Region K Public Meeting

April 11, 2018

Lower Colorado Regional Water Planning Group
(Region K)

April 11, 2018

Agenda

1. Call to Order
2. Welcome and Introductions
3. Receive public comments
4. Attendance Report
5. Renewal of voting member terms
6. Consent Agenda
7. Texas Water Development Board
8. Open Meeting Issues and Committee Meetings
9. Region K Committee Assignments

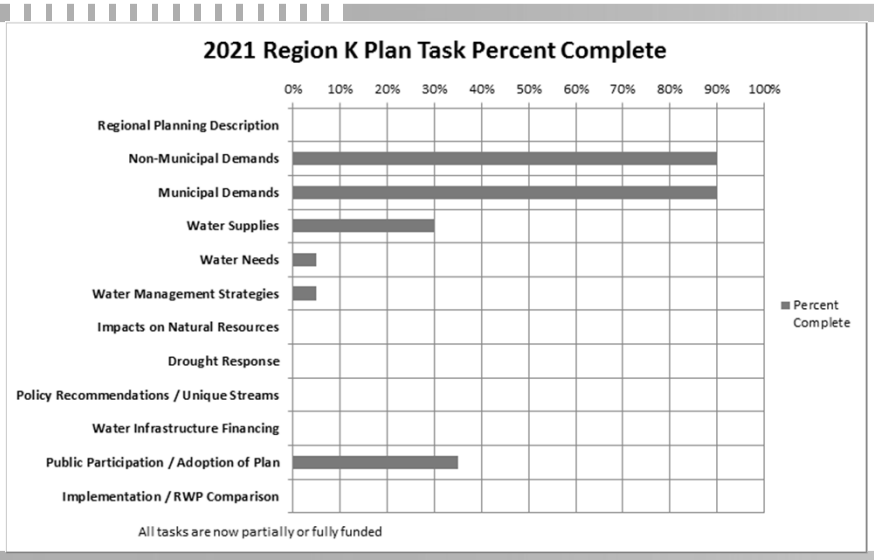
Agenda

10. Consider action to request LCRA or TWDB request Attorney General opinion on behalf of Region K.
11. Discussion on process for determination of new drought of record
12. Consider action to approve LCRA to execute a TWDB contract amendment.
13. Consultant Status Report

Agenda Item 13

CONSULTANT STATUS REPORT

13. Consultant Status Report



13. Consultant Status Report
Effort since last meeting (January 10, 2018)

- Population, Municipal, and Non-Municipal Demand Projections
  - Submitted revision request to TWDB staff.
  - Received response from TWDB staff. All requested revisions were accepted, with the exception of the increased manufacturing demands in 2040-2070 for Travis County, and the City of Austin's separately requested increase to their population numbers which were additional to the increase that Region K requested.
  - Received river basin-level splits for all projections from TWDB staff. Reviewed and provided a few proposed revisions. TWDB staff agreed to revisions.
  - Currently waiting for TWDB to adopt final projections. Will post final projections on Region K website once adopted.
  - Making updates to Chapter 2 (Population and Demands).

13. Consultant Status Report
Effort since last meeting (January 10, 2018)

- Water Availability and Supplies
  - Submitted hydrologic variance request to TWDB staff.
  - TWDB staff responded with several questions for additional detail or clarification. Assisted with coordination of response to TWDB questions. TWDB staff sent approval letter on April 2nd.
  - Prepared and sent surveys and letters of communication to WUGs requesting feedback on existing water supplies. Logged responses, answered questions, and followed up with non-responders. Current response rate ~ 58%.
  - Requested updated information from Groundwater Conservation Districts.
  - Reviewed updates to Modeled Available Groundwater (MAG) numbers.
  - Water Modeling Committee meeting held on April 5th.

13. Consultant Status Report
Effort since last meeting (January 10, 2018)

- Water Management Strategies
  - Prepared and sent surveys and letters of communication to WUGs requesting feedback on potentially feasible water management strategies. Logged responses, answered questions, and followed up with non-responders. Current response rate ~ 58%.
  - Reviewed 2016 Region K Plan process for identifying potentially feasible water management strategies in preparation for Water Management Strategies Committee meeting.
  - Water Management Strategies Committee meeting held on April 5th.

13. Consultant Status Report
Upcoming effort

- Water availability modeling for surface water availability numbers.
- Continue updates to existing water supply numbers for Water User Groups and Wholesale/Major Water Providers.
- Begin TWDB database (DB22) entry of Region K numbers. (major component of Technical Memorandum due in September)
- Determination of water needs.
- Identification of potentially feasible water management strategies.
- Updates to chapter texts, as able.

Agenda Item 14

POPULATION AND WATER DEMAND COMMITTEE

14. Population and Water Demand Committee

- Consider approval of meeting minutes from December 7, 2017 committee meeting.

Agenda Item 15

WATER MODELING COMMITTEE REPORT

15. Water Modeling Committee Report

- Summary of January 10th committee meeting
  - Held immediately before the last Region K meeting.
  - Approved meeting minutes from December 13th meeting.
  - Surface Water Modeling 101 and Region K Cutoff Model Presentation given.
  - Committee took action to approve recommendation of updated assumptions to Region K Cutoff Model and associated hydrologic variance request to the RWPG.
- Summary of April 5th committee meeting
  - Approval of January 10th meeting minutes.
  - Status update on hydrologic variance request to TWDB.

15. Water Modeling Committee Report

- Summary of April 5th committee meeting (continued)
  - Discussion of domestic and livestock water use with respect to water availability modeling.
  - Discussion of Region K Cutoff Model
    - Sedimentation
      - Committee agreed to use the best available information, which includes updated elevation-area-capacity relationships for Lakes Travis and Buchanan.
    - How to incorporate Arbuckle Reservoir (formerly Lane City Reservoir) into the Region K Cutoff Model – as an existing supply or strategy?
      - Committee agreed to recommend to RWPG that it be included as an existing supply, since it should be on-line later this year.
    - Update on timeline for modeling
  - Update on groundwater availability

15. Water Modeling Committee Report

- Request RWPG take action to approve recommendation from Water Modeling Committee that the Arbuckle Reservoir be included into the Region K Cutoff Model as an existing water supply, rather than a strategy.

Agenda Item 16

WATER MANAGEMENT STRATEGIES COMMITTEE REPORT

16. Water Management Strategies Committee Report

- Summary of April 5th committee meeting
  - Purpose and role of committee
    - Review process for identification of potentially feasible water management strategies and recommend any changes to the RWPG.
    - Review strategies from 2016 Plan and discuss changes for 2021 Plan.
    - Brainstorm new strategies to be included in 2021 Plan.
    - Review screening process for selection of strategies for further analysis.
    - Review evaluated strategies and projects for recommended or alternative status.
  - Background information on water management strategies in regional water planning
    - TWDB guidance and requirements

16. Water Management Strategies Committee Report

- Summary of April 5th committee meeting (continued)
  - Update on outreach to WUGs for feedback on potentially feasible water management strategies (including ones in 2016 Plan).
  - Presentation to committee of previous cycle's Region K process for identifying potentially feasible water management strategies.
    - Asked for feedback on any changes suggested for this cycle.
    - Committee action to approve process for presentation at today's meeting for public comment and RWPG consideration.
  - Briefly looked over list of 5th cycle public input items that Region K will or may consider related to water management strategies.
    - Will address further at future meetings.

Agenda Items 17-19

PROCESS FOR IDENTIFYING POTENTIALLY FEASIBLE WATER MANAGEMENT STRATEGIES

Process for Identifying Potentially Feasible Water Management Strategies

- TWDB guidelines
- Present process recommended by Water Management Strategies Committee.
- Allow discussion and comment by RWPG.
- Take public comments on the Region K process.
- RWPG to consider making any revisions to process, based on public comments and RWPG discussion.
- RWPG to take action to approve finalized process.

Process for Identifying Potentially Feasible Water Management Strategies

- TWDB Regional Water Planning Guidelines:
  - A RWPG shall hold a public meeting to determine the process for identifying potentially feasible water management strategies
    - The process shall be documented and shall include input received at the public meeting (72-hour notice).
  - After reviewing the potentially feasible strategies using the documented process, the RWPG shall list all possible water management strategies that are potentially feasible for meeting a need in the region.

Process for Identifying Potentially Feasible Water Management Strategies

- TWDB Regional Water Planning Guidelines:
  - RWPGs shall consider these strategies (but are not limited to):

1. conservation
2. drought management
3. reuse
4. management of existing water supplies
5. conjunctive use
6. acquisition of available existing water supplies
7. development of new water supplies
8. developing regional water supply facilities or providing regional management of water supply facilities
9. developing large-scale desalination facilities for seawater or brackish groundwater that serve local or regional brackish groundwater production zones identified and designated under TWC § 16.060(b)(5)34
10. developing large-scale desalination facilities for marine seawater that serve local or regional entities
11. voluntary transfer of water within the region using, but not limited to, contracts, water marketing, regional water banks, sales, leases, options, subordination agreements, and financing agreements
12. emergency transfer of water under TWC § 11.139
13. interbasin transfers of surface water
14. system optimization
15. reallocation of reservoir storage to new uses
16. enhancements of yields
17. improvements to water quality
18. new surface water supply
19. new groundwater supply
20. brush control
21. precipitation enhancement
22. aquifer storage and recovery
23. cancellation of water rights
24. rainwater harvesting

Process for Identifying Potentially Feasible Water Management Strategies

- TWDB Regional Water Planning Guidelines:
  - The Technical Memorandum, Initially Prepared Plan, and final adopted Regional Water Plan shall include:
    1. the documented process used by the RWPG to identify potentially feasible WMS; and,
    2. the list of all identified WMSs that were considered potentially feasible for <u>meeting a need</u> in the region.

Example Template for Documenting whether WMS are feasible for a Particular WUG

Every WUG Entity with an Identified Need		WMSs Named to be Considered by Statute[1]												Additional WMSs named to be considered by Rule									
Water User Group Name	maximum need 2020-2070 (af/yr)	conservation ***(If PF and not recommended, plan will need to document why not.)***	drought management ***(If PF and not recommended, plan will need to document why not.)***	reuse	management of existing supplies	development of large-scale marine seawater or brackish groundwater ***(If PF and not recommended, plan will need to document why not.)***	conjunctive use	acquisition of available existing supplies	development of new supplies	development of regional water supply or regional management of water supply facilities	voluntary transfer of water (including regional water banks, sales, leases, options, subordination agreements, and financing agreements)	emergency transfer of water under Section 11.139	system optimization, reallocation of reservoir storage to new uses, contracts, water marketing, enhancement of yield, improvement of water quality	new surface water supply	new groundwater supply	brush control; precipitation enhancement	interbasin transfers of surface water	aquifer storage and recovery ***(If PF and not recommended, plan will need to document why not.)***	cancellation of water rights	rainwater harvesting	other	other
City A	*20,000*	PF	nPF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	nPF	nPF	nPF	nPF	nPF	nPF		
City B	*5,500*	PF	PF	PF	nPF	PF	nPF	PF	PF	nPF	PF	nPF	PF	nPF	PF	nPF	nPF	PF	nPF	nPF		

[1] Texas Water Code §16.053(e)(3)

PF = considered 'potentially feasible' and therefore evaluated
nPF = considered but determined 'not potentially feasible' (may include WMSs that were initially identified as potentially feasible)

Process for Identifying Potentially Feasible Water Management Strategies

- TWDB Regional Water Planning Guidelines:
  - All recommended WMSs and WMSPs that are entered into the State Water Planning Database and prioritized by RWPGs shall be designed to reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or develop, deliver or treat additional water supply volumes to WUGs or WWPs in at least one planning decade such that additional water is available during Drought of Record conditions.
  - Any other RWPG recommendations regarding permit modifications, operational changes, and/or other infrastructure that are not designed to meet one of the above criteria shall be indicated as such and presented separately in the RWP and shall not be eligible for funding from the State Water Implementation Fund for Texas.

Process for Identifying Potentially Feasible Water Management Strategies

- TWDB Regional Water Planning Guidelines:
  - Evaluation of potentially feasible strategies shall include:
    - Comparison of all potentially feasible WMS.
    - Quantitative analysis of quantity, reliability, cost, environmental factors, and impacts to agriculture.
    - Discussion of impacts on other water and natural resources.
    - Consideration of third-party social and economic impacts.
    - Consideration of water pipelines and facilities that are currently used for water conveyance.
    - Descriptions of impacts to water quality and of other factors deemed relevant including recreational impacts.

Process for Identifying Potentially Feasible Water Management Strategies

Committee-Recommended 2021 Region K Process :

1. Define groupings or common areas with supply deficiencies.
2. Develop a comprehensive list of potentially feasible strategies for each area.
   - Recommended and alternative strategies from previous Region K Water Plan
   - Strategies documented in local plans
   - Suggestions from the public
3. Meet with potential suppliers/WUGs for each area to determine current strategies under consideration.

Process for Identifying Potentially Feasible Water Management Strategies

Committee-Recommended 2021 Region K Process (continued) :

4. Prepare qualitative rating based on cost, reliability, environmental impact, and political acceptability for the various strategies.
5. Select one or more additional strategies for each area, if appropriate.
6. Present proposed shortlist at Public Meeting during Region K Planning Group meeting for modification and/or approval.

Example Screening Table from 2016 Plan with Update

Strategy Description	Addressing a Need?	Total Strategy Cost ($)	Annual Strategy Cost ($)	Cost of Water ($/ac-ft)	Max Yield (ac-ft/yr)	Starting Decade	Basin	Interbasin Transfer (Yes/No)	Screening Matrix Factors (Positive (1), Neutral (0), Negative (-1))												Total of Screening Factors
									Cost	Yield	Location	Water Quality	Environmental and Natural Resources	Local Preference	Institutional Constraints	Third-Party Social and Economic Impacts	Impacts on Water Resources	Impacts on Agricultural Resources	Impacts to Recreation	Impacts on Other Management Strategies	
Direct reuse of wastewater effluent for municipal and manufacturing purposes	Yes	$346,037,000	$32,453,700	$1,162	27,929	2020	Colorado	No	-1	1	1	1	1	0	0		1	-1	0	0	3
Decentralized concepts and gray water use.	Yes	$21,772,000	$3,067,000	$1,022	3,000	2020	Colorado	No	-1	1	1	1	1	0	0		1	-1	0	0	3
Automating knife gates to control flow passing below the gate	Yes	$1,036,000	$87,000	$29	3,000	2020	Colorado	No	1	1	1	0	0	1	0		0	0	0	0	4

Rating Criteria Table from 2016 Region K Plan with Update

Category	Rating Criteria		
	-1	0	1
Cost	>$1,000/ac-ft	<$1,000/ac-ft	<$500/ac-ft
Yield	Size of project is too small or too large for likely need	Size of project is flexible or meets needs of service area	Size of project is flexible and can be adjusted to fit optimum requirements
Location	IBT required. Large distance from demand. Outside of Region K area.	No IBT required. Significant conveyance required. May cross watersheds.	No IBT required. Located within Region K area. Relatively close to demand.
Water Quality	Quality of supply is reduced. May aggravate water quality issues in source supply.	No known water quality issues.	Existing water quality problems are reduced due to this strategy.
Environmental and Natural Resources	Significant environmental issues and community opposition. Negative impacts to natural resources, including reduction in instream or B&E flows.	Environmental impacts can be easily mitigated. Limited concerns by environmental community. No impacts to natural resources or instream/B&E flows.	Positive or limited or no known negative environmental impacts. Positive impacts to natural resources, including increased instream/B&E flows.
Local Preference	No local support. Significant local opposition.	Some local support. Limited opposition.	Widespread local support. Multi-use benefits likely. No local opposition.
Institutional Constraints / Risk of Implementability	Permits opposed. Significant property acquisition required. Construction will be complex.	Permits expected with minimal problems. Necessary property available. No expected construction difficulties.	Permits issued. Facilities constructed or land owned. Water available to contract.
Third-party social and economic impacts	Negative impact.	No impact.	Positive impact.
Impacts on Water Resources	Negative impact on other water supplies. (groundwater or surface water)	No impact.	Positive impact on other water supplies. (groundwater or surface water)
Impacts on Agricultural Resources	Negative impact.	No impact.	Positive impact.
Impacts on Recreation	Negative impact.	No impact.	Positive impact.
Impacts on Other Management Strategies	Negative impact.	No impact.	Positive impact.

Discussion of Committee-recommended Process

- Things to note:
  - Lots of new municipal WUGs this cycle due to utility-based planning and changes to criteria for definition of a WUG.
  - Because of drought and new SWIFT funding last cycle, Region K developed a large number of water management strategies as compared to the previous cycle.
  - Region may want to look at more opportunities for desalination, brackish groundwater, and ASR, if potentially feasible.
  - Consider adding detail for inter-regional coordination.

Agenda Item 18
Take Public Comments on Process

PUBLIC COMMENTS

Agenda Item 19.
Final Discussion and Approval

- RWPG to consider making any revisions to process, based on public comments and RWPG discussion.
- RWPG to take action to approve finalized process.

Agenda

20. Other Committee Reports (as needed)
21. Agenda items for next meeting
22. New / Other Business
23. Public Comments
24. Adjourn