Lower Colorado Regional Water Planning Group Water Modeling Committee Meeting LCRA, Dalchau Service Center, A503 July 11, 2018

1. Mike Reagor called meeting to order at 9:45 a.m.

2. Attendees (25)

Committee Members:

Mike Reagor – Region K Water Modeling Committee Chair Alternate, Small Municipalities Rep

Helen Gerlach – Region K, Municipalities Rep (Alternate)

David Wheelock - Region K, River Authority Rep

Doug Powell - Region K, Recreation Rep

Jason Ludwig – Region K, Electric Utilities Rep

Jim Brasher - Region K, GMA-12 Rep

David Bradsby - Region K, TPWD Rep

David Lindsay – Region K, Recreation Rep (Alternate)

Ron Fieseler – Region K, GMA-9 Rep

Ann McElroy – Region K, Environmental Rep

Lann Bookout - TWDB

Additional Attendees:

Jaime Burke - AECOM

Alicia Smiley – AECOM

Donna Klaeger - Region K, Counties Rep

Joe Trungale - Trungale Engineering

Rebecca Batchelder – LCRA

Ross Crow – City of Austin

Richard Hoffpauir – Hoffpauir Consulting

Christianne Castleberry – Castleberry Engineering, Region K Water Utilities Alternate

James Kowis – James Kowis Consulting, LLC

Cindy Smiley – Smiley Law Firm

Jordan Furnans - LRE Water, LLC

Emily Brannen - LRE Water, LLC

Paul King – Rancher, Burnet County

John Q. Barnard - TWDB

3. Public Comments

a. None.

4. Minutes Approval

- a. Draft of June 27, 2018.
 - i. Ann McElroy requested addition to 5.d.
 - 1. Add, "90,000 AF is the estimated effect of the subordination on the Highland Lakes firm yield, based on a legal agreement between CRMWD and LCRA. TCEQ uses full-basin model for permitting purposes."
 - ii. Donna Klaeger requested changes to 5.b.iv.

- 1. Rephrase to read, "Lower sedimentation rate in the Highland Lakes than last cycle based on most recent surveys, completed in 2006 and 2008."
- iii. Teresa Lutes provided changes to 5.b.ii, 5.c.iv., and 6.a.
 - 1. Rephrase 5.b.ii to read, "The new drought of record begins with 10/07. The lowest combined storage in Lakes Buchanan and Travis is reached in 4/15. The hydrologic record ends with 12/16. However, reservoir combined storage does not completely return to full in the last month of the hydrologic record. Use the available data for estimating reservoir firm yield over the new drought of record, 10/07 through 12/16. Additional hydrologic data may be available in the next regional planning period. Full storage is based on reservoir elevation-volume studies for the Highland Lakes."
 - 2. Add 5.c.iv, "Teresa Lutes asked about the use pattern assumption used for LCRA's lower basin water rights in the preliminary numbers shown at the meeting. The monthly demand pattern was changed from a multiuse pattern, as was used in the last Region K planning round, to an industrial pattern. The group discussed this and it was decided to have the consultant run the WAM with the multi-use pattern for consistency with the last planning round. Making a change to the pattern had not been previously discussed or sought in the hydrologic variance. The group decided to hold a Water Modeling Committee meeting briefly before the July 11th meeting to review the water availability estimates with the multi-use pattern, which are anticipated to be more conservative. The committee will plan to review the new numbers at the meeting and consider making a recommendation to the full Region K aroup."
 - 3. Rephrase 6.a to read, "COA has been working on a 100-year integrated water resources plan in a process called Water Forward. The plan will be updated every five years. The presentation's purpose is to provide an overview of the hydrologic modeling for COA's plan and food-forthought for Region K."
- iv. Mike Reagor motioned to approve minutes. Committee approved minutes.

5. Region K Cutoff Model

- Joe Trungale incorporated two (2) changes to the Region K Cutoff Model since June 27,
 2018 meeting:
 - i. Incorporated most recent evaporation file available from TCEQ
 - 1. Change had no effect on Cutoff Model results for Region K
 - ii. Changed lower basin water rights from industrial pattern use to multi-use pattern
 - 1. The resulting numbers were more conservative for Highland Lakes, but made more water available for run-of-river
- b. Sedimentation discussion.
 - The numbers Region K used in the 2016 RWP are based on the 2000-2005 bathymetric survey data. The most recent TWDB survey from 2006-2008 was

- incorporated into the model for the 2021 RWP. The rate of sedimentation is reduced, resulting in a greater amount of available storage.
- ii. Donna Klaeger mentioned concern that the surveys did not include sedimentation that may have occurred after the 2007 flood, but the 2006-2008 survey is the best information to-date.
- c. Ann McElroy asked for definition of the environmental commitments as a component of the Highland Lakes firm yield.
 - i. Region K Cutoff Model results identified the water available for contract holder use and environmental releases. Environmental releases include commitments to release water from the lakes for environmental purposes such as instream flows and bay and estuary inflows. More information can be found in LCRA's Water Management Plan.
- d. David Lindsay presented information related to recent inflows and their comparison to historical inflows.
 - i. Chart prepared by Dr. Bill McNeese shows last 10 years of inflows to the Highland Lakes are much lower than the average historical inflows.
 - ii. TWDB report prepared by Kennedy Resource Company discusses four potential activities that may have had impacts on the recent inflows: noxious brush, small reservoirs, groundwater declines, and historical temperature changes and drought conditions.
 - iii. Discussion regarding low inflows and the potential impacts to the water availability modeling.
- e. David Wheelock motioned to recommend initial surface water availability numbers using multi-use pattern to RWPG for inclusion in the September 2018 Technical Memorandum. Ron Fieseler seconded. Committee passed motion.
- 6. Public Comments
 - a. None.
- 7. Mike Reagor adjourned at 10:21 a.m.