisiana, Arkansas, Mississippi and Tennessee. The SCIPP states are unique in that this region is extraordinarily influenced by extreme weather events.

Information provided through the NIDIS Drought Portal is utilized by the OWRB to produce continuous updates, in both dry and wet times, of current drought conditions—a charge of Oklahoma's Drought Management Plan, established in 1996. These updates, called the Oklahoma Water Resources Bulletin, present a detailed summary of key drought indicators provided through the Portal—such as precipitation departures, the standardized precipitation index, streamflow, and crop status reports—along with current information on state reservoir storage and related factors. This regular report is distributed to state and federal agencies, water suppliers, the Governor, legislators, and the media. The Bulletin provides an extremely accessible and understandable overview of drought conditions and highlights regions of the state that warrant additional attention and potential mitigation. I understand that NIDIS is working with states, such as Colorado, to implement similar regular update strategies.

NIDIS assessment tools and products also inform Oklahoma's contribution to the U.S. Drought Monitor. This improved, localized information and suite of new assessment products, such as soil moisture, vegetation health, and evaporative water losses, improves the quality of advice Oklahoma is able to provide to the national authors. More precise depictions help ensure that Oklahoma receives commensurate federal aid in the event of federal disaster designations.

Of particular importance, NIDIS provides the seasonal drought outlook from the NOAA Climate Prediction Center and hydrologic forecasts from the NOAA River Forecast Center. And with NIDIS assistance, the Southern Regional Climate Center is currently developing an integrated reservoir database, which is of special importance to Oklahoma citizens where large federal reservoirs, in particular, provide a key water supply source.

Collaboration & Stakeholder Involvement

Prior to NIDIS, there was no federal program in place to coordinate drought research among federal agencies. Similarly, stakeholder involvement has not been a traditional focus of federal research programs.

NIDIS has focused on improving communication between appropriate federal agencies—including not only SCIPP but the National Drought Mitigation Center, NOAA, Regional Climate Centers, and State Climatologists—and strengthening the drought research and development potential of existing federal research and data collection programs. To facilitate drought response on the regional and state level, NIDIS has sponsored numerous meetings, seminars, forums, and webinars that have been extremely well attended and received.

During the 2011 drought in the southern U.S., NIDIS convened a series of regional forums focused on providing detailed assessments of ongoing drought conditions and impacts, comparisons with past drought events, and predictions for future seasons. The forums were attended by representatives from more than 40 institutions representing water resources, agriculture and livestock, forestry and wildfire management interests, and state and federal agencies. A major emphasis of the meetings was improving the provision of drought-related information to critically affected sectors and communities. Stakeholders were fully engaged and, as a result, the forums yielded numerous excellent suggestions. Most importantly, participants now know counterparts working with drought issues in neighboring states and have identified sources of expertise in regional and national organizations.

Recommendations

Informed by Oklahoma's experience and input from NIDIS stakeholder forums, it is evident that while NIDIS has been largely successful, much work remains, including more and improved monitoring tools and predictions; expanded coordination between sectors and agencies; and integration of drought preparedness and response into state water and hazard plans.

Because learning from experience is essential to breaking the cycle of drought, NIDIS should support research to evaluate the success of recent and ongoing management practices implemented during drought episodes. Results could inform best practices for managers during future drought episodes. Expanded information on federal drought-related research, beyond that funded by NOAA, should be added to the NIDIS Drought Portal. And considering its limited size and budget, NIDIS coordination and outreach might be better served by working directly with states as the primary stakeholders.

Specific to development of a drought early warning system, which is a key goal of the program and central to effective drought preparedness and response, NIDIS should work to advance climate observation. Scientists at NOAA's Climate Prediction Center and elsewhere should focus efforts on evaluation of such things as sea surface temperature variations and La Niña events to forecast, with the greatest accuracy and most advanced warning time possible, the onset and severity of particular drought events.

Drought prediction is a difficult and unexact science. Yet, just as a few minutes of advanced warning in the event of tornadic or severe storms can save human lives, so too can continued improvement in drought prediction capabilities save Oklahoma and other states from potential ruin and even loss of life. Considering the substantial economic damage resulting each year from drought events—more than all other natural disasters combined—an effective drought early

warning system is the most worthwhile and anticipated product that the NIDIS program could possibly develop. A national map may tell a good story, but users need more tailored information in order to create opportunities for investment and make management decisions.

Specific Comments on Draft Legislation

I sincerely appreciate Chairman Hall's sponsorship of NIDIS reauthorization and pray this Committee and Congress will give it due consideration. Specifically, the new draft reauthorization language requires NOAA, within 18 months of enactment, to prepare a report to Congress on its progress in implementing the program, including an identification of research, monitoring, and forecasting needs for enhancing predictive capability. I urge the Committee to add language explicitly focusing on those NIDIS components still lacking full implementation, particularly the early warning system and drought prediction strategy.

I also respectfully call to your attention Western Governors' Association Policy Resolution 11-7 entitled "Water Resource Management in the West," which was passed by the Governors about this time last year. Section B-7 of the Governor's Policy Statement recommends continued development of the NIDIS program, in particular implementation of regional drought early warning systems.

Summary

In summary, we as a nation can ill afford to regress when dealing with what is arguably the nation's most menacing and costly natural disaster, as evidenced by the billions of dollars each year attributed to the impacts of all too common drought episodes. Rather, we need to take the next step forward by building on the fundamental work accomplished under NIDIS since 2006 to establish the most valuable product of this endeavor—an efficient and accurate early warning system that can save both money and lives. Even incremental improvements in the accuracy of predictions regarding the location, duration and intensity of drought, particularly if on a one-to-two year time scale, would be extraordinarily beneficial in establishing contingencies and informing decisions made by water managers, farmers, ranchers, power producers, and countless other water interests.

In conclusion, I respectfully urge reauthorization of the National Integrated Drought Information System—with particular emphasis on those components not fully operational—as well as necessary funding to the National Oceanic and Atmospheric Administration that will ensure its full implementation.

Thank you.

For further information on organizations mentioned in this testimony:

- Oklahoma Water Resources Board: <http://www.owrb.ok.gov/>
- Oklahoma Water Resources Bulletin: <http://www.owrb.ok.gov/supply/drought/bulletin.php>
- Oklahoma Climatological Survey: <http://climate.ok.gov/>
- Southern Climate Impacts Planning Program: <http://www.southernclimate.org/>
- National Weather Center: <http://www.nwc.ou.edu/>
- Western Governors' Association: <http://www.westgov.org/>
- Western States Water Council: <http://www.westgov.org/wswc/>



Western Governors' Association Policy Resolution 11-7

Water Resource Management in the West

A. BACKGROUND

1. In the arid West, water is a precious resource that must be managed with sensitivity to social, environmental and economic values and needs. Clean, reliable water supplies are essential for communities throughout the West and the Nation to maintain or improve their citizens' quality of life. Strong state and national economies require sufficient supplies of good quality water, which in turn depend on protection of water supply sources and the environment and adequate infrastructure for water and wastewater. Investments in water infrastructure also provide jobs and a foundation for long-term economic growth in communities throughout the West.
2. Challenges are mounting. Supplies are nearly fully allocated in many basins across the West. The cost to maintain and repair aging infrastructure is increasing. Demands for population, industry, energy, the environment and recreation are increasing. And we face greater variability in terms of future water supply.
3. States have the pivotal role in allocating, administering, protecting, and developing water resources, and they are primarily responsible for water supply planning within their boundaries. Western Governors, through their Association and its affiliate, the Western States Water Council, have worked for decades to improve resource management and to secure reliable, clean water for their citizens. The WGA and WSWC reports titled *Water Needs and Strategies for a Sustainable Future* (2006, 2008, and 2010) provide a road map for water resource management in the West.
4. Partnerships are critical to sound water resource management. Federal agencies have a role in Western resource management, and collaboration between the states and federal agencies is essential. The Western Governors appreciate the efforts of the federal government to collaborate with Western states through the Western Federal Agency Support Team (WestFAST). Tribal governments and Western states also share common water resource management challenges, and the WGA and WSWC have a long and productive partnership working with tribes to resolve water rights claims and promote economic development on and off the reservation. Local water utilities and water users, recreation and conservation interests, and private citizens must also be engaged in the effort to manage water resources in the West.

B. GOVERNORS' POLICY STATEMENT

Water Resource Information

Western Governors encourage continued investment in the nation's *water measurement and monitoring data networks* and the development of information services that promote

collaboration between the research and management communities to ensure relevant information is developed and shared with decision-makers. Basic information on the status, trends and projections of our water resources is essential to sound water management.

1. **Basic Water Data:** Western Governors support several federal programs that are particularly critical in this regard, including but not limited to the USGS Cooperative Water Program and National Streamflow Information System, the NRCS Snow Survey and Water Supply Forecasting Program, and the NASA Landsat Program with its thermal infrared sensor (TIRS). Western Governors are concerned about declines in federal spending for these and other programs that provide important water supply information and believe that such programs should be fully funded by Congress and implemented by the federal agencies. Moreover, a general lack of comprehensive and coordinated programs for measuring and monitoring water use at all levels of government contributes to unacceptable uncertainty on the demand side of the equation, and Western Governors support recent federal efforts to address this need. They also support federal efforts to coordinate water data gathering and information programs across multiple agencies.
2. **Forecasts and Models:** Western Governors call on the federal government to work with Western states to develop tools and models that better enable the synthesis, visualization and evaluation of water-related data. This includes the development of climate models that provide useful information for state water resource managers, utilities and decision-makers in the Western states. Western Governors recommend the National Oceanic and Atmospheric Administration take the lead in improving forecasts on multiple geographic and temporal scales.
3. **Information Services:** Western Governors encourage federal agencies to partner with states in the gathering, coordination and effective dissemination of water-related data between the federal government and states. The National Integrated Drought Information System (NIDIS) is a successful model of state-federal collaboration in the development of information services. Western Governors support the development of other important information services, designed in conjunction with the states, including a national climate service that would incorporate and coordinate existing climate and water data collection and analysis programs and services. They further support collaborative management and adaptation programs, such as the Regional Integrated Sciences and Assessments.

Water Resource Planning

Western Governors believe solutions to water resources challenges require an integrated approach and greater partnership among state, tribal, local and federal agencies. Water resource planning should consider collectively the full range of water resource needs; develop from the bottom up effective solutions that are complementary rather than conflicting; and provide direction for specific solutions and the most appropriate entities to implement them based primarily on a watershed approach.

4. **State Integrated Water Resource Planning:** Western Governors support *integrated water resource management* and encourage the development of comprehensive water

plans with state leadership and federal assistance. Plans should be developed in cooperation with tribes, federal agencies, water utilities, conservation and recreation groups, and private citizens. Specifically, plans should:

- a. Identify and prioritize anticipated future infrastructure needs for water resources;
 - b. Identify necessary studies, data and projects;
 - c. Projections of future water needs; and
 - d. Be used to develop national water policies and priorities that align federal agency support to states and that inform decision making regarding regional water issues. Specific federal programs, such as the Bureau of Reclamation Basin Studies and USGS Water Census, should carefully consider state water planning efforts and complement and support state water plans and processes, rather than supplant state water plans.
5. **Water and Growth:** In order to better integrate water and land use planning, states should promote policies that facilitate cooperation between water managers and local planning agencies in making decisions about new growth.
6. **Local Watershed Planning:** Western Governors encourage federal agencies and Congress to provide funding, shared personnel and other resources. States should offer technical and financial support for watershed groups dealing with local water issues associated with water quality, growth and land management and ensure these groups are sufficiently empowered to deal effectively with these issues.
7. **Drought Planning:** Western Governors believe a comprehensive, integrated response to drought emergencies, including mitigation planning, is critical to the social, environmental and economic well-being of the West.
- a. Governors support a comprehensive national policy that promotes a coordinated and integrated approach to future drought, including improved forecasting and monitoring, drought preparedness and planning, and efficient delivery of drought programs.
 - b. Governors encourage states to work with federal agencies and local communities to develop proactive drought preparedness and contingency plans.
 - c. Governors recommend the continued development of the NIDIS program, particularly with respect to implementation of regional drought early warning systems.
8. **Climate Planning:** Western Governors recognize the significant potential impacts of climate variability and change on water supplies. Potential changes may include declines in precipitation and runoff, increases in severe weather events and storms, changes in the timing of water availability, and increases in water demands. Western Governors urge Congress and the Administration to work closely with states and other resource managers to improve predictive and adaptive capabilities for climate change and related impacts at regional scales. Federal programs should be responsive to the research priorities and resource needs of state water managers as they pertain to climate change, including the NOAA Climate Service, DOI Landscape Conservation Cooperatives, U.S. Geological Survey's Climate Science Centers, and the National Climate Assessment.

9. **Energy Development:** Western Governors recognize that energy development and electricity generation may be a significant driver of future water demands. Western Governors recommend increased coordination across the energy and water management communities and support on-going work to assess the interconnection of energy and water through the Regional Transmission Expansion Planning Project for the Western interconnection and similar efforts.
10. **Intergovernmental Cooperation:** Western Governors recognize the important role of federal agencies in supporting sound water resource management in the Western states. Governors appreciate the efforts of federal agencies to coordinate water-related activities with the Western states through the ‘Western States Federal Agency Support Team’ (WestFAST) and recommend the continuation of this key state-federal partnership.

Water Resource Solutions

Western Governors recognize that there is no “silver bullet” solution to water resource challenges and support a mix of efficient and cost-effective strategies that account for the full range of water supply and environmental needs.

11. **Infrastructure:** Western Governors support investment in water supply and water quality infrastructure. Infrastructure investments are essential to our nation’s continued economic prosperity and environmental improvements, and they assist state and local entities in meeting federally mandated standards. Infrastructure investment is particularly critical now, as much of the water infrastructure that has served the West for decades is aging and in dire need of repair. Specifically:
 - a. As the economy recovers, all levels of government should be encouraged to increase their investment in water infrastructure and adopt adequate life-cycle asset management practices that include pricing policies, project prioritization and sufficient revenues to cover the costs of service.
 - b. To help states address water infrastructure needs, Congress should provide stable and continuing federal appropriations, increased by a construction inflation index, to the Clean Water Act and Safe Drinking Water Act State Revolving Funds. Further, Congress should increase appropriations from the Reclamation Fund for authorized purposes to match average annual fund receipts. Congress should pass the Corps of Engineer’s Water Resource Development Act (WRDA) legislation on a regular schedule and increase funding levels so all projects and studies authorized in WRDA can be completed in a timely manner. Congress also should consider facilitating greater investment in water infrastructure, such as through an infrastructure bank or water trust fund.
 - c. Congress should remove the state volume caps for private activity bonds used for water and wastewater projects, provide guaranteed tax-exempt status for bonds issued by state or local agencies to finance water infrastructure, provide loan guarantees, and otherwise support and encourage alternatives to direct federal investment of limited general funds.

- d. States should encourage public-private partnerships that promote investment in water infrastructure and consider mechanisms that would reduce financing costs, such as bond insurance, risk pooling, credit enhancements, and revolving water funds.
 - e. Infrastructure planning and permitting guidelines, rules and regulations should be coordinated, streamlined and sufficiently flexible to 1) allow for timely decision-making in the design, financing and construction of needed infrastructure, 2) account for regional differences, 3) balance economic and environmental considerations, and 4) minimize the cost of compliance.
 - f. Capital budgeting and asset management principles should be used to determine funding priorities, based on long-term sustainability and not annual incremental spending choices. It should be accompanied by dedicated sources of funding with appropriate financing, cost-sharing, pricing and cost recovery policies.
12. **Conservation/Efficiency:** Western Governors encourage adoption of strategies to make existing water supplies go further, including the use of water conservation, water reuse and recycling, desalination and reclamation of brackish waters, and reductions in per capita water use. The Governors encourage investment in research into promising water-saving strategies.
13. **Innovative Water Sharing:** Western Governors recognize the potential benefits of market-based water transfers, and that the predominant water use in the West is agriculture, but they are concerned about maintaining the important cultural, economic, and environmental benefits of agricultural lands and food production. Western Governors believe states should identify and promote innovative ways to allow water transfers from agricultural to other uses (including urban, energy and environmental) while avoiding or mitigating damages to agricultural economies and communities.
14. **Indian Water Settlements:** Western Governors support negotiated settlements of Indian land and water rights disputes in order to meet the nation's obligations to tribes while providing increased certainty for all Western water users. Negotiated settlements are flexible, promote sound management practices, provide a basis for partnerships between Indian and non-Indian communities, and save millions of dollars by avoiding prolonged and costly litigation. Western Governors urge the Administration to support its longstanding policy in favor of Indian land and water settlements that have a strong federal commitment to meaningful federal contributions that recognize the trust obligations of the United States government. Congress should also ensure that any land or water settlement, once authorized and approved by the President, will be funded and implemented in a timely manner without a corresponding offset to some other tribe or essential Interior program.
15. **Watershed Protection and Ecological Resilience:** Western Governors urge increased collaboration between water users and federal agencies in protecting clean water supplies recognizing the importance of high-value watersheds and natural features (such as wetlands and forests) that provide ecological services, including stormwater and flood mitigation, water quality protection and groundwater recharge.

- 16. Recreational and Ecological Values:** Western Governors believe states should strive to maintain ecological services, recreational amenities and species needs when managing and developing water resources. States and federal agencies should coordinate efforts to avoid the listing of water-dependent species under the Endangered Species Act. When ESA listings cannot be avoided, parties should promote the use of existing state tools, such as state in-stream flow protections to conserve and recover species.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. This resolution is to be posted on the Western Governors' Association Web site.
2. The Western Governors' Association and the Western States Water Council should continue to develop coordinated positions on specific water resource issues on behalf of Western states and work to communicate these positions to Congress and federal agencies.
3. Western Governors direct the Western Governors' Association and the Western States Water Council to:
 - a. Update information and compile a report on Western state water resources infrastructure financing authorities, funding sources, policies and programs.
 - b. Work with the USGS, EPA, NRCS, and other federal agencies responsible for water-related data collection, to explore the development of a consistent, systematic, state-led approach to collecting and sharing information about water supply, demand and management options that inform state water supply planning.
 - c. Develop an agreement with the National Oceanic and Atmospheric Association on the delivery of climate-related information to inform water management (and other resource and management) decisions, ensuring that new services meet the needs of states and other on-the-ground resource managers.
 - d. Conduct a study of water transfers in the Western United States with a focus on developing a tool box of institutional and management strategies that states can employ as appropriate.
 - e. Examine the relationship between future energy development and water supply; identify the implications of water supply for the electric grid; and recommend policies or programs to facilitate sustainable energy development in the context of economy-wide water availability, working through the Regional Transmission Expansion Planning project.
 - f. Continue to work with the Ad Hoc Group on Indian Water Rights for purposes of advancing negotiated settlements of Indian land and water rights disputes.
 - g. Collaborate on an update to the *Water Needs and Strategies Report* for 2012 that would include a shared vision for water that recognizes the important role of state leadership and highlights the need for continued investment in water resource planning and management throughout the West and the Nation.