

MINUTES
Lower Colorado Regional Water Planning Group
Population and Demand Committee Meeting
November 2, 2022

INTERA Incorporated Offices
9600 Great Hills Plaza, Suite 300W
Austin, TX 78759
1:00 P.M.

Meeting Minutes:

1. Call to Order, Introductions and Roll Call – Lauri Gillam, Committee Chair
Meeting was called to order at approximately 1:00 P.M.

Attendance:

Committee Members and Alternates:

Lauri Gillam, Small Municipalities, Committee Chair

Christina Castleberry, Water Utilities

Barbara Johnson, Industry

Jennifer Walker, Environmental

David Lindsay, Recreation

Monica Masters, River Authorities

Jason Homan, Alternate for Environmental

Sue Thorton, Alternate for Recreation

Other Planning Group Members

Daniel Berglund, Small Business

Other attendees:

Marisa Florez Gonzalez, Austin Water

Sara Eatman, Austin Water

Stacy Pandey, LCRA

Annette Keaveny, LCRA

Robert Adams, Plummer, Consulting Team

Neil Deeds, INTERA, Consulting Team

2. Public Comments

No public comments were offered for this item.

3. Review Draft Irrigation Projections

Consulting team presented TWDB draft irrigation demand projections.

Committee discussion focused on differences between the current TWDB projections and the last round of projections promulgated by the committee. Lauri Gillam noted that during the last round, Daniel Berglund and Stacy Pandey led an effort to develop irrigation demand numbers that were more representative than those estimated by TWDB. During the last round, the TWDB ultimately accepted these irrigation demand numbers developed by the committee.

Action Item: Lauri Gillam proposed that Daniel and Stacy perform a similar analysis with the newer data. A timeline was proposed where the draft demands could be available in late January.

4. Review Draft Mining Projections

Consulting team presented TWDB draft mining demand projections.

Committee discussion focused on differences between the current TWDB mining projections and the projections from the previous round. The demand projections from the TWDB are generally lower in the current round than in the previous round.

General discussion occurred on the drivers of mining demand in Region K, including the growth in aggregate mining, and the change (decline?) in water use for oil and gas.

Action Item: Consulting team was asked to explore the reason for the decrease and provide an explanation to the committee.

5. Review planning cycle schedule. Consider and plan for future meetings of Population and Demand Committee, as needed. Consider report(s) to and request(s) of the full Region K Regional Water Planning Group.

Consulting team presented key upcoming dates for planning cycle. The next committee meeting was projected for February, 2023, and a “doodle poll” was suggested to help schedule the meeting. Another committee meeting in early to mid-March was suggested to review draft municipal demands (expected from TWDB in February) and continue work on non-municipal demands.

Action Item: Consulting team work to schedule next committee meeting, with help from COA and LCRA in announcements and postings.

6. New/other business

None, other than action items from previous discussions.

7. Receive public comments

No public comments were offered for this item.

8. Adjourn.

Meeting adjourned at approximately 2:45 P.M.

MINUTES
Lower Colorado Regional Water Planning Group
Population and Demand Committee Meeting
February 6, 2023

INTERA Incorporated Offices
9600 Great Hills Plaza, Suite 300W
Austin, TX 78759
9:00 A.M.

Meeting Minutes:

1. Call to Order, Introductions and Roll Call – Lauri Gillam, Committee Chair
Meeting was called to order at approximately 9:00 A.M.

Attendance:

Committee Members:

Lauri Gillam, Small Municipalities, Committee Chair
Christina Castleberry, Water Utilities
Barbara Johnson, Industry
Monica Masters, River Authorities
Teresa Lutes, Municipalities
Jason Homan, Alternate for Environmental
Sue Thorton, Alternate for Recreation
Earl Foster, Alternate for Small Municipalities

Other Planning Group Members

Daniel Berglund, Small Business

Other attendees:

Cindy Smiley, Smiley Law Firm
Sara Eatman, Austin Water
Stacy Pandey, LCRA
Robert Adams, Plummer, Consulting Team
Justin Durant, FNI, Consulting Team
Neil Deeds, INTERA, Consulting Team

2. Public Comments

Cindy Smiley of Smiley Law Firm:

Ms. Smiley discussed the need for the committee to be conservative in their estimates of demands, suggesting a significant downside of not making the demand estimates high enough. She asked the committee to lean towards the worst case when considering future conditions. She thanked the committee for their work and noted the importance of the process.

3. Review Revised Irrigation Projections

Lauri Gillam discussed the history of the irrigation demand projections, noting that two planning cycles ago the region used the TWDB estimates, but in the most recent planning cycle, the irrigation demand estimates were revised based on work by this committee. The estimates were made based on input from LCRA and irrigators, and the revisions were accepted by the TWDB.

She noted that the same approach, as much as possible, was being employed in the current planning cycle, but that the estimates were not yet ready for discussion at the committee level, with more time being needed to ensure that the approach was consistent with previous efforts.

This agenda item was tabled.

4. Review Draft Mining Projections

a. Consider Burnet County revision request

Neil Deeds of the consulting team presented a proposed revision to the mining demands in Burnet County. He had met with Mitchell Sodek, planning group member and general manager of the Central Texas Groundwater Conservation District (CTGCD), which covers Burnet County. Through his role at the CTGCD, Mr. Sodek had mining water use estimates, based on reporting by the mines, that were higher than those estimated by the TWDB.

Neil presented the assumptions and estimates provided by Mr. Sodek. The committee discussed the revised estimates and generally agreed that the revisions would be proposed to the planning group.

Additional discussion of the mining demands included a request by Sue Thorton that the consulting team see whether revised estimates could be made for Llano County, even in the absence of data from a GCD. She is concerned Llano County TWDB estimates are similarly low (as in Burnet County). Some members were skeptical that revisions would be accepted by the TWDB without additional data support.

The committee reiterated their desire for the consulting team to provide an explanation for the large decrease in mining demand estimates from the most recent planning cycle to the current TWDB estimates.

Action Items: Consulting team to look into additional data sources for Llano County, and provide explanation for decrease in TWDB mining use estimates in the region.

5. Review Livestock, Manufacturing, Steam electric projections; consider proposed revisions

Robert Adams of the consulting team presented the demand projections for livestock, manufacturing, and steam-electric.

Livestock was presented first. Livestock demands were developed using the same methodology as last cycle although livestock use coefficients have changed significantly. They applied the new water/head to average animal counts which are an average of 2015-2019. Robert noted that the counts drop during a drought, so that range of numbers will include the lower years. Jason Homan asked if they had used historical data, Robert explained that the TWDB uses

historical data from the last 5 years as their methodology and the numbers are updated with each planning cycle.

Barbara Johnson asked if there's any value to calculating the water/head of cattle based on their water use in a drought year, because we would expect it to be higher. Robert said that he has looked into this for another region, looked into water use for animals and how it relates to temperatures. His research indicated that TWDB approach is appropriate for drought years.

Sue Thornton asked whether exotics were considered, since there are large tracts of land for exotics in the northern part of the region. The general consensus was that exotics were not explicitly considered as livestock. Lauri suggested that Region K include a recommendation in Chapter 8 about tracking data for exotics.

After reviewing the livestock demands on a county-by-county basis, Monica Masters moved, and Barbara seconded a motion to accept the draft livestock demand numbers. Motion passed by voice vote.

Action: Livestock demand numbers accepted by committee for proposal to planning group.

Manufacturing was presented next, again by Robert. He noted that the methodology was based on highest water use from 2015-2019, plus unaccounted for demands. Growth was estimated from the County Business Patterns historical data.

Robert noted some manufacturers that were not included in the draft numbers, and suggested corrections. This included confirming that US Fish & Wildlife is the same or separate user from the Inks Dam National Fish Hatchery. Robert was to check with LCRA with respect to this question.

Monica discussed "future industrial users" in the Highland Lakes area and the lower basin. General discussion about confirming whether these will be allowed or if TWDB will require a specific named/contracted entity to include in the demand projections. About 30K AFY was currently set for "future industrial users" in Travis, but that is too high. City of Austin would need to supply, and Monica said there were no "tire kickers" she knew of in Travis. Teresa Lutes indicated she would bring some kind of projection forward for this item.

Action Items: Robert to check with LCRA on Inks Dam Fish Hatchery. City of Austin (Teresa) would bring forward more specifics about potential future demands.

Steam electric manufacturing was the final portion of this item, presented by Robert. Steam Electric baseline is based on the highest year demand (per county) from 2015-2019, refers to facilities that are closed/closing. Water use is limited to consumptive use. Draft projections were held constant from 2030-2080. Robert presented some proposed changes for the Decker and Fayette power plants.

Committee asked that a suggestion be brought forward to TWDB that natural gas power plants be assessed for water use in future planning cycles. This was associated with the discussion of Mueller Energy Center.

Action Items: Robert to confirm that Decker Power Station demands should decrease to zero. Robert to discuss with City of Austin whether to remove demand for LCRA Fayette and Austin Fayette from the projections.

6. Review schedule

- a. Schedule future meetings of Population and Demand Committee, as needed.
- b. Consider report(s) to and request(s) of the full Region K Regional Water Planning Group

Livestock demand numbers accepted by committee for reporting to the planning group.

Neil suggested the next meeting should occur within a month or so, and would be sending out a "doodle poll" to try get input on scheduling the meeting.

7. New/other business

None, other than action items from previous discussions.

8. Receive public comments

No public comments were offered for this item.

9. Adjourn.

Meeting adjourned at approximately 10:58 A.M.

MINUTES
Lower Colorado Regional Water Planning Group
Population and Demand Committee Meeting
February 28, 2023

INTERA Incorporated Offices
9600 Great Hills Plaza, Suite 300W
Austin, TX 78759
1:00 P.M.

Meeting Minutes:

1. Call to Order, Introductions and Roll Call – Lauri Gillam, Committee Chair
Meeting was called to order at approximately 1:00 P.M.

Attendance:

Committee Members:

Lauri Gillam, Small Municipalities, Committee Chair

Christina Castleberry, Water Utilities

Barbara Johnson, Industry

Monica Masters, River Authorities

Jennifer Walker, Environmental

David Lindsay, Recreation

Teresa Lutes, Municipalities

Jason Homan, Alternate for Environmental

Sue Thorton, Alternate for Recreation

Earl Foster, Alternate for Small Municipalities

Other Planning Group Members

Daniel Berglund, Small Business

Earl Wood, Water Utilities

Paul Sliva, Agriculture

Other attendees:

Lann Bookout, TWDB

Sara Eatman, Austin Water*

Marisa Flores Gonzalez, Austin Water

Stacy Pandey, LCRA

Robert Adams, Plummer, Consulting Team

Adam Connor, FNI, Consulting Team*

Neil Deeds, INTERA, Consulting Team

*did not sign in, but verified participants

2. Public Comments

No public comments provided.

3. Review Revised Irrigation Projections

Lauri Gillam suggested that this item was moved to near the end of the meeting, after #6. [In these notes referred to as item 6a]

4. Review Draft Mining Projections

a. Discuss why projections changed the last round of planning

Neil Deeds presented his analysis of why projections had changed since the last round of planning. The 2021 projections were identical to the 2016 projections. The 2016 projections were based on a 2011 BEG study. The 2011 BEG study differed from the most recent BEG study in several of the counties where the largest changes occurred. The differences in the analysis included the change in the size of the market for coal, and a change in estimated aggregate mine water use from being based on size/type of facility, to relying on direct TCEQ/TWDB surveys of mining operators. Lauri noted that the decreased demand estimates more closely match estimates of historical use.

b. Discuss any potential demand revisions

Neil Deeds and Robert Adams presented their work on looking into Llano County mining water use. Neil had discussed additional data sources with Mitchell Sodek (general manager at Central Texas GCD, which covers Burnet County), while Robert had asked former Llano mayor Mike Reagor for his take on the TWDB estimates. Both Mitchell and Mike indicated that they did not have better data sources than the TWDB estimates.

Lauri motioned that the draft mining numbers, with the revisions to Burnet County, be brought forward to the planning committee. Barbara Johnson seconded. Motion carried by voice vote.

Action: Bring forward draft mining demand numbers, with revisions to Burnet County, to planning committee.

5. Review Manufacturing, Steam electric projections; consider proposed revisions

Robert Adams presented some minor revisions based on missing manufacturing demands with associated users. He brought up the question of whether “unassigned” demands could be proposed by LCRA (in Matagorda County) or Austin Water (in Travis County).

Teresa Lutes presented an analysis by Austin Water for their projected demands. She discussed the basis for the estimates, including existing customers showing potential for increase. She noted that the TWDB projections do not account for all of the increases projected by Austin Water. David Lindsay made the case for assuming growth. Marisa noted that Austin Water is planning to provide the supporting materials in the request with TWDB.

Additional discussion occurred about “unassigned demands” (Monica noted she knew of several “tire-kickers” or potential users), and whether they would be accepted by TWDB. Lann Bookout noted that if the TWDB rejected revision requests, there is an appeal process that

was fairly cumbersome. He also noted that LCRA (with their management plan) and Austin Water (with their water forward plan) would have a strong basis for a dialog with TWDB.

Daniel stated that “aiming high” was preferred, and it is preferable to err on the side of overplanning.

Teresa stated that Austin Water could potentially be prepared to outline a revision request in the late April planning meeting.

Teresa moved that the manufacturing demands, with requested revisions by Austin Water and LCRA, be brought forward to the planning committee. Christina seconded. Motion passed by voice vote.

Action: Bring forward draft manufacturing demand numbers, with revision requests by Austin Water and LCRA, to the planning committee.

Robert Adams presented steam electric demands. The committee had some discussion about reductions in demand for steam electric in the future, including Fayette and Decker. The more conservative approach, keeping demands in place in case there is some other power generation use in the future is recommended by the consulting team.

Daniel Berglund moved to accept the draft steam electric demands, [unknown] second. Motion passed by voice vote.

Action: Bring forward draft steam electric demand numbers.

6. Initial discussion of Population and Municipal Water Demand Projections

Adam Connor of the consulting team presented a summary of draft population and water demand projections. General discussion of the 0.5 and 1.0 population growth datasets, both which have been provided by TWDB.

6a. Review Revised Irrigation Projections

Stacy Pandy, Monica Masters of LCRA, and Daniel Berglund led a presentation on irrigation surface water demand estimates. A similar strategy was used to develop demands as the last round of planning. Some modifications included using 2022 as representative year, since it was comparable to 2011 but more recent. 2022 planted acreage was used for Garwood, 2011 acreage for Gulf Coast, Lakeside, Pierce Ranch (and supplemental – i.e. turf grass). The 2nd crop max ft/acre since 2016 was used. They had capped demand at the “duty” last time, but did not use the cap in the current methodology. They include a 2.7% reduction in demands over the planning horizon – comparable to the passive conservation factored into municipal demands.

The groundwater irrigation demand has not been evaluated yet, the consulting team is working to gather this data, led by Robert Adams. Robert said he is planning to use the maximum year instead of the average. The MAG will not be used as a cap, since that is a supply limit.

David Lindsay noted that rice production may increase in the future and the potential for double cropping corn and its effects on demands. Jennifer Walker noted that crop demands are unlikely to decrease under increasing population growth.

David Lindsay asked that a similar writeup on the methodology be provided as in the last round of planning.

At the end of the discussion, Lauri asked whether the committee had a comfort level with the surface water demand revisions as presented, and received general agreement.

7. Review schedule

- a. Schedule future meetings of Population and Demand Committee, as needed.
- b. Consider report(s) to and request(s) of the full Region K Regional Water Planning Group

Next committee meeting should occur in early April, prior to the planning group meeting.

David started a discussion of how golf course water demands were treated in planning. Lann indicated that they should appear under “county-other” WUG demands if not supplied by a municipal WUG. David asked that the golf courses receive attention due to their potential for large water use.

David noted the large potential demand from Region K from the BCRUA project that is bringing water from Lake Travis to Round Rock, Leander, and Cedar Park. So the supply will be from Region K but the demand is in Region G. David expressed concerns about the timing of the diversions, and what limits were placed on how much and when diversions occurred. Monica said that in 2027 the deep water intake and plant expansion were set to be complete, and that water was already being used as part of the project. Monica indicated that the diversion was limited by the treatment plant capacity.

8. New/other business, agenda items for next meeting

Agenda items suggested for next meeting:

- a. Groundwater component of irrigation demand projections, also “apples to pears” comparison of projections from this cycle vs. last cycle.
- b. Pop methodology & projections
- c. Demand methodology & projections

9. Receive public comments

No public comments were offered for this item.

10. Adjourn.

Meeting adjourned at approximately 3:15 P.M.

Population and Water Demand Subcommittee Meeting: 4/10/2023

Agenda Items 4, 5, 6, and 7

4. Summarize existing revision requests in non-municipal demands
5. Review groundwater irrigation demand projections
6. Consider revision and re-approval of mining demands based on Collier pending contract with LCRA
7. Municipal population and demands
 - a. Progress on WUG survey
 - b. Methodology, draft estimates, potential revisions constraints



Population and Water Demand Subcommittee Meeting: 4/10/2023

Agenda Items 4, 5, 6, and 7

4. **Summarize existing revision requests in non-municipal demands**
5. Review groundwater irrigation demand projections
6. Consider revision and re-approval of mining demands based on Collier pending contract with LCRA
7. Municipal population and demands
 - a. Progress on WUG survey
 - b. Methodology, draft estimates, potential revisions constraints



Draft Livestock Demand Projections for Region K

2021 Regional Water Plan Projections						2026 DRAFT Regional Water Plan Projections						RWPG Revision Requests						
2020	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	Comment
1,135	1,135	1,135	1,135	1,135	1,135	1,250	1,250	1,250	1,250	1,250	1,250							
331	331	331	331	331	331	355	355	355	355	355	355							
1,691	1,691	1,691	1,691	1,691	1,691	795	795	795	795	795	795	No changes proposed from TWDB DRAFT Projections						
1,276	1,276	1,276	1,276	1,276	1,276	1,279	1,279	1,279	1,279	1,279	1,279							
1,726	1,726	1,726	1,726	1,726	1,726	1,693	1,693	1,693	1,693	1,693	1,693							
1,212	1,212	1,212	1,212	1,212	1,212	1,002	1,002	1,002	1,002	1,002	1,002							
17	17	17	17	17	17	116	116	116	116	116	116							
580	580	580	580	580	580	628	628	628	628	628	628							
1,075	1,075	1,075	1,075	1,075	1,075	959	959	959	959	959	959							
863	863	863	863	863	863	822	822	822	822	822	822							
779	779	779	779	779	779	893	893	893	893	893	893							
527	527	527	527	527	527	400	400	400	400	400	400							
792	792	792	792	792	792	780	780	780	780	780	780							
0	0	0	0	0	0	16	16	16	16	16	16							
12,004	12,004	12,004	12,004	12,004	12,004	10,988	10,988	10,988	10,988	10,988	10,988							

No proposed revisions



<https://www.twdb.texas.gov/waterplanning/data/projections/2027/projections.asp>

Steam Electric Demand Projections

County	2021 Regional Water Plan Projections						2026 DRAFT Regional Water Plan Projections						RWPG Revision Requests						
	2020	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	Comment
BASTROP	10,288	10,288	10,288	10,288	10,288	10,288	7,764	7,764	7,764	7,764	7,764	7,764							
BLANCO	0	0	0	0	0	0	0	0	0	0	0	0							
BURNET	0	0	0	0	0	0	0	0	0	0	0	0	No changes proposed from TWDB DRAFT Projections						
COLORADO	4,971	4,971	4,971	4,971	4,971	4,971	226	226	226	226	226	226							
FAYETTE	49,211	49,211	49,211	49,211	49,211	49,211	20,052	20,052	20,052	20,052	20,052	20,052							
GILLESPIE	0	0	0	0	0	0	0	0	0	0	0	0							
HAYS	1,187	1,187	1,187	1,187	1,187	1,187	0	0	0	0	0	0							
LLANO	1,748	1,748	1,748	1,748	1,748	1,748	1,927	1,927	1,927	1,927	1,927	1,927							
MATAGORDA	80,536	80,536	80,536	80,536	80,536	80,536	67,453	67,453	67,453	67,453	67,453	67,453							
MILLS	0	0	0	0	0	0	0	0	0	0	0	0							
SAN SABA	0	0	0	0	0	0	0	0	0	0	0	0							
TRAVIS	10,253	10,253	10,253	10,253	10,253	10,253	4,116	4,116	4,116	4,116	4,116	4,116							
WHARTON	7,901	7,901	7,901	7,901	7,901	7,901	7,913	7,913	7,913	7,913	7,913	7,913							
WILLIAMSON	0	0	0	0	0	0	0	0	0	0	0	0							
Region Total	166,095	166,095	166,095	166,095	166,095	166,095	109,451	109,451	109,451	109,451	109,451	109,451							

After discussion about two items (Decker, Fayette) decided to leave TWDB draft projections unchanged



Proposed Manufacturing Demand Projections for Region K

County	2021 Regional Water Plan Projections						2026 DRAFT Regional Water Plan Projections						RWPG Revision Requests						Comment
	2020	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	
BASTROP	188	215	215	215	215	215	414	429	445	461	478	496	414	429	445	461	478	496	
BLANCO	0	0	0	0	0	0	16	17	18	19	20	21	16	17	18	19	20	21	
BURNET	251	299	299	299	299	299	156	162	168	174	180	187	556	562	568	574	580	587	See notes below.
COLORADO	960	1,132	1,132	1,132	1,132	1,132	593	615	638	662	686	711	593	615	638	662	686	711	
FAYETTE	396	442	442	442	442	442	399	414	429	445	461	478	399	414	429	445	461	478	
GILLESPIE	77	93	93	93	93	93	388	402	417	432	448	465	388	402	417	432	448	465	
HAYS	277	324	324	324	324	324	181	188	195	202	209	217	181	188	195	202	209	217	
LLANO	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	
MATAGORDA	4,199	4,916	4,916	4,916	4,916	4,916	7,378	7,651	7,934	8,228	8,532	8,848	36,678	36,951	37,234	37,528	37,832	38,148	See notes below.
MILLS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
SAN SABA	10	12	12	12	12	12	19	20	21	22	23	24	19	20	21	22	23	24	
TRAVIS	13,164	14,853	14,853	14,853	14,853	14,853	16,401	17,008	17,637	18,290	18,967	19,669	19,363	22,470	25,599	28,752	29,429	30,131	See notes below.
WHARTON	156	171	171	171	171	171	79	82	85	88	91	94	79	82	85	88	91	94	
WILLIAMSON	25	30	30	30	30	30	14	15	16	17	18	19	14	15	16	17	18	19	
Region Total	19,708	22,493	22,493	22,493	22,493	22,493	26,043	27,008	28,008	29,045	30,118	31,234	58,705	62,170	65,670	69,207	70,280	71,396	

Burnet County

Southwestern Graphite Co. – add 400 ac-ft/yr all decades. Not included in historical use or future demand projections.

Matagorda County

Underground Service of Markham – add 9,300 ac-ft/yr to the proposed projections. Not included in historical use or future demand projections.

LCRA - 20,000 ac-ft year of future demand. (Starts in 2030)

Travis County

Alamo Concrete Products Co. – add 400 ac-ft/yr all decades. Not included in historical use or future demand projections.

TXI Operations, LP – add 62 ac-ft/yr all decades. Only included in 2011-2012 data, not 2015-2019 data.

Austin Water Proposed Additional Demands

	Baseline	2030	2040	2050	2060	2070	2080
Proposed Increase	0	2,500	5,000	7,500	10,000	10,000	10,000

Proposed Mining Demand Projections for Region K

	Historical Water Use Estimates					2021 RWP Projections						2026 DRAFT RWP Projections					
	2015	2016	2017	2018	2019	2020	2030	2040	2050	2060	2070	2030	2040	2050	2060	2070	2080
Bastrop	44	22	74	47	269	2,884	6,813	7,498	5,998	399	476	388	467	567	694	852	1,050
Blanco	-	-	-	-	4	5	5	5	5	5	5	9	9	10	10	10	10
Burnet	50	88	88	86	195	4,490	5,412	6,379	7,255	8,263	9,412	1,029	1,245	1,427	1,602	1,755	1,887
Colorado	4,009	4,009	3,056	5,339	471	5,325	5,378	5,433	5,487	5,542	5,597	2,773	2,857	2,977	3,078	3,176	3,263
Fayette	269	121	170	484	943	2,526	2,032	1,465	918	359	350	934	934	934	934	934	2
Gillespie	5	4	6	8	16	4	4	4	4	4	4	19	20	21	23	24	25
Hays	300	264	345	303	301	845	1,075	1,361	1,445	1,654	1,893	115	139	161	194	230	269
Llano	-	-	-	-	239	3	3	3	3	3	3	251	250	246	254	262	271
Matagorda	1	-	1	-	-	96	100	75	55	35	22	1	1	1	1	1	1
Mills	-	-	-	-	-	4	4	4	4	4	4	108	111	115	120	124	130
San Saba	-	-	-	-	-	1,088	1,093	944	900	864	838	-	-	-	-	-	-
Travis	-	-	-	-	71	3,502	4,108	4,762	5,374	6,046	6,817	551	622	676	722	772	830
Wharton	2	1	-	-	-	71	74	55	41	26	17	2	2	2	2	2	2
Williamson	-	-	-	-	2	5	3	3	3	3	3	1,544	1,823	2,142	2,530	2,914	3,270
Total	4,680	4,509	3,740	6,267	2,511	20,848	26,104	27,991	27,492	23,207	25,441	7,724	8,480	9,279	10,164	11,056	11,010

Draft revision in Burnet County

Potential revision in Llano County to be discussed in agenda item #6



Population and Water Demand Subcommittee Meeting: 4/10/2023

Agenda Items 4, 5, 6, and 7

4. Summarize existing revision requests in non-municipal demands
5. **Review groundwater irrigation demand projections**
6. Consider revision and re-approval of mining demands based on Collier pending contract with LCRA
7. Municipal population and demands
 - a. Progress on WUG survey
 - b. Methodology, draft estimates, potential revisions constraints



Proposed Methodology for 2026 Regional Water Plan GW Demands

- Use highest demand during 2015-2019.
- Colorado County (TWDB/District data)
 - Use TWDB & GCD data
 - 25,745 ac-ft/yr (<MAG of 72,586 ac-ft/yr)
- Wharton County
 - Use GCD data with 59.6% in Region K
 - 124,812 ac-ft/yr total (<MAG 143,338 ac-ft/yr)
 - 74,388 ac-ft/yr in Region K
- Matagorda County (District data)
 - Use GCD data
 - 31,686 ac-ft/yr (< MAG 35,328 ac-ft/yr)

Region K Groundwater Irrigation Demands

(Acre-foot per acre demand)	Colorado County	Wharton County	Matagorda County	Total
TWDB draft projected 2030 groundwater demands*	21,379	50,520	29,519	101,418
2021 Regional Water Plan projected 2030 demands – 2011 capped SW demand	33,540	68,557	33,919	136,016
Proposed projected groundwater demands***	25,745	74,388	31,686	131,819

*Based on historical 2015-2019 water use.

***Based on average GW demand (2018).

Region K Irrigation Water Demands

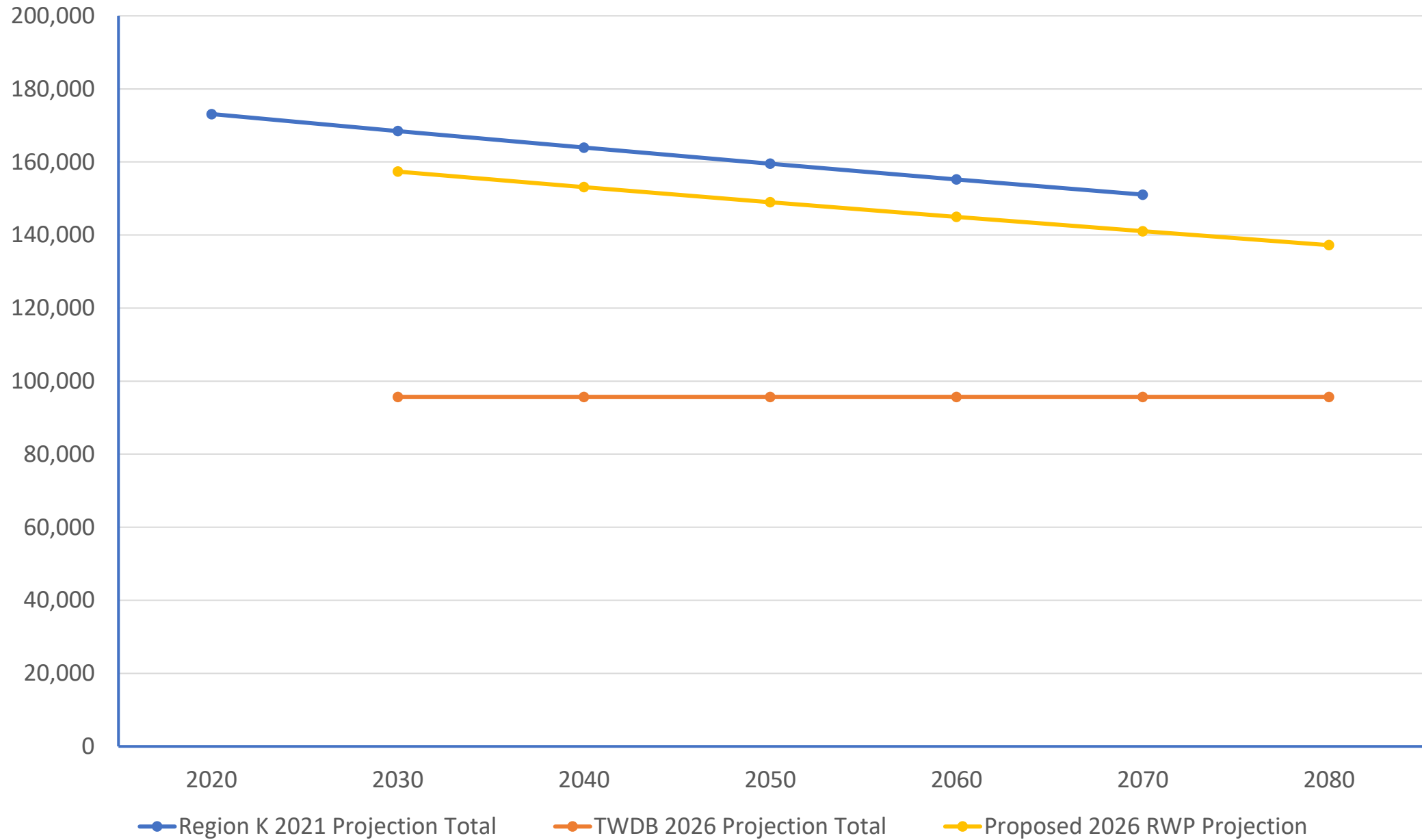
(Acre-foot per acre demand)	Colorado County	Wharton County	Matagorda County	Total
TWDB draft projected 2030 demands*	95,693	124,581	86,951	307,225
2021 Regional Water Plan projected 2030 demands**	168,455	184,023	186,434	538,912
Proposed projected demands***	157,363	194,655	160,214	512,233

*Based on historical 2015-2019 water use.

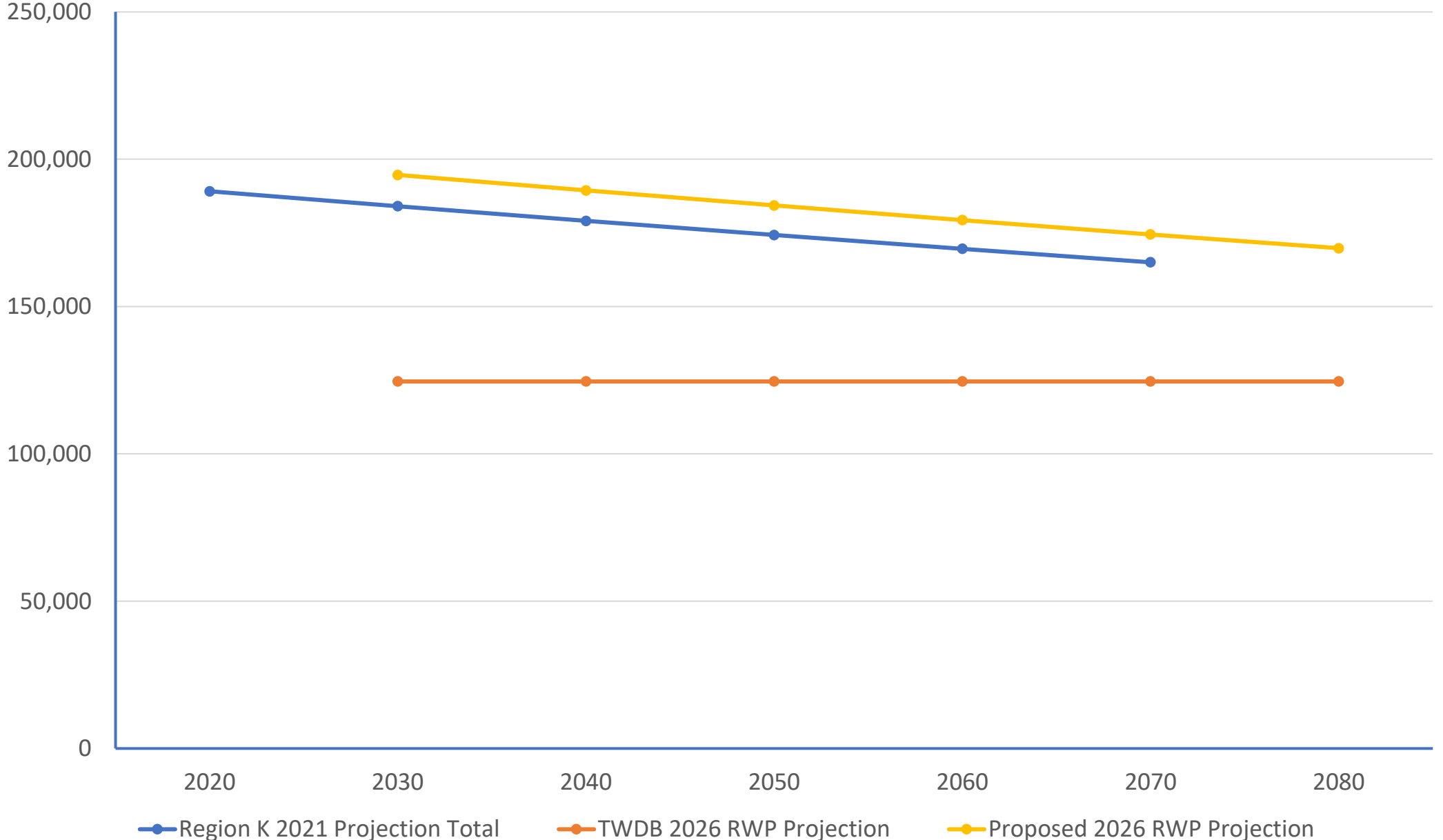
**Based on 2011 capped water demand.

***Based on 2022 water demand w/ minimum use, highest acreage since 2011, and highest use since 2016 for second season, groundwater use corresponds to 2018.

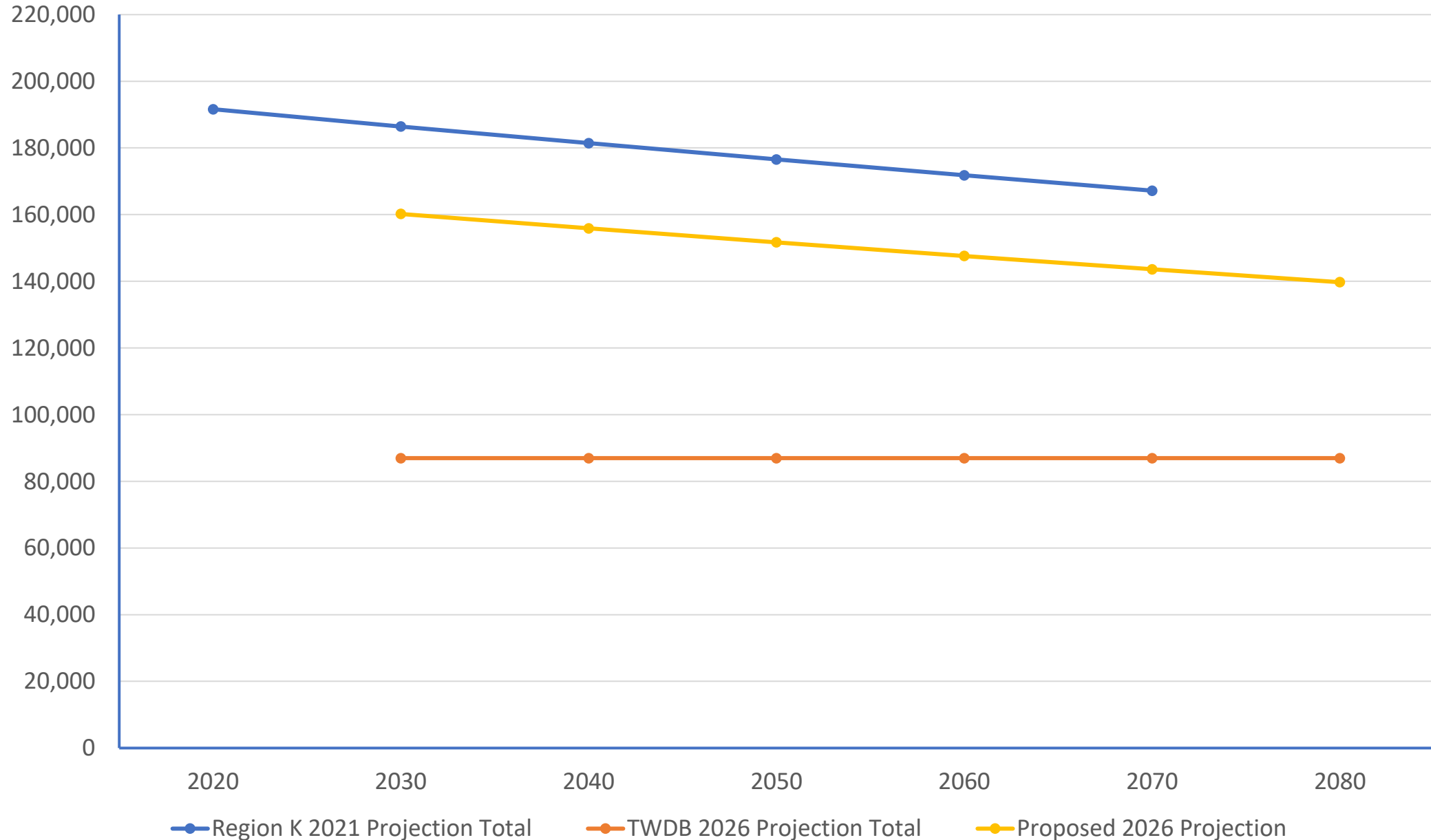
Region K Irrigation Water Demand Projections Colorado Co



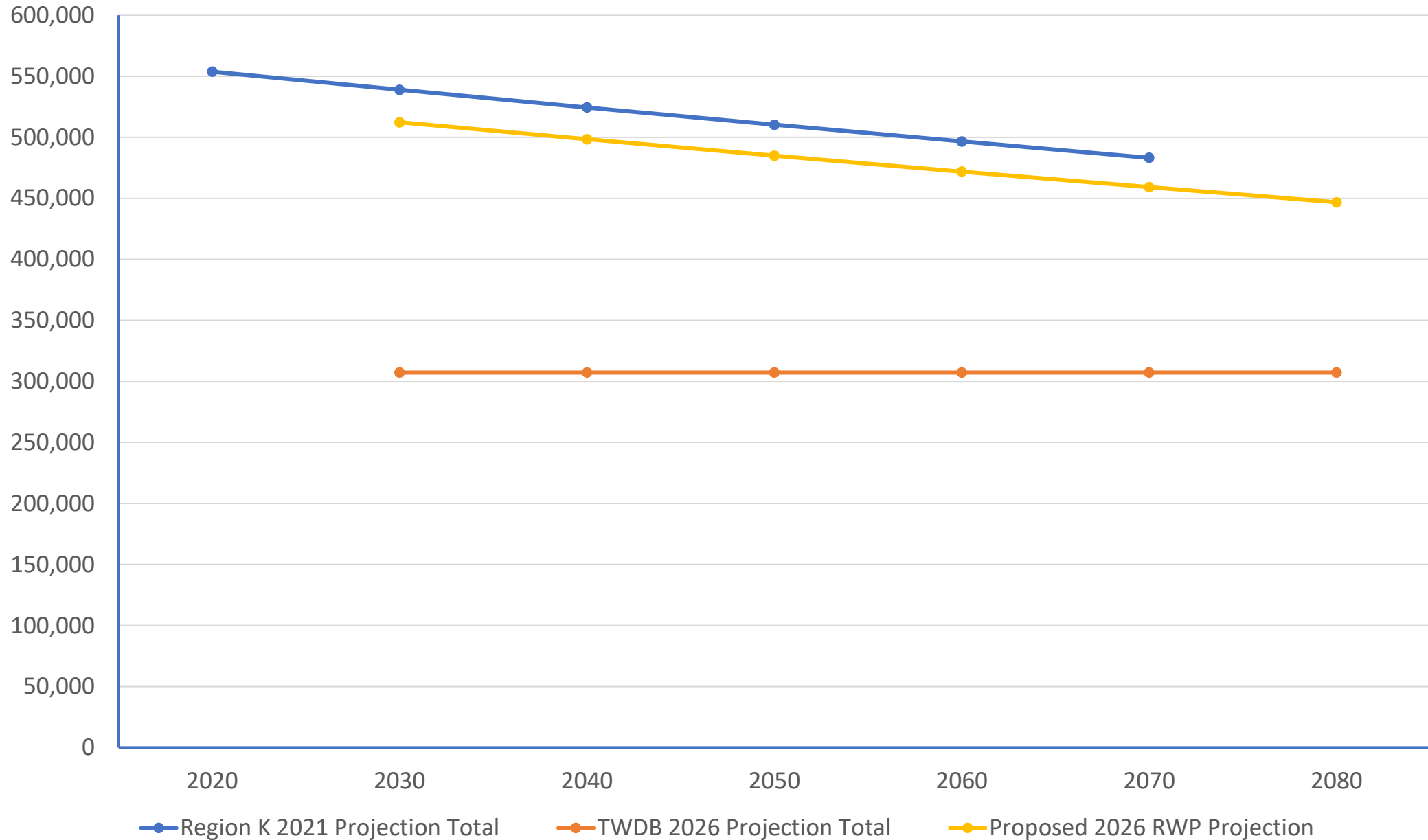
Region K Irrigation Water Demand Projections Wharton Co



Region K Irrigation Water Demand Projections Matagorda Co



Region K Irrigation Water Demand Projections Total



Population and Water Demand Subcommittee Meeting: 4/10/2023

Agenda Items 4, 5, 6, and 7

4. Summarize existing revision requests in non-municipal demands
5. Review groundwater irrigation demand projections
- 6. Consider revision and re-approval of mining demands based on Collier pending contract with LCRA**
7. Municipal population and demands
 - a. Progress on WUG survey
 - b. Methodology, draft estimates, potential revisions constraints



Potential Mining Demands: Collier Materials Permit Application

- Application for 1,963 AFY
- Diversion location in Llano County on Lake LBJ
- Sand dredging operation out of Lake LBJ
 - Dredging permits have 5-year timeline
 - Require full reapplication after 5-years
- Do we assume reapplication/reapproval and include in 2030 (and beyond?)

Population and Water Demand Subcommittee Meeting: 4/10/2023

Agenda Items 4, 5, 6, and 7

4. Summarize existing revision requests in non-municipal demands
5. Review groundwater irrigation demand projections
6. Consider revision and re-approval of mining demands based on Collier pending contract with LCRA
- 7. Municipal population and demands**
 - b. Methodology, draft estimates, potential revisions constraints**
 - a. Progress on WUG survey**



Municipal Population and Demands

**Methodology, draft estimates,
potential revision constraints**

Agenda Item 7b

Agenda Item 7b

Municipal Population and Demand

GPCD Methodology

- Dry year conditions
- Historical data + estimated future efficiencies

2021 RWP dry
year per-capita

Convert 2010-
2020 PCS from
2021 RWP to
annual rate

Years between
dry year and
2020

New 2020
Baseline per-
capita

Apply future
PCS estimates

Constrain
minimum to 60
gpcd

Agenda Item 7b

Municipal Population and Demand

GPCD Methodology

What is Plumbing Code Savings?

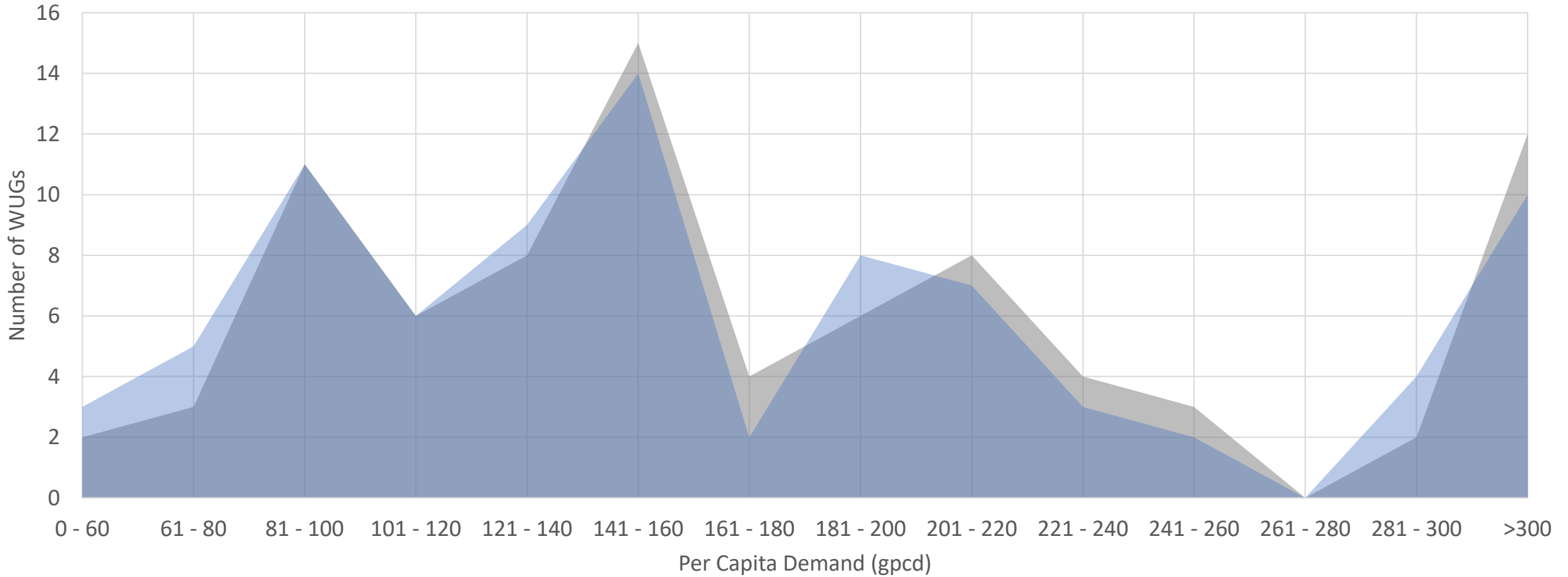
- Gradual change over time
- Driven by utility-specific ratio of housing stock ages
- Comes from replacement and new construction
- Useful life and per fixture savings key
- Population then vs now vs future
- Commercial PCS introduced this cycle

Agenda Item 7b

Municipal Population and Demand

2030 GPCD – 2021 RWP vs Draft 2026 RWP

TWDB Estimated 2030 Per Capita WUG Demands*



■ 2021 RWP ■ 2026 RWP (returning WUGs)

**Does not include County-Other*

Agenda Item 7b

Municipal Population and Demand

TWDB Population Projection Methodology

TDC Cohort Component Method



Agenda Item 7b

Municipal Population and Demand

TWDB Population Projection Methodology

TDC Projections to 2060

- 1.0 Migration
- 0.5 Migration

Extend 2060-2080

- Region-level Compounded Annual Growth Rate 2050-2060
- County share

Identify WUG populations

- PWS layer overlaid by Census blocks
- Cross-referenced with Water Use Surveys

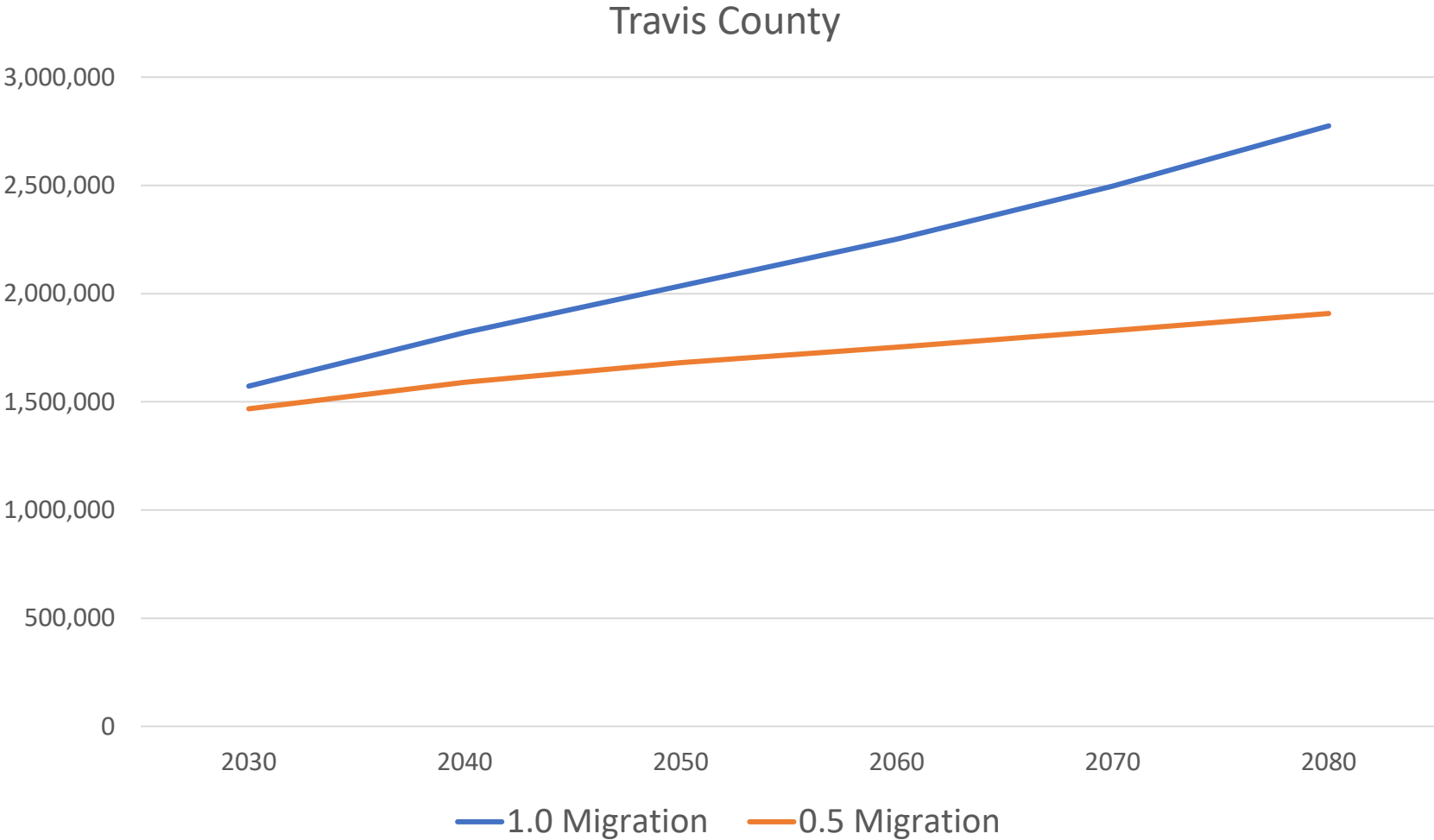
Distribute County to WUG

- Share of Growth prioritized
- Share of Population when Share of Growth not appropriate
- Constant population areas

Agenda Item 7b

Municipal Population and Demand

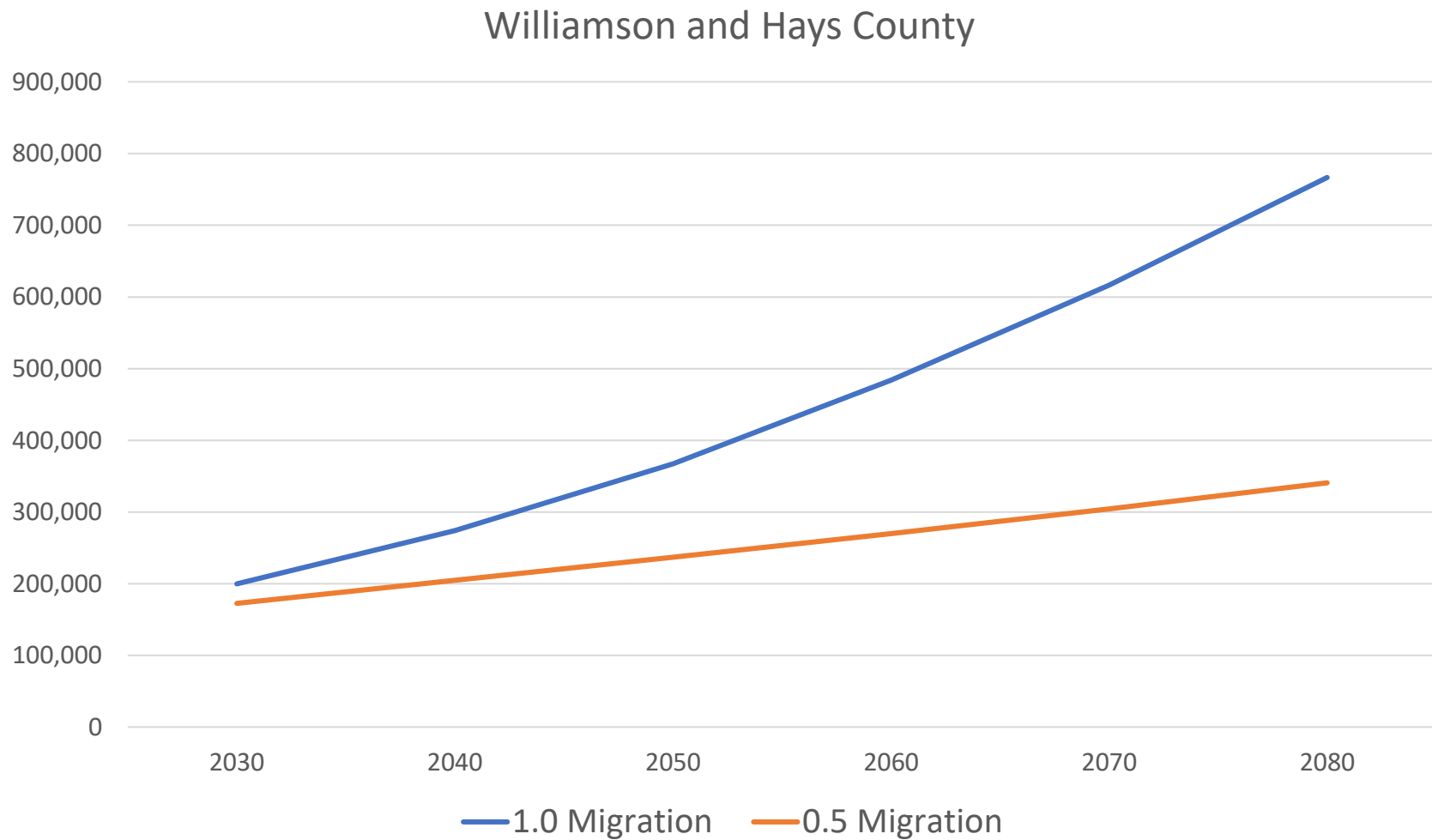
Draft TWDB Population Projections – Urban Counties



Agenda Item 7b

Municipal Population and Demand

Draft TWDB Population Projections – Suburban Counties

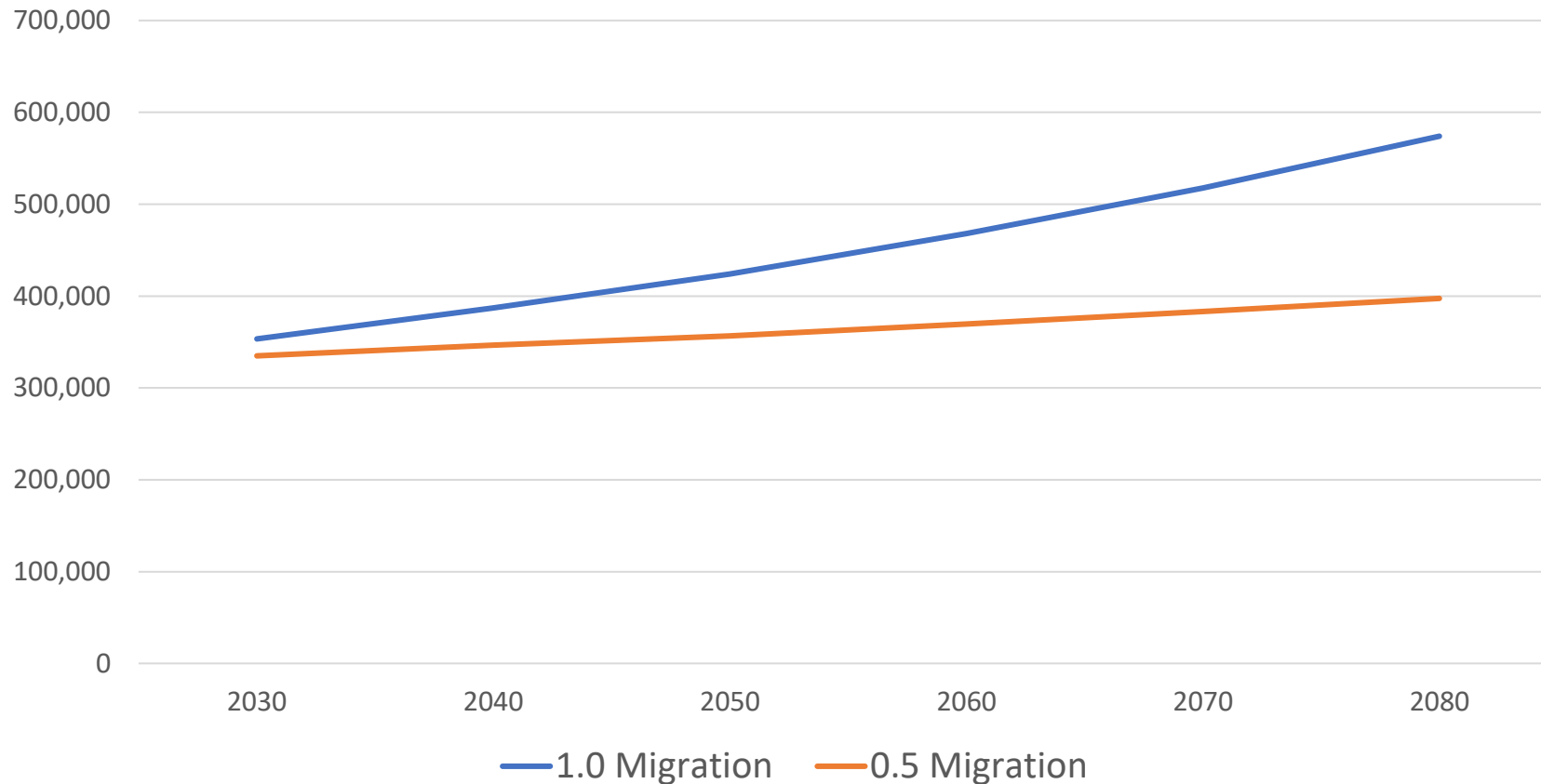


Agenda Item 7b

Municipal Population and Demand

Draft TWDB Population Projections – Rural Counties

Bastrop, Blanco, Burnet, Colorado, Fayette, Gillespie, Llano,
Matagorda, Mills, San Saba, Wharton County



Agenda Item 7b

Municipal Population and Demand TWDB Revision Request Criteria

Criteria for Adjustment

- Ongoing Census correction request
- Evidence of
 - Errors in projection
 - Different recent migration rates
 - Different near-future rates
- Changes to PWS service area
- Plans for new development or expansions
- Build-out conditions

Data Requirements

- Documentation of:
 - Data corrections
 - Different rates
 - Plans for facilities or other employment centers
 - New development
- Other data the RWPG feels supports changes

Municipal Population and Demands Progress on WUG Survey

Agenda Item 7a

Agenda Item
**Progress on WUG
Survey Benefits**

I got you a gift.

I hope it's a WUG Survey!

- Gain feedback and data on population and demand projections
- Obtain updated information on water supply projects
- First touch point in a years-long journey between RWPG/TC and WUGs
- New and Improved!



Where is the egg with the \$20 bill?

I thought you had it...



Agenda Item 7a

Progress on WUG Surveys

Survey Stats

- Was distributed on April 4, 2023 to 76 individuals representing 94 different WUGs
 - Difficulty connecting with 5 WUGs but still attempting to make contact
 - County-Other not approached
- Have received feedback from WUGs to date
 - 0 have requested revisions to population
 - 0 have requested revisions to demand
- Revision requests will be brought to this Committee for review prior to RWPG, in May/June/July
- Coordinating with other Regions with shared WUGs



Key Dates/Events in the next 6 months

- 1. April 26:** Region K meeting – goal is to have non-municipal demands ready to bring forward
- 2. April-June:** work continues on any requests for changes to population and municipal demands in each county, P&WD Committee meetings as needed
- 3. July 14:** Requests for revisions for non-municipal demands are due to the TWDB
- 4. late July:** Region K meeting – goal is to have recommendations for population and municipal demands ready to bring forward
- 5. August:** Requests for revisions for municipal demands are due to the TWDB