

# Region K Public Meeting

July 15, 2020

Lower Colorado Regional Water Planning Group  
(Region K)



July 15, 2020

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## Agenda

1. Call to Order
2. Welcome and Introductions
3. Receive Public Comments
4. Attendance Report
5. Approval of Minutes from February 18, 2020 meeting
6. TWDB Update

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# COMMITTEE REPORTS

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## 7. Committee Reports Meeting Minutes Approval

- ▼ Policy/Legislative Recommendations – 1/27/2020
- ▼ Nominating – 11/13/19 and 11/30/18
- ▼ Water Management Strategies – 10/31/19
- ▼ Water Modeling – 10/23/19
- ▼ Unique Stream Segments - 4/11/19

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# CONSULTANT STATUS REPORT

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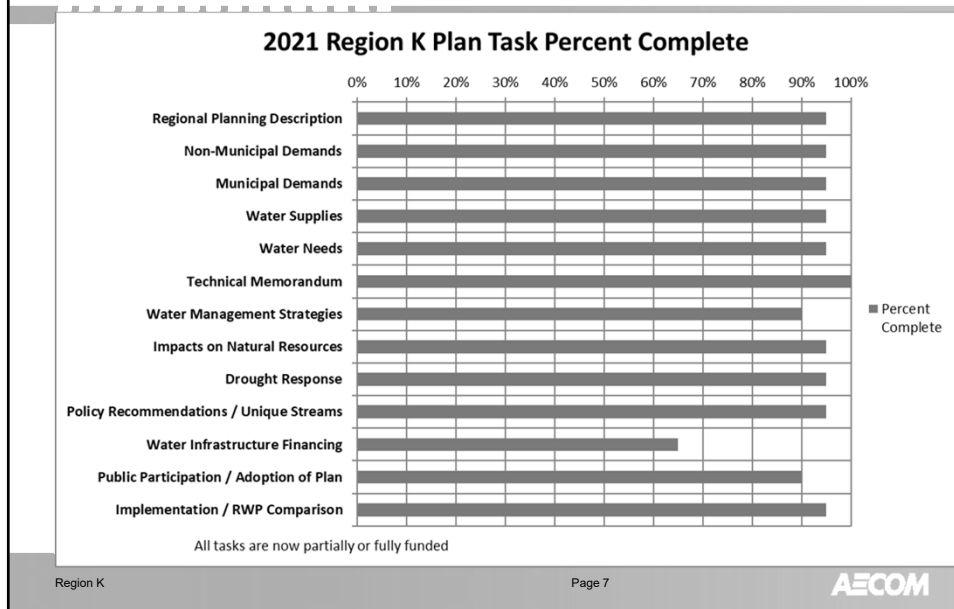
## 8. Consultant Status Report

<p><b>Task:</b>                  2A – Non-population demand                  2B – Population demand                  3 – Water supply analysis                  4A – Water needs</p>	<p><b>Task:</b>                  4B – Potentially feasible strategies                  4C – Technical memorandum                  5A – Evaluation of strategies                  5B – Conservation recommendations</p>	<p><b>Task:</b>                  1 – Regional description                  6 – Impacts of strategies                  7 – Drought response                  8 – Unique sites and policy recommendations                  9 – Financing                  11 – Implementation and comparison                  12 – Prioritization of projects</p>
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## 8. Consultant Status Report



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## 8. Consultant Status Report Effort since last meeting (February 18, 2020)

- ▼ Completed database entry (DB22) of Water Management Strategies
- ▼ Submitted IPP and its respective deliverables to TWDB on 3/3/2020
- ▼ Held Public Hearing 4/22/2020
  - No public comments received at hearing
  - Some written comments received after hearing during public comment period
- ▼ Sent out Infrastructure Financing Report surveys
  - Received 19 responses to-date
- ▼ Created draft project prioritization spreadsheet (Agenda Item #11)
- ▼ Received and began addressing TWDB IPP Comments

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## 8. Consultant Status Report Upcoming Efforts

- ▼ Address and respond to all public and agency comments received
- ▼ Finalize project prioritization
- ▼ Bring plan edits to the RWPG for review
  - August meeting
- ▼ Adopt 2021 Region K Plan
  - September meeting
- ▼ Submit Adopted 2021 RWP in October 2020 to TWDB

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## PRESENTATION AND DISCUSSION OF COMMENTS RECEIVED ON INITIALLY PREPARED PLAN

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## 9. IPP Comments

### ▼ Atmospheric Water Generation – Andrew Sowder

- Atmospheric Water Generation (AWG), an innovative technology, produces water using the same Water Cycle process. Sowder requests to include AWG in Texas’s 2022 Water Plan.
- Information and files containing documentation and contacts was provided for RWPG review.

### ▼ Austin

- The TWDB’s current Unified Costing Model (UCM) is generally structured to cost out traditional water management strategies. Austin has seen an opportunity for potential updates to be considered for the UCM for costing out “non-traditional” water management strategies. Austin suggests that the guidelines for determining which components of a WUG-owned strategy can be included in the cost estimate could be reviewed to determine if additional strategy elements should be considered for inclusion, for example, additional distribution system-level infrastructure.
- Austin suggests that there may be opportunity for improvement in the UCM methodology used for cost estimation and development of unit costs for intermittent or emergency strategies that may not produce a consistent annual yield. Such process improvements should be considered and addressed in future planning rounds.

## 9. IPP Comments

### ▼ Central Texas Water Coalition

- Chapter 3: CTWC encourages Region K to utilize a Safe Yield approach for the storage reservoirs included in its 2021 Region K Plan, rather than continuing to rely on traditional water availability modeling and water volumes calculated as the Firm Yield of a reservoir. Relying solely on the Firm Yield of Lakes Buchanan and Travis in today’s water planning evaluations and planning carries risks associated with rapid drawdown of the lakes in times of drought. Utilizing a Safe Yield approach would add a safety margin to protect against dangerously low lake levels in times of prolonged drought. We understand that other Regions are incorporating a Safe Yield approach, and such an approach would be justified for Region K.
- Chapter 5: CTWC supports conservation efforts, but are concerned that the conservation strategies may not be implemented without incentives such as higher water rates and funding. CTWC also requests that Region K collect data that allows an accounting of the results of the conservation strategies implemented by the Water User Groups.
- Other Comments on IPP: Regarding “Atmospheric Water Generation” technology: The proposed technology estimates an efficiency of 0.93 kWh per gallon. While CTWC supports new ideas for increasing and sustaining water supplies, we have serious concerns about the feasibility and cost-effectiveness of the technology described by the AWG proponents. While we encourage thinking out of the box for new water supplies, proposals must be carefully evaluated for efficiency and feasibility.

## 9. IPP Comments

### ▼ LCRA

- Section 5.2.6, Irrigation Water Management Strategies: “Through the HB 1437 process, farmers within LCRA’s irrigation divisions will receive funding of about 80 percent of the total costs, with farmers bearing 20 percent of the cost for implementing conservation” should be replaced with: “Historically, farmers received about 80 percent of the total costs from a combination of funding through NRCS’ EQIP funds and HB1437 funds, with farmers bearing 20 percent of the cost of implementing conservation.”
- Section 5.2.2.5.4, Real-Time Use Metering and Monitoring: Replace word “volumetric” with “velocity” in the following sentence: “Currently, within LCRA irrigation divisions, surface water use is measured once daily using a volumetric probe, and total use is calculated for each field. LCRA staff controls adjustments to the water flow into each field turnout.”

### ▼ Texas Parks and Wildlife Department (TPWD)

- TPWD looks forward to assisting the group as they investigate and pursue designation of ecologically unique stream segments and is willing to assist with the preparation of a recommendation packet as identified in TAC 357.8.

## 9. IPP Comments

### ▼ Texas State Soil and Water Conservation Board (TSSWCB)

- Section 8.1.6.1, Background Information: Insert the following:

“The Texas State Soil and Water Conservation Board (TSSWCB) works in conjunction with local Soil and Water Conservation Districts (SWCDs) to encourage the wise and productive use of natural resources. The TSSWCB is the lead agency for planning, implementing, and managing coordinated natural resource conservation programs for preventing and abating agriculture and silviculture nonpoint sources of water pollution.

Through the TSSWCB Water Quality Management Plan Program (WQMP), farmers, ranchers, and silviculturalists receive technical and financial assistance to voluntarily conserve and protect natural resources. Participants receive assistance with conservation practices that address water quality, water quantity, and soil erosion while promoting the productivity of agricultural lands.”

## 9. IPP Comments – Texas Water Development Board

### ▼ 1. DB22

- The plan includes 16 recommended water management strategies (WMS), providing supply in 2020 (not including demand management). Strategy supply with an online decade of 2020 must be constructed and delivering water by January 5, 2023.

### ▼ 2-3. Chapter 3

- Table 3.4. Please confirm whether the local surface water supplies listed are firm supplies under drought conditions and document this information in the final, adopted regional water plan.
- Tables 3.12, 3.18, and 3.19. Please include all MAG values (even if zero) for the following aquifer/county/basins: Carrizo-Wilcox/Fayette/Lavaca, Queen City/Fayette/Lavaca, and Sparta/Fayette/Lavaca.

### ▼ 4-6. Chapter 4

- Please report the results of the needs analysis for MWP by categories of use as applicable in the region in the final, adopted regional water plan.
- Please include a discussion of the WUG secondary needs analysis in Chapter 4.
- Please include a discussion of the MWP secondary needs analysis in Chapter 4.

## 9. IPP Comments – Texas Water Development Board

### ▼ 7-28. Chapter 5

- Transmission Costing. Please ensure that the direct reuse WMSs and associated project costs do not include distribution lines directly to residences or commercial businesses. Major transmission lines associated with delivering reuse supplies, for example to the general location of a major industrial park, may be acceptable.
- Environmental Impacts. The WMS evaluations do not appear to include quantified impacts on all of the required environmental factors (environmental water needs, wildlife habitat, cultural resources, and effect of upstream development on bays, estuaries, and arms of the Gulf of Mexico). Please include a quantitative reporting of each environmental factor for each WMS evaluated.
- Agricultural Impacts. The plan does not appear to include quantitative impact information for agricultural resources in each of the WMS descriptions. “No direct impacts” does not quantify the information. Please include a quantitative impacts analysis for agricultural resources for each WMS evaluated.



## 9. IPP Comments – Texas Water Development Board

### ▼ 7-28. Chapter 5

- Brush Control. The strategy includes language about the concept and potential of brush control but does not present discrete proposed brush control projects and approximate locations. Please show proposed locations and sizes of brush control areas (acreage for each county) and the associated water supply yield based on those locations or remove the WMS from the plan.
- Rainwater Harvesting. Document whether the quantified yield for this WMS will be available at each location and include the necessary storage capacity calculations, land requirements, and other implementation requirements to achieve sustained drought of record yield. If the supply from rainwater cannot be shown to be available throughout drought of record conditions, remove the WMS from the plan as a recommended strategy.

## 9. IPP Comments – Texas Water Development Board

### ▼ 7-28. Chapter 5

- Austin strategies (8 comments – some lesser comments not included)
  - Please provide documentation that all costs associated with the Austin Water Forward Plan were indexed to 2018 dollars and that the required capital cost components were evaluated for each strategy.
  - The strategy evaluation for Blackwater and Greywater Reuse does not appear to document the methodology for the WMS yield calculations. Please provide additional information on how the yield was determined and show how the quantified yield estimates for this WMS will be available throughout the full period of drought of record conditions. Additionally, the evaluation indicates that significant annual costs (\$47M) were excluded from the plan. All capital and annual, and unit costs associated with developing water supply yield, even within the distributed locations, must be included in the plan and DB22.
  - The strategy evaluation for Onsite Rainwater and Stormwater Harvesting and Community-Scale Stormwater Harvesting WMSs states that implementation of either as a WMS is dependent upon the “catchment area, storage capacity, rainfall frequency, and water demand of the end user.” Please clearly document whether the quantified yield for this WMS will be available at each distributed location throughout the full period of drought of record conditions and, if so, include the necessary storage capacity calculations, land requirements, and other implementation requirements to achieve this sustained, drought of record yield in the final, adopted regional water plan.

## 9. IPP Comments – Texas Water Development Board

### ▼ 7-28. Chapter 5

#### – Austin strategies

- The strategy evaluation for the Capture Local Inflows to Lady Bird Lake indicates that the WMS will be intermittent and seasonal. Please remove the strategy from the plan as presented since it clearly does not meet the requirement in 31 § TAC 357.34(b) and would not provide reliable water supply during severe drought conditions with associated reliable yield unit costs.
- The strategy evaluation for the Lake Austin Operations indicates that the supply will not be available throughout a repeat of a drought of record since the “potential stored water benefits would only be available when rainfall and lake level conditions allow.” Please either remove the strategy from the plan as presented since it clearly does not meet the requirement in 31 § TAC 357.34(b), or modify the strategy in a manner that would provide reliable water supply during drought conditions and present the reliable yield, along with the calculations on which it is based, and the associated unit cost along with calculations showing the basis for the reliable yield calculation.
- The strategy evaluation for the Longhorn Dam Operations Improvements notes components, including security upgrades, electrical updates, gate improvements, and data acquisition and monitoring that do not appear to increase water supply volumes. Please remove the WMS from the plan or demonstrate how these items would directly increase the water supply volumes above what is currently available.

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## 9. IPP Comments – Texas Water Development Board

### ▼ 29. Chapter 6

- Please include the TWDB Socioeconomic Impacts of Projected Water Shortages Report as an appendix to Chapter 6 rather than Chapter 4 in the final, adopted regional water plan.

### ▼ 30-31. Chapter 7

- Section 7.3. The final, adopted regional water plan must include the number of existing and potential interconnects including who is connected to whom. Please include this information in the final, adopted regional water plan.
- Section 7.4. Please confirm whether the entities evaluated for emergency responses to local drought conditions or loss of municipal supply were assumed to have 180 days or less of remaining supply.

### ▼ 32. Chapter 10

- Please address *how* the planning group complied with the Texas Public Information Act in the final, adopted regional water plan.

### ▼ 33. Chapter 11

- Please provide a brief summary of how the 2016 Plan differs from the 2021 Plan with regards to recommended and alternative WMS projects in the final, adopted regional water plan.

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Agenda Item 10

## POTENTIAL TASK 5A BUDGET AMENDMENT FOR EVALUATION OF WATER MANAGEMENT STRATEGIES

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### 10. Scope of Work Amendment

- ▼ To address Chapter 5 TWDB comments, AECOM is requesting a budget amendment for Task 5A.
- ▼ Task 5A Scope of Work Budget Amendment Request
  - Austin Blackwater and Greywater Reuse (\$2,500 >> \$5,000)
  - Austin Onsite Rainwater and Stormwater Harvesting (\$2,500 >> \$5,000)
  - Rainwater Harvesting (\$4,000 >> \$6,178)
- ▼ Total budget increase request: \$7,178
- ▼ Previous Unallocated Task 5A Budget: \$7,178
- ▼ Remaining Unallocated Task 5A Budget: \$0

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## 10. Scope of Work Amendment

- ▼ RWPG Discussion
- ▼ Receive Public Comments
- ▼ Consider and take action on amending the Task 5A Scope of Work for evaluating water management strategies for potential budget reallocations; and authorize LCRA to submit a request to the TWDB for the amendment and to execute the subsequent contract amendment.

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Agenda Item 11

## **PRESENTATION AND DISCUSSION OF DRAFT PRIORITIZATION SPREADSHEET**

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## 11. Draft Prioritization Spreadsheet – Criteria

- ▼ Uniform Standard 1A – Project Decade Online
  
- ▼ Uniform Standard 1B – Funding Decade
  - When available, the Infrastructure Finance Report survey responses were used to identify timing of needed financing.
  - For WUGs that did not respond to the IFR:
    - If the project has capital costs, it is assumed that funding will be needed in the decade prior to the online decade of the project.
    - For projects with a scheduled online decade of 2020, the same 2020 decade was assumed for start of financing.

## 11. Draft Prioritization Spreadsheet – Criteria

- ▼ Uniform Standard 2A – What supporting data is available to show that the quantity of water needed is available?
  - Conservation, drought management, and reuse strategies were assumed to score a 5 because the volume of reduction of use was based upon reachable goals.
  - To score a 5, groundwater strategies must have a MAG value with local pump testing to confirm, and surface water strategies must be based on a managed reservoir system.

## 11. Draft Prioritization Spreadsheet – Criteria

- ▼ Uniform Standard 2B – Does the sponsor hold necessary legal rights, water rights and/or contracts to use water that this project would require?
  - This criterion is evaluated based on the current level of knowledge in June 2020.
  - Conservation and drought management strategies scored a 5 because it was assumed that those strategies did not require a legal right, water right, or contract to implement.
  - New or amended/expanded surface water and groundwater strategies were generally assumed to not have the necessary contracts/permits in place.

## 11. Draft Prioritization Spreadsheet – Criteria

- ▼ Uniform Standard 2C – What level of engineering and/or planning has been accomplished for this project?
  - This criterion is evaluated based on the current level of knowledge in June 2020.
  - Conservation and drought management strategies scored a 10 if a Water Conservation Plan or Drought Contingency Plan is in place.
  - A default score of 1 was assigned unless the consultant/RWPG was aware of a higher level of planning.
- ▼ Uniform Standard 2D – Has the project sponsor requested (in writing for the 2021 Plan) that the project be included in the Regional Water Plan?

## 11. Draft Prioritization Spreadsheet – Criteria

- ▼ Uniform Standard 3A – In the decade the project comes on line, what is the % of the WUG's (or WUGs') needs satisfied by the project?
  - Percent need satisfied is calculated by dividing the project supply in the first decade of need by the supply deficit in the first decade of need. If no needs, project scored a 0.
  - If a strategy comes online in a decade prior to shown needs, that project was scored a 0.
  - It is observed that Conservation strategies and some others, including Reuse, are penalized by the previous bullet item and are scored a 0.
- ▼ Uniform Standard 3B – In the final decade of the planning period, what is the % of the WUG's (or WUGs') needs satisfied by the project?
  - Percent need satisfied is calculated by dividing the project supply in the last (2070) decade of need by the supply deficit in the last (2070) decade of need.

## 11. Draft Prioritization Spreadsheet – Criteria

- ▼ Uniform Standard 3C – Is this project the only economically feasible source of new supply for the WUG, other than conservation?
  - The assumption was made that the water supply options in the regional water plan were the only ones available.
  - Conservation was scored a 0.
  - Projects scored a 5 if the entity had only one project listed in the plan, other than conservation. If the entity had multiple projects listed in the plan, other than conservation, each project scored a 0.
- ▼ Uniform standard 3D – Does this project serve multiple WUGs?
  - Austin and LCRA strategies serve multiple WUGs including municipal, manufacturing, and steam-electric.
  - It needed to be clear in the 2021 Plan that a project served multiple WUGs in order to receive a 5.

## 11. Draft Prioritization Spreadsheet – Criteria

- ▼ Uniform Standard 4A – Over what period of time is the project expected to provide water (regardless of the planning period)?
  - Strategy supply amounts provided were used for period determination. Late decade projects were generally assumed to continue past 2070.
- ▼ Uniform standard 4B – Does the volume of water supplied by the project change over the regional water planning period?
- ▼ Uniform Standard 5A – What is the expected unit cost of water supplied by this project compared to the median unit cost of all other recommended strategies in the region's current RWP?
  - Unit Costs were based on those identified in the 2021 Plan and generally reflect the first decade the project comes online.

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## Agenda

12. Update on TWDB Interregional Planning Council
13. Agenda items for next meeting
14. New / Other Business
15. Public Comments
16. Adjourn

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