

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



**AN ORDER** granting an emergency authorization to the Lower Colorado River Authority to amend its Water Management Plan, Permit No. 5838, pursuant to Section 11.139 of the Texas Water Code; TCEQ Docket No. 2013-0225-WR.

On July 26, 2013, the Texas Commission on Environmental Quality (TCEQ or Commission) considered the Lower Colorado River Authority's (LCRA) request under Texas Water Code §§ 5.501, 11.138, and 11.139 and the Governor's Emergency Disaster Proclamation related to drought for an emergency order to amend its 2010 Water Management Plan, Permit No. 5838.

Over the last year, the TCEQ has responded to similar requests from LCRA for such emergency authorization. Specifically, the Executive Director (ED) issued an emergency order on January 29, 2013, and the Commission affirmed and modified the emergency order on February 19, 2013. LCRA filed a request to extend the order, and the ED extended the emergency order on May 17, 2013, effective May 29, 2013. On June 10, 2013, the Commission issued an order affirming and modifying the ED's extension of the order, changing the extension termination date to July 29, 2013.

On July 2, 2013, LCRA filed the application for a new emergency order to suspend any obligation LCRA might have under the 2010 Water Management Plan to release interruptible stored water through the remainder of 2013 irrigation season consistent with the prior emergency orders issued in 2013. LCRA's application is attached to this order as Exhibit A and incorporated herein by reference. LCRA subsequently made a clarification to the application on July 10, 2013, via email and that email is attached to this order as Exhibit B and incorporated herein by reference.

The Commission has jurisdiction to consider this matter and makes the following Findings of Fact and Conclusions of Law.

## FINDINGS OF FACT

### **LCRA's Water Rights and 2010 Water Management Plan:**

1. On July 2, 2013, LCRA requested emergency relief from the TCEQ related to its Water Management Plan due to persistent drought conditions in the Highland Lakes.
2. LCRA has the right to divert and use up to 1.5 million acre feet (MAF) from Lakes Buchanan and Travis under Certificates of Adjudication Nos. 14-5478 and 14-5482. By court order, LCRA has developed a Water Management Plan (WMP), Permit No. 5838, currently dated 2010, which is part of these certificates.

3. The Certificates of Adjudication and the 2010 WMP govern LCRA's operation of Lakes Buchanan and Travis and dictate how LCRA makes water available from these lakes in order to meet "firm" water customer needs, downstream interruptible irrigation demands, and environmental flow needs of the lower Colorado River and Matagorda Bay.
4. Certificates of Adjudication 14-5478 and 14-5482 state that "LCRA shall interrupt or curtail the supply of water . . . pursuant to commitments that are specifically subject to interruption or curtailment, to the extent necessary to allow LCRA to satisfy all demand for water under such certificate pursuant to all firm, uninterruptible water commitments." The WMP further describes how LCRA will manage and curtail supplies from the lakes during times of drought including through a repeat of the Drought of Record.
5. As established in the 2010 WMP, the combined firm yield of Lakes Buchanan and Travis is 535,812 acre-feet per year (AFY). Of this amount, 90,546 AFY is committed to O.H. Ivie Reservoir, making 445,266 AFY of firm water supply available from Lakes Buchanan and Travis for LCRA to help meet the firm water needs of its customers.
6. As established in the 2010 WMP, until firm demand for water equals the combined firm yield, LCRA can supply water for irrigated agriculture on an interruptible basis. The maximum historical annual amount of reported firm water use from the firm supplies of Lakes Buchanan and Travis during 2000 through 2010 was 247,000 acre-feet in 2011. The maximum interruptible amount of water released from Lakes Buchanan and Travis during this same period occurred in 2011 and totaled about 433,000 acre-feet. The maximum total amount released or used from the Highland Lakes, about 714,000 acre-feet, occurred in 2011.
7. To manage the supply, the 2010 WMP imposes several trigger points keyed to the total combined storage capacity of Lakes Buchanan and Travis that are intended to ensure the firm water supply is protected during droughts. The most relevant trigger points are set out in the following table:

<b>Combined Storage of Lakes Buchanan and Travis</b>	<b>Date on Which Trigger is Decided</b>	<b>Action Taken</b>
1.4 MAF	At any time	Request firm customers to implement voluntary drought response measures.
1.4 MAF	On Jan. 1	Environmental releases for instream flows reduced to meet critical needs for ecosystems for following year.  Begin gradual curtailment of interruptible supply to four major irrigation operations.
900,000 acre-feet	At any time	Request firm customers to implement mandatory water restrictions; develop firm customer curtailment plan.
600,000 acre-feet	At any time	If criteria indicates a drought worse than the Drought of Record, then cease interruptible supply and begin curtailment of firm supply.

8. LCRA's 2010 Water Management Plan defines "Drought of Record" as "the drought that occurred during the critical drought period." "The Critical Drought Period" is defined as "the period of time during which the reservoir was last full and refilled, and the storage content was at its lowest minimum value."
9. The LCRA Board may declare a Drought Worse than the Drought of Record if it finds that the following three conditions are simultaneously met:
  - a. Duration of drought is more than 24 months, which is determined by counting the number of consecutive months since both Lakes Buchanan and Travis were last full;
  - b. Inflows to the lakes are less than inflows during the drought of record; and
  - c. Lakes Buchanan and Travis combined storage has less than 600,000 acre-feet of water.
10. Under the 2010 WMP, once a drought has lasted more than 36 months and a Drought Worse than Drought of Record has been declared by the LCRA Board, the interruptible stored water would be fully and immediately curtailed – making no stored water available for agricultural irrigation or other interruptible uses until lake levels recover or the inflows into the lakes increase substantially. Moreover, LCRA will implement pro rata curtailment of its firm water users once a Drought Worse than Drought of Record is declared and after interruptible stored water (agriculture) uses have been curtailed.
11. Prior to a declaration of a Drought Worse than Drought of Record, LCRA is obligated by the 2010 WMP to provide at least some interruptible water to its four major irrigation operations. The allocation of interruptible water is determined by the LCRA Board of Directors in November, based on projections of the amount expected to be in the combined storage of Lakes Buchanan and Travis on January 1 of the following year. Using January 1 storage, the amounts available under the 2010 WMP follow a sliding scale. Thus, the decision regarding curtailment of interruptible supplies to the four major irrigation operations is keyed to the January 1 storage levels.

### **Current Conditions**

12. Extraordinary drought conditions continue in the area, with record high temperatures, record low inflows to the Highland Lakes, dry conditions upstream of the Highland Lakes, and low rainfall.
13. Inflows into the Highland Lakes in 2013 continue at record low levels. Annual inflows into Lakes Buchanan and Travis in four of the last five years are among the ten lowest years of inflow on record. Inflow in 2013, if continuing at the existing rates, will be among the lowest on record. June 2013 inflows were only 3.5 percent of the historic average for June and were the lowest monthly inflows of the year.
14. The inflows in to Lakes Buchanan and Travis for the past 36 and 60 months are the lowest over a similar time period in the historic record. The past 60 months of inflows are only 52 percent of the lowest inflows in any 60 month period in the historic Drought of Record which occurred from 1947 - 1957. To illustrate further, the lowest 60 month consecutive inflows into the Highland Lakes in acre-feet are as follows:

<b>60-month period ending:</b>	<b>60-month inflow amount:</b>
June 2013	2,150,784
September 1984	3,862,234
October 1967	4,029,989
August 1952	4,128,806

15. Extraordinary drought conditions have existed in much of Texas, including the Colorado River Basin for nearly three years. Although there has been close to normal rainfall in some places in the last 18 months, these events have failed to produce significant inflows into Lakes Buchanan and Travis.
16. High temperatures have also been unprecedented in the summers of 2011 and 2012. The summer of 2011 was the hottest ever recorded in Texas, including Austin.
17. The recent weather forecasts do not indicate significant rainfall in the near future. For the fall of 2013, a pattern of near to below normal rainfall is expected.
18. The hydroclimatic conditions outlined above have created a circumstance where Lakes Buchanan and Travis have been unable to recover in any significant manner, even with an emergency cutoff of nearly all water supply for downstream irrigation in 2012 and the first half of 2013. The lakes are approximately 37% full at this time.
19. The first and second criteria for a Drought Worse than the Drought of Record have been met; more specifically, the drought has lasted for more than 24 months, and the cumulative inflow deficit criteria have been met.
20. If extraordinary drought conditions continue, the criteria for declaration of a Drought Worse than the Drought of Record may be met as early as September, 2013, and there is a one in four chance of these criteria being met by December 31, 2013. Additional releases of interruptible water would add to the risk that a Drought Worse than Drought of Record will be declared in the next few months.
21. The Governor of Texas issued an Emergency Disaster Proclamation on July 5, 2011, certifying that exceptional drought conditions posed a threat of imminent disaster in specified counties in Texas. This proclamation has been renewed monthly, most recently on June 14, 2013, and includes every county bordering or that contributes inflow to the Highland Lakes. These areas are in severe drought or worse. The Emergency Disaster Proclamation also states that as "...provided in Section 418.016 of the code, all rules and regulations that may inhibit or prevent prompt response to this threat are suspended for the duration of the state of disaster."

#### **Imminent Threat To Public Health And Safety**

22. LCRA provides raw water out of the combined firm yield of Lakes Buchanan and Travis to 64 retail and wholesale potable water suppliers that together serve over one million people. In addition, LCRA provides water to several electric utilities from the firm water supply of lakes Buchanan and Travis. These electric utilities provide electricity into the electrical grid in Texas operated by the Electric Reliability Council of Texas (ERCOT) and provide electricity to customers in Texas. LCRA also provides firm raw water to several industries located downstream.

23. The current drought conditions are outside the range of hydrologic conditions that were considered during formulation of the 2010 WMP.
24. If LCRA had released interruptible water to agriculture users, it could have resulted in the combined storage dropping to 600,000 acre feet by July 2013, and LCRA having to declare a Drought Worse than the Drought of Record.
25. The 2010 WMP requires that firm customers (mainly cities and industries) be curtailed on a pro rata basis and that LCRA cease all releases for interruptible stored water (regardless of the impact on the crops) when a Drought Worse than the Drought of Record is declared.
26. If LCRA is required to follow the 2010 Water Management Plan and the drought continues, LCRA and its firm customers may need to acquire or develop large quantities of alternative water supplies to meet essential needs of their respective potable water systems. Many of LCRA's firm customers do not have any readily available alternative sources of water supply that could substitute for their reliance on the Colorado River, and these projects could take years to develop. Following the 2010 Water Management Plan under current drought conditions could pose an imminent threat to firm customers served by LCRA from Lakes Buchanan and Travis.
27. Currently, LCRA owns five systems that take raw water from Lakes Buchanan and Travis. LCRA also has twelve customers that actively take raw water for municipal purposes from Lake Travis that are not a part of LCRA's utility facilities. The lowest pumping elevations of the intakes range from 555 feet mean sea level (msl) to 660 feet msl on Lake Travis.
28. As lake levels drop, retail water suppliers are unable to pump water from the lakes. This causes firm customers to either spend funds to reach the water, or obtain alternate sources. Smaller systems will likely have to haul water from a water utility with a viable source. If the lake levels drop more quickly than arrangements for alternative intakes or supplies can be implemented, the situation presents an imminent threat to public health and safety for the LCRA water systems and for its customers' water systems.
29. Allowing any additional release of interruptible stored water would amplify the risk of LCRA declaring a Drought Worse than the Drought of Record and shorten the timeframe that LCRA and its firm customers have to prepare for such an occurrence. Without emergency authorization to suspend any obligations to release interruptible stored water under the 2010 WMP, farmers who have started crops on groundwater or run-of-the-river water may seek to compel LCRA to make interruptible stored water available.

### **Drought Contingency Plan**

30. LCRA's Drought Contingency Plan (DCP) is contained in Chapter 4 of the 2010 WMP. LCRA was originally required to develop a DCP as a direct result of the court order adjudicating LCRA's water rights and the Texas Water Commission 1989 WMP Order.
31. When LCRA was required under the TCEQ's Chapter 288 rules to develop and implement a DCP, LCRA incorporated all of the same triggers and criteria from the approved WMP into its DCP and elaborated on the details of how pro rata curtailment of interruptible customers might occur to comply with the additional requirement of the TCEQ's Chapter 288 rules.

32. LCRA's current WMP incorporates the Chapter 288-required DCP in Chapter 4 of its WMP. Chapter 4 also complies with TCEQ's DCP rules.
33. In June 2010, LCRA adopted additional changes to LCRA's raw water contract rules that include the procedures for implementing a pro rata curtailment of firm water customers. The 2010 WMP includes a requirement that LCRA develop a stored water curtailment plan to be approved by the LCRA Board and TCEQ in response to combined storage dropping below 900,000 acre feet. TCEQ approved LCRA's water curtailment plan for its firm customers in December 2011.
34. In August, 2011, LCRA called on its firm water customers to voluntarily implement mandatory water use restrictions under their DCPs to reduce water use by 10 to 20 percent.
35. LCRA has fully implemented its DCP. It requires all of its customers that currently divert and purchase water from LCRA to have a DCP. Most of these firm customers have stayed in some form of mandatory water restrictions, significantly limiting landscape irrigation. LCRA's industrial customers have worked to reduce non-essential water uses. Also, LCRA has had several meetings with firm customers in preparation for pro rata curtailment and additional meetings are scheduled for July and August.

#### **Feasible Alternatives**

36. LCRA has evaluated many alternatives to address the emergency conditions that the drought presents. Alternatives explored include: Utilizing water from LCRA's other lakes, aggressive conservation, securing the Garwood right for purposes other than agriculture, interbasin transfers, and trucking in water from other sources.
37. None of the alternatives LCRA has identified would avert the projected water supply shortage because most of the supplies identified would produce insufficient or uncertain quantities of supply, would create other operational issues for customers, involve a lengthy permitting process (if not implemented on an emergency basis), or would take years to develop. None of the alternatives identified are feasible or practicable alternatives to the emergency authorization.
38. LCRA has, to this point, fully implemented its Drought Contingency Plan. All of LCRA's customers that currently divert and purchase water from LCRA must have a drought contingency plan. All of those customers have plans on file. LCRA has also implemented several conservation projects over the years.
39. Amending downstream run of the river rights to allow diversion for new uses and at new locations would provide some supply, but the use of these rights alone is not – by itself – a feasible and practicable alternative to the emergency relief related to the 2010 WMP. All of the rights would require amendments to add diversion points, additional places of use, and possible storage. Also, the downstream run-of-river water rights are highly variable in terms of availability and quantity, and do not provide by themselves a sufficient quantity of water to eliminate the need for the emergency relief from the 2010 WMP.
40. A twenty percent reduction in water use by firm customers will require some difficult measures. There may be dramatic reductions in outdoor water use. However, none of these measures will occur quickly enough to help lake levels.

41. LCRA is actively pursuing a formal amendment to its 2010 WMP but that process will not be completed in time to address LCRA's requested relief. LCRA filed an application to amend its 2010 Water Management Plan on March 12, 2012. TCEQ prepared a draft permit for LCRA comment on October 12, 2012. Notice of the application was sent to all water right holders in the Colorado River Basin and published in local newspapers in April, 2013. Following the end of the comment period, on June 3, 2013, the TCEQ Executive Director advised LCRA that he would not be forwarding the application to the Commission at this time, and that his staff would be conducting further review on the application.

#### **Relief Requested**

42. LCRA requests TCEQ to issue a new emergency order suspending any obligation LCRA might have under the 2010 WMP to release interruptible stored water through the remainder of the 2013 irrigation season consistent with the prior emergency orders issued in 2013.

#### **Notice**

43. Notice was provided to the Governor regarding the Commission's consideration of this emergency order. Notice of the Commission's July 26, 2013 agenda setting for this matter was sent to all water right holders of record in the Colorado River Basin at least ten days before the meeting.

#### **CONCLUSIONS OF LAW**

1. The Commission may issue an emergency order under Texas Water Code § 11.139 to amend a certificate of adjudication after notice to the Governor if the Commission finds that emergency conditions exist which present an imminent threat to the public health and safety and which override the necessity to comply with established statutory procedures and there are no feasible practicable alternatives to the emergency authorization.
2. The Findings of Fact show that the requirements of Conclusion of Law No. 1 have been met. The Commission has the authority to issue this emergency order.

#### **NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY THAT:**

1. LCRA is under no obligation under the 2010 WMP to provide interruptible stored water outside of the Garwood irrigation division for any purpose during the term of this order.
2. This emergency order is final and effective on July 30, 2013.
3. This emergency order terminates in 120 days, or November 27, 2013.
4. This emergency order may be renewed once for no more than 60 days.
5. The Chief Clerk of the Commission shall forward a copy of this emergency order to all parties.

6. If any provision, sentence, clause, or phrase of this emergency order is for any reason held to be invalid, the invalidity of any portion shall not affect the validity of the remaining portions of this emergency order.

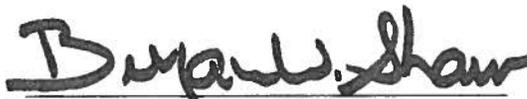
**Issue Date:**

**JUL 26 2013**

**Effective Date:**

July 30, 2013

TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

  
Bryan W. Shaw, Ph.D., Chairman