

# Water Management Plan Update

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Participant Meeting  
Nov. 20, 2025



# Agenda

- **Comments received since mid-August**
- **Summaries of additional modeling requests**
- **Revised approach**
- **2032 WMP model results summary**
- **Staff recommendation**
- **Timeline**
- **Discussion and questions**



# Response to Comments

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# **Individual Meetings Since Aug. 26**

- **Agricultural interests**
- **City of Austin**
- **Highland Lakes Firm Water Customer Cooperative**
- **CTWC**
- **Environmental interests**

# Written Comments Received Since Aug. 15

- From:
  - City of Austin
  - City of Lakeway
  - City of Lago Vista residents
  - CTWC and individual CTWC member
  - Highland Lakes Firm Water Customer Cooperative

***\*\*Full comments available on LCRA.org***

# Written Comments Received Since Aug. 15 (continued)

- From:
  - Irrigation interests from Gulf Coast and Lakeside divisions, Matagorda County Farm Bureau, Rice Belt Warehouse
  - Lago Vista City Council Member Roberts
  - National Wildlife Federation
  - Texas Parks and Wildlife Department
  - Wharton County Judge Phillip Spenrath

***\*\*Full comments available on LCRA.org***

# Comments Received – Interruptible Agricultural Supply

- **Agricultural interests and Judge Spenrath proposed:**
  - Less Severe Drought low inflow trigger of 1.7 million acre-feet
    - (2020 WMP uses 1.5 million acre-feet; initial approach used 1.8 million acre-feet)
  - Anytime cutoff of 1.0 million acre-feet
    - (2020 WMP uses 1.0 million acre-feet; initial approach used 1.1 million acre-feet)
  - Modification to allow for entering Extraordinary Drought after 16 months or more
    - (2020 WMP and initial approach used 18 months)

# Comments Received – Interruptible Agricultural Supply (cont'd)

- **City of Austin and the Highland Lakes Firm Water Customer Cooperative:**
  - Support Less Severe Drought trigger at 1.8 million acre-feet, and the Anytime Cutoff at 1.1 million acre-feet
- **CTWC, Lago Vista City Council Member Roberts and individual commenters:**
  - Suggest LCRA reduce interruptible agricultural releases by an additional 25% and count conveyance losses and "ordered but not diverted" volumes toward allowable releases

# Comments Received – Interruptible Agricultural Supply (cont'd)

- **LCRA response:**

- To meet requirements of the TCEQ framework, the LCRA initial approach:
  - Reduced the 2020 WMP first crop maximum interruptible stored water allocation for irrigation by about 30%, from 178,000 to 125,000 acre-feet
  - Increased the storage level and inflow levels at which Less Severe Drought, Extraordinary Drought and Anytime Cutoff would be engaged
- Conveyance losses and “ordered but not diverted” volumes will be included in the release limit from Mansfield Dam for this WMP update and will be reduced by about 30%
- Staff does not recommend a further 25% reduction in the maximum first agricultural season allocation to about 94,000 acre-feet

**\*\*Staff today will present a revised approach that includes modifications to triggers for agricultural curtailment.**

# **Comments Received – Allocation of Interruptible Stored Water for the Environment**

- **CTWC, Lago Vista City Council Member Roberts and individual commenters:**
  - Suggest a reduction in releases to Matagorda Bay to 25% of storable inflows when the prior three-month inflows are below the 33rd percentile
- **LCRA response:**
  - The LCRA initial approach meets the requirements of the TCEQ framework, so additional reductions in releases for Matagorda Bay do not appear necessary

# Comments Received – Minimum Storage

- **Comments from City of Austin, Highland Lakes Firm Water Customer Cooperative, CTWC, City of Lakeway, Lago Vista City Council Member Roberts and individual commenters include:**
  - Suggestions for higher modeled minimum combined storage of lakes Buchanan and Travis, with some commenters specifically suggesting 675,000 acre-feet
  - CTWC asked how firm water customers are protected if modeled minimum storage is not increased to 675,000 acre-feet
  - Suggestions to not include Drought Contingency Plan savings in the model
  - Concerns related to impacts to intakes on Lake Travis

# Comments Received – Minimum Storage (cont'd)

- **LCRA response:**
  - LCRA will continue to use the 600,000-acre-foot minimum modeled storage volume that protects firm customers from pro rata curtailment in a repeat of historic hydrology, including the Drought of Record
  - The modeling will continue to not assume any firm water customer Drought Contingency Plan savings
  - LCRA makes water available from the Highland Lakes but does not guarantee any specific lake levels

# Comments Received – Model Hydrology

- **CTWC:**

- Suggests WMP and Firm Yield modeling be based on historical rainfall and watershed conditions, not just historical gauge data
- Suggests discontinuing new firm water contracts – regardless of additional supply from Arbuckle Reservoir – until alternative watershed productivity approach is evaluated

- **LCRA response:**

- LCRA will continue to use the TCEQ framework based on naturalized flows derived from historical gauge flows
- LCRA will continue to manage firm water supplies against its firm inventory based upon naturalized flows and historic hydrology

# Comments Received – Include Flood Management in the WMP Process

- **Judge Spenrath:**
  - Recommends assessing reservoir flood management based on higher agricultural curtailment triggers and making controlled releases in advance of forecasted storms
- **LCRA response:**
  - Flood planning modeling assumes lakes Buchanan and Travis are at full water supply storage levels prior to a flood event
  - Lake Travis flood operations are performed in accordance with Army Corps of Engineers regulations and protocols. These protocols determine how much water LCRA can release, depending on how much water is in the Lake Travis flood pool and downstream conditions

# Comments Received – Schedule for WMP Updates

- **CTWC, City of Lakeway, Lago Vista City Council Member Roberts and individual commenters:**
  - Request that LCRA update the WMP every four years
- **LCRA response:**
  - As was the case for the 2020 WMP, LCRA will work with TCEQ to develop criteria for initiating the next planning process. The expected criteria would again include triggers based on water use as well as a specific date for the update process to begin

# Comments Received – Subsistence Terminology

- **National Wildlife Federation:**
  - Request that LCRA change the term “special subsistence”
- **LCRA response:**
  - LCRA will revisit the terminology

# Comments Received – Environmental Flows during Pro Rata Curtailment

- **National Wildlife Federation, Tx Parks and Wildlife Department:**
  - Suggested flexibility across and within months when providing a set amount of water for environmental flows during pro-rata curtailment. This would not increase the total quantity of water provided for environmental flows.
- **LCRA response:**
  - LCRA will incorporate the suggestion

# Comments Received – Instream Flow and Bay Criteria

- **Texas Parks and Wildlife Department**
  - Concerned with reduced flow obligation at the Columbus gage
  - Concerned with changes to maximum releases for bay inflows
- **LCRA response:**
  - LCRA will address in its next written response

# Update Process

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# Key Requirements for 2032 WMP

- **Adjudication order**
  - Water may be available on an interruptible basis when firm demand is less than firm yield.
  - To the extent an interruptible demand exists, stored water should be made available
  - Interruptible water should be curtailed to the extent necessary to allow LCRA to satisfy existing and projected firm demands
- **TCEQ framework**
  - Plan should curtail interruptible water to maintain minimum storage above 600,000 acre-feet through period of record
  - Plan should include water supply conditions providing for curtailment of interruptible water that incorporate combined storage and inflows
- **2020 WMP Order requires:**
  - Process designed to allow meaningful input from interested participants

# Update Process to Date

- **Spring 2025**

- LCRA updated demands to 2032
- LCRA extended hydrology through 2023

- **Summer 2025**

- LCRA drafted an initial approach that meets TCEQ framework by:
  - Reducing interruptible stored water allocations to meet demand of second-highest year
  - Raising trigger levels for entering Less Severe Drought and Extraordinary Drought
  - Reducing instream flow obligations at Wharton and Columbus
  - Reducing monthly caps and release percentages for bay criteria

# Update Process to Date (cont'd)

- **Summer/Fall 2025:**
  - LCRA accepted input from participants
- **November 2025:**
  - Staff presents additional modeling and revised approach

# Additional Modeling

- What we learned from modeling requests
  - CTWC request
  - Agricultural interest request
- Revised approach



# WMP Modeling Request – CTWC

- **Request:**
  - Reduce releases to meet Matagorda Bay criteria to 25% of storable inflows when the prior three-month inflows are less than the 33rd percentile
- **Result:**
  - Minimum combined storage decreased to about 606,000 acre-feet

# WMP Modeling Request – Agricultural Interests

- **Request:**
  - Change Less Severe Drought trigger from 1.8 to 1.7 million acre-feet
  - Change Extraordinary Drought entrance criteria from 18 months to 16 months
- **Staff modeled 16 months but that didn't achieve the intended goal of the request**
  - 14 months was used
- **Result using 14 months:**
  - Minimum combined storage decreased to about 623,000 acre-feet

# Lessons from Modeling Requests

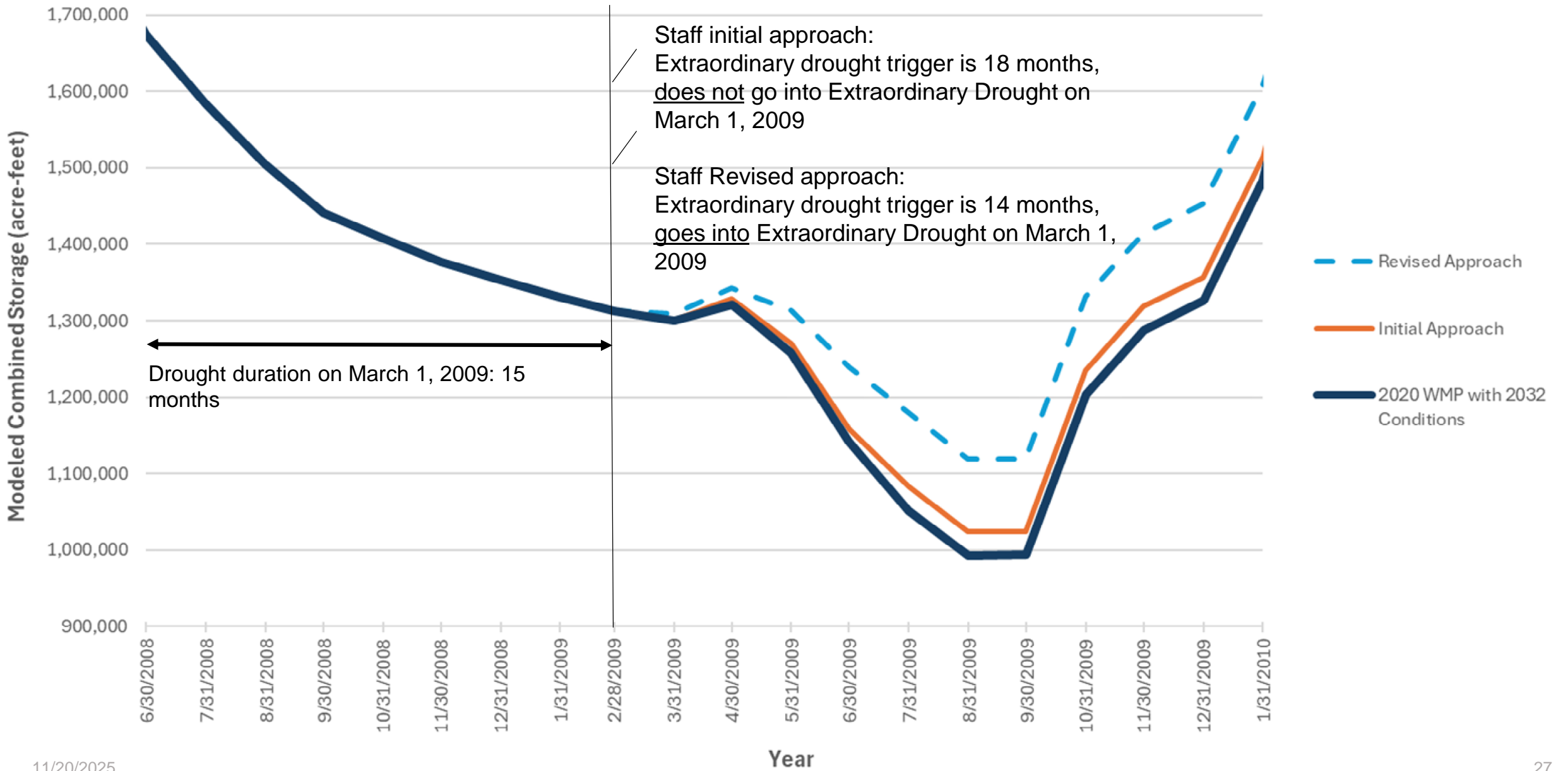
- **Earlier initiation of Extraordinary Drought adds about 90,000 acre-feet to storage in 2009 (near beginning of critical drought)**
- **If Base-Dry is in effect in second half of 2010, potential minimum storage impact**
- **Less Severe Drought trigger of 1.7 million acre-feet allows for 25,000 acre-feet of additional interruptible stored water diversions**

# **WMP Modeling Requests Implemented in Revised Approach**

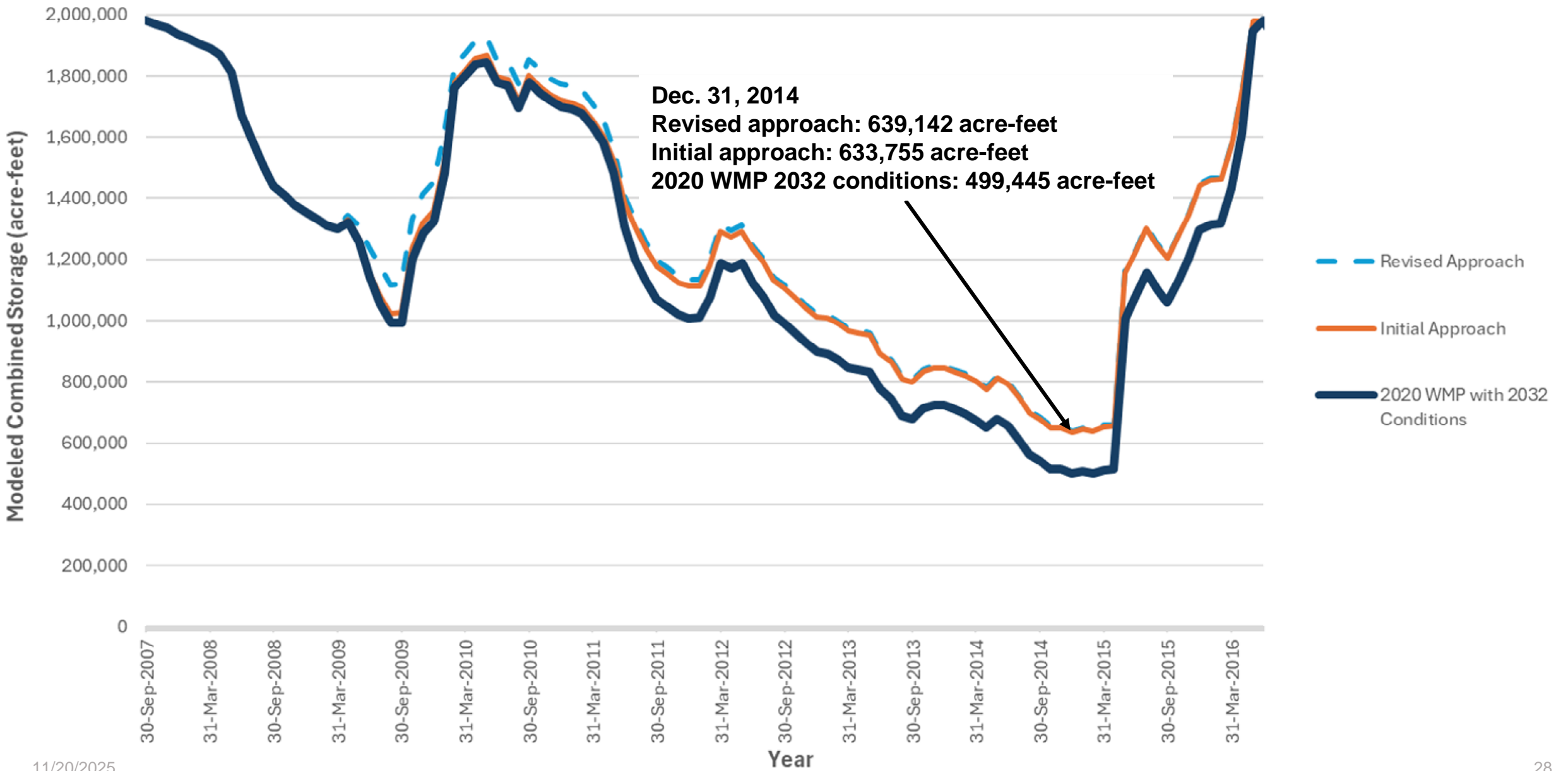
- **Changed Less Severe Drought trigger from 1.8 to 1.7 million acre-feet (1.5 million acre-feet in 2020 WMP)**
- **Changed Extraordinary Drought entrance criteria from 18 months to 14 months**
- **Changed Base Dry inflow criteria from above 1.8 million acre-feet to above 1.86 million acre-feet**

**Result: Minimum combined storage = 639,000 acre-feet (increase of about 5,000 acre-feet compared to initial approach)**

# Combined Storage in the Highland Lakes



# Combined Storage in the Highland Lakes



		<b>Combined Storage (acre-feet)</b>		<b>Difference</b>	
<b>Important Dates</b>		<i>Initial Approach</i> <b>18mo, 1.8 LSD, 1.8 BD</b>	<i>Revised Approach</i> <b>14mo, 1.7 LSD, 1.86 BD</b>	<i>Revised-Initial</i>	
<i>eval date</i>	Mar 1, 2009	1,312,579	1,312,579	0	} <b>Ag (cut off)</b>
<i>eval date</i>	Jul 1, 2009	1,158,702	1,239,118	80,416	
<i>local minimum</i>	Sep 1, 2009	1,023,713	1,118,450	94,737	} <b>Travis Spill</b>
<i>eval date</i>	Mar 1, 2010	1,781,799	1,837,804	56,004	
<i>eval date</i>	Jul 1, 2010	1,799,826	1,855,058	55,233	
<i>eval date</i>	Mar 1, 2011	1,697,887	1,751,804	53,917	} <b>Ag (more water)</b>
<i>eval date</i>	Jul 1, 2011	1,379,532	1,401,807	22,274	
<i>eval date</i>	Mar 1, 2012	1,179,161	1,200,436	21,275	} <b>Instream Flows</b>
<i>eval date</i>	Jul 1, 2012	1,237,497	1,247,421	9,925	
<i>eval date</i>	Mar 1, 2013	990,340	999,905	9,565	
<i>eval date</i>	Jul 1, 2013	894,827	904,206	9,379	} <b>Instream Flows</b>
<i>eval date</i>	Mar 1, 2014	821,472	827,187	5,715	
<i>eval date</i>	Jul 1, 2014	792,849	798,439	5,590	
<i>DOR minimum</i>	Dec 31, 2014	633,755	639,142	5,387	

# Revised Approach Summary

- Provides for more rapid introduction of Extraordinary Drought (after 14 months instead of 18 months)
- Increases Less Severe Drought trigger from 1.5 million acre-feet in 2020 WMP to 1.7 million acre-feet in revised approach (versus 1.8 million acre-feet in initial approach)
- Increases Base-Dry trigger from 1.8 to 1.86 million acre-feet
- Results:
  - Meets TCEQ framework
  - Results in about 5,000 acre-feet increase in minimum modeled combined storage compared to initial approach

# Minimum Combined Storage Results

Demand Category/Parameter	2020 WMP with 2032 Conditions (acre-feet)	2032 WMP Initial Approach (acre-feet)	2032 WMP Revised Approach (acre-feet)
Minimum combined storage in lakes Buchanan and Travis	499,445	633,755	639,142
Minimum Combined Storage 2008-2015	499,445	633,755	639,142
Minimum Combined Storage 2019-2023	545,109	693,467	694,067

# Interruptible Agriculture Results – All Divisions – First Crop

Demand Category/Parameter	2020 WMP with 2032 Conditions	2032 WMP Initial Approach	2032 WMP Revised Approach	Units
Max stored water made available first crop	178,000	125,000	125,000	a-f
Number of years first crop stored water (SW) made available:				
not curtailed, did not run out of SW mid-season	65	56	58	years
not curtailed, ran out of SW mid-season	1	0	1	years
partially curtailed, did not run out of SW mid-season	6	12	9	years
partially curtailed, ran out of SW mid-season	0	2	0	years
Number of years first crop cut off mid-season (Anytime Cutoff)	0	0	0	years
Number of years no SW available for first crop	12	14	16	years

# Interruptible Agriculture Results – All Divisions – Second Crop

Demand Category/Parameter	2020 WMP with 2032 Conditions	2032 WMP Initial Approach	2032 WMP Revised Approach	Units
Max stored water made available second crop	66,000	66,000	66,000	a-f
Number of years second crop stored water (SW) made available:				
not curtailed, did not run out of SW mid-season	64	57	57	years
not curtailed, ran out of SW mid-season	0	0	0	years
partially curtailed, did not run out of SW mid-season	3	10	8	years
partially curtailed, ran out of SW mid-season	0	0	0	years
Number of years second crop cut off mid-season (Anytime Cutoff)	0	0	0	years
Number of years no SW available for second crop	17	17	19	years

# Instream Flow Results

Demand Category/Parameter	2020 WMP with 2032 Conditions	2032 WMP Initial Approach	2032 WMP Revised Approach
% of months <b>Subsistence</b> IF criteria met at Bastrop	100%	100%	100%
% of months <b>Subsistence</b> IF criteria met at Columbus	100%	99.0%	99.0%
% of months <b>Subsistence</b> IF criteria met at Wharton	99.7%	99.1%	99.2%
% of months <b>Base-Dry</b> IF criteria met at Bastrop	98.5%	98.3%	98.0%
% of months <b>Base-Dry</b> IF criteria met at Columbus	85.9%	85.3%	84.1%
% of months <b>Base-Dry</b> IF criteria met at Wharton	77.1%	76.7%	76.0%
% of months <b>Base-Average</b> IF criteria met at Bastrop	80.1%	79.0%	77.6%
% of months <b>Base-Average</b> IF criteria met at Columbus	66.3%	65.2%	64.9%
% of months <b>Base-Average</b> IF criteria met at Wharton	55.8%	54.9%	54.3%

# Matagorda Bay Health Evaluation Results

Demand Category/Parameter	2020 WMP with 2032 Conditions	2032 WMP Initial Approach	2032 WMP Revised Approach
% of months Threshold inflow criteria are met	97%	96%	96%
% of years All MBHE-1 criteria are met	71%	70%	70%
% of years All MBHE-2 criteria are met	57%	56%	55%
% of years All MBHE-3 criteria are met	42%	42%	43%
% of years All MBHE-4 criteria are met	38%	38%	38%

# Staff Recommendation

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Staff is recommending the  
Revised Approach



# **LCRA Staff Recommendation**

- **Meets TCEQ framework**
- **Reflects input of participants**
- **Results in minimum modeled combined storage of about 639,000 acre-feet**

# LCRA Staff Recommendation

- **Key changes from 2020 WMP for interruptible stored water for agriculture include:**
  - Normal conditions
    - Reduces maximum allocation to 125,000 acre-feet from 178,000 acre-feet
  - Less Severe Drought
    - Raises trigger to 1.7 million acre-feet from 1.5 million acre-feet
    - Reduces maximum allocation to 96,000 acre-feet from 155,000 acre-feet
  - Extraordinary Drought
    - Raises trigger to 1.45 million acre-feet from 1.3 million acre-feet
    - Reduces required duration to 14 months from 18 months
  - Anytime Cutoff
    - Raises trigger to 1.1 million acre-feet from 1.0 million acre-feet

# LCRA Staff Recommendation

- **Key changes from 2020 WMP for environmental flows include:**
  - Instream flows
    - Reduces obligations for Columbus and Wharton when below 1.3 million acre-feet and 900,000 acre-feet
    - Raises trigger for Subsistence/Base-Dry from 1.8 to 1.86 million acre-feet
  - Matagorda Bay inflows
    - Reduces monthly caps on water available to bay
    - Reduces storable inflow percentage available to bay from 60/50% to 50/40%

# Opportunities for Comment

- **By Dec. 12:** Deadline to submit comments related to this meeting to [LCRAWMP@lcra.org](mailto:LCRAWMP@lcra.org)
- **Public comment period on staff's recommendation to the LCRA Board:** Jan. 5 to Feb. 3
- **Staff is available to meet upon request**

# Timeline

<b>March to November 2025</b>	Six participant meetings
<b>By Dec. 12</b>	Deadline to submit comments related to Nov. 20 meeting
<b>Jan. 5-Feb. 3</b>	Staff recommendation posted for public comment
<b>Jan. 27, 2026</b>	Present staff recommendation on WMP update to LCRA Board
<b>Feb. 18, 2026</b>	Request LCRA Board approval
<b>March 2026</b>	Submit to TCEQ for approval

# Questions?





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