

**Lower Colorado Regional Water Planning Group
Water Management Strategies Meeting
AECOM, Treaty Oak Conference Room
April 10, 2019**

1. Lauri Gillam called meeting to order at 1:03 p.m.

2. Attendees (24)

Committee Members:

Lauri Gillam – Region K, Small Municipalities Rep, Water Management Strategies Committee Chair

David Wheelock – Region K, River Authority Rep

Karen Haschke – Region K, Public Rep

Mike Reagor – Region K, Small Municipalities Rep

David Van Dresar – Region K, Water Districts Rep

Ann McElroy – Region K, Environmental Rep

Barbara Johnson – Region K, Industries Rep

Teresa Lutes – Region K, Municipalities Rep

Jennifer Walker – Region K, Environmental Rep

Additional Attendees:

David Lindsay – Region K, Recreation Rep (Alternate)

Christianne Castleberry – Region K, Water Utilities Rep (Alternate)

Helen Gerlach – Region K, Municipalities Rep (Alternate)

Lann Bookout – TWDB

Jaime Burke – AECOM

Alicia Smiley – AECOM

Rebecca Batchelder – LCRA

Stacy Pandey – LCRA

Steve Box – Environmental Stewardship

Adam Conner – Freese and Nichols

Jordan Furnans – LRE Water, LLC

Cindy Smiley – Smiley Law Firm

Danny Bulovas – Public – BCL

Tom Harrison – Public

Richard Golladay – Public

3. Public Comments

- a. Jordan Furnans from LRE Water, LLC is working on a project studying rainfall response for the TWDB. The draft final report is due at end of June, and the final is due at the end of August. RWPG is interested in hearing a summary of the report once it is released for public consumption.

4. Minutes Approval

a. Draft of March 4, 2019

- i. David Lindsay motioned to approve the minutes. Karen Haschke seconded. Committee passed.

5. Agricultural Irrigation Conservation

a. Discussion results from March 4, 2019 meeting

- i. Task 1. AECOM will work with Stacy Pandey to develop a plan to gather data on currently improved acreage, including acreage watered with surface water and/or groundwater, and develop projections for potential future water saving improvements.
- ii. Task 2. AECOM will work with both Stacy Pandey and Daniel Berglund to update savings estimates for existing irrigation conservation strategies.
- iii. Task 3. AECOM will work with Daniel Berglund to consider on-farm SCADA as a new strategy. Also discussed tail water recovery and drip irrigation strategies.
- iv. David Lindsay asked about metrics of tracking accurate water use of individual large farms. Since these water users are large – sometimes larger than municipal WUGs – would it be possible to equate a farm to a WUG in the planning process? David Wheelock responds that naming individual landowners could be a privacy concern. Since the group already considers these large water users when creating the irrigation demands in regional water planning process, they are accounted for.

b. Irrigation Conveyance Improvements

- i. Committee was asked for feedback on measures included in 2016 RWP.
 1. Stacy Pandey said list is comprehensive, although since last plan, all Gulf Coast gates have been automated.
- ii. Nearly 100,000 acre-feet of built-in irrigation demand are canal losses, as determined by the RWPG for this planning cycle.
 1. Since canals are earth-lined, losses occur mainly through seepage and evapotranspiration.

c. On-Farm Conservation

- i. RWPG can determine planted acreage for both groundwater and surface water sources, but conjunctive use may skew data.
 1. David Van Dresar noted RWPG can acquire definitive water production from each well for groundwater production.
- ii. RWPG needs to determine improved acreage, likely from the NRCS, and factor in Gulf Coast district priorities on land leveling, due to crop rotation activities.

d. Other Irrigation Strategies

- i. Sprinkler Irrigation – Recommended in 2016 RWP; RWPG wants to update numbers. Lann Bookout added that Texas A&M has reports on efficiencies.
- ii. Drip Irrigation – Not considered in 2016 RWP; rice farmers cannot grow a second crop with drip irrigation. Could possibly be considered for other crops.

- iii. Tail Water Recovery – Not considered in 2016 RWP; potentially negative environmental impacts and cost may prevent further evaluation.
 - e. Expectations and Challenges
 - i. Obtaining data such as improved acreage may prove to be difficult, and assumptions may have to be made.
 - ii. Question about potential use of brackish groundwater.
 - iii. Consultant is to create a spreadsheet, listing:
 - 1. Strategies for qualitative or quantitative analysis;
 - 2. Extent of update for 2021 RWP cycle;
 - 3. Data RWPG needs in order to update.
6. Municipal Conservation
- a. Criteria
 - i. The following methodology was applied to all municipal WUGs:
 - 1. If the 2020 GPCD is greater than 140, apply a 10% GPCD reduction per decade until 140 GPCD is reached.
 - 2. If the 2020 GPCD is less than 140, no conservation considered.
 - 3. Defer to individual utility Water Conservation Plan goals, if applicable.
 - b. Committee discussed concern: For WUGs with a high GPCD (>300), is it realistic to reduce GPCD almost in half by 2070? Larger WUGs and WUGs with higher water use do/should take more aggressive conservation action. Different WUGs that pull from the same source may have different conservation goal levels, and that is okay. Committee agreed to leave conservation numbers as-is.
 - c. Barbara Johnson proposed a policy recommendation for a water use agreement, buying and selling water conservation reduction credits, like carbon credits. Stacy Pandey responded that LCRA has a similar system implemented during drought conditions.
 - d. Committee recommended sending methodology and numbers to RWPG.
7. Drought Management
- a. Criteria
 - i. Unless indicated by the WUG's Drought Contingency Plan (DCP), the following methodology was applied:
 - 1. If Base GPCD >100, then 20% Reduction Amount Applied
 - 2. If Base GPCD <100, then 5% Reduction Amount Applied
 - ii. Question asked about the use of 100 GPCD as the cutoff, versus 140 GPCD. Cutoff lower than 140 used based on real-world situations. WUGs with GPCDs lower than 140 still have 20% demand reduction drought restrictions.
 - b. Teresa Lutes requested adjustments for City of Austin. COA's regular standard of practice is no more than one day a week watering – along with other reduction measures built into day-to-day use – and it may not be possible to reach an additional 20% reduction with already considerable conservation embedded in standard practice.
8. Expanded Local Use of Groundwater

- a. Committee reviewed AECOM Memorandum on Expanded Local Use of Groundwater.
 - i. In the 2016 RWP, sixteen (16) municipal strategies and eleven (11) non-municipal strategies were selected for Expand Local Use of Groundwater (also called Expansion of Current Groundwater Supplies). Many of these strategies are likely not potentially feasible as recommended strategies because of limited source availability based on the Modeled Available Groundwater (MAG). David Van Dresar recommends discussing MAG Peak Factor.
 - ii. Committee requested AECOM return with tables breaking down each strategy for consideration.

9. Open Discussion

- a. Protecting Inflows to the Colorado River
 - i. David Lindsay and Steve Box presented the issue of low inflows: Inflows from the watershed into the Highland Lakes have shown a significant declining trend, even though the 2017 Kennedy TWDB Report found that long-term precipitation volumes at all study sites generally indicated a steady to slightly increasing trend over the 1940-2016 study period. The presentation proposed identifying the protection and conservation of inflows as an important water management strategy for the upper and lower basin.
 - ii. David Wheelock responded that data in water supply is based on the drought of record; the supply is already determined during times of low inflows. Additionally, some issues highlighted, such as proliferation of noxious brush, and other items affecting the hydrologic response of the watershed, are included in the measured runoff data used for Region K planning, and this data includes the effects over the most recent eight years of the period of record, which is also the drought of record.
 - iii. Jennifer Walker recommended to include this topic of discussion in the Policy Committee meetings based on timeline.

10. New / Other Business

- a. None.

11. Next Meeting

- a. The next RWPG meeting will be April 24, 2019 at 10:00 a.m. at the LCRA Dalchau Service Center.
- b. The next WMS meeting is TBD.

12. Public Comments

- a. None.

13. Lauri Gillam adjourned at 3:36 p.m.