

**Lower Colorado Regional Water Planning Group
Water Management Strategies Meeting
AECOM, Treaty Oak Conference Room
March 4, 2019**

1. Jennifer Walker called meeting to order at 1:07 p.m.

2. Attendees (19)
Committee Members:
Jennifer Walker – Region K, Environmental Rep, Interim Water Management Strategies
Committee Chair
Daniel Berglund – Region K, Small Business Rep
David Wheelock – Region K, River Authority Rep
Doug Powell – Region K, Recreation Rep
Karen Haschke – Region K, Public Rep
Teresa Lutes – Region K, Municipalities Rep
Mike Reagor – Region K, Small Municipalities Rep
John Burke – Region K Chair, Water Utilities Rep

Additional Attendees:
David Bradsby – Region K, TPWD Rep
David Lindsay – Region K, Recreation Rep (Alternate)
Christianne Castleberry – Region K, Water Utilities Rep (Alternate)
Jaime Burke – AECOM
Alicia Smiley – AECOM
Lann Bookout – TWDB
Rebecca Batchelder – LCRA
Stacey Pandey – LCRA
Helen Gerlach – Austin Water
Cindy Smiley – Smiley Law Firm
Danny Bulovas – Public - BCL

3. Public Comments
 - a. None.

4. Minutes Approval
 - a. Draft of November 30, 2018
 - i. Daniel Berglund motioned to approve the minutes. David Wheelock seconded.
Committee passed.

5. Status of Region K Strategy Identification and Evaluation Process

- a. Identification: Identify water management strategies (WMS) to add to Scope of Work for 2021 evaluation. TWDB has allocated \$319,178 in budget for the 2021 evaluation.
 - i. RWPG has already submitted scope of work with 52 strategies. Scope of work remaining budget: \$25,178.
 - ii. Bertram Off-Channel Reservoir Strategy
 - 1. Scoping approval was tabled at Jan. 9, 2019 Region K meeting because the source of the water was unclear as to whether it was groundwater or surface water
 - 2. TCEQ has not determined whether the source is surface water or groundwater. City is comfortable with moving forward as a groundwater strategy. RWPG will not need to scope individually because project can be evaluated under the Expand Local Use of Groundwater or Water Supply Infrastructure Development or Expansion strategies.
- b. Evaluation: Define methodologies, define potential specific measures, and identify strategy candidates.
 - i. Meeting goal: Provide information to the committee on general strategies and their methodologies from the 2016 Plan. Get input from the committee on any methodology changes for this cycle in order to move forward in the evaluation process.

6. Agricultural Irrigation Conservation

- a. Agricultural Irrigation Conservation (Memorandum - David Wheelock and Stacey Pandey)
 - i. Memorandum requests RWPG update agricultural irrigation conservation to accurately represent water savings for 2021 RWP. This will be accomplished by three tasks:
 - 1. Gather data on improved acreage and develop projections for potential future water saving improvements.
 - a. To develop accurate strategy estimates, it must be determined how many acres have already had conservation strategies applied to them (improved acreage), and how many additional acres are available for potential improvements.
 - i. Improvements include: land leveling, underground conveyance (converting canals to pipeline), and multiple inlets.
 - b. Potential avenues of data:
 - i. LCRA – Surface water information
 - ii. NRCS – land leveling data
 - iii. GCD – Wharton County survey information

- c. Consultant will work with Stacey Pandey to develop a plan to come up with more current estimates of improved acreage and potential water savings projections.
 - 2. Update savings estimates for existing irrigation conservation strategies.
 - a. Consultant will work with Daniel Berglund to update LEPA (low energy precision application) center pivot sprinkler irrigation.
 - 3. Identify new irrigation conservation strategies and develop updated savings estimates.
 - a. Daniel Berglund requested to add on-farm real-time conveyance and delivery metering/monitoring with SCADA at the point of delivery. More real-time flow data would mean more efficient practices.
 - b. Discussion of tail water recovery. It is expensive. Will consider for qualitative analysis before ruling out for evaluation.
- b. Conservation-Related Items (Handout - David Lindsay)
 - i. David Lindsay expressed concern on how to ensure the implementation of strategies.
 - 1. Jennifer Walker suggested the RWPG add discussion into 2021 RWP to emphasize the responsibility of the individual WUGs to implement strategies. By adding context to the importance of implementation (such as the positive effects of savings, priority or urgency of selected strategies, watershed effects, etc.), it stresses the importance of implementation to municipalities.
 - 2. Stacey Pandey pointed out that half the battle of grant writing is proving the cost-effectiveness of the strategy. Should the recommended strategies provide a savings to the entity, implementation will already be in consideration.

7. Municipal Conservation

- a. Conservation Strategies for 2021 RWP (Memorandum - AECOM)
 - i. Major Water Provider Conservation
 - 1. LCRA and COA will work with Consultant to ensure data is accurate and updated.
 - ii. Municipal Water Conservation
 - 1. 2016 criteria for municipal water conservation and methodology applied to calculate demand reduction:
 - a. 2016 Criteria
 - i. Be a municipal WUG.
 - ii. Have a year 2020 per capita water usage of greater than 140 GPCD, indicating a potential for savings through conservation.

- iii. Conservation was considered, regardless of whether a municipality had needs.
 - b. 2016 Methodology
 - i. If the 2020 GPCD is greater than 200, apply a 10% GPCD reduction per decade (1% reduction per year) until 200 GPCD is reached. Then apply a 5% GPCD reduction per decade (0.5% reduction per year) until 140 GPCD is reached.
 - ii. If the 2020 GPCD is greater than 140, apply a 5% GPCD reduction per decade (0.5% reduction per year) until 140 GPCD is reached.
 - iii. If the 2020 GPCD is less than 140, no conservation considered.
 - iv. Defer to Water Conservation goals, if applicable.
- 2. Proposed 2021 methodology applied to calculate demand reduction:
 - a. Methodology:
 - i. If the 2020 GPCD is greater than 140, apply a 10% GPCD reduction per decade (1% reduction per year) until 140 GPCD is reached.
 - ii. If the 2020 GPCD is less than 140, no conservation considered.
 - iii. Defer to Water Conservation goals, if applicable.
 - b. Concerns:
 - i. Doug Powell asked if there may be differences in difficulty of implementing reduction down to 200 than down to 140. Implementation depends on individual demographics of WUGs.
 - ii. Small municipalities don't have the same resources to reduce GPCD.
 - iii. 1% per year may be overestimating the conservation WUGs are/will actually be doing.
 - iv. Karen Haschke asked to what extent are other RWPGs applying demand reduction. Consultant will check and report to committee.
 - c. David Wheelock motioned to 1% reduction to reach a 140 GPCD with consideration of individual WUG. Daniel Berglund seconded. Committee passed.
- 3. Jaime Burke suggested separating conservation projects with capital costs (such as water loss infrastructure) from conservation projects without capital costs, like Region H. Additionally, any project listed in the 2021 RWP with a capital cost for 2020 must be implemented by 2023.

- b. Water Conservation by the Yard (Presentation - Jennifer Walker)
 - i. Sierra Club, National Wildlife Federation, and Texas Living Waters Project created the report *Water Conservation by the Yard: A Statewide Analysis of Outdoor Water Savings Potential*, which quantifies twice-a-week outdoor watering restrictions.
 - 1. If a WUG implements such restrictions, it can reduce its demands from 3.5% to 8.5%, depending on the effort employed to implement the measure.
 - 2. Jennifer Walker requests that savings tables from the implementation of the watering restrictions be added to the 2021 RWP so that individual WUGs would be able to see their savings potential.
- 8. Drought Management
 - a. Drought Management Strategies for 2021 RWP (Memorandum - AECOM)
 - i. Drought Management for Municipalities
 - 1. David Wheelock believes that WUGs will exceed the goal of 15% water demand reduction, as they did during the last drought of record. He suggests the RWPG update demand reduction to 20%.
 - ii. Drought Management for Irrigation
 - 1. The LCRA Water Management Plan states that in a period of drought, no ratoon (second) crop shall be planted. Daniel Berglund noted that water savings numbers from such measures may need reconsideration.
- 9. Expand Local Use of Groundwater
 - a. Expand Local Use of Groundwater Strategy Update for 2021 RWP (Memorandum - AECOM)
 - i. Expand Local Use of Groundwater involves pumping additional groundwater from an aquifer that the WUG is currently using as a source, either using the WUG's existing wells or drilling additional wells. Memorandum details the feasibility and limitations of strategy recommendation.
 - ii. Committee decided to table discussion for next WMS meeting in order to receive input from RWPG groundwater representatives.
- 10. Open Discussion
 - a. None.
- 11. New / Other Business
 - 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 Committee meeting will be April 10, 2019 at 1:00 p.m. at AECOM.
- 12. Public Comments

- a. Cindy Smiley asked that since a standard water use exists for municipal WUGs (GPCD of 140), does the RWPG have one for irrigation WUGs? Smiley recommended adding a reference table to Chapter 5 listing how much water is typically needed to grow a specific crop per acre. A table would assist in better understanding of water requirements for irrigation.
 - i. The recommendation will be taken into consideration; Mike Reagor added that water requirements for crops depend on external factors such as weather, climate, soil type, etc., so the water needed is a range.

13. Jennifer Walker adjourned at 4:00 p.m.