

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



**AN EMERGENCY 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**

On January 29, 2013, the Executive Director of the Texas Commission on Environmental Quality (Commission) considered a request from the Lower Colorado River Authority (LCRA) for an Emergency Order, under Texas Water Code §§ 5.501, 11.138, 11.139, and the Governor's Emergency Disaster Proclamation related to drought, to amend its Water Management Plan, Permit No. 5838.

The Executive Director 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 November 24, 2012, LCRA requested emergency relief from the TCEQ related to its Water Management Plan due to persistent drought conditions in the Highland Lakes. LCRA, based on worsening drought conditions and with unanimous board support, filed an Amended and Supplemental application for emergency relief with the TCEQ on January 11, 2013.
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 to help 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. So long as firm demand for water is equal or less than 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 2011 was 247,000 acre-feet in 2011. The maximum interruptible 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. LCRA’s 2010 WMP 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.”
8. 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 indicate a drought worse than the Drought of Record, then cease interruptible supply and begin curtailment of firm supply.

9. The LCRA Board may declare a Drought Worse than the Drought of Record (DWDR) 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 the Drought of Record (DWDR) 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 DWDR is declared and after interruptible stored water (agriculture) uses have been curtailed.
11. Prior to a declaration of a DWDR, LCRA is obligated by the 2010 WMP to provide at least some interruptible water to its four major irrigation operations.

### **Current Conditions**

12. Inflows to the Highland Lakes are at record lows. Four of the five lowest amounts of annual inflows into Lakes Buchanan and Travis on record have occurred since 2006, including in 2012.
13. The two month inflow total for November and December, 2012, represents the second lowest flow on record.
14. Rainfall events have occurred during the preceding twelve month period; however, these rainfall events failed to produce significant inflows into Lakes Buchanan and Travis.
15. The U.S. Drought monitor shows that most of the Texas Hill Country and Central Texas are now within the “severe drought” designation.
16. The period of October through December 2012 was the driest combined October through December period since 1950, with just 2.16 inches of rain statewide.
17. Weather forecasts indicate that an El Nino will not bring any relief. The National Weather Service's Seasonal Drought Outlook calls for the drought to persist across most of Texas or intensify through the winter and into early spring. Longer-term indicators suggest a pattern of near to below normal rainfall through next summer. If dry conditions continue, precipitation patterns will be similar to those experienced in the 1950s.

18. The hydroclimatic conditions outlined in Finding of Facts Nos. 12-17 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 may be unlikely to recover in the near term.
19. On January 1, 2013, the combined storage in Lakes Travis and Buchanan had dropped by about 45,000 acre feet since November 1, 2012, and the combined storage was about 825,000 acre feet or 41% full.
20. 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 January 25, 2013, and includes every county bordering or that contributes inflow to the Highland Lakes.

### **Harm from Following 2010 WMP Requirements**

21. LCRA provides raw water out of the combined firm yield of Lakes Buchanan and Travis to over 60 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.
22. The current drought conditions are outside the range of hydrologic conditions that were considered during formulation of the 2010 WMP.
23. Unless a change in the weather occurs that contributes significant water to storage in Lakes Buchanan and Travis, following the 2010 WMP will require LCRA to:
  - a. Make a substantial quantity of stored water available for interruptible use and enter into contracts for interruptible water, based on January 1, 2013 combined storage;
  - b. Begin releases of interruptible stored water to meet demands in the four irrigation operations for the 2013 crop;
  - c. Suffer a significant likelihood of reaching the third (and final) criteria for DWDR conditions;
  - d. Declare a DWDR;
  - e. Cut off stored water for interruptible contracts, thereby ruining the crop already planted; and
  - f. Curtail cities' and industries' water use by 20 percent or more.
24. Under the criteria for declaring a DWDR in Finding of Fact No. 9, the LCRA Board of Directors may declare a DWDR in the middle of the first crop and releases from storage would cease.

Farmers could lose their crops and the investment made to grow the crops. At the same time there would be an irreversible reduction in supply for firm customers.

25. The first and second criteria for a DWDR set out in Finding of Fact No. 9 have been met. The drought has lasted more than 24 months. The cumulative inflow deficit criteria was met by December 2012.
26. Following the 2010 WMP creates a risk that a DWDR will be declared during the growing season unless there is a substantial increase in storage before planting begins.
27. The 2010 WMP requires that firm customers be curtailed on a pro rata basis and that LCRA cease all releases for interruptible stored water when a DWDR is declared.
28. At a January 1 combined storage level of 825,000 acre feet, the 2010 WMP requires LCRA to make available around 185,000 acre-feet for diversion for interruptible irrigation use in the lower basin for the 2013 crop year.
29. Not including the amount of water needed for firm water users, evaporation, and releases for instream uses, the combined storage of the reservoirs could drop to 600,000 acre-feet well before irrigators could finish their crop in mid to late August unless there is significant rainfall in the watershed above Lakes Buchanan and Travis.
30. Based on LCRA's projections, the combined storage in Lakes Buchanan and Travis must be at or above 850,000 acre-feet and the release can be no more than 121,500 acre feet before the risk of reaching 600,000 acre feet is reduced.
31. If LCRA is required to follow the 2010 WMP and the drought continues, LCRA and its 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. Following the 2010 WMP under current drought conditions could pose an imminent threat to firm customers served by LCRA from Lakes Buchanan and Travis.
32. 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. If the levels in Lake Travis or Lake Buchanan drop below the current lowest pumping elevations, LCRA and its wholesale raw water customers must take action to either lower their pumping elevation or find alternative supplies. For smaller systems, the alternative is likely hauling water from a water utility with a viable source. For larger systems, temporary measures must be implemented to extend the intake capabilities to reach lower elevation water. Similar measures would likely be needed by LCRA's raw water customers that have their own intake facilities.

33. If the lake levels drop more quickly than arrangements for alternative intakes or supplies can be implemented, the current drought presents an imminent threat to public health and safety for the LCRA water systems and for its customers' water systems.
34. Because the WMP is required by, and incorporated into, LCRA's Certificates of Adjudication 14-5478 and 14-5482, the WMP may only be amended in the same manner and following the same procedures as one would amend any state-issued water right, which procedures for this type of amendment would require basin-wide 30-day public notice and significant staff review.
35. The time period in which LCRA must make decisions regarding its commitments of interruptible water occurs long before there could be any decision on any amendments to the 2010 WMP if the regular TCEQ water rights permitting procedures are followed. Thus, the emergency authorization is the only means by which LCRA can be provided with the flexibility to determine if it can commit to supplying interruptible stored water to its irrigation operations.

### **Drought Contingency Plan**

36. LCRA's Drought Contingency Plan (DCP) is contained in Chapter 4 of the 2010 WMP. LCRA was originally required to develop this part of the WMP as a direct result of the court order adjudicating LCRA's water rights and the Texas Water Commission's 1989 WMP Order, giving initial approval to LCRA of an earlier version of the plan.
37. Prior to any state requirement for water conservation plans, LCRA required its municipal customers to adopt such plans.
38. 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 requirements of the TCEQ's Chapter 288 rules. LCRA's current WMP incorporates the Chapter 288-required DCP in Chapter 4. This plan also includes water use reduction targets for firm water supplies to comply with TCEQ's DCP rules adopted in 2004. In April 2007, LCRA adopted changes to LCRA's raw water contract rules related to implementation of LCRA's DCP.
39. 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.
40. LCRA has 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. As of October 2012, 96 percent of those customers have plans on file.

41. In August 2011, the combined storage of Lakes Buchanan and Travis reached 900,000 acre-feet. As required by the WMP, LCRA called on its firm water customers to voluntarily implement mandatory water use restrictions under their individual DCPs to reduce their water use by 10 to 20 percent. As lake conditions continued to decline, most of LCRA's municipal customers have remained in some form of mandatory water restrictions, significantly limiting landscape irrigation.
42. LCRA industrial customers, who consist of power plants and a few large industries along the Gulf Coast, have cut back on non-essential water uses, such as outdoor watering. However these cutbacks likely have resulted in a very minimal savings. Any further cutbacks will result in a decrease in production.
43. If LCRA declares a DWDR and releases of interruptible stored water cease, LCRA's DCP requires firm customers to implement measures to immediately reduce their water consumption by twenty-percent (20 percent). To achieve a 20 percent reduction in use, firm municipal customers would likely have to eliminate all outdoor water use. Further, industrial customers would likely have to curtail their production.

### **Feasible Alternatives**

44. Reductions in water use by firm customers cannot prevent the emergency created by falling reservoir levels that would result from the level of irrigation releases required by the 2010 WMP. Even if firm customer water use reductions are implemented immediately once such a reduction is mandated by LCRA, the results of this reduction will not be fast enough to compensate for the falling reservoir levels.
45. Implementation of the 2010 WMP for purposes of determining the amount of interruptible stored water available for downstream irrigation operations could result in LCRA reaching DWDR conditions during first crop.
46. 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 as requested herein.
47. LCRA has evaluated many other 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.

48. 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.

### **Requested Relief**

49. A modified curtailment procedure for interruptible stored water would provide LCRA the ability to supply a reduced amount of interruptible stored water. Supplying a reduced amount of interruptible stored water, up to 121,500 acre feet, when the reservoirs are at or above the 850,000 acre feet storage level on March 1, 2013, greatly reduces the risk of reaching 600,000 acre feet of combined storage and declaring a DWDR during first crop.
50. Specifically, LCRA requests that it be allowed to implement a different process than required by the 2010 WMP for curtailment of interruptible stored water that would:
- a. Provide interruptible stored water for first crop based on the combined storage of Lakes Buchanan and Travis on March 1, 2013 (11:59 p.m.), as follows:
    - 1) Provide no interruptible stored water to customers within Gulf Coast and Lakeside Divisions if the combined storage is below 850,000 acre-feet.
    - 2) Provide up to 121,500 acre-feet of interruptible stored water for diversion for customers within Gulf Coast, Lakeside, Garwood and Pierce Ranch Operations if the combined storage is at or above 850,000 acre-feet and less than 920,000 acre-feet.
    - 3) Provide interruptible stored water in accordance with the then current Water Management Plan if the combined storage is at or above 920,000 acre-feet based on March 1 storage instead of January 1 storage.
  - b. Provide interruptible stored water for second crop based on the combined storage of Lakes Buchanan and Travis, as follows:
    - 1) If the combined storage is at or above 850,000 acre-feet and below 920,000 acre feet on March 1, 2013 (11:59 p.m.), and combined storage is below 950,000 acre feet on July 1, 2013 (11:59 p.m.), provide no interruptible stored water to customers within Gulf Coast and Lakeside Divisions.
    - 2) If the combined storage is at or above 850,000 acre-feet and below 920,000 acre-feet on March 1, 2013 (11:59 p.m.), and the combined storage is at or above 950,000 acre feet on July 1, 2013 (11:59 p.m.), provide up to 50,000 acre feet of interruptible stored water for diversion for customers in Gulf Coast, Lakeside, Garwood and Pierce Ranch Operations.

- 3) If combined storage is at or above 920,000 acre-feet on March 1, 2013 (11:59 p.m.), provide interruptible stored water for the second crop in accordance with the then current Water Management Plan based on March 1 storage instead of January 1 storage.
  - c. Provide interruptible stored water to Garwood and Pierce Ranch, in accordance with their contracts.
51. LCRA requests that TCEQ process this request in a manner that allows LCRA to gain the benefit of the authorization for as long as may be needed to address continued drought conditions. To that end, LCRA requests that:
  - a. The emergency authorization become effective no earlier than December 31, 2012; and
  - b. The emergency authorization continue until the *later* of:
    - 1) The initial 120 day period allowed by Texas Water Code § 11.139, and any extension thereof as allowed by Section 11.139; or
    - 2) The issuance of any TCEQ order approving amendments to the 2010 WMP, as may be filed by the LCRA consistent with the January 27, 2010 Order Approving Amendments to the Water Management Plan, if such order is issued prior to December 31, 2013; or
    - 3) December 31, 2013.
52. This order should not extend until the end of the initial 120 day period or extension, or December 31, 2013, whichever occurs last, if the Order Approving Amendments to the Water Management Plan is issued prior to December 31, 2013.
53. Consistent with the Governor's Proclamation, LCRA requests that procedural requirements associated with this request, or any portion thereof, be waived to expedite the processing of this request.

### **Notice**

54. Notice was provided to the Governor on January 24, 2013. Notice for the Commission hearing to affirm, modify, or set aside this emergency order on February 13, 2013, will be provided by mail to all water right holders in the basin at least ten days before the hearing.

### **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 emergency authorization may be for 120 days, and renewed once for 60 days.
3. The Executive Director may issue an emergency order pursuant to Texas Water Code § 11.139(f) after notice to the Governor if an imminent threat to the public health and safety exists which requires emergency action before the Commission can take action and there are no feasible alternatives. A hearing to affirm, modify, or set aside the emergency order must be held by the Commission as soon as practicable, but not later than 20 days after the emergency order is granted.
4. Notice of the Commission hearing to affirm modify or set aside shall be given as the Commission considers practicable under the circumstances.
5. Consistent with the Governor's Proclamation and under Finding of Fact No. 20, the procedural requirements associated with this request, or any portion thereof, may be waived to expedite the processing of this request.
6. The Findings of Fact show that Conclusions of Law 1 through 3 have been met.
7. The Executive Director has the authority to issue this order. A Commission hearing to affirm, modify, or set aside will be held on February 13, 2013.

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

1. LCRA's WMP, Permit No. 5838, is amended to temporarily establish a different process for curtailment of interruptible stored water that would:
  - a. Provide interruptible stored water for first crop based on the combined storage of Lakes Buchanan and Travis on March 1, 2013 (11:59 p.m.), as follows:
    - 1) Provide no interruptible stored water to customers within Gulf Coast and Lakeside Divisions if the combined storage is below 850,000 acre-feet.
    - 2) Provide up to 121,500 acre-feet of interruptible stored water for diversion for customers within Gulf Coast, Lakeside, Garwood and Pierce Ranch Operations if the combined storage is at or above 850,000 acre-feet and less than 920,000 acre-feet.
    - 3) Provide interruptible stored water in accordance with the then current Water Management Plan if the combined storage is at or above 920,000 acre-feet based on March 1 storage instead of January 1 storage.

- b. Provide interruptible stored water for second crop based on the combined storage of Lakes Buchanan and Travis, as follows:
    - 1) If the combined storage is at or above 850,000 acre-feet and below 920,000 acre feet on March 1, 2013 (11:59 p.m.), and combined storage is below 950,000 acre feet on July 1, 2013 (11:59 p.m.), provide no interruptible stored water to customers within Gulf Coast and Lakeside Divisions.
    - 2) If the combined storage is at or above 850,000 acre-feet and below 920,000 acre-feet on March 1, 2013 (11:59 p.m.), and the combined storage is at or above 950,000 acre feet on July 1, 2013 (11:59 p.m.), provide up to 50,000 acre feet of interruptible stored water for diversion for customers in Gulf Coast, Lakeside, Garwood and Pierce Ranch Operations.
    - 3) If combined storage is at or above 920,000 acre-feet on March 1, 2013 (11:59 p.m.), provide interruptible stored water for the second crop in accordance with the then current Water Management Plan based on March 1 storage instead of January 1 storage.
  - c. Provide interruptible stored water to Garwood and Pierce Ranch, to the extent required by their contracts.
2. The emergency authorization becomes effective upon issuance; and
  3. The emergency authorization shall continue until the issuance of any TCEQ order approving LCRA's March 12, 2012, application for amendments to the 2010 WMP.
  4. If the Order Approving Amendments to the Water Management Plan for LCRA's application dated March 12, 2012, is not issued before December 31, 2013, this order shall continue until the later of:
    - a. The initial 120 day period allowed by Texas Water Code § 11.139, and any extension thereof as allowed by Section 11.139; or
    - b. December 31, 2013.
  5. This order was issued without a hearing. A hearing to affirm, modify, or set aside this order will be held before the Commission on February 13, 2013.
  6. The Chief Clerk of the Commission shall forward a copy of this order to all parties.
  7. If any provision, sentence, clause, or phrase of this 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 order.

Issue Date: 1/29/2013

EXECUTIVE DIRECTOR  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY



Zak Covar  
Executive Director