Attachment A

## Texas Water Development Board

P.O. Box 13231, 1700 N. Congress Ave. Austin, TX 78711-3231, www.twdb.texas.gov Phone (512) 463-7847, Fax (512) 475-2053

March 28, 2018

Mr. John Burke, P.E. Region K Chair Lower Colorado Regional Water Planning Group (Region K) 17310 Hill Lakes Court Cypress, Texas 77429

RE: Region K Regional Water Planning Group (RWPG) request for approval to modify existing surface water availability hydrologic assumptions for development of the

2021 Region K Regional Water Plan (RWP)

Dear Mr. Burke:

The Texas Water Development Board (TWDB) has reviewed your requests dated January 12, 2018 to use the Region K Water Availability Model (WAM) Run 3 Cutoff Model. The cutoff model is approved for use in determining current water supply availability and for evaluation of water management strategies in the development of the 2021 Region K RWP.

Your request stated that the cutoff model began with the Texas Commission on Environmental Quality (TCEQ) WAM Run 3 and was modified to more accurately reflect simulation of historic operations and operation of water rights and existing contractual commitments in the Colorado River Basin. The request further indicated that since approved and used in the 2016 Region K plan this version will contain updates and some clarifications. The Region K hydrologic variance request states that TCEQ full-basin WAM Run 3 will be used without modification for any analysis that includes a new appropriation water supply. This letter confirms that the TWDB approves the assumptions that makeup the Region K Cutoff Model for supply and water management strategy analysis for the development of the 2021Region K RWP, as specified in Table A of the request. This table is included as Attachment 1 to this letter.

While the TWDB authorizes these modifications to evaluate existing water supplies and water management strategies for development of the 2021 Region K RWP, it is the responsibility of the planning group to ensure that the resulting estimates of water availability are reasonable for drought planning purposes and will reflect conditions expected in the event of actual drought conditions; and in all other regards will be evaluated in accordance with the contract Exhibit C, General Guidelines for Fifth Cycle of Regional Water Plan Development.

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If you have any questions, please do not hesitate to contact Lann Bookout, project manager for Region K, at 512-936-9439 or via email at <a href="mailto:lann.bookout@twdb.texas.gov">lann.bookout@twdb.texas.gov</a>.

Sincerely,

Jeff Walker

Executive Administrator

Attachment: Table A

c w/att: David Wheelock, Administrator

Jaime Burke, Consultant

Lann Bookout, Project Manager

## TABLE A SUMMARY OF REGION K CUTOFF MODEL MODELING ASSUMPTIONS REGARDING SUPPLY AND STRATEGY ANALYSES FOR 2021 REGIONAL PLAN DEVELOPMENT

(1) (2) (3)

		(1)	(2)	(3)	
	ASSUMPTION	SUPPLY ANALYSIS	STRATEGY ANALYSIS		
NO.		Region K Cutoff Model by Decade	TCEQ Full-Basin WAM Run 3	Region K Cutoff Model by Decade	Change from 2016 Planning Cycle
	Use TCEQ Full-Basin WAM Run 3 Without Modification for New Appropriation Water Supply Strategies Analysis	No	Yes	No	No Change
	All Rights at and Above Ivie/Brownwood Senior to Downstream Rights (maintaining relative date priority in rights upstream)	Yes	No	Yes	No Change
3	Use Expanded 1940-2016 Naturalized Flows	Yes	No	Yes	Extended hydrology period to 2016
4	Determine Firm Yield for Buchanan-Travis Reservoir System	Yes	No	No	No Change
5	Use Sediment-Adjusted Future Reservoir Storage by Decade	Yes	No	Yes	No Change
6	Use 2015 Water Management Plan Environmental Flow Criteria	No*	Yes	Yes	Changed "2010" to "2015"; Added a footnote for clarification
7	Set All Water Right Demands at Authorized Diversion Amounts	Yes	Yes	No	No Change
8	Include Provisions of LCRA-STP 2006 Settlement Agreement	Yes	No	Yes	No Change
	Include Operating Rules for Lakes Buchanan and Travis to Reflect Combined Firm Yield Operation	Yes	Yes	Yes	Revised "Maintain Consistent Levels of Drawdown in the Lakes" to say "Reflect Combined Firm Yield Operations"
	Include Latest Approved LCRA Permits and Amendments (as of December 2017)	Yes	Yes	Yes	Added "(as of December 2017)"
11	Include 2015 Water Management Plan Highland Lakes Interruptible Water	No	Yes	Yes	Changed "2010" to "2015"
12	Adjust 2015 Water Management Plan Environmental Flow Triggers (Decadal)	No	No	Yes	Changed "2010" to "2015"; Added "(Decadal)" for clarification
	Set All Region K Municipal and Industrial Water Right Demands at Projected Future Demand Amounts by Decade	No	No	Yes	Expanded "M&I" to "Municipal and Industrial" for clarification
	Modify Curtailment of Highland Lakes Interruptible Water as Necessary to Satisfy LCRA Future Firm Municipal and Industrial Demands	No	No	Yes	Expanded "M&1" to "Municipal and Industrial" for clarification
	Set LCRA Lower Basin Irrigation Demands Equal to Projected Future Demands by Decade	No	No	Yes	Removed "Weather Variable" after the word "Future"
16	Include LCRA Irrigation Return Flows to the Colorado River	No	No	Only As A Strategy	No Change

П	17 Include Return Flows from Austin Wastewater Treatment Plants	No	Only As A	Only As A	No Change
			Strategy	Strategy	
	18 Include Other Municipal and Industrial Return Flows	No	Only As A Strategy	Only As A Strategy	Expanded "M&I" to "Municipal and Industrial" for clarification
Γ	Include Reuse Provisions and Environmental Flow Requirements of LCRAAustin 2007 Settlement Agreement	No	Only As A Strategy	Only As A Strategy	No Change

<sup>\*</sup> The LCRA 2015 Water Management Plan states that the amount of firm water allocated for environmental purposes is 33,440 acre-feet per year (10-year average). This amount is a commitment from the firm yield of the Highland Lakes.

Note: TCEQ SB-3 requirements will be taken into consideration in strategies involving a new appropriation of water.

January 5, 2018