Lower Colorado Regional Water Planning Group Water Management Strategies Meeting AECOM, Treaty Oak Conference Room October 3, 2019

1. Lauri Gillam called meeting to order at 1:07 p.m.

2. Attendees (24)

Committee Members:

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

Chair

John Burke – Region K, Water Utilities Rep

Daniel Berglund – Region K, Small Business Rep

David Wheelock – Region K, River Authority Rep

Jennifer Walker – Region K, Environmental Rep

Mike Reagor - Region K, Small Municipalities Rep

Teresa Lutes – Region K, Municipalities Rep

Karen Haschke - Region K, Public Rep

David Lindsay – Region K, Recreation Rep (Alternate)

Additional Attendees:

David Bradsby - Region K, TPWD Rep

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

Earl Foster – Region K, Small Municipalities (Alternate)

Lann Bookout - TWDB

Jaime Burke – AECOM

Alicia Smiley – AECOM

Kiera Brown - AECOM

Helen Gerlach - Austin Water

Richard Hoffpauir - Hoffpauir Consulting

Joe Trungale – Trungale Engineering

Rebecca Batchelder – LCRA

Stacy Pandey – LCRA

Valerie Miller – LCRA

Leonard Oliver - LCRA

Cindy Smiley – Smiley Law Firm

Adam Connor - Freese & Nichols

3. Public Comments

a. Jennifer Walker requested an expanded evaluation of environmental impact on either a cumulative or project-by-project basis. Jaime Burke responded that environmental impacts are assessed as write-ups are provided and a cumulative environmental impacts

analysis is included in Chapter 6 of the RWP. Joe Trungale noted that flow impacts are shown through the WAM, but other impacts are not clearly defined by the RWP process.

4. Minutes Approval

- a. Draft of September 16, 2019
 - David Wheelock motioned to approve the minutes. Daniel Berglund seconded.
 Committee passed.
- 5. Status Update on Water Management Strategy Evaluations
 - a. 41 strategies under RWPG or committee review.
 - b. 29 strategies in progress/pending data.
 - c. 0 strategies not started.
 - d. The initially prepared plan (IPP) is due March 3.

6. Draft Strategy Review

- a. First drafts of strategy write-ups were previously presented to WMS committee for: Expand Use of Local Groundwater/Development of New Groundwater Supplies, Downstream Return Flows, Oceanwater Desalination, and Direct Reuse. Consultant incorporated comments from discussion.
 - David Lindsay motioned to send the Expand Use of Local Groundwater/Development of New Groundwater Supplies strategies to the RWPG for review. David Wheelock seconded. Committee passed.
 - ii. As Oceanwater Desalination has no sponsor, David Lindsay said brackish groundwater should be more seriously considered as a recommended strategy. Jaime Burke responded that both Austin and LCRA are sponsors of brackish groundwater strategies. Teresa Lutes suggested that the brackish groundwater discussion in the RWP include the limitations of current brackish water modeling and recognition that application of brackish water is evolving.
 - iii. Downstream Return Flows Teresa Lutes requested changing, "...return flows from Pflugerville were also taken into consideration" to, "...return flows from Pflugerville are considered in the plan as a water management strategy."
 - iv. Lann Bookout requested Consultant note when costs are provided by WUGs as opposed to developed fully by the costing tool.
- b. Lauri Gillam motioned to send the additional strategies to the RWPG for review. Mike Reagor seconded. Committee passed.

7. Direct Potable Reuse

a. Buda

i. Online: 2030

ii. Project Yield: 2,240 ac-ft/yr

iii. Project Costs: Total Project Costs: \$33,503,000; Annual Cost: \$4,399,000; Unit Cost: \$1,964/ac-ft

- b. Dripping Springs WSC
 - i. Online: 2030
 - ii. Project Yield: 560 ac-ft/yr
 - iii. Project Costs: Total Project Costs: \$12,119,000; Annual Cost: \$1,446,000; Unit Cost: \$2,582/ac-ft
- c. West Travis County PUA
 - i. Online: 2030
 - ii. Project Yield: 336 ac-ft/yr
 - iii. Project Costs: Total Project Costs: \$7,788,000; Annual Cost: \$972,000; Unit Cost: \$2,893/ac-ft
- d. David Wheelock wanted to clarify that the RWPG is assuming the purchase of water is valued at \$0, although he believes that in practice, the water transferred from wastewater treatment to water treatment is sold, such as the relationship between the city of Dripping Springs and Dripping Springs WSC. Wheelock requested to add that the valuation of water is assumed to be zero to the write-up. Lauri Gillam requested a line adding that further evaluation may be necessary in future cycles.
- e. David Wheelock requested to change language for Dripping Springs WSC and West Travis County PUA to "considering" the strategy as they haven't moved as quickly as Buda in the implementation of DPR. Lann Bookout responded that if a project is only under consideration, it may not be eligible for funding.
- f. Daniel Berglund motioned to send the strategy to the RWPG for review. Karen Haschke seconded. Committee passed.
- 8. LCRA Water Management Strategy Evaluations
 - a. No discussion.
- 9. Austin Water Management Strategy Evaluations
 - a. No discussion.
- 10. Water Purchase and Contracts
 - a. LCRA New Contracts/Contract Amendments
 - Looking at a Bastrop Regional Project for Aqua WSC, Bastrop, and Bastrop County WCID #2
 - b. Water Purchase/Water Purchase Amendments
 - Considering for Barton Creek WSC, Creedmoor Maha WSC, Travis County MUD 14, Hays County Mining, Hays, and potentially Windemere (via the Blue Water 130 Pipeline).
 - c. No discussion. Strategy will be reviewed at next WMS committee meeting.
- 11. Irrigation Conservation
 - a. Irrigation Conservation

- i. Draft write-ups provided: Tail Water Recovery, Sprinkler Irrigation, Drip Irrigation for Non-Rice Crops, and On-Farm Conservation.
 - 1. Tail Water Recovery Daniel Berglund noted strategy yields were not realistic because with the implementation of land leveling, there is less tail water to recover.
 - Drip Irrigation David Wheelock asked if unit cost seemed high. Alicia Smiley responded that micro irrigation costs are due to the high annual maintenance costs.
 - 3. On-Farm Conservation Stacy Pandey requested data sources be added to write-up and that consultant reach out to NRCS for cost update.
- ii. Draft write-ups in progress: Irrigation Operations Conveyance Improvements and Real-Time Monitoring
 - 1. Consultant is coordinating with LCRA and Daniel Berglund to complete write-ups.
- b. Irrigation Drought Management
 - Stacy Pandey requested strategy include a discussion of the LCRA Water Management Plan (WMP).
 - David Wheelock said to clarify that demands assume two crops, and drought management reduces demands by assuming a portion of growers don't grow crops.
- c. Mining Conservation
 - i. Strategy Definition and Cost
 - Mining conservation involves taking the existing pumped groundwater, once used, letting it settle, and then recycling it for additional use rather than pumping additional groundwater from the aquifer. Serves mining WUGs Bastrop and Burnet counties.
 - 2. Online: 2020
 - 3. Project Yield:
 - a. Bastrop Mining: 2 ac-ft/yr (2020); 243 ac-ft/yr (2030); 308 ac-ft/yr (2040); 233 ac-ft/yr (2050)
 - b. Burnet Mining: 1,000 ac-ft/yr (2020); 1,500 ac-ft/yr (2070)
 - 4. Project Costs: Assumed no facilities cost; energy costs included; Annual Cost: Bastrop Mining (\$5,000), Burnet Mining (\$45,000); Unit Cost: Bastrop Mining (\$16/ac-ft), Burnet Mining (\$30/ac-ft)
 - ii. David Wheelock requested consultant reach out to Mitchell Sodek to review strategy.
- 12. Hays County Groundwater Importation
 - a. Alliance Regional Water Authority Pipeline
 - i. Strategy Definition and Cost

- 1. Withdrawal and transport of groundwater from the Carrizo-Wilcox aquifer in Gonzales County to 1-35 Corridor area near San Marcos, Kyle, and Buda; primarily Region L strategy. Serves Buda.
- 2. Online: 2030
- 3. Project Yield: 762 2,467 ac-ft/yr
- 4. Project Costs: Region L to provide updated costing; Total Project Costs: \$34,996,869; Annual Cost: \$4,751,402; Unit Cost: \$1,926/ac-ft

ii. Discussion

- David Wheelock requested the discussion of the MAG be removed from the environmental impacts, as it is a misrepresentation: the MAG is based on Desired Future Conditions, which is more than just environmental considerations. Additionally, the available yield is different than the MAG yield, and the terminology should be removed from the strategy.
- 2. David Wheelock requested changing "Importing groundwater from a more rural area to a more populated area may limit future growth in the water-supplying area" to "In general, importing water from rural areas may affect rural users, as described in Chapter 8."

b. Hays County Pipeline

- i. Strategy Definition and Cost
 - 1. Withdrawal and transport of groundwater from the Carrizo-Wilcox aquifer in Kyle area to western Hays County; strategy shared with Region L. Serves Hays County-Other and West Travis County PUA.
 - 2. Online: 2030
 - 3. Project Yield:
 - a. West Travis County PUA: 3,000 ac-ft/yr
 - b. Hays County-Other: 1,000 ac-ft/yr
 - 4. Project Costs: Total Project Costs: West Travis County PUA (\$22,939,500), Hays County-Other (\$7,616,500); Annual Cost: West Travis County PUA (\$1,938,750), Hays County-Other (\$646,250); Unit Cost: \$646/ac-ft

ii. Discussion

- David Wheelock noted that treated water currently has a zero cost, and a cost needs to be added to the supply purchase. Consultant will coordinate with Region L.
- 2. Committee requested removal of implementation issues from the environmental discussion and a reference to Chapter 10.
- c. Strategies will be reviewed at next WMS committee meeting.

13. Brush Management

a. Strategy Definition and Cost

- i. Convert land that is covered with brush (juniper, mesquite, saltcedar) to grasslands, increasing water availability through reduced extraction of soil water for transpiration and increased recharge to shallow groundwater and emergent springs. Serves Blanco, Hays, Gillespie, and Travis County-Other.
- ii. Online: 2030
- iii. Project Yield: 5,571 ac-ft/yr
- iv. Project Costs: Total Project Costs: \$29,707,000; Annual Cost: \$2,379,000; Unit Cost: \$427/ac-ft

b. Discussion

- i. David Lindsay and David Wheelock commented that the yield may be too low. The project's yield is based on drought of record (2011) conditions, when inflows were 10% normal inflows. Updates to strategy were limited and based on budget available from scope of work. Next cycle, RWPG can request a more detailed scope of work to potentially model inflows.
- ii. Strategy will be reviewed at next WMS committee meeting.

14. Wharton Water Supply

- a. Strategy Definition and Cost
 - The 2017 Regional Water Supply Study for the City of Wharton and East Bernard recommended the use of additional groundwater; incorporated into Expand Use of Local Groundwater for Gulf Coast aquifer.
 - ii. Online: 2030
 - iii. Project Yield: 3,000 ac-ft/yr
 - iv. Project Costs: Total Project Costs: \$9,100,000; Annual Cost: \$817,000; Unit Cost: \$272/ac-ft
- b. No discussion. Strategy will be reviewed at next WMS committee meeting.

15. Remaining Draft Strategy Evaluations

- a. Goldthwaite Strategy Request
 - i. Water Right Permit Amendment and expansion of Goldthwaite's reservoir storage capacity cannot be recommended as a strategy, as the yield is 0 ac-ft/yr during drought of record.
 - ii. No discussion.

16. Austin Strategy Edits

- a. 7/15 strategies are completed and under review by Austin Water. Additional comments may be sent to Jaime Burke.
- b. David Wheelock requested that strategies be consistent with TWDB and hydrologic variance rules.

17. Significant Water Needs

- a. Per HB807, "if a RWPA has significant identified water needs, provides a specific assessment of the potential for aquifer storage and recovery projects to meet those needs" (TWC§16.053(e)(10)).
- b. RWPG is to define the meaning of "significant needs." Committee asked if RWPG could parsing the needs so that irrigation does not count as significant. David Wheelock suggested a municipal need of 10,000 ac-ft/yr be considered significant.

18. Scope of Work Amendments

- a. SubTask Budget Amendments
 - i. Reuse (\$14,000 > \$28,000)
 - ii. Austin Conservation (\$2,000 > \$3,000)
 - iii. Austin Blackwater and Greywater Reuse (\$1,000 > \$2,500)
 - iv. Austin Onsite Rainwater and Stormwater Harvesting (\$1,000 > \$2,500)
- b. Amendments will be presented and discussed at Region K RWPG meeting.

19. New / Other Business

a. None.

20. Next Meeting

- a. A Doodle poll will be sent out to determine the date of next WMS committee meeting for the last week of October.
- b. The next RWPG meeting will be October 9, 2019 at 10:00 a.m. at the LCRA Dalchau Service Center.

21. Public Comments

- a. None.
- 22. Teresa Lutes adjourned at 4:09 p.m.