



# Water Grand Challenges: Water Governance

## Drought Policy and Contingency Planning

**Background** – The 2011 drought was the worst one-year drought recorded since formal record keeping began, and Texas has continued to suffer from severe drought conditions. Scientific evidence has shown that “severe decadal-scale droughts have occurred in Texas at least once a century since the 1500s.”<sup>1</sup> According to the state climatologist, the two-year period following the summer of 2011 already ranks as the third worst drought of record in Texas.**Error! Bookmark not defined.** Although federal and state organizations do provide preparedness and planning assistance to ameliorate the effects of drought, no single agency is responsible for responding to, or preventing, drought.<sup>2</sup> This is partly due to the fact that drought is a hazard that can encompass a large area and cover an extended period of time. Drought severity is also highly variable depending on the location. For example, during the summer of 2011, Athens, Georgia and Lubbock, Texas reported severe drought conditions over a three-month period.<sup>3</sup> However, Lubbock received nearly nine inches less rain than Athens did during that time. Such differences in perceived drought conditions make federal and state mitigation and response more difficult to prescribe.<sup>3</sup> With shifting climatic patterns and the anticipation of prolonged dry weather to come, drought contingency and preparedness planning is imperative to preventing widespread economic, human, and environmental losses. In order to ensure the security of water resources during times of drought, mechanisms at the state and federal level have been proposed and implemented to promote resilience and improve emergency response.

**Federal and State Drought Policy** – The role of the Federal Emergency Management Agency (FEMA) is primarily to address emergencies resulting from faster moving disasters, like floods and hurricanes. At the federal level, the role of FEMA in drought mitigation does not extend beyond supplying “crisis management” to areas suffering from extreme drought.<sup>3</sup> There are many federal resources for planning, such as those offered through the [National Drought Mitigation Center](#) (NDMC). The NDMC posts drought mitigation, management, and response plans for states and localities online. NDMC also provides scheduled workshops across the country for drought management.<sup>2</sup> In 1998, the [National Drought Policy Commission](#) was created through the [National Drought Policy Act](#), which developed policy recommendations for national drought preparedness. Although several bills aimed at instituting specific drought management and preparedness plans at the federal level were introduced into Congress between 1998-2008, many were not enacted.<sup>3</sup> However, the 110<sup>th</sup> Congress did pass the [Farm, Nutrition,](#)



[and Bioenergy Bill of 2008](#), which created the National Drought Council and provided a \$3.8 billion trust for agricultural assistance with drought-related disaster.<sup>3</sup> Since federal-level drought assistance has historically focused on extreme droughts, planning, education, and only recently on funding, state-level contingency planning and local response can be more dependable for handling the immediate effects of drought. The [Texas Drought Preparedness Council](#) (TDPC) under The Texas Department of Public Safety (TxDPS), was established by the Texas 76<sup>th</sup> Legislature through [H.B. 2660](#) in 1999. The TDPC is responsible for advising the Governor of Texas and State Legislature of “significant drought conditions” in Texas, and advising regional planning groups on water issues, such as shortages, and emergency communication.<sup>4</sup> Moreover, the TDPC is responsible for providing immediate and long-term assistance “to private and public entities for obtaining, transporting, and distributing potable drinking water to those in need.”<sup>4</sup> Prior to the passage of HB 2660, the [Drought Monitoring and Response Committee](#) was formed through S.B. 1 of the Texas 75<sup>th</sup> Legislature passed in 1997 (see Drought Contingency Planning section below). These statewide entities are tasked with coordinating state response to “drier-than-normal conditions” and “water shortages associated with drought situations.”<sup>4</sup> Operational management and task assignment for Texas agencies during times of drought are established in part through the [State of Texas Emergency Management Plan](#), as are instructions for federal disaster relief in instances of extreme drought.

TCEQ mandates that “each drought contingency plan for a retail water utility should include:

- Specific, quantified targets for water use reductions,
- Drought response stages,
- Triggers to begin and end each stage,
- Supply and Demand management measures,
- Descriptions of drought indicators,
- Notification and Enforcement procedures,
- Procedures for granting exceptions,
- Public input to the plan,
- Ongoing public education,
- Adoption of plan, and
- Coordination with regional water planning group.”

**Drought Contingency Planning in Texas** – Because state plans are region-specific and have the ability to respond to local emergencies immediately, state plans are more effective when dealing with drought response. To manage existing resources and ensure that the public is prepared for drought, the Texas Commission on Environmental Quality (TCEQ) requires that all public water suppliers to develop drought contingency plans.<sup>5</sup>

The cost of drought is tremendous and preparation is the best way to mitigate the associated impacts. Customers who wish to obtain a water contract from a river authority must also submit a drought contingency plan. Many river authorities, like the Lower Colorado River Authority provide [sample plans](#) for customers involving municipal, agricultural, industrial, recreational, or irrigation water use.<sup>6</sup>

<sup>1</sup> Votteler, Todd H., Daniel K. Stahle, Richard C. Casteel, Jay L. Banner, and Malcolm K. Cleaveland. "Extended Chronology of Drought in South Central, Southeastern, and West Texas." *Texas Water Journal*, 2011: 54-96.

<sup>2</sup> National Drought Mitigation Center. U.S. Drought Policy. 2013. <http://drought.unl.edu/Planning/USPolicy.aspx> (accessed May 16, 2013).

<sup>3</sup> Folger, Peter, Betsy A Cody, and Nicole T Carter. *Drought in the United States: Causes and Issues for Congress*. CRS Report for Congress, Washington D.C.: Congressional Research Service, 2012.



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<sup>4</sup> University of North Texas. Texas State Drought Programs.

<http://govinfo.library.unt.edu/drought/finalreport/filec/Texas%20Programs.htm> (accessed May 17, 2013).

<sup>5</sup> Texas Commission on Environmental Quality. Drought Contingency Plans. March 12, 2013.

[http://www.tceq.texas.gov/permitting/water\\_rights/contingency.html#continge](http://www.tceq.texas.gov/permitting/water_rights/contingency.html#continge) (accessed May 15, 2013).

<sup>6</sup> The Lower Colorado River Authority. Drought contingency plans.

[http://www.lcra.org/water/save/drought\\_plans.html](http://www.lcra.org/water/save/drought_plans.html) (accessed May 16, 2013).