



TECHNICAL CONSULTANT PRESENTATION

PLATEAU WATER PLANNING GROUP

MEETING – Dec. 5, 2024

00

Update on Regional Water Planning Schedule

Agenda Item #

Covered During the Previous Meeting

- Review and Approve IPP Chapter 1
- Review and Approve IPP Chapter 2
- Preliminary Review of Draft Chapters 3, 4 & 7

Task for Today

- Review and Approve IPP Chapters 3, 4 & 7
- Preliminary Review of Draft Chapters 8, 9 & 10
- Update on Other Regional Planning Efforts

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Approve IPP Chapters 3, 4 & 7

Agenda Item #

5 Major Sections in Chapter 3

1. *Regional Water Supply Sources*

- Water Supply Source Availability
- Existing Water Supply
- MWP Supplies

2. *Groundwater*

- Groundwater Availability
- Methodology
- Major & Minor Aquifer Descriptions
- Public Supply Use of Groundwater
- Brackish Sources

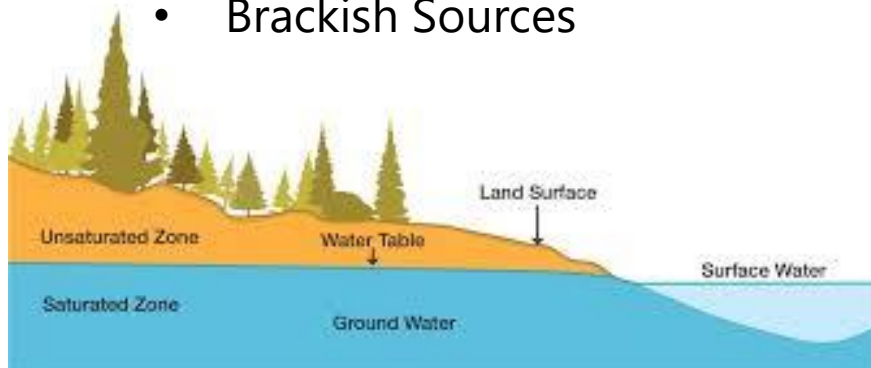
3. *Surface Water*

- Surface Water Sources
- Surface Water Availability
- Methodology
- Major Springs
- Surface Water Rights

4. *Groundwater / Surface Water Relationship*

5. *Water Reuse*

6. *Local Supply*



– Section 3.1.9 – Public Supply Use of Groundwater

3.1.9.1 City of Bandera

The City of Bandera is primarily dependent on wells completed into the Lower Trinity Aquifer and must compete for this water with numerous private wells in the County. However, a new Middle Trinity well was recently completed, which will provide some backup to the Lower Trinity well supply. Long-term viability of the Trinity Aquifer as a supply source for Bandera and outlying areas will require implementation of management policies aimed at establishing withdrawals based on the sustainable yield of the Aquifer.

In February of 2023, the City of Bandera completed an aquifer storage and recovery report. The [Aquifer Storage and Recovery Report: Longevity Assessment for the City of Bandera Water Wells](#) provides the City with options to enhance and manage current resources along with developing other water supply sources besides groundwater. The purpose of the ASR strategy is to help maintain reliably recoverable water levels, increase the longevity of the City's wells, and supply reserves for times of drought.

City of Bandera Well No. 69-24-202 shows a consistent decline from the 1950s through the 1990s, with a total of approximately 400 feet of water level decline. Most of the water withdrawn by Bandera public supply wells is produced from the Lower Trinity (Hosston) which receives very little vertical recharge | and an undetermined amount of lateral underflow from the north and west of the well fields. Because of the continuous water-level decline in these well fields, the City, with the assistance of the BCRA GD, should monitor levels to anticipate production reductions.

– Section 3.1.9 – Public Supply Use of Groundwater

3.1.9.8 City of Del Rio

The City of Del Rio is supplied with water from San Felipe Springs, which issue from the Edwards portion of the Edwards-Trinity (Plateau) Aquifer. The water is collected through pumps set in the springs, treated with microfiltration and chlorine and then distributed to the City, Laughlin Air Force Base, and outlying neighborhoods.

The average discharge of San Felipe Springs since Lake Amistad was filled is about 110 cubic feet per second or about 80,000 acre-feet/yr. During recent droughts, the spring discharge has fallen below 50 cfs or, extrapolated over one year, about 36,000 acre-feet. Recent droughts as compared to the 1950s drought would be appropriate to use as a drought-condition gage because the filling of Amistad Lake has generally increased the spring flow after the late 1960s.

Due to prolonged drought conditions, the San Felipe Springs is no longer a reliable water supply source. Currently, the City of Del Rio is exploring an alternative source of water supply. **Del Rio has completed one pilot well within the Edwards-Trinity (Plateau) Aquifer, drilled to a depth of approximately 200-250 feet.** The pilot well was a success, producing roughly 3,223 acre-feet per year. The City recognizes the importance of transitioning away from the drought impacted spring flows, to a more reliable water-supply source that can sustain future growth. Therefore, the City has plans to drill a second well.

1 Major Section in Chapter 4

Comprised of 7 Tables

- Table 4-1. Identified Water (Needs)/Surpluses
- Table 4-2. Identified Water (Needs)/Surpluses by Category of Use
- Table 4-3. MWP (Needs)/Surpluses
- Table 4-4. MWP (Needs)/Surpluses by Category of Use
- Table 4-5. Second Tier Identified Water Needs *(not yet available)*
- Table 4-6. Second Tier Identified Water Needs by Category Use *(not yet available)*
- Table 4-7. Second Tier Identified Water Needs by Major Water Provider *(not yet available)*

**Table 4-5. (continued) Second Tier Identified Water Needs by WUG
(Acre Feet per Year)**

	2030	2040	2050	2060	2070	2080
Edwards County						
<i>Colorado Basin</i>						
Irrigation	0	0	0	0	0	0
<i>Nueces Basin</i>						
Rocksprings	(59)	(46)	(35)	(29)	(23)	(16)
County-Other	0	0	0	0	0	0
Mining	(6)	(6)	(6)	(6)	(6)	(6)
Livestock	(2)	(2)	(2)	(2)	(2)	(2)
Irrigation	0	0	0	0	0	0
<i>Rio Grande Basin</i>						
County-Other	0	0	0	0	0	0
Livestock	0	0	0	0	0	0
Irrigation	(2)	(2)	(2)	(2)	(2)	(2)
Kerr County						
<i>Colorado Basin</i>						
County-Other	(79)	(83)	(86)	(91)	(96)	(101)
Livestock	(22)	(22)	(22)	(22)	(22)	(22)
Irrigation	(82)	(82)	(82)	(82)	(82)	(82)
<i>Guadalupe Basin</i>						
Kerrville	(1,403)	(1,738)	(1,990)	(2,393)	(2,800)	(3,189)
Kerrville South Water	(70)	(88)	(103)	(126)	(150)	(173)
County-Other	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0
Mining	(45)	(45)	(45)	(45)	(45)	(45)
Livestock	0	0	0	0	0	0
Irrigation	0	0	0	0	0	0
<i>Nueces Basin</i>						
County-Other	0	0	0	0	0	0
Livestock	0	0	0	0	0	0
<i>San Antonio Basin</i>						
County-Other	0	0	0	0	0	0
Livestock	(32)	(32)	(32)	(32)	(32)	(32)
Irrigation	0	0	0	0	0	0

**Table 4-6. Second Tier Identified Water Needs by Category of Use
(Acre-Feet per Year)**

WUG County	WUG Category	WUG Water (Needs) 2030	WUG Water (Needs) 2040	WUG Water (Needs) 2050	WUG Water (Needs) 2060	WUG Water (Needs) 2070	WUG Water (Needs) 2080
Bandera	Municipal	0	0	0	0	0	0
	Mining	0	0	0	0	0	0
	Livestock	(7)	(7)	(7)	(7)	(7)	(7)
	Irrigation	0	0	0	0	0	0
Edwards	Municipal	(59)	(46)	(35)	(29)	(23)	(16)
	Mining	(6)	(6)	(6)	(6)	(6)	(6)
	Livestock	(2)	(2)	(2)	(2)	(2)	(2)
	Irrigation	(2)	(2)	(2)	(2)	(2)	(2)
Kerr	Municipal	(1,552)	(1,909)	(2,179)	(2,610)	(3,046)	(3,463)
	Manufacturing	0	0	0	0	0	0
	Mining	(45)	(45)	(45)	(45)	(45)	(45)
	Livestock	(55)	(55)	(55)	(55)	(55)	(55)
	Irrigation	(82)	(82)	(82)	(82)	(82)	(82)

Kinney	Municipal	0	0	0	0	0	0
	Livestock	0	0	0	0	0	0
	Irrigation	0	0	0	0	0	0
Real	Municipal	(146)	(123)	(105)	(91)	(77)	(63)
	Manufacturing	(1)	(1)	(1)	(1)	(1)	(1)
	Livestock	0	0	0	0	0	0
	Irrigation	0	0	0	0	0	0
Val Verde	Municipal	(4,885)	(4,893)	(4,925)	(4,956)	(4,987)	(5,018)
	Manufacturing	0	0	0	0	0	0
	Mining	0	0	0	(5)	(11)	(17)
	Livestock	0	0	0	0	0	0
	Irrigation	0	0	0	0	0	0

**Table 4-7. Second Tier Identified Water Needs by Major Water Provider
(Acre Feet per Year)**

County	Basin	Major Water Provider	2030	2040	2050	2060	2070	2080
Val Verde	Rio Grande	Del Rio Utilities	(4,885)	(4,893)	(4,925)	(4,956)	(4,987)	(5,018)

8 Major Sections in Chapter 7

1. *Regional Drought Response*

- Drought-of-Record in Planning Area
 - *Precipitation Indicator*
 - *Stream Flow Indicator*
 - *Spring Discharge Indicator*
 - *Groundwater Level Indicator*

2. *Uncertainty & Drought(s) Worse than DOR – (new section)*

3. *Current Drought Preparations & Response*

- *Drought Response Triggers*
- *Surface Water Triggers*
- *Groundwater Triggers*
- *System Capacity Triggers*
- *Municipal DCPs*
- *GCD DCPs*

4. *3. Existing & Potential Emergency Interconnects*

5. *Emergency Responses to Local Drought Conditions*

6. *Region-Specific Drought Response Recommendations & Model DCPs*

- *Regional Groundwater Resources & Monitoring*
- *Regional Surface Water Resources & Monitoring*
- *Regional Model DCP*
- *Model DCPs*

7. *Drought WMSs*

8. *Other Drought Related Considerations*

7.2 UNCERTAINTY AND DROUGHTS WORSE THAN THE DROUGHT OF RECORD

As mandated by TAC 357.42, the RWPGs must address water supply needs during a repeat of the drought of record. During plan development, the generated values of planning factors (supplies, demands, population) all have associated ranges of uncertainty. RWPGs may choose to consider scenarios and/or qualitatively address uncertainty and Drought Worse than the Drought of Record (DWDOR) in their region. This section discusses the scenarios and/or qualitative assessments that can be used to more explicitly recognize the relative planning uncertainties and options to help mitigate those risks.

Texas's strategy of planning for a repeat of the 1950s drought is no longer enough. While historic evidence identifies droughts that were longer and more severe than the Drought of Record, contemporary data points to a likely future of increasing drought severity. A report by [Texas 2036 and the Office of the State Climatologist at Texas A&M University](#) projects that rising average temperatures and greater rainfall variability will contribute to a future with more severe droughts. Given this lengthy history and projected future, Texas needs to think differently about how we plan and prepare for drought.

During this current planning cycle, the Drought Preparedness Council (DPC) encourages regional water planning groups to consider planning for drought conditions worse than the drought of record, including scenarios that reflect greater rainfall deficits and/or higher surface temperatures. A DWDOR will inflict greater economic damage on industries critical to our continued prosperity.

The Plateau Water Planning Group (PWPG) recognizes that the failure to plan for uncertainties invites economic devastation and therefore they have chosen to evaluate several options to help mitigate risks that may be associated with the DWDOR: (1) use of the Management Supply Factor (MSF), (2) information from water providers that have developed long-range plans that have assessed their system's capacity under conditions worse than the drought of record, and (3) demand reductions achieved through the implementation of drought contingency plans.

Variability related to population and water demand projections is a major area of concern for the Plateau Region. The planning group made available the draft population and water demand summary tables to municipalities, water providers, county judges, and non-municipal water-use representatives and solicited all entities within the Region to submit desired changes to the projections. Based on the survey responses, draft projections were revised and sent to the TWDB for review. The TWDB approved the submitted revisions requests with the understanding that in the case of Laughlin Airforce Base, the request would be modified to 1,640 held constant throughout the planning horizon. The final population projections for the Region (to include all revisions) are in Chapter 2, Section 2.1.2, and 2.2.

The PWPG considered how to address planning for uncertainty and how such planning could be included for the purposes of the *2026 Plateau Water Plan*. The following items were considered:

- Studies that have been performed that inform upon uncertainties in needs and water availability within the Region, such studies will be noted and considered in the identification of measures taken and their effect. For the purposes of this *Plan*, there are no long-range plans and/or studies available that have been performed to inform upon uncertainties in water needs and water availability within the Region. However, the planning group supports the funding and development of such studies.

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- The PWPG recognizes uncertainties both in the projections of population and water demand. As such, WMSs have been developed and recommended that contemplate such uncertainties.
- The *Plan* also identifies potential emergency interconnects that could be useful for informing on decisions of supply availability should DWDOR occur (Section 7.4).

Table 7-1 below lists the water user groups most likely associated with measures that may provide some additional water supply capacity in the event of a near-term DWDOR. The table is divided into two parts: (1) key assumptions, analyses, strategies, and projects that are already incorporated directly into this *Plan*, which provide recommendations that go beyond just meeting identified water needs anticipated during drought of record conditions, and (2) potential additional types of measures and responses that are not part of the recommendations in this *Plan*, but that would likely be available to certain water providers/users in the event of the near-term onset of a DWDOR and that would be capable of providing additional, potential capacity for those water providers and user to withstand a DWDOR.

Table 7-1. WUGs/WWPs Most Likely Associated with Measures of Additional Water Supply During Drought Worse Than Drought-of-Record

WUG/WWP Name	Applicable water supplies	Included in the adopted RWP									Measures that may be available beyond the recommended strategies identified in the adopted RWP									
		Built-in conservative modeling or other assumptions			Additional recommendations for additional supplies beyond those needed to meet needs						Demand-management measures			Water supply measures						
		1-year safe yield used in surface water modeling***	Utilizing MAG based upon a DFC developed under drought conditions	No return flows	Maximum permitted amounts	Recharge plus 0.1 volume of water in storage. See report: Occurrence of Significant River Alluvium Aquifers in the Plateau Region (2010)	Certain WMSs include 'management supply'	Entities that have recommended WMSs that provide water supplies beyond any identified water needs	Other	Other	Other	Implement drought management (not a recommended WMS)	Other	Other	Other	Implement recommended GW WMSs but earlier than shown in the plan	Pursue new direct potable reuse to extend existing supplies	Pursue new brackish desalination	Other	Other
City of Bandera	Trinity Aquifer		▪					▪			▪				▪		▪			
Bandera County FWSD #1	Trinity Aquifer		▪					▪			▪				▪		▪			
City of Rocksprings	Edwards-Trinity (Plateau), Pecos Valley & Trinity Aquifer		▪					▪			▪				▪		▪			
City of Kerrville	Trinity Aquifer, Guadalupe Run-of-River		▪		▪			▪			▪				▪	▪	▪			
Kerrville South Water	Trinity Aquifer		▪								▪									

7.3.7 Description of Current Preparations for Drought in the Region Including Unnecessary or Counterproductive Drought Response

The following discussion is new to the sixth cycle of regional water planning, as it was added late during the fifth cycle by House Bill 807. Within this new subsection, the Region must consolidate and present: (1) a description of how water suppliers in the Region identify and respond to drought conditions (this may include information from local drought contingency plans), and (2) a summary of drought response efforts that the Region has identified as unnecessary or counterproductive.

Table 7-2 is a list of entities, their supply source, specific triggers and actions, for each drought stage found within a total of 10 collected drought contingency plans within the Region. These plans are also accessible at their specified websites. In addition, Section 7.3.6 summarizes drought management by the four GCDs formed within the Plateau Region. The information provided within Table 7-2 and Section 7.3.6 informs upon how water suppliers within the Region identify and respond to drought conditions.

The Plateau Region is comprised mainly of rural communities, where neighboring communities are miles apart, if not often in separate counties. Due to the distance between communities within the Region, the planning group has not identified any unnecessary or counterproductive drought responses. The PWPG does not feel that any of the DCPs within the Region cause public confusion or impede any drought response efforts at this time.

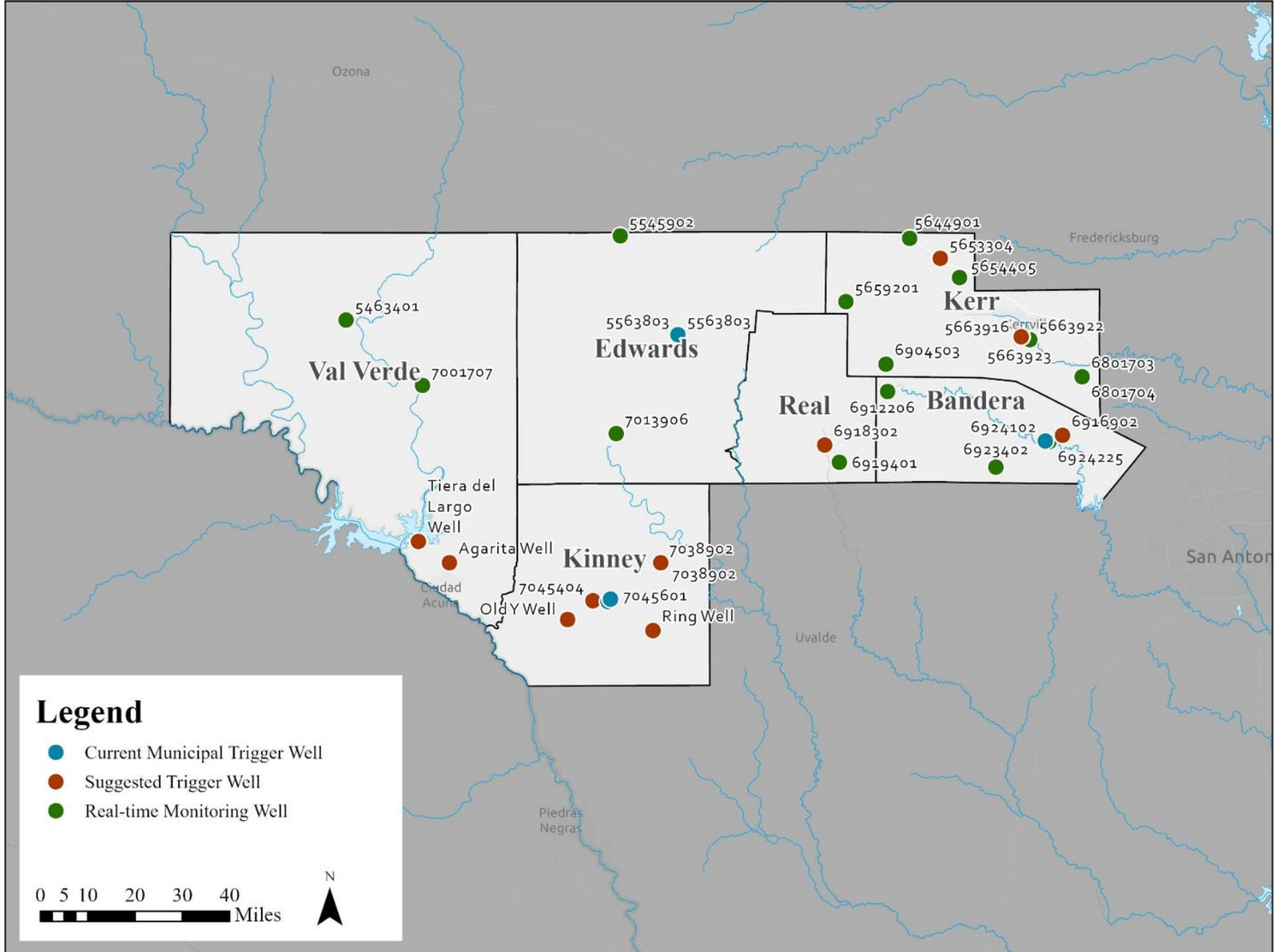


Figure 7-8. Regional Monitoring and Trigger Wells

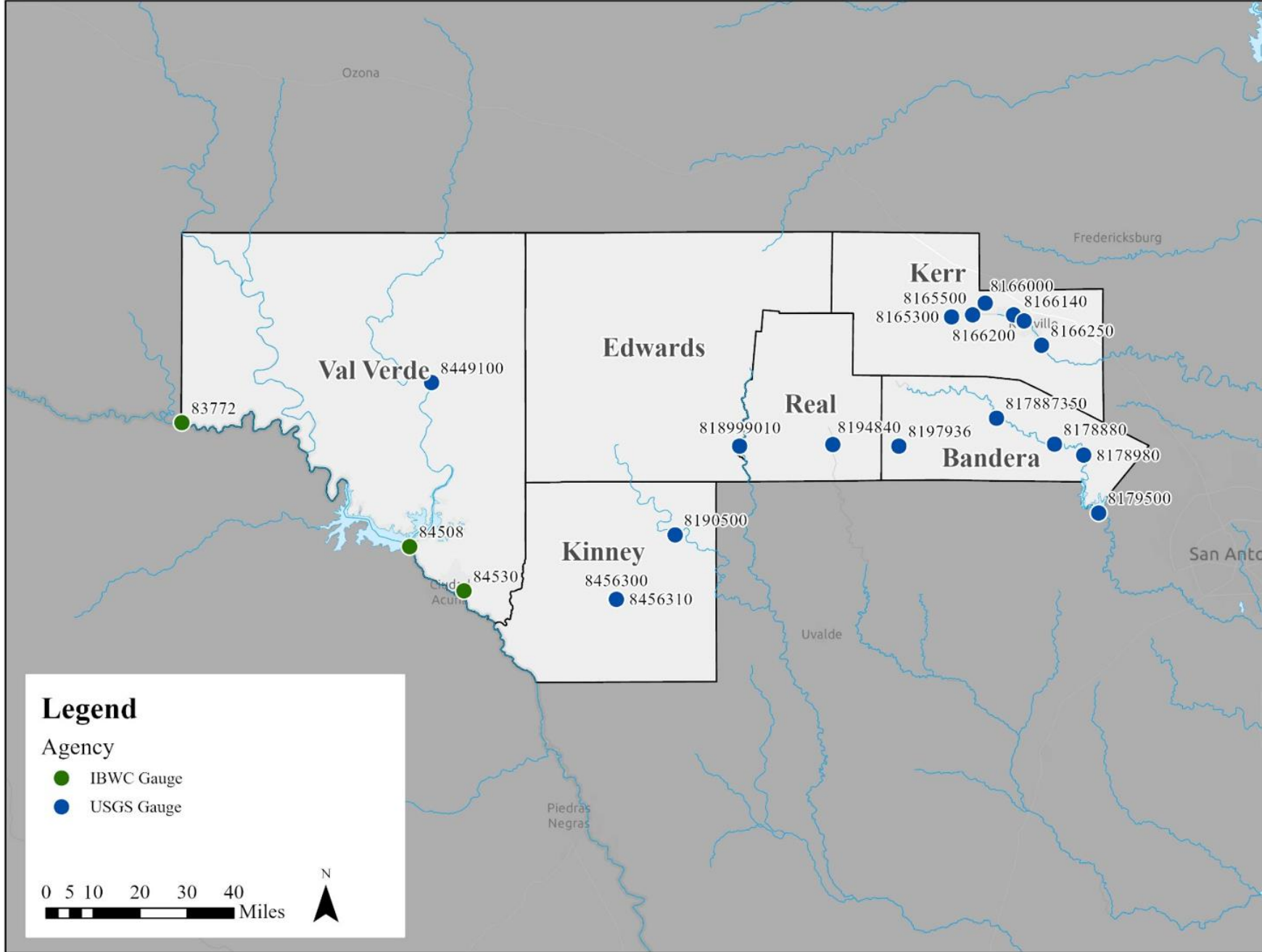


Figure 7-9. Currently Active Surface Water Gaging Locations

Approve IPP Chapters 3, 4 & 7



**Chapter 3 – Water Supply
Analysis**

**Chapter 4 – Water Needs
Analysis**

**Chapter 7 – Drought
Response**



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Review of Draft Chapters 8, 9 & 10

Agenda Item #

6 Major Sections in Chapter 8

1. Conservation Recommendations

- *Watershed Management Practices*
- *Riparian Stewardship*
- *Conservation Management of State-Owned Lands*
- *Rainwater Harvesting as an Alternative Source of Water*
- *Conservation & Drought Planning*
- *Stormwater / Flood Planning*
- *Needed Funding for Data Collection in Rural Areas*

2. Water Management Recommendations

3. Water Planning Recommendations

4. Water Research Needs

5. Consideration of Ecologically Unique River & Stream Segments

6. Consideration of Unique Sites for Reservoir Construction

– Conservation Recommendations: Stormwater / Flood Planning

6. Stormwater / Flood Planning

In 2019, the Texas Legislature passed Senate Bill 8 directing the creation of the first-ever State flood plan for Texas. The State flood plan brings together the findings of the 15 river-basin-based regional flood plans and makes legislature and floodplain management recommendations to guide State, regional, and local flood control policy.

The Texas Water Development Board (TWDB) adopted Texas' inaugural 2024 State Flood Plan on August 15, 2024, to be delivered to the Legislature by September 1, 2024. The regional and State flood planning processes recur in five-year cycles.

The Plateau Region falls within six different flood planning regions, where the goal was to perform comprehensive planning to reduce flood risk and take a broad look at flood hazard across the State. The flood planning process aims to identify who and what might be exposed to flooding; identify the State's major flood risk reduction infrastructure; consider existing floodplain management practices or lack thereof; and identify and recommend flood risk reduction solutions across the State.

Chapter 8 of the 2023 Regional Flood Plans outlines legislative recommendations developed by the Regional Flood Planning Groups, necessary to facilitate floodplain management and flood mitigation planning and implementation. The PWPG acknowledges the importance of being actively involved in the regional flood planning activities and will continue to coordinate efforts to support the detailed legislative recommendations within the regional water planning area.

– Conservation Recommendations: Needed Funding for Data Collection in Rural Areas

7. Needed Funding for Data Collection in Rural Areas

Rural areas need to be able to access State funding to gather the information needed to draft a substantive regional plan. This funding is needed for test wells, monitoring equipment, observation wells, and modeling. The PWPG should be allowed to request additional funding for the data needs and contract for the studies.

8.4 WATER RESEARCH NEEDS

The State should fund or conduct specific studies that will shed more information on specific water-resource issues. The questions unanswered by current sources of information are critical to future PWPG decisions. The following are recommendations pertaining to specific studies and data acquisition that the PWPG believes would provide significant insight into specific planning issues in the Region.

1. Edwards-Trinity (Plateau) Aquifer

All six counties in the Plateau Region are partially or fully underlain by the Edwards- Trinity (Plateau) Aquifer. Even though a groundwater availability model (GAM) has been constructed for this Aquifer, there remain many hydrological questions about the Aquifer. Specific counties are embroiled in controversy pertaining to groundwater supply availability. At issue is the disagreement about the total amount of water in the county that is available on an annual basis to meet all of the counties projected water demands now and into the future, and the amount of groundwater in excess of that amount that might be available for other purposes other than in-county use. All concerned agree that sound science is needed to assess this quantification.

– Chapter 9: Implementation and Comparison to the Previous RWP

4 Major Sections

1. *Implementation of Previous Regional Water Plan*
2. *RWPA's Progress in Achieving Economies of Scale*
3. *Comparison to Previous Plan*
 - *Water Demand Projections*
 - *Drought of Record & Hydrologic & Modeling Assumptions*
 - *Source Water Availability*
 - *Existing Water Supplies of WUGs and WWPs*
 - *WUG and MWP Needs*
 - *Recommended & Alternate WMSs and Projects*
4. *Progress of Regionalization*

9.1 IMPLEMENTATION OF PREVIOUS REGIONAL WATER PLAN

Information needed to report on the level of implementation and identified impediments to the development of previously (*2016-2021 Plan*) recommended Water Management Strategies that have affected progress in meeting projected water-supply needs was collected through an emailed survey and follow-up messages were delivered one month after first delivery and in a subsequent message to the PWPG to encourage further responses. Additional methods that were considered for identifying projects that may potentially have been implemented include:

- **Identification of Potentially Infeasible WMSs scope-of-work**
- Tracking changes since the last Plan;
- Using TWDB funding records; and
- Using conservation implementation reports submitted to the TWDB.

A summary of the survey results is provided in Table 9-1.

Table 9-1. (continued) 2026 Plateau Region Strategy Implementation Survey

WMS or WMS Project Name	Database Online Decade	Related Sponsor Entity and/or Benefitting WUGs	Has Sponsor taken affirmative vote or action? (TWC 16.053(h)(10))	What is the status of the WMS project or WMS recommended in the 2022 SWP?	If the project has not been started or no longer is being pursued, please explain why.	Project Impediment(s)	Other Project Impediments (not shown in Column G)	What funding type(s) are being used for the project?	Optional Comments
Additional well in the Nueces River Alluvium Aquifer & RO wellhead treatment [Edwards County-Other Barksdale WSC]	2020	Barksdale WSC	Yes	Started	N/A	N/A	N/A	State	TWDB Project #62937
Additional groundwater wells [Edwards County Mining Guadalupe River Basin]	2020	Edwards Mining	Yes	Started	Project Sponsor Not Identified	Project Sponsor Not Identified	N/A	Unknown	
Additional groundwater well [Edwards County Mining Colorado River Basin]	2020	Edwards Mining	Yes	Started	Project Sponsor Not Identified	Project Sponsor Not Identified	N/A	Unknown	
Additional groundwater well [Edwards County Mining Nueces River Basin]	2020	Edwards Mining	Yes	Started	Project Sponsor Not Identified	Project Sponsor Not Identified	N/A	Unknown	
Increase wastewater reuse [City of Kerrville]	2020	City of Kerrville	Yes	Not Started	Growth Driven	Shift in Timeline	N/A	Unknown	
Water loss audit & main-line repair [City of Kerrville]	2020	City of Kerrville	Yes	Started	N/A	N/A	N/A	Private	
Explore & develop new Ellenburger Aquifer well supply [City of Kerrville]	2020	City of Kerrville	Yes	Completed	N/A	N/A	N/A	Private	
Increased water treatment and ASR capacity [City of Kerrville]	2030	City of Kerrville	Yes	Started	N/A	N/A	N/A	Unknown	
Construction of an Ellenburger Aquifer water supply well [Kerr County-Other EKCRWSP]	2030	Kerr County-Other	Yes	Completed	N/A	N/A	N/A	Private	
Construction of off-channel surface water storage [Kerr County-Other EKCRWSP]	2030	Kerr County-Other	Yes	Not Started	New wastewater collection system project took priority	Shift in Timeline	N/A	N/A	
Construction of surface water treatment facilities & transmission line [Kerr County-Other EKCRWSP]	2030	Kerr County-Other	Yes	Not Started	New wastewater collection system project took priority	Shift in Timeline	N/A	Unknown	
Construction of ASR [Kerr County-Other EKCRWSP]	2030	Kerr County-Other	Yes	Not Started	New wastewater collection system project took priority	Shift in Timeline	N/A	Unknown	
Construction of Trinity Aquifer wellfield for dense, rural areas [Kerr County-Other EKCRWSP]	2030	Kerr County-Other	Yes	Not Started	New wastewater collection system project took priority	Shift in Timeline	N/A	Unknown	
Construction of desalination plant [Kerr County-Other EKCRWSP]	2030	Kerr County-Other	Yes	Not Started	New wastewater collection system project took priority	Shift in Timeline	N/A	Unknown	
Public conservation education [Kerr County-Other Center Point]	2020	Center Point	Yes	Started	N/A	N/A	N/A	Private	
Purchase water from EKCRWSP [Kerr County-Other Center Point]	2020	Center Point	Yes	Not Started	EKCRWSP is not yet online	Shift in Timeline	N/A	N/A	
Public conservation education [Kerr County-Other Center Point Taylor]	2020	Center Point	Yes	Started	N/A	N/A	N/A	Private	
Purchase water from EKCRWSP [Kerr County-Other Center Point Taylor]	2020	Center Point	Yes	Not Started	EKCRWSP is not yet online	Shift in Timeline	N/A	N/A	

9.2 RWPA'S PROGRESS IN ACHIEVING ECONOMIES OF SCALE

As a result of statutory requirements from HB 807 (86th Legislative Session) the planning rules (31 TAC §357.45(b)) require that each region must include an assessment of the region's efforts to encourage cooperation between WUGs for the purpose of achieving economies of scale and incentivizing WMSs that benefit the entire region. This assessment of regionalization shall include: (1) the number of recommended WMSs in the previously adopted and current RWPs that serve more than one WUG, (2) the number of recommended WMSs in the previously adopted RWP that serve more than one WUG and have been implemented since the previously adopted RWP, and (3) a description of efforts the RWPG has made to encourage WMSs and WMSPs that serve more than one WUG, and that benefit the entire region.

According to the TWDB's data, there are currently no WMSs in the previously adopted and/or current RWP that serve more than one WUG. However, the PWPG recognizes and encourages efforts related to the coordination of developing water management strategies between WUGs where it makes sense. This community-based development is liked by the planning group because it fosters the following key strategies: (1) ensures water solutions are not only practical but also culturally and socially appropriate, (2) embraces the uniqueness of each communities' resources and challenges, advocating for water solutions tailored to specific needs, (3) active community participation instills a sense of ownership and responsibility towards water resources and (4) provides an emphasis on knowledge transfer and helps to empower local communities in becoming good stewards of the water resources.

The PWPG will continue to look for ways to develop shared water management strategies in this *Plan* and for all future regional water plans.

9.3 COMPARISON TO PREVIOUS PLAN

The following section includes a summary that shows how the *2021 Water Plan* differs from the *2016 Water Plan*. Comparisons include:

- Water demand projections;
- Drought of record and the hydrologic and modeling assumptions on which plans are based;
- Water availability at the source;
- Existing water supplies of WUGs;
- WUG and WWP needs;
- Recommended and alternative water management strategies; and
- Any other aspects of the plans that the PWPG chooses to compare.

9.3.1 Water Demand Projections

Table 9-2 provides a comparison between *2016/2021* and *2021/2026 Plan* water demand projections by county, while Table 9-3 compares water demand projections by water-use category. The overall increase in water demand in the 2026 Plan is mostly the result of significantly higher irrigation use projections.

The more populated counties show slight increases in demand, while rural counties show a slight decrease. The largest percentage change between the two Plans is in Kinney County where a significant decrease in irrigation demand in the 2021 Plan results in a county total demand decrease of 38 percent.

Table 9-2. Water Demand Projections Comparison by County (Acre-Feet per Year)

County	Plan	2030	2040	2050	2060	2070	2080
Bandera	2021	4,007	4,330	4,493	4,553	4,601	4,629
	2026	4,627	4,669	4,725	4,782	4,838	4,896
Edwards	2021	1,092	1,082	1,073	1,071	1,071	1,071
	2026	1,037	990	953	930	909	886
Kerr	2021	9,659	9,780	9,827	9,926	10,054	10,166
	2026	14,776	15,268	15,644	16,242	16,847	17,425
Kinney	2021	5,227	5,218	5,204	5,201	5,199	5,199
	2026	8,299	8,227	8,182	8,153	8,126	8,097
Real	2021	881	866	853	848	847	847
	2026	1,091	1,013	951	903	856	807
Val Verde	2021	16,471	17,452	18,394	19,361	20,306	21,243
	2026	21,150	21,188	21,260	21,310	21,360	21,411
Total	2021	37,337	38,728	39,844	40,960	42,078	43,155
	2026	50,980	51,355	51,715	52,320	52,936	53,522

9.3.6 Recommended Water Management Strategies and Projects

A total of 67 water management strategies (Table 9-6) for 35 WUGs were recommended in the *2016-2021 Plan*, with a total capital cost of \$230,456,000. The 2026 Plan contains a total of 60 recommended and four alternate strategies/projects (Table 9-7) for 39 WUGs with a total capital cost of X. As a result of more WUGs projecting a water supply need (Table 11-3) in the 2021 Plan, a total of 67 strategies (Table 11-5) for 35 WUGs were recommended with a total capital cost of \$230,456,000. Tables 9-8 and 9-9 provide a similar comparison between strategy projects in the 2016 and 2021 Plans. The 2016 Plan contains 57 projects for 25 WUGs, while the 2021 Plan contains 52 projects for 29 WUGs. The principal change in the two Plans centers around how the 2021 Plan designates the Eastern Kerr County Regional Water Supply Project as a single strategy with multiple project components.

– Chapter 10: Public Participation & Plan Adoption

5 Major Sections

1. *Plateau Water Planning Group*
 - *Rural Outreach Efforts (Section 10.1.2)*
2. *Administrative Process & Project Management*
3. *Planning Group Meetings and Public Hearings*
4. *Coordination with Other Regions*
5. *Plan Implementation*

Regional Water Planning Group

**Table 10-1. Plateau Water Planning Group Voting Members
(Effective August 8, 2024)**

Water Use Category	Committee Member	County	Entity
Agricultural	Wes Robinson	Kinney	Kinney County
Counties	Vacant	Edwards	Edwards County
Environmental	Tully Shahan	Kinney	Attorney At Law
Industries	Jess Erlund	Kerr	Aqua Texas
Municipalities	Carlos Velarde	Val Verde	Val Verde County
	Vacant	Kerr	City of Kerrville
Other	Jerry Simpton	Val Verde	The Bank and Trust
	Feathergail Wilson	Bandera	Strata Geological Services
Public	Dell Dickinson	Val Verde	Skyline Ranch
	Max Martin	Edwards, Kinney, Val Verde	Martin Ranch Mgmt.
	Brian Leiker	Bandera, Kerr, Real	Real-Edwards Conservation & Reclamation District
River Authorities	Tara Bushnoe	Kerr	UGRA
Small Business	Jonathan Letz (Chair)	Kerr	Kerr County
Tourism	Homer Stevens	Bandera	The Farm Country Club & RV Park
Water Districts	Roland Trees	Real	Real-Edwards Conservation & Reclamation District
	Gene Williams (Secretary)	Kerr	Headwaters Groundwater Conservation District
	David Mauk	Bandera	Bandera County River Authority & Groundwater Conservation District
	Marti Payne	Kinney	Kinney County Groundwater Conservation District
Water Utilities	Charlie Wiedenfeld	Kerr	Wiedenfeld Water Works, Inc.
GMA	Genell Hobbs (Vice Chair)		GMA 7
	David Jeffery		GMA 9
	Genell Hobbs (Vice Chair)		GMA 10

**Table 10-2. Plateau Water Planning Group Non-Voting Members
(Effective August 8, 2024)**

Committee Member	Entity
Lann Bookout	Texas Water Development Board
Carol Faulkenberry	Texas Department of Agriculture
JD Lawrence (Alternate)	
Lindsey Elkins	Texas Parks & Wildlife Department
Sarah Robertson (Alternate)	
Kendria Ray	Texas State Soil & Water Conservation Board
Kenn Norris	Region E Liaison
Paul Tybor	Region K Liaison
Con Mims	Region L Liaison
Tomas Rodriguez	Region M Liaison
Carl Schwing	Region J Liaison to Region M

10.1.2 Rural Outreach Efforts

The majority of the Plateau Planning Area encompasses a multitude of rural communities. Engagement with these communities has always been a critical component of regional water planning for the PWPG. Rural outreach has helped to improve data accuracy, promote sustainable practices, build stronger relationships which has increased participation, provide opportunities for learning, better understand the unique needs and priorities of the communities, and help to spread knowledge, connecting people with resources.

This *Plan* is largely supported by information provided by WUGs based on numerous survey results. For example, information needed to report on population and water demand projection revisions were collected through a survey (Section 2.1.1 and 2.1.2). Information needed to report on existing supplies and supply capacity (Chapter 3), infeasible water management strategies (WMSs) (Chapter 5), implementation and timing of the WMSs (Chapter 9) and drought information, activities and responses (Chapter 7) are all examples of where rural outreach and engagement were performed for the development of this *Plan*.

Surveys were distributed to all the identified WUGs within the Region. In addition, telephone follow-up calls were conducted to ensure responses from each WUG had been received. The results of these surveys are presented in multiple tables throughout the *Plan*.

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Report on Other Regional Planning Efforts

Agenda Item #

Other Activities:

- Continue to collect WMS information (Deadline = Dec. 31st)
- Costing of all 2026 WMSs
- Updates to Appendix 5A and 5B
- Finalize Chapter 8, 9, & 10
- Updates to Draft Chapters 5 & 6

PWPG – Remaining Scope & RWPG Meeting Schedule

Activity	2024				2025		
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Approve Chapter 1		Oct. 17					
Approve Chapter 2							
Discuss & Review Chapter 3							
Discuss & Review Chapter 4							
Discuss & Review Chapter 7							
Approve Chapter 3				Dec. 5			
Approve Chapter 4							
Approve Chapter 7							
Discuss & Review Chapter 8							
Discuss & Review Chapter 9							
Discuss & Review Chapter 10							
Approve Chapter 8							
Approve Chapter 9							
Approve Chapter 10							
Discuss & Review Chapter 5							
Discuss & Review Chapter 6							
Approve Chapter 5							
Approve Chapter 6							
Approve & Submit the IPP							IPP is due to the TWDB by March 3, 2025

Jennifer Jackson, Planning Manager
jjackson@carollo.com