

# Region K Public Meeting

April 24, 2019

Lower Colorado Regional Water Planning Group  
(Region K)



April 24, 2019

## Agenda

1. Call to Order
2. Welcome and Introductions
3. Receive Public Comments
4. Attendance Report
5. Consent Agenda
6. TWDB Update
7. Committee Reports – WMS, Unique Stream Segments, and others

Agenda Item 7a

# WATER MANAGEMENT STRATEGIES COMMITTEE REPORT

## 7a. Water Management Strategies Committee Report

### ▼ Committee meeting on March 4<sup>th</sup>

- Update on Bertram reservoir strategy
- Began discussion of Agricultural Irrigation Conservation
  - Included a memo from LCRA and handout from David Lindsay
- Began discussion of Municipal Conservation
  - Included information on Water Conservation by the Yard (limiting outdoor watering to 2x per week) from Jennifer Walker
- Began discussion of Drought Management
  - Discussed general demand reduction of 20% for >100 GPCD
- Limited discussion of Expand Local Use of Groundwater (discussion tabled due to lack of groundwater reps present)

## 7a. Water Management Strategies Committee Report

- ▼ Committee meeting on April 10<sup>th</sup>
  - Agricultural Irrigation Conservation
    - Irrigation Conveyance Improvement
    - On-Farm Conservation
    - Expectations and Challenges
  - Municipal Conservation
    - For WUGs with high GPCD, is it realistic to reduce GPCD by almost half by 2070?
    - Committee recommends methodology for RWPG to consider.

## 7a. Water Management Strategies Committee Report

- ▼ Committee meeting on April 10<sup>th</sup>
  - Drought Management
    - Plan to finalize numbers and postponed recommendation to next meeting.
  - Expanded Local Use of Groundwater
    - Reviewed Memorandum - many strategies from 2016 cycle are likely not potentially feasible because of limited source availability after supply allocation, based on the Modeled Available Groundwater (MAG).
    - Committee recommends discussing MAG Peak Factor.
    - Committee to receive breakdown of potential strategy with supply allocation.
  - Protecting Inflows to Colorado River
    - Purpose: Secure funding to devise and install practices that protect inflows to the Colorado River and tributaries for both rainfall/runoff and groundwater baseflow sources.
    - Committee allocated to Policy Committee

Agenda Item 7b

## **UNIQUE STREAM SEGMENTS COMMITTEE REPORT**

### **7b. Unique Stream Segments Committee Report**

#### **▼ Background for convening committee**

- Agenda item at January Region K meeting to discuss and consider taking action on designation of ecologically significant stream segments.
- Confusion over whether Region K had already recommended/designated unique stream segments in the first planning cycle.
- Committee designated to review background to understand where we are in the process, and make recommendations to the RWPG.
- Committee (Jennifer Walker, Chair) met on April 11<sup>th</sup>.

## 7b. Unique Stream Segments Committee Report

### ▼ Stream Segments in Question

Stream Segment	Location
<i>Barton Springs segment of the Edwards Aquifer</i>	Recharge stretches of Barton, Bear, Little Bear, Onion, Slaughter, and Williamson Creeks in Travis and Hays Counties
<i>Bull Creek</i>	From the confluence with Lake Austin upstream to its headwaters in Travis County
<i>Colorado River</i>	Within TCEQ classified Segments 1409 and 1410 including Gorman Creek in Burnet, Lampasas, and Mills Counties
<i>Colorado River</i>	TCEQ classified Segments 1428 and 1434 in Travis, Bastrop, and Fayette Counties
<i>Colorado River</i>	TCEQ classified Segment 1402 including Shaws Bend in Fayette, Colorado, Wharton, and Matagorda Counties
<i>Cummins Creek</i>	From the confluence with the Colorado River upstream to FM 159 in Fayette County
<i>Llano River</i>	TCEQ classified Segment 1415 from the confluence with Johnson Creek to CR 2768 near Castell in Llano County
<i>Pedernales River</i>	TCEQ classified Segment 1414 in Kimball, Gillespie, Blanco, and Travis Counties
<i>Rocky Creek</i>	From the confluence with the Lampasas River upstream to the union of North Rocky Creek and South Rocky Creek in Burnet County.
<i>Hamilton Creek</i>	From the outflow of Hamilton Springs to the confluence with the Colorado River.

## 7b. Unique Stream Segments Committee Report

### ▼ Committee meeting on April 11th

- Committee determined not clearly understanding terminology definitions has contributed to stream segment status confusion.
- Committee determined that Region K has not recommended any stream segments for designation as ecologically unique.
  - Per Appendix 8A of 2016 Region K RWP, ten ecologically significant stream segments were recommended for further study for consideration of designation as ecologically unique during the 2001 planning cycle. This recommendation has been carried over each cycle.
  - Region K's ecologically significant stream segments were not recommended for designation as unique because Region K has not had any proposed potential reservoir projects that would interfere with these segments.
- Committee decided to make several recommendations for the RWPG to discuss and consider.
  - To be discussed in later agenda item.

Agenda Item 8

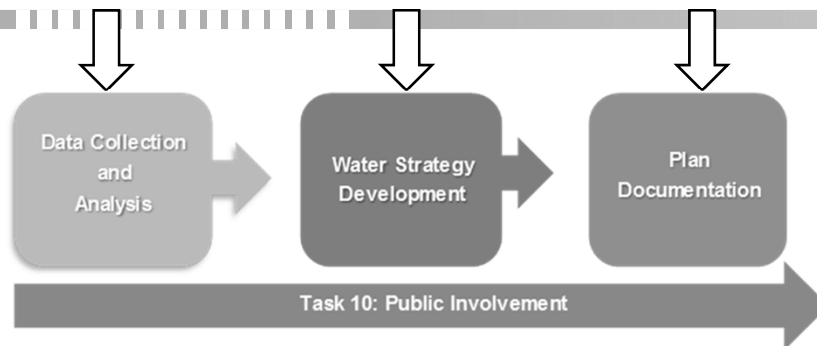
# CONSULTANT STATUS REPORT

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## 8. Consultant Status Report



**Task:**

- 2A – Non-population demand
- 2B – Population demand
- 3 – Water supply analysis
- 4A – Water needs

**Task:**

- 4B – Potentially feasible strategies
- 4C – Technical memorandum
- 5A – Evaluation of strategies
- 5B – Conservation recommendations

**Task:**

- 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

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## 8. Consultant Status Report



## 8. Consultant Status Report

### Effort since last meeting (January 9, 2019)

- ▼ Chapter 2 of 2021 Plan – Population and Demand Projections
  - Discussion of methodologies and projections for population, municipal demand, and non-municipal demands.
  - Identification of Major Water Providers and their commitments.
  - Discussion of environmental demands – looking at options for keeping in main text or moving to an appendix.
  - Sent to Population and Demand Committee for initial review.
  - Handing out today to RWPG members for planning group review. Will send electronic versions out to RWPG members.
    - Can return comments electronically or using marked-up hard copies.
    - Plenty of time to review – although more chapters will be coming.
    - July Region K meeting deadline???

## 8. Consultant Status Report Effort since last meeting (January 9, 2019)

### ▼ Water Management Strategies

- Submitted 3<sup>rd</sup> amended partial scope of work for Task 5A (evaluation of water management strategies) to TWDB, based on RWPG approval on January 9th.
- Under contract for all strategies scoped to date now.
- Update on Bertram reservoir strategy.
- Prepared memos for conservation, drought management, and expand use of local groundwater, documenting methodologies used in 2016.
  - Memos were submitted to WMS committee to aid in discussions in methodology updates.
  - Memos are provided to the RWPG for background information and reference.
- Committee aided in discussion in moving forward on several strategies.
- Later agenda items will present some of the details.
- Have been working on several additional strategies: Burnet County regional projects, Austin strategies, and reuse strategies.
  - Preparing memos detailing the new strategy evaluations that will be provided to the WMS Committee.
- Some strategies will require additional narrowing down of options/WUGs prior to full evaluation.

## 8. Consultant Status Report Effort since last meeting (January 9, 2019)

### ▼ Drought Response, Information, and Activities:

- Coordinated with TWDB staff and TCEQ regarding the emergency interconnect data required for submittal confidentially to TWDB. Reviewing new data and comparing with last cycle's data.

### ▼ Unique Stream Segments, Legislative, and Policy

- Met with Unique Stream Segments Committee
- Have had some potential policy recommendation discussion in the Water Management Strategies Committee meetings...need to send over to Policy/Legislative Committee.



## 8. Consultant Status Report Upcoming effort

- ▼ Continue completion of updates to Chapters 1, 3, 4, and 7 for 2021 Plan. Hope to have drafts ready for RWPG review for most of these soon.
- ▼ Continue to work with the Water Management Strategies Committee on strategy evaluation.
  - Aiming to complete draft evaluations for strategies by September/October. Inter-regional coordination may delay some strategies.
- ▼ Meet with Drought Committee to discuss task work and chapter.
- ▼ Legislative and Policy Committee to start meeting.

Agenda Item 9

## **DISCUSS BRACS STUDY MAPPING AND CHARACTERIZING BRACKISH GROUNDWATER IN HILL COUNTRY TRINITY AQUIFER**

Agenda Item 10

## **DISCUSS AND CONSIDER UPDATES TO NON-MAG AVAILABILITY METHODOLOGIES. TAKE ACTION AS NEEDED.**

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### **10. Discuss and Consider Updates to Non-MAG Availability Methodologies**

- ▼ Modeled Available Groundwater (MAG) volumes used for majority of the groundwater sources in the region.
- ▼ Several groundwater sources do not have MAG volumes because the GMAs identified the sources as non-relevant for joint planning purposes.
- ▼ At October 2018 Region K meeting, we discussed some potential methodology updates for the Marble Falls Aquifer in San Saba Co., and the Hickory Aquifer in Llano Co.
  - Question posed about the Llano Uplift GAM, which is an updated model.
  - TWDB has provided DFC-compatible, non-relevant values for these aquifers plus the Ellenburger-San Saba in Llano Co. with their informal Tech Memo review comments.
  - Recommend RWPG agree to use these availabilities – no negative impacts on existing supplies.

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## 10. Discuss and Consider Updates to Non-MAG Availability Methodologies

Source Id	DbSo Id	Source Name	Source Region	Source County	Source Basin	Non-relevant DFC- Compatible Availability 2020	Non-relevant DFC- Compatible Availability 2030	Non-relevant DFC- Compatible Availability 2040	Non-relevant DFC- Compatible Availability 2050	Non-relevant DFC- Compatible Availability 2060	Non-relevant DFC- Compatible Availability 2070
1304	1565	HICKORY AQUIFER	K	BLANCO	COLORADO	383	382	383	382	383	382
1165	1568	ELLENBURGER-SAN SABA AQUIFER	K	BLANCO	COLORADO	1,952	1,946	1,952	1,946	1,952	1,946
1055	1591	ELLENBURGER-SAN SABA AQUIFER	K	LLANO	COLORADO	409	408	409	408	409	408
1107	1592	HICKORY AQUIFER	K	LLANO	COLORADO	2,027	2,021	2,027	2,021	2,027	2,021
1139	1598	MARBLE FALLS AQUIFER	K	SAN SABA	COLORADO	4,355	4,343	4,355	4,343	4,355	4,343

Agenda Item 11

**DISCUSS METHODOLOGY  
UPDATES FOR MUNICIPAL  
CONSERVATION AND IRRIGATION  
CONSERVATION WMS.  
TAKE ACTION AS NEEDED.**

## 11. Discuss methodology municipal conservation and irrigation conservation WMS

### ▼ Municipal Conservation

- Discussion at March 4, 2019 meeting:
  - 2016 Plan used a methodology of 5% decadal reduction for 200 > GPCD >140, regardless of water needs. (10% decadal reduction for > 200 GPCD)
  - Committee voted to use a methodology of 10% decadal reduction until 140 GPCD is reached for 2021 Plan, regardless of water needs.
- 10% decadal reduction water savings have been brought to share today (see 3 handouts).
  - One table shows conservation not applied for those < 140 GPCD
  - One shows conservation applied for those with water needs.
  - One shows conservation applied for those without water needs.
- Include tables in RWP showing potential water savings from restricting outdoor watering to 2x per week.
- Is the RWPG comfortable with the methodology to move forward?  
Questions?

## 11. Discuss methodology municipal conservation and irrigation conservation WMS

### ▼ Irrigation Conservation

- Discussion at recent WMS Committee meetings:
  - Task 1. Gather data on currently improved acreage, including acreage watered with surface water and/or groundwater, and develop projections for potential future water saving improvements
    - AECOM is requesting data from NRCS and GCDs, and working with LCRA staff. Canal losses were built into our lower basin irrigation demands.
  - Task 2. Update savings estimates for existing irrigation conservation strategies
    - AECOM working with LCRA staff and Daniel Berglund.
  - Task 3. Identify new irrigation conservation strategies and develop updated savings estimates
    - Looking at on-site SCADA, drip irrigation, and tailwater recovery.
- Will bring additional details to the committee and RWPG once developed.
- Other thoughts/questions from the RWPG?

Agenda Item 12

## **DISCUSS UNIQUE STREAM SEGMENTS. TAKE ACTION AS NEEDED.**

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## **12. Discuss Unique Stream Segments**

### ▼ Terminology

- Ecologically **Significant** Stream Segment (TPWD)
  - A stream that meets at least one of the criteria for being ecologically unique.
- Designated Ecologically **Unique** River and Stream Segment (RWPG)
  - A state agency or political subdivision of the State may not finance the actual construction of a reservoir in that specific river or stream segment.

### ▼ Process

- In 2000, the Texas Parks and Wildlife Department identified Ecologically Significant Stream Segments for Region K using criteria in accordance with TWDB rules.
- RWPGs may recommend these ecologically significant segments or other identified segments to be classified as unique in the RWP. When recommending these segments, the RWPG may develop special provisions to ensure no unintended consequences occur from designation.
- TPWD provides a written evaluation of the recommendation.
- Recommendation is sent to Texas State Legislature for approval.

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## 12. Discuss Unique Stream Segments

### ▼ Region K Status

- There are currently no ecologically unique stream segments in Region K.
- Per Appendix 8A of 2016 Region K RWP, ten streams in Region K were previously recommended for further study during the 2001 planning cycle. This recommendation has been carried over each cycle.

### ▼ Other Planning Groups

- Total of 24 Designated Ecologically Unique Stream Segments by Regions E, H, and L.
- Region J performed a study to determine potential unintended consequences of designating streams as unique.
- Region D proposed segments for designation, but did not recommend they be unconditionally designated as ecologically unique.

## 12. Discuss Unique Stream Segments

### ▼ Recommendations from Committee for RWPG Discussion

- Before including in the Region K Water Plan any on-channel reservoir/dam water management strategies located on stream segments identified for further study for potential designation as ecologically unique in Chapter 8, Region K will conduct a higher level of additional screening, as defined by the LCRWPG, to determine potential ecological impacts. (Recommendation is not intended to include diversion structures, recharge enhancement weirs, or flood control.)
- The 2021 RWP will include a list of studies completed since 2000 relevant to segments listed in Table 8A-1 in the 2016 RWP.
- Recommend requesting sufficient funding from TWDB for 2026 RWP to re-evaluate stream segments based on criteria for designation as ecologically unique, using studies listed in Action Item B.
- Request data from Region J RWPG regarding their analysis of unintended consequences on unique stream segment designation.

Agenda Item 13

## **DISCUSS TEXAS DEMOGRAPHIC CENTER (TDC) 2018 POPULATION PROJECTIONS TAKE ACTION AS NEEDED.**

### **13. Discuss Texas Demographic Center (TDC) 2018 Population Projections**

- ▼ Texas State Demographer has recently developed updated population projections.
- ▼ CAPCOG provided a table showing a comparison to the TWDB 2021 Plan projections for the six counties in the CAMPO region (Bastrop, Burnet, Caldwell, Hays, Travis, and Williamson).

Year	TWDB Projection	New Projection	Difference	% Difference
2020	2,293,514	2,294,754	1,240	0.05%
2030	2,783,003	2,921,017	138,014	4.96%
2040	3,311,557	3,681,950	370,393	11.18%
2050	3,813,800	4,604,229	790,429	20.73%

- ▼ Better to look at projection comparison for Region K by county.

### 13. Discuss Texas Demographic Center (TDC) 2018 Population Projections

- ▼ Caldwell County is not in Region K.
- ▼ Compared to the new projections, TWDB 2021 Plan projections are currently over-projecting population for Bastrop and Burnet Counties.
  - Bastrop County over by ~93,000 in 2050
  - Burnet County over by ~21,000 in 2050
- ▼ Compared to the new projections, TWDB 2021 Plan projections are currently under-projecting Travis County by ~2% in 2050. (within reasonable range)
- ▼ Compared to the new projections, TWDB 2021 Plan projections are currently significantly under-projecting Hays and Williamson Counties.
  - Shared regions with Region L and Region G, respectively.

### 13. Discuss Texas Demographic Center (TDC) 2018 Population Projections

- ▼ Portion of Williamson County in Region K.
  - Region K % of population in Williamson County is 10%.
  - Region K growth in Williamson County is only in Austin service area.
  - Austin is preparing for additional growth per the Austin Water Forward Plan.
- ▼ Portion of Hays County in Region K.
  - Unsure of how new projections would be allocated by Region.
  - Can assume new projections would be allocated proportional to TWDB projections.
  - Region K portion could be under-projected by 70,000 people for 2050.
  - Projections are comparable for 2020.
  - Option to push up strategies for 2040 decade to 2030 to build a safety factor.
- ▼ Adjusting the population projections is not recommended at this point in the planning cycle.

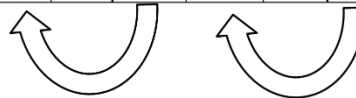


### 13. Discuss Texas Demographic Center (TDC) 2018 Population Projections

County	2020			2030			2040			2050		
	TWDB Projection	New Projection	% Difference	TWDB Projection	New Projection	% Difference	TWDB Projection	New Projection	% Difference	TWDB Projection	New Projection	% Difference
Bastrop County Population	95,487	86,103	-10%	125,559	99,203	-21%	164,648	112,085	-32%	217,608	124,818	-43%
Burnet County Population	53,114	48,186	-9%	64,268	53,451	-17%	73,673	57,216	-22%	82,668	61,402	-26%
Travis County Population	1,298,624	1,291,415	-1%	1,538,784	1,540,376	0%	1,767,636	1,773,152	0%	1,936,583	1,974,018	2%

County	2020			2030			2040			2050		
	TWDB Projection	New Projection	% Difference	TWDB Projection	New Projection	% Difference	TWDB Projection	New Projection	% Difference	TWDB Projection	New Projection	% Difference
Hays Total	238,862	234,895	-2%	313,792	347,056	11%	398,384	509,371	28%	474,801	743,171	57%
Hays Region K *	55,584	54,661	-2%	73,243	81,007	11%	94,747	121,143	28%	121,629	190,377	57%

\* assume same proportions for new projections



▼ Option to move strategies up to earlier decade.

### Agenda

- 14. Agenda items for next meeting
- 15. New / Other Business
- 16. Public Comments
- 17. Adjourn