

AGENDA
Lower Colorado Regional Water Planning Group Meeting

LCRA Dalchau Service Center
3505 Montopolis Drive, Austin, TX

July 12, 2023, 10:00 a.m.

Regular Meeting:

1. Call to Order – Vice Chair Monica Masters
2. Welcome and Introductions – Vice Chair Masters
3. Receive public comments on specific issues related to agenda items 4 through 12. Public comments limited to 3 minutes per speaker.
4. Planning Group Membership – Secretary Teresa Lutes
 - a. Attendance Report
5. Consider approval of April 26, 2023 LCRWPG regular meeting minutes – Vice Chair Masters
6. Committee Reports
 - a. Water Modeling Committee – Teresa Lutes, Committee Chair
 - b. Report on Population and Demand Committee meetings, May 22, June 12, June 22, 2023 - Lauri Gillam, Committee Chair
7. Population and Water Demand Projections
 - a. Summary of proposed population and municipal demand revisions from Population and Demand Committee – Adam Conner, FNI
 - b. Consider and take action on the proposed population and municipal demand revision request and authorize consultant to submit to the TWDB on the planning group's behalf. Consider and take action as needed to authorize consultant to make minor changes to the revision request based on further discussion with TWDB as needed prior to final submittal.
 - c. Consider and take action as needed on minor correction for irrigation demand projections for submittal to TWDB - Robert Adams, Plummer

8. Consultant Report
 - a. Environmental flows 101 – Robert Adams, Plummer, and Jon Albright, FNI
 - b. Status of non-municipal demand revision requests – Robert Adams, Plummer
 - c. Other progress to date – Neil Deeds, INTERA
 - d. Upcoming efforts and key dates – Neil Deeds, INTERA

9. Texas Water Development Board (TWDB) Report – Lann Bookout, TWDB
 - a. Update on regional water planning activities and schedules
 - b. Discuss and consider action to authorize LCRA to negotiate and execute an amendment to the TWDB contract to increase the total project cost and committed funds for the 2026 RWP

10. Interregional Coordination Activities – Vice Chair Masters
 - a. Liaison reports

11. Financial Report – Vice Chair Masters

12. Upcoming meetings, consider and take action as needed – Vice Chair Masters
 - a. Location and date of next RWPG meeting
 - b. Other committee meetings
 - i. Water Modeling Committee
 - ii. Water Management Strategies Committee

13. Future Agenda Items

14. Public Comments – limit 3 minutes per person

15. Adjourn

Common Region K Terms and Conversion Factors

List of Abbreviations

AW	Austin Water
BEG	Bureau of Economic Geology
CFS	Cubic Feet per Second
CoA	City of Austin
CRU	Collective Reporting Unit
DCP	Drought Contingency Plan
DFC	Desired Future Condition
DOR	Drought of Record
EPA	Environmental Protection Agency
GAM	Groundwater Availability Model
GCD	Groundwater Conservation District
GIS	Geographic Information System
GMA	Groundwater Management Area
GPCD	Gallons per Capita per Day
IPP	Initially Prepared Plan
LCRA	Lower Colorado River Authority
LCRWPG	Lower Colorado River Water Planning Group
MAG	Modeled Available Groundwater
MUD	Municipal Utility District
MWP	Major Water Provider
PCS	Plumbing Code Savings
PWS	Public Water Supply
ROR	Run-of-River
RWP	Regional Water Plan

RWPA	Regional Water Planning Area
RWPG	Regional Water Planning Group
SWIFT	State Water Implementation Fund for Texas
SWP	State Water Plan
TAC	Texas Administrative Code
TDC	Texas Demographics Center
TCEQ	Texas Commission on Environmental Quality
TPWD	Texas Parks and Wildlife Department
TWC	Texas Water Code
TWDB	Texas Water Development Board
WAM	Water Availability Model
WCP	Water Conservation Plan
WMS	Water Management Strategy
WMSP	Water Management Strategy Project
WRAP	Water Rights Analysis Package
WUG	Water User Group
WUS	Water Use Survey
WWP	Wholesale Water Provider

Water Measurements

1 acre-foot (AF) = 43,560 cubic feet = 325,851 gallons

1 acre-foot per year (AFY) = 325,851 gallons per year = 893 gallons per day

1 gallon per minute (gpm) = 1,440 gallons per day = 1.6 AFY

1 million gallons per day (MGD) = 1,120 AFY

Item 4.a.
Attendance Report

Lower Colorado Regional Water Planning Group Meeting Voting Member Attendance Record
for Secretary's LCRWPG Voting Member Attendance Report on 7/12/2023

Voting Members									
Name	Interest	County	Year Term Expires*	4/26/2023 Dalchau Service Center Austin	1/11/2023 Dalchau Service Center Austin	10/26/2022 Dalchau Service Center Austin	7/27/2022 Dalchau Service Center Austin	4/27/2022 Dalchau Service Center Austin	
1 Berglund, Daniel	Small Business	Wharton	2026	X	X	X	X	Absent	
2 Brasher, Jim	GMA 15	Colorado	n/a	X	X	Absent	Absent	X	
3 Castleberry Christianne	Water Utilities	Travis	2027	X	X	X	X	X	
4 Fauley, Jody	Counties	San Saba	2026	Absent	Elected				
5 Fieseler, Ron	GMA 9	Blanco	n/a	X	X	X	X	X	
6 Gillam, Lauri	Municipalities	Travis	2023	X	X	X	X	X	
7 Johnson, Barbara	Industries	Travis	2022	X	X	X	X	X	
8 Lindsay, David	Recreation	Travis	2024	X	X	X	X	X	
9 Loftus, Tim	GMA 10	Travis	n/a	X	Absent - Alternate Attended	X	Appointed by GMA		
10 Ludwig, Jason	Electric Gen. Utilities	Matagorda	2026	Absent	X	Absent	X	X	
11 Lutes, Teresa	Municipalities	Williamson	2022	X	X	X	Absent - Alternate Attended	X	
12 Luther Jim	Counties	Burnet	2022	X	X	X	X	Absent	
13 Masters, Monica	River Authorities	Travis	2023	X	X	X	Elected		
14 McElroy, Ann	Environmental	San Saba	2022	X	X	X	Absent - Alternate Attended	X	
15 Olewin, Carol	Public	Travis	2026	X	X	X	X	X	
16 Olfers, Charles	Agriculture	Gillespie	2023	Absent	Absent	Absent	Absent	Absent	
17 Reagor, Mike	Municipalities	Llano	2023	X	X	X	X	X	
18 Ruggiero, Robert	Small Business	Travis	2024	X	Absent	X	Absent - Alternate Attended	Absent	
19 Sliva, Paul	Agriculture	Matagorda	2026	X	Absent	X	X	Absent	
20 Sodek, Mitchell	GMA 8	Burnet	n/a	X	X	X	X	X	
21 Totten, Jim	GMA 12	Bastrop	n/a	X	Absent	Absent	X	X	
22 Tybor, Paul	GMA 7	Gillespie	n/a	Absent	X	X	Absent - Alternate Attended	X	
23 Uecker, Emil	Counties	Blanco	2027	Absent	X	Absent	X	X	
24 Van Dresar, David	Water Districts	Fayette	2024	X	Absent	X	Absent	Absent	
25 Walker, Jennifer	Environmental	Travis	2022	Absent - Alternate Attended	X	X	X	Absent - Alternate Attended	

*Jan. 1/Dec. 31st of previous year (for example, 2021 terms expire Dec. 31st, 2020)

Item 5.
April 26, 2024 Meeting Minutes

DRAFT MEETING MINUTES

Lower Colorado Regional Water Planning Group Meeting

April 26, 2023, 10:00 a.m.

LCRA Dalchau Service Center

3505 Montopolis Drive

Austin, TX

Members Signed in:

Daniel Berglund, Small Business

Jim Brasher, GMA 15

Christianne Castleberry, Water Utilities

Ron Fieseler, GMA 9

Lauri Gillam, Municipalities

David Lindsay, Recreation

Barbara Johnson, Industries

Tim Loftus, GMA 10

Jim Luther, Counties

Teresa Lutes, Municipalities

Charlie Flatten, Environment (Alternate)

Monica Masters, River Authorities

Ann McElroy, Environmental

Carol Olewin, Public Interest

Mike Reagor, Municipalities

Robert Ruggiero, Small Business

Paul Sliva, Agriculture

Mitchell Sodek, GMA 8

Jim Totten, GMA 12

David Van Dresar, Water Districts

Voting Members Absent:

Jody Fauley, Counties

Jason Ludwig, Electric Gen. Utilities

Jennifer Walker, Environmental

Charles Olfers, Agriculture

Emil Uecker, Counties

Paul Tybor, GMA 7

Support/Consultants/Visitors:

Adam Conner, FNI

Dana Michaud

Annette Keaveny, LCRA

Lann Bookout, TWDB

Mike Thuss, WRA

Sue Thornton, CTWC and Alternate for Recreation

Blake Neffendorf, City of Buda

Carol Faulkenberg, TDA

Cindy Smiley, Smiley Law Firm

Sara Eatman, Austin Water

Helen Gerlach, Austin Water

Sarah Hoes, Austin Water

Robert Adams, Plummer

Earl L. Foster, LMUD

Laurence Brown, TSSWCB

Jason Homan, Alternate for Environmental

Dianne Wassenich, Region L Liaison

Paul Babb, GMA 9-8

Quorum

Quorum: Yes

Number of voting members or alternates representing voting members present: 20

Number required for quorum per current voting membership of 25: 13

Number of voting members required for 2/3 vote: 17

Formal Actions Taken:

1. The minutes from the January 11, 2023 planning group meeting were approved as presented.
2. The Texas Water Development Board (TWDB) draft projections were accepted for Livestock and Steam Electric demands.
3. The Population and Demand Committee's recommended revisions and subsequent submittal to TWDB were approved for Irrigation, Manufacturing, and Mining.

Regular Meeting:

1. Chairman David Van Dresar called the meeting to order at 10:04 am.
2. Chairman Van Dresar welcomed all to the meeting and asked that members introduce themselves.
3. Public Comments. Cindy Smiley, of Smiley Law, provided public comment thanked the planning group for their efforts. Ms. Smiley asked that the members not rely on the standardized approach for developing demands that is used at a state level but to look for local information wherever available and to err on the side of caution. Ms. Smiley noted the criticality of developing comprehensive demand estimates, including any uses that require releases from LCRA's reservoirs.
4. Planning Group Membership
 - a. Secretary Teresa Lutes noted that attendance was taken during introductions.
 - b. Ms. Lutes called the group's attention to the attendance report included in packets for review and correction, if needed.
5. Consider approval of Minutes
 - a. Chairman Van Dresar asked that the planning group review and consider approval of the January 11, 2023 meeting minutes. A motion was made by Ron Fiesler, seconded by, Daniel Berglund and approved with none opposed.
6. Committee Reports
 - a. Lauri Gillam, Chair of the Population and Demand Committee, reported on their meetings, held on February 2, February 28, and April 10, 2023. Ms. Gillam noted that the committee is focused only on population and demands, and progress made by the committee and consultant so far includes recommendations for revisions of irrigation and manufacturing demand estimates.

Ms. Gillam noted that in the last planning cycle, some members of the RWPG requested that environmental flows be included in the demands portion of the planning process. David Lindsay expressed concern that water releases through the dams for the environment should be appropriately accounted for. The group discussed that environmental flow requirements are accounted for later in the planning process, and

Chair Van Dresar made a recommendation that an Environmental Flows 101 session be included on the agenda for the next regular planning group meeting.

7. Consultant Report

- a. Robert Adams, Plummer, presented a summary of the proposed non-municipal demand revisions as recommended by the Population and Demand Committee.
 - i. Mr. Adams reviewed how livestock counts have changed over time and made a note that this accounts for a very small amount of overall demand projections. The Committee did not recommend any revisions to the Livestock projections.
 - ii. Mr. Adams presented the demand projections associated with Steam Electric power generation and relayed that the Committee did not request revisions of these estimates. Chair Van Dresar asked about Fayette, and Monica Masters noted that the projections were in line with recent usage and that Lower Colorado River Authority (LCRA) reviewed all of the projections and agrees with them. Discussion followed about the increase in demand for power associated with growing population, and the move of power generation toward lower water use technologies.
 - iii. Mr. Adams presented revisions recommended for the Manufacturing demand projections in Burnet, Matagorda, and Travis counties. Mr. Adams explained that a couple of existing businesses that were missing from the data have been included, and both LCRA and City of Austin projections for future manufacturing demand were used to develop revised projections for those three counties. The Committee recommended the revisions presented.
 - iv. The draft mining demands were presented by Mr. Adams, which were developed by TWDB based on updated information from the Bureau of Economic Geology. Mr. Adams described revisions requested from the Population and Demand Committee, which include increases in Burnet County from Groundwater Conservation District (GCD) data and Llano County for a specific aggregate mine.
 - v. The consulting team recognized Stacy Pandy and Daniel Berglund for their contributions in developing the proposed irrigation projection revisions. Mr. Adams noted that surface water irrigation and groundwater irrigation were considered separately and rely on different data sources. Mr. Adams presented the recommended approach for surface water, which uses the maximum irrigated acreage since 2011 and the water use per acre from 2022 for the first crop, and second season irrigation demand based on the highest use since 2016. Mr. Adams explained the recommended groundwater methodology based on average groundwater demand during the 2011-2014 drought from the GCD and TWDB data sources available for each county.
- b. Adam Conner, of Freese and Nichols, was introduced to present draft municipal population and demand projections.
 - i. Mr. Conner described the TWDB's process for developing population and demand estimates, which relies on Texas Data Center population estimates at a county level and distributing those among Water User Groups (WUGs). Mr. Conner explained that the projections are based on the cohort component method, which considers birth rate, death rate, and two different migration rates which are either 100% of historical migration or 50% of historical migration, referred to as the 1.0 and 0.5 projections, respectively. The planning group discussed the difficulty associated with per capita

accounting for water use in vacation rentals and second homes, which are not associated with a population unless there is full-time residency but do have water usage, which would result in a higher Gallons Per Capita per Day (GPCD) use rate. The planning group noted that utilities are likely to assume a population associated with each connection, which may be a source of some differences between TWDB estimates and the utility estimates.

Mr. Conner noted that the demand estimates are based on GPCD and an estimate of passive conservation savings associated with plumbing code changes, which are being reviewed by TWDB, and may result in updated demand estimates. David Lindsay noted that he is concerned with the demands associated with Brushy Creek, which are accounted for in Region G but draw their water from the Highland Lakes. It was clarified that the transfer of water from Region K to Region G for this purpose is accounted for in the water supplies accounting part of the regional water planning process.

- ii. Mr. Conner presented the progress to date on the consultant's WUG survey and the timeline for completion.
 - c. The consulting team noted that the non-municipal demands have been reviewed and revision recommendations have been presented.
 - d. The consultants discussed their ongoing coordination with the Population and Demand Committee and intent to finalize review of municipal demands prior to the next meeting.
8. The planning group considered and took action on each category of non-municipal water user group demand revision requests, and the following submittal of revision requests to TWDB by the consultant.
- a. Livestock demand projection revisions: Lauri Gillam moved to accept the TWDB draft projections, Daniel Berglund seconded, and the motion passed.
 - b. Steam electric demand projection: Barbara Johnson moved to accept the TWDB draft projections, Christianne Castleberry seconded, and the motion passed.
 - c. Mining demand projections: Teresa Lutes moved to submit the recommended revision request to TWDB, Mitchell Sodek seconded. Discussion followed, and the motion passed.
 - d. Manufacturing demand projections: Monica Masters moved to submit the recommended revision request to TWDB, Daniel Berglund seconded, and the motion passed.
 - e. Irrigation demand projections: Lauri Gillam moved to submit the recommended revision request to TWDB, Daniel Berglund seconded. David Lindsay requested an overview document like what was provided in the last cycle when it is available. The motion passed.

9. Texas Water Development Board (TWDB) Report

Lann Bookout, TWDB, reviewed the submittal schedule for revision requests of municipal and non-municipal demands. He also noted that the plumbing code estimates for passive conservation are being reviewed and may result in revised demand estimates being released.

10. Interregional Coordination Activities

- a. Barbara Johnson reported for Terry Bray, Region G Liaison, that Region G will take up the Liberty Hill project at their May meeting. Lann Bookout noted that Liberty Hill

has withdrawn the application for funding for the Gandy Pond project, but they're now proposing a wellfield in Williamson County which may require review in the future.

- b. Ron Fieseler provided an update that Region L is on the same timeline as Region K and doing similar reviews of the draft demands.
- c. Dianne Wassenich introduced herself as the liaison from Region L. The planning group discussed coordination required between these two regions and noted that the current focus is on information sharing.

11. Chair Van Dresar called the group's attention to the financial report provided in the packet and requested review.

12. Upcoming meetings

- a. Regular meeting: July 12th at Dalchau Service Center
- c. Ongoing Population and Demand Committee meetings to be announced.

13. Future agenda items: a water modeling discussion will be included in the July agenda.

14. No additional public comments were provided.

15. Adjourn 11:41

DRAFT

Item 7.a.

Summary of proposed population
and municipal demand revisions

*Complete Population and Demand
Revision memorandum is included
separately.*

July 12, 2023

10:00 AM

Region K Planning Group Meeting



Agenda Item 7a

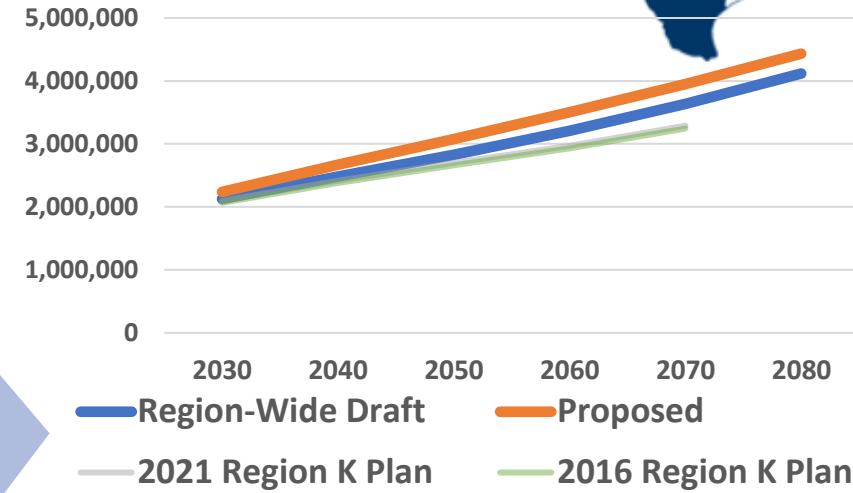
Municipal Population and Demands

Summary of Proposed Population and Water Demand Revisions from Population and Demand Committee



Agenda Item 7a

Municipal Population and Demand Summary of Revision Requests



2023 Region K Water Plan Survey

Section 1 - Population and Municipal Water Demand Projections

Estimation of future population and water demands is a crucial first step for the planning process. Before completing this section, please review the proposed population and municipal water demand projections for your entity found in this table through this link: [population and municipal water demand projections](#). Please note that these projections are intended to represent the population within your entity's WATER UTILITY SERVICE AREA and may not align with city, town, or district boundaries. If you sell water on a wholesale basis to other cities or districts, projections for those users are included elsewhere.

TWDB requires that you provide supporting documentation for proposed modifications to the population or municipal water demand projections. If you indicate that you wish to modify the projections for your entity, we will contact you for additional information.

1. Do you have significant disagreement with and wish to make modifications to the **projected population** for the water users directly supplied by your entity?

- Yes
- No

2. If you answer "Yes" to question 1, please provide a brief description of the adjustments you wish to make to the projected population for the water users directly supplied by your entity.

- Study.com
- Study.com
- Other (please specify):

Outreach

- WUG Survey
- Monthly Inter-Regional Coordination
- Two TWDB Workshops

Review TWDB Projections

- Texas Data Center projections
- Allocate to WUGs

Key Recommendations to RWPG

- Utilize 0.5 migration for Mills and San Saba
- Increase in Travis County total

Municipal Population and Demand

Summary of Revision Requests



Criteria for Adjustment

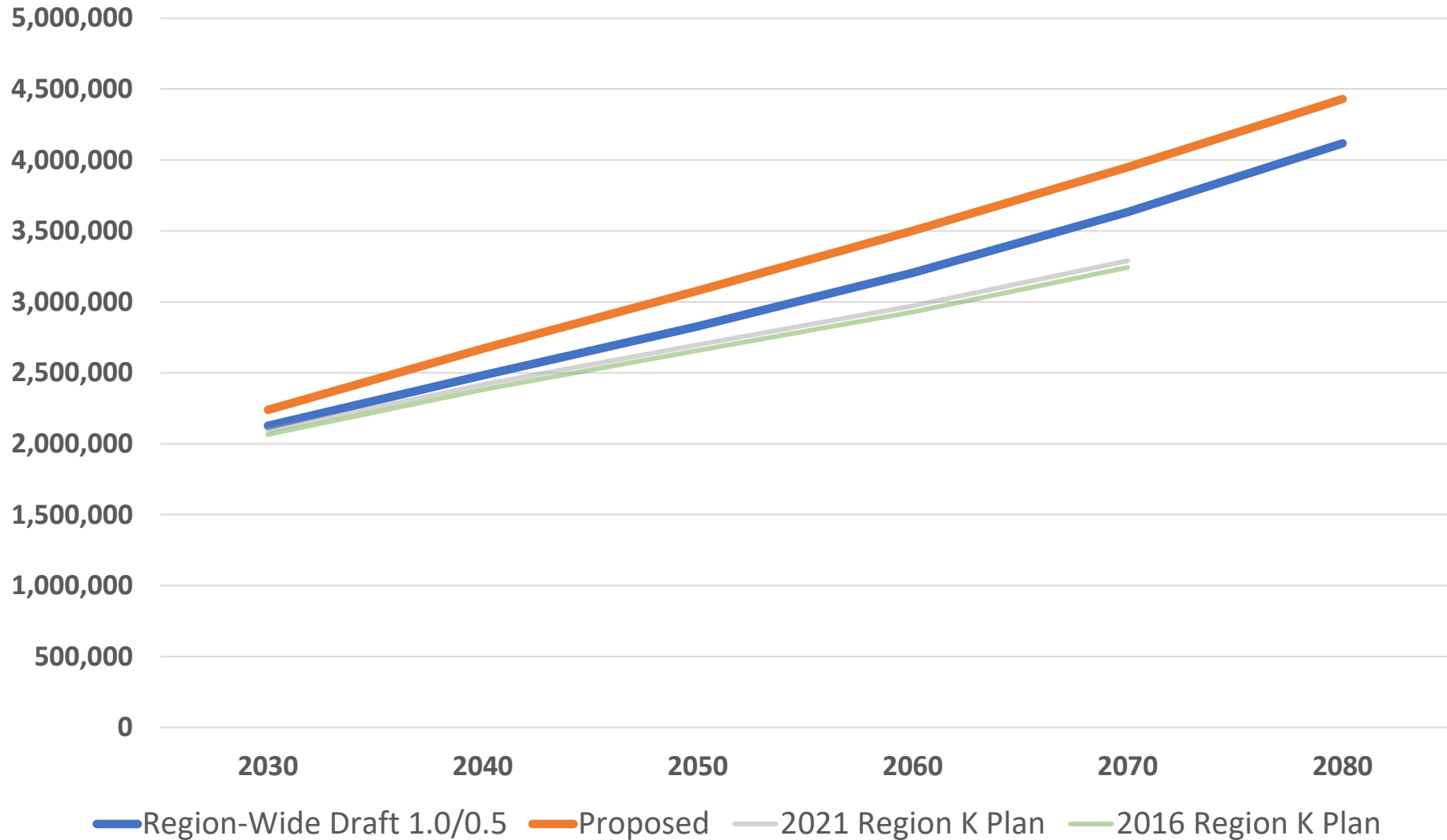
- Ongoing Census correction request
- Evidence of
 - Errors in projection
 - Different recent migration rates
 - Different near-future rates
- Changes to PWS service area
- Plans for new development or expansions
- Build-out conditions

Data Requirements

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

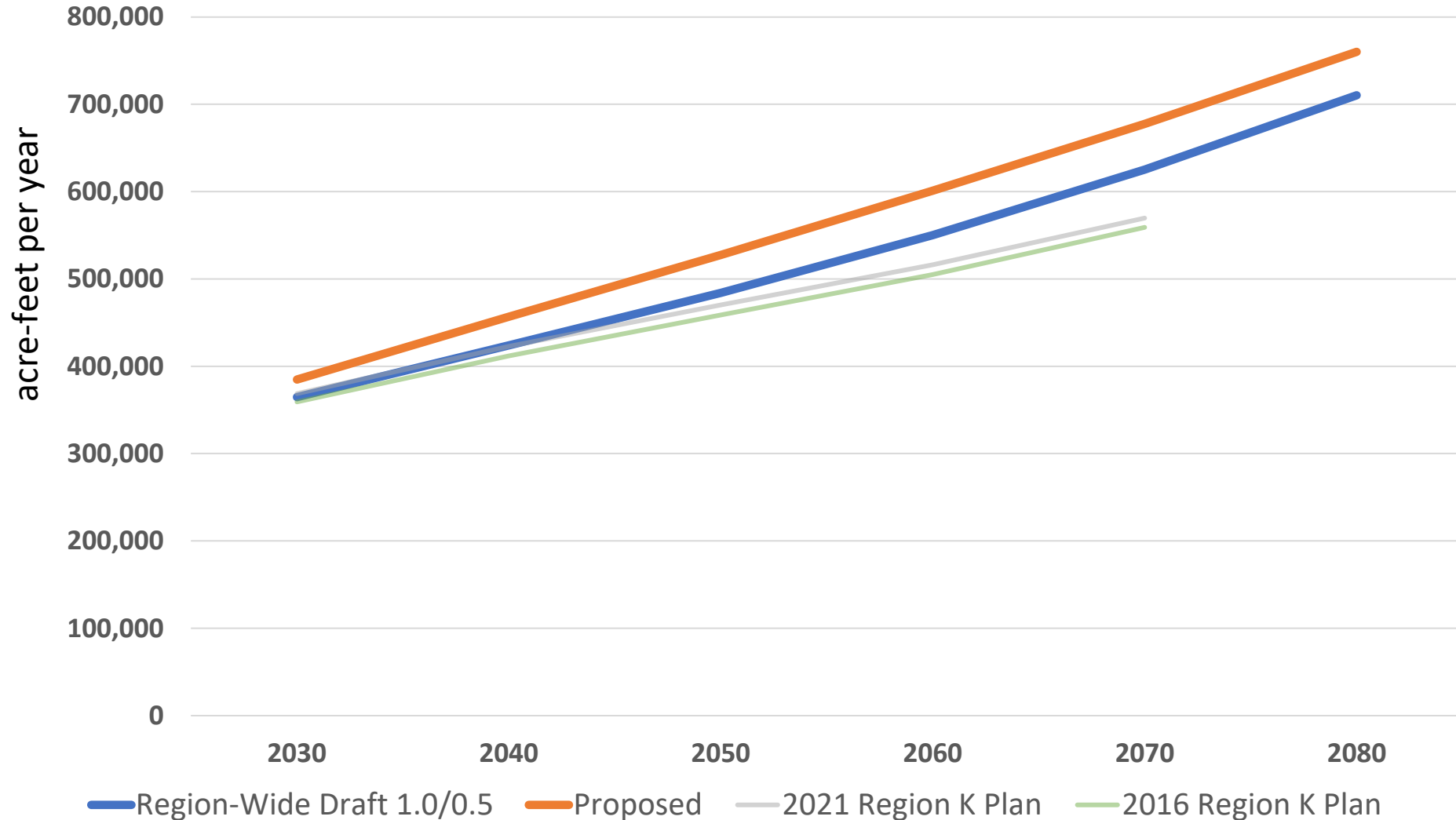
Municipal Population and Demand

Summary of Revision Requests – Region-Wide Population



Municipal Population and Demand

Summary of Revision Requests – Region-Wide Demand



Agenda Item 7a

Update on Revision Requests – Named WUGs



				Draft Demand Projections (ac-ft/yr)						Proposed Demand Projections (ac-ft/yr)					
WUG	County	Pop	GPCD	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080
Austin	Hays	↑		-	-	-	-	-	-	22	26	30	34	38	42
	Travis	↑		179,520	199,497	222,560	248,290	276,994	309,017	198,677	231,308	264,957	298,409	329,465	361,985
	Williamson	↑		15,710	21,061	27,433	34,438	42,385	51,389	16,159	21,070	27,735	34,595	43,842	51,645
Buda	Hays	↕	↓	3,177	4,568	6,413	8,916	11,754	14,969	3,236	4,515	5,380	6,240	7,239	8,397
Canyon Lake Water Service	Blanco	↓	↓	98	98	97	95	93	90	43	43	43	43	43	43
	Hays	↕	↓	81	117	164	228	301	383	102	104	106	108	109	109
	Travis	↓	↓	402	552	683	812	957	1,123	102	104	106	108	109	109
Corix	Blanco	↑		-	-	-	-	-	-	50	50	50	50	50	50
	Burnet	↑		262	292	319	348	382	420	914	914	914	914	914	914
	Colorado	↑		44	40	37	33	30	28	59	58	58	58	58	58
	Llano	↑		247	252	257	264	272	281	624	622	622	622	622	622
	Matagorda	↑		3	3	3	3	3	3	82	82	82	82	82	82
	Mills	↑		12	12	12	12	12	12	115	114	114	114	114	114
	San Saba	↑		12	12	11	11	10	9	22	22	22	22	22	22

Agenda Item 7a

Municipal Population and Demand

Update on Revision Requests – Named WUGs (cont.)



				Draft Demand Projections (ac-ft/yr)						Proposed Demand Projections (ac-ft/yr)					
WUG	County	Pop	GPCD	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080
Cottonwood Creek MUD 1	Travis	↓		340	466	574	681	801	939	336	336	336	336	336	336
Dripping Springs WSC	Hays	↑		1,477	2,132	3,087	4,470	5,450	6,940	2,802	4,044	5,854	6,940	6,940	6,940
Elgin	Bastrop	↑		1,176	1,271	1,386	1,518	1,668	1,839	2,209	2,867	3,360	3,716	3,716	3,716
	Travis	↑		201	263	317	369	430	498	1,081	1,936	2,602	3,106	3,106	3,106
Goldthwaite	Mills	↑	↑	306	291	280	276	281	302	615	614	614	614	614	614
Hays County WCID 2	Hays	↓		1,146	1,650	2,317	3,223	4,250	5,413	777	775	775	775	775	775
Hurst Creek MUD	Travis	↓	↓	1,704	1,702	1,702	1,702	1,702	1,702	1,154	1,152	1,152	1,152	1,152	1,152
Johnson City	Blanco	↑		274	275	270	265	260	254	315	333	353	375	398	423
Lago Vista	Travis	↑		2,884	3,623	4,561	5,742	7,230	9,102	4,061	5,999	8,880	11,856	11,856	11,856
Lakeway MUD	Travis	↑↓	↑	2,425	2,666	2,878	3,077	3,223	3,223	2,984	3,081	3,122	3,122	3,122	3,122
Leander	Travis	↑↓		2,648	3,724	4,660	5,573	6,612	7,793	4,295	5,393	5,672	5,672	5,672	5,672

Agenda Item 7a

Municipal Population and Demand

Update on Revision Requests – Named WUGs (cont.)



				Draft Demand Projections (ac-ft/yr)						Proposed Demand Projections (ac-ft/yr)					
WUG	County	Pop	GPCD	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080
La Ventana WSC	Hays	↓		138	198	278	387	510	649	138	137	137	137	137	137
Marble Falls	Burnet	↑		2,014	2,315	2,669	3,076	3,545	4,086	3,497	4,480	4,482	4,484	4,485	4,488
Ruby Ranch WSC	Hays	↓		143	206	289	402	529	674	143	142	142	142	142	142
San Saba	San Saba	↑		745	734	734	742	766	815	1,029	1,027	1,027	1,027	1,027	1,027
Schulenburg	Fayette	↑		532	520	510	508	505	503	654	652	652	652	652	652
Sunset Valley	Travis	↑		286	236	196	164	137	114	286	284	284	284	284	284
Travis County MUD 18	Travis	↓		389	535	663	787	928	1,089	230	229	229	229	229	229
Travis County WCID 18	Travis	↑		500	379	288	221	169	130	906	902	902	902	902	902
Undine Development	Travis	↑	↓	144	147	150	154	159	164	151	150	150	150	150	150
Wells Branch MUD	Travis	↑		1,068	1,179	1,281	1,293	1,293	1,293	1,464	1,511	1,511	1,511	1,511	1,511

Agenda Item 7a

Municipal Population and Demand

Update on Revision Requests – County-Other



	Draft Population Projections						Delta						Proposed Population Projections					
WUG	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080	2030	2040	2050	2060	2070	2080
County-Other, Bastrop	9,855	13,829	18,565	23,936	30,020	36,908	-7,646	-11,869	-14,678	-16,345	-15,229	-13,960	2,209	1,960	3,887	7,591	14,791	22,948
County-Other, Blanco	7,386	7,447	7,309	7,174	7,020	6,850	-301	-396	-563	-735	-919	-1,121	7,085	7,051	6,746	6,439	6,101	5,729
County-Other, Burnet	21,560	22,821	23,492	24,085	24,690	25,407	-9,811	-12,228	-10,716	-8,980	-6,982	-4,684	11,749	10,593	12,776	15,105	17,708	20,723
County-Other, Colorado	11,480	11,216	10,899	10,571	10,200	9,783	-90	-116	-139	-160	-179	-197	11,390	11,100	10,760	10,411	10,021	9,586
County-Other, Fayette	5,243	4,391	3,466	2,741	1,952	1,104	-562	-605	-653	-663	-674	-686	4,681	3,786	2,813	2,078	1,278	418
County-Other, Hays	30,703	46,786	67,462	95,015	129,676	166,742	-9,278	-9,633	-5,232	+11,302	+33,681	+61,108	21,425	37,153	62,230	106,317	163,357	227,850
County-Other, Llano	5,984	5,348	4,319	3,714	2,992	2,142	-2,417	-2,379	-2,349	-2,305	-2,254	-2,141	3,567	2,969	1,970	1,409	738	1
County-Other, Matagorda	9,239	8,116	6,724	5,135	3,361	1,381	-503	-503	-504	-505	-506	-508	8,736	7,613	6,220	4,630	2,855	873
County-Other, Mills	2,433	2,120	1,784	1,516	1,189	798	-774	-847	-903	-925	-897	-783	1,704	1,397	1,077	877	667	446
County-Other, San Saba	2,034	1,795	1,539	1,323	1,051	719	-890	-921	-926	-905	-838	-698	1,193	980	779	648	494	318
County-Other, Travis	94,947	127,362	126,546	112,159	97,941	84,228	-29,656	-36,076	-38,738	-38,805	-20,375	+810	65,291	91,286	87,808	73,354	77,566	85,038
County-Other, Williamson	2,634	2,529	2,392	2,288	2,188	2,087	-2,634	-58	-1,776	-927	-2,188	-1,507	0	2,471	616	1,361	0	580

Item 7.b.

Minor correction for irrigation
demand projections

Region K Combined SW+GW Irrigation 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 2030 demands***	162,081	211,146 211,591	165,964	539,190 539,636

*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 is average from 2010-2014.



Item 8.a.

Environmental Flows 101

July 12, 2023

10:00

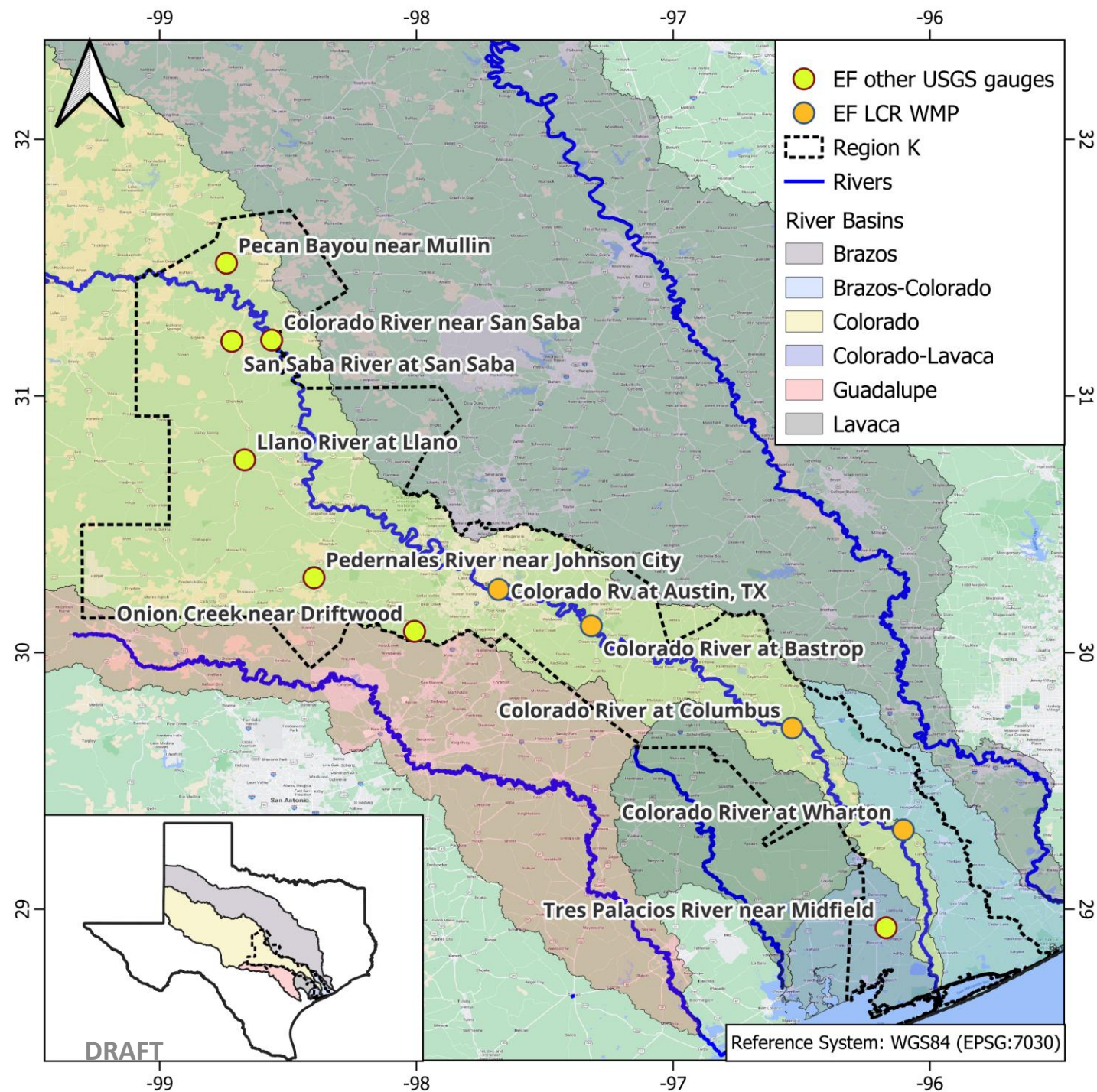
Environmental Flows 101



Environmental Flow Standards

- SB2/SB3 – Instream Flow Standards
 - 11 stream gages in Region K
 - Included in TCEQ WAM
 - Applies to all water rights after March 1, 2011
 - Also applies all or in part to other rights
 - Varies by season and climatic conditions
 - Base and pulse flows
- SB3 - Freshwater inflows to bays & estuaries

<https://www.twdb.texas.gov/surfacewater/flows/index.asp>



Environmental Flow Standards: 2 Major Elements

Bay and
Estuary Inflows

Instream Flows

<https://www.twdb.texas.gov/surfacewater/flows/freshwater/index.asp>

Why Bay and Estuary Inflows?

"How much water is needed to provide a beneficial inflow?"
where beneficial inflows are defined as:

"a salinity, nutrient, and sediment loading regime adequate to maintain an ecologically sound environment in the receiving bay and estuary system that is necessary for the maintenance and productivity of economically important and ecologically characteristic sport or commercial fish and shellfish species and estuarine life upon which such fish and shellfish are dependent."

Two Goals Established

1. Ensuring the maintenance and productivity of economically important and ecologically characteristic sport or commercial fish and shellfish, and
2. Ensuring the maintenance of estuarine life upon which such fish and shellfish are dependent.

Historical Development of Environmental Flow Standards: 2 Major Elements

Bay and
Estuary Inflows

Instream Flows

<https://www.twdb.texas.gov/surfacewater/flows/freshwater/index.asp>

Statutory Authority (based on the Water Code)

- The commission by rule shall:
 - adopt appropriate environmental flow standards for each river basin and bay system in this state that are adequate to support a sound ecological environment, to the maximum extent reasonable considering other public interests and other relevant factors;
 - establish an amount of unappropriated water, if available, to be set aside to satisfy the environmental flow standards to the maximum extent reasonable when considering human water needs; and
 - establish procedures for implementing an adjustment of the conditions included in a permit or an amended water right as provided by Sections 11.147(e-1) and (e-2).

Flow Scenarios Considered

BBEST Flow Classifications	Colorado/Lavaca Classifications	Seasonal	Locations
No Flow periods	Severe	Winter	Bastrop
Subsistence Flows	Dry	Spring	Columbus
Base Flows	Average	Summer	Wharton
High Flow Pulses	Wet	Fall	Bay City

Instream Flow Criteria



Upstream of Lake Travis

- Seasons
 - Winter Nov-Feb, Spring Mar-June, Summer July-Aug, Fall Sept-Oct
- Hydrologic condition - cumulative 12-month inflow
- Severe, dry, average and wet base flows
- One or two pulses per season & annual pulse

Downstream of Lake Travis

- Seasons
 - Winter Dec-Feb, Spring Mar-June, Summer July-Aug, Fall Sept-Nov
- Hydrologic condition - combined storage in Buchanan & Travis
- Severe, dry and average base flows
- Two pulses per season, one pulse per 18 months, one pulse every two years

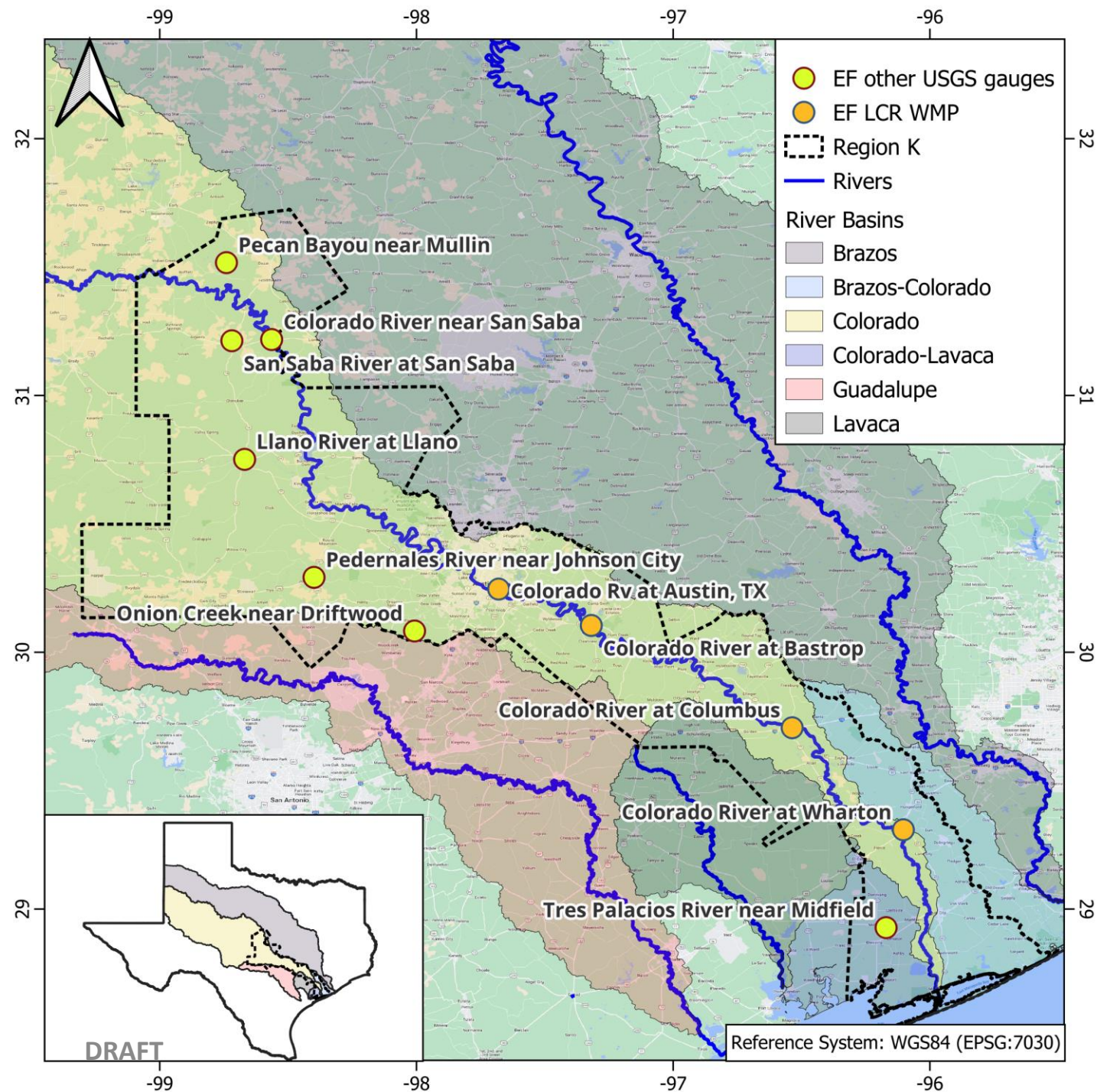


Environmental Flows in the LCRA Water Management Plan

DRAFT

Environmental Flows – LCRA WMP

- LCRA supports instream flows at 4 locations & freshwater inflows
 - Releases of inflows and stored water
 - Modeled in Current Supply evaluation as 33,400 ac-ft/yr firm commitment from LCRA system
 - Modeled in Strategy Evaluation using LCRA WMP operations



Example of Instream Flow Criteria in LCRA WMP



Table 4-4. Subsistence and Base Flow Criteria by Gauge (cfs)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Austin Gauge												
Subsistence	50	50	50	50	50	50	50	50	50	50	50	50
Bastrop Gauge												
Subsistence	208	274	274	184	275	202	137	123	123	127	180	186
Base-Dry	313	317	274	287	579	418	347	194	236	245	283	311
Base-Average	433	497	497	635	824	733	610	381	423	433	424	450
Columbus Gauge												
Subsistence	340	375	375	299	425	534	342	190	279	190	202	301
Base-Dry	487	590	525	554	966	967	570	310	405	356	480	464
Base-Average	828	895	1,020	977	1,316	1,440	895	516	610	741	755	737
Wharton Gauge												
Subsistence	315	303	204	270	304	371	212	107	188	147	173	202
Base-Dry	492	597	531	561	985	984	577	314	410	360	486	470
Base-Average	838	906	1,036	1,011	1,397	1,512	906	522	617	749	764	746

Table 4-5. Instream Flow Triggers and Flow Levels

Combined Storage on Evaluation Date (acre-feet)	Instream Flow Criteria
Above 1,960,000	Base-Average
1,960,000 to 1,800,000	Base-Dry
Below 1,800,000	Subsistence

- Example: If combined storage is less than 1.8 M ac-ft in March, the Subsistence criteria applies.

Example of Instream Flow Criteria in LCRA WMP



- Instream flows at Base-Dry and Base-Average levels are met using storable inflows. Previously stored water may be used to supplement Subsistence flows, subject to certain limitations when the combined storage of Lakes Buchanan and Travis is below 900,000 ac-ft.

Bay & Estuary Freshwater Inflows in LCRA WMP



Table 4-7. Operational and Threshold Criteria for Colorado River Freshwater Inflows to Matagorda Bay

Inflow Category	Two-Month Operational Criteria Applicable in the Individual Months (acre-feet)			Monthly (acre-feet)
	Spring March-June	Fall July-October	Intervening November-February	
OP-4	289,000	205,000	133,000	-
OP-3	164,000	117,000	76,000	-
OP-2	112,000	80,000	52,000	-
OP-1	76,000	54,000	35,000	-
Threshold	-	-	-	15,000

Table 4-8. Freshwater Inflow Triggers and Inflow Criteria

Combined Storage on Evaluation Date (million acre-feet)	Freshwater Inflow Criteria
1.95 and above for March 1 and July 1; 1.85 and above on Nov. 1	OP-4
1.5 to 1.949 for March 1 and July 1; 1.5 to 1.849 for Nov. 1	OP-3
1.3 to 1.499	OP-2
1.0 to 1.299	OP-1
Less than 1.0	Threshold only

- Example: Combined storage is 1.1 M ac-ft at the end of March. OP-1 applies, so LCRA will determine whether total inflows from Feb. 1 through Mar. 31 exceeded 76,000 ac-ft. If not, up to 25,000 ac-ft or the lesser of 50% of storable inflows will be released to the extent that they are available (see Maximum Monthly Bay Release, and Bay Release Percentage Limits; Page 4-18, LCRA 2020 WMP.)

Bay & Estuary Freshwater Inflows in LCRA WMP



- Releases for freshwater inflow needs are limited to the amount of storable inflows during the applicable month.
- Maximum monthly releases are limited based on combined storage at the end of the applicable month.
- If interruptible water for agricultural operations is cut off for the season, Threshold is the only freshwater inflow criteria in effect.
- Additional limitations apply, including annual and multi-year caps on releases for environmental flows.

Environmental Flows are Included in Regional Water Planning



Ch. 3 Supply Evaluation

Existing Supplies

- Buchanan/Travis firm yield
- 33,400 ac-ft/yr firm supply dedicated to environment

Ch. 5 Water Management Strategy Evaluation

New Appropriations

- Current LCRA WMP – interruptible supplies and environmental flow support

Other Strategies

- Adjustment for future LCRA WMP and other agreements

Environmental flows included in other existing water rights and at SB3 locations

Item 8.c. & 8.d.

Consultant progress and upcoming efforts

Agenda Item 8

Consultant Report

- a. Environmental Flows 101 (Robert Adams, Jon Albright)
- b. Status if non-municipal demand revision requests (Robert Adams)**
- c. Other Progress to Date (Neil Deeds)
- d. Upcoming Efforts & Key Dates (Neil Deeds)



June 12, 2023



Agenda Item 8

Consultant Report

- a. Non-Municipal Demands from P&D Committee (Robert Adams)
- b. Municipal Population & Demands (Adam Connor)
 - i. Methodology, estimates, & revision constraints
 - ii. Progress on WUG Survey
- c. Other Progress to Date (Neil Deeds)**
- d. Upcoming Efforts & Key Dates (Neil Deeds)**



June 12, 2023

Agenda Item 8c

Progress To Date & Schedule

				2023											
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
11	TWDB	Draft Population and Municipal demand projections released	2B	█											
12	RWPG	Review draft projections and finalize adjustments with TWDB staff	2A, 2B	█	█	█	█	█	█	█					
13	RWPG	Revision requests for draft non-municipal demands due	2A								█				
14	RWPG	Revision requests for draft population and municipal demands due	2B								█				
15	TWDB	TWDB Board adopts projections	2A, 2B										█		
16	TWDB	DB27 prepared for data entry ^{B,C}	NA	█	█	█	█	█							
17	TWDB/RWPG	DB27 individualized training for consultants	NA								█				
18	TWDB	Updated MAGs released	3												
19	RWPG	Evaluate water availability and existing water supplies	3	█	█	█	█	█	█	█	█	█			
20	RWPG	Identify water needs	4A				█	█	█	█	█	█	█	█	█

Agenda Item 8d

Upcoming Efforts

- **Submit Request for TWDB Approval of Non-Municipal Demands**
- **Submit Request for TWDB Approval of Population & Municipal Demands**
- Review Non-feasible Strategies from 2021 Plan
- Evaluate Supplies
- Evaluate Needs



Agenda Item 8d

Key Dates/Events in the next 5 months

July 14: Requests for revisions for non-municipal demands are due to the TWDB

August 11: Requests for revisions for municipal demands are due to the TWDB

Water modeling and strategy committees will be meeting in the coming months.

Agenda Item 7 Consultant Report

Thank you!

Neil Deeds

ndeeds@INTERA.com



Item 11.
Financial report

The Lower Colorado River Water Planning Group (Region K)

July 6, 2023

Region K Members Fund Balance 5/31/2023: \$2,380.99

Administrative Expenses for Region K Grant Fund approval:

Task 10 – Cycle 6 - Admin Expense Budget (Original) \$6,000.00

Prior approved expenses (1/26/22, 4/26/22)

8/31/2021 LCRA – Blue Host Domain Name \$17.99

8/24/2021 LCRA – Texas Press Invoice # 15355 \$4,396.50

8/24/2021 LCRA – Postage for mailout \$244.29

2/15/2022 LCRA – Squarespace Inc.
Region K web page \$233.82

3/29/2022 LCRA – EIG Bluehost.com
Three year – Doman name and email hosting
For Region K website \$453.86

Task 10 – Cycle 6 - Admin Expense Budget Increase (2022-23) \$22,000.00

Previous approved expenses (3/30/23)

2/14/2023 LCRA – Squarespace Inc.
Region K web page \$272.79

Task 10 – Cycle 6 - Admin Expense Budget Remaining \$22,380.75

Contractor Expenses for Region K Grant Fund:

Technical Consultant Contract Summary: INTERA Team PO#131282										
LABOR PER TASK		Budget	Jan-22	May-22	Oct-22	Feb-23	Mar-23	TOTAL	Remaining	% Complete
<i>Task Breakdown</i>										
Task 1	Planning Area Description	\$ 11,312.00	\$ 1,440.00	\$ 5,542.00	\$ -	\$ -	\$ 180.00	\$ 7,162.00	\$ 4,150.00	63%
Task 2A	Non-municipal Water Demand Projections	\$ 22,016.00	\$ 90.00	\$ 5,276.00	\$ 1,350.00	\$ 6,452.50	\$ 5,075.20	\$ 18,243.70	\$ 3,772.30	83%
Task 2B	Population & Municipal Water Demand Projections	\$ 35,116.00	\$ 180.00	\$ 7,191.48	\$ 5,164.21	\$ 4,577.55	\$ 12,191.85	\$ 29,305.09	\$ 5,810.91	83%
Task 3	Water Supply Analysis	\$ 86,830.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 86,830.00	0%
Task 4A	Water Needs Analysis	\$ 12,984.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,984.00	0%
Task 4B	Identification of Infeasible 2021 WMS	\$ 21,849.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,849.00	0%
Task 4C	Technical Memorandum	\$ 15,774.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,774.00	0%
Task 5A	Identification of Potentially Feasible WMS & WMP	\$ 17,200.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,200.00	0%
Task 5B	Evaluation & Recommendation of WMS & WMP	\$ 120,769.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,769.00	0%
Task 5C	Conservation Recommendations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	N/A
Task 6	Impacts of RWP & Consistency with Protection of Resources	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	N/A
Task 7	Drought Response Information, Activities, & Recommendations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	N/A
Task 8	Recommendations/Unique Stream Segments/Reservoir Sites and Legislatives/Regional Policy Issues	\$ 9,633.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,633.00	0%
Task 9	Implementation & Comparison to the Previous Regional Water Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	N/A
Task 10	Public Participation & Plan Adoption	\$ 96,826.00	\$ 4,620.32	\$ 9,152.71	\$ 3,420.00	\$ 11,004.06	\$ 900.00	\$ 29,097.09	\$ 67,728.91	30%
TOTAL		\$ 450,309.00	\$ 6,330.32	\$ 27,162.19	\$ 9,934.21	\$ 22,034.11	\$ 18,347.05	\$ 83,807.88	\$ 366,501.12	19%
<i>Budget Category Breakdown</i>										
Salaries & Wages		\$ 47,022.00	\$ 2,039.00	\$ 8,168.00	\$ 2,038.00	\$ 5,013.58	\$ 524.88	\$ 17,783.46	\$ 29,238.54	38%
Fringe		\$ 36,573.00	\$ 1,588.00	\$ 6,366.00	\$ 1,589.00	\$ 3,899.45	\$ 408.24	\$ 13,850.69	\$ 22,722.31	38%
Overhead		\$ 37,444.00	\$ 1,623.00	\$ 6,502.00	\$ 1,623.00	\$ 3,992.29	\$ 417.96	\$ 14,158.25	\$ 23,285.75	38%
Profit		\$ 24,092.00	\$ 1,050.00	\$ 4,206.00	\$ 1,050.00	\$ 2,568.68	\$ 268.92	\$ 9,143.60	\$ 14,948.40	38%
Travel		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	--
Other Expenses		\$ -	\$ 30.32	\$ -	\$ -	\$ -	\$ -	\$ 30.32	\$ (30.32)	--
Subcontractor Services		\$ 305,178.00	\$ -	\$ 1,920.19	\$ 3,634.21	\$ 6,560.11	\$ 16,727.05	\$ 28,841.56	\$ 276,336.44	9%
TOTAL		\$ 450,309.00	\$ 6,330.32	\$ 27,162.19	\$ 9,934.21	\$ 22,034.11	\$ 18,347.05	\$ 83,807.88	\$ 366,501.12	19%