

**Statement of Michael Connor  
Deputy Secretary  
U.S. Department of the Interior  
before the  
Energy and Natural Resources Committee  
U.S. Senate**

***“Status of Drought Conditions Throughout the Western United States and Actions States and  
Others Are Taking to Address Them”  
June 2, 2015***

Chairman Murkowski, Ranking Member Cantwell and members of the Committee, thank you for the opportunity to testify about the drought situation in the western United States, and actions the Department of the Interior (Department) and its bureaus are taking to address this period of sustained drought. I am Michael Connor, Deputy Secretary at the Department of the Interior. My statement today provides a high-level summary of the impacts of drought across the West and reviews the broad set of coordinated actions the Department is taking to provide meaningful relief to those affected. My statement also summarizes where the Department’s FY 2016 budget request would direct additional resources to these areas.

Let me assure the Committee that the Department is acutely aware of the drought-related challenges and worries confronting families, farmers, tribes, businesses, cities and the environment throughout the West, and that we are committed to doing all we can to address this situation. The drought is affecting the health and safety of certain communities as well as the economic livelihood of many others. Simply put, we understand the implications for western communities and the need to secure long-term water reliability and resiliency in the face of drought and the related impacts of climate change.

To briefly summarize, the Department is taking a multi-faceted approach and marshalling every resource at its disposal to assist western communities impacted by drought. This multi-prong strategy has short, medium, and long-term dimensions. For example, given the significant infrastructure and projects owned and operated by the Bureau of Reclamation (Reclamation), an urgent response to drought requires a focus on the day-to-day operations associated with many projects. Reclamation and its partners are taking any and all actions to more effectively manage water and maximize supplies for human use while maintaining environmental conditions necessary to protect fish and wildlife, as well as the interests of other water users. Beyond the operational and environmental monitoring actions needed to address the urgency of this crisis, we are making strategic investments designed to stretch limited supplies and minimize conflicts over the next several years. Finally, we continue to assess and plan for long-term actions needed to improve our understanding of water resources, as well as secure agreements needed to address unsustainable water uses that are the source of significant conflict today, and likely to get worse in the face of climate change and other stressors.

As one illustration of the Department's commitment, just two weeks ago Secretary Jewell travelled to Los Angeles where she announced \$49.5 million in grant assistance to co-fund a host of locally-driven water conservation projects under the WaterSMART Program. Reclamation also is investing more than \$24 million in grants for 50 water and energy efficiency projects in 12 western states this year. The Federal funding devoted to those 50 projects will be leveraged with at least 50 percent non-federal funding for a total of \$133 million in improvements over the next two to three years. In addition, Secretary Jewell last month announced more than \$23 million for ongoing construction at seven water reclamation and reuse projects. While these projects will not yield or save water this year, they add to the \$113.5 million invested under WaterSMART over the past two years, which is already yielding benefits and helping to mitigate drought conditions. While these resources will help, the fact remains that today, literally hundreds of thousands of square miles of the western United States, particularly in California and Nevada, remain in the grips of an historic drought. Snowpack and precipitation levels are setting ever-lower records this year, and while the impacts vary by geography, the theme of reduced reservoir storage and critically dry watersheds is the same.

Recognizing the urgency of the situation, Reclamation's operation of its major Federal water infrastructure, especially in California during the 2014-2015 water year, has necessitated a number of extraordinary measures and new agreements with multiple parties. These efforts are succeeding in facilitating unprecedented levels of cooperation in managing water during times of shortage. Within the Central Valley Project, agreements have been crafted to reschedule when water is transferred and delivered; to aggressively manage the remaining stores of cold water for the benefit of endangered salmon and other fish; and to work with the State Water Resources Control Board to help enforce laws prohibiting illegal diversions. The objective of these measures is to preserve as much water in storage as possible.

Wherever feasible, the State of California, Reclamation, U.S. Fish & Wildlife Service, and National Marine Fisheries Service have also worked together to adjust export pumping, fine-tune reservoir releases, and control Delta salinity in the Sacramento-San Joaquin Bay Delta for the benefit of fish species and water users. With the aid of additional fish monitoring and other scientific advances, we have found ways to deliver more water without increasing impacts on fish. These operational changes, negotiated amongst Reclamation, wildlife agencies, the state of California, the water user community, non-governmental organizations and the environmental community, have enabled the conservation of nearly 300,000 acre-feet of water that would otherwise not have been saved. The Department and Reclamation this year have negotiated agreements with the State of California and water users on the Sacramento, Stanislaus and San Joaquin Rivers to deliver water, flexibly manage and operate the system to serve multiple beneficial purposes that include water for cities and rural communities, farms, fish and wildlife and their habitats. We remain committed to implementing these agreements, and revisiting them with our partner agencies and stakeholders when conditions on the ground reflect changed

circumstances. This suite of actions will also help increase the amount of water that can be transferred to areas of the state that have the greatest need for additional water supplies.

This year, the drought has extended north, and in Washington State, Governor Inslee on May 15 declared a statewide drought emergency. Once again, recognizing the need for immediate action, Reclamation is now holding two Water Transfer Work Group meetings per month on the Yakima River Basin, aiming to speed up any potential water right transfers. Reclamation, the Washington State Department of Ecology (Ecology), and the Yakama Nation have been working closely on water supply and drought issues in the Basin since supplies began to be reduced, holding about four meetings since mid-March. This coordination is helping the State and Reclamation partner on many on-the-ground projects. Using state drought funding, Ecology is working with Reclamation and the Kittitas Reclamation District (KRD) to install siphons between Easton and Tillman Creek, allowing the use of Reclamation's KRD system to deliver about 10 cubic feet per second (cfs) to five tributaries providing instream flow for fish. Reclamation and Ecology are also working with Yakima-Tieton Irrigation District to use Reclamation's facilities to deliver about 2-3 cfs of water to the south fork Cowiche Creek providing instream flow for fish. Ecology will also allow junior well pumpers to begin using their emergency drought wells, and discussions about the payment of mitigation and pumping costs are now underway. Once again, the overall goal is to maximize water supply while maintaining environmental conditions to protect critical fisheries.

Amid these extraordinary operational efforts, Reclamation continues to proactively use its WaterSMART grant programs to improve water management and build long-term drought resilience in water-short areas. The WaterSMART grant awards announced last month by Secretary Jewell included two in Washington State for canal lining and pipeline projects, totaling \$1.3 million in Federal funding but leveraging over \$15 million in additional local funds. Millions more in 2015 WaterSMART awards were announced in Oregon, Utah and Idaho.

In the Colorado River basin—now in its 15<sup>th</sup> year of drought—Reclamation and four municipal entities<sup>1</sup> have entered into an agreement to jointly fund \$11 million for the Pilot System Conservation Program (Pilot Program) to conserve water in Lakes Powell and Mead to benefit the Colorado River System. Reclamation is contributing \$3 million for the Pilot Program and the other four funding partners will contribute \$2 million each. The Pilot Program is being established to see if additional voluntary, measurable reductions in consumptive use of Colorado River water are a feasible and cost-effective method to partially mitigate the impacts of long-term historic drought on the Colorado River System. Pilot Program fallowing or system efficiency improvements may be implemented in many of the Colorado River Basin States and in Mexico. In response to an October 2014 solicitation, Reclamation has received 20 pre-proposals from 16 agricultural, municipal and industrial, and Native American entitlement holders for

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<sup>1</sup> Central Arizona Water Conservation District; Metropolitan Water District of Southern California; Denver Water; and Southern Nevada Water Agency

conservation actions, including temporary agricultural land fallowing, turf removal, system efficiency improvements, water reuse, desalination, and conveyance improvements.

It's important to note that the Pilot Program is an additional measure that builds upon numerous actions taken in the Colorado River basin in the last 15 years to implement efficiency improvements and other conservation measures to maintain as much stored water as possible in Lake Powell and Lake Mead. Most recently, through the intentionally created surplus program developed in 2007 and the 2010 and 2012 agreements with Mexico on the Colorado River (Minutes 318 & 319 under the 1944 Treaty), approximately 1 million acre-feet of water has been conserved in the Lower Colorado River basin, reducing the risk of reaching critical elevations at Lake Mead. Unfortunately, the ongoing drought keeps outpacing our conservation efforts and there is now a significant chance in 2016 of the first ever lower basin shortage with increased chances of shortages in 2017.

The President's FY 2016 budget request expands on the activities already underway in FY 2015. The 2016 budget requests an increase in funding for the Drought Response program—a comprehensive new approach to drought planning and implementation actions such as water marketing solutions to address municipal water shortages, installing water measurement devices to improve efficiency and measure drought impacts, and other small-scale improvements to measurably increase water supply reliability. The 2015 and 2016 budgets include substantial funding for the WaterSMART Program described above, and increases for Resilient Infrastructure, the Drought Response program, and in 2016, implementation of the Administration's Open Data Policy to provide better access to water data, projections, tools, and other information to partners. Congress has provided substantial funding to support drought relief actions and we believe investment of these funds is yielding immediate benefits.

Reclamation is also requesting two changes in authorizations for which language is included in our FY 2016 request. The first is to extend the California Federal Bay-Delta Authorization Act, as amended, from 2016 to 2018, so the CALFED program can continue its critical mission—even more important given the current drought. Language is also included as part of the 2016 Budget to increase the authorized appropriations ceiling of Section 9504(e) of the Secure Water Act of 2009 from \$300 million to \$400 million.

### **Other Interior Actions**

Our efforts to actively respond to drought conditions extend well beyond Reclamation activities. We are in the midst of coordinating numerous drought activities throughout the Department and the Administration, ranging from monitoring and forecasting water flows and drought; coordinating to protect fish and wildlife while ensuring water supplies continue, and managing drought affected public lands. The Department's bureaus responsible for significant land management activities also participate in the National Drought Resilience Partnership, and are participating members of the Western States Federal Agency Support Team (WestFAST), both

of which address drought issues and impacts. The following is a summary of recent or major drought activities underway at the Department.

Drought conditions, particularly in California, the Northwest, and Alaska, create challenges for the 2015 fire season. We expect that fire season will start earlier in those areas and fires will be larger and more intense. Increased wildland fire risk threatens public health and a variety of resources, including habitat for threatened and endangered species. The lack of snowpack creates large and uninterrupted areas of dry fuels at higher elevations\_\_ resulting in more extensive fires and simultaneous fire seasons in both low and high elevations. The Department, along with our partners in the US Forest Service and the States, is closely monitoring fire weather and fuels conditions. Our firefighting resources and assets will be prepositioned and allocated during fire season to respond to those areas of greatest risk.

The U.S. Geological Survey (USGS) is an integral part of the Department's drought response, and is providing actionable, science-based information and tools as a participant in the National Drought Resilience Partnership. During drought, forecasting stream low-flow conditions can be critical for water apportionment and ecosystem protection. The USGS is measuring stream low flows throughout the drought-stricken regions. Stream flow gages are then adjusted to assure accurate, real time measurements of water availability. More broadly, the USGS is characterizing and predicting drought streamflow across the Nation. Estimates of drought flow frequency, duration, magnitude, and probability are needed throughout the United States to better understand and anticipate drought streamflow conditions. The USGS is expanding the capabilities of its coupled groundwater/surface-water flow model GSFLOW to provide an option that allows modelers to improve these low-flow forecasts for critical water-supply basins in which groundwater plays a significant role.

In addition to ground-based observations of hydrologic response in our surface and groundwater resources, USGS provides remote sensing data from earth observing satellites to evaluate drought conditions. The Vegetation Drought Response Index (VegDRI) integrates space-based observations of vegetation with other information about climate, land cover-land use, ecological setting, and soil characteristics to show drought's effect on vegetation at a 1-kilometer resolution.

The U.S. Fish and Wildlife Service (Service) is coordinating with federal, tribal, and state partners to protect Service trust resources while ensuring water supplies remain available to multiple users. Contingency planning is underway in many western regions and every effort is being made to avoid emergency releases, particularly in our Pacific Region. Additionally, our regions are addressing drought impacts by producing water inventories and assessments for national wildlife refuges, and facilitating research on drought effects on species with partner agencies.

This month the Army Corps of Engineers and Reclamation requested Emergency Consultation with the Service on installation and operation of an Emergency Drought Barrier at West False River in the Bay-Delta. The Service responded promptly with recommendations to minimize the effects of the emergency response on threatened and endangered species. The prompt response allowed construction to begin on an action needed to safeguard human life and property. Other extraordinary measures have been taken at the Coleman National Fish Hatchery in California, where twelve million young fall-run Chinook salmon were trucked to locations 200 miles downstream of the hatchery in the last several months. This action differs significantly from the Service's normal method of releasing fish into the river near the hatchery. The action was taken to provide flexibility in water operations and to prevent high mortality of the fish.

Our fish hatchery managers are acutely aware of low water issues associated with their hatcheries. In the Pacific Northwest, we don't expect any major changes in production numbers this year. However, multiple years of drought might require an early release of production fish to provide better outmigration conditions, in addition to reduced production numbers and rearing densities in the hatcheries.

The Bureau of Land Management (BLM) is also doing its part to carry out its mission while adapting to drought. Drought conditions across the West have significantly impacted BLM-managed rangelands, leaving limited water and forage for wildlife and livestock. Successive years of drought on public lands have reduced the vitality and production of forage, affected fisheries and aquatic wildlife through higher surface water temperatures, dried up springs and increased grazing concentration around remaining water sources, and have made forests more susceptible to insect and other pest damage.

The BLM's mission is to manage public land resources for a variety of uses, such as energy development, livestock grazing, recreation, and timber harvesting, while protecting a wide array of natural, cultural, and historical resources. The BLM works toward voluntary changes in use with grazing permittees but will issue decisions if necessary. In addition, the agency monitors water availability for wild horses and may arrange to haul water, collaborates with energy and timber operators to minimize fire risk, deploys fire-fighting equipment for quicker response, and proactively communicates fire and activity restrictions to the public. As part of these efforts, for example, BLM Director Neil Kornze and Deputy Director Steve Ellis held a series of meetings in May with local officials and stakeholders in Nevada and Utah to discuss how they can best collaborate and continue ongoing actions to address drought.

The National Park Service (NPS) is working to address the drought at various levels within the agency. The NPS Water Resources Division is assessing park water rights and their vulnerability to drought and resulting in calls for curtailment by state water right agencies. NPS also addresses drought via its participation in the Colorado River Steering Committee, which monitors drought related impacts on the river and associated reservoirs/parks, by conducting riparian assessment surveys of drought impacts on park wetlands, and by participating in

discussions with states water rights and resource managers to protect park water resources from drought impacts. Finally, many of the national parks and other land units have drought information and education pages on their websites describing specific ongoing activities related to drought monitoring and planning, and the impacts of drought on wildlife, trees/plants, fire management, and water resources.

Severe drought conditions are also impacting Native Americans living on Tribal land and public domain allotments throughout the Country. Many of these lands typically have had limited access to water resources even in average water years. Extreme drought conditions in the southwest and particularly California has exhausted limited water supplies for all aspects of life, with adverse impacts to health, sanitation, crops, range land, timber, and hardwood forests. Wildfires are also taking their toll in Indian Country.

The Bureau of Indian Affairs (BIA) has had limited funding available to combat or provide relief for drought conditions currently being experienced by the Tribes. Nonetheless, the BIA is keeping current with existing technologies and planning techniques and is offering technical assistance to Tribes when necessary. The BIA is continuously seeking additional funding sources with other federal departments, states and jurisdictions to provide much needed relief to the tribes. BIA works to promote regional partnering, and collaboration among all stakeholders within a given watershed to conserve water resources within these impacted areas. In addition, the Department continues to prioritize the implementation of Indian water rights settlements to provide infrastructure that improves water supply reliability for Tribes which, in turn, builds resiliency for tribal lands to weather times of drought.

### **Administration-Wide Actions**

Looking to the future, we need to be prepared to manage the risks associated with drought that will be influenced by climate change. There are inherent uncertainties in climate change science and how climate change may affect drought, including with respect to geographic distribution, precipitation and temperature. However, based primarily upon temperature alone, impacts to Western water will be exacerbated through evapotranspiration, that is, the water utilized by plants, crops, and evaporated from soil moisture. A recent study released by Reclamation in February 2015 revealed that net irrigation water requirements in the West may be six percent higher in the second half of the 21st century compared to the second half of the 20th century, while reservoir evaporation may increase. Further, the National Climate Assessment (NCA) of 2014 concludes “there have been changes in heat waves and in floods and droughts over the last several decades,” “future changes are projected,” and “droughts in the Southwest and heat waves everywhere are projected to become more intense.”

The Department’s actions are part of an Administration-wide approach to address drought conditions and build resiliency in the face of long-term projections, which point to increasing challenges in water resource management. The National Drought Resilience Partnership

(NDRP) was launched as part of the President’s Climate Action Plan to serve as a forum to align Federal drought policies and programs in support of state, tribal, and community efforts, and to leverage the work of existing federal investments such as the National Integrated Drought Information System (NIDIS), the development of a National Soil Moisture Network, and other interagency partnerships like the Reclamation-Natural Resources Conservation Service partnership to strengthen agricultural water use efficiencies. By linking information on monitoring, forecasts, outlooks, new technologies, and early warnings with long-term drought resilience strategies in sectors like agriculture, municipal water systems, energy, recreation, tourism and transportation, we can bolster our Nation’s ability to manage threats to its finite water resources and mitigate impacts to communities and our economy. By marshalling Federal resources in specific Western watershed basins, the NDRP is also working to demonstrate how drought preparedness can be improved when the Federal government takes a coordinated, “all-in” approach to support local communities. The Administration has also provided information and access to drought relief programs at USDA; made strategic investments to address drought through funding programs at Interior, USDA, and EPA; and continues to improve and enhance scientific capabilities to respond to drought and a changing climate.

### **Conclusion**

The Department is pursuing a coordinated ‘all hands’ approach to drought, and working aggressively with our partners. We recognize that more can always be done, and we know that combating drought is not about throwing money at the problem. Some in the communities we serve, particularly in the Central Valley, have told us, ‘we don’t want money, we want our water.’ We have heard them and are using every tool available to provide water this year while continuing efforts to improve conditions in future years. Nonetheless, the fact remains that the hydrology in many areas of the West is at historic lows and shortages will continue despite the efforts of the Federal government and its state, local, and tribal partners. While this reality is daunting, the Department and this Administration will not lose focus on our duty to help the western communities dealing with drought after this budget year is over and after this session of Congress ends. Climate change is already exacerbating water scarcity in the West, and we understand that these effects will intensify over the coming decades. We know that neither the Federal government nor the communities we serve can simply build, conserve, recycle or regulate our way out of these challenges, or rely on only one option to meet the challenges we face. Rather, we understand the need to take a multi-faceted, long-term approach to diversifying our western water portfolio, and working to achieve lasting results. We stand ready to work with any and all Members of this Committee in that ongoing effort.

Again, I thank the Chairman, Ranking Member and all the Members of the Committee. This concludes my written statement. I would be pleased to answer questions at the appropriate time.

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