

# TCEQ Interoffice Memorandum

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**To:** Chief Clerk

**Thru:** Caroline Sweeney, Deputy  
Office of Legal Services

Robert Martinez, Director  
Environmental Law Division

**From:** Robin Smith, Attorney  
Environmental Law Division

**Date:** June 4, 2014

**Subject:** Backup for Lower Colorado River Authority;  
Docket No.2014- 0124-WR; CN600253637; RN104252267;  
Consideration of whether to affirm, modify, or set aside the Executive Director's renewal for 60 days of an emergency order issued by the Executive Director, and modified and affirmed by the Commission, to amend LCRA's Water Management Plan under Texas Water Code §11.139. Lower Colorado River Authority 2010 Water Management Plan, Permit No. 5838, Colorado River, Colorado River Basin, Travis, Burnet, and Llano Counties

On February 27, 2014, the Texas Commission on Environmental Quality (TCEQ or Commission) issued an Emergency Order (EO) modifying and affirming an Executive Director's emergency order amending LCRA's Water Management Plan under Texas Water Code § 11.139. This EO expires on May 26, 2014.

On May 5, 2014, LCRA filed an application and brief for a 60 day renewal of the February 27th EO. LCRA requests an extension of the EO until July 25, 2014, as well as waiver of the procedural requirements associated with the request to expedite processing the request under the Governor's Emergency Disaster Proclamation last renewed on April 11, 2014.

On May 22, the Executive Director issued an Order extending the Commission's EO until July 25, 2014.

LCRA has the right to divert and use up to 1.5 million acre feet from Lakes Buchanan and Travis, in Travis, Llano, and Burnet Counties, Texas, under Certificates of Adjudication Nos. 14-5478 and 14-5482. These certificates require LCRA to develop the WMP, Permit No. 5838, which provides how LCRA makes water available from these lakes to help meet "firm" water customer needs, downstream interruptible irrigation demands, and environmental flow needs of Matagorda Bay and the Lower Colorado River.

## **TCEQ Interoffice Memorandum**

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Under the Commission's EO issued on February 27, 2014, LCRA is not required to release stored water for agricultural interruptible water users for the duration of the EO. The facts in LCRA's application for renewal included in this renewal order, show that the requirements of Texas Water Code § 11.139 continue to be met. Following the 2010 Water Management Plan with the ongoing drought and its effect on the water supply constitutes an emergency that presents an imminent threat to the public health and safety. There are no practicable alternatives to this action. Because conditions have remained the same or worsened since the Commission issued its emergency order on February 27, 2014, the EO should be renewed for 60 days under Section 11.139.

The Commission may affirm, modify, or set aside the Executive Director's Order.

cc: Kellye Rila, TCEQ; Ron Ellis, TCEQ; Kathy Alexander, TCEQ

Attachment A: ED's Order with the Commission's February 27, 2014 Order attached as Exhibit A and LCRA's application attached as Exhibit B.

Attachment B: ED's Technical Memo

# **ATTACHMENT A**

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



**AN ORDER** granting an extension of an emergency order issued 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 February 26, 2014, the Texas Commission on Environmental Quality (Commission or TCEQ) considered a request from the Lower Colorado River Authority (LCRA) for an emergency order to amend its Water Management Plan under Texas Water Code §§ 5.501, 11.138, and 11.139, and the Governor's Emergency Disaster Proclamation relating to drought. The Commission's emergency order, issued on February 27, 2014, expires on May 26, 2014. The February 27, 2014 emergency order is attached to this order as Exhibit A.

LCRA filed an application and brief for a 60-day extension of the February 27, 2014 emergency order on May 5, 2014. LCRA's extension request is attached to this order as Exhibit B. LCRA requests an extension of the February 27, 2014 emergency order through July 25, 2014.

The Executive Director has jurisdiction to consider this matter and makes the following Findings of Fact and Conclusions of Law:

## I. FINDINGS OF FACT

1. The following Findings of Fact in the Commission's February 27, 2014 emergency order are incorporated by reference into this emergency order: 2-18, 20-25, 28-30, 32-34, 36, 38-42, and 44-73. The other Findings of Fact from the February 27, 2014 emergency order have not been incorporated due to the outdated nature of the information or the fact that it is not directly applicable to this order.
2. LCRA filed an application and brief for a 60-day extension of the February 27, 2014 emergency order on May 5, 2014. LCRA requests an extension of the February 27, 2014 emergency order through July 25, 2014.
3. Severe drought conditions continue in the area, including record-low inflows to the Highland Lakes, dry conditions upstream of the Highland Lakes, and low rainfall.

4. As of May 22, 2014, the combined storage of Lakes Buchanan and Travis is approximately 711,768 acre feet or 35% full.
5. Inflows to the Highland Lakes continue at record-low levels. Inflows in the first four months of 2014 are the lowest for these first four months in the historical record for the lakes, including the 1950's. The flows for those four months were only 10.3 percent of the historical average inflows for that period.
6. Monthly inflows into the Highland Lakes for this year have been 12,270, 9,489, 8,102, and 5,669 acre feet for January through April. Monthly inflows have been below average in 47 of the past 48 months.
7. As of May 1, 2014, the inflow deficit was 37 percent worse than the Drought of Record deficit reference (a requirement of declaring a Drought Worse than the Drought of Record).
8. The National Weather Service's three month lookout is for the drought to persist through July throughout the Texas Hill Country and to the west. The National Weather Service has issued an El Nino Watch, indicating that there is a greater than 50 percent chance an El Nino will develop within the next six months, which could cause a pattern of above-normal rainfall across Texas. If an El Nino develops this summer, its effects will not be felt across Texas until sometime in the fall or winter.
9. The Climate Prediction Center (CPC) monthly and seasonal outlooks call for equal chances of above, near, or below median precipitation across the central and southern Great Plains during May – July. The CPC monthly and seasonal temperature outlooks call for enhanced odds for above-normal temperatures which could intensify drought conditions.
10. LCRA's meteorologist, Bob Rose, expects a pattern of hotter than normal temperatures and below normal rainfall during June through August.
11. If severe drought conditions continue, the criteria for declaration of a Drought Worse than the Drought of Record may be met as early as June, 2014. There is a 38 percent chance that a DWDR will be declared by the end of October 2014.
12. 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 May 9, 2014, and includes nearly all of the counties that contribute flows into or contain the Highland Lakes. These counties are in severe to extreme drought.
13. There is uncertainty as to what obligation LCRA may have to provide interruptible stored water after expiration of the February 27, 2014 emergency order. In May, crops that were started with groundwater could be switched to

surface water. LCRA may receive requests for water for supplemental uses such as row crops and later, for wildlife management. During a curtailment year, those requests are only considered if water is available in the canal system.

14. Notice regarding the Executive Director's consideration of this order was provided to the Governor of Texas by letter dated May 21, 2014.

## II. 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. The order may be issued for 120 days, and may be extended for 60 days.
2. The Executive Director may issue an emergency order pursuant to Texas Water Code § 11.139 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. The Executive Director can extend the order for 60 days.
3. A hearing to affirm, modify, or set aside the order for extension of the initial emergency order must be held by the Commission as soon as practicable, but not later than 20 days after the extension to the emergency order is granted.
4. The Findings of Fact in this order, including those Findings of Fact incorporated from the Commission's February 27, 2014 emergency order, show that the requirements of Texas Water Code § 11.139 continue to be met. Following the 2010 Water Management Plan with the ongoing drought and its effect on the water supply constitute an emergency that presents an imminent threat to the public health and safety. There are no practicable alternatives to this action.
5. Because conditions have remained the same or worsened since the Commission issued its emergency order on February 27, 2014, renewal of this emergency order is appropriate under the facts and the law.
6. A Commission hearing to affirm, modify, or set aside this order extending the February 27, 2014 emergency order will be held on June 4, 2014.

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

1. The February 27, 2014 emergency order amending LCRA's Water Management Plan, Permit No. 5838, is extended through July 25, 2014.
2. This order extending the February 27, 2014 emergency order was issued without a hearing. A hearing to affirm, modify, or set aside this order extending the February 27, 2014 emergency order will be held before the Commission on June 4, 2014 at 9:30 a.m. The location of the hearing will be:

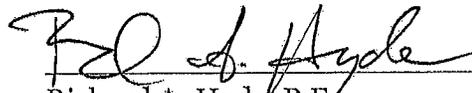
Texas Commission on Environmental Quality  
12100 Park 35 Circle  
Building E, Room 210S  
Austin, Texas

3. The Chief Clerk of the Commission shall forward a copy of this order to all parties.
4. 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:

May 22, 2014

TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY



Richard A. Hyde, P.E.  
Executive Director

EXHIBIT A

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



**AN ORDER** affirming in part and modifying in part the Executive Director's emergency order authorizing 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. 2014-0124-WR; SOAH Docket No. 582-14-2123

On January 27, 2014, the Executive Director (ED) of the Texas Commission on Environmental Quality (TCEQ or Commission) granted an application by the Lower Colorado River Authority (LCRA) for an emergency order to amend its 2010 Water Management Plan (WMP), Permit No. 5838, under Texas Water Code §§ 5.501, 11.138, and 11.139, and the Governor's Emergency Disaster Proclamation relating to drought. On February 12 and 26, 2014, the Commission considered whether to affirm, modify, or set aside the emergency order that the ED granted. A proposal for decision (PFD) was presented by William G. Newchurch and Travis Vickery, Administrative Law Judges (ALJs) with the State Office of Administrative Hearings (SOAH), who conducted a hearing concerning the application on February 12, 17, and 18, 2014, in Austin, Texas.

After considering the ALJs' PFD, the Commission adopts Findings of Fact and Conclusions of Law and affirms in part and modifies in part the Executive Director's emergency order, as set out below:

## I. FINDINGS OF FACT

1. On December 10, 2013, LCRA filed a request for an emergency order to amend its 2010 WMP to change requirements for the release of water to irrigation operations downstream in 2014 due to persistent drought conditions in LCRA's five Highland Lakes (Lakes Buchanan, Inks, LBJ, Marble Falls, and Travis). LCRA requested the authority to provide no interruptible stored water to its Gulf Coast and Lakeside Divisions and Pierce Ranch if the combined storage of Lakes Buchanan and Travis is below 1.1 million acre feet (AF). Additionally, it requested the stored water releases be smaller for combined storage levels above 1.1 million AF than those set forth in the 2010 WMP.
2. LCRA has not requested authorization to reduce the amount of water provided from Lakes Buchanan and Travis specifically for instream flow and freshwater inflow purposes below the levels required, in the absence of an emergency order, in the 2010 WMP.

## LCRA'S Water Rights and 2010 Water Management Plan

3. LCRA has the right to divert and use up to 1.5 million AF from Lakes Buchanan and Travis under Certificates of Adjudication Nos. 14-5478 and 14-5482. By court order, LCRA has developed a WMP, Permit No. 5838, currently dated 2010, which is part of LCRA's Water Rights and is required by these certificates.
4. 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.
5. Certificates of Adjudication Nos. 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 certificates pursuant to all firm, uninterrupted 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.
6. 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's firm water customers.
7. As established in the 2010 WMP, until firm demand for water equals the combined firm yield, LCRA can supply water for irrigated agriculture on a limited 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 AF in 2011. The maximum interruptible water released from Lakes Buchanan and Travis during this same period occurred in 2011 and totaled about 433,000 AF. The maximum total amount released or used from the Highland Lakes, about 714,000 AF, occurred in 2011.
8. The firm water use by LCRA firm customers in 2012 from Lakes Buchanan and Travis was about 148,000 AF. An amount of 31,000 AF was supplied for the environment, and 9,000 AF of interruptible was supplied to farmers in the Garwood Irrigation Division. The total use for 2012 was about 188,000 AF. The firm water use by LCRA firm customers in 2013 from Lakes Buchanan and Travis was about 173,500AF; about 33,500 AF was supplied for the environment; and about 22,000 AF was supplied for the Garwood Irrigation Division. The total use in 2013 was about 229,000 AF.
9. To manage the supply, LCRA's 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:

Combined Storage of Lakes Buchanan and Travis	Date on Which Trigger is Decided	Action Taken
1.4 million acre feet	At any time	Request firm customers to implement voluntary drought response measures.
1.4 million acre feet	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.

10. 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."
11. Under the 2010 WMP, 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 AF of water.
12. Under the 2010 WMP, once a drought has lasted more than 36 months and a 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.
13. 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

14. The combined storage of Lakes Buchanan and Travis on December 1, 2013, was 746,000 AF, or 37% full. On February 1, 2014, the combined storage was 764,000 AF, or 38% full. The combined storage fell to the lowest level in the current drought on September 19, 2013, which was 637,123 AF or 31.7% full.
15. The primary factors affecting the current combined storage levels have been (1) unprecedented low inflows in this current drought, (2) the interruptible stored water amounts authorized for release under current LCRA 2010 WMP, particularly in 2011, and (3) emergency orders issued by the Commission in 2012 and 2013.
16. It is not merely the amount of inflows, but also the management of the system over a multiyear period that greatly affects the lakes' combined storage. In recent years, emergency orders departing from the 2010 WMP have proven critical to that management.
17. On September 19, 2013, the combined storage of these reservoirs fell to the second lowest point in the history of these lakes—637,000 AF—nearing 30% capacity and just shy of the record low at 621,000 AF. Thus in September the lakes rapidly approached the 600,000 AF emergency level at which point the LCRA Board would have declared a DWDR. Continuing to curtail interruptible stored water releases under the exceptional circumstances presented by this drought, which would drive lake storage below 600,000 AF is critical to avoiding both an imminent threat to public health and safety and a situation whereby interruptible water supply releases would force declaration of a DWDR and drive firm customers into curtailment.
18. The inflows into the lakes are at record lows. Annual inflows into Lakes Buchanan and Travis in four of the last five years are among the ten lowest years of inflow on record. Inflows into the lakes in 2011 were the lowest annual inflows on record, about 10% of average inflows. Inflows in 2012 were the fifth lowest on record, and inflows in 2013 were the second lowest on record. January 2014 inflows of 11,763 AF were the lowest since the 1950's.
19. The inflows into Lakes Buchanan and Travis during the current drought have been lower for time periods ranging from 12 months to 72 months than the lowest inflows for periods of similar duration during the historic Drought of Record. The total inflows for the past 72 months were only about half of the lowest 72 month inflow period in the Drought of Record.
20. A ranking of the top ten lowest calendar year historical inflows since the reservoirs went into operation in the early 1940's shows that five of those years—2008, 2009, 2011, 2012 and 2013 occur in the current drought, and the top three years for lowest inflows—2011, 2013, and 2008 are all from the current drought. The recent year of 2006 is the fourth lowest.

21. The inflows for January 2014, at 11,763 AF, are lower than the inflows in either January 2011 (21,158 AF) or 2013 (15,117 AF), which are the two lowest inflow years on record. Historically a January with low inflows is usually followed by low inflows for both February and March. This data indicates a high likelihood of drought persistence in the near future.
22. Extraordinary drought conditions in the form of rainfall and extreme heat have existed in much of Texas, including the Colorado River Basin for nearly three years. State Climatologist, Dr. John Nielsen-Gammon, recognized 2011 as the worst one year statewide drought on record. 2011 was the second hottest year statewide, and was the hottest summer on record for both Austin and Texas. Year 2012 tied with 1921 as the hottest on record statewide.
23. Annual evaporation from LCRA's five Highland Lakes plus Lake Austin for 2010 through 2013 is set forth below:

<b>Year</b>	<b>Total Evaporation</b>
2010	183,923 acre feet
2011	192,404 acre feet
2012	144,759 acre feet
2013	120,899 acre feet

24. Although there has been close to normal rainfall in some places in Central Texas since 2011, these events have failed to produce significant inflows into Lakes Buchanan and Travis. The rainfall has been sporadic, and the soils have not remained saturated enough to allow for runoff in substantial amounts. Widespread heavy rains in the past few months have failed to produce significant inflows into the lakes.
25. This low inflow total is symptomatic of the drought's severity, including dry soils that absorb most of the rainfall that does occur. For example, heavy, widespread rainfall in the Llano River and San Saba River watersheds above the Highland Lakes on September 19 and 20, 2013, averaged two to three inches with some rain gages reporting totals as high as six or seven inches. However, this rain event only yielded approximately 24,000 AF of inflow to the lakes. By comparison, an event in March 2007 with about 40% less rainfall yielded almost 100,000 AF of inflows to Lakes Buchanan and Travis.
26. The weather forecasts do not indicate significant rainfall in the near future. Recent atmospheric and oceanic observations continue to indicate ENSO-neutral conditions and the outlook calls for this to persist into summer of 2014. The latest National Weather Service precipitation forecast indicates that precipitation across the Texas Hill Country is likely to remain normal with equal chances for above, below, or near normal precipitation. These forecasts indicate that the western edge of a below-average precipitation forecast area encroaches on Central Texas. This boundary does not quite reach areas which could produce significant inflows to Lakes Buchanan and Travis. It is not expected that precipitation will be heavy enough to cause significant drought improvement.

27. The most recent U.S. Seasonal Drought Outlook indicates the persistence of drought conditions above Lakes Buchanan and Travis through the end of April 2014. It is not expected that precipitation will be heavy enough to cause significant drought improvement. Climatological outlooks also indicate that temperatures will trend above normal through the summer, which tends to correlate with higher evaporation rates and lower overall precipitation.
28. 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 2013.
29. The first and second criteria for declaring a DWDR have been met. The drought has lasted for more than 24 months. Duration of drought for purposes of a DWDR declaration is determined by counting the number of consecutive months since both Lakes Buchanan and Travis were last full, which was February 13, 2005. The cumulative inflow deficit criterion has also been met.
30. The current drought conditions are outside the range of hydrologic conditions that were considered during formulation of the 2010 WMP.
31. 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 February 14, 2014, and includes nearly 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 [Texas Government 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."

#### **LCRA's Firm Customers**

32. 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.
33. 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 DWDR is declared.
34. If LCRA is required to follow the 2010 WMP 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. LCRA's firm customers are working on plans to implement curtailment and secure alternative supplies;

however 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.

35. If LCRA is required to follow the 2010 WMP and the drought continues, LCRA will almost certainly have to:
  - a. Begin releases of interruptible stored water to meet demands in the four irrigation operations for the 2014 crop;
  - b. Probably reach the third (and final) criteria for DWDR conditions;
  - c. Declare a DWDR;
  - d. Cut off stored water for interruptible contracts, thereby ruining the crop already planted; and
  - e. Curtail cities' and industries' water use by 20% or more.
36. Curtailments that would occur if combined storage drops substantially will result in reduced water supply to power plants, threatening their ability to generate electricity. Because LCRA's firm water customers would be required to cut back substantially if the drought persists under a DWDR declaration, municipal customers are likely to be forced to institute drought response measures that would include restrictions on indoor water use, resulting in threats to public health and safety.
37. Based on recent lake levels and the forecast, there is a chance of reaching conditions triggering a declaration of a DWDR as soon as May 2014 and greater than a one in two chance by late August.
38. In September 2013 the lakes came within 37,000 acre-feet of reaching the emergency level of 600,000 AF or 30% capacity and there has been very little recovery since then. In May 2012 the lakes refilled to an amount close 1.1 million AF (to 1,033 million AF on May 22, 2012) and yet without any release to Lakeside, Gulf Coast and Pierce Ranch the lakes dropped to the second lowest level on record of 637,000 AF on September 19, 2013, and came very close to falling below emergency levels. An emergency order in place in 2012 prevented such a release.
39. Water savings by Austin of an estimated 86,000 AF over the past two years played a key role in preventing combined storage from reaching the 600,000 AF level in September 2013.
40. The extraordinary magnitude of change in inflows since the drought of record upon which the 2010 WMP is based, in terms of how much lower the inflows have been in recent years, signals the need for great caution to be taken with regard to decisions concerning large releases to interruptible customers because they make it more probable that lake levels will not quickly recover once such releases occur.

41. Currently, LCRA owns four water systems that take raw water from Lakes Buchanan and Travis. LCRA also has 15 firm water 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 650 feet msl on Lake Travis. On January 9, 2014, the lake level at Travis was 628.45 msl. On February 15, 2014, the lake level at Lake Travis was 627.75 msl.

42. The lowest operating depths of the following raw water intakes owned and operated by LCRA's firm water customers on Lake Travis are as follows:

Brushy Creek Regional Utility Authority (BCRUA) = 620 ft-msl  
Cedar Park (regular intake) = 615 ft-msl  
Leander (regular intake) = 615 ft-msl  
Lago Vista (Intake #1) = 612 ft-msl  
Lago Vista (Intake #2) = 600 ft-msl  
Jonestown WSC = 600 ft-msl  
WCID 17 = 595 ft-msl  
Lakeway MUD = 590 ft-msl  
Cedar Park and Leander (joint emergency drought intake) = 590 ft-msl

43. In the absence of an emergency order, the raw water intakes owned and operated by LCRA's firm water customers on Lake Travis are projected to become inoperable as early as the following dates:

BCRUA = already inoperable and will remain inoperable  
Cedar Park (regular intake) = inoperable by June 2014  
Leander (regular intake) = inoperable by June 2014  
Lago Vista (Intake #1) = inoperable by July 2014  
Lago Vista (Intake #2) = inoperable by August 2014  
Jonestown WSC = inoperable by August 2014  
WCID 17 = inoperable by October 2014  
Lakeway MUD = inoperable by December 2014  
Cedar Park and Leander (joint emergency drought intake) = inoperable by December 2014.

44. The Windermere Oaks Water Supply Corporation (WOWSC) uses an intake barge to pump raw water from Lake Travis for its customers under an LCRA firm water contract. Although WOWSC has already modified its intake structure to operate in shallower water, lake level elevations of 618 ft- msl or lower present significant operating challenges. Groundwater is not feasible alternative water supply for WOWSC.

45. As lake levels drop, retail water suppliers are unable to pump water from the lakes. This causes wholesale raw water customers to either move intakes to reach the water, or obtain alternative 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, LCRA water systems and its customers' water systems will have difficulty in meeting firm customers' water needs.

46. Low lake levels in Lake Travis have a direct impact on the ability of local emergency services personnel to fight structure fires and wildfires that may occur. In 2011, the Perdarnales Fire Department, which serves western Travis County and relies primarily upon water from Lake Travis, was able to draft water from Lake Travis at multiple locations on the lake. As of February 17, 2014, the Fire Department had access to only one reliable water source at the lake. With these limitations, the Fire Department has experienced 45-minute turnaround times for trucks to bring water to a fire, and it has had to stop fighting a fire due lack of water in its trucks or helicopters. These circumstances constitute a current threat to the health and safety of residents served by the Perdarnales Fire Department.
47. Combined storage levels are a strong indicator of an imminent threat to the public health and safety. However, given the rapid rise and fall of combined storage levels throughout the historical record, combined storage levels, in and of themselves, are insufficient to determine whether an imminent threat to the public health and safety exists.

### **Conservation and Drought Contingency Plan**

48. LCRA's water conservation plan complies with TCEQ rules. LCRA has required its municipal customers to adopt conservation plans before there was a state requirement.
49. LCRA provides conservation program planning support for its customers. In 2012, LCRA began a rebate program for certain irrigation technologies and a wholesale customer cost-share program focused on conservation. LCRA has supported significant improvements in water use efficiency in rice irrigation systems, including volumetric pricing and canal rehabilitation.
50. LCRA was originally required to develop a Drought Contingency Plan (DCP) as a direct result of the court order adjudicating LCRA's water rights and the Texas Water Commission 1989 WMP Order.
51. When TCEQ adopted the Chapter 288 rules for DCPs, LCRA adopted separate stand alone DCPs relating to irrigation, municipal, and industrial operations that more specifically addressed the requirements of the Chapter 288 rules. LCRA incorporated all of the same triggers and criteria from the WMP into its Chapter 288 DCP. These DCPs were incorporated into Chapter 4 of the WMP.
52. LCRA adopted water use reduction targets including the following: water use reduction goals for firm water supply customers of 5 percent by asking firm customers to implement their voluntary water use reduction measures when the combined storage of Lakes Buchanan and Travis is less than 1.4 million AF; ten to twenty percent reduction goals by asking firm customers to implement their own mandatory water use reduction measures when combined storage levels fall below 900,000 AF; and a mandatory pro rata curtailment of firm water supplies for customers of 20 percent or more will be implemented when combined storage levels fall below 600,000 AF and other criteria are met for a drought more severe than the Drought of Record.

53. 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.
54. LCRA has 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 rules also provide a surcharge to be set by the LCRA Board for unauthorized use of water (taking more water than authorized under a mandated curtailment of firm water supplies) and clarifying the drought contingency requirements related to golf course irrigation and recreational use.
55. LCRA's WMP requires LCRA to develop a stored water curtailment plan to be approved by the LCRA Board and TCEQ in response to combined storage dropping below 900,000 AF. TCEQ approved that plan for LCRA's firm customers in December of 2011.
56. 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.
57. The LCRA Board approved a no more than once per week watering restriction that would take effect in March 2014 if combined storage is below 1.1 million AF and interruptible stored water to the Gulf Coast and Lakeside irrigation divisions and Pierce Ranch has been cut off. LCRA has not requested TCEQ approval of this action and this order does not address such action.
58. Just in the past 2 years Austin's conservation and drought measures have resulted in an estimated 86,000 AF savings. Austin hired outside consultants and participated in a rigorous process with LCRA to determine its annual conservation savings in preparation for possible pro-rata curtailment. This resulted in an estimated savings of 26,000 AF a year from conservation measures in place (52,000 in two years). In addition Austin has calculated its savings achieved from imposing drought measures for more than two years which includes a one-day a week watering schedule. This is estimated at 17,000 AF per year (34,000 AF in two years).
59. There has been a drop from Austin's highest recent year of 190 GPCD, in 2006, to the most recent year of 136 GPCD due to its conservation and drought measures.
60. Because the planning, permitting, and construction for developing large new water supplies for Austin and other large municipal areas is necessarily on a decades-long timeframe, a severe shortage in or total depletion of the already diminished supply within a few years due to an imminent release of interruptible stored water under LCRA's 2010 WMP is an imminent threat to public health and safety.
61. Health and safety consequences from supply shortages can start to be experienced long before a municipal water supply is totally depleted.

62. Water restrictions result in a drop in overall usage, which in turn impacts the amount of flow in the entire Austin Water Utility (AWU) system. The AWU system has more than 3,700 miles of water pipes and 39 storage tanks, which are designed to handle peak demands and fire flows. As flow decreases, AWU system's ability to handle peak demands and fire flows may be affected, which is an imminent threat to public health and safety.
63. Once combined storage levels have reached a point that will require Austin and other LCRA firm water customers, as a practical measure, to impose water rationing, then individual households will start to make choices in how to use that rationed amount of water. Over a vast population, some of those choices can be poor choices with regard to sanitation practices (for example deferring for too long certain sanitary uses of water) that can negatively impact public health and safety despite a utility's effort to educate its customers on safe practices.
64. Outdoor watering in a drought is critical to preserving trees and tree canopy important to human health in an urban environment, preventing home foundations from cracking, and avoiding negative health effects from landscaping dying off.

#### **Alternatives**

65. 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. LCRA has evaluated many other alternatives to address the emergency conditions that the drought presents.
66. 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, may 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.
67. 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.
68. In 2012, LCRA supplied about 4,000 AF to firm customers downstream of Austin under temporary permits that would otherwise have been released from Lakes Buchanan and Travis. In 2013, LCRA supplied about 1,000 AF to such customers under such

temporary permits. While this was beneficial, temporary permits are not sufficient replacement for water lost if releases are required.

69. A twenty percent reduction in water use by firm customers will require difficult measures. There may be dramatic reductions in outdoor water use. However, none of these measures will occur quickly enough to help lake levels. Some LCRA customers, such as Austin, have achieved water savings through reductions in water use. Most industrial customers would have to implement the full twenty percent reduction more immediately and this likely means a curtailment in annual production.
70. LCRA is 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 WMP 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. May 28, 2013, was the last date to request a public meeting or a contested case hearing, or comment on the application. On June 3, 2013, the ED 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.
71. There is no feasible practicable alternative for Austin on short order to replace its water supply should it be depleted in a few years to the point of drastic shortages by large interruptible water releases during a period of record low inflows. Although Austin has made very earnest efforts to identify alternative water supplies, a replacement water supply for 1 million people cannot be identified and developed in a few years. Austin has identified only very small amounts of water that may be able to be purchased for exorbitantly expensive prices. The small amounts do not sufficiently address the health and safety risks and the exorbitant prices do not make these practicable alternatives.
72. An interruptible stored water curtailment trigger should be set to avert, rather than create, conditions that could require declaration of a DWDR.
73. LCRA staff performed analyses to determine whether lesser amounts of combined stored water than 100,000 AF could be supplied to Gulf Coast, Lakeside, and Pierce Ranch at lower combined storage trigger levels. The results showed that these alternatives were not practicable because the small amount of water that could be made available would result in significant losses and difficulties maintaining the canal water levels for the movement of water.

#### **Relief Requested**

74. LCRA's requested curtailment approach for 2014 is more restrictive than the curtailment triggers in emergency orders issued by the Commission in 2012 and 2013. The 850,000 AF trigger in effect in 2012 and 2013 was based on avoiding the potential for dropping below 600,000 AF during the first crop of the season. Under LCRA's current approach, before the releases for interruptible water users are made, LCRA requests a combined storage trigger increase to a level that puts off the possibility of storage falling below 600,000 AF until spring of 2015.

75. LCRA has determined that if the combined storage is less than 1.1 million AF, providing even some stored water releases to Gulf Coast, Lakeside, and Pierce Ranch operations amplifies the risk of a DWDR declaration before spring 2015.
76. LCRA requests TCEQ to issue an emergency order to deviate from the 2010 WMP as it pertains to the determination of interruptible supply for 2014 and instead provide interruptible stored water based on the combined storage of Lakes Buchanan and Travis on March 1, 2014 at 11:59 p.m. as follows:
  - a. Provide no interruptible stored water to customers within the LCRA Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is below 1.1 million AF;
  - b. Provide up to 100,000 AF of interruptible stored water for diversion by customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is at or above 1.1 million AF but below 1.2 million AF;
  - c. Provide up to 124,000 AF of interruptible stored water for diversion by customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is at or above 1.2 million AF, but below 1.3 million AF;
  - d. Provide up to 148,000 AF of interruptible stored water for diversion by customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is at or above 1.3 million AF but below 1.4 million AF; and
  - e. Provide up to 172,000 AF of interruptible stored water for diversion by customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is at or above 1.4 million AF.
77. LCRA will also provide interruptible stored water to the Garwood Irrigation Division and Pierce Ranch, to the extent required by their contracts.

#### **Notice to the Governor**

78. Notice regarding the ED's consideration of this emergency order was provided to the Governor of Texas by letter dated January 23, 2014.

#### **Procedure**

79. On January 23, 2014, LCRA filed with the ED a supplement to its request for an emergency order.
80. On January 27, 2014, the ED considered LCRA's December 10, 2013 request and January 23, 2014 Supplement and issued an order granting an emergency authorization to the LCRA to amend its WMP, Permit No. 5838, pursuant to section 11.139 of the Texas Water Code.

81. The January 27, 2014 ED's Emergency Order included notice that the Commission would hold a hearing on February 12, 2014, to affirm, modify, or overturn the Order.
82. On January 24, 2014, the Chief Clerk of the Commission mailed notice of the Commission's February 12, 2014 hearing as required by law. The mailed notice stated: "Under 30 Tex. Admin. Code § 295.174, there is no right to a contested case hearing on this emergency order."
83. On February 10, 2014, LCRA submitted a second supplement to its request for emergency authorization.
84. On February 12, 2014, the Commission convened a public hearing on this matter, Chairman Shaw presiding. Commissioner Baker participated. Commissioner Covar recused himself. ALJ Newchurch was present throughout the public hearing, at the Commission's request.
85. The Commission and ALJ Newchurch heard over four hours of unsworn public comments about the Executive Director's Emergency Order. At the end of the public comment, the Commission discussed the matter with ALJ Newchurch and offered their preliminary view on the matter. The Commission then voted to refer the matter to SOAH for an evidentiary hearing to convene immediately. They also instructed ALJ Newchurch to submit a PFD to the Commission no later than February 21, 2014. The Commission stated that consideration of the PFD would be on its February 26, 2014 agenda.
86. ALJs Newchurch and Vickery reconvened the hearing on February 12, 2014. They admitted parties and other procedural matters were considered.
87. The following are parties in this case:

<b>PARTY</b>	<b>REPRESENTATIVE</b>
Lower Colorado River Authority (LCRA)	Lyn Clancy & Greg Graml
Executive Director (ED) of the TCEQ	Robin Smith
Office of Public Interest Counsel (OPIC)	Blas Coy & Vic McWherter
City of Austin	Ross Crow & Mary K. Sahs
Colorado Water Issues Committee (CWIC)	Carolyn Ahrens & Michael J. Booth
Central Texas Water Coalition (CTWC)	Cynthia C. Smiley, Shana Horton, & Frank Cooley
Highland Lakes Firm Water Customer Cooperative (Highland)	Patricia Carls & Carla Connolly
Texas Parks & Wildlife Department (TPWD)	Collette Baron Bradsby & James B. Murphy
National Wildlife Federation (NWF)	Myron Hess
Lehner/Lewis Interests & Garwood Irrigation (Garwood)	Molly Cagle & Samia Rogers
Clive Runnells d/b/a AP Ranch (AP Ranch)	Charles W. Irvine & Mary Carter

88. LCRA paid the cost of transcribing the hearing and expediting delivery of the transcript, and has not asked for any part of that cost to be allocated among the other parties.

## II. CONCLUSIONS OF LAW

1. The ED may issue an emergency order under Texas Water Code § 11.139 to amend a permit or certificate of adjudication for 120 days after notice to the Governor if the ED finds that emergency conditions exist which present an imminent threat to the public health and safety which requires immediate action before the Commission can take action and there are no feasible practicable alternatives to the emergency authorization.
2. The Commission may issue an emergency order under Texas Water Code § 11.139 to amend a permit or certificate of adjudication for 120 days 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.
3. LCRA is obligated under a 1988 court order and Certificates of Adjudication Nos. 14-5478 and 14-5482 to meet the demands of its firm, non-interruptible water supply customers 100% of the time without shortage through a repeat of the conditions in the Drought of Record.
4. The Findings of Fact show that the requirements of Texas Water Code § 11.139 have been met. Following the 2010 Water Management Plan with the ongoing drought and its effect on the water supply constitute an emergency that presents an imminent threat to the public health and safety. There are no practicable alternatives to this action.
5. The ED had the authority to issue the Emergency Order.
6. The Commission must consider whether to affirm, modify, or set aside an emergency order issued by the ED under Section 11.139 of the Texas Water Code no later than 20 days after the ED issues the order.
7. LCRA has the burden of proving that an emergency order should be granted.
8. The Commission in issuing an emergency order under Texas Water Code § 11.139 must ensure that the relief granted is adequate and tailored to address the imminent threat to public health and safety.
9. LCRA's application for an emergency order should be granted in part and the ED's Emergency Order should be affirmed in part and modified in part as set out below.
10. LCRA should pay the full cost of transcribing the hearing in this case.

11. By entering this order, the Commission is not construing in any way either the 1987 Agreement or the 1998 Purchase Agreement between LCRA and Garwood Irrigation Company. Nothing in this Order shall be considered or construed in any way to support one construction or another of the 1987 Agreement and the 1998 Purchase Agreement between LCRA and Garwood Irrigation Company.

### III. EXPLANATION OF CHANGES

1. As directed by the Commission at its February 26, 2014 agenda, the Office of the General Counsel has made the necessary revisions to the ALJs' Proposed Order to effectuate the Commission's decision. Specifically, Findings of Fact, Conclusions of Law, and Ordering Provisions have been renumbered to reflect the Commission's revisions to the ALJs' Proposed Order. Thus, references in this section to Findings of Fact, Conclusions of Law, and Ordering Provisions refer to the provisions as renumbered by the Office of the General Counsel, except with respect to stricken provisions. In instances where this section references stricken provisions, the original numbering of the provisions by the ALJs in their Proposed Order is utilized.
2. On February 26, 2014, the ALJs distributed a letter with the ALJs' recommendations with respect to the parties' exceptions to their proposal for decision. In their presentation, the ALJs explained that these recommended revisions to their Proposed Order were supported by the evidence in the record. Accordingly, the Commission made the following revisions to the ALJs' proposed order: 1) Finding of Fact No. 3 is revised, as requested in the ED's exceptions; 2) Findings of Fact Nos. 8, 17, 29, 39, 43, 51, and 57, are revised, as requested in LCRA's exceptions; 3) Findings of Fact Nos. 44 and 46 are added as new Findings of Fact, as requested in CTWC's exceptions; and 4) original Finding of Fact No. 2a was relocated as Ordering Provision No. 6a, now renumbered as Ordering Provision No.7.
3. During the Agenda meeting, the Commission discussed that given the current conditions, the current lake levels, the forecasted weather, and the limited time between the agenda meeting and the March 1, 2014 trigger date that there is no need to establish a specific combined storage level as a trigger for this emergency order. The Commission also indicated that they must take only the action necessary to address the imminent threat to public health and safety. Therefore, the Commission decided to remove references to trigger levels from the ALJs' proposed order. Accordingly, the Commission struck Findings of Fact Nos. 30a, 30b, 30c, 30f, 30g, 31c, 45a, 49, 49a, and 49b, and struck the last sentence of Finding of Fact No. 38.
4. The Commission made several revisions to provide increased clarity to the ALJs' proposed order and to remove redundant provisions. Therefore, the Commission in its motion, struck Findings of Fact Nos. 41a, 42f, 42g and Ordering Provision No. 8; and revised Findings of Fact Nos. 7, 17, and 22. Additionally, Ordering Provision No. 3 was revised to reflect that the emergency order is final and effective on the date of issuance, pursuant to Texas Government Code § 2001.144(a)(3). Finally, the Commission revised Finding of Fact No. 78 to include the specific date on which notice was provided to the Governor of Texas.

5. In response to the exception filed by CWIC, the Commission struck the last part of the last sentence of Finding of Fact No. 17. Specifically, the Commission struck the words, "...in contravention of the 1988 Order and Certificates of Adjudication Nos. 14-5478 and 14-5482" as unnecessary to its decision to address the imminent threat to public health and safety in this matter.
6. The Commission stated in their deliberation that an automatic renewal is not appropriate in this emergency order given the variability of the specific facts and circumstances relating to the imminent threat to public health and safety in this matter. For this reason, the Commission added Finding of Fact No. 47, which reads, "Combined storage levels are a strong indicator of an imminent threat to the public health and safety. However, given the rapid rise and fall of combined storage levels throughout the historical record, combined storage levels, in and of themselves, are insufficient to determine whether an imminent threat to the public health and safety exists." In addition, the Commission added new Conclusion of Law No. 8, which reads, "The Commission in issuing an order under Texas Water Code § 11.139 must ensure that the relief granted is adequate and tailored to address the imminent threat to public health and safety."
7. Based on the Commission determination that all requirements of Texas Water Code § 11.139 have been met, and the Commissions' determination to remove references in the ALJs' proposed order to trigger levels, the Commission revised Ordering Provision No. 1 to read, "LCRA's 2010 WMP is amended to alleviate LCRA from any obligation to provide interruptible stored water to customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch for the duration of this emergency order."

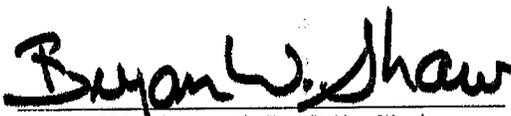
**NOW, THEREFORE, BE IT ORDERED BY THE COMMISSION OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY THAT:**

1. LCRA's 2010 WMP is amended to alleviate LCRA from any obligation to provide interruptible stored water to customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch for the duration of this emergency order.
2. LCRA may provide interruptible stored water to the Garwood Irrigation Division and Pierce Ranch, to the extent required by their contracts.
3. Pursuant to Texas Government Code § 2001.144(a)(3), this emergency order is final and effective on the date of issuance.
4. This emergency order terminates on May 26, 2014. However, this emergency order may be renewed once for no more than 60 days.
5. This emergency order only addresses the specific relief requested from LCRA and is not meant as precedent for amendments to LCRA's WMP or future emergency relief.
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.

7. This emergency order does not alter LCRA's obligations to provide water specifically for instream flow or freshwater inflow purposes pursuant to the 2010 WMP.
8. LCRA shall pay the full cost of transcribing the hearing in this case.
9. All other motions, requests for entry of specific Findings of Fact or Conclusions of Law, and any other requests for general or specific relief not expressly granted herein, are hereby denied for want of merit.
10. The Chief Clerk of the Texas Commission on Environmental Quality shall forward a copy of this Order to the parties.

Issue Date: **FEB 27 2014**

TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

  
Bryan W. Shaw, Ph.D., P.E. Chairman

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**EXHIBIT B**

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May 5, 2014

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Richard Hyde  
Executive Director  
Texas Commission on Environmental Quality  
P.O. Box 13087, MC-109  
Austin, TX 78711-3087

Dear Mr. Hyde:

LCRA seeks an extension to the February 27, 2014 TCEQ order granting emergency relief related to Lower Colorado River Authority's (LCRA's) Water Management Plan (WMP) to continue such order through July 25, 2014, pursuant to the sixty (60) day extension allowed by Texas Water Code § 11.139. That Emergency Order provided that releases of interruptible stored water for customers in the Gulf Coast, Lakeside, and Pierce Ranch irrigation operations would be suspended for a period of 120 days, through May 26, 2014.

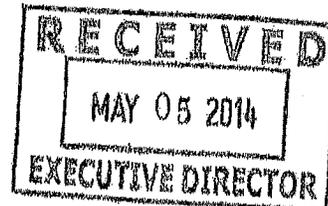
Because severe drought conditions continue to threaten LCRA's water supply, LCRA hereby files the attached application seeking an extension of the Emergency Order through July 25, 2014.

LCRA urges that this relief be granted notwithstanding anything to the contrary in the 2010 WMP and that the relief be granted pursuant to Texas Water Code §§ 5.501, 11.138, 11.139 and the Governor's Emergency Disaster Proclamation related to drought. To the extent the Commission deems appropriate, and 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.

We look forward to hearing from you regarding this LCRA application. For questions or a meeting, please contact David Wheelock, Manager of Water Supply and Conservation, at (512) 730-6822 or Greg Graml, Associate General Counsel at (512) 730-6849.

Sincerely,

Phil Wilson  
General Manager



cc: Kellye Rilla, TCEQ

**APPLICATION OF THE  
LOWER COLORADO  
RIVER AUTHORITY FOR  
EXTENSION TO  
EMERGENCY AUTHORIZATION**

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**BEFORE THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY**

**LOWER COLORADO RIVER AUTHORITY'S BRIEF AND  
ATTACHMENTS IN SUPPORT OF APPLICATION TO  
EXTEND THE EMERGENCY ORDER RELATED TO WATER MANAGEMENT PLAN**

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**I. Introduction**

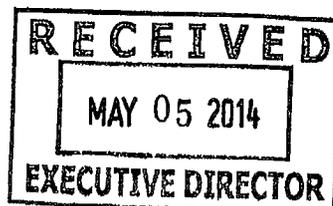
On February 27, 2014, the Texas Commission on Environmental Quality (TCEQ) issued an order granting emergency relief related to the Lower Colorado River Authority's (LCRA's) Water Management Plan (WMP) (Emergency Order).<sup>1</sup> That Emergency Order provided that releases of interruptible stored water for customers in the Gulf Coast, Lakeside and Pierce Ranch irrigation operations would be suspended for a period of 120 days, through May 26, 2014. Because severe drought conditions continue to threaten LCRA's water supply, this application seeks an extension of the Emergency Order through July 25, 2014.

Except as specifically set forth in this Application for Extension, all supporting information and arguments filed with TCEQ on December 10, 2013, January 23, 2014 and February 10, 2014 in support of LCRA's original application for emergency relief, as well as the supporting evidence further developed during the hearing on February 17, 2014, are intended to be considered in conjunction with this Application for Extension, and are hereby incorporated by reference as if set forth fully herein.

**II. Relief Requested**

LCRA seeks an extension to the February 27, 2014 TCEQ order granting relief from LCRA's WMP to continue such order through July 25, 2014, pursuant to the sixty (60) day extension allowed by Texas Water Code § 11.139. LCRA urges that this relief be granted notwithstanding anything to the contrary in the 2010 WMP and that the relief be granted pursuant to Texas Water Code §§ 5.501, 11.138, 11.139 and the Governor's Emergency Disaster Proclamation related to drought. To the extent the Commission deems appropriate, and 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. Continued suspension of interruptible stored water releases under an extension of the Emergency Order will eliminate any argument that, upon expiration of the Emergency Order, LCRA must follow the 2010 WMP and

<sup>1</sup> See Attachment 1, TEX. COMM'N ENVTL. QUAL., Docket No. 2014-0124-WR, Order affirming in part and modifying in part the Executive Director's emergency order authorizing the Lower Colorado River Authority to amend its Water Management Plan, Permit No. 5838, pursuant to section 11.139 of the Texas Water Code; (Feb. 27, 2014).



release interruptible stored water in accordance with the 2010 WMP to any irrigators within the Gulf Coast, Lakeside, or Pierce Ranch irrigation operations who might plant a late rice crop, or otherwise seek stored water to irrigate crops that have been watered with groundwater or to use stored water for wildlife management.

### **III. Severe Drought Conditions Continue**

Many of the findings of fact made by the Commission in support of its Emergency Order remain true today. In fact, the severity of the drought has intensified. As discussed in detail in LCRA's December 2013, January 2014, and February 2014 filings, and further developed in the evidence presented during the February 17 hearing, emergency conditions exist that threaten LCRA's water supply—a supply that is relied upon by over one million people and several electric utilities. Those conditions include record-low inflows to the Highland Lakes, dry conditions upstream of the Highland Lakes, low rainfall and a forecast that shows little hope for improvement. Water supply conditions as of May 1, 2014 are worse than on that date in 2012 or 2013, with combined storage of about 732,000 acre-feet or 36 percent full.<sup>2</sup> (*See* Attachment 2, Supplemental Affidavit of Ryan Rowney dated May 1, 2014.<sup>3</sup>) If storage drops below 600,000 acre-feet, the LCRA Board will declare a Drought Worse than Drought of Record. Such a declaration is based on indicator criteria (described in Section IV, below) including drought duration, drought intensity, and combined storage levels that suggest the basin may be experiencing a drought worse than the drought of the 1950s. At such time, LCRA will require firm customers to cut back their water use by 20 percent and further curtail its commitment to environmental flows by 20 percent. LCRA currently projects this could happen as early as June 2014. (*See* Attachment 3, Supplemental Affidavit of Ron Anderson dated May 1, 2014.)<sup>4</sup> As the Commission has previously recognized, these conditions pose an imminent threat to human health and safety. As discussed below, and supported by the supplemental affidavits filed in support of this request, those conditions persist.

#### **A. Highland Lakes Inflows and Lake Conditions Have Continued to Deteriorate.**

Inflows to the Highland Lakes continue at record-low levels. Inflows for 2011 were the lowest on record, inflows for 2012 were the fifth lowest and inflows for 2013 were the second lowest. Inflows in the first four months of 2014 are the lowest for the first four months in the historical record for the Highland Lakes, including the 1950s. (*See* Table 1, below; Attachment 2, Supplemental Affidavit of Ryan Rowney.)

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<sup>2</sup> On May 1, 2012, combined storage in lakes Buchanan and Travis was 965,000 acre-feet; on May 1, 2013, combined storage was 795,000 acre-feet. (*See* Attachment 2, Supplemental Affidavit of Ryan Rowney.)

<sup>3</sup> Attachment 2 supplements Mr. Rowney's original affidavit included as Attachment K of the original brief filed on December 10, 2013 and Mr. Rowney's supplemental affidavit dated February 7, 2014.

<sup>4</sup> Attachment 3 supplements Mr. Anderson's original affidavit included as Attachment J of the original brief filed on December 10, 2013 and Mr. Anderson's supplemental affidavits dated January 23, 2014 and February 6, 2014.

**Table 1. Monthly Inflows to the Highland Lakes (acre-feet)**

Month	2011	2012	2013	2014	Average since 1942
January	21,158	35,178	15,117	12,270	65,595
February	16,306	74,699	8,792	9,489	85,736
March	13,811	112,517	10,741	8,102	91,368
April	9,175	19,477	11,127	5,669	104,890
May	11,182	83,699	29,265		207,193
June	1,340	12,599	5,608		167,080
July	734	8,712	17,423		86,754
August	403	2,041	1,593		64,951
September	922	12,006	30,161		103,671
October	29,927	19,338	48,444		123,310
November	6,874	6,042	18,092		70,780
December	15,969	6,854	18,775		68,997
<b>Annual Total</b>	<b>127,802</b>	<b>393,163</b>	<b>215,138</b>		<b>1,240,325</b>

As a result of these low inflows, the combined storage in lakes Travis and Buchanan has not recovered, even with emergency drought relief in place since 2011 that has suspended nearly all releases of interruptible stored water. The combined storage as of May 1, 2014 was about 732,000 acre-feet, or 36 percent full. (See Attachment 2, Supplemental Affidavit of Ryan Rowney.) As of May 1, 2014, the inflow deficit was 37 percent worse than the Drought of Record deficit reference. (See Attachment 3, Supplemental Affidavit of Ron Anderson.)

**B. Basinwide Drought Conditions Continue**

On April 11, 2014, the Governor again re-issued his Emergency Disaster Proclamation related to drought.<sup>5</sup> The Proclamation continues to recognize that all or nearly all of the counties bordering on or contributing flows to LCRA's Highland Lakes are in a state of emergency.

Rainfall in the watershed above the Highland Lakes has been well below normal in 2014 with many locations not even reporting one inch of rainfall for the period. (See Attachment 5, Supplemental Affidavit of Bob Rose dated May 1, 2014.<sup>6</sup>) The lack of rainfall and continued dry soil conditions are reflected in the extreme low inflow levels which are only a fraction of historical averages. (See Table 1.)

<sup>5</sup> See Attachment 4. Counties included in the Governor's declaration that contribute flows into or contain LCRA's Highland Lakes include: Blanco, Brown, Burnet, Coleman, Concho, Edwards, Gillespie, Kendall, Kerr, Kimble, Lampasas, Llano, Mason, McCulloch, Menard, Mills, Real, San Saba, Schleicher, Sutton, and Travis.

<sup>6</sup> Attachment 5 supplements Mr. Rose's original affidavit included as Attachment L of the original brief filed on December 10, 2013 and Mr. Rose's supplemental affidavit dated February 10, 2014.

### **C. Forecast**

The forecast continues to show little hope for significant improvement through the summer. The National Weather Service's three-month outlook is for the drought to persist through July. While there is an increasing chance of El Niño later this year, if it occurs, its effects are not expected to impact rainfall and inflows into the Highland Lakes until September or later. (*See* Attachment 5, Supplemental Affidavit of Bob Rose.)

### **IV. An Extension to the Emergency Relief is Necessary to Address the Emergency Conditions**

The TCEQ order granting emergency relief from the 2010 WMP will expire on May 26, 2014 unless extended. The absence of an effective TCEQ order would create uncertainty as to what obligations LCRA may have to provide interruptible stored water. In May, crops that were started with groundwater could be switched to surface water. (*See* Attachment 2, Supplemental Affidavit of Ryan Rowney.) Furthermore, LCRA may receive requests for water for supplemental uses such as row crops, and—later in the season—for wildlife management. (*See* Attachment 2, Supplemental Affidavit of Ryan Rowney.) Those uses are secondary to rice and, during a curtailment, requests for such uses are only considered to the extent that water is already available in the canal system. (*See* Attachment 2, Supplemental Affidavit of Ryan Rowney.) Thus, LCRA seeks this extension to the TCEQ order to make clear that no interruptible stored water would be provided to customers in the Gulf Coast, Lakeside and Pierce Ranch irrigation operations through July 25, 2014. It is worth noting that LCRA would continue to make available run-of-river water originating downstream of the Highland Lakes that may be available from time to time under its Gulf Coast, Lakeside and Pierce Ranch water rights.

Based on the most recent lake levels and forecast, even with emergency drought relief in place, there is a chance of reaching conditions triggering a declaration of Drought Worse than Drought of Record as soon as June 2014 and a 38 percent chance by the end of October 2014. (*See* Attachment 3, Supplemental Affidavit of Ron Anderson.) (These projections include the effects of the emergency relief granted in April 2014 which allows for a partial suspension of the blue sucker instream flow requirement in LCRA's WMP.) There continue to be no feasible alternatives to the relief requested by LCRA. (*See* Attachment 6, Supplemental Affidavit of David Wheelock dated May 5, 2014.<sup>7</sup>) Allowing any additional release of interruptible stored water would only shorten the timeframe that LCRA and its firm customers have to prepare for such an occurrence.

### **V. Conclusion**

The ongoing drought and its effect on the water supply continue to present an imminent threat to the public health and safety. Extending the February 27, 2014 TCEQ Emergency Order to

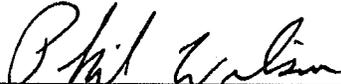
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<sup>7</sup> Attachment 6 supplements Mr. Wheelock's original affidavit included as Attachment M of the original brief filed on December 10, 2013.

suspend releases of interruptible stored water for agricultural purposes in LCRA's Gulf Coast and Lakeside divisions and Pierce Ranch for an additional 60 days will continue to help protect the water supply of LCRA firm water customers. For these reasons, LCRA respectfully requests that its application for an extension of the emergency authorization under Texas Water Code §§ 5.501, 11.138, 11.139, and consistent with the Governor's Emergency Disaster Proclamation, be granted.

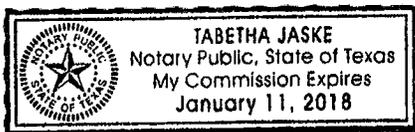
**VI. Certification**

"I, Phil Wilson, General Manager the Lower Colorado River Authority, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

  
\_\_\_\_\_  
Phil Wilson  
Lower Colorado River Authority

Date: 5-5-14

Subscribed and sworn to as being true and correct before me on this the 5<sup>th</sup> day of May, 2014.



  
\_\_\_\_\_  
Notary Public of the State of Texas

**Attachment 1**  
**TCEQ Emergency Order**  
(issued 2-27-2014)

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



**AN ORDER** affirming in part and modifying in part the Executive Director's emergency order authorizing 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. 2014-0124-WR; SOAH Docket No. 582-14-2123

On January 27, 2014, the Executive Director (ED) of the Texas Commission on Environmental Quality (TCEQ or Commission) granted an application by the Lower Colorado River Authority (LCRA) for an emergency order to amend its 2010 Water Management Plan (WMP), Permit No. 5838, under Texas Water Code §§ 5.501, 11.138, and 11.139, and the Governor's Emergency Disaster Proclamation relating to drought. On February 12 and 26, 2014, the Commission considered whether to affirm, modify, or set aside the emergency order that the ED granted. A proposal for decision (PFD) was presented by William G. Newchurch and Travis Vickery, Administrative Law Judges (ALJs) with the State Office of Administrative Hearings (SOAH), who conducted a hearing concerning the application on February 12, 17, and 18, 2014, in Austin, Texas.

After considering the ALJs' PFD, the Commission adopts Findings of Fact and Conclusions of Law and affirms in part and modifies in part the Executive Director's emergency order, as set out below:

## I. FINDINGS OF FACT

1. On December 10, 2013, LCRA filed a request for an emergency order to amend its 2010 WMP to change requirements for the release of water to irrigation operations downstream in 2014 due to persistent drought conditions in LCRA's five Highland Lakes (Lakes Buchanan, Inks, LBJ, Marble Falls, and Travis). LCRA requested the authority to provide no interruptible stored water to its Gulf Coast and Lakeside Divisions and Pierce Ranch if the combined storage of Lakes Buchanan and Travis is below 1.1 million acre feet (AF). Additionally, it requested the stored water releases be smaller for combined storage levels above 1.1 million AF than those set forth in the 2010 WMP.
2. LCRA has not requested authorization to reduce the amount of water provided from Lakes Buchanan and Travis specifically for instream flow and freshwater inflow purposes below the levels required, in the absence of an emergency order, in the 2010 WMP.

### LCRA'S Water Rights and 2010 Water Management Plan

3. LCRA has the right to divert and use up to 1.5 million AF from Lakes Buchanan and Travis under Certificates of Adjudication Nos. 14-5478 and 14-5482. By court order, LCRA has developed a WMP, Permit No. 5838, currently dated 2010, which is part of LCRA's Water Rights and is required by these certificates.
4. 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.
5. Certificates of Adjudication Nos. 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 certificates 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.
6. 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's firm water customers.
7. As established in the 2010 WMP, until firm demand for water equals the combined firm yield, LCRA can supply water for irrigated agriculture on a limited 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 AF in 2011. The maximum interruptible water released from Lakes Buchanan and Travis during this same period occurred in 2011 and totaled about 433,000 AF. The maximum total amount released or used from the Highland Lakes, about 714,000 AF, occurred in 2011.
8. The firm water use by LCRA firm customers in 2012 from Lakes Buchanan and Travis was about 148,000 AF. An amount of 31,000 AF was supplied for the environment, and 9,000 AF of interruptible was supplied to farmers in the Garwood Irrigation Division. The total use for 2012 was about 188,000 AF. The firm water use by LCRA firm customers in 2013 from Lakes Buchanan and Travis was about 173,500AF; about 33,500 AF was supplied for the environment; and about 22,000 AF was supplied for the Garwood Irrigation Division. The total use in 2013 was about 229,000 AF.
9. To manage the supply, LCRA's 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:

Combined Storage of Lakes Buchanan and Travis	Date on Which Trigger is Decided	Action Taken
1.4 million acre feet	At any time	Request firm customers to implement voluntary drought response measures.
1.4 million acre feet	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.

10. 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."
11. Under the 2010 WMP, 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 AF of water.
12. Under the 2010 WMP, once a drought has lasted more than 36 months and a 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.
13. 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

14. The combined storage of Lakes Buchanan and Travis on December 1, 2013, was 746,000 AF, or 37% full. On February 1, 2014, the combined storage was 764,000 AF, or 38% full. The combined storage fell to the lowest level in the current drought on September 19, 2013, which was 637,123 AF or 31.7% full.
15. The primary factors affecting the current combined storage levels have been (1) unprecedented low inflows in this current drought, (2) the interruptible stored water amounts authorized for release under current LCRA 2010 WMP, particularly in 2011, and (3) emergency orders issued by the Commission in 2012 and 2013.
16. It is not merely the amount of inflows, but also the management of the system over a multiyear period that greatly affects the lakes' combined storage. In recent years, emergency orders departing from the 2010 WMP have proven critical to that management.
17. On September 19, 2013, the combined storage of these reservoirs fell to the second lowest point in the history of these lakes—637,000 AF—nearing 30% capacity and just shy of the record low at 621,000 AF. Thus in September the lakes rapidly approached the 600,000 AF emergency level at which point the LCRA Board would have declared a DWDR. Continuing to curtail interruptible stored water releases under the exceptional circumstances presented by this drought, which would drive lake storage below 600,000 AF is critical to avoiding both an imminent threat to public health and safety and a situation whereby interruptible water supply releases would force declaration of a DWDR and drive firm customers into curtailment.
18. The inflows into the lakes are at record lows. Annual inflows into Lakes Buchanan and Travis in four of the last five years are among the ten lowest years of inflow on record. Inflows into the lakes in 2011 were the lowest annual inflows on record, about 10% of average inflows. Inflows in 2012 were the fifth lowest on record, and inflows in 2013 were the second lowest on record. January 2014 inflows of 11,763 AF were the lowest since the 1950's.
19. The inflows into Lakes Buchanan and Travis during the current drought have been lower for time periods ranging from 12 months to 72 months than the lowest inflows for periods of similar duration during the historic Drought of Record. The total inflows for the past 72 months were only about half of the lowest 72 month inflow period in the Drought of Record.
20. A ranking of the top ten lowest calendar year historical inflows since the reservoirs went into operation in the early 1940's shows that five of those years—2008, 2009, 2011, 2012 and 2013 occur in the current drought, and the top three years for lowest inflows—2011, 2013, and 2008 are all from the current drought. The recent year of 2006 is the fourth lowest.

21. The inflows for January 2014, at 11,763 AF, are lower than the inflows in either January 2011 (21,158 AF) or 2013 (15,117 AF), which are the two lowest inflow years on record. Historically a January with low inflows is usually followed by low inflows for both February and March. This data indicates a high likelihood of drought persistence in the near future.
22. Extraordinary drought conditions in the form of rainfall and extreme heat have existed in much of Texas, including the Colorado River Basin for nearly three years. State Climatologist, Dr. John Nielsen-Gammon, recognized 2011 as the worst one year statewide drought on record. 2011 was the second hottest year statewide, and was the hottest summer on record for both Austin and Texas. Year 2012 tied with 1921 as the hottest on record statewide.
23. Annual evaporation from LCRA's five Highland Lakes plus Lake Austin for 2010 through 2013 is set forth below:

<b>Year</b>	<b>Total Evaporation</b>
2010	183,923 acre feet
2011	192,404 acre feet
2012	144,759 acre feet
2013	120,899 acre feet

24. Although there has been close to normal rainfall in some places in Central Texas since 2011, these events have failed to produce significant inflows into Lakes Buchanan and Travis. The rainfall has been sporadic, and the soils have not remained saturated enough to allow for runoff in substantial amounts. Widespread heavy rains in the past few months have failed to produce significant inflows into the lakes.
25. This low inflow total is symptomatic of the drought's severity, including dry soils that absorb most of the rainfall that does occur. For example, heavy, widespread rainfall in the Llano River and San Saba River watersheds above the Highland Lakes on September 19 and 20, 2013, averaged two to three inches with some rain gages reporting totals as high as six or seven inches. However, this rain event only yielded approximately 24,000 AF of inflow to the lakes. By comparison, an event in March 2007 with about 40% less rainfall yielded almost 100,000 AF of inflows to Lakes Buchanan and Travis.
26. The weather forecasts do not indicate significant rainfall in the near future. Recent atmospheric and oceanic observations continue to indicate ENSO-neutral conditions and the outlook calls for this to persist into summer of 2014. The latest National Weather Service precipitation forecast indicates that precipitation across the Texas Hill Country is likely to remain normal with equal chances for above, below, or near normal precipitation. These forecasts indicate that the western edge of a below-average precipitation forecast area encroaches on Central Texas. This boundary does not quite reach areas which could produce significant inflows to Lakes Buchanan and Travis. It is not expected that precipitation will be heavy enough to cause significant drought improvement.

27. The most recent U.S. Seasonal Drought Outlook indicates the persistence of drought conditions above Lakes Buchanan and Travis through the end of April 2014. It is not expected that precipitation will be heavy enough to cause significant drought improvement. Climatological outlooks also indicate that temperatures will trend above normal through the summer, which tends to correlate with higher evaporation rates and lower overall precipitation.
28. 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 2013.
29. The first and second criteria for declaring a DWDR have been met. The drought has lasted for more than 24 months. Duration of drought for purposes of a DWDR declaration is determined by counting the number of consecutive months since both Lakes Buchanan and Travis were last full, which was February 13, 2005. The cumulative inflow deficit criterion has also been met.
30. The current drought conditions are outside the range of hydrologic conditions that were considered during formulation of the 2010 WMP.
31. 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 February 14, 2014, and includes nearly 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 [Texas Government 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."

#### **LCRA's Firm Customers**

32. 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.
33. 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 DWDR is declared.
34. If LCRA is required to follow the 2010 WMP 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. LCRA's firm customers are working on plans to implement curtailment and secure alternative supplies;

however 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.

35. If LCRA is required to follow the 2010 WMP and the drought continues, LCRA will almost certainly have to:
  - a. Begin releases of interruptible stored water to meet demands in the four irrigation operations for the 2014 crop;
  - b. Probably reach the third (and final) criteria for DWDR conditions;
  - c. Declare a DWDR;
  - d. Cut off stored water for interruptible contracts, thereby ruining the crop already planted; and
  - e. Curtail cities' and industries' water use by 20% or more.
36. Curtailments that would occur if combined storage drops substantially will result in reduced water supply to power plants, threatening their ability to generate electricity. Because LCRA's firm water customers would be required to cut back substantially if the drought persists under a DWDR declaration, municipal customers are likely to be forced to institute drought response measures that would include restrictions on indoor water use, resulting in threats to public health and safety.
37. Based on recent lake levels and the forecast, there is a chance of reaching conditions triggering a declaration of a DWDR as soon as May 2014 and greater than a one in two chance by late August.
38. In September 2013 the lakes came within 37,000 acre-feet of reaching the emergency level of 600,000 AF or 30% capacity and there has been very little recovery since then. In May 2012 the lakes refilled to an amount close 1.1 million AF (to 1.033 million AF on May 22, 2012) and yet without any release to Lakeside, Gulf Coast and Pierce Ranch the lakes dropped to the second lowest level on record of 637,000 AF on September 19, 2013, and came very close to falling below emergency levels. An emergency order in place in 2012 prevented such a release.
39. Water savings by Austin of an estimated 86,000 AF over the past two years played a key role in preventing combined storage from reaching the 600,000 AF level in September 2013.
40. The extraordinary magnitude of change in inflows since the drought of record upon which the 2010 WMP is based, in terms of how much lower the inflows have been in recent years, signals the need for great caution to be taken with regard to decisions concerning large releases to interruptible customers because they make it more probable that lake levels will not quickly recover once such releases occur.

41. Currently, LCRA owns four water systems that take raw water from Lakes Buchanan and Travis. LCRA also has 15 firm water 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 650 feet msl on Lake Travis. On January 9, 2014, the lake level at Travis was 628.45 msl. On February 15, 2014, the lake level at Lake Travis was 627.75 msl.
42. The lowest operating depths of the following raw water intakes owned and operated by LCRA's firm water customers on Lake Travis are as follows:
- Brushy Creek Regional Utility Authority (BCRUA) = 620 ft-msl
  - Cedar Park (regular intake) = 615 ft-msl
  - Leander (regular intake) = 615 ft-msl
  - Lago Vista (Intake #1) = 612 ft-msl
  - Lago Vista (Intake #2) = 600 ft-msl
  - Jonestown WSC = 600 ft-msl
  - WCID 17 = 595 ft-msl
  - Lakeway MUD = 590 ft-msl
  - Cedar Park and Leander (joint emergency drought intake) = 590 ft-msl
43. In the absence of an emergency order, the raw water intakes owned and operated by LCRA's firm water customers on Lake Travis are projected to become inoperable as early as the following dates:
- BCRUA = already inoperable and will remain inoperable
  - Cedar Park (regular intake) = inoperable by June 2014
  - Leander (regular intake) = inoperable by June 2014
  - Lago Vista (Intake #1) = inoperable by July 2014
  - Lago Vista (Intake #2) = inoperable by August 2014
  - Jonestown WSC = inoperable by August 2014
  - WCID 17 = inoperable by October 2014
  - Lakeway MUD = inoperable by December 2014
  - Cedar Park and Leander (joint emergency drought intake) = inoperable by December 2014.
44. The Windermere Oaks Water Supply Corporation (WOWSC) uses an intake barge to pump raw water from Lake Travis for its customers under an LCRA firm water contract. Although WOWSC has already modified its intake structure to operate in shallower water, lake level elevations of 618 ft- msl or lower present significant operating challenges. Groundwater is not feasible alternative water supply for WOWSC.
45. As lake levels drop, retail water suppliers are unable to pump water from the lakes. This causes wholesale raw water customers to either move intakes to reach the water, or obtain alternative 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, LCRA water systems and its customers' water systems will have difficulty in meeting firm customers' water needs.

46. Low lake levels in Lake Travis have a direct impact on the ability of local emergency services personnel to fight structure fires and wildfires that may occur. In 2011, the Perdarnales Fire Department, which serves western Travis County and relies primarily upon water from Lake Travis, was able to draft water from Lake Travis at multiple locations on the lake. As of February 17, 2014, the Fire Department had access to only one reliable water source at the lake. With these limitations, the Fire Department has experienced 45-minute turnaround times for trucks to bring water to a fire, and it has had to stop fighting a fire due lack of water in its trucks or helicopters. These circumstances constitute a current threat to the health and safety of residents served by the Perdarnales Fire Department.
47. Combined storage levels are a strong indicator of an imminent threat to the public health and safety. However, given the rapid rise and fall of combined storage levels throughout the historical record, combined storage levels, in and of themselves, are insufficient to determine whether an imminent threat to the public health and safety exists.

### **Conservation and Drought Contingency Plan**

48. LCRA's water conservation plan complies with TCEQ rules. LCRA has required its municipal customers to adopt conservation plans before there was a state requirement.
49. LCRA provides conservation program planning support for its customers. In 2012, LCRA began a rebate program for certain irrigation technologies and a wholesale customer cost-share program focused on conservation. LCRA has supported significant improvements in water use efficiency in rice irrigation systems, including volumetric pricing and canal rehabilitation.
50. LCRA was originally required to develop a Drought Contingency Plan (DCP) as a direct result of the court order adjudicating LCRA's water rights and the Texas Water Commission 1989 WMP Order.
51. When TCEQ adopted the Chapter 288 rules for DCPs, LCRA adopted separate stand alone DCPs relating to irrigation, municipal, and industrial operations that more specifically addressed the requirements of the Chapter 288 rules. LCRA incorporated all of the same triggers and criteria from the WMP into its Chapter 288 DCP. These DCPs were incorporated into Chapter 4 of the WMP.
52. LCRA adopted water use reduction targets including the following: water use reduction goals for firm water supply customers of 5 percent by asking firm customers to implement their voluntary water use reduction measures when the combined storage of Lakes Buchanan and Travis is less than 1.4 million AF; ten to twenty percent reduction goals by asking firm customers to implement their own mandatory water use reduction measures when combined storage levels fall below 900,000 AF; and a mandatory pro rata curtailment of firm water supplies for customers of 20 percent or more will be implemented when combined storage levels fall below 600,000 AF and other criteria are met for a drought more severe than the Drought of Record.

53. 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.
54. LCRA has 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 rules also provide a surcharge to be set by the LCRA Board for unauthorized use of water (taking more water than authorized under a mandated curtailment of firm water supplies) and clarifying the drought contingency requirements related to golf course irrigation and recreational use.
55. LCRA's WMP requires LCRA to develop a stored water curtailment plan to be approved by the LCRA Board and TCEQ in response to combined storage dropping below 900,000 AF. TCEQ approved that plan for LCRA's firm customers in December of 2011.
56. 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.
57. The LCRA Board approved a no more than once per week watering restriction that would take effect in March 2014 if combined storage is below 1.1 million AF and interruptible stored water to the Gulf Coast and Lakeside irrigation divisions and Pierce Ranch has been cut off. LCRA has not requested TCEQ approval of this action and this order does not address such action.
58. Just in the past 2 years Austin's conservation and drought measures have resulted in an estimated 86,000 AF savings. Austin hired outside consultants and participated in a rigorous process with LCRA to determine its annual conservation savings in preparation for possible pro-rata curtailment. This resulted in an estimated savings of 26,000 AF a year from conservation measures in place (52,000 in two years). In addition Austin has calculated its savings achieved from imposing drought measures for more than two years which includes a one-day a week watering schedule. This is estimated at 17,000 AF per year (34,000 AF in two years).
59. There has been a drop from Austin's highest recent year of 190 GPCD, in 2006, to the most recent year of 136 GPCD due to its conservation and drought measures.
60. Because the planning, permitting, and construction for developing large new water supplies for Austin and other large municipal areas is necessarily on a decades-long timeframe, a severe shortage in or total depletion of the already diminished supply within a few years due to an imminent release of interruptible stored water under LCRA's 2010 WMP is an imminent threat to public health and safety.
61. Health and safety consequences from supply shortages can start to be experienced long before a municipal water supply is totally depleted.

62. Water restrictions result in a drop in overall usage, which in turn impacts the amount of flow in the entire Austin Water Utility (AWU) system. The AWU system has more than 3,700 miles of water pipes and 39 storage tanks, which are designed to handle peak demands and fire flows. As flow decreases, AWU system's ability to handle peak demands and fire flows may be affected, which is an imminent threat to public health and safety.
63. Once combined storage levels have reached a point that will require Austin and other LCRA firm water customers, as a practical measure, to impose water rationing, then individual households will start to make choices in how to use that rationed amount of water. Over a vast population, some of those choices can be poor choices with regard to sanitation practices (for example deferring for too long certain sanitary uses of water) that can negatively impact public health and safety despite a utility's effort to educate its customers on safe practices.
64. Outdoor watering in a drought is critical to preserving trees and tree canopy important to human health in an urban environment, preventing home foundations from cracking, and avoiding negative health effects from landscaping dying off.

#### **Alternatives**

65. 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. LCRA has evaluated many other alternatives to address the emergency conditions that the drought presents.
66. 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, may 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.
67. 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.
68. In 2012, LCRA supplied about 4,000 AF to firm customers downstream of Austin under temporary permits that would otherwise have been released from Lakes Buchanan and Travis. In 2013, LCRA supplied about 1,000 AF to such customers under such

temporary permits. While this was beneficial, temporary permits are not sufficient replacement for water lost if releases are required.

69. A twenty percent reduction in water use by firm customers will require difficult measures. There may be dramatic reductions in outdoor water use. However, none of these measures will occur quickly enough to help lake levels. Some LCRA customers, such as Austin, have achieved water savings through reductions in water use. Most industrial customers would have to implement the full twenty percent reduction more immediately and this likely means a curtailment in annual production.
70. LCRA is 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 WMP 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. May 28, 2013, was the last date to request a public meeting or a contested case hearing, or comment on the application. On June 3, 2013, the ED 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.
71. There is no feasible practicable alternative for Austin on short order to replace its water supply should it be depleted in a few years to the point of drastic shortages by large interruptible water releases during a period of record low inflows. Although Austin has made very earnest efforts to identify alternative water supplies, a replacement water supply for 1 million people cannot be identified and developed in a few years. Austin has identified only very small amounts of water that may be able to be purchased for exorbitantly expensive prices. The small amounts do not sufficiently address the health and safety risks and the exorbitant prices do not make these practicable alternatives.
72. An interruptible stored water curtailment trigger should be set to avert, rather than create, conditions that could require declaration of a DWDR.
73. LCRA staff performed analyses to determine whether lesser amounts of combined stored water than 100,000 AF could be supplied to Gulf Coast, Lakeside, and Pierce Ranch at lower combined storage trigger levels. The results showed that these alternatives were not practicable because the small amount of water that could be made available would result in significant losses and difficulties maintaining the canal water levels for the movement of water.

#### **Relief Requested**

74. LCRA's requested curtailment approach for 2014 is more restrictive than the curtailment triggers in emergency orders issued by the Commission in 2012 and 2013. The 850,000 AF trigger in effect in 2012 and 2013 was based on avoiding the potential for dropping below 600,000 AF during the first crop of the season. Under LCRA's current approach, before the releases for interruptible water users are made, LCRA requests a combined storage trigger increase to a level that puts off the possibility of storage falling below 600,000 AF until spring of 2015.

75. LCRA has determined that if the combined storage is less than 1.1 million AF, providing even some stored water releases to Gulf Coast, Lakeside, and Pierce Ranch operations amplifies the risk of a DWDR declaration before spring 2015.
76. LCRA requests TCEQ to issue an emergency order to deviate from the 2010 WMP as it pertains to the determination of interruptible supply for 2014 and instead provide interruptible stored water based on the combined storage of Lakes Buchanan and Travis on March 1, 2014 at 11:59 p.m. as follows:
- a. Provide no interruptible stored water to customers within the LCRA Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is below 1.1 million AF;
  - b. Provide up to 100,000 AF of interruptible stored water for diversion by customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is at or above 1.1 million AF but below 1.2 million AF;
  - c. Provide up to 124,000 AF of interruptible stored water for diversion by customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is at or above 1.2 million AF, but below 1.3 million AF;
  - d. Provide up to 148,000 AF of interruptible stored water for diversion by customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is at or above 1.3 million AF but below 1.4 million AF; and
  - e. Provide up to 172,000 AF of interruptible stored water for diversion by customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch if combined storage is at or above 1.4 million AF.
77. LCRA will also provide interruptible stored water to the Garwood Irrigation Division and Pierce Ranch, to the extent required by their contracts.

#### **Notice to the Governor**

78. Notice regarding the ED's consideration of this emergency order was provided to the Governor of Texas by letter dated January 23, 2014.

#### **Procedure**

79. On January 23, 2014, LCRA filed with the ED a supplement to its request for an emergency order.
80. On January 27, 2014, the ED considered LCRA's December 10, 2013 request and January 23, 2014 Supplement and issued an order granting an emergency authorization to the LCRA to amend its WMP, Permit No. 5838, pursuant to section 11.139 of the Texas Water Code.

81. The January 27, 2014 ED's Emergency Order included notice that the Commission would hold a hearing on February 12, 2014, to affirm, modify, or overturn the Order.
82. On January 24, 2014, the Chief Clerk of the Commission mailed notice of the Commission's February 12, 2014 hearing as required by law. The mailed notice stated: "Under 30 Tex. Admin. Code § 295.174, there is no right to a contested case hearing on this emergency order."
83. On February 10, 2014, LCRA submitted a second supplement to its request for emergency authorization.
84. On February 12, 2014, the Commission convened a public hearing on this matter, Chairman Shaw presiding. Commissioner Baker participated. Commissioner Covar recused himself. ALJ Newchurch was present throughout the public hearing, at the Commission's request.
85. The Commission and ALJ Newchurch heard over four hours of unsworn public comments about the Executive Director's Emergency Order. At the end of the public comment, the Commission discussed the matter with ALJ Newchurch and offered their preliminary view on the matter. The Commission then voted to refer the matter to SOAH for an evidentiary hearing to convene immediately. They also instructed ALJ Newchurch to submit a PFD to the Commission no later than February 21, 2014. The Commission stated that consideration of the PFD would be on its February 26, 2014 agenda.
86. ALJs Newchurch and Vickery reconvened the hearing on February 12, 2014. They admitted parties and other procedural matters were considered.
87. The following are parties in this case:

<b>PARTY</b>	<b>REPRESENTATIVE</b>
Lower Colorado River Authority (LCRA)	Lyn Clancy & Greg Graml
Executive Director (ED) of the TCEQ	Robin Smith
Office of Public Interest Counsel (OPIC)	Blas Coy & Vic McWherter
City of Austin	Ross Crow & Mary K. Sahs
Colorado Water Issues Committee (CWIC)	Carolyn Ahrens & Michael J. Booth
Central Texas Water Coalition (CTWC)	Cynthia C. Smiley, Shana Horton, & Frank Cooley
Highland Lakes Firm Water Customer Cooperative (Highland)	Patricia Carls & Carla Connolly
Texas Parks & Wildlife Department (TPWD)	Collette Baron Bradsby & James B. Murphy
National Wildlife Federation (NWF)	Myron Hess
Lehner/Lewis Interests & Garwood Irrigation (Garwood)	Molly Cagle & Samia Rogers
Clive Runnells d/b/a AP Ranch (AP Ranch)	Charles W. Irvine & Mary Carter

88. LCRA paid the cost of transcribing the hearing and expediting delivery of the transcript, and has not asked for any part of that cost to be allocated among the other parties.

## II. CONCLUSIONS OF LAW

1. The ED may issue an emergency order under Texas Water Code § 11.139 to amend a permit or certificate of adjudication for 120 days after notice to the Governor if the ED finds that emergency conditions exist which present an imminent threat to the public health and safety which requires immediate action before the Commission can take action and there are no feasible practicable alternatives to the emergency authorization.
2. The Commission may issue an emergency order under Texas Water Code § 11.139 to amend a permit or certificate of adjudication for 120 days 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.
3. LCRA is obligated under a 1988 court order and Certificates of Adjudication Nos. 14-5478 and 14-5482 to meet the demands of its firm, non-interruptible water supply customers 100% of the time without shortage through a repeat of the conditions in the Drought of Record.
4. The Findings of Fact show that the requirements of Texas Water Code § 11.139 have been met. Following the 2010 Water Management Plan with the ongoing drought and its effect on the water supply constitute an emergency that presents an imminent threat to the public health and safety. There are no practicable alternatives to this action.
5. The ED had the authority to issue the Emergency Order.
6. The Commission must consider whether to affirm, modify, or set aside an emergency order issued by the ED under Section 11.139 of the Texas Water Code no later than 20 days after the ED issues the order.
7. LCRA has the burden of proving that an emergency order should be granted.
8. The Commission in issuing an emergency order under Texas Water Code § 11.139 must ensure that the relief granted is adequate and tailored to address the imminent threat to public health and safety.
9. LCRA's application for an emergency order should be granted in part and the ED's Emergency Order should be affirmed in part and modified in part as set out below.
10. LCRA should pay the full cost of transcribing the hearing in this case.

11. By entering this order, the Commission is not construing in any way either the 1987 Agreement or the 1998 Purchase Agreement between LCRA and Garwood Irrigation Company. Nothing in this Order shall be considered or construed in any way to support one construction or another of the 1987 Agreement and the 1998 Purchase Agreement between LCRA and Garwood Irrigation Company.

### III. EXPLANATION OF CHANGES

1. As directed by the Commission at its February 26, 2014 agenda, the Office of the General Counsel has made the necessary revisions to the ALJs' Proposed Order to effectuate the Commission's decision. Specifically, Findings of Fact, Conclusions of Law, and Ordering Provisions have been renumbered to reflect the Commission's revisions to the ALJs' Proposed Order. Thus, references in this section to Findings of Fact, Conclusions of Law, and Ordering Provisions refer to the provisions as renumbered by the Office of the General Counsel, except with respect to stricken provisions. In instances where this section references stricken provisions, the original numbering of the provisions by the ALJs in their Proposed Order is utilized.
2. On February 26, 2014, the ALJs distributed a letter with the ALJs' recommendations with respect to the parties' exceptions to their proposal for decision. In their presentation, the ALJs explained that these recommended revisions to their Proposed Order were supported by the evidence in the record. Accordingly, the Commission made the following revisions to the ALJs' proposed order: 1) Finding of Fact No. 3 is revised, as requested in the ED's exceptions; 2) Findings of Fact Nos. 8, 17, 29, 39, 43, 51, and 57, are revised, as requested in LCRA's exceptions; 3) Findings of Fact Nos. 44 and 46 are added as new Findings of Fact, as requested in CTWC's exceptions; and 4) original Finding of Fact No. 2a was relocated as Ordering Provision No. 6a, now renumbered as Ordering Provision No.7.
3. During the Agenda meeting, the Commission discussed that given the current conditions, the current lake levels, the forecasted weather, and the limited time between the agenda meeting and the March 1, 2014 trigger date that there is no need to establish a specific combined storage level as a trigger for this emergency order. The Commission also indicated that they must take only the action necessary to address the imminent threat to public health and safety. Therefore, the Commission decided to remove references to trigger levels from the ALJs' proposed order. Accordingly, the Commission struck Findings of Fact Nos. 30a, 30b, 30c, 30f, 30g, 31c, 45a, 49, 49a, and 49b, and struck the last sentence of Finding of Fact No. 38.
4. The Commission made several revisions to provide increased clarity to the ALJs' proposed order and to remove redundant provisions. Therefore, the Commission in its motion, struck Findings of Fact Nos. 41a, 42f, 42g and Ordering Provision No. 8; and revised Findings of Fact Nos. 7, 17, and 22. Additionally, Ordering Provision No. 3 was revised to reflect that the emergency order is final and effective on the date of issuance, pursuant to Texas Government Code § 2001.144(a)(3). Finally, the Commission revised Finding of Fact No. 78 to include the specific date on which notice was provided to the Governor of Texas.

5. In response to the exception filed by CWIC, the Commission struck the last part of the last sentence of Finding of Fact No. 17. Specifically, the Commission struck the words, "...in contravention of the 1988 Order and Certificates of Adjudication Nos. 14-5478 and 14-5482" as unnecessary to its decision to address the imminent threat to public health and safety in this matter.
6. The Commission stated in their deliberation that an automatic renewal is not appropriate in this emergency order given the variability of the specific facts and circumstances relating to the imminent threat to public health and safety in this matter. For this reason, the Commission added Finding of Fact No. 47, which reads, "Combined storage levels are a strong indicator of an imminent threat to the public health and safety. However, given the rapid rise and fall of combined storage levels throughout the historical record, combined storage levels, in and of themselves, are insufficient to determine whether an imminent threat to the public health and safety exists." In addition, the Commission added new Conclusion of Law No. 8, which reads, "The Commission in issuing an order under Texas Water Code § 11.139 must ensure that the relief granted is adequate and tailored to address the imminent threat to public health and safety."
7. Based on the Commission determination that all requirements of Texas Water Code § 11.139 have been met, and the Commissions' determination to remove references in the ALJs' proposed order to trigger levels, the Commission revised Ordering Provision No. 1 to read, "LCRA's 2010 WMP is amended to alleviate LCRA from any obligation to provide interruptible stored water to customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch for the duration of this emergency order."

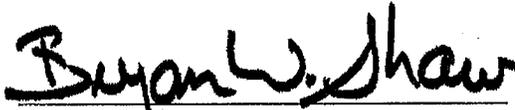
**NOW, THEREFORE, BE IT ORDERED BY THE COMMISSION OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY THAT:**

1. LCRA's 2010 WMP is amended to alleviate LCRA from any obligation to provide interruptible stored water to customers within LCRA's Gulf Coast and Lakeside Divisions and Pierce Ranch for the duration of this emergency order.
2. LCRA may provide interruptible stored water to the Garwood Irrigation Division and Pierce Ranch, to the extent required by their contracts.
3. Pursuant to Texas Government Code § 2001.144(a)(3), this emergency order is final and effective on the date of issuance.
4. This emergency order terminates on May 26, 2014. However, this emergency order may be renewed once for no more than 60 days.
5. This emergency order only addresses the specific relief requested from LCRA and is not meant as precedent for amendments to LCRA's WMP or future emergency relief.
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.

7. This emergency order does not alter LCRA's obligations to provide water specifically for instream flow or freshwater inflow purposes pursuant to the 2010 WMP.
8. LCRA shall pay the full cost of transcribing the hearing in this case.
9. All other motions, requests for entry of specific Findings of Fact or Conclusions of Law, and any other requests for general or specific relief not expressly granted herein, are hereby denied for want of merit.
10. The Chief Clerk of the Texas Commission on Environmental Quality shall forward a copy of this Order to the parties.

Issue Date: FEB 27 2014

TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

  
Bryan W. Shaw, Ph.D., P.E. Chairman

**Attachment 2**  
**Supplemental Affidavit of**  
**Ryan Rowney**

**APPLICATION OF THE  
LOWER COLORADO  
RIVER AUTHORITY FOR  
EXTENSION TO  
EMERGENCY AUTHORIZATION**

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**BEFORE THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY**

**SUPPLEMENTAL AFFIDAVIT OF RYAN ROWNEY**

THE STATE OF TEXAS

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COUNTY OF TRAVIS

Before me, the undersigned authority, personally appeared Ryan B. Rowney, a person known by me to be competent and qualified in all respects to make this affidavit, who being by me first duly sworn, deposed as follows:

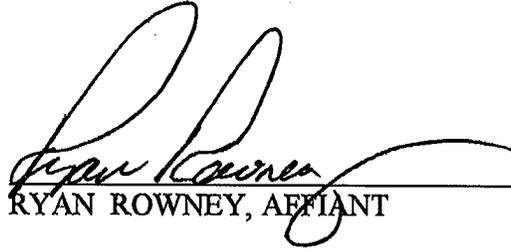
1. I am over 21 years of age, of sound mind, and have never been convicted of a felony or crime of moral turpitude. I am fully competent and qualified in all respects to make this affidavit.
2. The facts stated in this affidavit are within my personal knowledge and are true and correct.
3. I, Ryan B. Rowney, am an individual residing in Burnet, Texas.
4. I have previously provided an affidavit dated December 10, 2013 and a supplemental affidavit dated February 7, 2014 in this proceeding. This supplemental affidavit is intended to supplement those affidavits with up-to-date information regarding the drought situation affecting LCRA's Water Operations.
5. Combined storage on May 1, 2014 was about 732,000 acre-feet, or 36.4 percent of capacity. On May 1, 2012, combined storage was about 965,000 acre-feet; on May 1, 2013, combined storage was about 795,000 acre-feet.
6. Inflows to the Highland Lakes continue at low levels. Inflows for the first four months of 2014 of 35,529 acre-feet were only 10.3 percent of the historical average inflows for that period. This four-month total inflow is lower than in 2011, 2012 or 2013, and in fact is the lowest January-April inflow ever recorded for the Highland Lakes including the drought of the 1950s. Monthly inflows have been below average in 47 of the past 48 months.

Month	Inflows (acre-feet)	Percent of Monthly Average
May 2010	95,821	46.8%
June 2010	33,517	20.3%
July 2010	59,905	69.8%
Aug 2010	10,783	16.8%
Sept 2010	86,952	84.7%
Oct 2010	14,385	11.8%
Nov 2010	13,899	19.8%
Dec 2010	16,845	24.7%
Jan 2011	21,158	32.6%
Feb 2011	16,306	19.3%
Mar 2011	13,811	15.3%
Apr 2011	9,175	8.9%
May 2011	11,182	5.5%
June 2011	1,340	0.8%
July 2011	734	0.9%
Aug 2011	403	0.6%
Sept 2011	922	0.9%
Oct 2011	29,927	24.5%
Nov 2011	6,874	9.8%
Dec 2011	15,969	23.4%
Jan 2012	35,178	54.2%
Feb 2012	74,699	88.2%
Mar 2012	112,517	124.7%
Apr 2012	19,477	18.8%

Month	Inflows (acre-feet)	Percent of Monthly Average
May 2012	83,699	40.9%
June 2012	12,599	7.6%
July 2012	8,712	10.2%
Aug 2012	2,041	3.2%
Sept 2012	12,006	11.7%
Oct 2012	19,338	15.8%
Nov 2012	6,042	8.6%
Dec 2012	6,854	10.0%
Jan 2013	15,117	23.3%
Feb 2013	8,792	10.4%
Mar 2013	10,741	11.9%
Apr 2013	11,127	10.7%
May 2013	29,265	14.3%
June 2013	5,608	3.4%
July 2013	17,423	20.3%
Aug 2013	1,593	2.5%
Sept 2013	30,161	29.4%
Oct 2013	48,444	39.6%
Nov 2013	18,092	25.8%
Dec 2013	18,775	27.5%
Jan 2014	12,270	18.9%
Feb 2014	9,489	11.2%
Mar 2014	8,102	9.0%
Apr 2014	5,669	5.5%

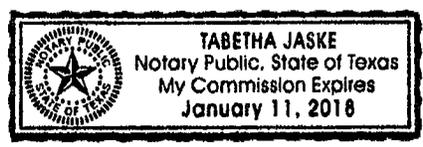
7. If the emergency relief expires, rice crops that were started with groundwater could be switched to surface water. LCRA could also receive requests for water for supplemental uses such as row crops and, later in the year, wildlife management. Those uses are secondary to rice and, during a curtailment year, requests for such uses are only considered if water is available in the canal system.
  
8. The current drought continues to present an imminent threat to public health and safety if the lake levels drop more quickly than arrangements can be made to extend intakes or obtain alternate water supplies. In light of the ongoing drought conditions and lack of recovery in the Highland Lakes, I believe that it is prudent to extend the suspension of interruptible stored water supply to customers in the Gulf Coast, Lakeside, and Pierce Ranch irrigation operations by an additional 60 days.

Further affiant sayeth not.

  
RYAN ROWNEY, AFFIANT

SWORN TO AND SUBSCRIBED before me on the 1<sup>st</sup> day of May, 2014.

  
Notary Public in and for the State of Texas  
My Commission Expires: 1-11-2018



IN THE DISTRICT COURT OF THE  
COUNTY OF SHERMAN, TEXAS  
Case No. 14-00000000-00000  
STATE OF TEXAS, Plaintiff  
vs.  
[Name], Defendant

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[Faint text, possibly a title or heading]

[Faint text, possibly a paragraph of an affidavit]

**Attachment 3**  
**Supplemental Affidavit of**  
**Ron Anderson**

APPLICATION OF THE  
LOWER COLORADO  
RIVER AUTHORITY FOR  
EXTENSION TO  
EMERGENCY AUTHORIZATION

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BEFORE THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

**SUPPLEMENTAL AFFIDAVIT OF RON ANDERSON**

THE STATE OF TEXAS

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COUNTY OF TRAVIS

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Before me, the undersigned authority, personally appeared Ron Anderson, a person known by me to be competent and qualified in all respects to make this affidavit, who being by me first duly sworn, deposed as follows:

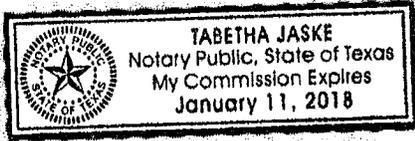
1. I am over 21 years of age, of sound mind, and have never been convicted of a felony or crime of moral turpitude. I am fully competent and qualified in all respects to make this affidavit.
2. The facts stated in this affidavit are within my personal knowledge and are true and correct.
3. I, Ron Anderson, am an individual residing in Austin, Texas.
4. I have previously provided an affidavit dated December 10, 2013, a supplemental affidavit dated January 23, 2014, and a supplemental affidavit dated February 6, 2014 in this proceeding. This supplemental affidavit is intended to supplement those affidavits with up-to-date information and analysis regarding the drought situation and LCRA's emergency curtailment plan.
5. The inflow deficit has been at least five percent worse than the average inflow deficit over a similar period during the Drought of Record for at least six months. The current inflow deficit (as of May 1, 2014) is 37 percent worse than the Drought of Record inflow deficit reference.
6. As of May 1, 2014, if severe drought conditions continue, the criteria for a declaration of Drought Worse than Drought of Record (DWDR) (including combined storage in lakes Buchanan and Travis falling below 600,000 acre-feet) may be met as early as June of this year. There is about a 38 percent chance of the conditions being met by the end of October 2014.

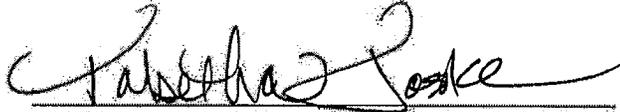
Further affiant sayeth not.



RON ANDERSON, AFFIANT

SWORN TO AND SUBSCRIBED before me on the 2<sup>nd</sup> day of May, 2014.





Notary Public in and for the State of Texas  
My Commission Expires: 1-11-2018

**Attachment 4**  
**Governor's Disaster Proclamation**  
**(4-11-2014)**

## Texas Renews Proclamation Extending Drought Emergency

Friday, April 11, 2014 Austin, Texas Proclamation

### TO ALL TO WHOM THESE PRESENTS SHALL COME:

**RICK PERRY**, Governor of the State 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.

**WHEREAS**, significantly low rainfall has resulted in declining reservoir and aquifer levels, threatening water supplies and delivery systems in many parts of the state; and

**WHEREAS**, prolonged dry conditions continue to increase the threat of wildfire across many portions of the state; and

**WHEREAS**, these drought conditions have reached historic levels and continue to pose an imminent threat to public health, property and the economy; and

**WHEREAS**, this state of disaster includes the counties of Andrews, Archer, Armstrong, Bailey, Bandera, Baylor, Bell, Bexar, Blanco, Bosque, Briscoe, Brown, Burnet, Callahan, Carson, Castro, Childress, Clay, Cochran, Coke, Coleman, Collin, Collingsworth, Colorado, Comal, Comanche, Concho, Cooke, Coryell, Cottle, Crockett, Crosby, Dallam, Dallas, Deaf Smith, Delta, Denton, Dickens, Donley, Eastland, Ector, Edwards, Ellis, Erath, Fannin, Fisher, Floyd, Foard, Frio, Gaines, Garza, Gillespie, Gray, Grayson, Hale, Hall, Hamilton, Hansford, Hardeman, Hartley, Haskell, Hemphill, Hidalgo, Hill, Hockley, Hood, Hudspeth, Hunt, Hutchinson, Irion, Jack, Johnson, Jones, Kendall, Kent, Kerr, Kimble, King, Knox, Lamar, Lamb, Lampasas, Lipscomb, Llano, Lubbock, Lynn, Martin, Mason, Matagorda, McCulloch, McLennan, Medina, Menard, Midland, Mills, Mitchell, Montague, Moore, Motley, Navarro, Nolan, Ochiltree, Oldham, Palo Pinto, Parker, Parmer, Potter, Randall, Reagan, Real, Red River, Roberts, Runnels, San Saba, Schleicher, Scurry, Shackelford, Sherman, Somervell, Stephens, Sterling, Stonewall, Sutton, Swisher, Tarrant, Taylor, Terrell, Terry, Throckmorton, Tom Green, Travis, Upton, Uvalde, Val Verde, Wharton, Wheeler, Wichita, Wilbarger, Willacy, Williamson, Wise, Yoakum, Young and Zavala.

**THEREFORE**, in accordance with the authority vested in me by Section 418.014 of the Texas Government Code, I, DAVID DEWHURST, as Acting Governor of the State of Texas, do hereby renew the disaster proclamation and direct that all necessary measures, both public and private as authorized under Section 418.017 of the code, be implemented to meet that threat.

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.

In accordance with the statutory requirements, copies of this proclamation shall be filed with the applicable authorities.

**IN TESTIMONY WHEREOF**, I have hereunto signed my name and have officially caused the Seal of State to be affixed at my office in the City of Austin, Texas, this the 11th day of April, 2014.

**DAVID DEWHURST**

Lieutenant Governor

As Acting Governor of Texas

**Attachment 5**  
**Supplemental Affidavit of**  
**Bob Rose**

APPLICATION OF THE  
LOWER COLORADO  
RIVER AUTHORITY FOR  
EXTENSION TO  
EMERGENCY AUTHORIZATION

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BEFORE THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

**SUPPLEMENTAL AFFIDAVIT OF BOB ROSE**

THE STATE OF TEXAS

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COUNTY OF TRAVIS

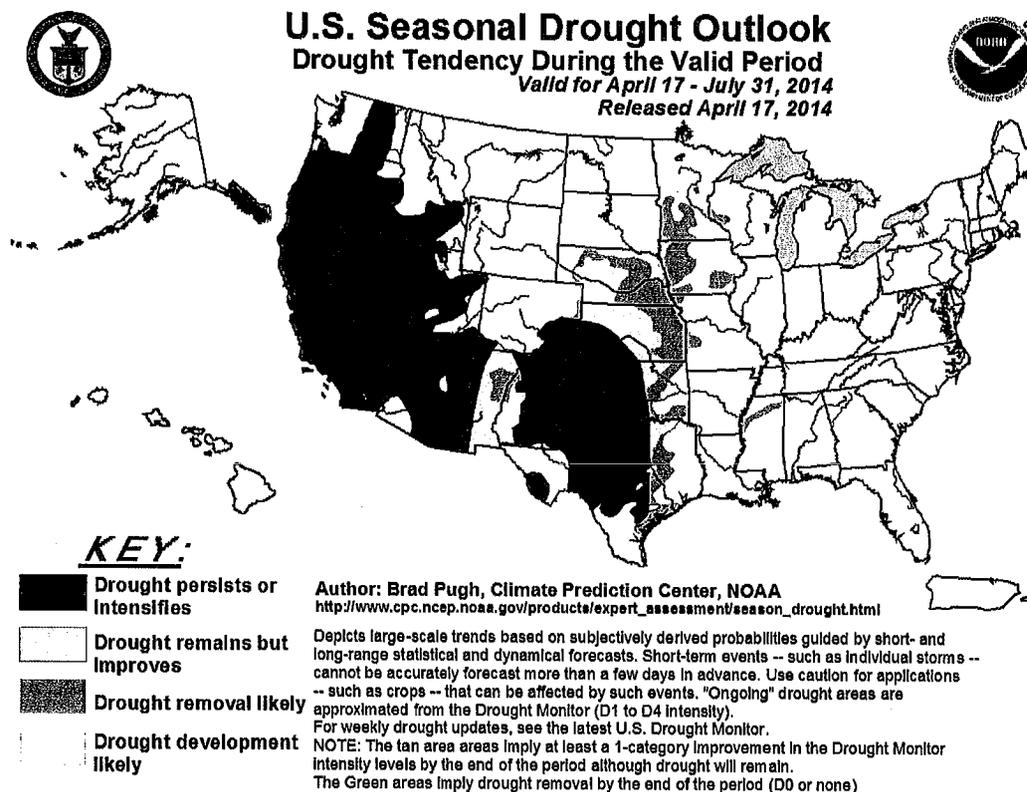
Before me, the undersigned authority, personally appeared Robert H. Rosenzweig, also known as Bob Rose, a person known by me to be competent and qualified in all respects to make this affidavit, who being by me first duly sworn, deposed as follows:

1. I am over 21 years of age, of sound mind, and have never been convicted of a felony or crime of moral turpitude. I am fully competent and qualified in all respects to make this affidavit.
2. The facts stated in this affidavit are within my personal knowledge and are true and correct.
3. I, Bob Rose, am an individual residing in Austin, Texas.
4. I have previously provided an affidavit dated December 9, 2013 and a supplemental affidavit dated February 7, 2014 in this proceeding. This supplemental affidavit is intended to supplement those affidavits with up to date information regarding the drought situation. This new affidavit includes updated weather information and forecasts through April 30, 2014.
5. So far in 2014, rainfall has been well below normal across the entire Colorado River basin. In particular, across the Texas Hill Country, rainfall between January 1 and April 30 has been one of the driest 4-month such periods on record with many locations failing to even record 1 inch of rain. With little rain so far this year, dry soils and the onset of warmer temperatures, drought conditions are deteriorating quickly across the region.
6. Weather Forecast Sources. In developing my forecast, I have relied on various sources, including the National Weather Service's Climate Prediction Center, NOAA's Earth Science Research Laboratory, Texas State Climatologist John Nielsen-Gammon and Gregory McCabe, Research Scientist.

The latest National Weather Service's Climate Prediction Center (CPC) Seasonal Drought Outlook, which includes the period through the end of July 2014, calls

for drought persistence across the Texas Hill Country and all areas to the west of Interstate 35. See Figure 1. National Weather Service forecasters stated, "Due to a relatively dry February and March, (the) drought intensified across Kansas, Oklahoma, and much of Texas. The Climate Prediction Center monthly and seasonal outlooks call for equal chances of above, near, or below-median precipitation across the central and southern Great Plains during May-June-July. However, the upper-level pattern featuring a trough upstream during the remainder of April and possibly into the beginning of May is favorable for at least seasonal rainfall amounts. However, persistence is more likely for the entrenched drought areas of the high Plains. The CPC monthly and seasonal temperature outlooks call for enhanced odds for above-normal temperatures which could intensify drought conditions if rainfall remains at or below-normal. Forecast confidence for the central/southern Great Plains and southeast Texas is moderate." For areas to the east of Interstate 35 (which are not in the Highland Lakes watershed), the signal for drought persistence isn't shown to be quite as strong. (See [http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/sdo\\_discussion.html](http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_discussion.html) last visited April 29, 2014.)

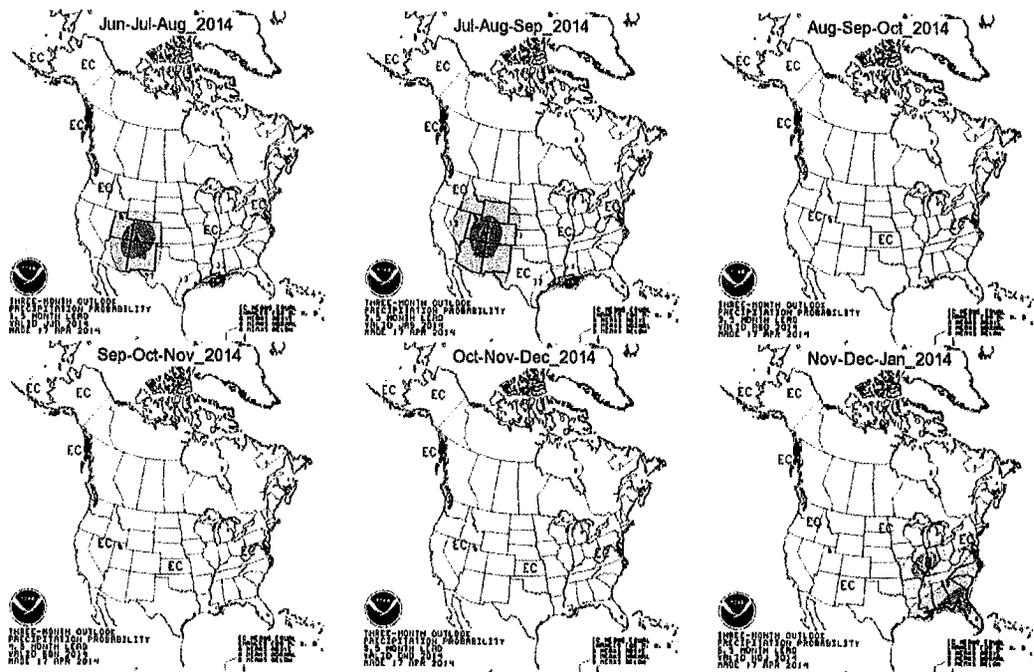
Figure 1.



The latest National Weather Service precipitation outlook calls for equal chances for above, below or near normal precipitation across most of Texas in the June-July-August, July-August-September and August-September-October periods.

However, a tendency for below normal precipitation is indicated for the coastal plains region. See Figure 2. (See <http://www.cpc.ncep.noaa.gov/products/predictions/90day/fxus05.html>, last visited Apr. 29, 2014.) Although the outlook does not specifically call for below normal precipitation across Central and South Texas during May and the summer months, climate signals are currently weak, so a persistence of recent drier than normal weather conditions seems most likely.

Figure 2.



7. El Niño. In the tropical Pacific, sea surface temperatures have become slightly warmer than normal across most of the area during the past month. The trade winds have reversed and are now blowing from the west which should help push additional warm water east over the next couple of months. With continued warming forecast, confidence is increasing the Pacific waters will reach the threshold for El Niño sometime in the mid to late summer. The National Weather Service has issued an El Niño Watch, indicating there is a greater than 50 percent chance an El Niño will develop within the next six months. El Niños often cause a pattern of above-normal rainfall across Texas, but this is mainly during the fall and winter months. Should an El Niño develop this summer as currently forecast, its effects likely won't be felt across Texas until sometime in the fall.
8. Weather Forecast. Based on a review of data and forecasts from the sources listed above, it is my opinion a pattern of somewhat drier than normal weather will continue across Central and South Texas late spring, continuing through summer. A significant drought pattern is entrenched across Texas and this pattern will be hard to break during the hot months of summer. Barring the effects from a

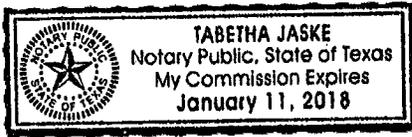
tropical cyclone, I expect a pattern of hotter than normal temperatures and below normal rainfall during the months of June through August. As a result, current drought conditions will likely persist and possibly intensify. Oceanic observations and computer-model forecasts do suggest a high probability for the development of an El Niño this summer but if it does develop, El Niño would not be expected to have a significant impact on Central Texas weather until September or October.

9. Further affiant sayeth not.

*Bob Rose*

BOB ROSE, AFFIANT

SWORN TO AND SUBSCRIBED before me on the 2<sup>nd</sup> day of May, 2014.



*Tabetha Jaske*

Notary Public in and for the State of Texas

My Commission Expires: 1-11-2018

**Attachment 6**  
**Supplemental Affidavit of**  
**David Wheelock**

APPLICATION OF THE  
LOWER COLORADO  
RIVER AUTHORITY FOR  
EXTENSION TO  
EMERGENCY AUTHORIZATION

§  
§  
§  
§  
§

BEFORE THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

**SUPPLEMENTAL AFFIDAVIT OF DAVID WHEELOCK**

THE STATE OF TEXAS

§  
§  
§

COUNTY OF TRAVIS

Before me, the undersigned authority, personally appeared David Wheelock, a person known by me to be competent and qualified in all respects to make this affidavit, who being by me first duly sworn, deposed as follows:

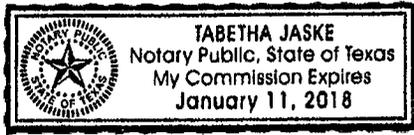
1. I am over 21 years of age, of sound mind, and have never been convicted of a felony or crime of moral turpitude. I am fully competent and qualified in all respects to make this affidavit.
2. The facts stated in this affidavit are within my personal knowledge and are true and correct.
3. I, David Wheelock, am an individual residing in Travis County, Texas.
4. I have previously provided an affidavit dated December 10, 2013 in this proceeding. This affidavit is intended to supplement that affidavit.
5. Based on the most recent lake levels and forecast, even with emergency drought relief in place, there is a chance of reaching conditions triggering a declaration of Drought Worse than Drought of Record as soon as June 2014 and a 38 percent chance by the end of October, 2014. (See Supplemental Affidavit of Ron Anderson dated May 2, 2014.)
6. In January 2014, LCRA obtained authorization to use its Gulf Coast water right on a temporary basis in 2014 to meet firm customer demands at diversion points downstream of Lady Bird Lake. As noted previously, these permits may reduce demands on lakes Buchanan and Travis, but they are not a substitute for the relief requested.
7. The emergency order issued in April 2014 partially suspending an instream flow requirement in the Water Management Plan is expected to result in reduced releases from lakes Buchanan and Travis for environmental flow needs in April and May of this year. However, it is not a substitute for the relief requested.

8. There continue to be no feasible alternatives to the relief requested by LCRA.

Further affiant sayeth not.

  
\_\_\_\_\_  
DAVID WHEELOCK, AFFIANT

SWORN TO AND SUBSCRIBED before me on the 5<sup>th</sup> day of  
May, 2014.



  
\_\_\_\_\_  
Notary Public in and for the State of Texas

My Commission Expires: 1-11-2018

# **ATTACHMENT B**

# TCEQ Interoffice Memorandum

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**To:** Commissioners

**Date:** May 22, 2014

**Thru:** Bridget Bohac, Chief Clerk  
Richard A. Hyde, P.E., Executive Director  
L'Oreal W. Stepney, P.E., Deputy Director, Office of Water  
Kellye Rila, Director, Water Availability Division

**From:** Kathy Alexander, Ph.D., Technical Specialist, Water Availability Division

## Background

On February 26, 2014, the Texas Commission on Environmental Quality (Commission or TCEQ) considered a request from the Lower Colorado River Authority (LCRA) for an emergency order to amend its Water Management Plan (WMP) under Texas Water Code §§ 5.501, 11.138, and 11.139, and the Governor's Emergency Disaster Proclamation relating to drought. The Commission's Emergency Order (EO), issued on February 27, 2014, expires on May 26, 2014. LCRA filed an application and brief for a 60 day extension of the February 27th EO on May 5, 2014. LCRA requests an extension of the February 27, 2014 EO until July 25, 2014.

The Commission may issue an EO under Texas Water Code (TWC) § 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 EO. The order may be issued for 120 days, and may be extended for 60 days. Many of the Findings of Fact made by the Commission in its February 27, 2014, EO are still true. Those will not be restated in this review. However, drought conditions continue to persist and worsen in the watershed contributing to Lakes Buchanan and Travis, which will be addressed in staff's review.

## Current Drought Conditions in the Colorado Basin

As of May 22, 2014, the combined storage of Lakes Buchanan and Travis was 711,768 AF or 35% of capacity. Severe drought conditions continue in the area, including record-low inflows to the Highland Lakes, dry conditions upstream of the Highland Lakes, and low rainfall. LCRA's application and supporting affidavits state that inflows to Lakes Buchanan and Travis are at record lows:

- Inflows in the first four months of 2014 (12,270, 9,489, 8,102, and 5,669 acre feet for January, February, March, and April, respectively) are the lowest in the

historical record for Lakes Buchanan and Travis for these four months, including the 1950's. (See LCRA's May 5, 2014 Application, Attachment 2)

- The flows for first four months of 2014 were only 10.3 percent of the historical average inflows for that four-month period. (See LCRA's May 5, 2014 Application, Attachment 2)
- As of May 1, 2014, the inflow deficit was 37 percent worse than the Drought of Record deficit reference (See LCRA's May 5, 2014 Application, Attachment 3)

Rainfall in 2014 has been below normal in the Colorado River Basin and rainfall in the Hill Country above Lakes Buchanan and Travis between January 1 and April 30 has been one of the lowest four month periods on record. (See LCRA's May 5, 2014 Application, Attachment 4) The National Weather Service's (NWS) three month lookout is for the drought to persist through July throughout the Texas Hill Country and to the west. The NWS issued an El Niño watch indicating that there is a greater than 50% chance an El Niño will develop within the next six months, which will cause a pattern of above-normal rainfall across Texas. If an El Niño develops this summer, its effects will not be felt across Texas until sometime in the fall or winter. (See LCRA's May 5, 2014 Application, Attachment 4)

The Climate Prediction Center (CPC) monthly and seasonal outlooks call for equal chances of above, near, or below median precipitation across the central and southern Great Plains during May – July. The CPC monthly and seasonal temperature outlooks call for enhanced odds for above-normal temperatures which could intensify drought conditions. LCRA's meteorologist, Bob Rose, expects a pattern of hotter than normal temperatures and below normal rainfall during June through August. (See LCRA's May 5, 2014 Application, Attachment 4)

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 May 9, 2014, and includes nearly all of the counties that contribute flows into or contain the Highland Lakes. These counties are in severe to extreme drought.

## **Review and Conclusion**

There is uncertainty as to what obligation LCRA may have to provide interruptible stored water. In May, rice crops that were started with groundwater could be switched to surface water. LCRA may receive requests for water for supplemental uses such as row crops and later, for wildlife management. During a curtailment year, those requests are only considered if water is available in the canal system. (See LCRA's May 5, 2014 Application, Attachment 2) If severe drought conditions continue, the criteria for declaration of a Drought Worse than the Drought of Record (DWDR) may be met as early as June, 2014. There is a 38% chance that a DWDR will be declared by the end of October 2014. (See LCRA's May 5, 2014 Application, Attachment 2)

Based on staff review of the Findings in the Commission's February 27, 2014 EO and LCRA's application and supporting affidavits, staff concludes that:

- Inflows to LCRA's Highland Lakes have been extremely low for the past few years and weather forecasts do not show significant improvement.
- Information from LCRA's application and supporting affidavits, as well as Findings in the Commission's February 27, 2014 EO show that the requirements of TWC § 11.139 continue to be met.
- Following the 2010 WMP with the ongoing drought and its effect on LCRA's water supply constitute an emergency that presents an imminent threat to the public health and safety. There are no practicable alternatives to this action.