Water Management Plan Update Process
Participant comments and information requests received between Sept. 22 and Oct. 18, 2025, and LCRA responses

Comments and information requests are summarized, followed by LCRA's responses. Written comments submitted during this period are included in their entirety at the end of this document.

Comment regarding Drought of Record, Drought Worse Than Drought of Record and Combined Firm Yield determination

CTWC expressed concern that the methodology, datasets and assumptions used in the Drought of Record, Drought Worse Than Drought of Record and Combined Firm Yield determinations contain flaws. CTWC believes the Drought of Record used in the WMP modeling is not severe enough, the Combined Firm Yield is overstated, and the modeled minimum combined storage is overstated.

LCRA's response:
LCRA will continue to use the Texas Commission on Environmental Quality framework for the WMP that includes a water availability model (WAM) for the Colorado River basin that uses naturalized flows (1940-2023) derived from historical gauged flows, adjusted for historical diversion, return flows and reservoir operations. The 2032 WMP will be designed to protect firm customers from pro rata curtailment through a modeled repeat of the 84-year period of record. Modifications to naturalized flows suggested by CTWC would result in hydrology that is worse than the historic Drought of Record. The WMP is designed with tests for identifying when a drought may be worse than the Drought of Record, and a minimum of 600,000 acre-feet of storage in lakes Buchanan and Travis is set aside to be available to continue to supply water to firm customers in the event of a drought worse than the Drought of Record.

Comments related to the allocation of interruptible stored water for agriculture and the environment

Agricultural interests (Lakeside irrigation stakeholders, Gulf Coast irrigation stakeholders, Matagorda County Farm Bureau and Rice Belt Warehouse) requested LCRA modify the initial approach for the 2032 WMP to: a) adjust the anytime cutoff trigger level from 1.1 million acre-feet to 1.0 million acre-feet, which is the trigger in the current 2020 WMP plan; b) reduce the Less Severe Drought entrance trigger level from 1.8 million acre-feet to 1.7 million acre-feet; and c) modify the minimum duration for "time since last full" necessary to enter Extraordinary Drought from 18 months to 16 months.

Wharton County Judge Phillip S. Spenrath expressed support for the recommendations from agricultural interests. He also commented on the shared benefit for the environment that is achieved by providing water for agriculture.

LCRA's response:
Modeling that addresses the requests from the agricultural interests will be presented at the Nov. 20 meeting.

Comments related to flood planning in the Colorado River basin

Wharton County Judge Phillip S. Spenrath commented if the Highland Lakes are near full, it can put downstream communities at risk. He asked about modeling of major flood events when the combined storage is at or near 1.8 million acre-feet. He further states that water supply planning and flood planning should not be separated.

LCRA's response:
Flood planning modeling assumes lakes Buchanan and Travis are at full water supply storage levels (combined storage at 2.0 million acre-feet) prior to a flood event. Lake Travis includes a flood pool of about 776,000 acre-feet above its conservation pool (681 feet above mean sea level). Flood operations at Mansfield Dam are performed in accordance with Army Corps of Engineers protocols. The protocols specify flood releases at various levels with consideration for downstream flow conditions when Lake Travis is in the flood pool.

Water Management Plan Update Process
Participant comments received between Sept. 22 and Oct. 18, 2025

Comments received from:

- Central Texas Water Coalition
- Phillip Spenrath, Wharton County Judge, on behalf of the Lower Colorado River Basin Coalition
- Tim Gertson on behalf of Lakeside irrigation stakeholders, Gulf Coast irrigation stakeholders, Matagorda County Farm Bureau and Rice Belt Warehouse

Central Texas Water Coalition
PO Box 328
Spicewood, TX 78669]

October 17, 2025

<u>VIA EMAIL TO: LCRAWMP@lcra.org</u>

Mr. John Hofmann
Executive Vice President of Water
Lower Colorado River Authority
P.O. Box 220
Austin, Texas 78767

Re: Additional Comments on Topics Discussed during 2025 Water Management Plan Update Meetings

Dear Mr. Hofmann and LCRA Staff:

Thank you, on behalf of the Central Texas Water Coalition (CTWC), for accepting, considering, and responding to the following comments and supporting technical documents relating to the topics discussed at the latest Water Management Plan (WMP) participant meeting. More specifically, the September 23, 2025 meeting focused on the important topics of Drought of Record (DOR) and Drought Worse than the Drought of Record (DWDR), as well as the Combined Firm Yield (CFY) of Lakes Buchanan and Travis. As indicated in CTWC's prior comments, we remain concerned that the methodology, datasets, and assumptions used in the DOR/DWDR and CFY determinations contain flaws. These flaws result in the choice of a DOR (2008-2015) that is not be severe enough to reflect historical observations and current watershed conditions. Further, the use of a DOR that does not capture the severity of historic rainfall in conjunction with observed declines in watershed productivity leads to the calculation of a Combined Firm Yield that is overstated. CTWC also believes the WMP-modeled minimum combined storage is also overstated (for both the 2020 WMP and proposed 2032 WMP modeling). The explanations for these concerns are set forth in the attached document. We believe these concerns are sufficient to warrant further investigation by LCRA to ensure the region is protected against the most severe observed drought of record.

Again, thank you for the interactive process that LCRA has offered to interested parties. CTWC would be happy to discuss these comments in more detail at your convenience. Please let me know if there are any questions or if we can be of assistance in any way.

Sincerely,

Shannon Hamilton	Dave Stauch	Dave Lindsay	Jordan Furnans
Executive Director, CTWC	President, CTWC	VP, CTWC	LRE Water PhD, PE, PG

Attachment

CTWC Comments, Recommendation, and Analyses

Based on comprehensive recent research, CTWC believes the real drought of record in the Lower Colorado River Basin is the period 1945-1957. This period of extremely low rainfall, coupled with current watershed conditions, would result in lower inflows into the Highland Lakes than those which actually occurred in the past.

CTWC believes the use of raw historical naturalized flows overstates water availability in the basin, based on the current conditions of the watershed. The watershed typically produces lower runoff and streamflow quantities now than it has done historically, even during and after similar rain events. This is due, in part, to the prevalence of small ponds within the watershed.

The current watershed will not produce the same amount of inflows as it had historically for a given rainfall event. As such, existing naturalized flow data require adjustments to reflect current watershed conditions. CTWC has developed a methodology for making these adjustments to the historical naturalized flow data, and our methodology is included herein.

CTWC's research shows that the rainfall occurring in the 1945-1957 period would result in **a lower firm yield** for the Highland Lakes under current watershed conditions. This would result in **combined storage dropping below the 600,000 acre-foot threshold** set by LCRA as a minimum target from the 2032 Water Management Plan (WMP) modeling and from the 2020 WMP that is currently in place. Our detailed research is provided in the following discussion. Our revised Water Availability Model (WAM) simulates the reduced productivity of the current watersheds draining to the Highland Lakes. Our WAM results indicate the following:

- Firm Yield — 347,563 acre-feet/year
- 2032 WMP Modeling, Minimum Combined Storage: — 525,828 acre-feet
- 2020 WMP Modeling, Minimum Combined Storage: — 519,307 acre-feet

In each simulation, the lowest combined storage occurred in modeled year 1952, indicating that the **1945-1957 drought period should be considered the drought of record for the basin**, based on its low rainfall rates and current watershed conditions.

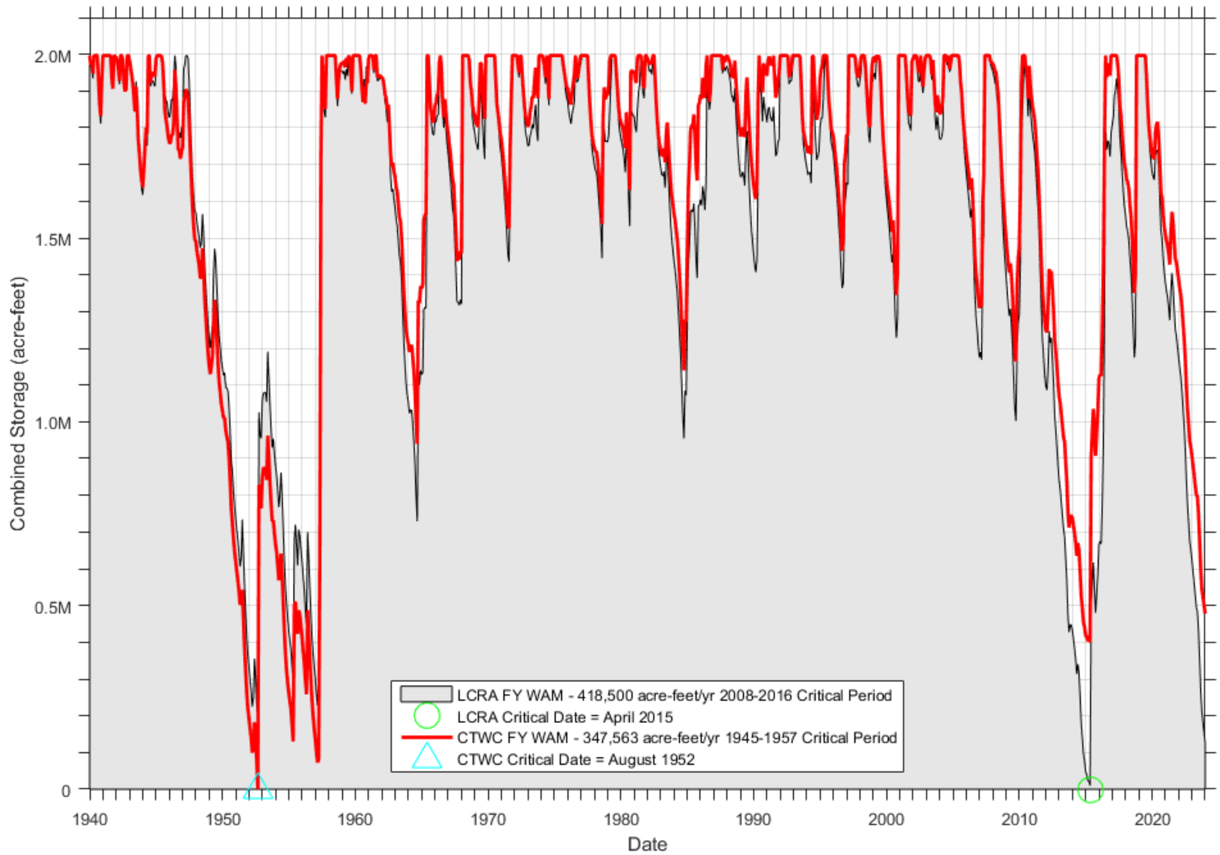

*Figure 1 – WAM-modeled combined storage of Lakes Buchanan and Travis from the LCRA **Firm Yield** WAM (2020 Version), and from the CTWC **Firm Yield** WAM with modified naturalized flows for 1940-1961. Source: LRE Water*

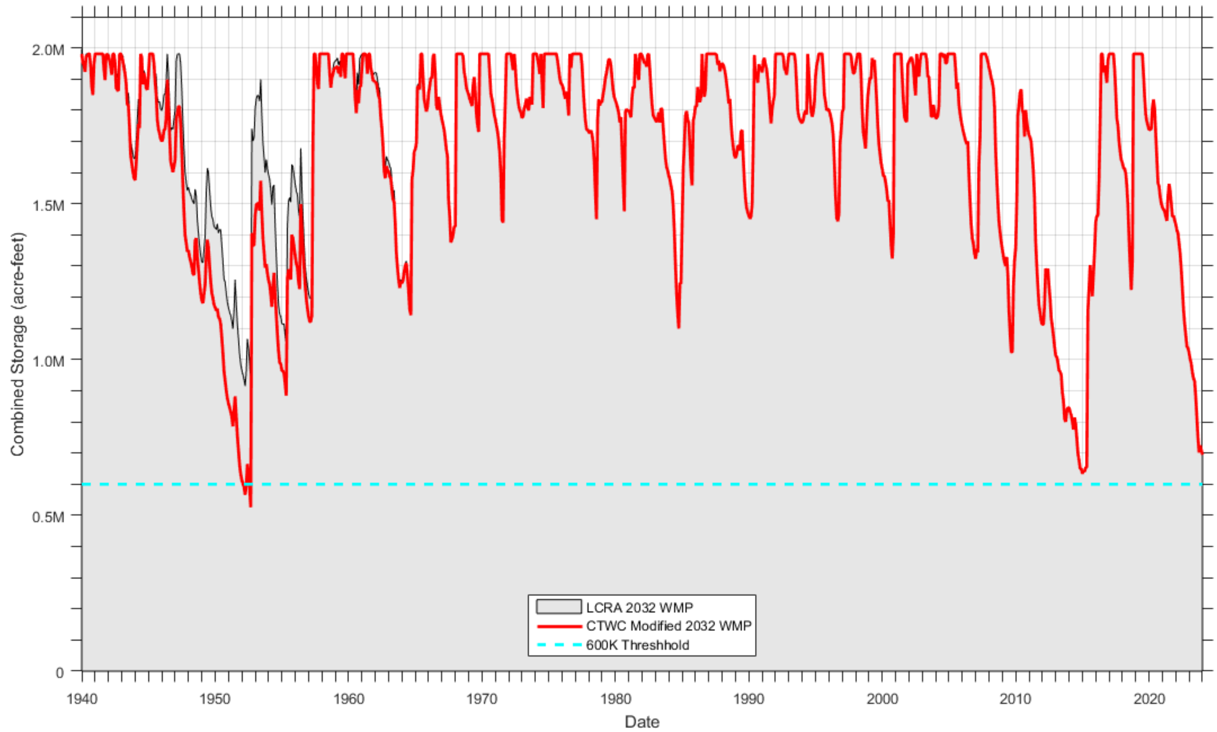

Figure 2 – WAM-modeled combined storage of Lakes Buchanan and Travis from the LCRA 2032 ***WMP*** *model, and from the CTWC* ***WMP*** *Model with modified naturalized flows for 1940-1961. Source: LRE Water*

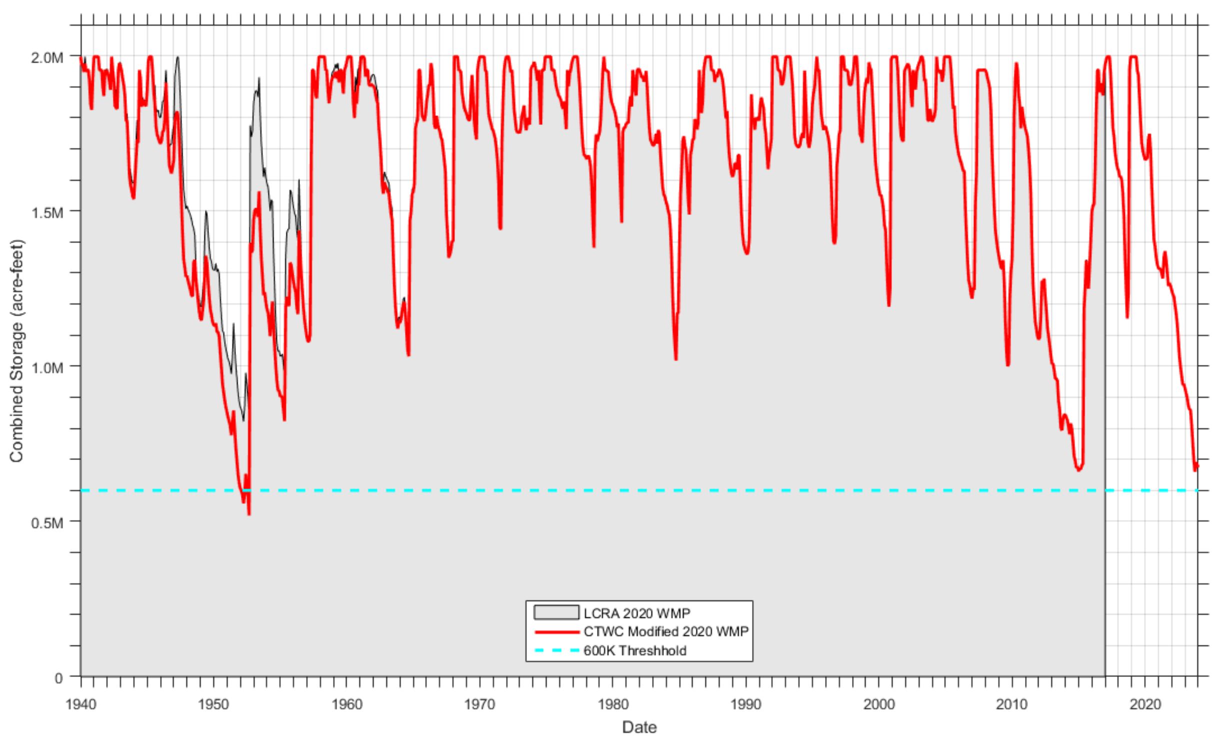

Figure 3 – WAM-modeled combined storage of Lakes Buchanan and Travis from the LCRA 2020 ***WMP*** *model, and from the CTWC* ***WMP*** *Model with modified naturalized flows for 1940-1961. Source: LRE Water*

CTWC believes the LCRA's proposed firm yield based upon WMP modeling does not accurately reflect conditions in the current watershed, and that **the basin is not adequately protected** against historically low rainfall quantities similar to those experienced in the 1945-1957 period. This introduces grave concerns particularly considering LCRA's statement in their previous response and its apparent lack of commitment for working to ensure water availability for the upper region.

The current WAM WMP modeling leads to results that cause curtailment of firm customers, and possibly the loss of water supply to firm customers.

RECOMMENDATION: CTWC would ask and recommend that when LCRA models for the WMP and the firm yield, LCRA should also base the naturalized flows on historical rainfall and the condition of the watershed, not just on historical gauge data. This should take into account how changes in the watershed have reduced watershed productivity. Until this is achieved, CTWC recommends instituting more protective measures within the WMP to keep combined storage at higher levels, and should discontinue sales of additional firm water contracts regardless of any additional supply from the Arbuckle Reservoir.

CTWC Capture Rate Analysis Methodology– Highland Lakes Watershed

CTWC defines the "Capture Rate" of a watershed as the percentage of rainfall that is converted into streamflow leaving the watershed. Mathematically, the capture rate is calculated as:

$$Capture\ Rate\ (\%) = \frac{Streamflow\ Volume}{Rainfall\ Volume}$$

CTWC has computed capture rates for the Highland Lakes watershed using a variety of datasets, including both the naturalized flows dataset (at the outlet of Lake Travis) and the inflows dataset LCRA uses for daily operations of the Highland Lakes. CTWC has also used rainfall data from both the PRISM dataset and from the TWDB quadrangle dataset with respect to the Highland Lakes watershed. Annual capture rates are provided in Figure 4, using TWDB Quadrangle precipitation data (when available) and naturalized flows data (when available).

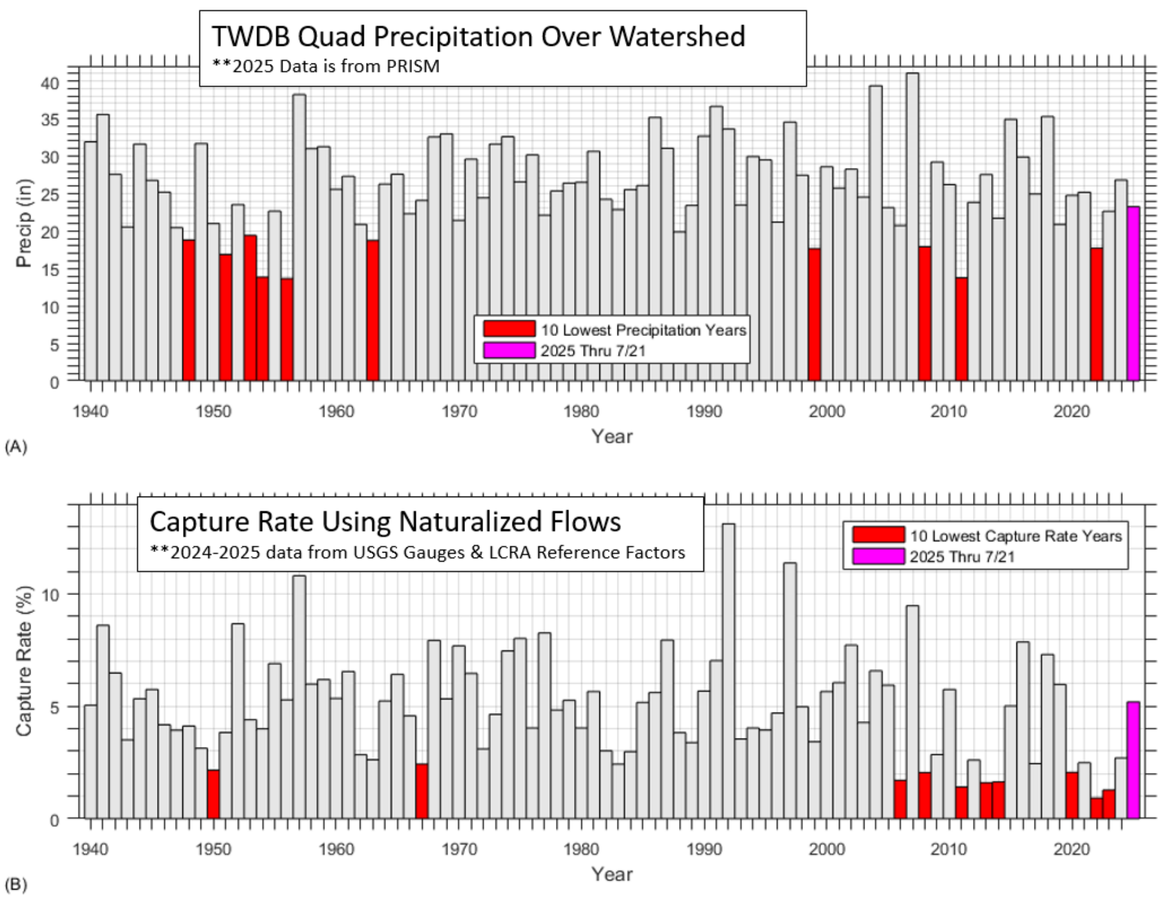

Figure 4 – TWDB Quadrangle Precipitation totals and capture rates calculated using naturalized flow data. Source: LRE Water

As shown in Figure 4, 5 of the years with the lowest rainfall occurred in the 1945-1957 drought period, whereas 8 of the 10 lowest capture rates were computed during the 2006-Present period. This observation suggests that the ability of the watershed to produce runoff from given storm events is diminished when compared to earlier times in the period of record. It is therefore reasonable to question how much inflow to the Highland Lakes would be received under current watershed conditions combined with the historical rainfall pattern from 1945-1957.

CTWC WAM ANALYSIS METHODOLOGY

The following section details CTWC's methodology for modifying LCRA's naturalized flows dataset so as to simulate the effects of observed decreases in watershed productivity to streamflow assessments expected based on historical rainfall patterns. Inherent in this methodology is the concept that watershed productivity may be measured by "capture rates" in wet, average, and dry years, with the capture rate defined as:

$$Capture\ Rate\ (\%) = \frac{Streamflow\ Volume}{Rainfall\ Volume}$$

Figure 5 presents a map of the watershed of the Highland Lakes, defined with its outlet at Mansfield Dam on Lake Travis, and its upstream Boundary as the dam at OH Ivie Reservoir. Subwatersheds were defined based on the location of WAM primary control points, for which LCRA has calculated naturalized flows as included in the WAM "*.FLO" input file. Watersheds were roughly determined based on HUC boundaries and manual observations of drainage patterns implicit within the NHD flowline GIS dataset. This analysis included the subwatershed containing Lake Brownwood.

Capture rates for each subwatershed were determined using the original naturalized flows data for each control point, and the rainfall on the subwatershed as determined from the PRISM dataset. Prior CTWC research has shown the PRISM dataset compares well to the more-coarsely defined TWDB rainfall dataset (based on quadrangles). For subwatersheds which are downstream of other subwatersheds, the incremental naturalized flow was used in computing the capture ratio. For example, the watershed defined by control point E30000 is downstream of the watershed defined by control point E40000 (Figure 5). Thus, for the subwatershed draining through control point E30000, the incremental naturalized flows are calculated as the monthly difference between flows at point E30000 and point E40000. This ensures that the capture rate reflects only the increase in streamflow resulting from precipitation on the subwatershed.

Capture rates were calculated on both monthly and annual timesteps. Annual rainfall volumes of each subwatershed were used to classify each year as being either a "Wet," "Average," or "Dry" year. "Wet" years were years (out of the 84-year period of record) where rainfall equaled or exceeded the 75^{th} percentile. "Dry" years were years where rainfall equaled or was less than the 25^{th} percentile. "Average" years were years where rainfall exceeded the 25^{th} percentile but was less than the 75^{th} percentile. Median capture rates for "Wet," "Average," or "Dry" years were determined for the four equal 21-year periods of the entire period of record, specifically as:

- Period #1   1940-1960 – including the 1950's drought period
- Period #2   1961-1981
- Period #3   1982-2002
- Period #4   2003-2023 – including the currently defined DoR

The naturalized flow "Adjustment Rate" was then calculated from the "Wet," "Average," or "Dry" year median capture rates as follows:

$$Adjustment\ Rate\ (\%) = \frac{Period\ \#4\ Median\ Capture\ Rate}{Period\ \#1\ Median\ Capture\ Rate}$$

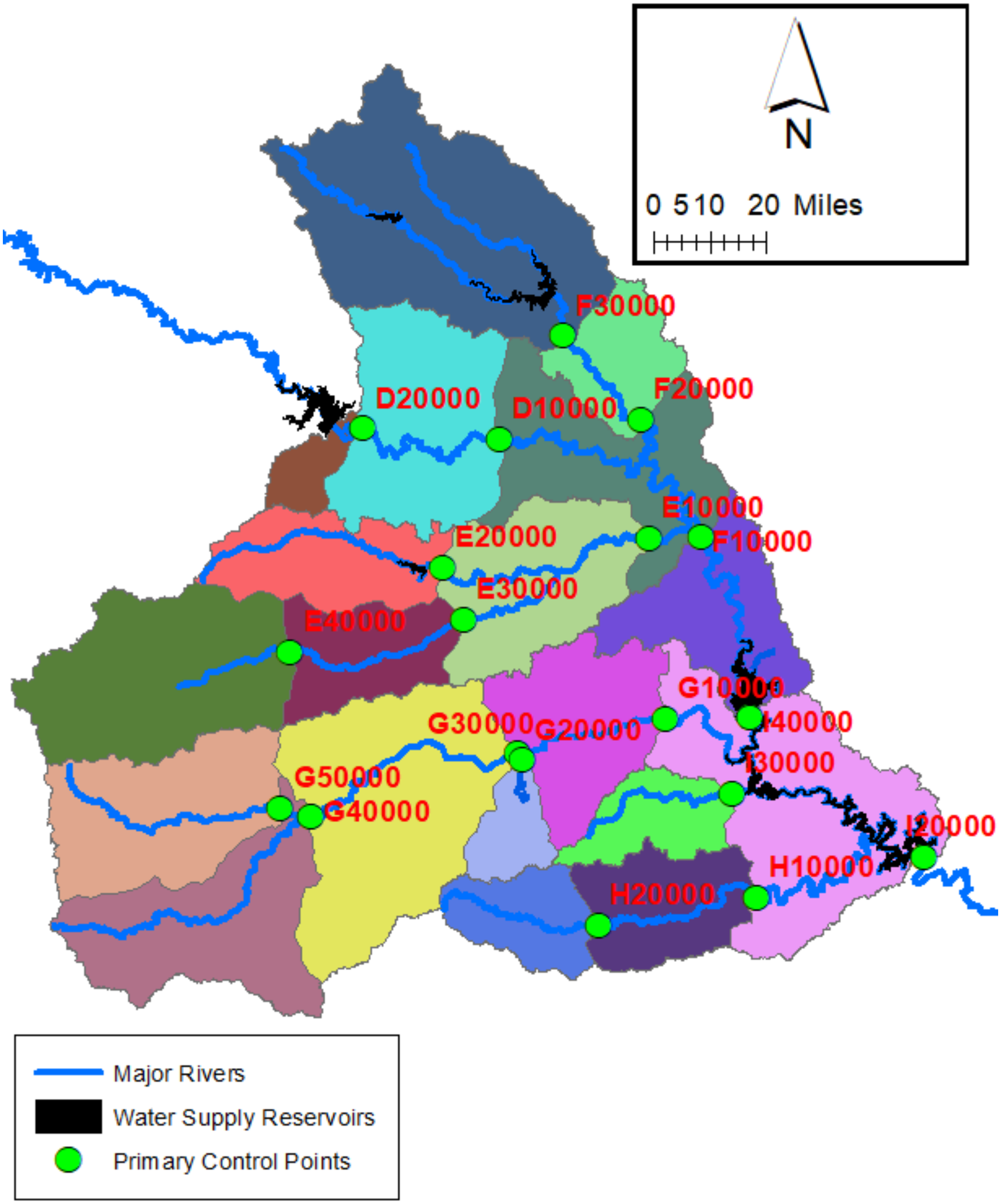

Figure 5 – Watershed & Subwatershed map of the Highland Lakes, showing subwatersheds defined at primary WAM control point locations. Control Point IDs are denoted in Red. Source: LRE Water

Adjustment rates were limited to values ranging from 0% to 100%, such that historical naturalized flows would not be adjusted upwards.

New naturalized flows data were calculated by multiplying the original naturalized flows (or incremental naturalized flows) by the appropriate subwatershed-specific adjustment rate using the total annual precipitation in a given year to determine which rate ("Wet," "Average," or "Dry") would apply. Adjustment Rates were equal for all 12-months of the subject year, yet for any month in which the computed capture rate equaled or exceeded 10%, the original naturalized flow (or incremental naturalized flow) data were not altered. The 10% threshold rate was selected to ensure runoff from high rainfall events remained unaltered. Adjustment rates were only applied to naturalized flow data corresponding to months within the time period of 1940 to 1960.

Adjusted incremental flows were summed in the downstream direction according to the LCRA-defined control point network. Flows were propagated downstream from Mansfield Dam to the Gulf of Mexico, and flows at or upstream of OH Ivie Reservoir were not altered.

Assessment of Historical Hydrology & Watershed Conditions

The hydrologic cycle describes the movement of water through the natural environment, from rainfall to runoff, aquifer infiltration, and streamflow into lakes. Anything that disrupts the process of rainfall being translated into lake inflows will have an adverse impact on lake levels and water availability. One such factor contributing to reduced inflows is the recent proliferation of small ponds throughout the watershed, which capture surface runoff and limit runoff volumes into the Highland Lakes.

It is noted that the effects of small ponds are incorporated into the observed gauge flow records used in calculating the naturalized flows used in WAMs, yet only for the years in which each pond existed. What is not captured in the naturalized flow process, however, is the impact currently existing ponds would have had on historical naturalized flows had the ponds been in place during all years of the modeled period of record.

CTWC believes that historical naturalized flows must be adjusted downward to reflect the fact that the current watershed will not produce as much lake inflow as produced historically, due to the existence of the thousands of small ponds (for given rainfall events).

For example, consider a hypothetical subwatershed that receives 10 acre-feet of rain and produces 1 acre-foot of runoff into a lake as a result. If there were a small pond created on the subwatershed that could store 1 acre-foot of water, then the entirety of runoff produced from the 10 acre-feet rain event would be captured in the pond, and would not become inflows to the lake. In this instance, the lake would receive inflows only from more intense or more frequent storms, as inflows would only be generated after the small pond is filled. For the period in-between rainfall events, evaporative losses from the pond would lower water levels, providing additional "storage space" that would need to be filled during the next rainfall event in order to generate runoff. In this example, a 10 acre-feet rainfall event will no longer produce the runoff it used to produce due to watershed changes.

This above example is analogous to the situation in the Colorado River Basin, except that over 40,000 small ponds have been created in the watershed. Each of these ponds will capture rainfall and surface runoff that would otherwise flow downgradient and into the Highland Lakes had the ponds not been in existence. As over 40,000 ponds currently exist in the watershed, and the vast majority of those ponds did not exist in the 1945-1957 period, it is extremely likely that the rainfall received over that period, if it were to re-occur now, would result in lower inflows to the lakes now than those that historically occurred. To account for this, CTWC has adjusted historical naturalized flows downward to reflect the impacts of small ponds.

<u>Analysis Improvements Based on LCRA Comments & Discussion</u>

- Eliminated naturalized flows reductions for months with capture rates > 10%
  - This indicates a month with likely high runoff, which is likely to fill existing ponds and not significantly diminish inflows
  - This eliminated flow reductions in the September 1952 flood period, which still largely refills Lake Travis.
- Improved naturalized flow tracking through the watershed
  - Applied capture rate technique to each of the 19 primary control point subwatersheds, considering only the intermittent flows from each subwatershed.
  - Tracking & accumulating the intermittent flows downstream through the entire basin to the Gulf of Mexico
  - Applying different capture rates by year and subwatershed so that spatial heterogeneity in rainfall and inflow timing is considered and maintained.
- Using naturalized flows in calculating capture rates
  - Accounts for diversions and large impoundment influence on streamflow

Adjustment factors for each control point/subwatershed by year, for the years of 1940-1960 are available upon request. The table below provides the adjustment factors by control point for 1952

Table 1 – Adjustment factors by control point and month for the WAM modeled year 1952. Source: LRE Water

Control Point	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
IND10000	0.2	0.2	0.2	0.2	0.2	1	0.2	0.2	0.2	1	0.2	0.2
IND20000	1	1	1	1	1	1	1	1	1	1	1	1
INE10000	1	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	1	0.56	0.56
INE20000	0.64	0.64	0.64	1	1	1	0.64	1	0.64	1	0.64	0.64
INE30000	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	1	0.11	0.11
INE40000	1	1	1	1	1	1	1	1	1	1	1	1
INF10000	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	1	0.64	0.64
INF20000	1	0.1	0.1	0.1	1	1	0.1	0.1	1	1	1	1
INF30000	0.34	0.34	0.34	0.34	0.34	1	0.34	1	0.34	1	0.34	0.34
ING10000	1	1	1	1	1	1	1	1	1	1	1	1
ING20000	1	1	1	1	1	1	1	1	1	1	1	1
ING30000	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	1	1	0.42	0.42
ING40000	1	1	1	1	1	1	1	1	1	1	1	1
INH10000	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	1	1	0.74	1
INH20000	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	1	1	0.67	0.67
INI20000	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	1	1	0.63	0.63
INI30000	1	1	1	1	1	1	1	1	1	1	1	1
INI40000	1	1	0.42	1	1	0.42	0.42	0.42	1	1	0.42	1

Rainfall Data – Usage of PRISM vs. TWDB Quadrangle Data

PRISM rainfall data is available on a 4km by 4 km grid scale for the entire conterminous United States. Daily rainfall data is available from 1/1/1981 onward, and monthly data is available from January 1895 thru Present. Rainfall data from the TWDB is currently available only monthly from 1940 through June 2025, available only as average values over 1-degree latitude by 1-degree longitude quadrangles. Given the coarse quadrangle resolution, the TWDB data does not provide sufficient resolution to provide accurate rainfall assessments on smaller scale watershed or subwatershed features. It is also not possible, due to the TWDB data being available only monthly, to observe daily variations in rainfall and runoff responses, as is possible with PRISM.

As shown in Figure 6, the rainfall totals computed for the entire Highland Lakes watershed based on PRISM data are generally higher, but not always higher, than the totals computed from the TWDB Quadrangle data. To make this comparison, TWDB quadrangle data was used to compute watershed rainfall totals by performing an area-weighted summation. Specifically, as the Highland Lakes watershed spans across multiple quadrangles, the portion of the watershed within each quadrangle was determined. This portion was then multiplied by the rainfall from that quadrangle, and then the totals summed for all quadrangles spanning the Highland Lakes watershed, in order to compute a total rainfall over the watershed. Within the PRISM dataset, rainfall totals were calculated based on the 4km by 4 km gridcells for which the gridcell centers were contained within the Highland Lakes watershed. The PRISM-generated rainfall totals are generally larger, because the TWDB quadrangle data will be influenced by the generally low rainfall amounts which occur more to the west of the watershed, and therefore western quadrangle averages are not likely to accurately reflect rainfall totals on the western side of the watershed.

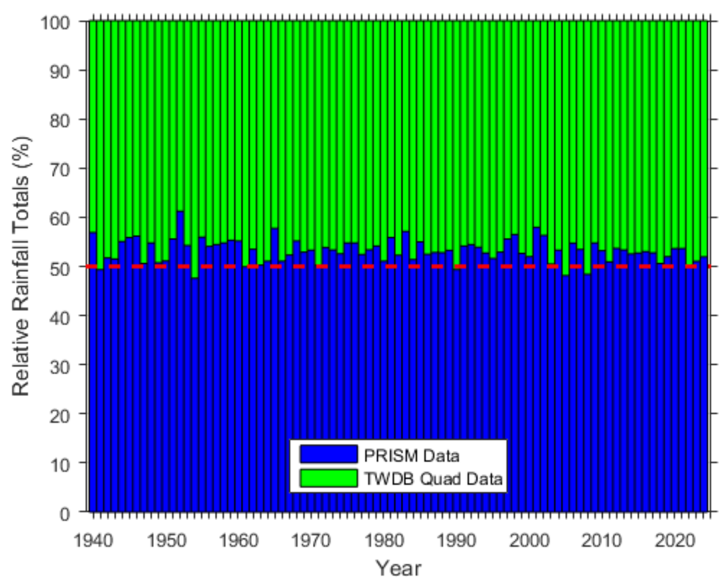

Figure 6 – Comparison of PRISM & TWDB Quadrangle Rainfall Data aggregated over the entire Highland Lakes Watershed, normalized by the annual total rainfall. Source: LRE Water

CTWC believes the PRISM rainfall data is more accurate than the TWDB rainfall data, and believes that its greater temporal resolution and period of record provide more opportunities to better understand the changing rainfall patterns within the Colorado Basin over both time and horizontal space.

PHILLIP S. SPENRATH
Wharton County Judge
309 E. Milam Street, Suite 600
Wharton, Texas 77488
Office: (979)532-4612 Fax: (979)532-1970

Joyce Ferrell
Administrative Assistant

Rosemary Rodriguez
Court Coordinator

October 17, 2025

LCRA Board of Directors and Staff
Lower Colorado River Authority
3700 Lake Austin Blvd.
Austin, TX 78703

Re: Comments on Draft 2032 Water Management Plan

Dear Board Members and Staff,

As County Judge of Wharton County, I want to thank you for the time and effort that's gone into developing the 2032 Water Management Plan. We know this is a complex and challenging process, and we appreciate the data, modeling, and communication LCRA staff has provided throughout.

Overall, the plan has functioned as intended, and we understand the need to adapt it to meet growing firm water demands. That said, recent events—especially the July 2025 flood in the Hill Country—have raised serious concerns in the lower basin.

That flood added over a million acre-feet of runoff into the system in a very short time. With the lakes already near full storage and no water releases for agriculture happening, the system had very little flexibility to absorb it. That scenario puts downstream communities at risk, and it's something we believe should be looked at more closely in this plan.

Here are a few key points we'd ask the LCRA to consider:

1. **Modeling for major flood events** – What happens if we see another large-scale storm when lakes are already at or near 1.8 million acre-feet and no operational releases are taking place? Has LCRA run those scenarios, especially with today's more intense weather patterns?
2. **Possibility of pre-storm drawdowns** – Are there ways to make controlled releases ahead of forecasted storms, especially during the wet season or hurricane months?
3. **Recognizing the role of downstream agriculture and wetlands** – These areas don't just grow crops—they help absorb floodwaters and support river and bay health. When they don't receive water, we lose more than just a harvest.

We also support the technical recommendations submitted by lower basin agriculture representatives. The proposed changes to drought triggers and cutoffs don't impact firm water supplies and would give some flexibility to support downstream users. Agriculture has taken the brunt of curtailments under previous plans, and these revisions still keep that burden squarely on agriculture.

Flood protection and water supply planning shouldn't be treated as separate goals. We believe they go hand-in-hand. This next version of the WMP is a good opportunity to make sure both are being addressed in a balanced way.

Thanks again for your work and for including all stakeholders in this process.

Sincerely,

Phillip Spenrath

Phillip Spenrath
County Judge, Wharton County

LCRA Staff,

The stakeholders represented by this letter greatly appreciate the effort LCRA staff has put into the data preparation and modeling for the 2032 WMP. We appreciate the patience shown over the many past months of presenting data and answering questions from all stakeholder groups. We are all privileged to be a part of the process of planning for the beneficial uses of water for future generations of Texans.

We understand that changes in the previous WMP are necessary in order to accommodate the increase in firm demand. We would like to remind our fellow stakeholders and LCRA staff that although the Drought Contigency Plan (DCP) is not included in the model, it does result in very real water savings that are not accounted for. These savings, if modeled, would keep minimum combined storage far above 600,000 ac-ft mimimum.

There is no doubt that irrigated agriculture stakeholders have carried nearly the entire burden of reductions and curtailments in all the WMPs, including the proposed 2032 plan. During planning for previous WMPs we have worked together and compromised with other stakeholders in making small changes that helped with the reliability of irrigation operations without impacting firm water customers. **We are offering three proposed changes to the LCRA staff's proposed 2032 WMP. These changes stay within the TCEQ mandated framework and have no negative effect on firm water supply. They serve to help LCRA preserve irreplaceable rice field wetlands habitat and meet the authority's statutory obligation to provide irrigation water downstream**.

1) **Move the anytime cut-off trigger level from 1.1 million ac-ft back down to 1.0 million ac-ft, where it is in the current 2020 WMP plan.**
LCRA staff previously modeled this and showed no impact to combined storage. This trigger level never actually activates in the model and moving it to 1.1 million ac-ft does not accomplish any measurable effect to storage or supply.

2) **Reduce the Less Severe Drought entrance trigger level from 1.8 million ac-ft to 1.7 million ac-ft.**
LCRA staff, at the August WMP meeting, presented model results using a 1.725 million ac-ft trigger (we previously asked for 1.7 million ac-ft to be modeled, which shouldn't change the results). There was no impact on minimum combined storage, and one partial curtailment year was changed to a full cut off year. The only impact of this change is on the irrigated agriculture stakeholders. This particular consequence of a trade between curtailment and cutoff in the model is one we are willing to accept.

3) **Reduce entering Extraordinary Drought "time since last full" combined storage trigger duration from 18 months to 16 months.**
This change is offered for the direct benefit of increasing the minimum combined storage level in the 2009 model year. This should effectively cut off water in the WAM in model year 2009, which will have a positive impact on minimum combined storage. This would result in the majority of years during the Drought of Record to be full cut offs to agriculture. The negative impact of this change is only felt by agriculture. This is a selfless consideration being offered by the irrigation stakeholders and we ask that it only be contemplated when combined with the aforementioned changes.

We appreciate LCRA staff's attention to our requests and look forward to further discussion and adoption of a WMP that allows for the continued beneficial use of Colorado river water for irrigated crop production and wildlife habitat while providing for firm water needs.

Stakeholder groups: Lakeside Irrigation Stakeholders, Gulf Coast Irrigation Stakeholders, Matagorda County Farm Bureau, and Rice Belt Warehouse