



EAST NILES COMMUNITY SERVICES
DISTRICT
URBAN WATER MANAGEMENT
PLAN – 2025 UPDATE

AUGUST 19, 2026

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East Niles Community Services District

2025 Urban Water Management Plan

August 19, 2026

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BIBLIOGRAPHY

The following studies, reports, and other materials were reviewed during the preparation of this Urban Water Management Plan update:

1. 2025 Urban Water Management Plans Guidebook for Urban Water Suppliers dated January 2026 and prepared by the California Department of Water Resources.
2. Kern County Subbasin Groundwater Sustainability Plan Adopted August 2025 and prepared by multiple agencies and consultants.
3. Completed American Water Works Association 2020, 2021, 2023-2024 Water Audits.
4. Kern County Multi-Jurisdictional Hazard Mitigation Plan 2020 Update.
5. Kern Council of Government 2022 Regional Transportation Plan Growth Forecast for ENCSD 2020-2050.
6. East Niles Community Services District 2020 Urban Water Management Plan dated June 2021 and prepared by MKN and Associates, Inc.



List of Abbreviations

AB	Assembly Bill	DWR	Department of Water Resources
ADU	Accessory Dwelling Unit	eARDWP	Electronic Annual Reports to the Drinking Water Program (SWRCB)
AF	Acre-Feet		
AFD	Acre-Feet per Day		
AWWA	American Water Works Association	ENCSD	East Niles Community Services District
BMP	Best Management Practice	ETo	Reference Evapotranspiration
CA	California	GIS	Geographic Information System
CASGEM	California Statewide Groundwater Elevation Monitoring Program	GPCD	Gallons per Capita per Day
		GPS	Global Positioning System
CEHTP	California Environmental Health Tracking Program	GSA	Groundwater Sustainability Agency
CEQA	California Environmental Quality Act	GSP	Groundwater Sustainability Plan
CII	Commercial, Industrial, Institutional (Water Use Sectors)	HCGWPP	Henry C Garnett Water Purification Plant
CIMIS	California Irrigation Management Information System	ID4	Improvement District No.4
COB	City of Bakersfield	IRWM	Integrated Regional Water Management
COG	Council of Governments	IRWMP	Integrated Regional Water Management Plan
CSD	Community Services District	ITP	Independent Technical Panel
CUWCC	California Urban Water Conservation Council	KCOG	Kern Council of Governments
CWC	California Water Code	KCS	Kern County Subbasin
DAC	Disadvantaged Community	KCWA	Kern County Water Agency
District	East Niles Community Services District	KDWD	Kern Delta Water District
DMM	Demand Management Measure	KRGS	Kern River Groundwater Sustainability Agency
DOF	Department of Finance	KWI	Key Wells Index
DOST	DWR Online Submittal Tool	MG	Million Gallons
DRA	Drought Risk Assessment	MGD	Million Gallons per Day
DU	Dwelling Unit	N/A	Not Applicable
		NOAA	National Oceanic and Atmospheric Administration



LIST OF ABBREVIATIONS

NORMWD	North of River Municipal Water District	SGMA	Sustainable Groundwater Management Act
NPDES	National Pollution Discharge Elimination System	SWB	State Water Board
OMWC	Oildale Mutual Water Company	SWP	State Water Project
Plan	Urban Water Management Plan	SWRCB	State Water Resources Control Board
PWS	Public Water System	SOI	Sphere of Influence
Report	NMMA TG's Annual Report	sq. ft	Square Feet
RHNA	Regional Housing Needs Assessment	US	United States
RUWMP	Regional Urban Water Management Plan	WRR	Water Recycling Requirement
RWQCB	Regional Water Quality Control Board	WSA	Water Supply Assessment
SB	Senate Bill	WSCP	Water Shortage Contingency Plan
SB X7-7	Senate Bill Seven of the Senate's Seventh Extraordinary Session of 2009	WSRA	Water Service Reliability Assessment
		WUE	Water Use Efficiency
		WWTP	Wastewater Treatment Plant



Chapter 1 UWMP INTRODUCTION AND OVERVIEW

This report comprises the 2025 Urban Water Management Plan (UWMP) update for the East Niles Community Services District (District). The District is located on the northeast side of Bakersfield, California, located in Kern County. The District serves portions of the City of Bakersfield and unincorporated areas of Kern County. ENCSD is an independent Special District formed and operated pursuant to Government Code §61000 et seq. ENCSD provides water, wastewater, and drainage services to its customers pursuant to Government Code §61100(a) and (b). ENCSD does not have land planning authority, which is retained by the County of Kern. The water system is comprised of 5 wells for potable water production, 14 water storage reservoirs with a total of 16.8 million gallons of storage capacity, 9 booster pump stations, and approximately 137 miles of distribution piping.

The UWMP is a valuable planning document used for the following purposes:

- Meet a statutory requirement of the California Water Code (CWC)
- Provide a key source of information for Water Supply Assessments (WSAs) and Written Verifications of Water Supply required by SB 610 and SB 221
- Support regional long-range planning documents including County General Plans
- Serve as a critical component of developing Integrated Regional Water Management Plan (IRWMPs) and Groundwater Sustainability Plans (GSPs)

As part of the California Water Code (CWC), the California Urban Water Management Planning Act (UWMP Act) requires all urban water suppliers with more than 3,000 connections or distributing more than 3,000-acre feet per year (AFY) to complete an UWMP every five years ending in '5' or '0'. The UWMP Act is administered by the California Department of Water Resources (DWR), who is responsible for developing guidance for preparation of the UWMPs, reviewing the submitted plans for completeness, compiling the data for statewide and regional analysis, and publishing the documents online for public access.

In 2025, the District produced approximately 1,712 acre-feet (AF) of water, imported 7,200 AF of supplemental water from the Kern County Water Agency, and had 8,296 customer connections. The District adopted its first UWMP in January 2004. Since the first adopted UWMP in 2000, the District has completed and submitted the 2005, 2010, 2015, and 2020 updates and will continue to do so going forward.

New Requirements for 2025 Update

The 2025 UWMP requires a clearer explanation of how the document aligns with recent legislative changes, including updates to reporting timelines and planning horizons. This chapter now must reference integration with other long-range planning documents (e.g., Water Shortage Contingency Plan



updates, climate vulnerability assessments) and describe how new data sources—particularly updated demand projections and SB 606/AB 1668 requirements—inform the overall plan. Compared to 2020, the emphasis on coordination with land-use agencies and statewide conservation programs has increased.

The following new requirements have been identified in the 2025 Urban Water Management Plan Guidebook for Urban Water Suppliers and have been addressed in the District’s 2025 UWMP update:

- Water Loss Standard Reporting
 - Guidance has been added about how suppliers can report progress towards compliance with their Water Loss Standard.
- Submittal Tables
 - Some submittal tables for the 2025 UWMPs have been updated for more accurate reporting

All other changes from the 2020 UWMP are classified as updated to existing requirements.

1.1 Updated Guidance for 2025 Urban Water Management Plans

Table 1-1 provides an overview of the applicable changes to the CWC since the 2020 UWMP, which have been included in this 2025 update. Chapter 9, Parts 2.55 and 2.56 of the CWC contain the primary statutory provisions governing the changes summarized below, which were adopted under the Urban Water Management Planning Act and related urban water conservation legislation.

Table 1-1: California Water Code Changes Since 2020 UWMP			
Topic Area	CWC Section(s)	Summary	2025 UWMP Guidebook Chapter(s)
Urban Water Use Objectives & Conservation Standards	10609.2 10609.4 10609.12–10609.20 10609.33	Updates indoor residential standards (47 gpcd in 2025; 42 gpcd in 2030), formalizes long-term efficiency regulations (“Making Conservation a California Way of Life”), and standardizes methodologies for calculating and reporting Urban Water Use Objectives (UWUOs), directly affecting demand forecasting and compliance reporting.	5 & 7

**Table 1-1: California Water Code Changes Since 2020 UWMP**

Topic Area	CWC Section(s)	Summary	2025 UWMP Guidebook Chapter(s)
Drought Planning & Water Shortage Reporting	10609.50 10632.1 10632 –10634	Expands drought planning requirements to small water suppliers and certain school systems, operationalizes annual Water Shortage Assessment (WSA) reporting, and reorganizes Water Shortage Contingency Plan (WSCP) requirements and submittal formats, while retaining core statutory elements.	7 & 8
Water Use Characterization & Water Loss Reporting	10631 10631.1 10631.2	Introduces updated mandatory reporting tables, aligns water loss reporting with the 2028 Water Loss Performance Standard, expands climate change considerations, and separates historical, current, and projected water use more clearly.	3 - 5
SB X7-7 Compliance & Verification Reporting	10608	Shifts Senate Bill Seven of the Senate's Seventh Extraordinary Session of 2009 (SB X7-7) reporting from general compliance to verification of 2020 achievements and required 2025 reporting status, with clarified pathways for suppliers that met or did not meet conservation targets.	7
Water Supply Characterization & Energy Use	10631 10631.1	Reorganizes supply source reporting for clarity, integrates energy-use reporting, adds new wastewater and desalination tables, and emphasizes normal-year supply characterization.	6
Water Service Reliability & Drought Risk Assessment	10631.5 10635	Restructures (Water Service Reliability Assessment) WSRA and (Drought Risk Assessment) DRA frameworks to align with year-type characterization and supply-demand comparisons, and introduces consolidated submittal tables for improved consistency.	6 & 8

**Table 1-1: California Water Code Changes Since 2020 UWMP**

Topic Area	CWC Section(s)	Summary	2025 UWMP Guidebook Chapter(s)
Demand Management Measures (DMMs)	10631.5	Clarifies distinctions between wholesale and retail supplier reporting, consolidates narrative requirements, and refreshes organization while maintaining required measures and five-year implementation reporting.	9
UWMP Preparation, Adoption, and Submittal Procedures	10610 – 10621 10644	Streamlines plan preparation guidance, introduces standardized submittal tables, updates adoption timelines and notice requirements, and consolidates submittal procedures to DWR, the State Library, and local agencies.	1 & 2 10

1.2 Submittal Tables

The Department of Water Resources (DWR) now includes a set of Submittal Tables, attached as **Appendix D** and included in relevant chapters, designed to ensure that all urban water suppliers report information in a consistent, comparable format. The tables function as a compliance checklist and data-reporting framework, translating narrative chapters into quantifiable entries. DWR emphasizes that UWMPs must address all requirements contained in the California Water Code (§10610–10656 and §10608 et seq.), and the submittal tables serve as a structured mechanism to demonstrate compliance with these statutory elements.

1.2.1 Inclusion of Submittal Tables

The Submittal Tables align with the organization of the UWMP Guidebook and provide a standardized method for reporting information related to system description, water supply characterization, demand projections, water shortage contingency planning, and conservation program performance. DWR's UWMP checklist confirms that the tables serve as a structured framework to communicate how the urban water supplier satisfies statutory requirements across sections such as §10615, §10620, and §10631.

By including all required Submittal Tables, this UWMP enhances transparency, facilitates DWR review, and ensures comparability with other urban water suppliers throughout California. The tables also contribute to statewide data consistency, enabling DWR to compile water management information across five-year planning cycles.



1.2.2 Optional Planning Tool

The UWMP Guidebook allows suppliers to incorporate optional planning tools that can improve analytical rigor, support scenario evaluation, and enhance data quality. While DWR does not mandate the use of any specific planning tool, the Department provides access to templates, calculators, and data-entry resources through the WUE Data Portal and associated guidance materials. These tools help suppliers organize data, align assumptions with state methodologies, and streamline preparation of plan components such as population estimates, water reliability analyses, and annual assessments.

1.3 Recommended UWMP Organization

This UWMP update was prepared based on guidance from the final draft of the California Department of Water Resources (DWR) “2025 Urban Water Management Plan Guidebook for Urban Water Suppliers” dated January 2026 and follows the recommended chapter formatting identified in the guidebook and briefly described below.

Chapter 1 – UWMP Introduction and Overview: This chapter identifies changes since the 2020 UWMP, fundamentals of the 2025 UWMP, and the required lay description of the District and its service area. Some subsequent chapters also include an initial lay description.

Chapter 2 – Plan Preparation: This chapter provides information on processes used to develop the UWMP, including efforts in coordination and outreach.

Chapter 3 – Service Area Descriptions: This chapter includes maps of the service area, an explanation of the service area and climate, and detail on the public water system.

Chapter 4 – Water Use Characterization: This chapter provides a description and quantification of the current and projected water uses within the District’s service area.

Chapter 5 – SB X7-7 Baselines, 2020 Targets, and 2025 Reporting: This chapter describes the District’s compliance with the 2025 per-capita water conservation mandate, presents the District’s 2025 per-capita target value that was adopted in the 2020 UWMP, and compliance with per-capita target based upon actual 2025 customer water use.

Chapter 6 – Normal-Year Water Supply Characterization: This chapter provides a description and quantification of current and projected potable and non-potable water supplies. A narrative description of each supply source and quantification of the supply availability for each supply source was identified.

Chapter 7 – Water Service Reliability and Drought Risk Assessment: This chapter describes the District’s water system reliability through at least a 20-year planning horizon. The description includes normal, single dry year, and five consecutive dry years. The water system reliability differs from the Drought Risk Assessment (DRA) by allowing a different basis for characterizing the five consecutive dry years.



Chapter 8 – Water Shortage Contingency Plan: This chapter provides a structured plan for dealing with water shortages, incorporating prescriptive information and standardized action levels, along with implementation actions in the event of a catastrophic supply interruption.

Chapter 9 – Demand Management Measures: This chapter identifies the District’s efforts to promote conservation and to reduce demand on the water supply; specifically including a narrative describing efforts to implement demand management measures.

Chapter 10 – Plan Adoption, Submittal, and Implementation: This chapter describes and documents the steps taken to make the UWMP publicly available, as well as the steps taken to adopt and submit the UWMP in accordance with the Water Code, and also describes the District’s plan to implement the UWMP.

Appendices: To support and further clarify information included in the main chapters of the UWMP, relevant information has been included in the appendix of this UWMP.

1.4 UWMPs in Relation to Other Efforts

An UWMP is prepared by local Suppliers that have the in-depth and practical knowledge of their water systems. The information contained in each Supplier’s UWMP reflects the operations of its system in the context of the Supplier’s customers, supplies, and service area. This local planning and preparation remains the fundamental focus of the UWMP.

In addition to the local Supplier focus, the UWMP requires coordination with other planning agencies and is most effective when integrated with other planning efforts. Land-use planning agencies, such as cities and counties, prepare General Plans and Specific Plans that affect a Supplier’s analysis provided in its UWMP, and vice versa. Moreover, Water Master Plans, facility plans, Recycled Water Master Plans, Integrated Regional Water Management Plans, local or regional Hazard Mitigation Plans, and others need to be synthesized with a Supplier’s UWMP to ensure a holistic planning process.

For the District’s UWMP, elements of the following reports and documents were utilized to develop the required sections of the plan (a brief description is provided for the relevant information contained in each document):

- 2020 Urban Water Management Plan: Served as the basis for the 2025 update.
- East Niles Community Services District - 2022 Water Master Plan
- Kern County Multi-Jurisdictional Hazard Mitigation Plan: Contained information to address the seismic risk assessment and mitigation requirement of the UWMP update.
- Kern Council of Governments – 2022 Regional Transportation Plan (RTP) Growth Forecast for East Niles Community Services District for 2020 to 2050 dated April 30, 2026.
- Kern County Subbasin Groundwater Sustainability Plan 2025 adopted August 2025 prepared by Kern County Subbasin Groundwater Sustainability Agencies.



1.4.1 Specific Considerations

Other related analysis and information may also be included in the UWMP to support requirements outside of the UWMP Act but rely on information provided in UWMPs. Two such considerations are identified below.

1.4.1.1 *Demonstrations of Consistency with the Delta Plan for Participants in Covered Actions*

This specific consideration does not apply to the District.

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1.5 Department of Water Resources' Review Process

The DWR reviews each Urban Water Management Plan to ensure it satisfies the requirements of the CWC and aligns with the organizational structure and reporting expectations outlined in the UWMP Guidebook. Once a UWMP is submitted through the WUEdata portal, DWR conducts a completeness and compliance review and later compiles statewide findings for legislative reporting. DWR's review focuses on verifying that suppliers have addressed all required elements, appropriately used Submittal Tables, and incorporated accurate and consistent data as referenced in the UWMP Checklist. After the review, DWR will contact the Supplier with one of the following letter types:

- **UWMP Addresses Water Code Requirements:** The submitted UWMP addresses the requirements of the Water Code and has met the eligibility requirements for grants and loans under Water Code Section 10608.56.
- **UWMP Addresses Water Code Requirements with Recommendations:** The submitted UWMP addresses the requirements of the Water Code and has met the eligibility requirements for grants and loans under Water Code Section 10608.56, but DWR will provide recommendations for portions that could use slight adjustment in the next round of UWMPs.
- **UWMP Advisory Letter:** The submitted UWMP did not address all Water Code requirements or it cannot be determined whether all requirements have been addressed. The Supplier must then submit an amended UWMP that addresses the deficiencies or necessary information documenting the requirements addressed.
- **UWMP Does Not Address Water Code Requirements:** The UWMP has not addressed all the requirements of the Water Code, and is issued if no response has been received to an UWMP Advisory Letter.
- **Indeterminate:** It could not be determined whether the submitted UWMP has addressed the Water Code's UWMP requirements.

1.6 UWMP and Grant or Loan Eligibility

For a Supplier to be eligible for any water grant or loan administered by DWR, the Supplier must have a current UWMP on file that has been determined by DWR to address the requirements of the Water Code. A current UWMP must also be maintained by the Supplier throughout the term of any grant or loan administered by DWR. An UWMP may also be required in order to be eligible for other state funding, depending on the conditions that are specified in the funding guidelines. Suppliers are encouraged to seek guidance on the specifics of any state funding source from the respective funding agencies.



Chapter 2 PLAN PREPARATION

New Requirements for 2025 Update

The 2025 update requires agencies to incorporate the most recent demographic, land-use, and housing information, including updated Regional Housing Needs Assessment (RHNA) allocations where applicable. This chapter now places greater emphasis on climate-related vulnerabilities and the geographic areas most sensitive to water supply reductions. Unlike the 2020 UWMP, the 2025 version requires more explicit coordination with local General Plans, hazard mitigation plans, and SB 379 climate adaptation updates.

2.1 Basis for Preparing a Plan

2.1.1 Suppliers with Both Wholesale and Retail Sales

The District is a Retail water supplier, operating its own water system and providing potable water directly to customers within its service boundaries. The District holds a wholesale water supply agreement with the Kern County Water Agency, purchasing supplemental water for delivery, and is therefore a customer of a wholesale supplier.

2.1.2 Public Water Systems

The District is a public urban water supplier serving an estimated population of 35,745 people per the Kern Council of Governments' (KCGO) 2022 Regional Transportation Plan Growth Forecast. **Table 2-1** provides a summary of the number of connections and total volume of water supplied by the District to its customers for calendar year 2025. The District serves a single public water system and service area.

Table 2-1: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
CA1510006	East Niles CSD	8,296	8,912
TOTAL		8,296	8,912

2.2 Individual or Regional Plans

The District has developed an UWMP that reports solely on its individual service area as identified in **Table 2-2**. This plan addresses all applicable CWC requirements, including necessary references to historical SB X7-7 targets, while meeting the current long-term water use efficiency requirements under AB 1668 and SB 606.



Table 2-2: Plan Identification		
Select One	Type of Plan	Name of Regional Alliance or RUWMP
☒	Individual UWMP	
If Water Supplier is also a member of a SB X7-7 Regional Alliance, select name.		
☐	Regional Urban Water Management Plan (RUWMP)	

2.2.1 Regional Reporting

The East Niles Community Services District does not participate in a Regional Urban Water Management Plan (RUWMP), and therefore this UWMP is prepared solely as an individual retail supplier plan.

2.3 Fiscal or Calendar Year and Units of Measure

2.3.1 Fiscal or Calendar Year

The District has reported water-related information included in this UWMP based on calendar basis and all units are measured in acre-feet (AF) as identified in **Table 2-3**.

Table 2-3: Supplier Identification	
Type of Supplier	
☐	Supplier is a wholesaler
☒	Supplier is a retailer
Fiscal or Calendar Year	
☒	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of Measure Used in UWMP	
Unit	Acre-Feet (AF)

2.3.2 Units of Measure

Water volumes presented in this 2025 UWMP are measured in acre-feet (AF) as identified in **Table 2-3**.



2.4 Coordination and Outreach

2.4.1 Wholesale and Retail Coordination

As shown in **Table 2-4**, the District has provided the Kern County Water Agency, a regional wholesale supplier, with projected water demands in five-year increments for the next 20 years.

Table 2-4: Water Supplier Information Exchange	
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.	
Wholesale Water Supplier Name	
Kern County Water Agency (KCWA-ID4)	

2.4.2 Coordination with Other Agencies and the Community

The District has coordinated with multiple neighboring and stakeholder agencies in the preparation of this UWMP. The coordination efforts were conducted to: 1) inform the agencies of the planning activities of the District; 2) gather data for use in developing this UWMP update; and 3) coordinate planning activities with other related regional plans and initiatives. The coordination activities conducted by the District in preparation of this plan are summarized in **Table 2-5**.



Table 2-5: Agency Coordination

Agency	Sent a notice of public hearing for draft UWMP	Commented on the draft	Attended public meetings	Contacted for assistance	Sent a copy of the draft plan	Sent a notice of intention to adopt	Notice of Plan Availability
Arvin-Edison Water Storage District	X						
Bakersfield City School District	X						
City of Bakersfield, County Clerk	X						
County of Kern, County Clerk	X						
Fairfax School District	X						
Kern County Water Agency	X						
Kern Delta Water District	X						
Kern Groundwater Authority	X						
Kern High School District	X						
Kern River Groundwater Sustainability Agency	X						
North of the River Municipal Water District	X						
Oildale Mutual Water Company	X						
Kern County Superintendent of Schools	X						
Water Resource Department	X						



2.4.3 Notice to Cities and Counties

The District has notified both the City of Bakersfield (COB) and the County of Kern (County) of the public hearing and this notification has been reported in **Table 10-1** in **Chapter 10**. A copy of the notification is included in **Appendix G** of this UWMP.

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Chapter 3 SERVICE AREA DESCRIPTION

New Requirements for 2025 Update

Chapter 3 now includes enhanced reporting on system interties, backup supplies, and operational constraints that affect reliability. The 2025 update requires more detailed descriptions of groundwater basin conditions (consistent with SGMA progress) and any major infrastructure additions since 2020. The chapter also must reflect recent changes in treatment processes, surface water rights, recycled water infrastructure, and conveyance capacity, which were not as thoroughly required in 2020.

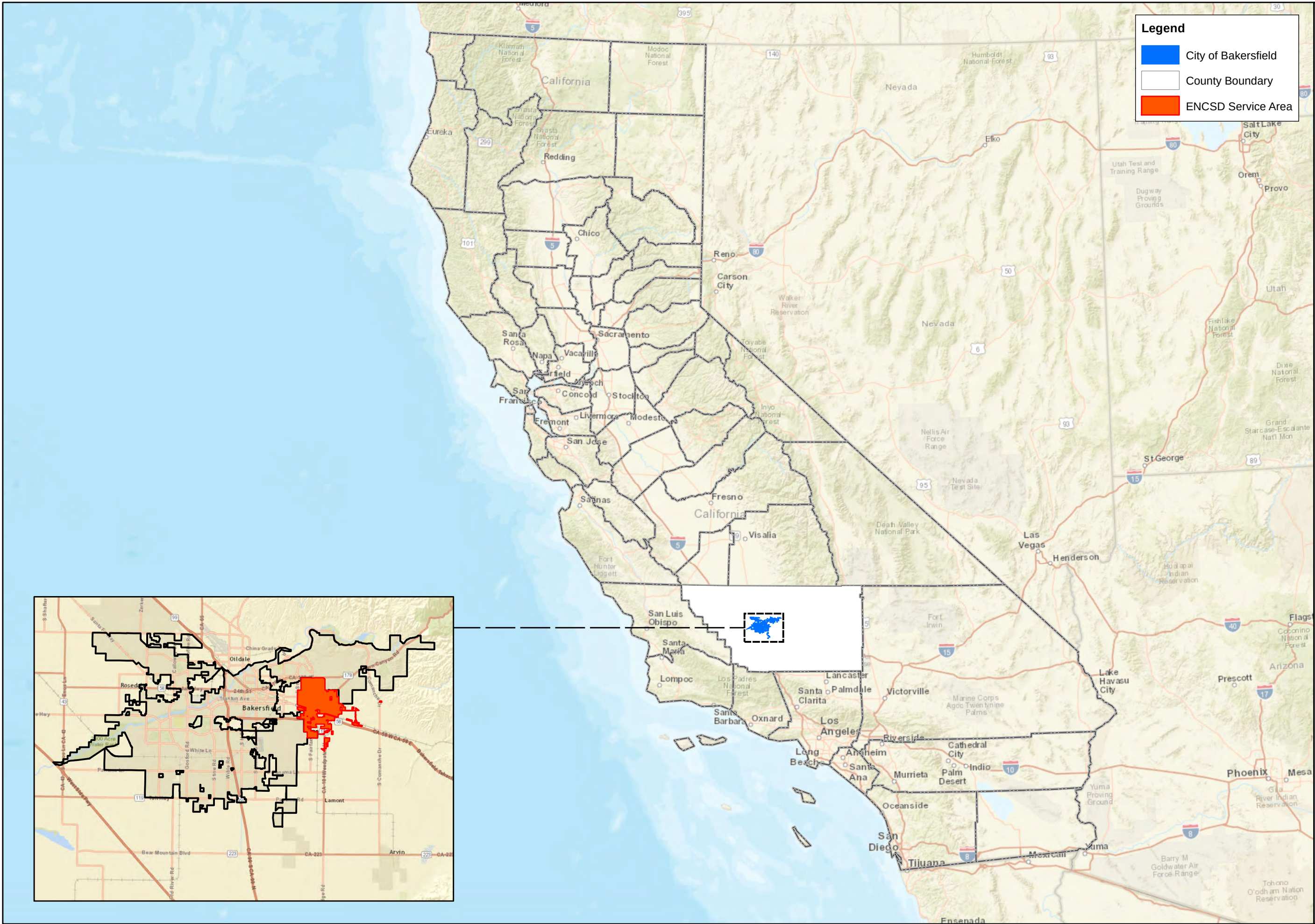
3.1 General Description

ENCSD provides water and sewer services to portions of the City of Bakersfield and unincorporated areas of Kern County, CA. ENCSD's service area is approximately 4,879 acres, includes over 8,000 service connections, and provides services to a population of approximately 35,745 people (Kern County Council of Governments) within the service area. Currently, there are multiple areas within the District's service area boundary that are not served by the District. **Figure 3-2** displays the District's boundary and the areas inside the boundary that are not served by the District. Areas within ENCSD that overlap with the City of Bakersfield are also shown on **Figure 3-2**.

The water system is comprised of 5 wells for potable water production, 14 water storage reservoirs with a total of 13.8 million gallons of storage capacity, 9 booster pump stations, and approximately 137 miles of distribution piping. The sewer collection system consists of approximately 70 miles of sewer main ranging from 8-inch to 42-inches in diameter.

3.2 Service Area Boundary Maps

Figure 3-1 illustrates the location of the District within the State of California and **Figure 3-2** shows the extent of the current service area.



Legend

- City of Bakersfield
- County Boundary
- ENCSD Service Area



**East Nile Community
Services District**

2025 UWMP

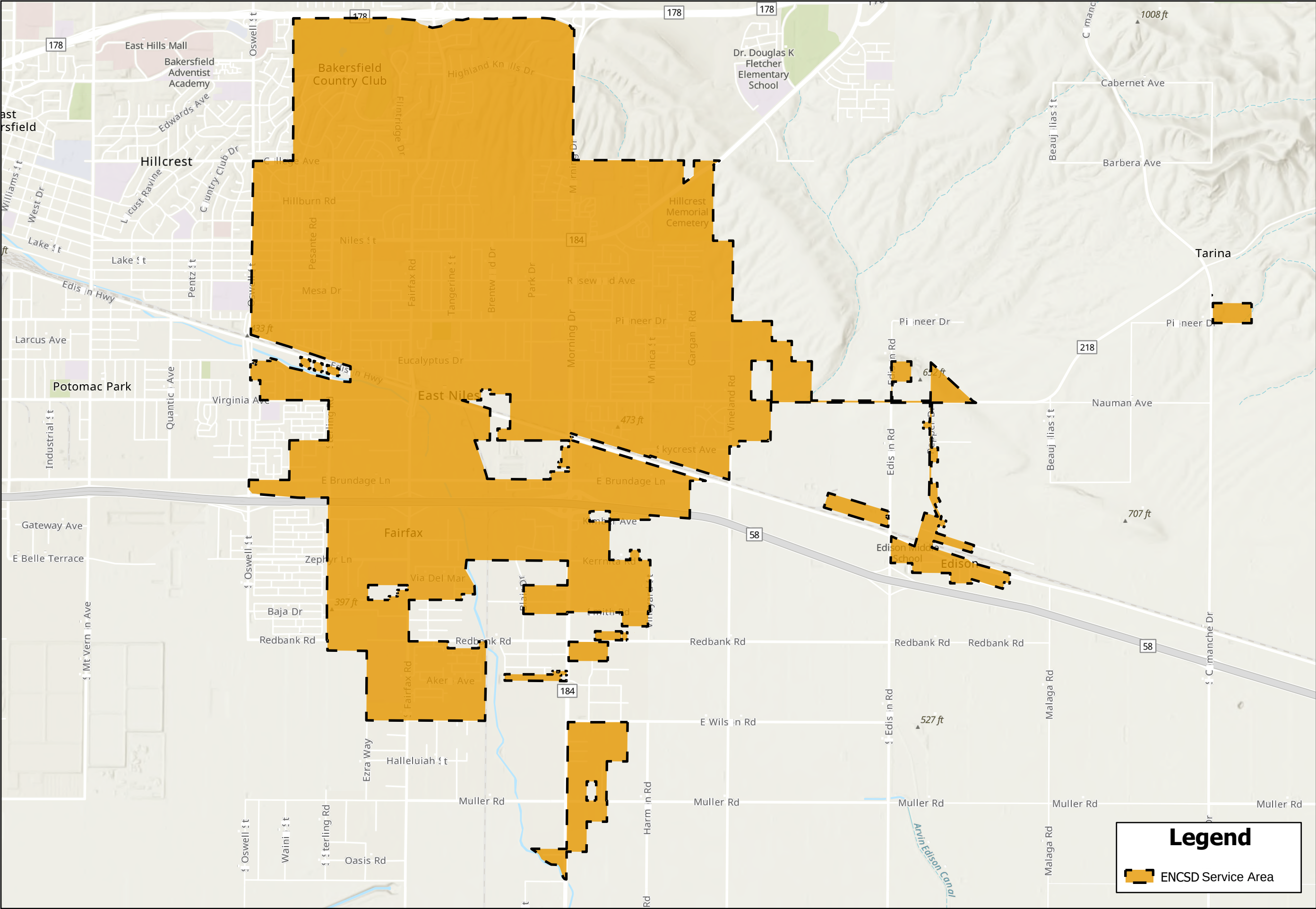
Figure 3-1: District
Location Map



Scale: NTS



ARDURRA



**East Niles Community
Services District**
2025 UWMP

Figure 3-2: East Niles
Service Area

Legend

 ENCS D Service Area



1 inch = 3,000 feet

0 1,500 3,000





3.3 Service Area Climate

The local climate is characterized by hot, dry summers and cooler, more humid winters. The Bakersfield area enjoys clear, sunny days for more than half of the year. Minimum temperatures often drop below 40 degrees Fahrenheit during the winter. Summers are hot with over 100 days per year exceeding 90 degrees Fahrenheit. Annual precipitation in the area averages approximately 3.16 inches and rain (≥ 0.01 inches per day) occurs about 40 days per year. Fog is common in the winter and may last for several weeks at a time. The 2025 average reference evapotranspiration, temperature, and precipitation are presented in **Table 3-1**.

Table 3-1: Climate Conditions for Calendar Year 2025			
Month	Monthly Average ETo^{1,2}	Monthly Rainfall¹	Monthly Average Temperature¹
	Inches	Inches	Fahrenheit
Jan	N/A	0.56	50.4
Feb	N/A	0.41	54.3
Mar	N/A	1.41	59.4
Apr	N/A	0.27	69.9
May	N/A	0.00	80.7
Jun	N/A	0.00	89.9
Jul	N/A	0.00	93.8
Aug	N/A	0.00	93.8
Sep	N/A	0.16	90.0
Oct	N/A	0.93	74.1
Nov	N/A	2.01	64.0
Dec	N/A	1.83	53.5
Average	N/A	0.63	72.8
Total	N/A	7.6	-
<i>Notes:</i> 1. Data from CIMIS Station #005 Shafter, January 1, 2025 to December 31, 2025. 2. Starting June 25, 2024, site conditions at the CIMIS Station #005 Shafter site no longer allow ETo processing due to lack of irrigation and healthy grass reference surface.			

With respect to climate change, ENCSD has not participated in or conducted an official climate change vulnerability or risk assessment for the existing water service area. However, climate change considerations for ENCSD's groundwater supply were incorporated into Kern County Subbasin's (KCS)



2025 Groundwater Sustainability Plan (GSP) and the executive summary of KCS's 2025 GSP is included in **Appendix A**.

3.4 Service Area Population and Demographics

3.4.1 Service Area Population

ENCSD provides water service to portions of the City of Bakersfield and unincorporated areas in Kern County. ENCSD does not have land use planning authority and relies on the City and County to identify potential new developments and overall population growth within the service area. The City and County coordinates with the District during the review process for new developments within the service area. The ENCSD's 2025-2050 service area population estimates was provided by the Kern Council of Governments (KCOG). The data was derived from KCOG's 2022 Regional Transportation Plan Growth Forecast. The data was generated by using the 2020 US Census household and population count 2046 households as projected in the 2022 Growth Forecast. The growth of households was annualized and multiplied by the 2020 persons per household rate.

Table 3-2: Population – Current & Projected

Population Served	2025	2030	2035	2040	2045	2050
ENCSD ¹	35,745	36,539	37,334	38,129	38,924	39,718
Total	35,745	36,539	37,334	38,129	38,924	39,718
<i>Note:</i> 1. Population estimates were provided by KCOG.						

3.4.2 Other Social, Economic, and Demographic Factors

The District's service area is largely residential with areas of commercial, industrial, and agricultural uses intermixed. There are significant differences in residential lot types, such as the larger lots in the Bakersfield Country Club location, the agricultural areas in the southern part of the service area, and smaller lots in the central part of the District. Although there may be changes in the individuals residing at any given address through the year (potentially tied to agricultural seasonal work), the number of connections and usage per connection appears to remain consistent. The following data was obtained from the US Census Bureau and was the best available information to describe the demographics of the customer base within the District's service area:

The following information was obtained from the Kern Council of Governments 2024-2050 Growth Forecast Update to describe the demographics of the customer base within the ENCSD service area (City of Bakersfield specifically):



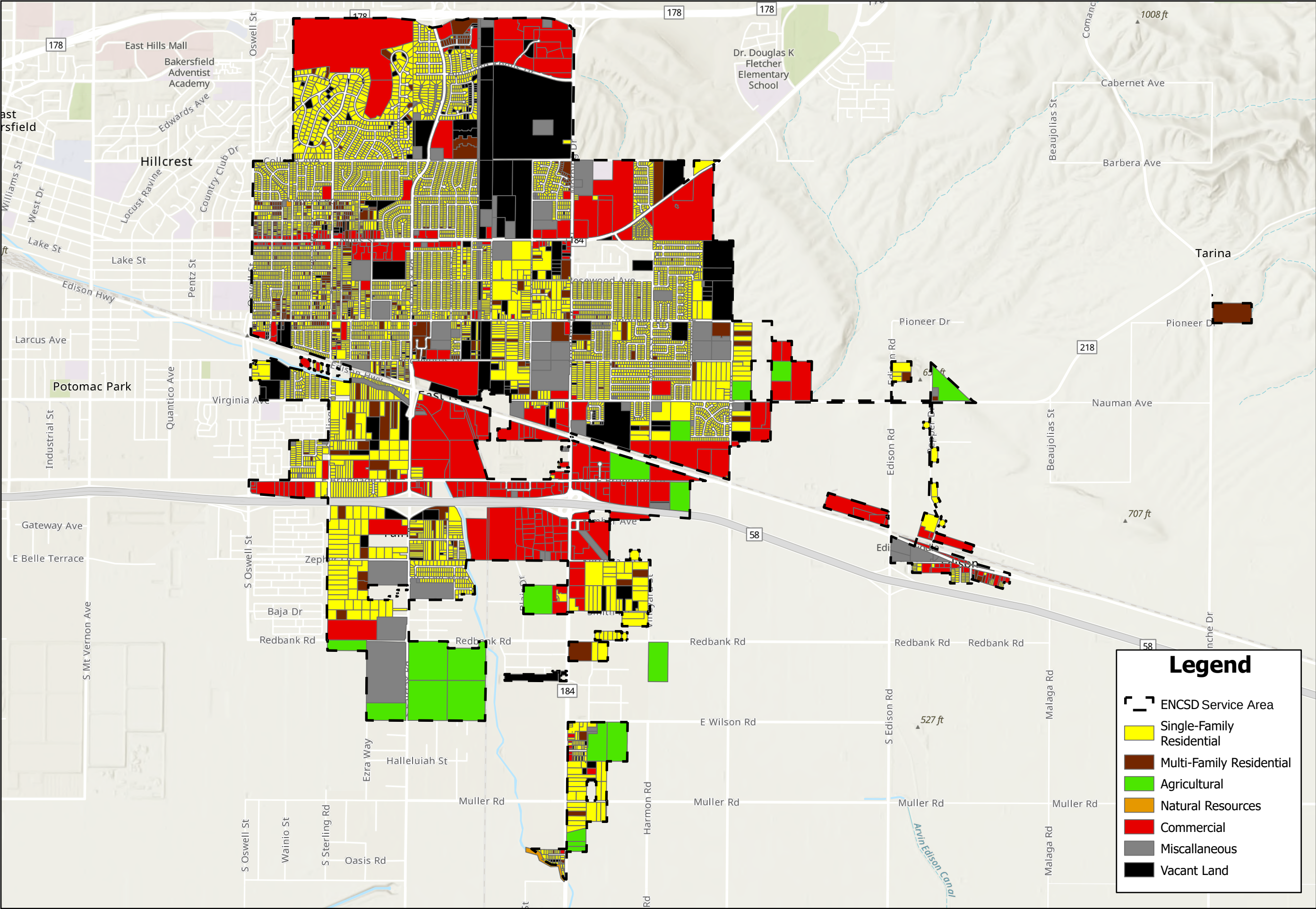
- The population consists of 49% male and 51% female with 60% of the population between the ages of 18 and 65
- Approximately 42% of the population is White with 55% Hispanic or Latino
- The KCOG determined that the median household income is \$52,124 within the ENCSD service area.

3.5 Land Uses within Service Area

The ENCSD service area (4,879 acres) is located within the City of Bakersfield and Kern County. The District's two largest land use types are single family residential and commercial. **Table 3-3** shows a summary of the currently developed land uses throughout the existing service area. **Figure 3-3** provides an overview of the overall land use categories within the service area.

Table 3-3: Land Use Summary within Service Area		
Land Use Category	Gross Acres	Percent of Total
Agriculture	350	7%
Commercial	1,389	29%
Natural Resources	6	<1%
Miscellaneous Use	53	1%
Residential Multi-Family	292	6%
Residential Single Family	2,113	43%
Vacant Land	676	14%
Total	4,879	100%

Figure 3-3 provides an overview of the overall land use categories within the District's service area.



**East Nile Community
Services District**

2025 UWMP

Figure 3-3:
ENCSD Land
Use Map

Legend

- ENCSD Service Area
- Single-Family Residential
- Multi-Family Residential
- Agricultural
- Natural Resources
- Commercial
- Miscellaneous
- Vacant Land

1 inch = 3,000 feet

0 1,500 3,000



Chapter 4 WATER USE CHARACTERIZATION

New Requirements for 2025 Update

New for 2025, agencies must incorporate updated water loss audit requirements, revised demand categories, and updated standards related to the statewide conservation framework. The chapter requires the use of the latest DWR demand reporting tables and clearer documentation of how future demand projections incorporate land-use, climate, and economic growth factors. Compared to 2020, the 2025 UWMP places stronger emphasis on distinguishing indoor vs. outdoor use and documenting non-revenue water trends.

4.1 Non-Potable Versus Potable Water Use

Currently, no recycled water is used by the District to offset potable and raw water demands. ENCSD has contracts with the City of Bakersfield to treat the District's wastewater at the City's Wastewater Treatment Plant No. 2 and with Kern Sanitation Authority to treat wastewater at its wastewater treatment plant. At both wastewater treatment plants, the wastewater is treated to a secondary level and used to irrigate crops for restricted uses.

4.2 Past, Current, and Projected Water Use by Sector

In this section, current and projected water usage is addressed. **Table 4-2** displays projected water use in five-year increments from 2030 to 2050.

4.2.1 Water Use Sectors Listed in Water Code

The District's service area includes the following water demand sectors listed in the CWC applicable to the UWMP update:

- Single Family: Single family detached dwellings
- Multi-Family: Apartments, condominiums, town houses, duplexes and trailer parks
- Commercial: Retail establishments, office buildings, laundries, schools, prisons, hospitals, dormitories, nursing homes, hotels, churches, campgrounds
- Institutional: All manufacturing
- Landscape: Parks, play fields, cemeteries, median strips, golf courses
- Agricultural Irrigation
- Distribution system water loss



The following sectors are not applicable to the District's UWMP update:

- Sales to other agencies
- Saline water intrusion barriers, groundwater recharge, or conjunctive use

4.2.2 Water Use Sectors in Addition to Those Listed in Water Code

To provide clarity, the following sectors are not currently applicable to the District's current demands in this UWMP update:

- Exchanges
- Surface Water Augmentation
- Transfers
- Wetlands or Wildlife Habitat

4.2.3 Past Water Use

Table 4-1 provides historical water usage by customer type from 2020 through 2025.

Table 4-1: Historical Water Usage						
Use Type	Water Use (AF)					% of Total
	2020	2021	2022	2023	2024	
Single Family	4,887	5,022	4,615	4,442	4,770	56
Multi-Family	942	927	826	785	830	10
Commercial	898	1,048	1,154	1,109	1,203	13
Industrial	390	391	379	351	711	6
Landscape	571	549	747	593	699	8
Agricultural	31	30	34	25	32	.5
Other	429	642	556	582	577	6.5
Total (AF)	8,148	8,609	8,312	7,888	8,821	100
<i>Note:</i> 1. Values represent metered use as reported to DWR. Percentage of totals based on average of the last 5 years. The District replaced meters and recalibrated the system during this 5-year period. "Other" use has been computed as the difference between total production and metered use. Values include system losses and metering error, and do not reflect detailed loss values from the ENCSD water loss worksheets.						



4.2.4 Current Water Use

Table 4-2 provides an overview of the existing water demands by use type within the District's service area for calendar year 2025.

Table 4-2: Total Uses for Potable and Non-Potable Water - Actual		
Use Type	2025 Actual Water Use	
	Potable or Non-Potable	Volume (AF)
Single-Family	Potable	4,587
Multi-Family	Potable	749
Commercial	Potable	1,114
Industrial	Potable	1,106
Landscape	Potable	750
Agricultural	Potable	26
Other	Potable	580
Total (AF)		8,912
<i>Note:</i> 1. Values represent metered use as reported to DWR for 2025. "Other" use has been computed as the difference between total production and metered use. The category includes system losses and metering error.		

4.2.5 Projected Water Use

Based on the 2020 UWMP, the District was required to comply with an urban water use target of 311 gallons per capita per day (gpcd) by 2020. The District's 2020 gpcd was 208 and therefore, met the urban water use target. **Table 4-3** provides a summary of historical gpcd within the service area.

**Table 4-3: Historical Use Rates (GPCD)**

Year	Service Area Population	Water Production (AFY)	Gross Water Use (gpcd)	Meter Residential Use (AFY)	Residential Water Use (gpcd)
2020	34,950	8,148	208	5,829	149
2021	35,107	8,609	219	5,949	151
2022	35,265	8,312	210	5,441	138
2023	35,324	7,888	199	5,227	132
2024	35,483	8,821	222	5,600	141
2025	35,745	8,912	223	5,336	133
5-Year Average (2021-2025)			215		139
<i>Note: Potable Demand based on historical production values provided by ENCSD. 5-year average includes 2021-2025</i>					

Annual water demand within the service area was assumed to increase in proportion to the population projection in **Table 3-2**. The demand projections in **Table 4-2** are based on population projections multiplied by the District's previous 5 years' average Gross Water Use gpcd of 215 and aggregated for each use type per the customer type percentages in **Table 4-1**.



$$\text{Demands} = \text{Population} \times 215 \text{ GPCD} \times \text{Use Type Percentage}$$

Table 4-4: Retail: Total Uses for Potable, and Non-Potable Water – Projected

Use Type	Projected Water Use (AF)					
	Potable or Non-Potable	2030	2035	2040	2045	2050
Single Family	Potable	4,928	5,035	5,142	5,249	5,356
Multi-Family	Potable	880	899	918	937	957
Commercial	Potable	1,144	1,169	1,194	1,219	1,243
Industrial	Potable	572	584	597	609	622
Landscape	Potable	704	719	735	750	765
Agricultural	Potable	44	45	46	47	48
Other	Potable	616	629	643	656	670
Total (AF)		8,800	8,991	9,183	9,374	9,565
<i>Note:</i> 1. Future water demands based on population projections and the 5-year average (2021-2025) gross water use rate. "Other" use has been computed as the difference between total production and metered use. The category includes system losses and metering error.						

4.2.5.1 Lower Income Households

ENCSD does not account for water savings from codes, standards, ordinances, or transportation and land use plans that are also known as "passive savings". However, for new development within the City of Bakersfield, builders are required to implement water efficient landscape and irrigation per the City's building code. These various factors generally decrease the water use for new and future customers, compared to historical customers.

Lower income residential demands are included in ENCSD's future demand projections in **Table 4-4** via housing projections prepared by the City of Bakersfield and County of Kern, who are required to plan for lower income residential units within the City/County limits.



Table 4-5: Inclusion in Water Use Projections	
Reporting Period Start Date	Volume of Water Loss (AF)
Are Future Water Savings Included in Projections?	No
If “Yes” to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	-
Are Lower Income Residential Demands Included in Projections?	Yes

4.3 Distribution System Water Loss

Distribution system water losses are defined by the Guidebook as the physical potable water losses from the pressurized water distribution system and the Supplier’s storage facilities up to the point of delivery to the customer’s system. The following sections summarize the distribution system losses for the previous five years, as well as the District’s progress toward meeting water loss performance standards.

4.3.1 Previous Five Years Distribution System Losses

Table 4-4 indicates that the District continued to submit annual Water Loss Audit Reports to DWR. The Water Loss Audit Reports are included in **Appendix G**.

Table 4-6: Water Loss Audit Reporting	
Reporting Period	Submitted to DWR Water Loss Audit Program (Yes/No)
2020	Yes
2021	Yes
2022	No ²
2023	Yes
2024	No ²
2025	No ²
<i>Note:</i> 1. Water Loss based on AWWA worksheet values. 2. Water Loss Audit in progress by District	

4.3.2 Progress Toward Meeting the Water Loss Performance Standard

The District is required to provide data demonstrating its efforts to meet the State Water Board Water Loss Performance Standard (23 CCR Section 980) set in 2023. The goal of the Water Loss Performance Standard is to minimize water losses in the system, improve system efficiency, support long-term water



conservation and supply reliability. The Water Loss Performance Standard does not have to be met until 2028.

Table 4-5 quantifies the District's progress towards meeting the designated Water Loss Performance Standard. The Water Board's Calculated Water Loss Standards are included in **Appendix H**.

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Table 4-7: Progress Towards 2028 Water Loss Standard

Public Water System ID	Did the Water Board Calculate a Water Loss Standard for this Public Water System?	Real Water Loss ¹					Apparent Water Loss ¹				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		Real Water Loss Per Unit per Day	State Water Board Standard		Most Recent AWWA Water Loss Audit		Apparent Water Loss Per Unit per Day
		2028 Real Water Loss Standard per Unit per Day	Units for Real Water Loss ²	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit)		2028 Apparent Water Loss Standard per Unit per Day ²	Units for Apparent Water Loss ²	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Audit)	
CA1510006	Yes	0	Gallons per Mile per Day (GPMD)	8,226 ³	209.442 ⁴	22.7	16.5	Gallons per Service Connection per Day (GPSCD)	8,226 ³	389.251 ⁴	42.2

Notes:

1. Water Loss based on AWWA 2023 worksheet values from July 1, 2023 to June 30, 2024.
2. Water Board's Calculated Water Loss Standards (**Appendix H**).
3. The calculation above is based on the number of connections in the system.
4. Acre-ft



Chapter 5 SB X7-7 Baselines, 2020 Targets, and 2025 Reporting

New Requirements for 2025 Update

This is a substantially new component that was not included in the 2020 plans. The 2025 UWMP must summarize the agency's progress toward meeting its urban water-use objective, describe compliance pathways, and document component standards (indoor residential use, outdoor residential use, Commercial, Industrial, Institutional (CII) performance measures, and water loss). Agencies must also describe variances and supply considerations relevant to objective calculations.

5.1 Reporting Requirements for Wholesale Suppliers

The District is not a wholesale supplier; therefore, this section does not apply to the District.

5.2 Reporting Requirements for Retail Suppliers

5.2.1 Supplier Was Not an Urban Retail Water Supplier in 2020

The District was an urban retail water supplier in 2020; therefore, this section does not apply.

5.2.2 Supplier Met 2020 Target in 2020

The District successfully met the targeted reduction in 2020 of 311 GPCD, achieving an actual use of 208 GPCD in 2020 as shown below in **Table 5-1**. The District continued to maintain water use below the 2020 target in 2025.

Table 5-1: SB X7-7 2020 Target Progress

Was Supplier part of a merger or consolidation since 2020?	Individual Target	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	Actual 2025 GPCD	Did Supplier meet the 2020 Target in 2025?
No	NA	311	208	Yes	223	Yes

5.2.3 Supplier Did Not Meet 2020 Target in 2020 – No Change to Service Area

The District met the targeted reduction in 2020; therefore, this section does not apply to the District.



5.2.4 Supplier Did Not Meet 2020 Target in 2020 – Change to Service Area

The District met the targeted reduction in 2020; therefore, this section does not apply to the District.

5.2.5 Funding Eligibility

The District met the targeted reduction in 2020; therefore, the District is eligible to receive water grants or loans from the State of California.

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Chapter 6 NORMAL-YEAR WATER SUPPLY CHARACTERIZATION

New Requirements for 2025 Update

The 2025 update requires agencies to integrate the latest water reliability assessments from suppliers, wholesalers, and GSAs; account for SGMA-related limitations; and describe climate-adjusted supply projections. The chapter must now include more detailed descriptions of water rights constraints, hydrologic variability, wildfire effects on surface water quality, and drought-related supply restrictions. Compared to the 2020 UWMP, this chapter requires a more explicit comparison of multiple supply scenarios, including climate-stressed conditions.

6.1 Water Supply Characterization

6.1.1 Purchased or Imported Water

With the expansion of the Henry C. Garnett Water Purification Plant (HCGWPP) in connection with the Kern County Water Agency (KCWA) Improvement District No. 4 (ID4), ENCSD was able to execute a contract for 11,000 AFY of treated surface water annually. See **Appendix E**.

Per the September 2005 Agreement Between KCWA and ENCSD for water supply, the water supply is for the benefit of the lands and inhabitants served by ENCSD within the confines of KCWA's ID4. If and when the District acquires a water supply that could be treated at the HCGWPP, then water (with agreement from KCWA) could be moved to serve other areas within the District which may be outside of KCWA's ID4. **Tables 6-8 and 6-9** summarize the current and projected KCWA surface water supply.

According to the 2020 UWMP Update, Water Service Reliability and Drought Risk Assessment, ID4 has determined that there are adequate supplies to meet demand in a normal year, a single dry year, and five consecutive dry years. Therefore, this water supply source is considered 100% reliable and available during normal, single, and multiple dry year conditions.

However, if a temporary and or extended water shortage condition exists, ID4 could impose the following conditions stated in Article 12 of the Water Shortage Agreement between KCWA and ENCSD for a water supply:

"(A) At times there may occur a shortage during any year in the quantity of water available for delivery to the Purveyor by the Agency pursuant to this Agreement. However, if the Agency can prevent or diminish a shortage in treated water by temporarily halting or curtailing its spreading of water for recharging the underground in improvement District No. 4, it may do so at its discretion. The Agency may use Improvement District No. 4 groundwater banking projects or in-district wells for reducing shortages subject to a separate agreement with the Purveyor.



(B) To eliminate or reduce shortages, Customers may secure and deliver non-Improvement District No. 4 surface water to the Henry C. Garnett Water Purification Plant for treatment under the following terms:

(1) A request for delivery and subsequent treatment of any non-Improvement District No. 4 surface water shall require Agency approval.

(2) A request to deliver non-Improvement District No. 4 water shall be submitted in writing to the Agency for review ninety (90) days prior to the expected date of delivery. Such request shall include information as to the quantity, quality and origin of the source water. Requesting Customer shall provide all information pertaining to the source as requested by Agency.

(3) Improvement District No. 4 shall be responsible for the scheduling of all non-Improvement District No. 4 surface water and shall coordinate the delivery of non-Improvement District No. 4 surface water with Customer. The point of delivery for any non-Improvement District No. 4 surface water shall be the headworks of the Henry C. Garnett Water Purification Plant or any other point of delivery available to Customer and Improvement District No. 4 which is mutually agreeable.

(C) No liability shall accrue against the Agency or any of its officers, agents, or employees for any damage, direct or indirect, arising from a shortage on account of drought or other unavoidable causes. In any year in which such a shortage may occur for any cause so that the total quantity of water available to the Agency for distribution to the Purveyor and other Customers taking water from the treatment facilities is less than the total of all quantities contracted for by the Purveyor and other Customers, the Agency shall apportion the available treated water among the Customers in proportion to their Total Annual Entitlements, for the current year, as set forth in Exhibit D and pursuant to Articles 8 and 10.

(D) The Agency shall give the Purveyor written notice as far in advance as reasonably possible of any such reduction in delivery to it.¹

¹ – Agreement between Kern County Water Agency and East Niles Community Services District for Water Supply

6.1.2 Groundwater

Surface water sources are available to the District and currently represent approximately half of the total water supply. The District operates their system to prioritize use of the surface supply (within ID4) and supplements with the groundwater supply. It is expected that the District will continue to use the combination of surface and groundwater supply sources to meet existing and future customer demands within the District's service area.



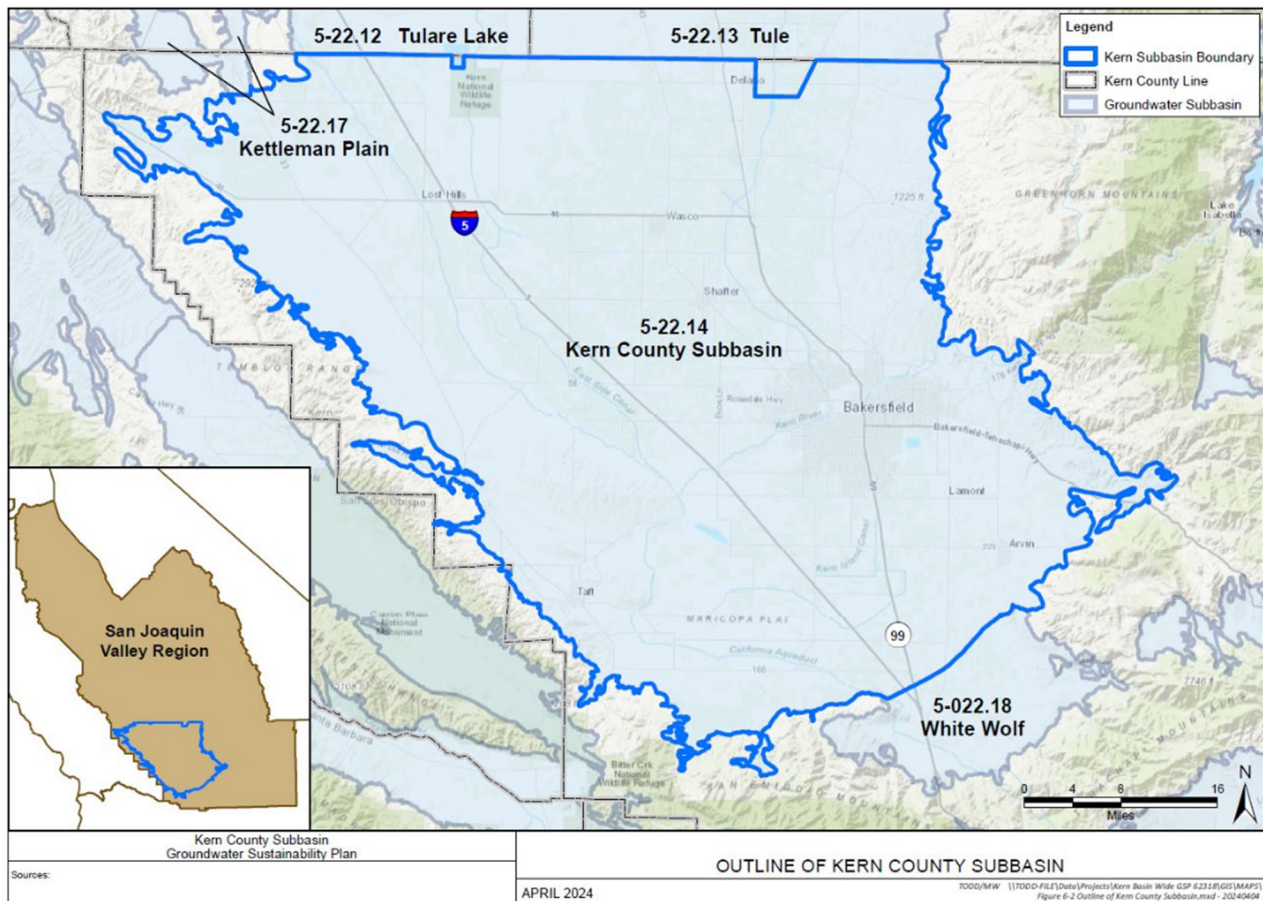
The District extracts water from the Kern County Subbasin which is described on the 2025 Kern County Subbasin GSP report as a subbasin of the San Joaquin Valley Groundwater Basin (5-022), shown in **Figure 6-1**. ENCSD presently has six active groundwater wells spaced throughout the southern portion of the District. The pumping capacities for the six wells are as follows (the annual capacities listed assume wells operate 75% of the day):

- Well 25 (formerly Well 14) – 500 gpm (807 AFY) currently not in service at the time of report
- Well 18 – 445 gpm (887 AFY)
- Well 19 – 1,763 gpm (3,226 AFY)
- Well 20 – 1,392 gpm (2,581 AFY)
- Well 21 – 1,432 gpm (2,258 AFY)
- Well 22 – 478 gpm (771 AFY)

All of the wells, with the exception of Well 21, are configured such that they do not pump directly into the distribution system, but rather all pump to a common distribution location, which is called the Kern Citrus Tank Facility. The District relies on the booster pump station at the Kern Citrus Tank Facility to pump the well water into the higher elevation storage reservoirs in the northern portion of the District. Although the combined capacity of all wells is slightly more than 8,200 AF per year (assuming wells run 18 hours per day), the amount of water that is available to the District, except that area served by Well 21, is limited by the capacity of the Kern Citrus booster pump facility, which is currently approximately 5,806 AFY. The Kern County Subbasin is not adjudicated. ENCSD is a member of the Kern River Groundwater Sustainability Agency (KRGSA) which is a Groundwater Sustainability Agency that oversees groundwater use within the Subbasin.



Figure 6-1: Kern County Subbasin (Kern County Subbasin Groundwater Sustainability Plan 2025)





6.1.2.1 Basin Description

The KRGSA area covers approximately 363 square miles (13%) of the Kern County Subbasin, as shown in **Figure 6-2**. The 2025 Kern County Subbasin GSP included the following description of the Kern County Subbasin:

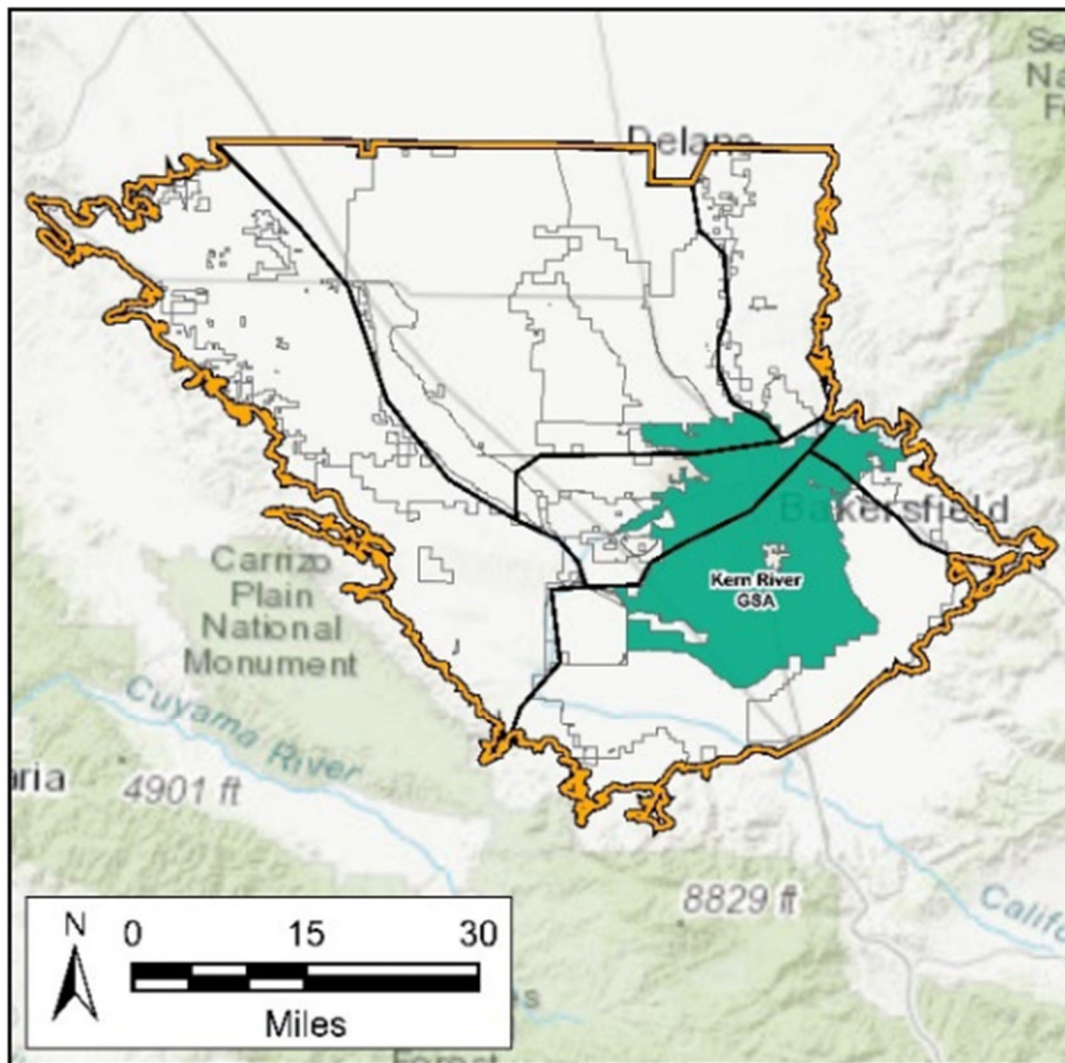
"The Kern Subbasin is one of the largest groundwater basins in the state, covering approximately 1,792,000 acres (2,800 square miles). Kern Subbasin's boundaries were defined by DWR (2016) and were described as geographically bounded to the east by the Sierra Nevada Mountain Range, to the west by the Southern Coast Ranges, and to the south by the Tehachapi and San Emigdio Mountains. The northern boundary of Kern Subbasin is a jurisdictional boundary, which is the border between Kern County, Tulare County and Kings County. Kern Subbasin borders four other DWR basins, these include:

- *Tule Subbasin (Subbasin 5-22.13, DWR, 2006)*
- *Tulare Lake Subbasin (Subbasin 5-22.12, DWR, 2006)*
- *Kettleman Plain Subbasin (Subbasin 5-22.17, DWR, 2006)*
- *White Wolf Subbasin (Subbasin 5-22.18, DWR, 2018)*

The groundwater resources in Kern Subbasin are significant, and most of the water supply for the area comes from underground aquifers, usually occurring in the uppermost 3,000 feet (Page, 1973). The main sources of natural recharge to the groundwater system are precipitation in the form of rain or snow, and seepage from rivers and streams. An additional important contributor is imported water through infiltration and artificial recharge from water banking, which involves capturing and storing excess surface water in aquifers during wet periods for later use during dry periods (DWR, 2006)."



Figure 6-2: Kern River GSA (Kern County Subbasin Groundwater Sustainability Plan 2025)





6.1.2.2 Multiple Groundwater Basins

The District only pumps water from the Kern County Subbasin.

6.1.2.3 Other Considerations

The Kern County Subbasin includes 20 GSAs and one coordinated management area. Each GSA applied for and was granted exclusive GSA status under CWC §10723© and §10723.8. As stated in CWC §10725, the GSAs have authority to determine the need for groundwater management, prepare and adopt a GSP, propose and update fees, and monitor compliance and enforcement. Further, GSAs may require registration and metering of groundwater extraction facilities, and annual reporting of groundwater extractions. Additional GSA authorities are outlined in CWC §10726.2 and §10726.4.

ENCSD, in partnership with KRGSA, has implemented various projects and management actions to help reach sustainability goals identified in the 2025 KCS GSP. According to the 2025 KCS GSP below are the projects and management actions that ENCSD has implemented and are currently implementing:

- KRGSA-4 – Urban Conservation (Implemented): Future urban demand will be reduced from current modeled levels. The average urban demand for Metropolitan Bakersfield is reported by local UWMPS is 211 gallons per capita per day (gpcpd). Previous estimates for future demand were estimated at 248 gpcpd and basin wide GSP modeling included this estimate in all future model scenarios.
- KRGSA-5 – ENCSD North Weedpatch Highway Water System Consolidation (In Process): Up to six small water systems in the northeast KRGSA will be consolidated into the ENCSD system for benefits to drinking water quality, including to disadvantaged communities (DAC). The project includes new water distribution systems, a new well (1,400 gpm capacity) with arsenic treatment, a storage tank, hydropneumatics tank, and a booster pump station. If TCP is detected in the new well, the grant will also fund a TCP treatment system. All wells with water quality violations will be properly abandoned according to Kern County Environmental Health regulations.

ENCSD participates in the ongoing management actions described by the 2025 KCS GSP:

- *Annual Reporting*
- *Monitoring and Data Collection*
- *Project and Management Actions implementation, including policy development to support Plan implementation*
- *Technical and non-technical coordination with other water management entities within and outside the Kern Subbasin*
- *Continued outreach and engagement with stakeholders*
- *Enforcement and response actions, including:*
 - *Exceedance Policy*



- Well Mitigation Program
- Evaluation and updates as part of the required periodic evaluations (i.e., “five-year updates”)

6.1.2.4 Past Five Years Groundwater Pumping

Table 6-1 provides an overview of the groundwater sources and the annual quantity pumped to meet the demands of the District customers from 2021 to 2025.

Table 6-1: Groundwater Volume Pumped							
☐	Supplier does not pump groundwater. The supplier will not complete the table below.						
Groundwater Type	Location or Basin Name	Potable or Non-Potable	2021	2022	2023	2024	2025
Alluvial Basin	SJVGB – Kern County Subbasin 5-22.14	Potable	2,944	2,729	1,274	2,312	1,712
Total (AF)			2,944	2,729	1,274	2,312	1,712
Note: 1. Groundwater pumped from the Kern County Subbasin							

Based on redundancy within ENCSD’s existing well field and groundwater management practices under KRGSA GSP, this water supply source is considered 100% reliable and available during normal, single, and multiple dry year conditions.

6.1.3 Surface Water

ENCSD has evaluated options for obtaining a self-supplied surface water source. Presently, the District does not use nor plan to use a self-supplied surface water as part of its water supply. Surface water used by the District is supplied by the KCWA and has been reported in **Section 6.1.9**.

6.1.4 Stormwater

ENCSD recognizes the benefits of storm water reuse but does not currently participate in a storm water reuse program. ENCSD will continue to examine available water reuse options including beneficial use of storm water to alleviate possible strains on its water supply needs.

6.1.5 Wastewater and Recycled Water

6.1.5.1 Recycled Water Coordination

ENCSD does not currently nor does ENCSD intend to provide recycled water service to customers within the service area.



6.1.5.2 Wastewater Treatment and Discharge

ENCSD manages wastewater collection for its customers, but treatment is provided by the City of Bakersfield at Wastewater Treatment Plant No. 2 and the Kern Sanitation Authority at the Kern County Wastewater Treatment Plant. ENCSD understands that wastewater recycling is an important tool to use in reducing demands upon the groundwater basin as well as surface water supplies. The District is a member of a wastewater Technical Advisory Committee, along with the City of Bakersfield and Kern Sanitation Authority, which discusses options for increases in the use of recycled water. At present, the District is not able to implement recycled water use on its own as no sources are available.

ENCSD provides sewer collection for its customers within its service area boundary. Collected sewage is sent to the City of Bakersfield's Wastewater Treatment Plant No. 2 and the Kern Sanitation Authority Wastewater Treatment Plant where it is treated to a secondary level and then used as an irrigation supply for restricted farming uses. It is expected that this practice will continue in the future and aid the groundwater basin through in lieu recharge.

Exact wastewater production records for ENCSD are not possible to calculate because the City of Bakersfield, Kern Sanitation Authority, and the District all share common trunk lines. However, to estimate the total wastewater production in the District, the per capita wastewater generation was estimated to be 100 GPD. Based on this estimate, the District should have produced approximately 10.97 acre-feet per day (AFD) of wastewater in 2025. **Table 6-2** provides the estimated volume of wastewater collected by the District's collection system during 2025.

Table 6-2: Wastewater Collected within Service Area in 2025				
☐		Check the box if there is no wastewater collection system.		
Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Agency Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2025	Name of Wastewater Treatment Plant (WWTP) and Place ID Number	Is WWTP Located Within UWMP Area?
ENCSD	Estimated	4,004	Wastewater Treatment Plant No. 2 & Kern County Wastewater Plant	No
Total Wastewater Received from UWMP Service Area in 2025:		4,004		

Table 6-3 provides an overview of the quantity of wastewater treated and discharged within the District's water service area.

**Table 6-3: Wastewater Treatment and Outcomes within UWMP Service Area in 2025**

☒				Check this box if no wastewater is treated or disposed of within the UWMP service area.					
Wastewater Treatment Plant (WWTP) and Place ID Number	Does this Plant Treat Wastewater Generated Outside the UWMP Service Area?	2025 Volume of Wastewater Received from UWMP Service Area	Total 2025 Volume of Water Treated	2025 Outcome of Treated Wastewater					
				Water Recycled Within UWMP Service Area		Water Recycled Outside of UWMP Service Area	Effluent Discharge that is not a Permitted Recycled Water Use	Required Discharge for Instream Flow	Delivered to Another Entity for Additional Treatment
				Treatment Level	Volume (AF)				
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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6.1.5.3 Recycled Water System Description

The Recycled Water is not currently being used in ENCSD's service area.

6.1.5.4 Current, Potential, and Projected Recycled Water Uses

Table 6-4: Recycled Water District Beneficial Uses within Service Area							
☒		Check box if recycled water is not used and is not planned for use within the service area of the supplier. The supplier will only complete the column on "Potential Recycled Water Use" and submit an accompanying narrative on the feasibility of the potential recycled water use.					
Name of Agency Producing (Treating) the Recycled Water:		N/A					
Name of Supplemental Operating the Recycled Water Distribution System:		N/A					
Supplemental Water Added in 2025		N/A					
Source of 2020 Supplemental Water		N/A					
Use Type	Potable or Non-Potable	2025	2030	2035	2040	2045	2050
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total		N/A	N/A	N/A	N/A	N/A	N/A

Table 6-5 provides a summary of the 2025 UWMP Recycled Water Use Projections compared to the 2025 actual use.

Table 6-5: 2020 UWMP Recycled-Water Use Projection Compared to 2025 Actual		
☒	Recycled water was not used in 2025 nor previously projected for use in 2020. The supplier will not complete the table below.	
Use Type	2020 Projection for 2025	2025 Actual Use
N/A	N/A	N/A
Total	N/A	N/A



The District does not plan to expand recycled water use within its service area, as noted in **Table 6-6**.

Table 6-6: Methods to Encourage Future Recycled Water Use			
☒	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
N/A	N/A	N/A	N/A
Total			N/A

6.1.6 Desalinated Water Opportunities

ENCSD is not located near the ocean or any significant brackish groundwater supplies. However, ENCSD has in the past preliminary evaluated the feasibility of treating impaired groundwater supplies on the west side of the San Joaquin Valley for potential treatment and delivery to a water storage district on the west side of the valley. If this type of project were developed, it is presumed that an equivalent amount of State Water Project water from a west side district could then be delivered to ENCSD. At present, the implementation of such a program is not believed to be financially feasible

6.1.7 Water Exchanges and Transfers

ENCSD is not currently engaged in any water transfers or exchanges. However, the District does benefit from KCWA's involvement in multiple transfer and exchange opportunities that contribute to the reliability of the District's KCWA surface water supply.

6.1.8 Future Water Projects

As mentioned previously in **Section 6.1.2.3** ENCSD is currently in the process of consolidating pp to six small water systems in the northeast KRGSA. The timeline for completion of this program is currently unknown as of the time of this report. ENCSD will continue to receive imported water from KCWA ID4 and pump groundwater from the Kern County Subbasin.



Table 6-7: Expected Future Water Supply Projects or Programs							
☐			No expected future water supply projects or programs that provide quantifiable increase to the agency's water supply. Supplier will not complete the table below.				
☒			Some of all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.				
Name of Future Projects or Programs	Joint Project with Other Suppliers?		Additional Description	Water Type	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier
	Yes/ No	If Yes, Supplier Name	N/A	N/A	N/A	N/A	N/A
ENCSD North Weedpatch Highway Water System Consolidation	Yes	KCWA	New Water Distribution System	Potable	2019	Ongoing	2,258 AF/yr

6.1.9 Summary of Existing and Planned Sources of Water

Table 6-8 provides an overview of the actual source and volume of water for the year 2025 that is available to serve the ENCSD customer base.

Table 6-8: Water Supplies – 2025 Actual		
Water Supply	2025	
	Potable or Non-Potable	Actual Volume
Groundwater – Kern County Subbasin	Potable	1,712
Imported Water – KCWA-ID4	Potable	7,200
Subtotal Potable		8,912
Subtotal Non-Potable		0
Total (AF)		8,912



Table 6-9 provides an overview of the projected water supplies available to ENCSD to serve future demands through 2050.

Table 6-9: Water Supplies – Projected							
Water Supply	Additional Detail on Water Supply	Potable or Non-Potable	2030	2035	2045	2045	2050
			Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Groundwater	Kern County Subbasin	Potable	5,806	5,806	5,806	5,806	5,806
Purchased or Imported Water	Kern County Water Agency- ID4	Potable	11,000	11,000	11,000	11,000	11,000
Total (AF)			16,806	16,806	16,806	16,806	16,806

For the UWMP, it is assumed that ENCSD will receive 11,000 AFY as needed from the Kern County Water Agency – ID4 to supplement/offset future groundwater pumping from the Kern County Subbasin. ENCSD groundwater production is assumed to be limited only by the Kern Citrus booster pump capacity of 5,806 AFY.

6.1.10 Special Conditions

ENCSD does not have any special conditions that may affect future water supplies.

6.1.10.1 Climate Change Effects

With respect to climate change, the District has not participated in or conducted an official climate change vulnerability or risk assessment for the existing water service area. However, climate change considerations for ENCSD's groundwater supply were incorporated into the KRGSA GSP and a copy of the executive summary has been included in **Appendix A**.

6.1.10.2 Regulatory Conditions and Project Development

There are no known regulatory changes that would impact future water characterization within the ENCSD service area.



6.1.10.3 Other Locally Applicable Criteria

There are no known local flow criteria that would impact future water supply within the ENCSD service area.

6.2 Submittal Tables

All required submittal tables for ENCSD's water supply characterization are included throughout this chapter.

6.3 Energy Use

The District's water system is comprised of approximately 137 miles of distribution piping and 13 storage tanks with a combined capacity of 13.8 MG. There are 5 active wells and 9 booster pump stations located throughout the system. Elevations range from 900 feet to less than 400 feet above sea level. There are three reporting options based on available data which include the following:

- Option 1: Energy Intensity – Water Supply Process Approach by the individual Water Management Processes
- Option 2: Energy Intensity – Total Utility Approach using the sum of all Water Management Processes and total energy for the system
- Option 3: Energy Intensity – Multiple Water Delivery Products by breaking down percentages for retail potable, retail non-potable, agricultural, etc.

Table 6-10 summarizes the District's supply facilities energy intensity using the total utility app

Table 6-10: Recommended Energy Intensity – Total Utility Approach				
Enter Start Date for Period	1/1/2025	Urban Water Supplier Operational Control		
End Date	12/31/2025	Sum of All Water Processes	Non-Consequential Hydropower	
		Total Utility	Hydropower	Net Utility
Volume of Water Entering Process (AF)		1,712	0	1,712
Energy Consumed (kWh)		651,253	0	651,253
Energy Intensity (kWh/vol. converted to MG)		1,167	0	1,167



Chapter 7 WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

New Requirements for 2025 Update

For 2025, DWR requires expanded quantitative reliability assessments, including five-year drought risk analyses and updated dry-year sequences. Agencies must also assess reliability under climate stress conditions and describe any new limitations identified since 2020 (e.g., SGMA pumping reductions, environmental flow requirements). This chapter now also integrates SB 552 requirements for small water supplier coordination when applicable. The level of climate modeling and scenario documentation is substantially greater than in 2020.

7.1 Water Service Reliability Assessment (WSRA)

ENCSD has never had a single year or multiple dry years in which it did not meet 100% of its demand, regardless of regional hydrology. Therefore, there is no basis in the hydrologic record for reducing supply reliability based upon single and/or multiple dry year conditions when imported water supply is available in addition to historical groundwater production. On this production, ENCSD's supply is presented as 100% reliable for single and multiple dry year periods as summarized in the following sections.

ENCSD developed **Table 7-1**, which involved a preliminary climate change vulnerability screening (including impacts from extreme heat, water quality, sea level rise, flooding, and wildfire) for its water supplies.

The WSRA summarizes ENCSD's expected water service reliability for a normal year, single dry year, and five consecutive dry years projections for 2030, 2035, 2040, 2045 and through 2050.

Table 7-1: Climate Change Vulnerability Screening		
Preliminary Assessment	Kern County Subbasin	
	Response	Imported Water Level of Risk
<i>I. Water Supply and Demand</i>		
Are the water supply diversions sensitive to climate change?	Yes	3
Is the water supply source affected by urban or agricultural water demand that might be climate sensitive?	Yes	5
Is groundwater a major supply source?	Yes	4



Table 7-1: Climate Change Vulnerability Screening		
Preliminary Assessment	Kern County Subbasin	
	Response	Imported Water Level of Risk
Does the water supply source rely on or could it be affected by snowmelt?	Yes	4
Does the water supply source come from or could it be affected by coastal aquifers? Has saltwater intrusion been a problem in the past?	No	N/A
Does the water supply source rely on or could it be affected by changes in stored water supplies?	Yes	4
II. Extreme Heat		
Could extreme heat impact operations of the water supply project or diversions?	Yes	4
Does the supply source rely on equipment or infrastructure that could be impacted by extreme or prolonged heat?	Yes	3
III. Water Quality		
Could water quality issues, such as low dissolved oxygen, algal blooms, disinfectant biproducts affect the water supply source?	No	N/A
Could reduction in assimilative capacity of a receiving water body affect the water supply source?	No	N/A
IV. Sea Level Rise		
Is any of the water supply source infrastructure located in area that could be exposed to rising tides?	No	N/A
Could coastal erosion affect the water supply source?	No	N/A
Is the water supply source dependent on coastal structures, such as levees or breakwaters, for protection from flooding?	No	N/A
V. Flooding		
Is the water supply or any of its associated infrastructure located within the 200-year	Yes	3



Table 7-1: Climate Change Vulnerability Screening		
Preliminary Assessment	Kern County Subbasin	
	Response	Imported Water Level of Risk
floodplain? Does the water supply source rely on flood protection infrastructure such as levees or dams?		
VI. Wildfire		
Is the water supply source located in an area that is expected to experience an increase in wildfire activity or severity? Would a wildfire result in damage to the water supply source infrastructure or interruption of its ability to perform as designed? Could the water supply source be affected by an increase in wildfire activity or severity in an upstream watershed or other adjacent area?	Yes	3
<i>Note:</i> 1. Level of Risk: 1 – low, 3 – medium, 5 – high 2. The assessments were scored on a scale of 1-5, 1 meaning that the assessment is not a threat, and 5 meaning the highest risk.		

7.1.1 Service Reliability – Constraints on Water Sources

As described in **Chapter 6**, ENCSD's supply portfolio includes imported surface water from KCWA-ID4, with a maximum allocation of 11,000 AFY and groundwater pumping from the Kern County Subbasin with a maximum pumping capacity of 5,806 AFY. ENCSD benefits from having multiple water sources to draw from during shortages. Based on redundancy within ENCSD's existing well field and groundwater management practices under the KRGSA GSP, ENCSD's water supply sources are considered 100% reliable and available during normal, single, and multiple dry year conditions. ENCSD has never had a single year or multiple dry years in which it did not meet 100% of its demand, regardless of regional hydrology. The District works diligently to build redundancy into their supplies. The surface water supply from KCWA-ID4 is in excess of the current demands excluding groundwater sources. Due to this redundancy, the District has had consistent supplies even in years when supplies would be anticipated to be inconsistent due to climactic conditions.

With respect to quality of groundwater the KRGSA GSP reported that the most common water quality issues within the Subbasin are nitrate, arsenic, boron, 1,2,3-trichloropropane (TCP), total dissolved solids (TDS), sodium, and chloride. The District has observed high arsenic and TCP concentrations in the past and currently operates and maintains four arsenic treatment systems and one TCP treatment system.



7.1.2 WSRA Year-Type Characterization

To determine the normal, single dry year, and five consecutive dry years within the service area, ENCSD reviewed historical rainfall data from NOAA Bakersfield Airport Station's precipitation gauge. The results of the historical rainfall data review are presented in **Figure 7-1**.

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Figure 7-1: Historic Rainfall Levels

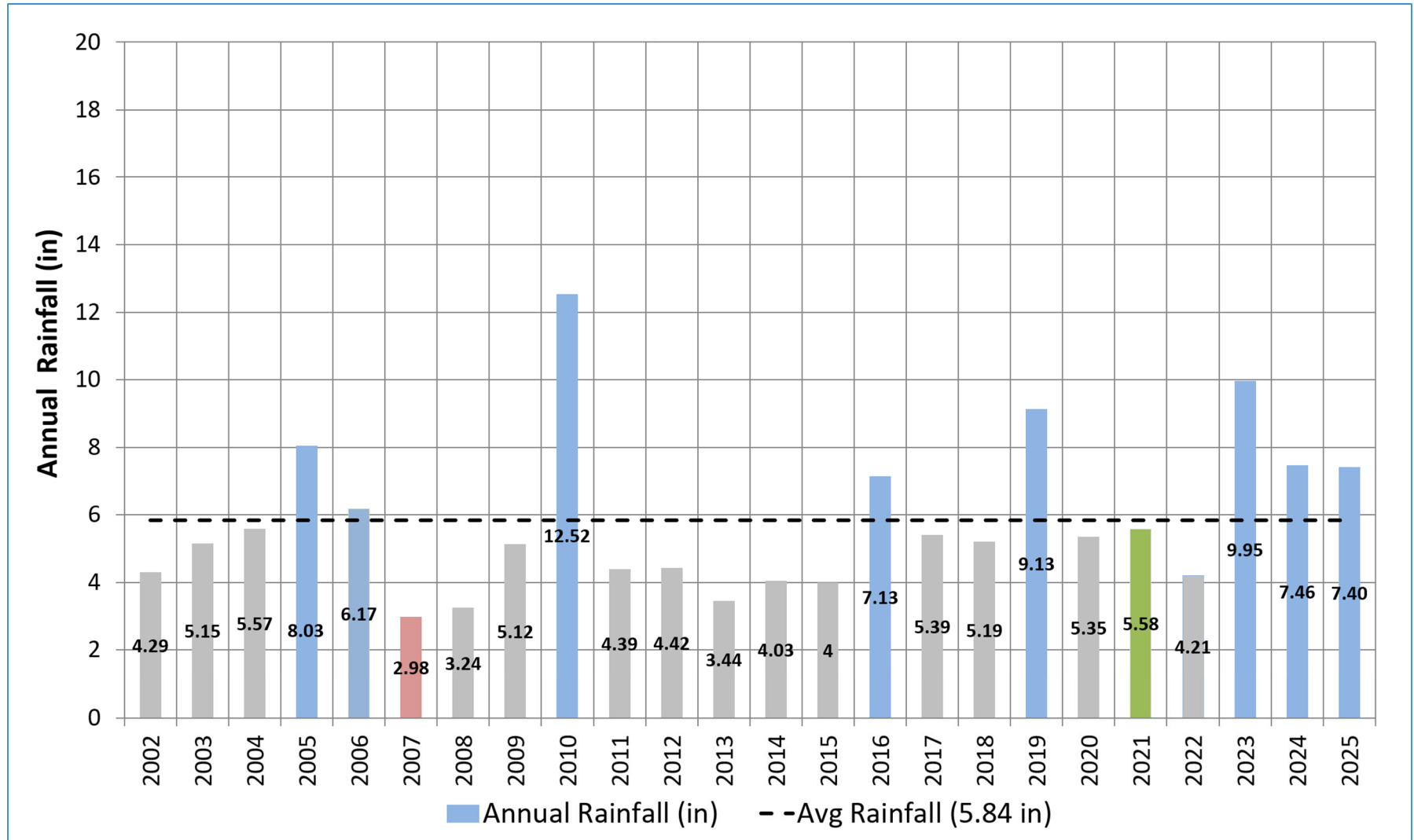




Table 7-2 identifies the normal, single dry, and multiple dry year water years chosen to represent the water supply from ENCSD as well as percentage/volume of supply that was available for public use. These percentage values do not represent additional supplies through surplus storage. Instead, they demonstrate the water available to be added to the supply system based on the hydrology of those years.

Table 7-2: Supply Augmentation and Other Actions			
Year Type	Base Year	Available Supplies If Year Type Repeats	
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available	% of Average Supply
Average Year	2021	16,806	100%
Single-Dry Year	2011	16,806	100%
Multiple-Dry Years 1st Year	2011	16,806	100%
Multiple-Dry Years 2nd Year	2012	16,806	100%
Multiple-Dry Years 3rd Year	2013	16,806	100%
Multiple-Dry Years 4th Year	2014	16,806	100%
Multiple-Dry Years 5th Year	2015	16,806	100%
<i>Note:</i> 1. % of Average Production in the table represents ENCSD's ability to work with customers to reduce water demands during drought years and does not reflect supply limitations.			

7.1.3 Service Reliability – Supply and Demand Comparison

7.1.3.1 Normal Year

Table 7-3 provides summary of the District's projected supply and water demands through 2050. The future demand projections are based on future population projections described in **Section 3.4** and historical per capita demands including the implementation of the required SB X7-7 as described in **Section 5.2**.

Table 7-3: Normal-Year Supply and Demand Comparison					
	2030	2035	2040	2045	2050
Supply Totals (AF)	16,806	16,806	16,806	16,806	16,806
Use Totals (AF)	8,800	8,991	9,183	9,374	9,565
Surplus (AF)	8,006	7,815	7,623	7,432	7,241



7.1.3.2 Single Dry Year

As shown in **Table 7-1**, 100% of the District's average supply was available during a single dry year. **Table 7-4** provides a summary of District's projected supply and demand through 2050 for a single dry year. It is estimated that water demand will increase by 0.2% during a single dry year.

Table 7-4: Single Dry-Year Supply and Demand Comparison					
	2030	2035	2040	2045	2050
Supply Totals (AF)	16,806	16,806	16,806	16,806	16,806
Use Totals (AF)	8,800	8,991	9,183	9,374	9,565
Surplus/(Shortfall) (AF)	8,006	7,815	7,623	7,432	7,241

7.1.3.3 Five Consecutive Dry Years

Table 7-5 provides a summary of ENCSD's projected supply and demand through 2050 for multiple dry years.

Table 7-5: Five Consecutive Dry-Year Supply and Demand Comparison						
		2030	2035	2040	2045	2050
First Year	Supply Totals (AF)	16,806	16,806	16,806	16,806	16,806
	Use Totals (AF)	8,800	8,991	9,183	9,374	9,565
	Surplus/(Shortfall) (AF)	8,006	7,815	7,623	7,432	7,241
Second Year	Supply Totals (AF)	16,806	16,806	16,806	16,806	16,806
	Use Totals (AF)	8,800	8,991	9,183	9,374	9,565
	Surplus/(Shortfall) (AF)	8,006	7,815	7,623	7,432	7,241
Third Year	Supply Totals (AF)	16,806	16,806	16,806	16,806	16,806
	Use Totals (AF)	8,800	8,991	9,183	9,374	9,565
	Surplus/(Shortfall) (AF)	8,006	7,815	7,623	7,432	7,241
Fourth Year	Supply Totals (AF)	16,806	16,806	16,806	16,806	16,806
	Use Totals (AF)	8,800	8,991	9,183	9,374	9,565
	Surplus/(Shortfall) (AF)	8,006	7,815	7,623	7,432	7,241
Fifth Year	Supply Totals (AF)	16,806	16,806	16,806	16,806	16,806
	Use Totals (AF)	8,800	8,991	9,183	9,374	9,565
	Surplus/(Shortfall) (AF)	8,006	7,815	7,623	7,432	7,241



7.1.4 WSRA Description of Management Tools and Options

ENCSD coordinates closely with the City of Bakersfield and Kern County with respect to regional water resource management. ENCSD has and will continue to participate in the following regional water resource planning efforts:

- KRSGA's Groundwater Sustainability Plan as described in **Section 6.1.2.3**.
- Member of the Urban Bakersfield Advisory Committee

7.2 Drought Risk Assessment

7.2.1 DRA Data, Methods, and Basis for Water Shortage Conditions

The following information was used to support ENCSD's DRA to identify water production and consumption to its customers and determine restrictions to supply sources:

- Large Water System Annual Report to the Drinking Water Program
- Annual AWWA Water Loss Audit Worksheet
- KRSGA GSP
- Historical rainfall data from the NOAA Bakersfield Airport Station's precipitation gauge.

7.2.2 DRA Individual Water Source Reliability

As identified in **Section 6.1.1**, ENCSD has never had a single year or multiple dry years in which it did not meet 100% of its demand, regardless of regional hydrology. Therefore, there is no basis in the hydrologic record for reducing supply reliability based upon single and/or multiple dry year conditions when imported water supply is available in addition to historical groundwater production. On this assumption, ENCSD's supply is presented as 100% reliable for single and multiple dry year periods as summarized in the following sections.

7.2.3 DRA Total Water Supply and Use Comparison

Sustainable management of its existing resources through water-use efficiency measures will allow the District to serve existing and future water demands during normal years, single dry years, or multiple dry years. **Table 7-6** summarizes the five-year drought assessment.



Table 7-6: Five-Year Drought Risk Assessment	
2026	Total
Total Water Use	8,647
Total Supplies	8,647
Surplus/Shortfall without WSCP Action	0
2027	Total
Total Water Use	8,685
Total Supplies	8,685
Surplus/Shortfall without WSCP Action	0
2028	Total
Total Water Use	8,723
Total Supplies	8,723
Surplus/Shortfall without WSCP Action	0
2029	Total
Total Water Use	8,761
Total Supplies	8,761
Surplus/Shortfall without WSCP Action	0
2030	Total
Total Water Use	8,800
Total Supplies	8,800
Surplus/Shortfall without WSCP Action	0



Chapter 8 WATER SHORTAGE CONTINGENCY PLANNING

New Requirements for 2025 Update

The 2025 UWMP must include an updated summary of the agency's WSCP, including any revisions made to comply with SB 552, updated shortage stages, new communication protocols, and supply augmentation or demand response measures added since 2020. There is also a new requirement to document annual WSCP reporting procedures and describe how the WSCP aligns with updated reliability assessments. Compared to 2020, agencies must more clearly document decision-making processes, enforcement mechanisms, and coordination with local emergency management plans.

8.1 Water Supply Reliability Analysis

As described in **Chapter 7** of this UWMP ENCSD's water supply has been determined to be reliable. More detail about this section can be found in ENCSD's WSCP in **Appendix F**.

8.2 Annual Water Supply and Demand Assessment Procedures

In accordance with CWC 10632 the District will conduct an annual water supply and demand assessment, or annual assessment by July 1st of each year. ENCSD will draft and prepare a written report that discusses the results of the annual water supply and demand assessment. Descriptions of the methodology, key data inputs, and a timeline for the annual assessment can be found in the WSCP.

8.2.1 Decision-Making Process

The written decision-making process can be found in the WSCP.

8.2.2 Data and Methodologies

The data and methodologies can be found in the WSCP.

8.3 Six Standard Water Shortage Levels

The WSCP establishes six stages of drought response actions to be implemented in times of shortage, with increasing restrictions on water use in response to decreasing supplies. The WSCP includes both voluntary and mandatory rationing depending on causes, severity, and anticipated duration of water supply shortage. A summary of the response actions taken for each shortage level are described in **Table 8-1**, shown below. Additional information regarding the shortage levels can be found on the 2025 WSCP.

**Table 8-1: Water Shortage Contingency Plan Levels**

Shortage Level	Stage	Percent Supply Reduction	Water Supply Condition
1	Stage I (a): Moderate	0 – 10%	A Level I Water Supply Shortage exists when the District determines, in its sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a 10% consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions.
2	Stage I (b): Moderate	11 – 20%	A Level II Water Supply Shortage exists when the District determines, in its sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a 20% consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions.
3	Stage II (a): Severe	21 – 30%	A Level III Water Supply Shortage exists when the District declares, in its sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a 30% consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions.
4	Stage II (b): Severe	31 – 40%	A Level IV Water Supply Shortage exists when the District declares, in its sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a 40% consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions.
5	Stage III: Critical	41 – 50%	A Level V Water Supply Shortage is referred to as a Water Shortage Emergency. A Level V condition exists when the District declares, in its sole discretion, a water shortage emergency and notifies its residents and businesses that a 50% reduction in consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions.

**Table 8-1: Water Shortage Contingency Plan Levels**

Shortage Level	Stage	Percent Supply Reduction	Water Supply Condition
6	Stage IV: Emergency	+ 51%	A Level V Water Supply Shortage is referred to as a Water Shortage Emergency. A Level V condition exists when the District declares, in its sole discretion, a water shortage emergency and notifies its residents and businesses that a 50% reduction in consumer demand is necessary to maintain sufficient water supplies for public health and safety, pursuant to Water Code Section 350 et seq.



Table 8-2 provides a crosswalk that shows ENCSD's water shortage levels to those mandated by statute.

Table 8-2: Crosswalk for ENCSD’s 2015 Shortage Levels and the 2025 WSCP Mandated Shortage Levels								
Stages from 2015 UWMP			Crosswalk	2025 WSCP Mandated Shortage Levels				
Stage	Percent Supply Reduction	Water Supply Condition		Stage	Percent Supply Reduction	Water Supply Condition	Mandatory Compliance with Water Savings Measures	
1	Up to 15%	Supply is 85% of normal or greater		1	0% to 10%	Normal	Voluntary, always in place	
				2	10% to 20%	Slightly Restricted	Mandatory compliance	
2	Up to 30%	Supply is 70-84% of normal		3	20% to 30%	Moderately Restricted	Mandatory compliance	
3	Up to 50%	Supply is 50-69% of normal		4	30% to 40%	Restricted	Mandatory compliance	
				5	40% to 50%	Severely Restricted	Mandatory compliance	
				6	50% and above	Extremely Restricted	Mandatory compliance	

8.4 Shortage Response Actions

8.4.1 Demand Reduction

Table 8-3 summarizes the restrictions and prohibitions on end uses during each stage of water shortage response implemented by ENCSD in accordance with CWC §10632(a)(4)(B). The shortage response actions are aligned to the six water shortage levels with the goal of reducing the gap between supply and demand by the required amount per level.



Table 8-3: Demand Reduction Actions			
Stage Level	Demand Reduction Actions	Estimated Extent of Reducing the Water Shortage Gap	Penalty, Charge, or Other Enforcement?
All Stages	Expand Public Information Campaign	Low	No
1	Public outreach for voluntary reduction in water use by 15%	Medium	No
2	Other - Prohibit use of potable water for washing hard surfaces	Medium	No
2	Landscape – Other landscape restriction or prohibition	High	No
3	CII - Restaurants may only serve water upon request	Low	No
3	CII - Lodging establishment must offer opt out of linen service	Low	No
3	Landscape - Other landscape restriction or prohibition	Medium	No
4	Water Features - Restrict water use for decorative water features, such as fountains	Low	No
4	Other- Only wash vehicles using a bucket and a handheld hose with positive shut off nozzle.	High	No
4	Other- Use recycled or non-potable water for construction purpose when available	High	No
4	Landscape - Other landscape restriction or prohibition	High	No
5	Landscape - Other landscape restriction or prohibition	High	No
5	Landscape - Limit landscape irrigation to specific days	Medium	No
6	Landscape - Limit landscape irrigation to specific times	High	No
6	CII - Other CII restriction or prohibition	Low	No
6	Other	Low	No



A complete description of operational and mandatory restrictions issued by the District can be found on the 2025 WSCP.

8.4.2 Supply Augmentation

Table 8-4 summarizes the supply augmentations and other actions on end users during each stage of water shortage responses by ENCSD in accordance with CWC §10632(a)(4)(A).

Table 8-4: Supply Augmentation Actions			
Shortage Level	Supply Augmentation Actions	Estimated percent reduction of shortage gap	Penalty, Charge or other Enforcement?
All Stages	Expand Public Information Campaign	Low	No
All Stages	Other – Demand Reduction Program	Medium	No
All Stages	Other – Use Prohibitions	Medium	No
All Stages	Other – Voluntary Rationing	Low	No
1 and 2	Other – Flow Restriction	High	No
3 and 4	Other – Restrict only for Priority Users	Medium	No
5	Other – Mandatory Rationing	High	No
6	Stored Emergency Supply	Low	No

A complete description of operational and mandatory restrictions issues by the District can be found in the 2025 WSCP.

8.4.3 Operational Changes

In the event of an extreme water shortage ENCSD will implement some or all the following operational changes in accordance with CWC §10632(a)(4)(C) and §10632.5(a):

- ENCSD shall provide prompt notice to customers whenever ENCSD obtains information that indicates a leak may exist within the end-user's exclusive control. The customer must repair all leaks within twenty-four (24) hours of notification by ENCSD.
- Evaluate maintenance procedures and alter if needed to improve system efficiency.
- Evaluate infrastructure repairs, and complete if possible, to improve system efficiency.



8.4.4 Additional Mandatory Restrictions

ENCSD customers shall comply to the mandatory water shortage response actions listed in **Table 8-2** associated with a level 3 or higher water shortage event in accordance with §10632(a)(4)(D). In the event of a water shortage emergency or severe drought ENCSD may enact additional mandatory restrictions:

- Implement drought water rates.
- Restrict or prohibit the issuance of new water services.

8.4.5 Emergency Response Plan

In the event of an emergency the District will declare a water shortage and enacted the appropriate water savings actions until service is restored to pre-emergency conditions. A more detailed description of the District's emergency response plan and water shortage actions can be found in the WSCP.

8.4.6 Seismic Risk Assessment and Mitigation Plan

ENCSD participated in the development of the Kern Multi-Jurisdiction 2020 Multi-Jurisdiction Hazard Mitigation Plan, a summary of the seismic risk and mitigation plan can be found in the WSCP.

8.4.7 Shortage Response Action Effectiveness

The District will monitor and evaluate the effectiveness of the shortage response actions. In the event that the shortage response actions are not effective the District will have the power to amend the WSCP. A more detailed description of ENCSD's plan to monitor effectiveness can be found in the WSCP.

8.5 Communication Protocols

The District will inform customers, the public, and the necessary local, regional, and state government entities in regard to any current or predicted water shortages based on the results of the Annual Water Supply and Demand Assessment. The District will also notify all necessary entities of any shortage response actions mandated in response to the Annual Assessment. A detailed communication plan can be found in the WSCP.

8.6 Compliance and Enforcement

The District's enforcement policies can be found in the WSCP.

8.7 Legal Authorities

The District has the power to declare a water shortage. See the WSCP for the District's declaration of a water shortage.



8.8 Financial Consequences of WSCP

The District does not anticipate any financial consequences as a result of the Water Shortage Contingency Plan.

8.9 Monitoring and Reporting

Monitoring and reporting procedures can be found in the WSCP.

8.10 WSCP Refinement Procedures

Refinement procedures can be found in the WSCP.

8.11 Special Water Feature Distinction

A description of special water feature distinction can be found in the WSCP.

8.12 Plan Adoption, Submittal, Availability, and Amendment Procedures

The procedures that were used to adopt the WSCP are detailed in the WSCP.



Chapter 9 DEMAND MANAGEMENT MEASURES

New Requirements for 2025 Update

The 2025 update expands reporting requirements for demand management, including documentation of program effectiveness, cost-benefit considerations, and integration with the SB 606/AB 1668 framework. Agencies must now report on performance measures for CII customers and provide more detailed explanations of outreach, education, landscape transformation programs, and conservation tracking methods. Compared to 2020, the level of detail required for conservation reporting is significantly higher.

9.1 Demand Management Measures for Retail Suppliers

The UWMP Act requires a discussion of Demand Management Measures (DMMs), including a description of each of the DMMs currently being implemented/scheduled for implementation, the schedule of implementation for all DMMs, and the methods, if any, ENCSD will use to evaluate the effectiveness of DMMs.

9.1.1 Water Waste Prevention Ordinances

The District established a “No-Waste” Resolution in 1992, which is actively enforced. ENCSD updated the No Waste Resolution in April 2015 by issuing Ordinance No. 2015-01 which set forth “Mandatory Water Conservation Requirements”. The “Mandatory Water Conservation Requirements” included a call for voluntary water reduction, regulated water use for landscape irrigation and commercial use. The ordinance also required the District to provide education on water conservation to its customers and continue to do so.

9.1.2 Metering

ENCSD is fully metered for all customer sectors, including separate meters for single-family residential, commercial, large landscapes, and all institutional/governmental facilities. ENCSD will continue to install and read meters on all new services and will continue to conduct its meter calibration and replacement program for all existing meters. ENCSD plans to continue to bill by volume of use. The District believes that having all customers metered is an effective conservation method.

The District revised their water rate structure in 2003 and each customer now pays a ready-to-serve charge and unit charge for use by volume. Commercial/industrial/institutional customers are required to have fire sprinkler systems. Customers with fire lines and fire sprinkler systems have monthly service charges.



9.1.3 Public Education and Outreach

ENCSD promotes water conservation and other resource efficiencies in coordination with the Kern County Water Agency and the Water Association of Kern County (WAKC). ENCSD distributes public information through public service announcements on their website, bill inserts, brochures, and special events in conjunction with KCWA and WAKC. ENCSD water bills were redesigned in 2000 to show monthly use for the last billing period compared to the prior eleven months. ENCSD will continue to provide public information services and materials to remind their customers as well as the public about water resource issues on an ongoing basis.

ENCSD works with the Kern County Water Agency, the Water Association of Kern County, and school districts to promote water conservation and other resource efficiencies at school facilities and to educate students about these issues. Information regarding water conservation can be found on the District's website.

A range of grade levels are provided with educational materials, which include the following: State and County water system maps, posters, workbooks, interactive computer software, and videos. The District through KCWA has hosted tours of water facilities, sponsored teachers' Project Water Education for Teachers (WET) training, sponsor science fairs and water conservation contests. ENCSD will continue to implement this DMM.

9.1.4 Programs to Assess and Manage Distribution System Real Loss

9.1.4.1 *Water Survey programs for Single-Family and Multi-Family Residential Customers*

ENCSD offers free residential water use surveys to single-family and multi-family customers when requested by the customer. ENCSD has specifically focused on any customer who has experienced elevated water usage. It is ENCSD's goal to complete surveys for all customers who make such requests. Single-family surveys take about one hour to complete and are conducted by ENCSD staff.

During the landscape portion of the survey, District personnel show the customer the location of the water meter and how to read it, measure the landscaped areas, test the sprinkler system for irrigation efficiency and distribution uniformity, teach the customer how to set the irrigation controller, develop a three-season irrigation schedule (based on soil type, evapotranspiration, and irrigation system), recommend sprinkler system repairs or improvements, and provide brochures on water efficient landscaping, design, and plants. This DMM was first implemented in 2000 and is expected to continue indefinitely. Records of savings are not kept by the District as it is extremely difficult to determine if the recommendations of the survey are being implemented by the customer.

9.1.4.2 *System Water Audits, Leak Detection, Repair*

ENCSD has conducted water audits and leak detection and repair for many years. Since ENCSD is located in an earthquake zone, it has permanently incorporated the system water audit, leak detection, and meter



calibration programs (for both production and customer meters) into its utility operations. ENCSD recognizes that as meters age they may under-register. As a result, the District developed and implemented a meter replacement program that replaces approximately 300 meters each year. ENCSD has permanently incorporated this DMM into its operations and maintenance procedures. ENCSD personnel will continue to survey mains and service lines on an on-going basis. The meter replacement program will also continue at a rate of approximately 300 meters per year. Staff uses production and consumption data records to monitor unaccounted for water losses.

9.1.5 Water Conservation Program Coordination and Staffing Support

9.1.5.1 Water Conservation Coordinator

The General Manager, in conjunction with the Board of Directors and committees of the Board dealing with conservation and education, acts in the role of Water Conservation Coordinator for the District. The General Manager's job description includes scheduling of the District's surface water supplies and determination of appropriate groundwater pumping and therefore the General Manager is best suited to help lead conservation efforts. The District intends to implement this DMM indefinitely. The Water Conservation Coordinator monitors wasted water within the District and notifies customers of apparent wasteful activities.

9.1.6 Other Demand Management Measures

9.1.6.1 Residential Plumbing Retrofit

Subject to customer requests, ENCSD participates in the distribution of toilet tank leak detection tablets. Conservation savings have not been calculated by ENCSD as it is extremely difficult for the District to identify if the use of the tablets has resulted in plumbing retrofits. ENCSD will continue to implement this DMM indefinitely.

9.1.7 Implementation Over the Past Five Years

ENCSD has implemented the required DMMs per CWC 10631 to achieve its water use targets pursuant to Section 10608.20 and described in **Chapters 5 and 8** in the past 5 years. ENCSD continues to implement water conservation and educational programs as well as system water audits, leak detection, and system repairs.

9.1.8 Implementation to Achieve Water-Use Targets

ENCSD has implemented the required DMM per CWC 10631 to achieve its water use targets pursuant to Section 10608.20. Baseline and target 2020 GPCD are described in **Chapter 5** of the UWMP. ENCSD adopted its WSCP (see **Chapter 8**) at its September 2026 Board meeting which outlines measures ENCSD will take to achieve water use targets.



Chapter 10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

New Requirements for 2025 Update

There have been no changes to the requirements for the plan adoption, submittal, and implementation since the 2020 Update.

10.1 Plan Completion Timeline

Efforts to complete the 2025 UWMP began in March 2026. Notification Letters were provided to necessary agencies, cities and counties in July of 2026. The City will adopt the 2025 UWMP and WSCP at the September 21st, 2026 District Board meeting.

10.2 Notice of Plan Preparation

ENCSD notified these agencies at least sixty (60) days prior to the public hearing of the preparation of the 2025 Plan and invited them to participate in the development of the Plan. A copy of the notification letters sent to these agencies is provided in **Appendix G**.

Table 10-1: Notice to Cities and Counties		
Agency	60-Day Notice	Notice of Public Hearing
City of Bakersfield	☒	☒
Kern County	☒	☒

10.3 Notice of Public Hearing

The Notice of the public hearing, held September 21, 2026, at the ENCSD office, was sent to the City of Bakersfield and County of Kern on July 21, 2026. A copy of the letters from ENCSD to the City and County are included in **Appendix G** of this UWMP.

10.4 Notice to the Public

The public hearing was noticed in the local newspaper as prescribed in Government Code 6066. This notice included time and place of hearing, as well as the location where the UWMP and WSCP is available for public inspection. A copy of the newspaper notice is included in **Appendix H**.



10.5 Public Hearing and Adoption

10.5.1 Public Hearing

Prior to adopting the 2025 UWMP and WSCP, ENCSD held a public hearing on September 21, 2026, which included input from the community regarding the ENCSD draft 2025 UWMP and WSCP. As part of the public hearing, ENCSD provided information on determination of its water use targets and action plan in case of severe water shortage conditions.

10.5.2 Adoption

The 2025 UWMP and WSCP was adopted on September 21, 2026, during a regularly scheduled board meeting. A copy of the resulting adoption and meeting minutes is included in **Appendix I** of this UWMP.

10.6 Plan Submittal

10.6.1 Submitting a UWMP and Water Shortage Contingency Plan to DWR

Within 30 days of adoption of the 2025 UWMP by Board and by October 21, 2026, the District will submit the adopted 2025 UWMP to DWR, as required by CWC 10621 and 10644. The 2025 UWMP will be submitted through DWR's "Water Use Efficiency (WUE) Data Online Submittal Tool" website.

DWR previously provided a checklist to make determine if an Urban Water Management Plan has addressed the requirements of the California Water Code. The District has completed the DWR checklist by indicating where the required CWC elements can be found within the District's 2025 UWMP (See **Appendix J**).

10.6.2 Electronic Data Submittal

Within 30 days of adoption of the 2025 Plan, ENCSD will also submit all data tables associated with the 2025 Plan through DWR's "Water Use Efficiency (WUE) Data Online Submittal Tool" website.



10.6.3 Submitting a UWMP, Including WSCP, to the California State Library

Within 30 days of adoption of the 2025 UWMP by the Board, a copy (CD or hardcopy) of the 2025 Plan will be submitted to the State of California Library. A copy of the letter to the State Library will be maintained in the District's file. The 2025 Plan will be mailed to the following address if sent by regular mail:

California State Library
Government Publications Section
P.O. Box 942837
Sacramento, CA 94237-0001
Attention: Coordinator, Urban Water Management Plans

The 2025 Plan will be mailed to the following address if sent by courier or overnight carrier:

California State Library
Government Publications Section
914 Capitol Mall
Sacramento, CA 95814

10.6.4 Submitting a UWMP to Cities and Counties

Within 30 days of adoption of the 2025 Plan by the Board, a copy of the 2025 UWMP will be submitted to the County of Kern Registrar/Recorders, the City of Bakersfield Registrar/Recorders office, and ENCSD office. A copy of the letter to the County of Kern and City of Bakersfield will be maintained in the District's file.

10.7 Public Availability

The adopted 2025 UWMP is available on ENCSD's website at **www.eastnilescsd.org** and at ENCSD's office at 7443 Niles Street, Bakersfield, CA between the hours of 8:30 AM and 4 PM Monday through Friday.

10.8 Notification to Public Utilities Commission

The section is not applicable to ENCSD.

10.9 Plan Implementation

The District will implement the strategies set forth in the plan immediately upon adoption by the Board. Details on the implementation of specific sections are detailed in their respective sections of the plan.



10.10 Amending an Adopted UWMP or WSCP

10.10.1 Amending and submitting an adopted UWMP or WSCP

If ENCSD amends the adopted 2025 UWMP and/or the 2025 WSCP, the amended UWMP/WSCP will undergo adoption by the District's governing board. Within 30 days of adoption, the amended UWMP/WSCP will then be submitted to DWR, the State of California Library, the County of Kern Registrar/Recorders, and the City of Bakersfield Registrar/Recorders office. Additionally, any amendments or changes to the plan will be submitted to the above agencies within 30 days after adoption.

10.11 California Department of Water Resources Review of Submitted Plans

After the adopted UWMP is submitted to DWR, DWR will review the UWMP using the provided checklist (**Appendix J**) and determine whether the UWMP addresses Water Code requirements.

DRAFT

Appendix A

Kern County Subbasin Groundwater Sustainability Plan
2025 – Executive Summary

EXECUTIVE SUMMARY

The Kern Subbasin (Kern Subbasin) Amended Groundwater Sustainability Plan (2025 Plan)¹ consists of seven closely coordinated (and nearly identical) Groundwater Sustainability Plans (GSPs) and the Kern Subbasin Coordination Agreement. The 2025 Plan represents a critical milestone in the Kern Subbasin and all 20 Kern Subbasin Groundwater Sustainability Agencies' (GSAs) ongoing commitment to achieving long-term groundwater sustainability under California's Sustainable Groundwater Management Act (SGMA). Developed collaboratively by all 20 GSAs, the 2025 Plan responds directly to regulatory feedback from the California Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB), incorporating the latest data, technical refinements, and input from interested parties. Table ES-1 presents the overview of each of the seven GSPs that together constitute the 2025 Plan, including which GSAs are covered by each GSP and whether the GSP includes supplemental "blue pages" specific to the portion of the Kern Subbasin that the GSA manages.

Table ES-1. 2025 Plan GSPs

GSP Name	Area (acres)	Percentage of Subbasin Area (percent)	GSA	GSP Contents
Kern Subbasin GSP	1,205,482	67.6%	Arvin GSA Cawelo Water District GSA Kern Non-Districted Land Authority GSA ² (Kern River GSA Kern Water Bank GSA Greenfield County Water Districts GSA North Kern WSD GSA Pioneer GSA Rosedale-Rio Bravo WSD GSA Shafter-Wasco ID GSA Southern San Joaquin MUD GSA Tejon-Castac Water District GSA West Kern Water District GSA Wheeler Ridge-Maricopa GSA	Kern Subbasin GSP

¹ The 2025 Plan is prepared by 20 GSAs, which collectively manage the Kern Subbasin under one Coordination Agreement. Six GSAs have prepared a version of the 2025 Plan that includes supplemental information specific to the portion of the Kern Subbasin that the GSA manages. This supplemental information is provided on blue pages so differences between the versions can be easily identified by reviewers.

² Formerly Kern Groundwater Authority GSA

GSP Name	Area (acres)	Percentage of Subbasin Area (percent)	GSA	GSP Contents
Buena Vista GSA GSP	51,070	2.9%	Buena Vista GSA	Kern Subbasin GSP Supplemental GSA information included on blue pages
Henry Miller Water District GSA GSP	26,063	1.5%	Henry Miller Water District GSA	Kern Subbasin GSP; Supplemental GSA information on blue pages
Kern-Tulare Water District GSA GSP	11,344	0.6%	Kern-Tulare Water District GSA	Kern Subbasin GSP; Supplemental GSA information on blue pages
Olcese Water District GSA GSP	3,199	0.2%	Olcese Water District GSA	Kern Subbasin GSP; Supplemental GSA information on blue pages
Semitropic Water Storage District GSA GSP	224,350	12.6%	Semitropic Water Storage District GSA	Kern Subbasin GSP; Supplemental GSA information on blue pages
Westside District Water Authority GSA GSP	260,061	14.6%	Westside District Water Authority GSA	Kern Subbasin GSP; Supplemental GSA information on blue pages

The 2025 Plan outlines a coordinated, science-based approach to address DWR Deficiencies³ and SWRCB Potential Actions to Correct the Deficiencies⁴ to ensure the sustainability of groundwater resources for all beneficial uses and users.

This Executive Summary is intended to provide decision-makers, interested parties, and the public with a clear understanding of the 2025 Plan's amendments, purpose, structure, and path forward. Table ES-2 below provides an overview of the Executive Summary topics to guide readers to an overview of areas of interest in the 2025 Plan.

³ DWR Deficiencies as identified in Appendix A-1.

⁴ SWRCB Potential Actions to Correct the Deficiencies as identified in Appendix B-1.

Table ES-2. Executive Summary Topics Overview

Title	Overview of Topics Discussed in the 2025 Plan Sections
ES.1: Introduction	Introduces SGMA and the requirement for local agencies to develop GSPs to manage groundwater sustainably.
ES.2: Sustainability Goal	Defines the Kern Subbasin's shared goal to achieve groundwater sustainability by 2040 through coordinated management and monitoring.
ES.3: Agency Information	Describes the structure, roles, and coordination among the 20 GSAs managing the Kern Subbasin.
ES.4: GSP Organization	Outlines the structure and content of the GSP.
ES.5: Description of the Plan Area	Provides geographic, demographic, and land use context for the 1.78-million-acre area of the Kern Subbasin.
ES.6: Introduction to Basin Setting	Summarizes the physical and hydrologic characteristics that influence groundwater conditions in the Kern Subbasin.
ES.7: Hydrogeological Conceptual Model	Details the geologic framework and aquifer systems that define groundwater flow and storage.
ES.8: Current and Historical Groundwater Conditions	Presents data on groundwater levels, storage, quality, and land subsidence trends.
ES.9: Water Budget Information	Quantifies groundwater inflows, outflows, and storage changes using historical and projected data.
ES.10: Management Areas	Defines sub-areas within the Kern Subbasin for localized groundwater management and monitoring.
ES.11: Introduction to Sustainable Management Criteria	Introduces the framework for setting measurable thresholds to evaluate sustainability.
ES.12: Sustainability Goal	Reaffirms the Kern Subbasin's long-term goal and the metrics used to track progress.
ES.13: Sustainable Management Criteria	Specifies thresholds, objectives, and triggers for each sustainability indicator.
ES.14: Projects and Management Actions	Describes planned actions to reduce groundwater deficits and improve sustainability outcomes.
ES.15: Monitoring Network	Details the network of sites used to track groundwater conditions and compliance with sustainable management criteria.
ES.16: Plan Implementation	Outlines the timeline, responsibilities, and funding mechanisms for executing the GSP.

ES.1 Introduction

On September 16, 2014, the California legislature enacted the SGMA for the primary purpose of achieving and maintaining sustainability within the State's high and medium priority groundwater basins. Key tenets of SGMA are preservation of local control, use of best available data and science, and active engagement and consideration of all beneficial uses and users of groundwater. SGMA requires local agencies to form GSAs who are tasked with managing basins sustainably through the development and implementation of GSPs.

Figure ES-1 provides an overview of the 20 GSAs within the Kern Subbasin of the San Joaquin Valley Groundwater Basin.⁵ The Kern Subbasin is one of 21 basins and subbasins identified by the DWR as being critically overdrafted. This designation triggered an accelerated timeline for GSP development by 2020 and long-term sustainability by 2040.

⁵ Kern Subbasin (DWR No. 5-022.14) located within San Joaquin Valley Groundwater Basin (DWR No. 5-022).

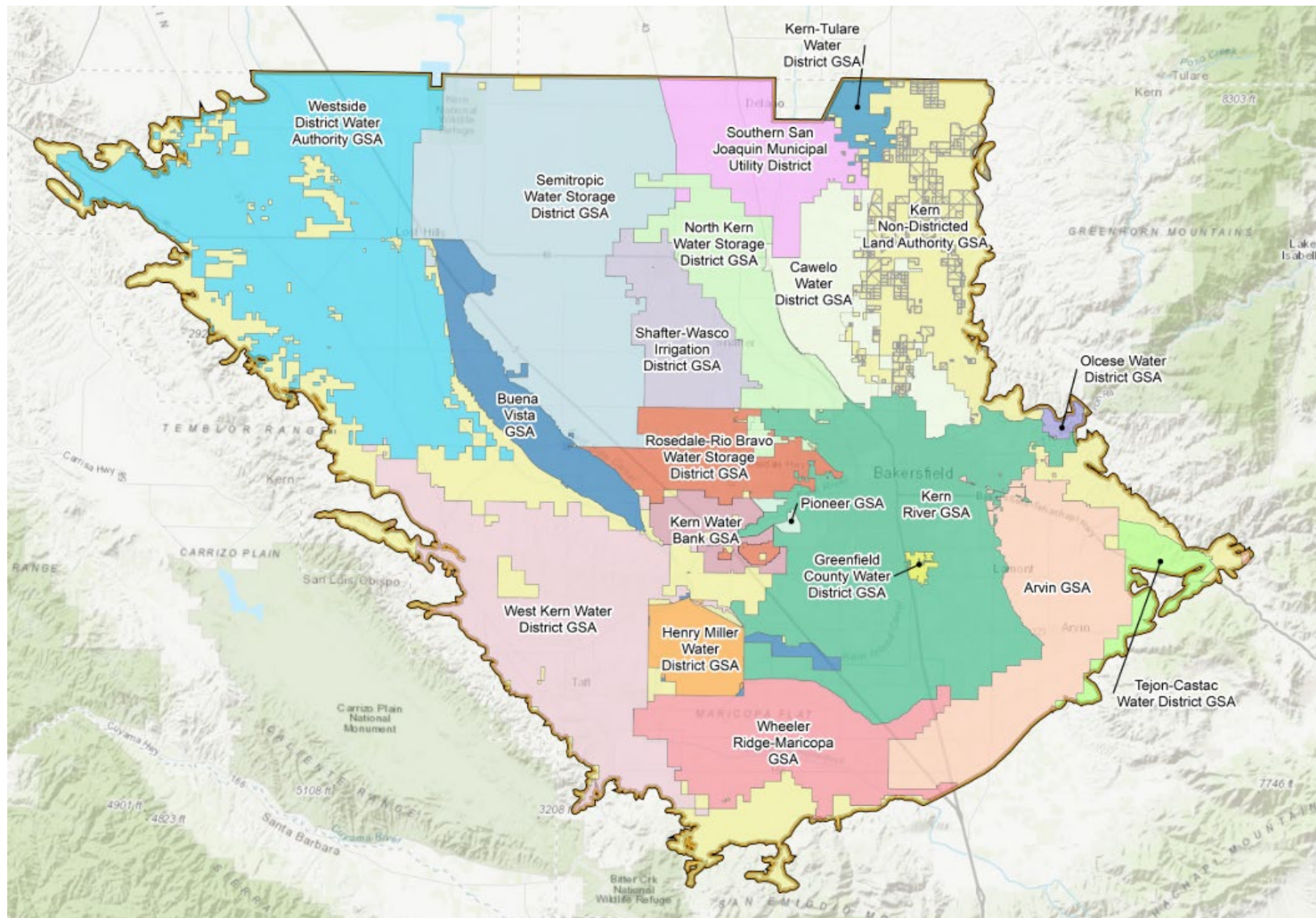


Figure ES-1. Kern Subbasin GSAs

Kern Subbasin Timeline

In response to the DWR Deficiencies and SWRCB Potential Actions to Correct Deficiencies, the Kern Subbasin has undertaken a rigorous, coordinated, and collaborative process to revise and strengthen the 2025 Plan. The Kern Subbasin worked together to address identified deficiencies and potential actions, incorporate updated data, and enhance coordination and stakeholder outreach. The timeline of SGMA implementation in the Kern Subbasin is reflected in

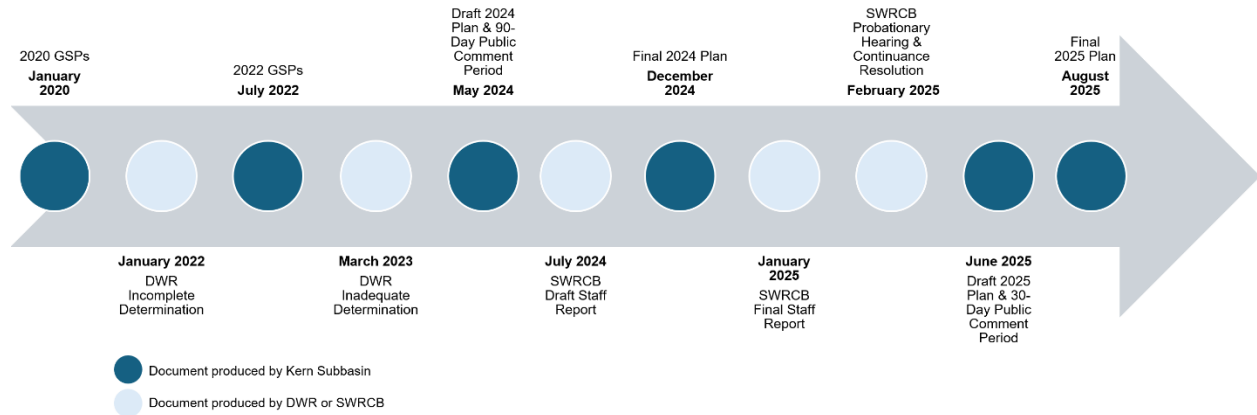


Figure ES-2 and summarized below.

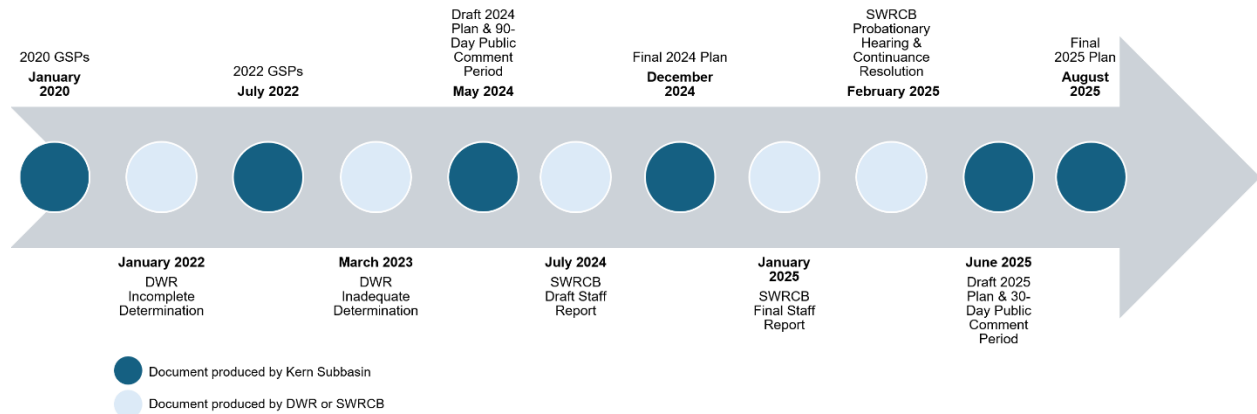


Figure ES-2. Kern Subbasin Timeline

DWR Process (2020 – 2023)

In January 2020, the Kern Subbasin GSAs executed the Kern Subbasin Coordination Agreement and subsequently submitted five GSPs to DWR (2020 GSPs). DWR designated the 2020 GSPs as “incomplete” in January 2022 and identified three deficiencies. In July 2022, the GSAs amended the Kern Subbasin Coordination Agreement and the five GSPs, plus a new independent GSA was formed, which

resulted in submitting six GSPs to DWR to address the identified deficiencies (2022 GSPs). In March 2023, DWR designated the Kern Subbasin as “inadequate” after reviewing the 2022 GSPs. As a result, the Kern Subbasin is subject to the state intervention process with the SWRCB as defined in California Water Code (CWC) §10735 et seq. The most significant deficiency was the lack of coordination among the six GSPs, which led to the next phase of work and development of a single Subbasin-wide plan.

SWRCB Process (2023 – June 2025)

In 2023 and 2024, the Kern Subbasin GSAs collaborated to amend the Kern Subbasin Coordination Agreement and integrate their plans under the SWRCB intervention process. In December 2024, the 20 GSAs adopted seven coordinated GSPs, with one subbasin-wide foundational GSP (the Kern Subbasin GSP) along with six additional GSPs (coordinated and consistent with the Kern Subbasin GSP) containing GSA-specific supplemental information included as “blue pages”. In February 2025, the SWRCB held a public hearing to consider probationary designation of the Kern Subbasin. The SWRCB resolved, through Resolution No. 2025-0007, that the hearing would be continued to allow time for the SWRCB and the GSAs to continue working collaboratively on addressing the DWR Deficiencies and SWRCB Potential Actions to Correct Deficiencies. In the Resolution, SWRCB directed the Kern Subbasin to revise and submit its draft 2025 Plan by June 2025, and to adopt the 2025 Plan prior to the September 2025 hearing.

Summary of 2025 Plan Amendments

The 2025 Plan amendments focus on addressing remaining SWRCB Corrective Actions to Address the Deficiencies. Key revisions include:

1. Reevaluation of groundwater level and groundwater quality monitoring network data gaps, and development of a Project and Management Action (P/MA) that includes a plan to fill those data gaps (Section 15.5).
2. Local refinements of Minimum Thresholds (MTs) for Chronic Lowering of Groundwater Levels targeting additional protection of beneficial uses and users (Section 13.1).
3. Revisions of Sustainable Management Criteria (SMCs) and the Undesirable Results (UR) definition for Degraded Water Quality to provide additional protection of beneficial uses and users (Section 13.3).
4. Additions to the Exceedance Policy and associated Action Plans for Groundwater Levels, Degraded Water Quality, and Land Subsidence (Appendix K-1) that elaborates on factors used to evaluate and act on groundwater level, quality, and subsidence related exceedances and expands on the GSAs’ commitment to ongoing collaboration with key critical infrastructure operators, respectively.

5. Development of a Degraded Water Quality Implementation Provisions (Appendix K-2) that includes summaries of related water quality provisions including, notification procedures for an exceedance, investigation procedures when representative monitoring well data exceed MTs (Appendix K-1), coordination efforts among existing programs, and Degraded Water Quality Mitigation (Appendix G-1).
6. Expansion of the Kern Subbasin Well Mitigation Program to include additional details (under a separate “*Degraded Water Quality Mitigation Track*”) related to domestic well mitigation for Degraded Water Quality (Appendix G-1).
7. Subbasin-wide coordination among all Kern Subbasin GSAs on all GSP revisions and extensive community outreach and engagement, including initiation of the *Community Outreach and Engagement Strategy* (Appendix F-3).

Table 1-3 in Section 1 of the 2025 Plan provides a “crosswalk” between the SWRCB Deficiencies and Potential Actions to Correct the Deficiencies reflected in the SWRCB January 2025 Final Staff Report, and a summary of amendments incorporated in the 2025 Plan. The 2025 Plan provides a clear and coordinated path to achieve sustainable groundwater management in the Kern Subbasin.

ES.2 Sustainability Goal

Under SGMA, a Sustainability Goal is defined as a statement that describes the intended purpose of the GSP, including the desired conditions of the groundwater basin at the end of the 20-year planning and implementation horizon, and how the basin will achieve and maintain those conditions.

The Sustainability Goal must reflect avoidance of undesirable results, which include six conditions of groundwater known as Sustainability Indicators defined by SGMA:



Chronic lowering of groundwater levels



Reduction of groundwater storage



Seawater intrusion



Degraded water quality



Land subsidence



Depletions of interconnected surface water

The Kern Subbasin GSAs share a common Sustainability Goal, which is foundational to the development and implementation of the 2025 Plan. The Kern Subbasin GSAs’

Sustainability Goal is to achieve sustainable groundwater management within the SGMA 20-year implementation period. Achieving the Sustainability Goal will be demonstrated by eliminating chronic lowering of groundwater levels caused by overdraft conditions and avoiding undesirable results for groundwater levels, groundwater storage, land subsidence, and groundwater quality.

ES.3 Agency Information

The 2025 Plan was prepared by the 20 GSAs within the Kern Subbasin pursuant to the Kern Subbasin Coordination Agreement. Each GSA within the Kern Subbasin applied for and was granted exclusive GSA status for a portion of the Kern Subbasin under CWC §10723(c) and §10723.8. The Kern Subbasin Coordination Agreement was developed to establish the governance structure for the Kern Subbasin GSAs cooperative and coordinated exercise of authorities and responsibilities under SGMA. Each GSA has designated representative(s) to help lead or participate in coordination activities among GSAs, State agencies, local governments, local water suppliers, neighboring entities, non-governmental organizations, and other interested parties. Pursuant to Title 23 of the California Code of Regulations (CCR) §357.4(b)(1), a single point-of-contact was established for the purposes of organizing the various coordination activities and ensuring cohesion between GSA activities.

ES.4 GSP Organization

The 2025 Plan details and consolidates the Kern Subbasin GSAs' plans for achieving long-term sustainability. The organizational structure, as shown in Table ES-1, follows DWR's Annotated Outline (December 2016) with additional Sections incorporated to more thoroughly characterize the complexities of the Kern Subbasin, including its water supplies and long history of conjunctive management.

ES.5 Description of the Plan Area

The Kern Subbasin Plan Area (Plan Area) covers 1.78-million-acres and is located at the southern end of the Tulare Lake Hydrologic Region, including most of the San Joaquin Valley area within Kern County. For purposes of the 2025 Plan, the Kern Subbasin has been separated into five Hydrogeological Conceptual Model (HCM) Areas that are

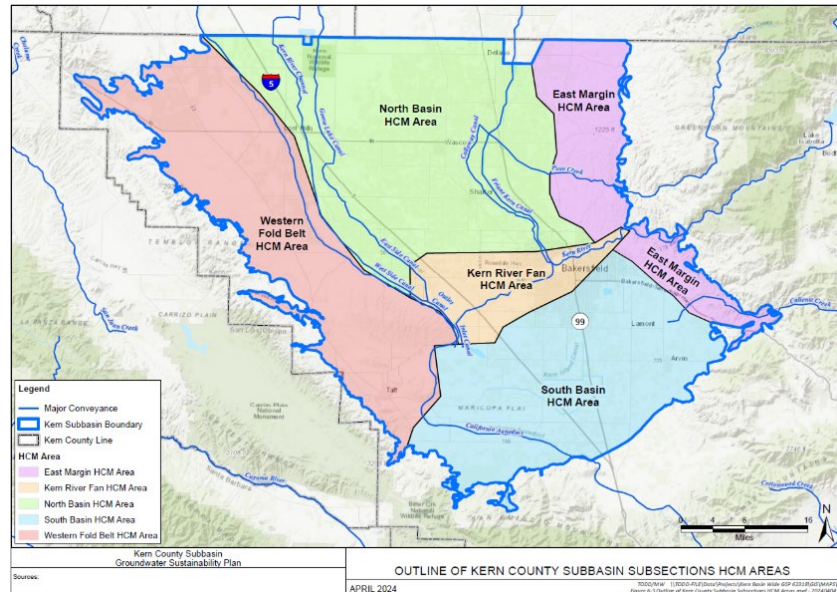


Figure ES-3. HCM Areas in the Plan Area

attributes that dictate land and water uses in the area. The HCM Areas include the Western Fold Belt, East Margin, Kern River Fan, North Basin (North of Kern River Fan), and South Basin (South of Kern River Fan), as shown on Figure ES-3.

Adjacent Subbasins

The Kern Subbasin neighbors four separate and distinct groundwater subbasins: (1) the Tulare Lake Subbasin (DWR 5-022.12), (2) the Tule Subbasin (DWR 5-022-13), (3) the Kettleman Plain Subbasin (DWR 5-022.17), and (4) the White Wolf Subbasin (DWR 5-022.18), all also located within the San Joaquin Valley Groundwater Basin. The Tulare Lake and Tule Subbasins are designated as high priority and critically overdrafted by DWR. The adjacent Tulare Lake, Tule, and White Wolf Subbasins are each managed according to separate GSPs and SGMA-related activities. The Kern Subbasin GSAs consult with these subbasins to coordinate cross-boundary interactions (e.g., accounting for groundwater subsurface inflows and outflows and evaluating consistency of SMCs).

Land Use

The Plan Area is predominately two land use types: (1) irrigated agriculture, including a diverse array of crop types dictated largely by the economics of private farming and water supply availability, and (2) other uses. Table ES-3 breaks down land use type and acreage within the Plan Area. Water demands are met through conjunctive use programs that include diversions from the Kern River, imported surface water from the

State Water Project (SWP) and Central Valley Project (CVP), and in more recent years, recycled water.

Table ES-3. Land Use and Acreage in the Plan Area

Land Use Type	Acreage	Percentage of Total Area
Actively Cropped Agriculture Lands	644,000	36%
Idle Agriculture Lands (not actively irrigated)	256,000	15%
Urban, Suburban, and Rural Communities	81,000	8%
Industrial Oil Fields	159,000	5%
Other Uses (native/riparian vegetation, refuge, recharge basins, etc.)	~640,000	36%

Incorporated Cities and Unincorporated Communities

The Kern Subbasin is located within Kern County and includes eight incorporated cities and twenty-five unincorporated communities and census designated places as shown in Table ES-4. Areas within the Kern Subbasin identified as Disadvantaged Communities (DACs) or Severely Disadvantaged Communities (SDACs) based on the median household income (MHI) of the area compared to the Statewide MHI are identified in the table below, which reflects 1.43 million acres or 80 percent of the Plan Area.

Table ES-4. Incorporated Cities and Unincorporated Communities in the Plan Area

Incorporated Cities	
Arvin	McFarland
Bakersfield	Shafter
Delano	Taft
Maricopa	Wasco
Unincorporated Communities and Census Designated Places	
Buttonwillow	Lost Hills
Cherokee Strip	McKittrick
Derby Acres	Metter
Dustin Acres	Mexican Colony
Edison	Oildale
Unincorporated Communities and Census Designated Places	
Edmundson Acres	Rosedale
Famoso	Smith Corner
Fellows	South Taft
Ford City	Taft Heights
Fuller Acres	Tupman
Greenacres	Valley Acres
Greenfield	Weedpatch
Lamont	

Note: Cities, unincorporated communities and census designated places identified as a Disadvantaged Community or Severely Disadvantaged Community based on median household income.

ES.6 Introduction to Basin Setting

The Basin Setting provides a foundational understanding of the physical, hydrologic, and geologic characteristics of the Kern Subbasin. This introductory portion outlines the scope and purpose of the Basin Setting, which is to inform the development of SMCs and management actions by establishing a clear picture of the Kern Subbasin's structure and behavior.

ES.7 Hydrogeological Conceptual Model

The Kern Subbasin is large and geologically complex with regional faulting, folding, and three principal aquifers. The locations of the principal aquifers are shown on Figure ES-4.

A brief description of these principal aquifers is provided below:

- 1. Primary Alluvial Principal Aquifer:**

The Primary Alluvial Principal Aquifer

extends over most of the Kern Subbasin and consists of the Tulare and Kern River Formations plus the overlying recent alluvium. It exhibits varying groundwater conditions and is classified as “confined” in areas with laterally extensive clay aquitards, “semiconfined” where vertical flow is impeded, and “unconfined” in various portions of the Kern Subbasin. The Primary Alluvial Principal Aquifer is the most productive freshwater aquifer, and the source of nearly all groundwater used within the Kern Subbasin.

- 2. Santa Margarita Principal Aquifer:** The Santa Margarita Principal Aquifer is a confined unit located in the northeastern portion of the Kern Subbasin and is comprised of both the Santa Margarita Formation and Olcese Sand.

- 3. Olcese Principal Aquifer:** The Olcese Principal Aquifer is a confined unit located in the vicinity of where the Kern River enters the eastern portion of the Kern Subbasin and consists of the Olcese Sand.

A series of hydrogeologic cross-sections have been developed to illustrate the Kern Subbasin physical characteristics and the formations present in the Plan Area. Figure ES-5 illustrates an example of the conditions parallel to the southern Plan Area. Cross sections for other portions of the Kern Subbasin are shown in Section 7. This

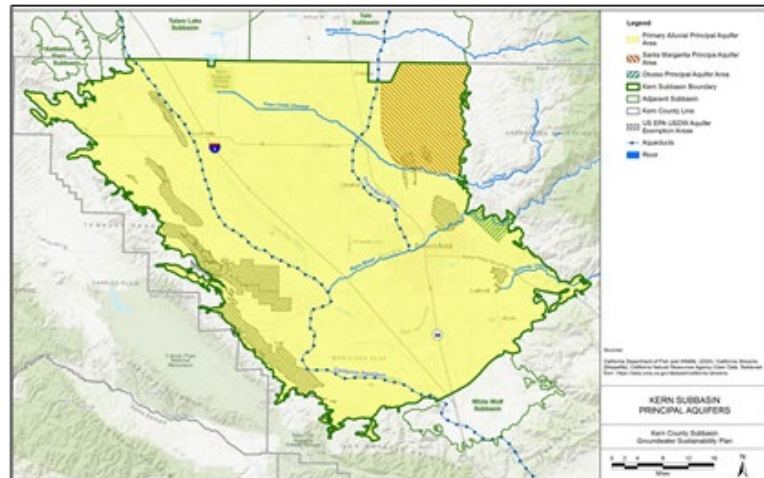


Figure ES-4. Location of the Kern Subbasin Principal Aquifers

example shows the prevalence of Tulare and Kern River Formations, with the Santa Margarita Formation and Olcese Sand shallowing in the East Margin, and the extent of spatially discontinuous clay layers which can locally influence groundwater percolation and lateral flows. The cross sections developed improve understanding of Kern Subbasin conditions in the HCM Areas and provide the information necessary to develop water budgets from the Kern Subbasin's local numerical model, establish representative monitoring networks, develop applicable SMCs, and effectively convey hydrogeologic conditions to stakeholder groups.

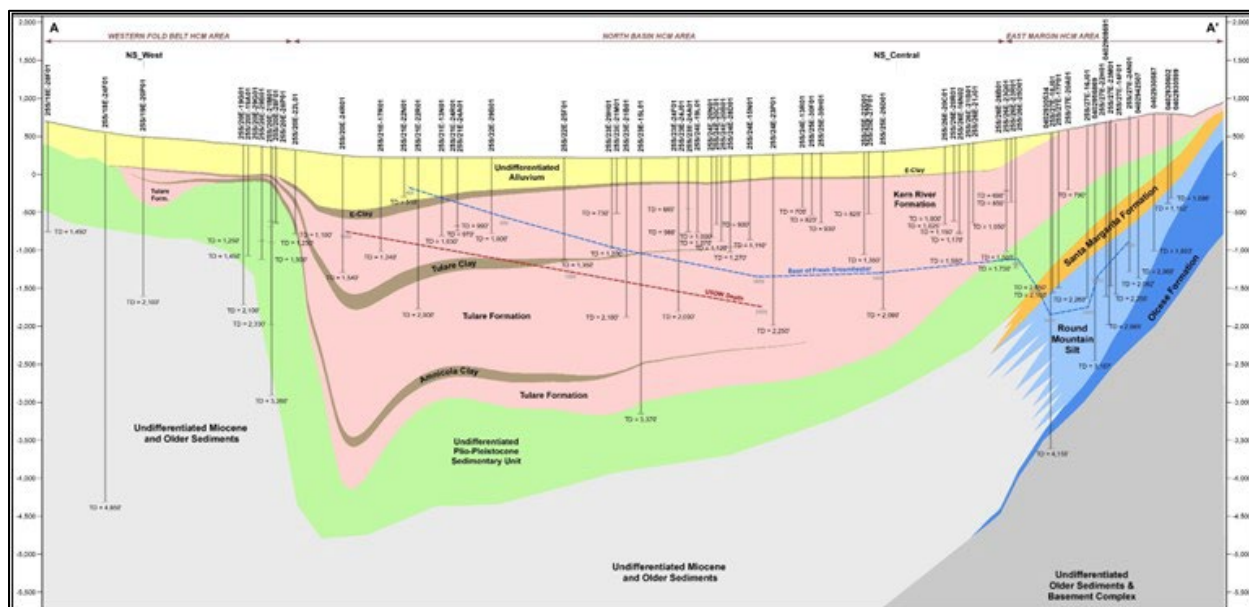


Figure ES-5. Kern Subbasin Cross Section

The Kern Subbasin contains several surface water features. The Kern River is the largest river in the Kern Subbasin and flows east to west through the center of the Plan Area. The Kern Subbasin also contains significant infrastructure that conveys imported water supplies, including the Friant-Kern Canal (FKC), California Aqueduct, and local canals.

Significant water recharge occurs in the Kern Subbasin through managed conjunctive use and water banking (surface water storage and recovery) projects along the Kern River and in other HCM Areas. The conjunctive use projects are dedicated to the management of surface water and storage of surface water within a specific portion of the Kern Subbasin for use at a later time by the overlaying lands of the Kern Subbasin, whereas water banking projects store surplus surface water supplies from the SWP, CVP, Kern River, and other flood waters for subsequent recovery for beneficial uses.⁶

⁶ "The storing of water underground ... constitutes a beneficial use of water if the water so stored is thereafter applied to the beneficial purposes for which the appropriation for storage was made." CWC § 1242.

ES.8 Current and Historical Groundwater Conditions

This section provides a comprehensive overview of the Kern Subbasin's physical and hydrologic characteristics, offering essential context for sustainable groundwater management. It includes an evaluation of both current and historical groundwater conditions to inform the development of sustainability goals and management actions. Key components of this section include:

1. Analysis of groundwater levels, highlighting seasonal and long-term changes in water levels.
2. Estimates of groundwater storage variations over time.
3. Assessment of seawater intrusion, where applicable, including its extent and progression.
4. Review of groundwater quality, identifying trends and areas of concern.
5. Documentation of land subsidence linked to groundwater extraction.
6. Evaluation of interconnected surface water systems and the impacts of groundwater use on surface water flows.

Groundwater Levels

Groundwater levels within the Kern Subbasin are presented using contour maps depicting the current (2023) seasonal high and seasonal low for each principal aquifer (Primary Alluvial Principal Aquifer, Santa Margarita Principal Aquifer, and Olcese Principal Aquifer) and hydrographs for various wells across the Kern Subbasin depicting long-term groundwater elevations, historical highs and lows, and hydraulic gradients between and within principal aquifers. The available data indicate that the Kern River effectively bisects the Plan Area (

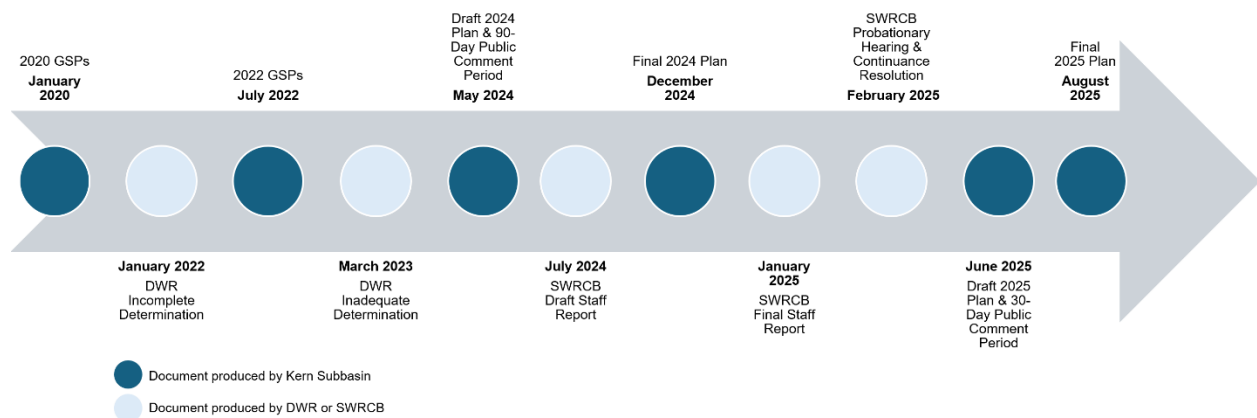


Figure ES-2). Groundwater tends to diverge from the Kern Fan HCM Area, with groundwater flowing toward extraction areas. Relative highs and lows appear to be

controlled, at least in part, by the distribution of groundwater pumping and surface water deliveries. Hydrographs show the long-term positive effects of surface water importation and corresponding conjunctive use and water banking activities in raising groundwater levels, tempered by the effects of the recent severe droughts.

Groundwater Storage

Changes in groundwater storage over selected time periods were calculated from the Kern Subbasin's local numerical model (C2VSimFG-Kern) and validated through a groundwater storage calculation that considers changes in measured groundwater elevations across the Kern Subbasin.

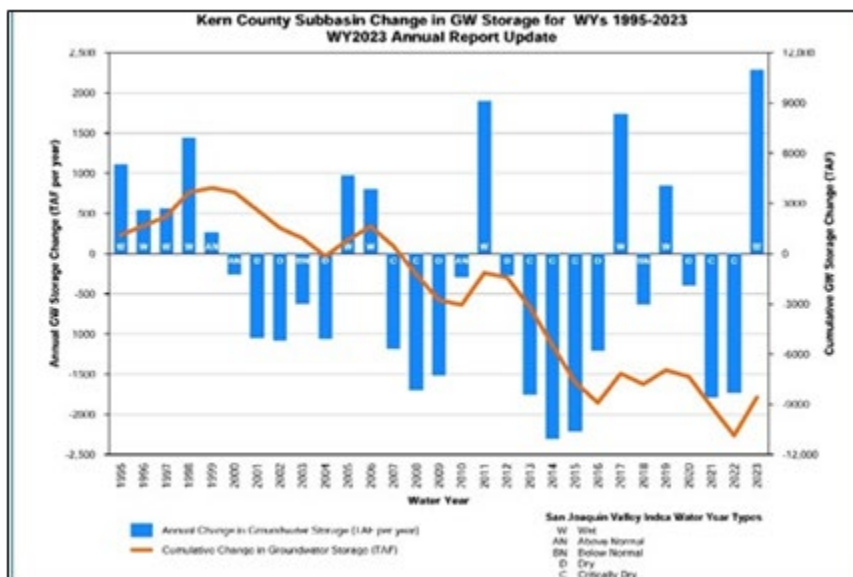


Figure ES-6. Kern Subbasin Annual Change in Groundwater in Storage

The variation in the simulated change in groundwater storage over the historical period generally corresponds with the variation in climatic conditions and surface water supply availability (Figure ES-6). The change in storage is more pronounced in the Kern Subbasin due to numerous conjunctive use and banking operations that store surface water in the aquifer typically during wet periods and then recover it for beneficial use during dry periods. As a result of these factors, the change in storage within the Kern Subbasin has had annual increases and decreases of up to 2,300,000 acre-feet per year (AFY).

Groundwater Quality

Certain constituents of concern (COCs) have been identified in the Kern Subbasin above the water quality objective, as set forth in the Water Quality Control Plan for the Tulare Lake Basin (Tulare Lake Basin Plan), which incorporates by reference maximum contaminant levels (MCLs) specified in Title 22 of the California Code of Regulations as applicable. The Kern Subbasin employed the SWRCB's methodology for identifying COCs from State and Regional Water Board datasets, and assessed the following constituents: 1,2,3-trichloropropane (1,2,3-TCP), arsenic, benzene, dibromochloropropane (DBCP), ethylene dibromide (EDB), gross alpha radiation, nitrate (as N), nitrate + nitrite (as N), nitrite (as N), perfluorooctane sulfonate (PFOS),

perfluorooctanoic acid (PFOA), selenium, total dissolved solids (TDS), and uranium. Of the 14 constituents recommended for evaluation, six were identified as COCs for SGMA monitoring across the Kern Subbasin: 1,2,3-TCP, arsenic, nitrates (including nitrite and nitrate+nitrite), TDS, and uranium.

Trend analyses were conducted on the six COCs to evaluate the relationship between groundwater management activities and degraded water quality, and to identify driving mechanisms for exacerbating constituent concentrations. No direct correlation has been observed between groundwater management activities and exacerbating concentrations of 1,2,3-TCP, TDS or uranium. While there is no clear Kern Subbasin-wide correlation for arsenic and nitrates, the driving mechanisms for degradation may require additional investigation. The GSAs have identified Representative Monitoring Wells for Degraded Water Quality (RMW-WQs) and will collect samples from these wells seasonally, coincident groundwater elevation measurements across the Kern Subbasin to monitor for potential impacts to beneficial users.

Land Subsidence

Land subsidence has been documented within the San Joaquin Valley over both historical and recent timeframes, with the greatest documented land subsidence occurring north of the Kern Subbasin (Figure ES-7). Not all land subsidence is GSA-related, nor is all land subsidence inelastic (i.e., non-recoverable). Land subsidence rates within the Kern Subbasin range from 0 to 0.3 feet per year resulting in a cumulative land subsidence of 0 to 2.41 feet since 2015. Land subsidence caused by factors within the GSAs' authority to manage is due to aquitard depressurization

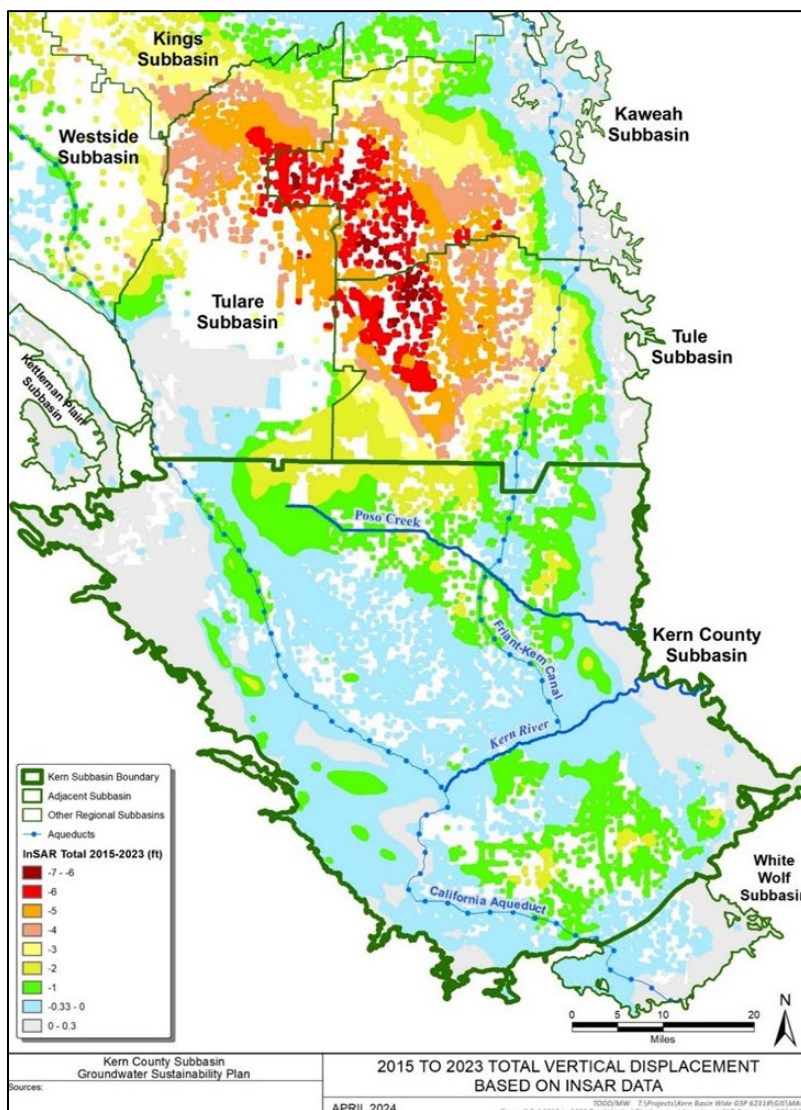


Figure ES-7. Cumulative Subsidence between 2015 – 2023 (feet) based on InSAR data

following groundwater withdrawal, which tends to be greater in the areas that rely solely on groundwater for water supply (agricultural and urban pumping) and are underlain by a greater proportion of fine-grained deposits. Additional causes of land subsidence that are outside of the GSAs' control, include oil and gas extraction, potential natural processes (i.e. faulting), expansive/soluble soil types susceptible to hydro-compaction, and others (e.g., potential for deficient Aqueduct pre-construction hydro-compaction, age of infrastructure, etc.). Recent technical InSAR studies commissioned by the GSAs have been able to differentiate the land subsidence signals associated with seasonal extraction versus non-seasonal extraction..

Land subsidence has the potential to affect Kern Subbasin regional critical infrastructure (i.e., the California Aqueduct and Friant-Kern Canal) and local GSA area critical infrastructure, including gravity-driven water conveyance systems (canals). Both non-recoverable and recoverable land subsidence occurs in the area of the Kern Fan HCM Area. In some areas of the Kern Fan HCM Area, especially where significant recharge occurs at the Kern Fan banking programs, the average rate of land subsidence calculated for the Kern Fan HCM Area using the period from 2015 to 2024 likely overestimates projected land subsidence through 2040. To assess land subsidence, the Kern Subbasin has conducted a series of studies and continues on-going collaboration and communication with the California Aqueduct Subsidence Program (CASP) and the Friant Water Authority.

Seawater Intrusion

The Kern Subbasin is located far from coastal areas, and therefore seawater intrusion is not considered to be a relevant Sustainability Indicator.

Interconnected Surface Water

Data on depth to groundwater, geology, and other local conditions indicate that the vast majority of surface water features in the Kern Subbasin are not connected to groundwater, and in the few limited areas where a connection may occur, the connection is likely transient, short-lived, and involves shallow or perched groundwater that is not part of the principal aquifer systems. As such, the areas of vegetation mapped as Natural Communities Commonly Associated with Groundwater (NCCAG) and areas identified by the ICONS dataset are not likely groundwater dependent ecosystems (GDEs) or ISWs but instead are supported by irrigation water infiltration and agricultural return flows. In these areas, infiltration of irrigation water and agricultural return flows is impeded by clay soils and subsurface clay sediments creating shallow perched groundwater that is disconnected from groundwater in the principal aquifers that are the focus of SGMA.

ES.9 Water Budget Information

This section presents a detailed accounting of the Kern Subbasin's water inflows, outflows, and changes in storage over time. The water budget is a critical tool for understanding the Kern Subbasin's hydrologic balance and for evaluating the sustainability of current and projected groundwater use. It supports the development of measurable objectives (MOs) and SMCs by quantifying the relationship between water supply and demand under various conditions.

The water budget includes:

1. Historical Water Budget – A retrospective analysis of water conditions over a representative period, establishing baseline trends.
2. Current Water Budget – A snapshot of recent water year conditions, reflecting current management and climate influences.
3. Projected Water Budget – Future scenarios incorporating anticipated changes in land use, climate, and water demands.
4. Components of the Budget – Including natural and artificial recharge, groundwater extraction, evapotranspiration, surface water interactions, and subsurface flows.

Water Budget Model

The Kern Subbasin GSAs coordinated on the development of a single water budget using a local numerical model (C2VSimFG-Kern) that is based on the California Central Valley Groundwater/Surface Water Simulation Model (C2VSim) developed by DWR. The C2VSimFG-Kern is enhanced with additional data applied at the GSA level based on locally derived managed water supply and demand data to better represent the local water budgets. These model enhancements have been provided to DWR to help support their ongoing C2VSimFG model development. The Kern Subbasin has continued to support annual updates to the C2VSimFG-Kern model to incorporate recent conditions and estimate the current water budget.

Modeling results show that the Kern Subbasin, as a whole, had a total storage deficit of:

- Approximately 274,200 AFY over the historical period (i.e., WYs 1995-2014); and
- Approximately 344,000 AFY over the current period (i.e., WYs 2015-2023).

The Sustainable Yield has been conservatively estimated to be approximately 1.31 million AFY based on results for the historical period using model-calculated groundwater pumping and recharge to quantify the volume of water that, if pumped over the water budget period of interest, would have resulted in zero change in storage.

The projected water budget assesses the magnitude of the net water supply deficit under future conditions that would need to be addressed through P/MAs to prevent

Undesirable Results and achieve the Sustainability Goal. Three projected water budget scenarios have been developed for this analysis: (1) a Baseline Scenario, (2) a 2030 Climate Change Scenario, and (3) a 2070 Climate Change Scenario.

The projected (future) conditions were developed following the DWR guidance for developing future climate variables (i.e., adjusted precipitation and evapotranspiration) and water supply assumptions (i.e., changes to imported water supplies). This approach allows for inclusion of more complex variables, including factors influenced by climate change, resulting in more accurate projections.

Each projected (future) scenario was run twice. One version was run without P/MAs to evaluate the projected deficit, and a second version was run with a representative set of demand reduction and water augmentation P/MAs to identify the quantitative goal of planned P/MAs necessary to provide a reasonable approach to achieve sustainable groundwater management through 2040 and beyond. The results for each scenario are provided in Table ES-5. The Kern Subbasin GSAs used the projected deficit of 372,120 AFY from the 2030 Climate Change Scenario to define the target quantitative goal for planning purposes.

While the current C2VSimFG-Kern model provides an appropriate tool to determining the Kern Subbasin-scale water budgets, additional analysis was necessary to track GSA-level water management operations including those, such as water banking, that occur outside of the GSA boundary. The GSA operational water budgets are a spreadsheet-based accounting of surface water operations for individual GSAs. The GSA operational water budgets provide a complimentary analysis to accompany the Subbasin-wide analysis using the C2VSimFGKern model.

There are inherent limitations in using models to predict future conditions given the uncertainties surrounding input variables (e.g., uncertain future hydrologic conditions, recharge, and pumping volumes). A revised Subbasin-wide model is being developed and calibrated as part of 2025 Plan implementation and as additional information becomes available through the Basin Study (P/MA KSB-4).

Table ES-5. Summary of Simulated Change in Groundwater Storage Results

Period / Scenario	General Hydrologic Conditions of Period	Change in Groundwater Storage (acre-feet per year)
Historical Period (WYs 1995-2015)	Average	-274,200
Current Period (WYs 2015-2023)	Dry	-344,019
Projected Period (WYs 2041-2070) Baseline	Average	-324,326
Projected Period (WYs 2041-2070) Baseline with Projects	Average	85,578
Projected Period (WYs 2041-2070) 2030 Climate Change	Average with DWR climate change adjustments	-372,120
Projected Period (WYs 2041-2070) 2030 Climate Change with Projects	Average with DWR climate change adjustments	46,829

Period / Scenario	General Hydrologic Conditions of Period	Change in Groundwater Storage (acre-feet per year)
Projected Period (WYs 2041-2070) 2070 Climate Change	Average with DWR climate change adjustments	-472,336
Projected Period (WYs 2041-2070) 2070 Climate Change with Projects	Average with DWR climate change adjustments	-45,969

Note: a negative change in groundwater storage indicates a deficit and a positive change in groundwater storage indicates a surplus.

ES.10 Management Areas

For the purpose of SGMA compliance, the Kern Subbasin is divided into GSA areas which provide coverage for the entirety of Kern Subbasin including both districted lands and non-districted “white lands.” There is no need to create management areas below the GSA level. The two exceptions are:

- The Eastside Water Management Area (EWMA) is a non-profit corporation governed by a seven-member Board of Directors that aims to become a public agency and function as its own GSA. Until then, it is treated as a separate management area within the Kern Non-Districted Lands Authority.
- The 7th Standard Annex, historically non-districted, was annexed into the Shafter-Wasco Irrigation District (SWID) in 2019 solely for SGMA compliance. It operates as a separate management area within SWID, as it does not share SWID’s surface water supply benefits under the landowner agreement.

The 2025 Plan does divide the Kern Subbasin into five HCM Areas that each have similar geologic and aquifer characteristics distinct from those of other HCM Areas as described above in Section ES.7.

ES.11 Introduction to Sustainable Management Criteria

The SMCs are the metrics by which groundwater sustainability is evaluated under SGMA. Uniform definitions for the following SMC components were developed in the 2025 Plan through a coordinated effort of the Kern Subbasin GSAs.

1. **Undesirable Results (URs):** URs are the significant and unreasonable occurrence of conditions, for any of the six Sustainability Indicators that adversely affect beneficial uses and users and substantially interfere with surface land uses in the Kern Subbasin.
2. **Minimum Thresholds (MTs):** MTs are the numeric criteria for each Sustainability Indicator that, if exceeded in a locally defined combination of monitoring sites, may constitute an UR for that indicator.

3. **Measurable Objectives (MOs):** MOs are specific, quantifiable goals for the maintenance or improvement of groundwater conditions. MOs use the same units and metrics as the MTs allowing for direct comparison.
4. **Interim Milestones (IMs):** IMs are a set of target values representing measurable groundwater conditions in increments of five years over the 20-year statutory timeline for achieving sustainability.

Table ES-6 summarizes the SMCs for each applicable Sustainability Indicator in the Kern Subbasin.

Table ES-6. Summary of Sustainable Management Criteria

Sustainability Indicator	Undesirable Result	Minimum Threshold	Measurable Objective
 Chronic Lowering of Groundwater Levels	One of the following occurs: (1) MTs exceed at least 25 percent of RMW-WLs over a single year (i.e., two consecutive seasonal measurements). (2) More than 15 drinking water wells are reported dry in any given year. If 15 drinking water wells were impacted every year, no more than 255 drinking water wells cumulatively would be impacted by 2040, or (3) Mitigation ¹ backstop: a GSA is unable to meet well mitigation needs.	The lower of: (1) Groundwater level in 2030 if the regional trend is extended from the 2015 low (the MO), or (2) Groundwater level that allows for operational flexibility below the 2015 low, based on an RMW-WL-specific record of groundwater level fluctuations. MTs are then adjusted so that: (3) MTs do not exceed 61 feet below the recent historical low, (4) MTs do not newly fall below the Corcoran Clay, and/or (5) MTs are raised locally per State Water Resources Control Board staff feedback.	The 2015 low groundwater elevation.
 Reduction of Groundwater Storage	The MTs for Chronic Lowering of Groundwater Levels are exceeded in at least 25 percent of the RMW-WLs over a single year (i.e., two consecutive seasonal measurements).	MTs for Chronic Lowering of Groundwater Levels used as a proxy.	MOs for Chronic Lowering of Groundwater Levels used as a proxy.
 Seawater Intrusion	Groundwater conditions in the Kern Subbasin show that Seawater Intrusion is not present and is not anticipated to be present in the future, and therefore, the Sustainability Indicator is not applicable.		

Sustainability Indicator	Undesirable Result	Minimum Threshold	Measurable Objective
 Degraded Water Quality	One of the following occurs: (1) Subbasin-wide, 15 percent of the Representative Monitoring Well for Degraded Water Quality (RMW-WQs) exceed the MT for the constituents of concern per water year based on confirmed sample and MT Exceedance investigation results¹. (2) Annually, five percent of domestic wells have an assumed MT exceedance¹ based on radius of influence analysis around the RMW-WQ that exceeds the MT, with a cumulative maximum of 15 percent of domestic wells through 2040. (3) Mitigation¹ backstop: a GSA is unable to meet well mitigation needs.	(1) MT is set as close to the water quality objective as feasible. (2) If historical data exceeds the water quality objective, and at least five sample results are available, then the MT is set at the 80th Percentile value. (3) When clear trends are present, discretion should be applied a. If there is an increasing trend, set the MT at the 80th Percentile of the Pre-2015 data b. If there is a decreasing trend, MT should be set at the median value or as close to water quality objective as reasonable. If the 80th Percentile is within 10 percent of the drinking water MCL, the MT should be set at the water quality objective. (4) Proxy data are predominately used to demonstrate baseline conditions; however, data may be used when the RMW-WQ and Proxy Well are similar enough to represent the same lithology/aquifer conditions.	The water quality objective.
 Land Subsidence	MT extent of land subsidence is exceeded at any RMS-LS along the Regional Critical Infrastructure at a <u>single</u> milepost or GSA or HCM Area MTs after six quarterly consecutive sampling events measured using InSAR data published by	MTs are established along regional critical infrastructure as a rate and extent based on either the protective level of land subsidence (the rate and extent of subsidence that would not lead to loss of conveyance capacity) or the historical rate of land	50 percent of the MT rate and MT extent.

Sustainability Indicator	Undesirable Result	Minimum Threshold	Measurable Objective
	DWR or annual survey data, if available, and can be attributed, based on a technical analysis using best available data and tools, to groundwater management activities (e.g. groundwater level changes, P/MAs). Note: The GSAs' management authority does not extend to all activities and processes that cause Kern Subbasin land subsidence.	subsidence projected to 2040 (where the projected amount of subsidence is not expected to lead to loss of conveyance capacity). Additionally, MTs are set for the Kern Subbasin as the average historical rate of land subsidence in each HCM Area from 2015-2023.	
 Interconnected Surface Water	Groundwater conditions in the Kern Subbasin show that there are a few areas with potential Interconnected Surface Waters. However, data show the connection is likely transient, short-lived, and involves shallow or perched groundwater that is not part of the principal aquifer systems. Therefore, the Sustainability Indicator is not applicable to the Kern Subbasin.		

Notes:

1. Exceedances and mitigation applications are evaluated as defined in the Exceedance Policy and Action Plans (Appendix K-1) and Mitigation Programs (Appendix G).

ES.12 Sustainability Goal

The sustainability goal for the Kern Subbasin is to implement its 2025 Plan to achieve sustainable groundwater management within the SGMA 20-year implementation period. Achieving the sustainability goal will be demonstrated by eliminating chronic lowering of groundwater levels caused by overdraft conditions and avoiding Undesirable Results for groundwater levels, groundwater storage, land subsidence, and groundwater quality.

This goal will be accomplished through the following objectives:

1. Implement the Stakeholder Communication and Engagement Plan.
2. Eliminate long-term groundwater overdraft and attain sustainability through conjunctive use, water banking, and demand management programs.
3. Continuously monitor and evaluate groundwater conditions to avoid undesirable results.
4. Maintain long-term sustainability of water resources available to the Kern Subbasin.
5. Maintain a comprehensive database of beneficial uses and users to inform on the efficacy of groundwater management policies and programs.

ES.13 Sustainable Management Criteria

The Kern Subbasin GSAs identify primary beneficial uses and users of groundwater as agricultural, industrial, domestic well owners, small community wells, and municipal well operators. Additionally, infrastructure susceptible to land subsidence has been categorized based on land subsidence vulnerability and impacts to beneficial users (critical regional, GSA area, and others). The SMCs in Table ES-6 have been developed to prevent significant and unreasonable impacts to groundwater uses and users and land uses and are justified (i.e., will not result in significant and unreasonable impacts) as follows for all applicable Sustainability Indicators.

Chronic Lowering of Groundwater Levels

The Kern Subbasin GSAs' approach to developing the Chronic Lowering of Groundwater Levels SMCs applies a method that is consistent with the GSP Emergency Regulations, relies on consistent data and methodologies across the Kern Subbasin, and would not unreasonably impact beneficial uses and users of groundwater. The Kern Subbasin GSAs will strive through the implementation of P/MAs to manage groundwater levels toward the MOs, which are set at the 2015 low groundwater level. The MTs account for historical regional groundwater level trends (extended through 2030) and well-specific water level fluctuations to ensure sufficient groundwater supply and operational flexibility through variable hydrologic conditions and projected water uses. MTs are further capped to 61 feet below recent historical lows, raised to prevent groundwater levels from newly declining below the Corcoran Clay where it exists, and raised locally per SWRCB staff feedback.

Impacts to Beneficial Users

The 2025 Plan includes a well impacts analysis using the MTs and the Kern Subbasin's February 2025 well inventory to quantify potential impacts to beneficial users at the MTs as compared to the Chronic Lowering of Groundwater Levels URs definition. The (highly unlikely) worst-case scenario suggests that 184 drinking water wells may be potentially impacted if all RMW-WLs reach their MTs simultaneously, while the more likely scenario shows that under the URs definition that considers 25 percent of RMW-WLs reaching MTs, between 42 and 47 drinking water wells may be potentially impacted by 2040. Note, the groundwater level UR has an additional layer of protection by limiting the number of reported dry wells to 15 in a given year or 255 cumulatively, by 2040. The Kern Subbasin GSAs have developed and funded a Mitigation Program to address potential impacts from Chronic Lowering of Groundwater Levels to drinking water wells. A final protective "mitigation backstop" has been included, such that URs are triggered if a GSA is unable to well meet mitigation needs.

The potential "depletion of supply" for this scenario estimates the percentage of urban supply that may be impacted at MTs and the UR definition. Even under the worst-case scenario, less than two percent of the total estimated urban water supply would be

impacted by 2040. With implementation of the proposed P/MAs, the C2VSimFG-Kern model estimates that 19 drinking water wells may be potentially impacted, which corresponds to less than one percent of the Kern Subbasin's urban pumping.

Consideration of Adjacent Basins and Other Sustainability Indicators

Groundwater level SMCs have been compared to those in the neighboring Tule, Tulare Lake, and White Wolf Subbasins and are not projected to cause a change in historical gradients or prevent neighboring subbasins from achieving their Sustainability Goals. Groundwater level SMCs have also been determined to be protective of the other relevant Sustainability Indicators through quantitative analysis.

Reduction of Groundwater Storage

The Chronic Lowering of Groundwater Levels SMCs serve as a proxy for Reduction of Groundwater Storage pursuant to 23 CCR §354.28(d). Annual change in storage based on groundwater elevation change has good agreement with the simulated change in water in storage based on the C2VSimFG-Kern model, and therefore, groundwater level measurements have been demonstrated to serve as a reasonable proxy to estimate changes in groundwater storage. Furthermore, if groundwater levels decline from the MOs to the MTs, the reduction of storage would total approximately 7.2-million-acre feet (MAF). Consistent with the Chronic Lowering of Groundwater Level UR criteria, 25 percent of this volume results in a reduction of storage of approximately 1.80 MAF per year. This decline in groundwater storage is less than the storage change observed during recent multi-year droughts (i.e., 2013-2016 and 2021-2022) without an unreasonable amount of potentially impacted wells (Figure ES-6).

Degraded Water Quality

The MTs for Degraded Water Quality are set at the Kern Subbasin's RMW-WQs and are tied to regulatory water quality standards – namely, water quality objectives (WQOs) – that are considered protective of the municipal beneficial use (i.e., primary and secondary MCLs contained in CCR Title 22), as applicable for each of the six relevant COCs. Where historical data is consistently below the WQOs (as is the case for most of the RMW-WQs) or there is lack of supporting water quality data, MTs are set at WQOs. When baseline conditions (as assessed from best available historical data for pre-2015 and post-2015 water quality trends) were above WQOs, discretion was applied to set the MTs as close to the WQOs as possible, while being consistent with available water quality data trends. Where available, proxy data from nearby wells was used to augment baseline water quality data at the RMW-WQs. Water quality MOs were set at the WQOs. In general, the water quality SMCs are set to maintain concentrations of each COC at or below the applicable WQOs, or for wells that were already impacted before the SGMA effective date, to try and maintain concentrations at their pre-SGMA baseline levels.

Impacts to Beneficial Users

Approximately 93 percent of the water quality MTs are set at the WQO with the other 7 percent set at baseline conditions. MOs are set to WQOs. Hence, water quality SMCs within the Kern Subbasin are set to be protective of domestic and municipal beneficial uses. Where MTs are set above the WQOs, these represent baseline conditions based on best available data. Use of a baseline condition acknowledges that “the plan may, but is not required to, address undesirable results that occurred before, and have not been corrected by, January 1, 2015” (CWC §10727.2(b)(4)). The GSAs continue to coordinate with other groundwater quality programs in the Kern Subbasin (Appendix K-2) that address pre-2015 or non-GSA related groundwater quality impacts.

Assuming a simple one to one ratio between RMW-WQ and domestic wells, MT exceedances at 15 percent of the RMW-WQs could result in up to 348 potentially impacted domestic wells. However, the distribution of domestic wells and RMW-WQs is not uniform across the subbasin, hence additional protective measures were incorporated into the UR. The Kern Subbasin GSAs’ \$3.5 million Well Mitigation Program (Appendix G-1) reserve includes a conservative estimated cost for water quality mitigation of \$2,500 per mitigated domestic well, with an annual budget of \$500,000 (sufficient to cover 200 wells). The second water quality UR criterion of 5 percent domestic wells equates to approximately 116 potentially impacted domestic wells annually. This translates to groundwater quality mitigation cost of approximately \$300,000, which is well within the Well Mitigation Program budgeted amount of \$500,000 for water quality mitigation. While highly unlikely, the third UR criterion provides yet another protective “mitigation backstop”, wherein undesirable results would be declared if any GSA is unable to meet its mitigation needs.

Detailed notification and exceedance evaluations have been included (Appendix K-1) such that domestic well users impacted by Degraded Water Quality are fully informed of RMW-WQ results if WQO are exceeded, and testing and mitigation is made available for such users if MTs are exceeded due to groundwater management activities.

Additional details related to implementation of groundwater quality monitoring, SMCs, and P/MAs, including coordination with other groundwater quality programs in the Kern Subbasin are included in Appendix K-2.

Consideration of Adjacent Basins

Groundwater flow exits the Kern Subbasin across its northern boundary (Figure 8-1). The Chronic Lowering of Groundwater Levels MTs are not predicted to cause significant changes to local groundwater gradients and thus should be protective in terms of preventing migration of poor-quality water to adjacent subbasins. The adjacent subbasins similarly have SMCs established for key COCs that impact drinking water users.

Land Subsidence

The SMCs for Land Subsidence have been developed in recognition that land subsidence in the Kern Subbasin has several causative factors, some of which are within the GSAs' authorities to control ("GSA-related" land subsidence - e.g., groundwater pumping for agricultural and urban uses), and others that are outside of the GSAs' authorities to control ("non-GSA" land subsidence – e.g., oil and gas extraction,⁷ potential natural processes, and expansive/soluble soil types susceptible to hydro-compaction). Consistent with the legislative intent of SGMA *"to avoid or minimize subsidence"* (CWC §10720.1(e)), the objective of the Kern Subbasin subsidence SMCs approach is to achieve zero GSA-related subsidence post-2040 and beyond. This will be accomplished through focused implementation of proactive demand reduction or other P/MAs designed to reduce land subsidence rates to meet the IM glide path (Section 13.5.3.2). The subsidence MTs are established along regional critical infrastructure as a rate and extent based on either the protective level of land subsidence (the rate and extent of subsidence that would not lead to loss of conveyance capacity) or the historical rate of land subsidence projected to 2040 (where the projected amount of subsidence is not expected to lead to loss of conveyance capacity or can be adequately mitigated by the GSAs, as is the case for certain sections of the FKC). Additionally, MTs are set for the Kern Subbasin as an average rate and extent of land subsidence in each HCM Area or adjacent to GSA area critical infrastructure. Note, that, where applicable, the subsidence MTs are based on a conservative extrapolation of the historical (2015-2024) subsidence rates through 2040. Future subsidence rates are expected to be lower as overdraft is eliminated and as groundwater levels stabilize through P/MAs implementation. As noted above, groundwater level MTs are based on extrapolating regional historical trends through 2030. The ten-year lag between groundwater level and subsidence trends are meant to capture potential future residual subsidence. Subsidence MOs are set at 50 percent of the subsidence MT rates and extents.

Impacts to Beneficial Users

MTs for regional critical infrastructure were developed in coordination with operators of the infrastructure (i.e., Friant Water Authority and CASP) and designed to avoid significant and unreasonable impacts to infrastructure functionality. MTs for the FKC are set at conservative levels with the GSAs committed to mitigating post-2020 subsidence impacts (due to groundwater management activities) on conveyance capacity (Appendix G-2). The MTs for the California Aqueduct are defined to avoid loss of conveyance capacity attributable to subsidence as limited by the remaining or required liner freeboard for specific Aqueduct mileposts (MP) 184 to 279. CASP has indicated that 2.5 feet of freeboard above the design water surface is required to maintain operations

⁷ This sentence refers to United States Environmental Protection Agency (US EPA) exempt aquifer and associated oil and gas operations.

(DWR, 2017b), and is the best available metric to conduct an impacts analysis at this time. Therefore, MTs based on an extrapolation of the historical (2013-2024) subsidence rates through 2040 are adjusted to prevent available freeboard (as of 2024) falling below the 2.5 feet minimum design freeboard with a 0.1-foot margin for measurement error. Where land subsidence has already encroached on the minimum 2.5 feet of freeboard requirements, the MT is set to zero additional subsidence. The 2017 California Aqueduct Subsidence Study published by CASP does not suggest that operational impacts have occurred within the southern pools (DWR, 2017b). The MTs for the southern pools are primarily set at the future projected rates of subsidence as they do not infringe into the 2.5 feet minimum operating freeboard height, and MT rates are reduced at select MPs. The 2025 Plan defines a UR for land subsidence as a single representative monitoring site (e.g., milepost) exceeding the MT extent after 6-quarterly consecutive sampling events. Subbasin GSAs will meet with CASP quarterly to review land subsidence data trends compared to SMCs. Furthermore, the Kern Subbasin Exceedance Policy and associated Action Plan for Land Subsidence initiates an investigation proactively after an IM exceedance (Appendix K). This ensures proactive investigation responses before a MT exceedance and accounts for the complex (GSA and non-GSA related) driving mechanisms for subsidence and residual subsidence, which can continue for years after groundwater levels are stabilized.

The MTs for GSA area critical infrastructure are based on land subsidence rates that have historically occurred and have been managed by Kern Subbasin GSAs through ongoing maintenance and improvements to facilities. In addition to infrastructure-specific MTs, MTs for the entire Kern Subbasin are set based on HCM Area historical average land subsidence rates. As such, the Kern Subbasin GSAs will continue to monitor and report land subsidence throughout the entire Kern Subbasin, and coordinate with other entities that have interests in and responsibilities for land subsidence caused or influenced by activities or processes outside of the GSAs' management authorities.

The GSAs have developed a comprehensive Action Plan for Land Subsidence (Appendix K-1) that covers subsidence monitoring, reporting, exceedance evaluation, coordination with key agencies (e.g., FWA and CASP), and future updates to Subsidence protocols and P/MAs based on forthcoming documents.

Consideration of Adjacent Basins

MT extents in the Kern Subbasin are half the MT extents in the adjacent northward Tule and Tulare Lake Subbasins. Therefore, implementation of the 2025 Plan would not prevent neighboring subbasins from achieving their Land Subsidence sustainability goal(s). Although Land Subsidence MTs in the adjacent southern White Wolf Subbasin are currently set using groundwater levels as a proxy, Kern Subbasin GSAs are actively collaborating with the White Wolf GSA to ensure consistency as the White Wolf GSA develops more specific Land Subsidence SMCs.

Relationships Between Sustainability Indicators

The Kern Subbasin recognizes the interconnected nature of SGMA's Sustainability Indicators and evaluates how changes in one may influence others. Key relationships are summarized below:

1. Groundwater Levels and Groundwater Storage

- **Direct Relationship:** Chronic lowering of groundwater levels is directly related to reductions in groundwater storage.
- **Proxy Use:** Groundwater level MTs are used as a proxy for storage reduction.
- **Impact Estimate:** If groundwater levels decline from the MOs to the MTs, the reduction of storage would total approximately 7.2 million acre feet (MAF). Consistent with the Chronic Lowering of Groundwater Level UR criteria, 25 percent of this volume results in a reduction of storage of approximately 1.80 MAF per year. The estimated total decrease in storage from the historical and current water budgets (Section 9.3.2 and Appendix H-1) during the 2013-2016 drought was 7.47 MAF, and the annual decrease in storage during the 2013-2016 and 2021-2022 droughts was on average 1.832 MAF. Hence, a reduction of storage of less of than 1.80 MAF per year and cumulative reduction in storage of 7.2 MAF is not considered significant and unreasonable, as it is similar to the storage change observed during recent multi-year droughts without unreasonable dewatering of wells.

2. Groundwater Levels and Degraded Water Quality

- **No Subbasin-Wide Correlation:** Trend analysis shows no consistent correlation between declining groundwater levels and degraded water quality across the Subbasin.
- **Localized Exceptions:** Some areas show localized relationships due to specific geochemical or hydrologic conditions. These will be taken into consideration along with other relevant driving mechanisms when evaluating future MT exceedances (Appendix K-1).
- **Monitoring Approach:** RMW-WQs and data from 42 Department of Drinking Water (DDW) regulated small community systems with 55 active groundwater wells are used to monitor potential interactions.

3. Groundwater Levels and Land Subsidence

- **Simplified Predictive Analysis:** Historical groundwater level declines and land subsidence data were used to project average HCM Area future subsidence extents at MTs.
- **Protective Thresholds:** Based on regional correlation analysis, projected subsidence at groundwater level MTs is below the MTs for land subsidence, indicating that groundwater level MTs are protective. Moreover, groundwater

level MTs have been raised in areas to avoid groundwater levels falling newly below the Corcoran where they have not in the past. Groundwater level declines are projected through 2030, which is ten years before subsidence levels are projected to stabilize to account for potential residual subsidence in the future.

- Ongoing Monitoring: GSAs will compare observed subsidence with IMs and MTs annually and manage to the most protective indicator. GSAs will conduct quarterly check-ins with critical infrastructure operators to discuss land subsidence trends.
- Ongoing Modeling: The GSAs are integrating land subsidence into the C2VSimFG-Kern model as part of implementation of the 2025 Plan; the results of which will be used to ensure that MTs for chronic lowering of groundwater levels are protective of MTs set for land subsidence.

4. Land Subsidence and Groundwater Storage

- Potential Impact: Subsidence can reduce storage capacity through compaction of fine-grained layers.
- Conclusion: Given the correlation with groundwater level SMCs, land subsidence MTs are not expected to cause unreasonable storage loss.

5. Land Subsidence and Water Quality

- Arsenic Mobilization: Some studies suggest clay layer compaction may release arsenic.
- No Observed Correlation: No link has been observed between land subsidence and arsenic or other COCs in the Kern Subbasin.
- Monitoring Strategy: RMW-WQs in historically subsiding areas are used to track potential relationships.

ES.14 Projects and Management Actions

Achieving sustainability in the Kern Subbasin will require the implementation of P/MAs to address projected water budget deficits that contribute to groundwater level and storage declines, land subsidence, and water quality impacts. The Kern Subbasin has developed a portfolio of P/MAs, each with specific projected benefits, implementation triggers, and costs. The P/MA portfolio includes 387,000 AFY in demand reduction management actions and 452,000 AFY in water supply augmentation projects. To date, the Kern Subbasin has already begun to implement 47 percent of the identified P/MAs.

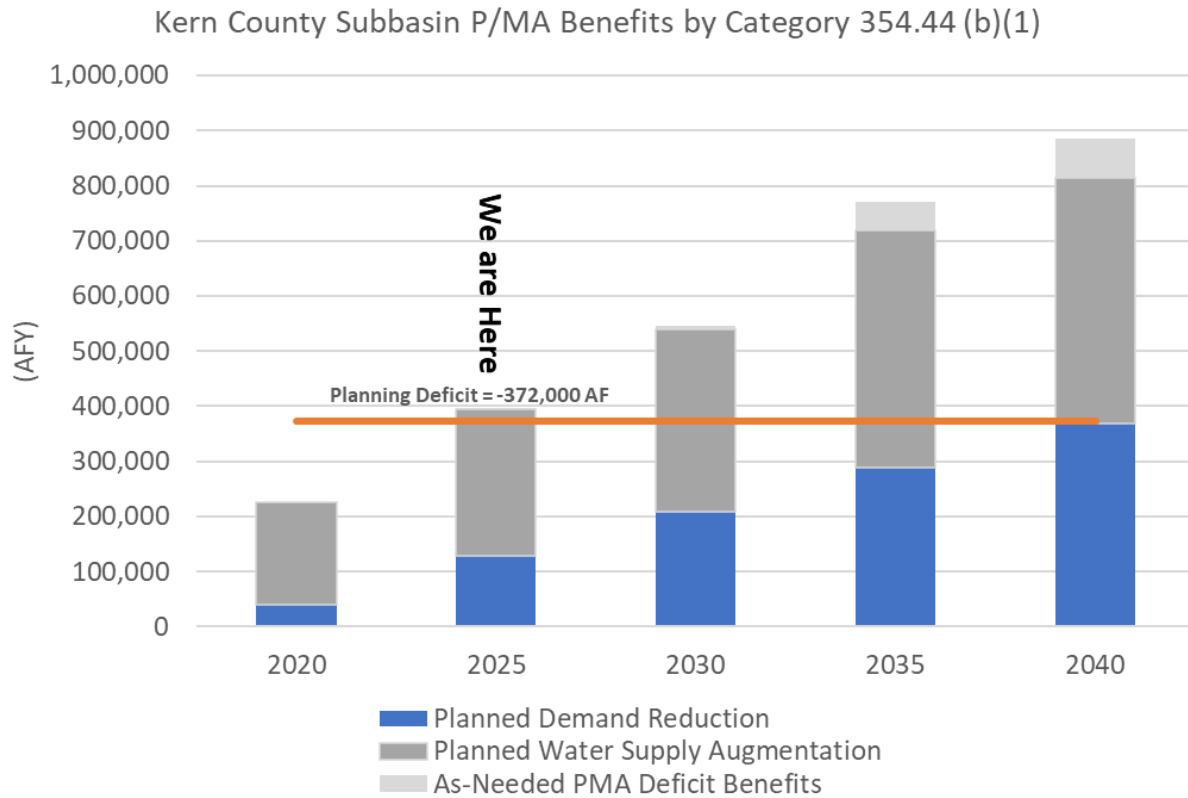


Figure ES-8. P/MA Benefits by Category

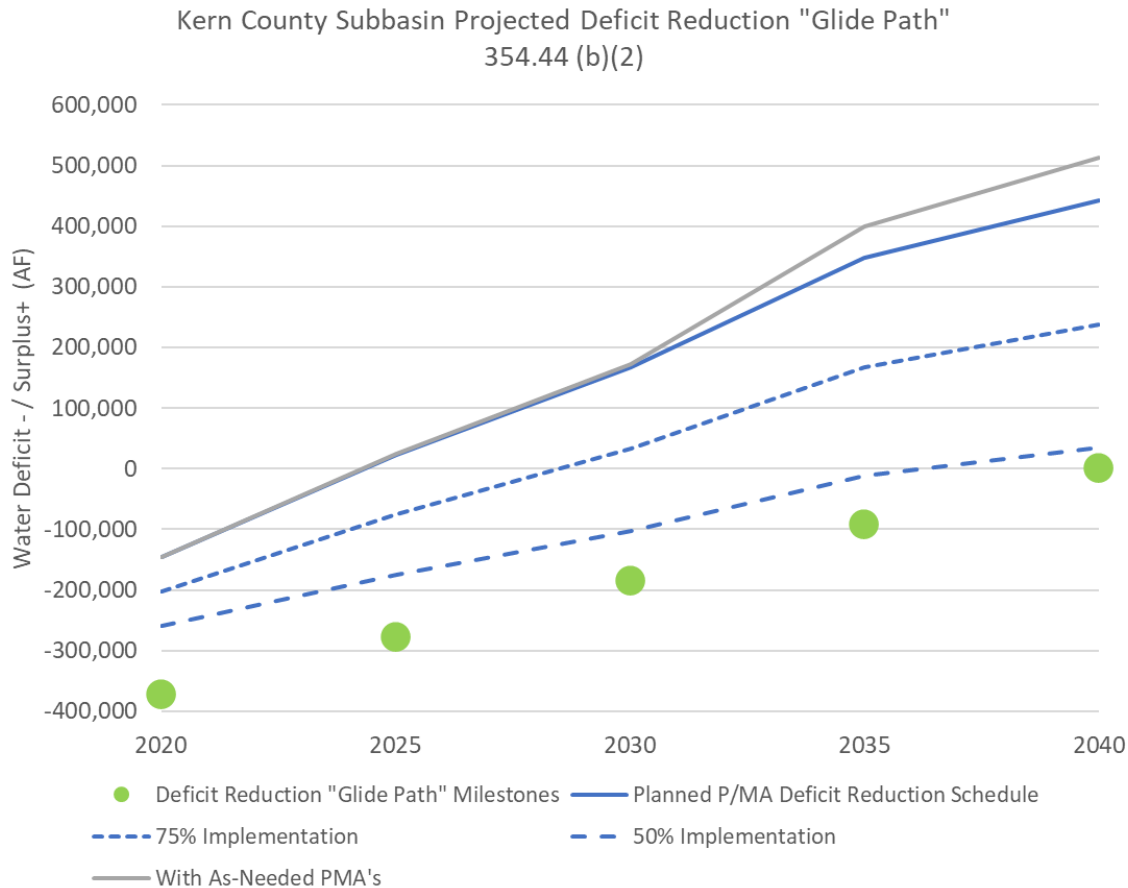


Figure ES-9. Projected-Future Scenario Overdraft Correction Glide Path

A linear “glide path” has been developed that will result in closing the projected Kern Subbasin deficit⁸ of approximately 372,000 AFY by 2040, of which 99 percent is projected to be met with demand reduction P/MAs (Figure ES-8). Kern Subbasin GSAs have also included supply augmentation P/MAs. The 2025 Plan includes significantly more P/MAs than are required to address the projected deficit. In the event full estimated P/MA benefits are not ultimately realized, there is a built-in “safety factor” of nearly 2.2 and a plan to ensure that the Kern Subbasin projected deficit is reduced by 2040. Furthermore, under the Kern Subbasin Exceedance Policy, implementation of P/MAs could be triggered and/or accelerated if MT exceedances occur.

The supply augmentation and demand reduction P/MAs identified by the Kern Subbasin GSAs comprises a diverse portfolio of options that can be implemented as necessary to achieve sustainability from a comprehensive water quantity and water quality perspective. Additionally, eight Kern Subbasin P/MAs establish Subbasin-wide programs, policies, collaborations, and ongoing data gap filling.

⁸ The net deficit to be addressed by the 2040 GSP implementation deadline is the estimated deficit under the 2030 Climate Change scenario.

The modeled simulated results for the planned P/MAs indicate that P/MA implementation along the planned glide path will successfully achieve sustainability and avoid URs for Groundwater Levels (and by proxy for the other applicable Sustainability Indicators) throughout the Kern Subbasin.

Specifically, the C2VSimFG-Kern model results have been used to compare simulated groundwater levels to the MTs and MOs for each RMW-WL. In general, across most of the Kern Subbasin, groundwater levels fall near or below MTs without P/MAs implementation but are typically above the MT for the simulations that include P/MAs (Figure ES-10).

The implementation glide path identified by the Kern Subbasin provides a general guide to how quickly these benefits are to be realized. To date the Kern Subbasin GSAs have

taken action on multiple P/MAs (e.g., development of new recharge basins). The exact schedule and order of implementation for other P/MAs, as seen in Figure ES-9, will be adaptively managed. Further analysis will be conducted to prioritize the P/MAs based on consideration of factors such as permitting, engineering feasibility, cost effectiveness, need to prevent particular URs, funding opportunities, etc. In general, P/MAs being considered for implementation will be discussed during GSA Board Meetings, which are noticed and open to the public. Additional stakeholder outreach efforts will be conducted prior to and during P/MA implementation, as required by law.

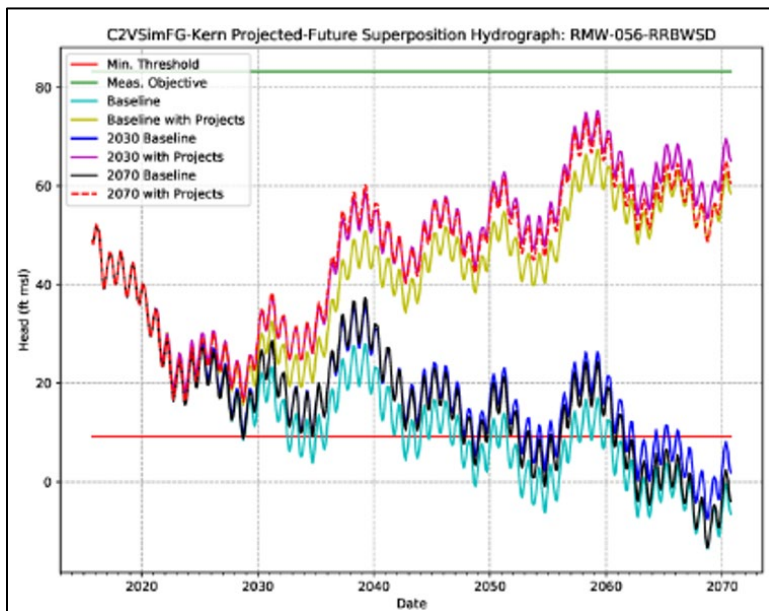


Figure ES-10. C2VSim-FG-Kern Projected Future Superposition Hydrograph (2030 Climate Change)

ES.15 Monitoring Network

The objective of monitoring networks under SGMA is to continue to collect sufficient data to evaluate the Sustainability Indicators and assess potential impacts to the beneficial uses and users of groundwater. The Kern Subbasin representative monitoring network incorporates existing monitoring efforts conducted by local agencies and regional programs, including DWR's California Statewide Groundwater Elevation Monitoring (CASGEM) program, the Irrigated Lands Regulatory Program (ILRP), Central Valley-Salinity Alternatives for Long-term Sustainability (CV-SALTS), among others. Within this broader network, the Representative Monitoring Network (RMN) serves as a focused subset of monitoring sites used to characterize general basin

conditions and evaluate Sustainability Indicators in accordance with SGMA requirements.

In the Kern Subbasin, the current RMN consists of:

- 187 representative monitoring wells for chronic lowering of groundwater levels (RMW-WLs) and, by proxy, groundwater storage;
- 55 representative monitoring wells for degraded water quality (RMW-WQs); and
- 123 representative monitoring sites for land subsidence (RMW-LSs), which include extensometers, benchmarks, and GPS stations. Basin-wide land subsidence is also monitored using InSAR satellite data.

To ensure the RMN is spatially and vertically representative of groundwater conditions and beneficial use and users across the Kern Subbasin, the Kern Subbasin GSAs conducted a detailed monitoring network assessment. This analysis considered the spatial and depth distribution of representative monitoring wells in relation to the distribution of wells that support various beneficial uses. Using a standardized hexagonal grid framework, the Kern Subbasin GSAs identified data gaps—particularly in monitoring of localized shallow groundwater conditions—and developed an implementation plan to address those gaps. The groundwater level monitoring network analysis identified three confirmed data gaps and seven potential data gaps related to representation of localized shallow groundwater conditions. The groundwater quality network analysis identified 30 data gaps, primarily in areas with medium to high domestic well density. The Kern Subbasin GSAs plan to fill these data gaps using existing or newly installed monitoring wells by the end of 2026. These findings and planned actions are summarized in Section 15.5.

Data collected through the RMN follows established monitoring protocols, is stored in the Kern Subbasin Data Management System (DMS), and is submitted to DWR in accordance with SGMA requirements. Quality assurance and quality control procedures are conducted by each GSA prior to data reporting. In the event of a MT exceedance for any Sustainability Indicator, all Kern Subbasin GSAs will be notified, triggering the Kern Subbasin Exceedance Policy and associated investigations and actions as outlined in Appendix K-1.

ES.16 Plan Implementation

Collectively, the SGMA implementation activities described in the 2025 Plan demonstrate the Kern Subbasin GSAs have actively implemented specific P/MAs, policies, and programs to sustainably manage groundwater resources for all beneficial uses and users and will continue to do so in order to meet the defined Sustainability Goal. Key SGMA and groundwater management implementation activities to be undertaken by the Kern Subbasin GSAs through 2040 include:

- Annual reporting

- Monitoring and data collection
- Data gap filling
- P/MA implementation, including policy development to support Plan implementation
- Technical and non-technical coordination with other water management entities within and outside the Kern Subbasin
- Continued outreach and engagement with stakeholders
- Enforcement and response actions, including:
 - Exceedance Policy
 - Well Mitigation Program
- Evaluation and updates as part of the required periodic evaluations (i.e., “five-year updates”)

Costs associated with implementation of groundwater management activities fall under two categories: (1) Subbasin-wide groundwater management activities, and (2) Individual GSAs to implement P/MAs within their jurisdictions, including capital/one-time costs and ongoing costs. Most costs for Subbasin-wide groundwater management activities are shared equally between the GSAs and are estimated as an annual cost of approximately \$1.4 million. For GSA-specific P/MA implementation, the GSAs intend to meet these cost obligations through a combination of landowner contributions (within their jurisdictions), partnering agencies, grant funding (DWR, United State Bureau of Reclamation, Federal Emergency Management Agency, etc.), locally available funds, and other available sources to be determined.

ES.17 Conclusion

The passage of the SGMA has fundamentally reshaped groundwater governance in California, introducing clear concepts, actions, and timelines to achieve sustainability and prevent Undesirable Results. For high-priority and critically overdrafted basins like the Kern Subbasin, this has created a renewed urgency to enhance monitoring, planning, and response efforts. Each GSA within the Kern Subbasin is actively exercising its authority to implement the coordinated groundwater management strategy outlined in the 2025 Plan.

The Kern Subbasin GSAs remain committed to the SMCs established to prevent URs. The Kern Subbasin GSPs have multiple layers of protection: a robust groundwater level, quality, and subsidence monitoring network that is being actively expanded to fill data gaps; protective MTs while managing groundwater to MOs; a well-funded well mitigation program to address groundwater level and quality impacts (particularly on domestic well users) due to groundwater management activities; and implementation of targeted

P/MAs that correct the projected deficit (under 2030 climate-change conditions) to avoid Undesirable Results and maintain Subbasin sustainability.

With a shared vision and a science-based approach, the Kern Subbasin GSAs are confident in their ability to achieve the Sustainability Goal by SGMA's statutory deadline. The Kern Subbasin GSAs are dedicated to long-term, coordinated groundwater management, ongoing engagement, and building consensus to ensure a reliable groundwater supply for current and future generations.

Appendix B

American Water Works Association Water Audit Results

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association
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?	Click to access definition
+	Click to add a comment

Water Audit Report for: **East Niles Community Services District (CA1510006)**
Reporting Year: **2020** 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

WATER SUPPLIED

Volume from own sources: + ? 5 2,249.000 acre-ft/yr
Water imported: + ? 3 5,899.000 acre-ft/yr
Water exported: + ? n/a 0.000 acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt: Value:
+ ? 3 -2.40% 0 0 acre-ft/yr
+ ? 3 -2.50% 0 0 acre-ft/yr
+ ? 0 0 0 0 acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 8,354.560 acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered: + ? 9 7,719.538 acre-ft/yr
Billed unmetered: + ? n/a 0.000 acre-ft/yr
Unbilled metered: + ? n/a 0.000 acre-ft/yr
Unbilled unmetered: + ? 5 104.432 acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 7,823.970 acre-ft/yr

Click here: ?
for help using option
buttons below

Pcnt: Value:
1.25% 0 0 acre-ft/yr

Use buttons to select
percentage of water
supplied
OR
value

Pcnt: Value:
0.25% 0 0 acre-ft/yr

1.50% 0 0 acre-ft/yr
0.25% 0 0 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

530.590 acre-ft/yr

Apparent Losses

Unauthorized consumption: + ? 5 20.886 acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies: + ? 4 117.556 acre-ft/yr
Systematic data handling errors: + ? 5 19.299 acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 157.742 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? **372.848** acre-ft/yr

WATER LOSSES: 530.590 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 635.022 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains: + ? 9 135.0 miles
Number of active AND inactive service connections: + ? 10 8,146
Service connection density: ? 60 conn./mile main

Are customer meters typically located at the curbside or property line? Yes

Average length of customer service line: + ? (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: + ? 7 73.0 psi

COST DATA

Total annual cost of operating water system: + ? 10 \$4,595,713 \$/Year
Customer retail unit cost (applied to Apparent Losses): + ? 10 \$1.52 \$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses): + ? 5 \$540.00 \$/acre-ft ☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 60 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported

2: Customer metering inaccuracies

3: Volume from own sources

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0
American Water Works Association
Copyright © 2014, All Rights Reserved.

?	Click to access definition
+	Click to add a comment

Water Audit Report for: East Niles Community Services District (CA1510006)
Reporting Year: 2021 1/2021 - 12/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

WATER SUPPLIED

----- Enter grading in column 'E' and 'J' ----->

Volume from own sources:	+	?	5	2,944.000	acre-ft/yr
Water imported:	+	?	3	5,665.000	acre-ft/yr
Water exported:	+	?	n/a	0.000	acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt:	Value:		acre-ft/yr
+	?	8	
+	?	7	
+	?		

Enter negative % or value for under-registration
 Enter positive % or value for over-registration

WATER SUPPLIED: 8,609.000 acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	+	?	9	7,967.202	acre-ft/yr
Billed unmetered:	+	?	n/a	0.000	acre-ft/yr
Unbilled metered:	+	?	n/a	0.000	acre-ft/yr
Unbilled unmetered:	+	?		107.613	acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 8,074.814 acre-ft/yr

Click here: ?
for help using option buttons below

Pcnt:	Value:		acre-ft/yr
1.25%			

Use buttons to select percentage of water supplied **OR** value

Pcnt:	Value:		acre-ft/yr
0.25%			

0.75%			acre-ft/yr
0.25%			acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

534.186 acre-ft/yr

Apparent Losses

Unauthorized consumption: 21.523 acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+	?	8	60.206	acre-ft/yr
Systematic data handling errors:	+	?		19.918	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 101.646 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 432.540 acre-ft/yr

WATER LOSSES: 534.186 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 641.798 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+	?	9	141.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	10	8,210	
Service connection density:	?			58	conn./mile main

Are customer meters typically located at the curbside or property line? Yes (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line: 0 feet
 Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 59.0 psi

COST DATA

Total annual cost of operating water system:	+	?	10	\$6,275,350	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	10	\$1.60	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	5	\$530.70	\$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 64 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported

2: Volume from own sources

3: Variable production cost (applied to Real Losses)



AWWA Free Water Audit Software: Worksheet

FWAS v6.0

American Water Works Association

Water Audit Report for: **East Niles Community Services District**Audit Year: **2023**

Jul 01 2023 - Jun 30 2024

Fiscal

Click 'n' to add notes

Click 'g' to determine data validity grade

To edit water system info: [go to start page](#)To access definitions, click the [input name](#)

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

choose entry option:

WATER SUPPLIEDVOS
WI
WE

Volume from Own Sources: 7 1,776.000 Acre-ft/Yr
Water Imported: 3 6,519.000 Acre-ft/Yr
Water Exported: n/a 0.000 Acre-ft/Yr

8 0.05% percent
 4 percent

[under-registration](#) VOSEA
WIEA
WEEA

WATER SUPPLIED: 8,295.888 Acre-ft/Yr**AUTHORIZED CONSUMPTION**BMAC
BUAC
UMAC
UUAC

Billed Metered: 8 7,678.000 Acre-ft/Yr
Billed Unmetered: n/a 0.000 Acre-ft/Yr
Unbilled Metered: n/a 0.000 Acre-ft/Yr
Unbilled Unmetered: 3 19.195 Acre-ft/Yr

choose entry option:

0.25% default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 7,697.195 Acre-ft/Yr**WATER LOSSES**

598.693 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

SDHE
CMI
UC

Systematic Data Handling Errors: 3 19.195 Acre-ft/Yr
Customer Metering Inaccuracies: 7 350.861 Acre-ft/Yr
Unauthorized Consumption: 3 19.195 Acre-ft/Yr

choose entry option:

0.25% default
4.37% percent
0.25% default

[under-registration](#)

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 389.251 Acre-ft/Yr**Real Losses****Real Losses:** 209.442 Acre-ft/Yr**WATER LOSSES:** 598.693 Acre-ft/Yr**NON-REVENUE WATER****NON-REVENUE WATER:** 617.888 Acre-ft/Yr**SYSTEM DATA**

Lm Length of mains: 10 136.8 miles (including fire hydrant lead lengths)
Nc Number of service connections: 5 8,226 (active and inactive)
Service connection density: 60 conn./mile main

Are customer meters typically located at the curbstop/property line? ☒ YesLp 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP Average Operating Pressure: 8 83.3 psi**COST DATA**CRUC
VPC

Customer Retail Unit Charge: 9 \$1.60 \$/100 cubic feet (ccf)
Variable Production Cost: 8 \$760.08 \$/acre-ft

Total Annual Operating Cost

\$10,767,866 \$/yr (optional input)

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY TIER:

*** The Water Audit Data Validity Score is in Tier III (51-70). See Dashboard tab for additional outputs. ***

[go to dashboard](#)

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Water Imported (WI)
2: Billed Metered (BMAC)
3: Number of Service Connections (Nc)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses: gal/conn/day
Unit Apparent Losses: gal/conn/day
Unit Real Losses^a: gal/conn/day
Unit Real Losses^b: gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

Appendix C

SB X7-7 Verification Form Submitted for the 2020 UWMP

SB X7-7 2020 Compliance Form

The SB X7-7 2020 Compliance Form is for the calculation of 2020 compliance only. All retail suppliers must complete the SB X7-7 Compliance Form. Baseline and target calculations are done in the SB X 7-7 Verification Form.

The SB X7-7 Verification Form is for the calculation of baselines and targets and is a separate workbook from the SB X7-7 2020 Compliance Form. Most Suppliers will have completed the SB X7-7 Verification Form with their 2015 UWMP and do not need to complete this form again in 2020. See Chapter 5 Section 5.3 of the UWMP Guidebook for more information regarding which Suppliers must, or may, complete the SB X7-7 Verification Form for their 2020 UWMP. 2020 compliance calculations are done in the SB X7-7 2020 Compliance Form.

WUE Data Portal Entry Exceptions

The data from the tables below will not be entered into WUE Data Portal tables. These tables will be submitted as separate uploads, in Excel, to WUE Data Portal.

Process Water Deduction

SB X7-7 tables 4-C, 4-C.1, 4-C.2, 4-C.3, 4-C.4 and 4-D

A supplier that will use the process water deduction will complete the appropriate tables in Excel, submit them as a separate upload to the WUE Data Portal, and include them in its UWMP.

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP*

(select one from the drop down list)

Acre Feet

**The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.*

NOTES:

SB X7-7 Table 2: Method for 2020 Population Estimate**Method Used to Determine 2020 Population**
(may check more than one)**1. Department of Finance (DOF) or
American Community Survey (ACS)****2. Persons-per-Connection Method****3. DWR Population Tool****4. Other**
DWR recommends pre-review

NOTES: Population was provided to the District by the Kern Council of Governments

SB X7-7 Table 3: 2020 Service Area Population	
2020 Compliance Year Population	
2020	32,517
NOTES:	

SB X7-7 Table 4: 2020 Gross Water Use

Compliance Year 2020	2020 Volume Into Distribution System <i>This column will remain blank until SB X7-7 Table 4-A is completed.</i>	2020 Deductions					2020 Gross Water Use
		Exported Water *	Change in Dist. System Storage* (+/-)	Indirect Recycled Water <i>This column will remain blank until SB X7-7 Table 4-B is completed.</i>	Water Delivered for Agricultural Use*	Process Water <i>This column will remain blank until SB X7-7 Table 4-D is completed.</i>	
	8,148			-		-	8,148

* Units of measure (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES:

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Groundwater		
This water source is (check one) :			
☒	The supplier's own water source		
☐	A purchased or imported source		
Compliance Year 2020	Volume Entering Distribution System ¹	Meter Error Adjustment ² <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System
	2,249	-	2,249
¹ Units of measure (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3. ² Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document			
NOTES			

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s) Meter Error Adjustment

Complete one table for each source.

Name of Source	KCWA		
This water source is (check one) :			
☐	The supplier's own water source		
☒	A purchased or imported source		
Compliance Year 2020	Volume Entering Distribution System ¹	Meter Error Adjustment ² <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System
	5,899		5,899
¹ Units of measure (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3. ² Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document			
NOTES:			

SB X7-7 Table 4-B: 2020 Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

2020 Compliance Year	2020 Surface Reservoir Augmentation					2020 Groundwater Recharge			Total Deductible Volume of Indirect Recycled Water Entering the Distribution System
	Volume Discharged from Reservoir for Distribution System Delivery ¹	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss ¹	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility ^{1,2}	Transmission/ Treatment Losses ¹	Recycled Volume Entering Distribution System from Groundwater Recharge	
	-		-		-			-	-

¹ *Units of measure (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* ² *Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C: 2020 Process Water Deduction Eligibility

(For use only by agencies that are deducting process water) Choose Only One

☐	Criteria 1- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	Criteria 2 - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	Criteria 3 - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☒	Criteria 4 - Disadvantaged Community. Complete SB x7-7 Table 4-C.4

NOTES:

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.1: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 1)*

Criteria 1
Industrial water use is equal to or greater than 12% of gross water use

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction	2020 Industrial Water Use	Percent Industrial Water	Eligible for Exclusion Y/N
	8,148		0%	NO

NOTES:

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel
format.

SB X7-7 Table 4-C.2: 2020 Process Water Deduction Eligibility (For use only by agencies that are deducting process water using Criteria 2)				
Criteria 2 Industrial water use is equal to or greater than 15 GPCD				
2020 Compliance Year	2020 Industrial Water Use	2020 Population	2020 Industrial GPCD	Eligible for Exclusion Y/N
		32,517	-	NO
NOTES:				

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.3: 2020 Process Water Deduction Eligibility

(For use only

by agencies that are deducting process water using Criteria 3)

Criteria 3

Non-industrial use is equal to or less than 120 GPCD

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction <i>Fm SB X7-7 Table 4</i>	2020 Industrial Water Use	2020 Non-industrial Water Use	2020 Population <i>Fm SB X7-7 Table 3</i>	Non-Industrial GPCD	Eligible for Exclusion Y/N
	8,148		8,148	32,517	224	NO

NOTES:

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.4: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 4)*

Criteria 4

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

SELECT ONE

"Disadvantaged Community" status was determined using one of the methods listed below:

1. IRWM DAC Mapping tool <https://gis.water.ca.gov/app/dacs/>

☐

If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

2. 2020 Median Income

	California Median Household Income*		Service Area Median Household Income	Percentage of Statewide Average	Eligible for Exclusion? Y/N
☒	2020	\$75,235	\$52,422	70%	YES
*California median household income 2015 -2019 as reported in US Census Bureau QuickFacts.					

NOTES

SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)		
2020 Gross Water <i>Fm SB X7-7 Table 4</i>	2020 Population <i>Fm</i> <i>SB X7-7 Table 3</i>	2020 GPCD
8,148	32,517	224
NOTES:		

SB X7-7 Table 9: 2020 Compliance

Actual 2020 GPCD ¹	Optional Adjustments to 2020 GPCD					2020 Confirmed Target GPCD ^{1, 2}	Did Supplier Achieve Targeted Reduction for 2020?
	Enter "0" if Adjustment Not Used			TOTAL Adjustments ¹	Adjusted 2020 GPCD ¹ <i>(Adjusted if applicable)</i>		
	Extraordinary Events ¹	Weather Normalization ¹	Economic Adjustment ¹				
224	-	-		-	224	311	YES

¹ All values are reported in GPCD ²
2020 Confirmed Target GPCD is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.

NOTES:

Appendix D

SB X7-7 2025 Submittal Tables

Submittal Table 2-1 Retail: Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
----------------------------	--------------------------	--------------------------------------	------------------------------------

Add additional rows as needed

CA1510006

East Niles CSD

8,296

8,912

Total

8,296

8,912

DWR NOTES:

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

NOTES: Units in AF

Submittal Table 2-2: Plan Identification

Select One

Type of Plan

Name of Regional Alliance or RUWMP (Drop Down List)



Individual UWMP

If Water Supplier is also a member of a SB X7-7 Regional Alliance, select name from the drop-down.



Regional Urban Water Management Plan (RUWMP)

If Supplier selected RUWMP, select name from the drop-down.

NOTES:

Submittal Table 2-3: Supplier Identification

Type of Supplier (select one or both)

☐

Supplier is a wholesale supplier

☒

Supplier is a retail supplier

Fiscal or Calendar Year (select one)

☒

UWMP Tables are in calendar years

☐

UWMP Tables are in fiscal years

If using fiscal years provide month and date that the fiscal year begins (mm/dd)

Units of measure used in UWMP
(Select from the drop down list).

Unit

AF

DWR NOTES:

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

NOTES:**Submittal Table 2-4 Retail: Water Supplier Information Exchange
Water Code Section 10631(h)**

The retail Supplier has informed the following wholesale supplier(s) of projected water use.

Wholesale Water Supplier Name

Add additional rows as needed

Kern County Water Agency (KCWA-ID4)

NOTES:**Submittal Table 3-1 Retail: Population - Current and Projected
Water Code Section 10631(a)**Population
Served

2025

2030

2035

2040

2045

2050(opt)

35,745

36,539

37,334

38,129

38,924

39,718

NOTES:

Submittal Table 4-1 Retail: Total Uses for Potable and Non-Potable Water — Actual
Water Code Section 10631(d)(1)

Use Type	Additional Description (as needed)	2025 Actual Water Use	
Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool		Potable or Non- Potable (OPTIONAL) Drop down list	Volume (AF)
Add additional rows as needed			
Single Family		Potable	4,587
Multi-Family		Potable	749
Commercial		Potable	1,114
Industrial		Potable	1,106
Landscape		Potable	750
Agricultural		Potable	26
Other (optional)		Potable	580
Subtotal Potable			8912
Subtotal Non-Potable			0
Total			8,912
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.			
NOTES:			

Submittal Table 4-2 Retail: Total Uses for Potable, and Non-Potable Water — Projected
Water Code Section 10631(d)(1)

Use Type	Additional Description (as needed)	Projected Water Use (Report To the Extent that Records are Available)					
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUedata online submittal tool		Potable or Non-Potable (OPTIONAL) Drop down list	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 opt (AF)
Add additional rows as needed.							
Single Family		Potable	4,928	5,035	5,142	5,249	5,356
Multi-Family		Potable	880	900	919	938	957
Commercial		Potable	1,180	1,206	1,231	1,257	1,283
Industrial		Potable	479	490	500	510	521
Landscape		Potable	677	691	706	721	735
Agricultural		Potable	50	51	52	53	54
Other (optional)		Potable	606	619	632	646	659
Subtotal Potable			8,800	8,991	9,183	9,374	9,565
Subtotal Non-Potable			0	0	0	0	0
Total			8,800	8,991	9,183	9,374	9,565
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.							
NOTES:							

**Submittal Table 4-3 Retail: Inclusion in Water Use Projections
Water Code Section 10631 (a), 10631 (d)(4)(A), and 10631 (d)(4)(B)**

Are Future Water Savings Included in Projections?
Drop down list (y/n)

No

If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.
Optional Suppliers may complete Optional Submittal Table 4-4 R to quantify the expected savings.

Are Lower Income Residential Demands Included In Projections?
Drop down list (y/n)

Yes

Optional If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found.

DWR NOTES: Additional guidance is provided in Appendix K.

NOTES:

**Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard
Water Code Section 10631(d)(3)(C)**

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit		Real Water Loss Per Unit per Day	State Water Board Standard		Most Recent AWWA Water Loss Audit		Apparent Water Loss Per Unit per Day
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)		2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)	
Add additional rows as needed.											
CA1510006	Yes	0	Gallons per Mile per Day (GPMD)	8226	209.442	22.7	12.1	Gallons per Service Connection per Day (GPSCD)	8226	389.251	42.2

Water Board's Calculated Water Loss Standards

DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss **MUST** remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.

NOTES: Units is in Connections

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress
Water Code Section 10608.40

☐ Check the box if the Supplier was not an Urban Water Supplier during or before the 2020 UWMP reporting cycle. Proceed to the next table.						
Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target? Drop down list	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	Only for suppliers that did not meet the Target in 2020 See DWR NOTES below.	
					Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	311	208	Yes	223	Yes
DWR NOTES: Suppliers calculating a 2025 GPCD will need to complete and submit SB X 7-7 Compliance Tables to verify the use of SB X7-7 Methodologies. Suppliers that were part of a merger or consolidation since 2020 see Chapter 5 and Appendix P for guidance.						
NOTES:						

Submittal Table 6-1 Retail: Groundwater Volume Pumped
Water Code Section 10631(4) and 10631(4)(c)

☐ Check the box if the Supplier does not pump groundwater. Proceed to the next table.							
☐ Check the box if all or part of the groundwater described below is desalinated. (OPTIONAL)							
Groundwater Type Drop Down List May use each category multiple times	Potable or Non-Potable (OPTIONAL) Drop down list	Location or Basin Name	2021 (AF)	2022 (AF)	2023 (AF)	2024 (AF)	2025 (AF)
Add additional rows as needed							
Alluvial Basin	Potable	Kern County Subbasin 5-22-14	2944	2729	1274	2312	1712
Total			2,944	2,729	1,274	2,312	1,712
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.							
NOTES							

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area
Water Code Section 10633(a)

☐	Check the box if there is no wastewater collection system. Proceed to the next table.
--------------------------	--

	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)
--	---

	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)
--	--

Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL Drop Down List	Volume of Wastewater Collected from UWMP Service Area 2025 (AF)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number Drop down list	Is WWTP Located Within UWMP Area? Drop Down List

Add additional rows as needed

East Niles Community Services District	Estimated	4,004	Other (provide name and ID in "NOTES" field)	
Total Wastewater Received from UWMP Service Area in 2025:		4,004		

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES: Wastewater Treatment Plant No. 2 (ID# 273208) and Kern County Wastewater Plant

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWMP Service Area
Water Code Section 10633(b)

☒ Check the box if no wastewater is treated or disposed of within the UWMP service area.
Proceed to the next table.

[illegible]

Add additional rows as needed

Total	0	-		0		0		0		0		0	

DWR NOTES:

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

IPR: Indirect Potable Reuse would have the treatment level of its end use requirement in the Level of Treatment drop-down.

Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

**Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection
Compared to 2025 Actual
Water Code Section 10633(e)**

☒	Check the box if recycled water was not used in 2025 nor previously projected for use in 2020. Proceed to the next table.
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Use Type Drop Down list	2020 Projection for 2025 (AF)	2025 Actual Use (AF)
----------------------------	----------------------------------	-------------------------

Add additional rows as needed

[illegible]

DWR NOTES:

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3

Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use
Water Code Section 10633(f)

☒	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in the UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Add additional rows as needed			
Total (AF)			0
Unit Conversion to AF			0
DWR NOTES: Units of measure (AF, CCF, MG) MUST remain consistent with units reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3. The unit conversion to Acre Feet addresses the Water Code's requirement that this value be provided in acre-feet.			
NOTES: 			

Submittal Table 6-8 Retail: Water Supplies — Actual
Water Code Section 10631(b)

Water Supply	Additional Description (as needed)	2025		
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool		Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Add additional rows as needed				
Groundwater (not desalinated)		Potable	1,712	
Purchased or Imported Water		Potable	7,200	
Subtotal Potable			8,912	0
Subtotal Non-Potable			0	0
Total			8,912	0
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3. Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.				
NOTES: 				

Submittal Table 6-9 Retail: Water Supplies — Projected Water Code Section 10631 (b)												
Water Supply	Additional Detail on Water Supply	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop Down list	Projected Water Supply (Report to the Extent Practicable)									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool			2030		2035		2040		2045		2050 (opt)	
			Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Add additional rows as needed												
Groundwater (not desalinated)	Kern County Subbasin	Potable	5,806		5,806		5,806		5,806		5,806	
Purchased or Imported Water	Kern County Water Agency - ID4	Potable	11,000		11,000		11,000		11,000		11,000	
Subtotal Potable			16,806	0	16,806	0	16,806	0	16,806	0	16,806	0
Subtotal Non-Potable			0	0	0	0	0	0	0	0	0	0
Total			16,806	0	16,806	0	16,806	0	16,806	0	16,806	0
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount. NOTES:												

Optional Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2024-2025, use 2025	Available Supplies if Year Type Repeats	
		☐	Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location: [insert location from UWMP]
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (AF)	% of Average Supply
Average Year	2021	16806	100%
Single-Dry Year	2011	16806	100%
Consecutive Dry Years 1st Year	2011	16806	100%
Consecutive Dry Years 2nd Year	2012	16806	100%
Consecutive Dry Years 3rd Year	2013	16806	100%
Consecutive Dry Years 4th Year	2014	16806	100%
Consecutive Dry Years 5th Year	2015	16806	100%
DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 R if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Submittal Table 7-1 R, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 R are being used and identify the particular water source that is being reported in each submittal table. Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table reports the units of measure reported in Submittal Table 2-3.			
NOTES:			

Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison Water Code Section 10635 (a)					
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals (autofill from Submittal Table 6-9 R)	16,806	16,806	16,806	16,806	16,806
Use totals (autofill from Submittal Table 4-2 R)	8,800	8,991	9,183	9,374	9,565
Surplus/(shortfall)	8,006	7,815	7,623	7,432	7,241
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison Water Code Section 10635(a)					
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals	16,806	16,806	16,806	16,806	16,806
Use totals	8,800	8,991	9,183	9,374	9,565
Surplus/(shortfall)	8,006	7,815	7,623	7,432	7,241
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Use Comparison
Water Code Section 10635(a)

		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
First year	Supply totals	16,806	16,806	16,806	16,806	16,806
	Use totals	8,800	8,991	9,183	9,374	9,565
	Surplus/(shortfall)	8,006	7,815	7,623	7,432	7,241
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Second year	Supply totals	16,806	16,806	16,806	16,806	16,806
	Use totals	8,800	8,991	9,183	9,374	9,565
	Surplus/(shortfall)	8,006	7,815	7,623	7,432	7,241
	OPTIONAL WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Third year	Supply totals	16,806	16,806	16,806	16,806	16,806
	Use totals	8,800	8,991	9,183	9,374	9,565
	Surplus/(shortfall)	8,006	7,815	7,623	7,432	7,241
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fourth year	Supply totals	16,806	16,806	16,806	16,806	16,806
	Use totals	8,800	8,991	9,183	9,374	9,565
	Surplus/(shortfall)	8,006	7,815	7,623	7,432	7,241
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fifth year	Supply totals	16,806	16,806	16,806	16,806	16,806
	Use totals	8,800	8,991	9,183	9,374	9,565
	Surplus/(shortfall)	8,006	7,815	7,623	7,432	7,241
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

NOTES:

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
2026	Total
Total Water Use (AF)	8,647
Total Supplies (AF)	8,647
Surplus/Shortfall w/o WSCP Action	0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	
Revised Surplus/(shortfall)	
2027	Total
Total Water Use (AF)	8,685
Total Supplies (AF)	8,685
Surplus/Shortfall w/o WSCP Action	0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	
Revised Surplus/(shortfall)	
2028	Total
Total Water Use (AF)	8,723
Total Supplies (AF)	8,723
Surplus/Shortfall w/o WSCP Action	0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	
Revised Surplus/(shortfall)	
2029	Total
Total Water Use (AF)	8,761
Total Supplies (AF)	8,761
Surplus/Shortfall w/o WSCP Action	0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	
Revised Surplus/(shortfall)	
2030	Total
Total Water Use (AF)	8,800
Total Supplies (AF)	8,800
Surplus/Shortfall w/o WSCP Action	0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	
Revised Surplus/(shortfall)	
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES:	

Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels
Water Code Section 10632(a)(3)(B)



Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.

Standard Shortage Levels	Percent Shortage Range	Suppliers Shortage Levels	Percent Shortage Range
1	Up to 10%	1	0-10%
2	Up to 20%	2	11-20%
3	Up to 30%	3	21-30%
4	Up to 40%	4	31-40%
5	Up to 50%	5	41-50%
6	>50%	6	51%

NOTES:

Submittal Table 8-2 Retail: Supply Augmentation and Other Actions
Water Code Section 10632(a)(4)(A),(C) and (E)

Yes	Is the Supplier completing this table using the standard six levels? (yes/no)			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)
	Drop down list These are the only categories that will be accepted by the WUEdata online submittal tool	Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)	
Add additional rows as needed				
All Stages	Expand Public Information Campaign		Low	
All Stages	Other Actions (describe)		Medium	Demand Reduction Programs
All Stages	Other Actions (describe)		Medium	Use Prohibitions
All Stages	Other Actions (describe)		Low	Voluntary Rationing
1 and 2	Other Actions (describe)		High	Flow Restriction
3 and 4	Other Actions (describe)		Medium	Restrict only for priority users
5	Other Actions (describe)		High	Mandatory rationing
6	Stored Emergency Supply		Low	
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.				
NOTES:				

Submittal Table 8-3 Retail: Demand Reduction Actions
Water Code Section 10632(a)(4)(B),(D), and (E)

Is the Supplier completing this table using the standard six levels? (yes/no)					
Shortage Level	Demand Reduction Actions Drop down list These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? For Retail Suppliers Only Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
Add additional rows as needed					
All Stages	Expand Public Information Campaign		Low		No
1	Other		Medium	Public outreach for voluntary reduction in water use by 15%	No
2	Other - Prohibit use of potable water for washing hard surfaces		Medium		No
2	Landscape - Other landscape restriction or prohibition		High		No
3	CII - Restaurants may only serve water upon request		Low		No
3	CII - Lodging establishment must offer opt out of linen service		Low		No
3	Landscape - Other landscape restriction or prohibition		Medium		No
4	Water Features - Restrict water use for decorative water features, such as fountains		Low		No
4	Other		High	Other- Only wash vehicles using a bucket and a handheld hose with positive shut off nozzle.	No
4	Other - Prohibit use of potable water for construction and dust control		High	Other- Use recycled or non-potable water for construction purpose when available	No
4	Landscape - Other landscape restriction or prohibition		High		No
5	Landscape - Other landscape restriction or prohibition		High		No
5	Landscape - Limit landscape irrigation to specific days		Medium		No
6	Landscape - Limit landscape irrigation to specific times		High		No
6	CII - Other CII restriction or prohibition		Low		No
6	Other		Low		No
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

Appendix E

Water Supply Agreement with Kern County Water
Agency

AGREEMENT BETWEEN

KERN COUNTY WATER AGENCY

AND

EAST NILES COMMUNITY SERVICES DISTRICT

FOR A WATER SUPPLY

SEPTEMBER 2005

AGREEMENT BETWEEN KERN COUNTY WATER AGENCY
AND EAST NILES COMMUNITY SERVICES DISTRICT
FOR A WATER SUPPLY

This agreement made this 21st day of September, 2005 (hereinafter Agreement), is by and between the Kern County Water Agency, established by chapter 1003 of the 1961 Statutes of the State of California, hereinafter referred to as the "Agency" and East Niles Community Services District, a Community Services District duly organized and existing under and by virtue of the laws of the State of California, hereinafter referred to as "Purveyor":

W I T N E S S E T H:

WHEREAS, the Agency and the State of California entered into an agreement entitled "Water Supply Contract Between the State of California Department of Water Resources and Kern County Water Agency" dated November 15, 1963, whereby the State of California has and will furnish a water supply to the Agency; and

WHEREAS, the Agency has obtained an annual State Water Project Table A Supply of 82,946 acre-feet per year, which is within the yield authorized for Improvement District No. 4, which it will allocate to the Urban Bakersfield Area; and

WHEREAS, by Resolution No. 17-71 adopted December 21, 1971, as amended, the Agency formed Improvement District No. 4 of the Kern County Water Agency to undertake the financing, construction, operation and maintenance of works to provide a supplemental water supply for the Urban Bakersfield Area; and

WHEREAS, the lands and inhabitants of the Purveyor to be served by the water provided hereby, all of which will be located in said Improvement District No. 4 prior to service, are in need of surface water for beneficial uses; and

WHEREAS, the Agency has sold water to certain distribution agencies, and desires to continue to sell water to distribution agencies as a method of achieving the purposes of Improvement District No. 4; and

WHEREAS, in order to continue to meet the increasing demands of the distribution agencies within Improvement District No. 4 which will exercise all reasonable efforts to comply with federal, state and local laws regarding water conservation, the Agency plans to expand its treated water supply to meet those increased demands by expanding its facilities as illustrated on attached Exhibit A, under terms and conditions which shall be fair and equitable to all such water distributors and the inhabitants of Improvement District No. 4; and

WHEREAS, Purveyor desires to enter this Agreement with the Agency for a water supply, and increase the amount of the supply, for the benefit of the lands and inhabitants served by the Purveyor within the confines of Agency Improvement District No. 4 and for which the Purveyor will make payments to the Agency upon the terms and conditions hereinafter set forth, and Purveyor accepts this Agreement as meeting the terms of its option for continued service under its existing contract.

NOW THEREFORE, IT IS HEREBY MUTUALLY AGREED by the parties hereto as follows:

Article 1. Definitions.

When used in this Agreement, the following terms shall have the meanings hereinafter set forth:

(A) "Agency Act" shall mean the Kern County Water Agency Act, being Chapter 1003 of the 1961 Statutes of the State of California, as amended.

(B) "Annual Entitlement" shall mean the amounts of treated water, in acre-feet, to be made available to each Customer each Year as shown on Exhibit D, and in accordance with the option arrangement set forth in Article 8. The maximum instantaneous flow capacities to be provided for each Customer in the transmission facilities are shown on Exhibit C.

(C) "Capacity" shall mean the measurement of the capability of a pipeline, canal, Purification Plant, or other facility as measured over a short period utilizing the full operational capability of the facility, and where referencing the Purveyor's or other Customer's share of Capacity shall mean that share allocated by this Agreement either textually or as specified in the incorporated Exhibits.

(D) "Capital Costs" shall mean all costs incurred by the Agency which are properly chargeable, in accordance with generally accepted accounting practices, to the development of, construction of and the furnishing of equipment for the various project facilities, including the costs of surveys, engineering studies, exploratory work, designs, preparation of construction plans and specifications, acquisitions, acquisition of lands, easements and rights-of-way, relocation work, and essential legal, administrative and financial work in connection therewith.

(E) "Capital Facilities Charge" shall mean that charge to Purveyor and other

Customers which repays the Expanded Capital Costs, including the interest on financing of such costs, trustee fees, remarketing fees, credit enhancement costs, arbitrage rebate, any amount required to replenish a debt service reserve fund to its required amount, costs for financing or refunding, other ongoing financing or re-financing costs, any payments required pursuant to Article 19 hereof, any amount necessary to comply with a debt service coverage covenant for a financing, and other capital costs including, but not limited to, payments on obligations issued on the Expanded Capital Costs.

(F) "Capital Facilities Account" shall mean a restricted account within the ID4 Enterprise Fund to receive payments of Capital Facilities Charges and to disburse payments to service the debt incurred for the Expanded Capital Costs and other Capital Costs, including but not limited to, payments on Certificates of Participation issued in 2000 and 2005, and in subsequent years as required to finance the Expansion Project.

(G) "Cross Valley Canal" shall mean the concrete lined canal approximately 17 miles in length extending from the California Aqueduct near Tupman easterly to the Arvin-Edison Canal, together with the turnout from the California Aqueduct, the pumping plants necessary to lift water through a static head of approximately 84 feet and such road crossings, utility relocations, fences and other facilities necessary for its construction and operation.

(H) "Customers" shall mean each of the following water distributors that contract to buy treated water from the project including: North of the River Municipal Water District, East Niles Community Services District, California Water Service Company and the City of Bakersfield.

(I) "Distribution Component" means that portion of the Expansion Project which is set forth in Article 5(B)(2).

(J) "Enterprise" means the Purveyor's water system, including all facilities, works, properties and structures of the Purveyor for the treatment, transmission and distribution of water, excluding wastewater and all facilities for the collection and treating of wastewater, but including all contractual rights to water supplies, transmission capacity, supply, easements, rights-of-way and other works, property or structures necessary or convenient for such facilities, together with all additions, betterments, extensions and improvements to such facilities or any part thereof hereafter acquired or constructed.

(K) "Expanded Capital Costs" shall mean that subset of Capital Costs which are due to the Expansion Project, exclusive of Cross Valley Canal expansion capital costs and other capital costs.

(L) "Expansion Project" shall mean the project to be undertaken by the Agency to increase treated water capacity and delivery capability more particularly described in Article 5(B).

(M) "Extension" shall mean the lined and unlined canal reaches beginning at the eastern terminus of the Cross Valley Canal at the afterbay of Pumping Plant No. 6 and extending easterly approximately 4.5 miles to a point near the Henry C. Garnett Water Purification Plant, which point is approximately 1240 feet upstream from the Cawelo Water District's Pump Station "A," together with a pumping plant necessary to lift water through a static head of approximately 30 feet and such road crossings, utility relocations, fences and other facilities necessary for its construction and operation.

(N) "Groundwater Charge" is the governmental exaction levied in Improvement District No. 4 under the authority of the Kern County Water Agency Act (Uncodified Act 99, West's Annotated California Water Code) and resolutions of the Kern County Water Agency Board.

(O) "Improvement District No. 4" or "ID4" shall mean Improvement District No. 4 of the Kern County Water Agency created by Resolution No. 17-71 of the Board of Directors of the Kern County Water Agency adopted December 21, 1971, as amended.

(P) "ID4 Enterprise Fund" is that fund created within the Agency for accounting of revenues and expenses of the Improvement District No. 4 enterprise, including restricted accounts for the payment of the Expanded Capital Costs.

(Q) "Maintenance and Operation Costs" of the Enterprise means the reasonable and necessary costs and expenses paid by the Purveyor for maintaining and operating the Enterprise, as determined in accordance with generally accepted accounting principles (GAAP), including but not limited to (a) the reasonable expenses of management and repair and other costs and expenses necessary to maintain and preserve the Enterprise in good repair and working order, (b) administrative costs of the Purveyor attributable to the Enterprise and the financing thereof, and (c) amounts due Improvement District No. 4 under the Agreement including, but not limited to, the Treated Water Charge and Capital Facilities Charge; but excluding (x) depreciation, replacement and obsolescence charges or reserves therefore, (y) in any Fiscal Year prior to setting aside an amount equal to the Capital Facilities Charge for such Fiscal Year, capital expenditures other than as set forth in subsection (A) above, and (z) amortization of intangibles or other bookkeeping entries or a similar nature.

(R) "Master Contract" shall mean that contract between the Agency and the State of California entitled "Water Supply Contract Between the State of California Department of Water Resources and the Kern County Water Agency" dated November 15, 1963, as amended to date and any revisions or amendments hereafter made.

(S) "New Customer" shall mean the City of Bakersfield.

(T) "New Entitlement" is that portion of the Annual Entitlement which Customers have acquired through the execution of this Agreement and the Expansion Project.

(U) "Operating Costs" shall mean all necessary costs, other than pumping costs, for the operation, maintenance, repair, replacement and administration of the various project facilities, including Expansion Project facilities.

(V) "Original Customers" shall mean Customers other than the City of Bakersfield.

(W) "Original Entitlement" is that portion of the Annual Entitlement which Customers held by pre-existing contract.

(X) "Original Project" shall mean the project previously undertaken by the Agency for the benefit of Improvement District No. 4 and others as described in said Resolution No. 17-71, including the features more particularly described in Article 5(A) hereof.

(Y) "Point of Delivery" means the physical location at which delivery of the water from the Agency to Purveyor is deemed to occur which is the geometric plane intersecting the lumen of the delivery structure as water moves from the Agency pipeline to the delivery structure.

(Z) "Pumping Costs" shall mean all necessary energy and standby costs incurred by the Agency for pumping water for the Original Project and Expansion Project with the exception of such costs necessary to move water to the treated water pump station.

(AA) "Purification Plant" shall mean the Henry C. Garnett Water Purification Plant.

(BB) "Purification Plant Expansion Component" means that portion of the Expansion Project defined at Article 5(B)(1).

(CC) "Purveyor Revenues" means all gross income and revenue received or receivable by the Purveyor from the ownership and operation of the Enterprise, calculated in accordance with GAAP, including all rates, fees and charges (including connection fees to the degree permissible under Article XIII C and XIII D of the California Constitution) received by the Purveyor for Water Service and all other income and revenue howsoever derived by the Purveyor from the Enterprise or arising from the Enterprise, together with all other legally available funds from the Enterprise; provided, however, that (i) any specific charges levied for the express purpose of reimbursing others for all or a portion of the cost of the acquisition or construction of specific facilities, or (ii) customers' deposits or any other deposits subject to refund until such deposits have become the property of the Purveyor, are not Purveyor Revenues.

(DD) "State Project Water" shall mean water made available to the Agency from the California Aqueduct, a portion of the State Water Resources Development system.

(EE) "Treated Water Charge" is that charge established by Article 15 of the Agreement, including any surcharges thereon established pursuant to Article 15.

(FF) "Water Service" means the service made available or provided by the Enterprise.

(GG) "Year" shall mean the twelve (12) month period from July 1 of any year to June 30 of the following year.

Article 2. Term.

This Agreement shall become effective when all Customers have executed this Agreement with the Agency and, except as provided for in Article 15(D), shall remain in effect through January 1, 2035, or until the repayment in full of any bonds or similar instruments issued for financing of the Expansion Project, whichever is later. This Agreement supersedes the contract of June 13, 1974, between the Agency and Purveyor.

Article 3. Option for Continued Service.

After the expiration of the term of this Agreement, Purveyor shall be entitled to continued service under the following conditions unless otherwise agreed to:

(A) Service of water in annual amounts equal to the Purveyor's total Annual Entitlement.

(B) Service of water under the same physical conditions of service, including time, place, amount and rate of delivery, as are provided hereunder.

(C) Service of water at prices to be mutually agreed upon.

Other terms and conditions of the continued service shall be reasonable and equitable and shall be mutually agreed upon. In the event that said terms and conditions provide for continued service for a limited number of years only, the Purveyor shall have the same option to receive continued service as provided here upon the expiration of that and each succeeding period of continued service.

Article 4. Relationship to Master Contract.

This Agreement is subject to the obligations and limitations imposed by the Master Contract and is intended to be in conformance and harmony with it. The Master Contract is hereby incorporated herein by this reference in all respects as though set forth in full at this point. The Purveyor hereby expressly agrees to the provisions of the Master Contract imposing obligations and limitations upon it and further expressly agrees that nothing in this Agreement shall be deemed to require the Agency to perform any obligation in conflict with the Master Contract.

The Agency agrees it will not, without the prior approval of the Purveyor, consent to any amendments to the Master Contract which would increase the price of water to the Purveyor under this Agreement or substantially adversely affect the Agency's ability to deliver the water provided for herein.

Article 5. Integration of Original Project and Expansion Project.

(A) The following are the components of the Original Project:

(1) Cross Valley Canal Reach 1 which begins with a turnout on the California Aqueduct near Tupman and extends northeasterly for approximately five (5) miles to a turnout constructed near the NW 1/4 of the SW 1/4 of Section 2, T30S, R25E, MDB&M. This reach includes two (2) pumping plants and a major crossing under Interstate Highway 5 and is designed and constructed to have a minimum instantaneous flow capacity of 922 cubic feet per second, of which Improvement District No. 4 has a capacity of 184.36 cubic feet per second, with a scheduled expansion not related to this Agreement to 1422 cubic feet per second.

(2) Cross Valley Canal Reach 2 which begins at the terminus of Reach 1 and extends easterly approximately nine (9) miles to a point east of Pumping Plant No. 5 (at the Rosedale-Rio Bravo Water Storage District Turnout No. 2). This reach includes three (3) pumping plants and five (5) pipe siphons under the Sunset Railway, two (2) gas pipelines, Stockdale Highway and Jerry Slough, and is designed and constructed to have a minimum instantaneous flow capacity of 843 cubic feet per second, which Improvement District No. 4 has a capacity of 174.33 cubic feet per second, with a scheduled expansion unrelated to this Agreement to 1343 cubic feet per second.

(3) Cross Valley Canal Reach 3 which begins at the terminus of Reach 2 and extends approximately two and three-quarters ($2 \frac{3}{4}$) miles to the terminus of the Cross Valley Canal located near the southern terminus of the Friant-Kern Canal. This reach includes one (1) pumping plant, designed and constructed to have a minimum instantaneous flow capacity of 812 cubic feet per second, of which Improvement District No. 4 has a capacity of 185.17 cubic feet per second, with a scheduled expansion unrelated to this Agreement to 1312 cubic feet per second.

(4) Cross Valley Canal Extension which has a minimum instantaneous flow capacity of 342 cubic feet per second, of which Improvement District No. 4 has a capacity of approximately 168.74 cubic feet per second. It includes a pumping plant and pipe siphons under the Friant-Kern and Arvin-Edison Canals, the Southern Pacific and Santa Fe railroads, State Highway 99 and other roads, and turnouts into the Kern River and Calloway Canal. The Extension ends near the Henry C. Garnett Water Purification Plant approximately 860 feet upstream of Cawelo Water District's Pump Station "A."

(5) The original water Purification Plant with sufficient Capacity to provide for the treatment to commonly accepted standards of potability of at least 25,000 acre-feet of water annually from the Extension, and any existing rights in other canal conveyance facilities that feed the Henry C. Garnett Water Purification Plant.

(6) The North Pipeline and associated pumping plant and delivery structures for the conveyance and delivery of water as described in Exhibit C attached hereto and incorporated herein by reference.

(7) The East Pipeline and associated pumping plants and delivery structures for the conveyance and delivery of water as described in said Exhibit C.

(8) Facilities for spreading and percolating water for recharging the underground in Improvement District No. 4, including three (3) Cross Valley Canal turnouts to the Kern River and one (1) Calloway Canal turnout.

(9) The Improvement District No. 4 share of Pioneer Project facilities and rights as shown and described on attached Exhibit B attached hereto and incorporated herein by reference.

(10) The Improvement District No. 4 share of Kern Water Bank Authority facilities and rights as shown and described on attached Exhibit B.

(11) Other district facilities as specified on Exhibit B, including but not limited to rights in the City of Bakersfield 2800-Acre Recharge Facility.

(B) The following are the components of the Expansion Project:

(1) Expansion of the Henry C. Garnett Water Purification Plant from a maximum instantaneous flow Capacity of 38 MGD to 71.9 MGD (the "Purification Plant Expansion Component"). Such expansion shall also incorporate modifications,

replacements and repairs to original facilities to ensure continued reliability and operation.

(2) The "Distribution Component" of the Expansion Project consists of the following:

(a) Construction of a Northwest Pump Station and Pipeline designed to convey up to 32.0 MGD to the northwest portion of Improvement District No. 4.

(b) Expansion of the East Pipeline which will include improvements to the existing pipeline necessary to increase the delivery Capacity from 21.7 MGD to 28.8 MGD.

(c) Expansion of the North Pipeline which will include improvements to the existing pipeline necessary to increase the delivery Capacity from 11.4 MGD to 22.1 MGD.

(C) The facilities described in subdivisions (A) and (B) of this Article are intended to operate as an integrated project except as specifically set forth herein in other Articles. When reference is made herein to costs or revenues that are not specifically identified as belonging to the Original Project or Expansion Project, then the reference shall be presumed to be to the integrated composite of the two.

Article 6. Allocation of Capital and Operating Costs of Project Features.

(A) The Cross Valley Canal reaches and Extension are joint use facilities financed in respective part by the following Cross Valley Canal participants, including Improvement District No. 4, as identified for each reach and the Extension. The Improvement District No. 4 share of such costs is specified in Agency policy on allocation of costs to Improvement District No. 4 and Purveyor's Agreement:

(1) Reach 1: Improvement District No. 4, Arvin-Edison Water Storage District (Arvin-Edison), Cawelo Water District (Cawelo), Rag Gulch Water District (Rag Gulch), Rosedale-Rio Bravo Water Storage District (Rosedale), Kern-Tulare Water District (Kern-Tulare), Kern County Water Agency (KCWA), Kern Delta Water District (Kern Delta) and the Fresno-Tulare Group, which consists of the Hills Valley Irrigation District, Tri-Valley Irrigation District, Pixley Irrigation District, Lower-Tule River Irrigation District, County of Tulare, and the County of Fresno.

(2) Reach 2: Improvement District No. 4, Arvin-Edison, Cawelo, Rag Gulch, Rosedale, Kern-Tulare, KCWA, Kern Delta and the Fresno-Tulare Group.

(3) Reach 3: Improvement District No. 4, Arvin-Edison, Cawelo, Rag Gulch, Rosedale, Kern-Tulare, KCWA, Kern Delta and the Fresno-Tulare Group.

(4) Extension: Improvement District No. 4 and Cawelo.

(5) The Improvement District No. 4 share of the capital, operating and other costs of the Cross Valley Canal facilities specified in subdivision (A) of this Article shall be paid from the ID4 Enterprise Fund.

(B) A summary of the allocation of estimated Capital Costs among the Customers for the Expansion Project, exclusive of CVC and Extension expansion costs, is shown on attached Exhibit E. Exhibit A, attached hereto and incorporated herein by reference, reflects the resulting percentage allocations and Capacities. Exhibit F, attached hereto and incorporated herein by reference, sets forth the description and an initial estimate of the amount of each fee and cost that Purveyor will be required to pay under this Agreement and a reference to the Article and section of this Agreement that provides for such cost or fee. Exhibits A, E and F shall be adjusted to reflect actual costs and

Capacities when known. Expanded Capital Costs, other than those paid directly or financed by Improvement District No. 4 for its reserved Capacity, shall be financed by the Customers, including Purveyor, by payment of a Capital Facilities Charge which shall be accounted for in the Capital Facilities Account designated for payment of the Expanded Capital Costs. Capital costs allocated to Improvement District No. 4 for Cross Valley Canal and Extension facilities, including but not limited to costs related to Improvement District No. 4's share of the expansion of Cross Valley Canal facilities, are to be paid for out of the ID4 Enterprise Fund described herein.

(C) The Capital Costs, Operating and other costs of the Improvement District No. 4 share of the Pioneer Project (as set forth in the Pioneer Project Participation Agreement) and Kern Water Bank Authority (as set forth in the Joint Powers Agreement for the Kern Water Bank Authority) are to be paid for out of the ID4 Enterprise Fund described herein.

(D) Improvement District No. 4, through the ID4 Enterprise Fund, will pay for the following costs incurred by Agency prior to execution of this Agreement in developing the Expansion Project, and the following additional costs associated with design of conveyance facilities:

- (1) Costs associated with financing of the Expansion Project as estimated, subject to revision to actuals, as identified in Exhibit E.
- (2) Costs associated with the engineering and design of the Northwest Feeder Project as identified in Exhibit E.
- (3) Costs associated with the engineering and design of the North Pipeline expansion as identified in Exhibit E.

(4) Costs associated with the engineering and design of the East Pipeline expansion as identified in Exhibit E.

(E) Charges for capital costs of delivery structures, operating and other costs of conveyance are set forth in Article 9.

(F) Charges for the cost of water, including treatment costs.

(G) Prior to the acceptance of bids on contracts for construction or the issuance of financing instruments for the Distribution Component of the Expansion Project as defined in Article 5 (whichever shall occur first) and prior to the acceptance of bids on construction contracts or the issuance of financing instruments for the Purification Plant Expansion Component of the Expansion Project, if the projected costs are more than one hundred and twenty-five percent (125%) of those estimated herein, Purveyor shall have the option of withdrawing from either component of the Expansion Project by providing written notice hand-delivered to the Agency General Manager and to each other Customer within twenty (20) days of the opening of construction bids, for the specified component of the Expansion Project. In the event of withdrawal, Purveyor shall pay all fees and other payments specified herein based upon the allocation formulas specified herein utilizing Purveyor's currently existing Capacity and entitlement, if any, for the component from which Purveyor has withdrawn, and shall be entitled only to benefits and rights based upon Purveyor's currently existing Capacity and entitlement, if any, for the component from which Purveyor has withdrawn. In the event of the withdrawal hereunder of any other Customer, Purveyor shall pay based upon the recalculated amounts after the withdrawal of Customers electing not to participate in an Expansion Project component and shall be entitled to a share, based on such recalculation, of the

withdrawing Customer's Capacity, entitlement and other rights and privileges under the Agreement from which such Customer is withdrawing. Agency and Purveyor shall take all actions and execute all documents reasonably required to evidence the foregoing changes in Purveyor's entitlement, rights and obligations. If a withdrawal occurs, the Agency shall require a renegotiation of contract terms, and may reject all bids or delay financing.

Article 7. Completion of Expansion Project.

Water and distribution conveyance Capacity are currently available to Original Customers from the Original Project. The estimated completion and start-up date for the Expansion Project is July 1, 2008. Subject to the availability of funds, the Agency shall make all reasonable efforts consistent with sound fiscal policies, reasonable construction schedules and proper operating procedures to complete the Expansion Project in such a manner and in such a time that some water from a component of the Expansion Project will be available to Purveyor by July 31, 2007. To the extent practicable, the Agency shall notify the Purveyor of any change in this estimate.

Article 8. Contract Entitlement.

(A) Each Year after the Expansion Project is completed, the Agency shall make available for delivery to the Purveyor the Purveyor's Annual Entitlement to water as shown on Exhibit D, as provided in Article 10, and as described by the terms and conditions of this Agreement. During the Year in which the Expansion Project is completed, the Agency shall make available for delivery to the Purveyor that percentage of New Entitlement of the Purveyor that is equal to the percentage of the Year remaining

after the date of completion (in addition to the Original Entitlement as provided in paragraph (B) below).

(B) Each Year of this Agreement through the Year of completion of the Expansion Project, the Agency shall make available for delivery to the Purveyor, the Purveyors' Original Entitlement to water. Each year of this Agreement through the Year of completion of the Expansion Project or if the Expansion Project is not substantially completed, the Agency shall make available for delivery to the Customers that water that may be available in the judgment of the Agency in addition to that which is contracted for by Original Customers from the Original Project. Allocation of this additional available water is in proportion to the Customers' Annual Entitlement. The additional water from the Original Project may be transported through Capacity available in the Original Project available to Purveyor, or such share of new Capacity as may be constructed at the time, subject to proration among other Customers with the need for transportation Capacity.

(C) During the Year following the Year in which the Expansion Project is completed, and each Year thereafter for the term of this Agreement, the Agency shall make available, for delivery to the Purveyor, the Purveyors' Annual Entitlement as defined by the terms and conditions of this Agreement.

(D) If an option for increased service is specified for Purveyor in Exhibit D, Purveyor shall provide to Agency in writing a commitment to add the specified option amount to its Annual Entitlement within six (6) months of the execution date of this Agreement, and subsequently all amounts specified herein shall be determined based on Purveyor's Annual Entitlement as increased by the option amount. If Purveyor has not provided the commitment in writing within the six (6) month period, Purveyor shall be

deemed to have rejected the offer for additional entitlement and all determinations shall be made upon the Annual Entitlement specified without including the option amount. All Exhibits, cost allocations, and other formulas may be adjusted by the Agency to match the final amounts of increased service accepted by Purveyor and other Customers.

Article 9. District Facilities and the Costs Thereof.

(A) Delivery Structures, Conveyance Facilities, Measuring Devices and Cost Thereof:

All water to be furnished pursuant to this Agreement will be delivered to the Purveyor through facilities of the Original Project and Expansion Project, and delivery structures to be provided by Purveyor as follows:

(1) Capital Costs of Distribution Component. All necessary connections to these facilities are to be constructed with funds provided by the Purveyor proportional to Purveyor's Capacity in the facility, or by long-term financing for which the Purveyor shall have responsibility in like amount for repayment. Funds used by the Purveyor for construction of pump stations, pipelines and turnouts to accommodate the Expansion Project may be debt proceeds of an appropriate type such as revenue bond or certificates of participation, provided, that the lien on Purveyor Revenues to repay such obligations shall not be senior to any lien on such Purveyor Revenues to pay the Capital Facilities Charge hereunder. The turnouts to be constructed with Purveyor funds shall include the tee, the gate valve and any other facilities requested and needed by Purveyor for delivery of the Purveyor's water from Improvement District No. 4 facilities. If the Purveyor desires to change its point or points of delivery or install additional points of delivery, it may do so either by furnishing all funds to cover any Agency expenses involved, or by

undertaking the construction at its own expense; provided, the Purveyor shall not undertake any such construction until it has first obtained Agency approval of the plans and specifications for such work. Upon receipt of a request for such a change in place of delivery or installation of additional places and the deposit of the required funds, the Agency shall diligently proceed to make such a change or installation. Upon completion of the construction of any delivery structures, the Agency shall refund any monies deposited by the Purveyor not expended for such construction.

(2) Capital Costs of Distribution Component Facilities. The Purveyor has requested that the East Feeder Pipeline described in Exhibit C hereof be constructed with Capacity for the Purveyor of 21.4 cubic feet per second requiring improvements to existing facilities and a parallel pipeline with a diameter of approximately sixteen (16) inches, the size being based on Purveyor's estimates of required Capacity. Purveyor shall be responsible for its share of the pipeline Capital Costs regardless of whether the Capacity therein is actually required for delivery of Purveyor's water. Such share shall be included in Purveyor's Capital Facilities Charge. Such amounts shall be paid at the time set forth in Article 16 hereof. Capacity shall be for use within Improvement District No. 4, including areas which have been annexed to Improvement District No. 4 in accordance with Article 25, during the term of the Agreement. The Purveyor shall also pay its proportionate share of improvements to the Oswell Reservoir and Booster Pumping Facility, based upon its current contracted capacity, as shown on Exhibit E. The Agency shall have the right to construct incremental Capacity and future connections to any of the facilities described herein for use within Improvement District No. 4.

(3) Operating Costs of Conveyance Facilities. The annual Operating Costs, other than pumping costs, of each pipeline, pumping plant and delivery structure used in delivering water from the Purification Plant to the Purveyor shall be borne by the Purveyor and any other Customers taking water through such conveyance facilities in proportion to the annual quantities of water delivered to each Customer through each such facility. On or before June 1 of each Year, the Agency shall notify the Purveyor in writing of the estimated amount of operating costs it must pay for the next succeeding Year for each conveyance facility to be used by it. The Purveyor shall pay one-fourth (1/4) of such estimated costs on or before each of the following dates during the succeeding Year: July 1, October 1, January 1 and April 1.

(4) Recalculation and Adjustment of Operating Costs of Conveyance Facilities. At the end of each Year, each Customer's share of Operating Costs for that Year shall be recalculated as soon as possible by substituting the actual costs incurred by the Agency and the actual quantities of water delivered to each Customer. Any adjustments in the Purveyor's payments required to reflect this recalculation shall be made in Purveyor's next quarterly operating cost payment due after the recalculation.

(5) Pumping Costs for Delivering Water. The monthly and annual pumping costs for each pumping plant used in delivering water from the Purification Plant shall be borne by the Purveyor and any other Customers taking water through the pumping plant in proportion to the quantities of water delivered to each Customer through the pumping plant during the month and the Year, as the case may be. As soon as possible after the close of each month, the Agency shall notify the Purveyor in writing of the amount of

pumping costs it must pay for the preceding month. The Purveyor shall pay this amount within thirty (30) days after receiving such statement of charges from the Agency.

(6) Recalculation and Adjustment of Pumping Costs. As soon as possible after the end of each Year, the pumping costs for each pumping plant shall be recalculated by dividing the actual pumping costs incurred by the Agency for that Year for all water delivered through that pumping plant by the actual quantities of water delivered through the pumping plant and multiplying the resulting acre-foot rate by the total quantity of water delivered during the Year through that pumping plant to each Customer. Any adjustments in the Purveyor's payments required to reflect this recalculation shall be made in the Purveyor's first monthly pumping cost payment due after the recalculation.

(7) Measuring Devices. All water furnished pursuant to this Agreement shall be measured by the Agency at mutually agreed upon points with equipment satisfactory to the Agency and the Purveyor. All such equipment shall be installed and maintained by the Agency at the expense of Purveyor. All new meters shall conform to American Water Works Association standards (or the standards of the successor organization) for meter design and accuracy and shall be equipped with a digital readout, which records flow in Million Gallons per Day (MGD) and totals in MG. All determinations relative to the measuring of water shall be made by the Agency, and upon request by the Purveyor, the accuracy of such measurements shall be investigated by the Agency. Any errors appearing thereon will be adjusted. The Purveyor may inspect such measuring equipment for the purpose of determining the accuracy thereof.

(B) Purification Plant Expansion Component and other Facilities and the Costs Thereof.

(1) Purification Plant Expansion Component Capital. The Capital Costs of the Purification Plant Expansion Component, and other costs attributable to the Capital Facilities Account, shall be paid by Purveyor through the Capital Facilities Charge as set forth in Article 16, and through other provisions set forth herein.

(2) Improvement District No. 4 Banking Facilities. All costs of Improvement District No. 4 water banking facilities including, but not limited to the Pioneer Project, shall be paid by Improvement District No. 4 with costs to be paid by the ID4 Enterprise Fund when used for the general benefit to Improvement District No. 4. Customers benefiting from such facilities shall pay for costs related to the provision of specific benefits for a Customer, subject to mutual agreement between participating Customers and the Agency.

(3) Purification Plant Operation and Maintenance and Costs of Other Facilities. All costs of Improvement District No. 4 other than as specified above shall be payable from the ID4 Enterprise Fund, as set forth in Article 15.

Article 10. Delivery Schedules.

The amounts, times, and rates of delivery of water to the Purveyor during any Year shall be in accordance with a water delivery schedule determined in the following manner:

(A) On or before August 1 of each Year, the Purveyor shall submit in writing to the Agency a preliminary water delivery schedule indicating the amounts of water, in acre-feet, desired by the Purveyor during each month of the succeeding six (6) years.

(B) On or before December 1 of each Year, the Purveyor shall submit in writing to the Agency a water balance demonstrating, subject to the approval of the Agency which shall not be unreasonably withheld, that the current demand for Purveyor's contracted entitlement within its service area in Improvement District No. 4 is greater than or equal to Purveyor's current contracted entitlement deliveries.

(C) Upon receipt of a preliminary schedule, the Agency shall review it and after consulting with the Purveyor, shall make such modifications as are necessary to ensure that the amounts, times and rates of delivery to the Purveyor will be consistent with the available supply of water from the treatment facilities, considering each Customer's Annual Entitlement and Capacity, and the then current delivery schedules of all other Customers. On or before December 31 of each Year, the Agency shall determine and furnish to the Purveyor a water delivery schedule for the next succeeding year which shall show the amounts of water to be delivered to the Purveyor during each month of that year.

(D) A water delivery schedule may be amended by the Agency upon the Purveyor's written request. Proposed amendments shall be submitted by the Purveyor within sixty (60) days before the desired change is to become effective, and shall be subject to review and modification by the Agency in like manner as the schedule itself, provided that, Purveyor shall provide the Agency one (1) year's notice for any increase in deliveries above the previous level of Annual Entitlement and peaking stated herein to reach its available Annual Entitlement and peaking Capacity subject to associated increases in operations and maintenance and pumping costs through the charges specified herein.

(E) In no event shall the Agency be obligated to deliver water to the Purveyor in any month in excess of the Purveyor's demand for that month as set forth in the approved delivery schedule, as specified in Exhibit D, or the amount of water that can be delivered within the Purveyor's contracted peaking Capacity, as specified in Exhibit C, during the month, whichever is the lesser. Agency, at its sole discretion, may deliver water in excess of the obligation specified herein.

(F) In no event shall the Agency be obligated to deliver water to the Purveyor in excess of Purveyor's Capacities for facilities and Annual Entitlement as specified herein.

(G) If the Agency determines there is excess or unused Capacity and the Customers request such Capacity, the Agency may allocate any excess or unused Capacity to the Customers based upon their percentage of the then contracted Capacity through the Purification Plant.

Article 11. Responsibilities for Delivery and Distribution of Water.

Neither the Agency nor its officers, agents, or employees shall be liable for the control, carriage, handling, use, disposal, or distribution of water supplied to the Purveyor pursuant to this Agreement after such water has passed the points of delivery established in accordance with Article 9; nor for claim of damages of any nature whatsoever including but not limited to property damage, personal injury, or death, arising out of or connected with the treatment, control, carriage, handling, use, disposal, or distribution of such water beyond said delivery structures; and the Purveyor shall indemnify and hold harmless the Agency and its officers, agents, and employees, from any such damages or claims of damages. The foregoing shall not apply to any claims, damages, or liabilities to the extent arising out of the failure of water delivered by the Agency to the Point of

Delivery to meet applicable federal, State of California and Kern County minimum drinking standards.

Neither the Purveyor nor its officers, agents, or employees shall be liable for the control, carriage, handling, use, treatment, disposal, or distribution of water supplied to the Purveyor by the Agency pursuant to this Agreement before such water has passed the Points of Delivery established in accordance with Article 9; nor for claim of damages of any nature whatsoever including but not limited to property damage, personal injury, or death, arising out of or connected with the control, carriage, handling, use, treatment, disposal, or distribution of such water before said delivery structures or the failure of such water to meet applicable federal, State of California and Kern County minimum drinking water standards before it reaches the Point of Delivery; and the Agency shall indemnify and hold harmless the Purveyor and its officers, agents and employees, from any such damages or claims of damages. The amounts to satisfy any of the foregoing liabilities of the Agency set forth in this Article 11 shall first be paid from proceeds of the insurance described below and thereafter, or to the extent the claim is not covered by such insurance, from the ID4 Enterprise Fund and Purveyor shall remain responsible for its allotted share of payments for such fund. The Agency shall obtain insurance from an insurer or insurers having a Best's rating of A or higher, or participate in the Association of California Water Agencies Joint Powers Indemnity Association, or similar joint self-insurance entity, to protect Purveyor, other Customers and the ID4 Enterprise Fund with commercially reasonable coverage limits, and the cost of such insurance or joint indemnification agreements shall be reimbursable as an Operations and Maintenance expense for each facility

Article 12. Water Shortage.

(A) At times there may occur a shortage during any year in the quantity of water available for delivery to the Purveyor by the Agency pursuant to this Agreement. However, if the Agency can prevent or diminish a shortage in treated water by temporarily halting or curtailing its spreading of water for recharging the underground in Improvement District No. 4, it may do so at its discretion. The Agency may use Improvement District No. 4 groundwater banking projects or in-district wells for reducing shortages subject to a separate agreement with the Purveyor.

(B) To eliminate or reduce shortages, Customers may secure and deliver non-Improvement District No. 4 surface water to the Henry C. Garnett Water Purification Plant for treatment under the following terms:

(1) A request for delivery and subsequent treatment of any non-Improvement District No. 4 surface water shall require Agency approval.

(2) A request to deliver non-Improvement District No. 4 water shall be submitted in writing to the Agency for review ninety (90) days prior to the expected date of delivery. Such request shall include information as to the quantity, quality and origin of the source water. Requesting Customer shall provide all information pertaining to the source as requested by Agency.

(3) Improvement District No. 4 shall be responsible for the scheduling of all non-Improvement District No. 4 surface water and shall coordinate the delivery of non-Improvement District No. 4 surface water with Customer. The point of delivery for any non-Improvement District No. 4 surface water shall be the headworks of the Henry C.

Garnett Water Purification Plant or any other point of delivery available to Customer and Improvement District No. 4 which is mutually agreeable.

(C) No liability shall accrue against the Agency or any of its officers, agents, or employees for any damage, direct or indirect, arising from a shortage on account of drought or other unavoidable causes. In any year in which such a shortage may occur for any cause so that the total quantity of water available to the Agency for distribution to the Purveyor and other Customers taking water from the treatment facilities is less than the total of all quantities contracted for by the Purveyor and other Customers, the Agency shall apportion the available treated water among the Customers in proportion to their Total Annual Entitlements, for the current year, as set forth in Exhibit D and pursuant to Articles 8 and 10.

(D) The Agency shall give the Purveyor written notice as far in advance as reasonably possible of any such reduction in delivery to it.

Article 13. Curtailment of Delivery for Maintenance Purposes.

The State of California or the Agency may temporarily discontinue or reduce the amount of water to be furnished the Purveyor for the purposes of maintaining, repairing, replacing, investigating or inspecting any of the facilities necessary for furnishing of water to the Purveyor. Insofar as it is feasible, the Agency will give the Purveyor due notice in advance of any such temporary discontinuance or reductions, except in the case of emergency, in which case no notice need be given. In the event of such discontinuance or reduction, the Agency will, upon resumption of service, deliver, as nearly as may be feasible after consultation with the Purveyor, and to the extent water is furnished to it by the State of California, or other sources, the quantity of water which

would have been furnished to the Purveyor in the absence of such discontinuance or reduction. The Agency shall attempt to schedule its routine maintenance on Project Facilities so that whenever possible, any such discontinuance or reductions in delivery will occur during periods of reduced demand.

Article 14. Water Quality.

(A) The Agency shall use all reasonable efforts to ensure that all water delivered by the Agency from the Purification Plant into the distribution pipelines described in Exhibit C hereof shall meet all applicable federal, State of California and Kern County minimum drinking water quality requirements.

(B) In the future, the Purveyor may use the distribution pipelines to deliver water from its wells, as well as for delivering water from the Purification Plant. Any request by the Purveyor for the use of the distribution pipelines for conveyance of water, other than that originating from the Henry C. Garnett Water Purification Plant, shall be made by providing written notice ninety (90) days prior to the requested date of use, provided that such notice period may be shortened upon a finding of an emergency by the Agency. The Agency reserves the right to approve or deny any request received, provided that all costs and risks associated with, or arising from, the delivery of such water shall be borne by Purveyor in accord with a supplementary written agreement between Agency and Purveyor.

(C) When the Purveyor puts water from any source other than the Henry C. Garnett Water Purification Plant in the distribution pipelines, the Agency will be absolved of responsibility for the quality and quantity of any water delivered to the Purveyor after it leaves the Purification Plant, unless the liability results from the quality

of water leaving the Purification Plant failing to meet federal, State of California or Kern County minimum drinking water quality requirements. The burden of proof that such water fails to meet such requirements shall rest with Purveyor, provided that Agency shall permit all reasonable testing and review of the Agency's records reasonably necessary to meet such burden of proof. When the Purveyor ceases to put water from another source in the distribution pipeline, the Agency will resume responsibility for the quality and quantity of water delivered to the Purveyor through the Agency's distribution pipelines when and if the conditions set forth in subdivisions (1) and (2) are met: (1) Purveyor advances sufficient funds to the Agency to cover the cost of inspection and testing, and (2) such inspection and testing shows to the satisfaction of the Agency that other waters are either no longer co-mingled in the distribution pipelines with the water supply from the Purification Plant or if co-mingled, the combined waters meet all applicable requirements.

(D) Such assumption of responsibility shall become effective only if and when the Agency notifies the Purveyor in writing that the results of such inspection and testing demonstrate to the satisfaction of the Agency that all applicable water quality requirements have been met.

(E) During any period(s) between the time the Purveyor commences to introduce water into the distribution pipelines and the time the Agency resumes responsibility for the quality of water in those pipelines, neither the Agency nor its officers, agents, or employees shall be liable for the impacts from the introduction of such water by Purveyor on the quality or quantity of water supplied to the Purveyor through the distribution pipelines, nor for claim of damages of any nature whatsoever arising out of or connected

in any way with the quality or quantity of such water introduced by the Purveyor or the impacts thereof, and the Purveyor shall indemnify and hold harmless the Agency, its officers, agents, and employees from any such damages or claims of damages. The foregoing shall not limit the Agency's liability under paragraph (C) of this Article 14. The burden of proof that such Agency water fails to meet such requirements shall rest with Purveyor, provided that Agency shall cooperate to permit all testing and review of Agency records reasonably necessary to meet such burden of proof. If Agency voluntarily permits other Customers to introduce water into a pipeline serving Purveyor after the execution of this Agreement, Agency will require such Customer to accept responsibility for any loss resulting thereby, and obtain a commitment to hold the Agency, Improvement District No. 4, and Purveyor harmless from any loss thereby.

(F) Existing agreements, attached as Exhibit G and incorporated herein by reference, with North of the River and California Water Service Co. and East Niles Community Services District for introduction of water into the North and East Pipelines shall remain in effect, and the term of each is amended to be consistent with the term of this Agreement.

Article 15. Cost of Water.

The Purveyor, and all other Customers, shall pay the following charges to be determined and set annually by the Agency:

(A) Treated Water Charge.

The amount of the charge for each acre-foot of water ("Treated Water Charge") payable by the Purveyor, and all other Customers, shall be One Hundred and Thirty-Six Dollars (\$136), subject to the surcharges specified in this Article. The revenues received

from payment of the Treated Water Charge shall be accounted for utilizing a separate Agency fund identified as the ID4 Enterprise Fund. The amount of the Treated Water Charge shall be subject to modification by mutual agreement of the parties in a periodic ten (10) year review, provided that this provision does not alter the ability of the Agency to impose surcharges pursuant to subdivision (D) of this Article.

(B) Payment of the Treated Water Charge.

The Purveyor, and all other Customers, shall pay the amount of the Treated Water Charge provided for in paragraph (A) times either the quantity of water delivered to them or their Annual Entitlement for the Year as set forth in Article 8 and Exhibit D, whichever is greater.

(C) Credit for Annual Entitlement Not Taken.

If Purveyor complies with Article 10, regarding scheduling of Annual Entitlement, the Agency shall use reasonable efforts to sell any of Purveyor's Annual Entitlement not taken to other Customers at the Treated Water Charge rate, including surcharges, or such other rate as may be paid by Customers, for delivery during the Year the Annual Entitlement was not taken by Purveyor. Funds received from other Customers for the Annual Entitlement of the Purveyor, less administrative charges of the Agency, shall offset Purveyor's obligation.

(D) Surcharges.

Notwithstanding any other provision of this Agreement, if the Agency reasonably determines that the ID4 Enterprise Fund is insufficiently funded to meet the estimated expenses for Improvement District No. 4 for that year, including any amount necessary to pay debt service or comply with a debt service coverage covenant not met by the Capital

Facilities Charge, the Agency shall notify Purveyor and make an effort to reduce its estimated expenses to be consistent with its estimated revenues. If, after thirty (30) days from notice to Purveyor of its estimate, the Agency has reviewed and where appropriate reduced expenses, it still projects a deficit with respect to estimated revenues, it shall provide the relevant financial information to the Purveyor and all other Customers along with all other information supporting a specified short-term surcharge to Purveyor, and all other Customers. The total amount of the short-term surcharges to the Purveyor and all other Customers shall be sufficient to eliminate the estimated deficit through the Year in which the estimate is made and the following Year. The amount of the Purveyor's and each Customer's short-term surcharge shall be determined by the Agency by dividing the estimated deficit by the current year contracted Annual Entitlement for all Customers and multiplying the result by the Purveyor's or the other Customers' Annual Entitlement for that year. The Agency shall use its best efforts to provide warning of such necessity one Year in advance; however, the failure to provide such advance warning shall not relieve Purveyor of the responsibility to pay such surcharge, nor excuse nor affect in any way the obligation to make such payment in the manner set forth in this Agreement.

Upon implementation of a short-term surcharge, in consultation with the Purveyor and other Customers, the Agency may develop a financial plan considering future long-term revenues and costs of Improvement District No. 4 and establishing an annual long-term surcharge on the Treated Water Charge paid by Purveyors to provide sufficient funding for the five (5) Years following the period of a short-term surcharge. The Agency shall provide at least ninety (90) days notice of the intent to impose a long-term surcharge including the provision of a draft financial plan. In consultation with

Customers, Agency shall adopt the financial plan, as modified, no sooner than thirty (30) days after the date set for consultation.

Such charges shall be billable to and payable by Purveyor in the same manner as the Treated Water Charge.

Article 16. Payment of the Capital Facilities Charge.

The Purveyor agrees hereby to pay the Capital Facilities Charge from Purveyor Revenues. The obligation of the Purveyor to pay the Capital Facilities Charge and to pay the included interest thereon and other costs is absolute and unconditional, whether or not the Expansion Project shall be completed, and until such time as all of the Capital Facilities Charges shall have been fully paid, the Purveyor will not, under any circumstances, discontinue, abate or suspend any Capital Facilities Charge payment required to be made by it under Article 19 when due, whether or not the Enterprise or any part thereof is operating or operable or has been completed, or whether or not the Enterprise is condemned, damaged, destroyed or seized or its use is suspended, interfered with, reduced or curtailed or terminated in whole or in part, and such payments shall not be subject to reduction whether by offset, counterclaim, defense, recoupment, abatement, suspension, deferment or otherwise and shall not be conditional upon the performance or nonperformance by any party of any agreement or covenant contained herein for any cause whatsoever. If the Agency is able to reduce Capital Costs, or obtains funds that can be applied to reduce Capital Costs, it may, at its discretion, provide credits to Customers and, if credits are made, it shall credit the Purveyor a proportionate share of the reduction in the same percentage that the Purveyor's share of the Capital Costs bears to total Capital Costs unless it determines that the funds available for credit are uniquely

attributable to specific portions of the Capital Facilities. If the Agency refinances the debt for Capital Costs, then any savings from refinancing shall be used to reduce the Capital Facilities Charge. All condemnation proceeds, all casualty insurance recoveries, and all funds derived from the Enterprise Fund for the purpose of repair, restoration or modification of the Henry C. Garnett Water Purification Plant or any distribution lines or other facilities or equipment that provide a water supply pursuant to this Agreement, shall be applied to repair and reconstruct the Henry C. Garnett Water Purification Plant and distribution or other facilities to which they relate and if such repair or reconstruction is not reasonably feasible, or excess funds become available, all such condemnation proceeds, insurance proceeds and other funds shall be applied to reduce the Capital Facilities Charge of each Customer in the ratio of such Customer's Cost Allocation set forth in Exhibit E. All repair and reconstruction shall be conducted with diligence in order to assure restoration of services at the earliest reasonable date.

Article 17. Time of Payment.

(A) Payment of Charges for Annual Entitlement/Treated Water Charge.

On or before June 1 of each Year, the Agency shall notify the Purveyor of its estimated charges for Annual Entitlement water for the ensuing Year. These estimates shall be prepared by the Agency on the basis of the delivery schedules provided for in Article 10, the Agency's estimates of the revenues and expenses for Improvement District No. 4 and the Agency's estimates of any credits due as provided for in Article 15, and the estimate shall provide for both the payments to be made for water to be delivered and for that portion of the Annual Entitlement for that Year not requested for delivery. The Purveyor shall pay sixty percent (60%) of these charges on or before July 10 of each

year, and the remainder on or before January 10 of the following year. If the Expansion Project is completed after bills have been issued, a supplementary bill shall be issued by the Agency, and is payable by Purveyor within thirty (30) days of mailing of the supplementary bill, for estimated charges for the proportion of New Entitlement provided by the Expansion Project before the year covered by the next regular annual billing.

(B) Payment of Charges for Deliveries in Excess of Annual Entitlement.

As soon as possible after the end of each Year, the Agency shall send to the Purveyor a statement of charges for all water delivered to the Purveyor in the preceding Year in excess of the Purveyor's Annual Entitlement for that Year. The Purveyor shall pay such statements within thirty (30) days after they are received.

(C) Payment of Capital Facilities Charge.

On or before June 1 of each Year, the Agency shall send the Purveyor a statement of Capital Facilities Charges for all costs of Capital Facilities, and payment of principal and interest due on financing for Capital Facilities which shall be due during the ensuing year as allocated pursuant to Article 6, Exhibit A, and other provisions herein. To the extent necessary in any given year, Purveyor's and each other Customer's yearly charge shall be increased by one-fifth ($1/5$) to augment the Capital Facilities Account to prevent a default on financing payments. The Purveyor shall pay sixty percent (60%) of these charges on or before July 10 of each Year and the remainder on or before January 10 of each Year.

Article 18. Recalculation and Adjustment of Treated Water Charge.

As soon as possible after the end of each Year, the charges for water for that Year required by Article 15(B) shall be recalculated by the Agency by substituting actual

deliveries for the estimated deliveries made pursuant to Article 16. Any adjustments in the Purveyor's payments required to reflect these recalculations shall be made in the Purveyors first semiannual payment due after the recalculations.

Article 19. Default.

(A) The Purveyor shall cause to be levied and collected all necessary fees and charges and will use all the authority and resources of the Purveyor to meet its obligations hereunder, to make in full all payments to be made pursuant to this Agreement on or before the date such payments become due and to meet its other obligations under this Agreement. In the event of any default by the Purveyor in the payment of any money required to be paid to the Agency hereunder, the Agency in its discretion may suspend delivery of water during the period when the Purveyor is delinquent in its payments or obligation due to the Agency under the terms of this Agreement; provided, that during any such period of delinquency or suspension the Purveyor shall remain obligated to make all payments required under this Agreement. Action taken pursuant to this article shall not deprive the Agency of or limit any remedy provided by this Agreement or by law for the recovery of money due or which may become due under this Agreement.

(B) In the event of default continuing ninety (90) days beyond written notice to Purveyor to the address specified herein, the Agency may, without abandoning any other remedy provided by this Agreement or California law, transfer Purveyor's Annual Entitlement, Capacity, other rights and obligations hereunder to any other Customer, and if no other Customer accepts an offer of such transfer within thirty (30) days of mailing, then Agency may transfer such Annual Entitlement, Capacity, rights and obligations to

any water distributor in Kern County; provided, that priority shall be given to distributors within Improvement District No. 4. In the event of such transfer, all financial obligations of Purveyor under this Agreement shall continue except to the extent they are offset by amounts received from the transferee.

(C) In the event of default by another Customer, as provided in Article 19 hereof, and if the Capacity of that defaulting Customer in facilities, constructed as part of the Expansion Project, has not been acquired by another Customer (including the Purveyor) or entity, Purveyor agrees to purchase its pro rata portion (based on its Capacity in each facility) of said defaulting Customer's Capacity in each facility on the following terms:

(1) Payment for the additional Capacity provided to Purveyor shall be made by assumption by Purveyor of the pro-rata portion of the Capital Facilities Charge due from the defaulting Customer.

(2) The purchase price for said Capacity shall not be less than the payment of the balance of the Capital Facilities Charge of the defaulting Customer attributable to the Capacity being purchased.

(3) The aggregate amount of the defaulting Customer's Capacity in each facility to be purchased does not exceed twenty-five percent (25%) of the then existing Capacity of Purveyor in each facility.

(D) In the event of default by other Customers, Agency shall use all reasonable efforts to recover from such defaulting Customers all delinquent Capital Facilities Charge, Maintenance and Operations Costs, Treated Water Charge, other amounts due under this Agreement, attorney's fees and other costs. To the extent not recovered from the defaulting Customer, Capital Facilities Charge due from such Customer will be paid

from the Capital Facilities Fund and attorney's fees and costs will be paid from the Enterprise Fund.

(E) In the event of a default under this Agreement by the Agency, Purveyor and each other Customer, acting singly or jointly, may exercise any and all rights available under their respective Agreements with the Agency or under applicable laws.

Article 20. Obligation to Make Payments.

(A) Character of Obligation.

The obligation of the Purveyor arising out of or pursuant or incidental to this Agreement including, without limiting the generality of the foregoing, the obligations of the Purveyor to pay to the Agency the sums becoming due the Agency for water furnished hereunder, including but not limited to the Capital Facilities Charge, shall constitute a general obligation of the Purveyor and the Purveyor shall use all the powers and resources available to it under the law to collect the funds necessary for and to pay its obligations to the Agency under this Agreement which meets the terms of its option for continued service under prior contract for a water supply entered on June 13, 1974. The Purveyor as a whole is obligated to pay to the Agency the payments becoming due under this Agreement, notwithstanding any individual default by its water users, constituents or others in the payment to the Purveyor of tolls, or other charges levied by the Purveyor.

(B) Refusal of Water Does Not Affect Obligation.

Failure of the Agency to deliver water, or the Purveyor's failure or refusal to accept delivery of Annual Entitlement for each Year under this Agreement shall in no way relieve the Purveyor of its obligation to make payments to the Agency as provided for herein, provided that failure to deliver water due to Improvement District No. 4

negligence or misconduct in the operations of its facilities which would constitute a breach of contract shall excuse payment of the Treated Water Charge and shall excuse the Agency's obligation to deliver that portion of the Annual Entitlement not delivered, but in such instances Agency shall use good faith efforts to make delivery of any Annual Entitlement not delivered within the Year of the failure for which Purveyor shall pay all costs.

Article 21. Against Encumbrances.

The Purveyor hereby covenants that there is no pledge of or lien on Purveyor Revenues senior to the payment of Maintenance and Operation Costs other than those disclosed to Agency.

Article 22. Maintenance and Operation of the Enterprise; Budgets.

The Purveyor will maintain and preserve the Enterprise in good repair and working order at all times and will operate the Enterprise in an efficient and economical manner and will pay all Maintenance and Operation Costs of the Enterprise as they become due and payable.

Article 23. Amount of Rates and Charges.

(A) The Purveyor will fix, prescribe and collect rates, fees and charges so as to yield Purveyor Revenues at least sufficient, after making reasonable allowances for contingencies and errors in the estimates, to pay one hundred and twenty-five percent (125%) of the following amounts in the order below set forth, provided that rates, fees and charges each year to Customers of the Enterprise need not be set at levels sufficient to return the foregoing one hundred and twenty-five percent (125%) if reserves and other

legally available revenues of Purveyor, together with those rates, fees and charges which are set, provide the specified funding level as follows:

- (1) All Maintenance and Operation Costs of the Enterprise;
- (2) All amounts due on obligations payable from the Purveyor Revenues on a basis subordinate to payment of Maintenance and Operation Costs; and
- (3) All payments required to meet any other obligations of the Purveyor which are charges, liens, reserves, encumbrances upon, or which are otherwise payable from the Purveyor Revenues during such Fiscal Year.

(B) If the rate structure provided in subdivision (A) is not approved by the PUC, then Purveyor shall charge those rates approved by the PUC.

Article 24. Operation of Enterprise; Collection of Rates and Charges.

The Purveyor will continue to operate the Enterprise and shall have in effect at all times rules and regulations requiring all users of the Enterprise to pay the rates, fees and charges applicable to the Enterprise provided or made available to such users, and providing for the billing thereof and for a due date and a delinquency date for each bill. In each case where such bill remains unpaid in whole or in part after such bill becomes delinquent, the Purveyor, in accordance with law, may refuse to provide or make available the services provided by the Enterprise to such premises until all delinquent rates, fees, charges and penalties have been paid in full.

Article 25. Improvement District No. 4 Boundary Expansion.

(A) Water delivered to the Purveyor pursuant to this Agreement shall not be sold or otherwise disposed of by the Purveyor for use outside the boundaries of Improvement District No. 4 without the prior written consent of the Agency.

(B) The Purveyor may request a boundary expansion to allow it to deliver additional treated water supplies outside the boundaries of Improvement District No. 4 existing at the time of the request. The Agency shall cooperate with Purveyor in taking steps necessary to annex new areas to Improvement District No. 4, but Purveyor shall be responsible for all costs incurred in attempting such boundary expansion as specified below. The Agency retains the right to approve or disapprove the adequacy of measures taken to achieve expansion. If the Purveyor provides a proportional amount of additional new (non-Improvement District No. 4 State Water Project) surface water supply to Improvement District No. 4 for use in the expanded areas, the zone of benefit boundary may not need to be expanded if the Purveyor enters an agreement satisfactory to the Agency to be responsible for all costs for such supply; provided, however, that such supply must be acquired by Purveyor and the agreement with the Agency entered within six (6) months of the date of this Agreement. If, however, the Purveyor is unable to secure a new surface supply for the expansion, the Purveyor may request that Improvement District No. 4 purchase additional State Water Project entitlement at the current market cost, if available, provided that Purveyor shall be responsible for the full cost of such entitlement if such cost is not legally charged to a Zone of Benefit. The area to be annexed must also be subject to the Groundwater Charge existing through other portions of Improvement District No. 4, and shall take all steps necessary to ensure the applicability of the Groundwater Charge to the annexed area. Purveyor shall be responsible for the amount of such Groundwater Charge which would otherwise be levied if the charge is invalidated. The Customer requesting a boundary expansion will assist Improvement District No. 4 with any administrative proceedings, environmental

compliance, or any other approvals or processes that may be necessary to comply with a boundary expansion. All costs incurred complying with, or attempting to comply with, the request for a boundary expansion shall be paid for by the requesting Customer. Any request for boundary expansion may also result in the assessment of an annexation fee by the Agency to the Purveyor. The Agency does not guarantee the success of any boundary expansion efforts, or the success of implementation of a zone of benefit levy or expansion of the Groundwater Charge to an annexed area, and the parties acknowledge that pursuit of an expansion of Improvement District No. 4's service and supply are subject to the discretion of the Kern County Water Agency's Board.

Article 26. Covenants Relating to Bond Issuance.

(A) The Purveyor will not enter into any other contract concerning the water delivered pursuant to this Agreement or take any other action that would adversely affect the exclusion from gross income of the interest paid on any debt obligations issued by the Agency to finance the Original Project or the Expansion Project (or, if permitted by the Agency, will pay the cost of the remedial action necessary to preserve such exclusion from gross income).

(B) The Purveyor hereby covenants that, except as otherwise disclosed to the Agency, the payment of not more than ten percent (10%) of the principal or ten percent (10%) of the interest due on the debt obligations issued for the Expansion Project during the term thereof is or will be, under the terms of the debt obligations or any underlying arrangement, directly or indirectly, secured by any interest in property used or to be used for a Private Business Use or in payments in respect of property used or to be used for a Private Business Use, or is or will be derived from payments, whether or not to the

Agency, in respect of property or borrowed money used or to be used for a Private Business Use. "Private Business Use" means use directly or indirectly in a trade or business carried on by a natural person or in any activity carried on by a person other than a natural person, excluding, however, use by a governmental unit and use by a nongovernmental unit as a member of the general public.

(C) Furthermore, in order to assist with the issuance of the debt obligations, the Purveyor hereby covenants to execute an agreement to provide annual reports, as required by Rule 15c2-12 of the Securities and Exchange Commission, in a form to be mutually agreed upon between the Purveyor and the Agency, agreement not to be unreasonably withheld.

(D) In connection with the issuance of the debt obligations, the Purveyor hereby covenants to provide, in a form acceptable to the Agency, (i) an opinion of counsel as to the validity and enforceability of this Agreement, and (ii) certifications customarily delivered in connection with financings such as the debt obligations.

Article 27. Penalty for Late Payment.

Upon each charge to be paid by the Purveyor to the Agency pursuant to this Agreement, which shall remain unpaid after the same shall have become due and payable, shall accrue interest at the rate of one-half of one percent (.5%) per month of the amount of such delinquent payment from and after the date when the same becomes due until paid. The Purveyor hereby agrees to pay such interest, provided that such late charge shall not apply until thirty (30) days after the Agency invoices Purveyor for the underlying charge.

Article 28. Remedies Not Exclusive.

The use by either party of any remedy specified herein for the enforcement of this Agreement is not exclusive and shall not deprive the party using such remedy of, or limit the application of, any other remedy provided by law.

Article 29. Amendments.

This Agreement may be amended at any time by mutual agreement of the parties, except insofar as any proposed amendments may adversely affect other Customers or be in any way contrary to applicable law or inconsistent with the provisions of the Master Contract. The Agency shall make available to the Purveyor at all times during the normal hours of business at the Agency offices for the Purveyor's inspection copies of all contracts now or hereafter executed by the Agency with all other Customers and the participants referred to in Article 6 and of any amendments thereto. The Agency agrees that each contract for the supply of treated water now or hereafter executed with all other Customers in Improvement District No. 4 shall contain provisions substantially similar to those herein set forth and shall not contain any provisions of a material nature more favorable to any other Customer than the provisions herein applicable to the Purveyor.

Article 30. Opinions and Determinations.

Where the terms of this Agreement provide for action to be based upon opinion, judgment, approval, review or determination of either party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review or determination to be arbitrary, capricious, or unreasonably delayed or conditioned.

Article 31. Waiver of Rights.

Any waiver at any time by either party hereto of its rights with respect to a default or any other matter arising in connection with this Agreement, shall not be deemed to be a waiver with respect to any other default or matter.

Article 32. Notices.

All notices that are required to either expressly or by implication to be given by either party to the other under this Agreement shall be signed for the Agency and for the Purveyor by such officers as they may, from time to time, authorize in writing to so act. All such notices shall be deemed to have been given and delivered if delivered personally or if enclosed in a properly addressed envelope and deposited in a United States Post Office for delivery by registered or certified mail, or by confirmed delivery by recognized national delivery service. Unless and until formally notified otherwise, all notices shall be addressed to the parties at their addresses as shown on the signature page of this Agreement.

Article 33. Assignment.

The provisions of this Agreement shall apply to and bind the successors and assigns of the respective parties, but no assignment or transfer of this Agreement, or any part hereof or interest herein, shall be valid until and unless approved by the Agency as to all lawful factors within its discretion, including but not limited to the satisfaction of all covenants and conditions for all bonds or other financing for the Expanded Capital Costs, provided that such approval shall not be unreasonably withheld. The Agency shall act upon a requested approval of a proposed assignment within sixty (60) days of receiving all relevant requested information. Upon Agency approval of assignment, the assignee

shall assume all rights and obligations of this Agreement and the assignor shall be relieved of all rights and obligations. The Agency shall not approve any such assignment or transfer to any person or entity that is not a Customer unless and until the proposed assignment or transfer has been first offered to and refused in writing by all Customers. The offer of any such assignment or transfer shall be on the same basis to all Customers and if more than one Customer desires to accept the offer, the Agreement or portion thereof to be assigned shall be prorated among them in proportion to the flow capacities provided for each of them in the facilities involved in the assignment or transfer. Notwithstanding any other provisions of this article to the contrary, the Agency's approval shall not be required for an assignment by the Purveyor of all or part of this Agreement to a public agency with the power of eminent domain, if such public agency expressly assumes all or part of the obligation of this Agreement. If such public agency assumes only a portion of the obligations of the Purveyor under this Agreement, the Purveyor shall remain obligated for the remainder of such obligations.

Article 34. Inspection of Books and Records.

The proper officers or agents of the Purveyor shall have full and free access at all reasonable times to the account books and official records of the Agency insofar as the same pertain to the matters and things provided for in this Agreement, with the right at any time during office hours to make copies thereof, and the proper representatives of the Agency shall have similar rights in respect to the account books and records of the Purveyor.

Article 35. Negotiation or Mediation of Disputes.

(A) The parties will attempt in good faith to resolve controversies or claims arising out of or relating to this Agreement by prompt negotiations between the senior executives of the parties subject to subdivision (B) of this Article. A party may invoke this Article by providing written notice of the dispute to the chief executive of the other party specifying the nature of the dispute and the position of the invoking party, whereupon the chief executive of the responding party shall provide written notice of the responding party's position within twenty (20) days of receipt of the invoking party's notice. Within thirty (30) days of the notice invoking this Article, the chief executive officers or responsible Vice-President of the parties shall meet in Bakersfield, California, for the purpose of negotiating a resolution of the dispute. If no resolution can be negotiated, the parties may agree upon a mediator and mediation process to further attempt resolution of the dispute.

(B) Provided, however, that this Article shall not limit any party's ability to proceed at any time with other remedies available to it, including but not limited to the initiation of litigation.

Article 36. Changes in the Purveyor's Service Area.

The Purveyor will furnish the Agency with maps showing their entire water distribution service area. Throughout the term of this Agreement, the Purveyor will properly notify the Agency of any changes, either by inclusion or exclusion, and in said service area or areas.

Article 37. Sale of Water to Others.

The Agency shall not sell any water from the Purification Plant provided for in this Agreement to other than the Customers unless and until it has first offered to sell such water to the Customers at the prices provided for herein. If the Customers do not elect to take all the water available from the Purification Plant, the unused water may be sold to others at not less than the prices provided for herein; provided, that such sale shall not interfere with the ability of the Agency to make deliveries to the Purveyor and other Customers; and further provided, that such sales shall be made only to others who will use the water within Improvement District No. 4 except as provided for in Article 19.

Article 38. Advisory Committee.

An Advisory Committee shall be created which shall consist of nine (9) members who shall serve terms of one (1) year. One (1) member shall be recommended by each of the Customers; one (1) member shall be recommended by sub-contractors to Customers; one (1) member shall be recommended by the City of Bakersfield; and three (3) members shall be recommended by Agency staff. Recommendations shall be made prior to the final Agency Board meeting of each calendar year, or by the relevant recommending party upon the existence of a vacancy, and the Agency Board of Directors shall consider the recommendations and make appointments during the final Agency Board meeting of each calendar year. During his or her term, each member of the Advisory Committee shall serve at the pleasure of the party responsible for his or her appointment and alternates may be appointed who may serve in the absence of a member.

The Advisory Committee shall be charged with the responsibility of making recommendations to the Agency on those portions of the Agency's annual budget

pertaining to the Purveyor and other Customers, Agency water supply and water quality plans, programs, actions and issues pertaining to the Purveyor and other Customers' plans and specifications for project facilities, construction and operating budgets, operating criteria and use of the project facilities. Voting on the Advisory Committee is on the basis of one (1) person, one (1) vote. To the extent reasonably possible, the Advisory Committee shall be informed of the details of such matters in a timely manner and, except in emergencies, the Agency will seek and consider the advice of the Advisory Committee on all such matters. Four (4) members of the Advisory Committee shall be considered a quorum for the committee acting in its advisory capacity. Final decisions concerning the project, including but not limited to, matters reviewed by the Advisory Committee, shall be made by the Agency.

A member of the Urban Bakersfield Advisory Committee shall be elected by the Advisory Committee, and appointed by the Agency Board, to sit on the Cross Valley Canal Advisory Committee to represent the interests of Improvement District No. 4 on the Cross Valley Canal. An alternate will be selected by the Advisory Committee from the Advisory Committee at the first meeting of each year, provided that if the alternate is not available for any meeting, the alternate position for the meeting will be filled by the Improvement District No. 4 Manager.

Article 39. INTENTIONALLY OMITTED

Article 40. Integration.

This Agreement represents the entire understanding of Agency and Purveyor as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This Agreement may not

be modified or altered except by an amendment to this Agreement evidenced in writing and executed by the parties hereto.

Article 41. Governing Law.

This Agreement is entered into in the State of California. The law governing the Agreement is agreed to be that of the State of California and such federal law as may apply.

Article 42. Time.

Time is of the essence with respect to the performance of each of the covenants and agreements contained in this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date first above written.

KERN COUNTY WATER AGENCY

EAST NILES COMMUNITY
SERVICES DISTRICT

By Michael Radon
President

By Joe W. Wink
President

ATTEST:

[Signature]
Secretary
Kern County Water Agency
3200 Rio Mirada Drive
Bakersfield, California 93308

[Signature]
Secretary
East Niles Community Services Dist.
1417 Vale Street
Bakersfield, CA 93306

Exhibit A
Treated Water Capacity Expansion Project Cost Allocation Summary

1	2	3	4	5	6	7	8	
Treated Water Capacity Expansion Participation Summary								
Project				California Water Service	City of Bakersfield	East Niles CSD	North of the River MWD	KCWA Improvement District No. 4
Henry C. Garnett WPP Expansion				x	x	x	x	
North Feeder Expansion Project							x	
East Feeder Expansion Project						x		
East Feeder Oswell Bypass Project				x		x		
Northwest Feeder Project				x	x			x
Treated Water Production Allocation Summary								
Project Participant	Existing Annual Entitlement	Incremental Annual Entitlement	Total Annual Entitlement	Existing Peaking Capacity	Incremental Peaking Capacity	Total Peaking Capacity	Avg of Ratio Capacity & Entitlement ¹	
	(AF/YR)	(AF/YR)	(AF/YR)	(MGD)	(MGD)	(MGD)	(%)	
California Water Service	11,500	9,000	20,500	15.0	15.0	30.0	35.4%	
City of Bakersfield	0	6,500	6,500	0.0	6.0	6.0	19.3%	
East Niles CSD	5,000	6,000	11,000	6.7	7.1	13.8	19.9%	
North of the River MWD	8,500	6,500	15,000	11.4	10.7	22.1	25.4%	
Improvement District No. 4		0	0	0.0	0.0	0.0	0.0%	
	25,000	28,000	53,000	33.1	38.8	71.9	100.0%	
Distribution Capacity Allocation Summary								
Project Participant	North Feeder Pipeline Capacity Allocation	North Feeder Pipeline Capacity Allocation	East Pipeline Capacity Allocation	East Feeder Pipeline Capacity Allocation	NW Pipeline Capacity Allocation	NW Feeder Pipeline Capacity Allocation		
	(%)	(MGD)	(%)	(MGD)	(%)	(MGD)		
California Water Service	0.0%	0.0	0.0%	15.0	46.9%	15.0		
City of Bakersfield	0.0%	0.0	0.0%	0.0	18.8%	6.0		
East Niles CSD	0.0%	0.0	100.0%	13.8	0.0%	0.0		
North of the River MWD	100.0%	22.1	0.0%	0.0	0.0%	0.0		
Improvement District No. 4	0.0%	0.0	0.0%	0.0	34.4%	11.0		
	100.0%	22.1	100.0%	28.8	100.0%	32.0		

Footnotes:

1) Project participant percent allocation does not directly compare to dept service percent due to different interest rates for taxable and nontaxable interest rates.

Exhibit B
ID4 Banking Assets Summary Table

	1	2	3	4	5
	Kern Water Bank	Pioneer Project ¹	ID4 Banking Wells	ID4 In District Wells	Total
Total Recharge Capacity	450,000	146,000	0		596,000 Ac-Ft/Yr
Total Recovery Capacity	230,000	99,000	12,000	36,000	377,000 Ac-Ft/Yr
ID4 Percent Interest	9.6%	10.0%	100.0%	100.0%	
ID4 Recharge Capacity	43,290	14,600	0		57,890 Ac-Ft/Yr
ID4 Recovery Capacity	22,126	9,900	12,000	36,000	80,026 Ac-Ft/Yr

Footnotes:

1) Includes City of Bakersfield's 2800 Acre Recharge Facility

Exhibit C
Transmission Pipeline and Turnout Summary Table

1	2	3	4	5	6	7	8	9	10
North Feeder Pipeline									
Transmission Pipeline Entitlement						Transmission Pipeline Turnout Summary			
NOR						Pipeline Station	Turnout Diameter	Cross Street Location	Owner
(AF/YR)		(AF/YR)		(AF/YR)		34+70	14	Belle Avenue	NOR
15,000		0		0		55+51	14	Woodrow Avenue	NOR
Total Entitlement						80+20	12	Diane Drive	NOR
					15,000	95+03	12	Highland Francis Alley	NOR
Transmission Pipeline Capacity						118+53	12	Universe Avenue	NOR
NOR						155+22	20	Seventh Standard Road (Reservoir)	NOR
(MGD)	(CFS)	(MGD)	(CFS)	(MGD)	(CFS)				
22.1	34.2								
Total Capacity									
				22.1	34.2				
East Feeder Pipeline									
Transmission Pipeline Entitlement						Transmission Pipeline Turnout Summary			
CWS		ENCSD				Pipeline Station	Turnout Diameter	Cross Street Location	Owner
(AF/YR)		(AF/YR)		(AF/YR)		54+70	8	Chester Avenue	CWS
11,500		11,000		0		103+84	16	Union Avenue	CWS
Total Entitlement						154+33	16	King Street	CWS
					22,500	178+33	12	Berger Street	CWS
Transmission Pipeline Capacity						237+44	15	Wenatchee Avenue	CWS
CWS		ENCSD				319+00	16	Fairfax Avenue (Reservoir)	ENCSD
(MGD)	(CFS)	(MGD)	(CFS)	(MGD)	(CFS)	323+70	12	Country Club	ENCSD
15.0	23.2	13.8	21.4			353+70	16	College Avenue	ENCSD
Total Capacity						353+80	16	College Avenue (Reservoir)	ENCSD
				28.8	44.6				
Northwest Feeder Pipeline									
Transmission Pipeline Entitlement						Transmission Pipeline Turnout Summary			
CWS		COB		ID4 ¹		Pipeline Station	Turnout Diameter	Cross Street Location	Owner
(AF/YR)		(AF/YR)		(AF/YR)		32+72	16	Arrow Street	CWS
9,000		6,500		0		61+95	14	Standard Street	COB
Total Entitlement						121+00	14	Mohawk Street	CWS
					15,500	121+50	16	Mohawk Street	COB
Transmission Pipeline Capacity						149+50	16	Fruitvale Avenue	CWS
CWS		COB		ID4		165+90	16	Alken Street	CWS
(MGD)	(CFS)	(MGD)	(CFS)	(MGD)	(CFS)	200+47	16	Patton Way	CWS
15.0	23.2	6.0	9.3	11.0	17.0	300+36	16	Meany Avenue	COB
Total Capacity						300+36	16	Meany Avenue	CWS
				32.0	49.5				

Footnotes:

1) ID4 NW Feeder Pipeline entitlement to be determined by ID4 at a later date.

Exhibit D
Project Participant Buildout Schedule

1	2	3	4	5	6	7
Fiscal Year	California Water Service	City of Bakersfield	East Niles CSD	North of the River MWD	Improvement District No. 4	Total
Entitlement -AF/YR						
Total Annual Entitlement % of Entitlement	20,500 38.7%	6,500 12.3%	11,000 20.8%	15,000 28.3%	0 0.0%	53,000 100.0%
Capacity - MGD						
Total Peaking Capacity % of Capacity	30.0 41.7%	6.0 8.3%	13.8 19.2%	22.1 30.7%	0.0 0.0%	71.9 100.0%
Delivery Schedule -AF/YR						
2004-05	11,500	6,500	6,000	8,500	0	32,500
2005-06	12,500	6,500	6,000	10,000	0	35,000
2006-07	13,000	6,500	7,500	10,100	0	37,100
2007-08	15,500	6,500	7,950	10,200	0	40,150
2008-09	16,000	6,500	8,400	10,300	0	41,200
2009-10	16,500	6,500	8,850	10,400	0	42,250
2010-11	17,000	6,500	9,300	10,500	0	43,300
2011-12	17,500	6,500	9,750	10,600	0	44,350
2012-13	18,000	6,500	10,200	10,700	0	45,400
2013-14	18,500	6,500	11,000	10,800	0	46,800
2014-15	19,000	6,500	11,000	10,900	0	47,400
2015-16	19,500	6,500	11,000	11,000	0	48,000
2016-17	20,000	6,500	11,000	11,100	0	48,600
2017-18	20,500	6,500	11,000	11,200	0	49,200
2018-19	20,500	6,500	11,000	11,300	0	49,300
2019-20	20,500	6,500	11,000	11,400	0	49,400
2020-21	20,500	6,500	11,000	11,500	0	49,500
2021-22	20,500	6,500	11,000	11,600	0	49,600
2022-23	20,500	6,500	11,000	11,800	0	49,800
2023-24	20,500	6,500	11,000	12,000	0	50,000
2024-25	20,500	6,500	11,000	12,250	0	50,250
2025-26	20,500	6,500	11,000	12,500	0	50,500
2026-27	20,500	6,500	11,000	12,750	0	50,750
2027-28	20,500	6,500	11,000	13,000	0	51,000
2028-29	20,500	6,500	11,000	13,250	0	51,250
2029-30	20,500	6,500	11,000	13,500	0	51,500
2030-31	20,500	6,500	11,000	13,750	0	51,750
2031-32	20,500	6,500	11,000	14,000	0	52,000
2032-33	20,500	6,500	11,000	14,250	0	52,250
2033-34	20,500	6,500	11,000	14,500	0	52,500
2034-35	20,500	6,500	11,000	15,000	0	53,000

Exhibit E
Treated Water Capacity Expansion Project Cost Allocation Summary

1	2	3	4	5	6	7	8	9	10
Treated Water Capacity Expansion Cost Summary									
Project						Administration & Financing ⁵	Feasibility Engineering Cost ¹	Estimated Construction Cost ⁶	Total Estimated Cost
						(\$)	(\$)	(\$)	(\$)
Henry C. Garnett WPP Expansion (72 MGD)						635,000	2,050,000	35,638,500	38,323,500
North Feeder Expansion Project							698,625	3,378,125	4,076,750
East Feeder Expansion Project							660,825	3,186,625	3,847,450
East Feeder Oswell Bypass Project								625,000	625,000
Northwest Feeder Project							803,900	14,697,000	15,500,900
Total						635,000	4,213,350	57,525,250	62,373,600
Treated Water Expansion Cost Allocation Summary⁴									
Project Participant		Existing Annual Entitlement (AF/YR)	Incremental Annual Entitlement (AF/YR)	Total Annual Entitlement (AF/YR)	Existing Peaking Capacity (MGD)	Incremental Peaking Capacity (MGD)	Total Peaking Capacity (MGD)	Avg of Ratio Capacity & Entitlement ⁸ (%)	HCGWPP Cost Allocation (\$)
California Water Service		11,500	9,000	20,500	15.0	15.0	30.0	35.4%	13,342,229
City of Bakersfield		0	6,500	6,500	0.0	6.0	6.0	19.3%	7,288,617
East Niles CSD		5,000	6,000	11,000	6.7	7.1	13.8	19.9%	7,486,357
North of the River MWD		8,500	6,500	15,000	11.4	10.7	22.1	25.4%	9,571,297
Improvement District No. 4		0	0	0	0.0	0.0	0.0	0.0%	635,000
Total		25,000	28,000	53,000	33.1	38.8	71.9	100.0%	38,323,500
Distribution Cost Allocation Summary									
Project Participant	North Feeder Pipeline Capacity Allocation ² (%)	North Feeder Pipeline Capacity Allocation (MGD)	North Feeder Pipeline Cost Allocation (\$)	East Pipeline Capacity Allocation (%)	East Feeder Pipeline Capacity Allocation (MGD)	East Feeder Pipeline Cost Allocation ⁷ (\$)	NW Pipeline Capacity Allocation ³ (%)	NW Feeder Pipeline Capacity Allocation (MGD)	NW Feeder Pipeline Cost Allocation ⁶ (\$)
California Water Service	0.0%	0.0	0	0.0%	15.0	432,028	46.9%	15.0	9,755,000
City of Bakersfield	0.0%	0.0	0	0.0%	0.0	0	18.8%	6.0	3,902,000
East Niles CSD	0.0%	0.0	0	100.0%	13.8	3,379,597	0.0%	0.0	0
North of the River MWD	100.0%	22.1	3,378,125	0.0%	0.0	0	0.0%	0.0	0
Improvement District No. 4	0.0%	0.0	698,625	0.0%	0.0	660,825	34.4%	11.0	1,843,900
Total	100.0%	22.1	4,076,750	100.0%	28.8	4,472,450.0	100.0%	32.0	15,500,900
Project Participant Total Capital Project Cost									
Project Participant									Total Project Cost (\$)
California Water Service									23,529,256
City of Bakersfield									11,190,617
East Niles CSD									10,865,954
North of the River MWD									12,949,422
Improvement District No. 4									3,838,350
Total									62,373,600

Footnotes:

- 1) Costs approved to date for engineering, analysis and design of the conveyance system. Approval does not include plant expansion design.
- 2) Allocation calculated by the average of the ratios between percentage of incremental entitlement and percentage of incremental capacity.
- 3) Allocation calculated by percentage of incremental capacity.
- 4) Includes cost of financing Treated Water Capacity Expansion Project
- 5) Does not include the cost of bond insurance.
- 6) Based in ID4 incremental participation in the NW Feeder Project. Includes ID4 payment of 100% NW Feeder design cost.
- 7) Includes Oswell Bypass Project Cost not funded through the \$1,200,000 DWR State Revolving Fund Loan.
- 8) Project participant percent allocation does not directly compare to dept service percent due to different interest rates for taxable and nontaxable interest rates.
- 9) Construction costs include 35% contingency.

Exhibit F
Treated Water Capacity Expansion Project Billing Summary

1	2	3	4	5	6	7
Project Participant Billing Schedule Summary						
	Frequency	Date		Due ¹		
Power	Monthly	January through December		30 Days		
Operation & Maintenance	Quarterly	July 1 October 1 January 1 April 1		30 Days		
Treated Water Charge	Semiannually	July 10 January 10		30 Days		
Capital Facilities Charge	Semiannually	July 10 January 10		30 Days		
Project Participant Billing Cost Summary						
	Power Cost ⁵	Operation & Maintenance ⁵	Treated Water Charge ²	Capital Facilities Charge ³		
	Conveyance	Conveyance	Treatment	Conveyance	Treatment	Total
Frequency	Monthly	Quarterly	Semiannually	Semiannually		
California Water Service	Actual	Actual	1,394,000	411,448	564,167	975,615
City of Bakersfield ⁴	Actual	Actual	442,000	138,027	270,732	408,760
East Niles CSD	Actual	Actual	748,000	119,548	278,077	397,625
North of the River MWD	Actual	Actual	1,020,000	119,496	355,521	475,017
Improvement District No. 4				36,788	0	36,788
			\$3,604,000	\$825,307	\$1,468,498	\$2,293,805

Footnotes

- 1) Bills due within 30 days of postmarked date on invoice.
- 2) Based on \$136/Ac-Ft multiplied by the purveyor's entitlement on a semiannual basis.
- 3) Estimated charges include principle, interest, reserve, underwriter discount and insurance.
- 4) Bond interest based on nontaxable rate.
- 5) O,M & P Costs for treatment paid for by the ID4 Enterprise Fund

AGREEMENT
BETWEEN NORTH OF THE RIVER MUNICIPAL WATER DISTRICT
AND
THE KERN COUNTY WATER AGENCY

This agreement entered this 22 day of November, 1996, between the Kern County Water Agency ("Agency"), and the North of the River Municipal Water District ("NORMWD") regarding construction and operation of NORMWD Well #3 discharge pipeline connection to the Agency 27 inch north pipeline.

RECITALS

WHEREAS, the Agency, on behalf of its improvement district number 4, owns and operates a 27" diameter water pipeline from its treatment plant to portions of its service area within Improvement District No. 4 (the "North Pipeline");

WHEREAS, NORMWD previously provided additional funding to Agency for enlargement of the capacity of the North Pipeline to allow for potential utilization for well water;

WHEREAS, NORMWD has a proposed potable water well, known as "NORMWD Well #3", located within its service area and Agency Improvement District No. 4 which will be capable of providing potable water of suitable quality for use within NORMWD and Improvement District No. 4; and

WHEREAS, it is in the best interest of the parties to this agreement that a connection be constructed from the proposed NORMWD Well #3 to the 27 inch Agency North Pipeline near 601 Willow Dr., Oildale, so as to allow for the augmentation of NORMWD's water

supply and therefore help relieve the peak load on the Agency Improvement District No. 4 water treatment plant.

NOW THEREFORE, for the mutual consideration set forth herein, it is agreed as follows:

1. Agency, for the consideration herein set forth, grants permission to the NORMWD to construct a pipeline connection from its proposed NORMWD Well #3 to the Agency North Pipeline (hereinafter referred to as "Connection") within the Agency's accompanying easement or right-of-way near 601 Willow Dr., Oildale, as shown on Exhibit "A"; consisting of a fabricated flanged outlet attached to the 27" Agency line, valving (including check valve), and appropriate metering equipment; connecting to 10" ductile iron discharge pipe from the well.
2. This contract shall become effective on the date signed below, and shall remain in effect throughout the term provided by Article 2 of the Treated Water Contract dated June 13, 1974, between the Agency and NORMWD, and any extensions, amendments or renegotiations thereto.
3. Detailed plans and specifications shall be prepared by NORMWD for the Connection and related structures subject to approval of the Agency, and shall be subject to the Agency's right-of-way. Record drawings and specifications will be on permanent file at NORMWD.
4. Metering will be by in-line propeller meters, or other AWWA approved device. Provisions will be made for accommodation of transducers, telemetry equipment and the treatment plant SCADA monitoring and control system. Records of the daily and accumulated flows will be maintained by NORMWD. Costs incurred for meeting the requirements of this

provision shall be the responsibility of NORMWD.

5. The Connection shall be constructed by NORMWD through force account, and/or licensed contractors, at NORMWD's sole expense. Construction shall be subject to the inspection and approval of the Agency at each stage. NORMWD shall keep Agency fully apprised of the schedule of construction. An encroachment permit issued by the Agency will be obtained by NORMWD prior to the commencement of construction.

6. The Connection shall be operated by NORMWD so as to not interfere with the Agency's treatment plant operations and water deliveries. All produced water from Well #3 will meet all State of California potable water quality requirements.

7. Agency shall have access to the Connection for inspection purposes at any time. Agency will endeavor to provide NORMWD with advance notice of such inspections to the extent practical. The Agency will maintain ownership of the Connection up to, but not including, the isolation valve attached to the flanged outlet. NORMWD will maintain ownership from, and including the isolation valve to the well.

8. Unless operation is requested by the Agency, NORMWD will provide one hour notice to the Agency of its intent to use the Connection to deliver produced water from its Well #3 into the Agency line. In the event of an emergency, notice will be given as soon as practical. Upon notice the Agency may deny permission in accordance with paragraph 9. If conditions require the Agency to shut down Well #3, one hour notice shall be given unless an emergency exists, in which case notice shall be given as soon as practical.

9. The Connection will not be operated under any conditions which are adverse to the operations, finances, and water supply of the Agency and its Treated Water Contractors.

10. NOR shall defend, indemnify, and hold harmless the Agency, its employees, directors, contractors and agents, with respect to any claims or liabilities of all kinds arising out of, or related to the construction or operation of the Connection, including but not limited to all reasonable attorney and consultant fees.

11. In the event of disputes relating to this agreement, the parties shall first submit to mediation in an attempt to resolve such disputes, then such disputes shall be subject to a non-binding arbitration before a mutually agreeable neutral arbitrator, or if no agreement can be reached, before a neutral arbitrator selected by the Kern County Superior Court. In the event of an action after arbitration, the party obtaining a result less favorable than the result obtained in arbitration shall bear the attorneys fees of both parties.

IN WITNESS WHERE OF, the parties hereto have executed this contract on the 22nd day of November, 1996.

Kern County Water Agency

North of the River Municipal Water District

BY: Terry Rogers
Terry Rogers
President, Board of Directors

BY: Don Cross
Don Cross
President, Board of Directors

ATTEST:

BY: Pam Bosworth
Pam Bosworth, Secretary
Kern County Water Agency
P.O. Box 58
Bakersfield, California 93302

BY: William R. Miller
William R. Miller, Secretary
North of the River Municipal Water District
4000 Rio Del Norte Street
Bakersfield, California 93308

**AGREEMENT AMONG
CALIFORNIA WATER SERVICE COMPANY
AND
EAST NILES COMMUNITY SERVICES DISTRICT
AND
KERN COUNTY WATER AGENCY/IMPROVEMENT DISTRICT NO. 4**

For Construction and Operation of a California Water Service Company (hereinafter referred to as "CWS") "T" Connection and Related Facilities (hereinafter referred to as the "Connection") to the Kern County Water Agency/Improvement District No. 4 (hereinafter referred to as the "Agency") East Pipeline near or at the 23 Corner Tank Facility site

WHEREAS, it is in the best interests of the parties to this Agreement that this Connection be constructed to enable CWS to use the Agency's east transmission pipeline at or near the 23 Corner Tank Facility for conveying treated water from CWS' new North East Bakersfield Water Treatment Plant (NEBWTP) to customers within the service areas of CWS and East Niles Community Services District (hereinafter referred to as "ENCSD").

WHEREAS, the following benefits expect to be realized as the result of the Connection being constructed and operated in the manner set forth in this Agreement:

- (1) ENCSD will receive an excellent quality of treated Kern River water from the NEBWTP;
- (2) There will be an increase in treated water supply reliability for all three parties due to the direct connection of the NEBWTP and the Agency's Henry C. Garnett water treatment plant (HCGWTP) to the east pipeline;
- (3) ENCSD will experience a significant reduction in costs for electric power consumption due to the elimination or reduction under normal circumstances of pumping water from the HCGWTP to the 23 Corner Tank Facility;
- (4) If the Agency is required and able to deliver an additional 3,000 acre-ft/year of treated water to ENCSD consistent with the terms and conditions of the existing Treated Water Contract dated June 13, 1974, including the provisions of Agency Resolution No. 16-71 and the Agreement dated August 25, 1983 that implemented this Resolution, CWS will provide ENCSD the additional amount in exchange for the treated water that would have been delivered by the Agency to ENCSD;
- (5) ENCSD has the opportunity to participate in and therefore increase the amount of treated water it receives from future expansions of the NEBWTP if it contracts with CWS to pay for its proportional share of capital, operational and maintenance costs of such expansions.

WHEREAS, it is recognized by all parties that this Agreement does not amend, change, limit, alter or invalidate any of the terms and conditions of the existing Treated Water Contract dated June 13, 1974, among the Agency, CWS, ENCSD, and other Treated Water Contractors. The duties and obligations of each party and respective assignments of treated water as set forth in the Treated Water Contract and any amendments thereto remain in effect after this Agreement is executed and the Connection is constructed and put into operation.

NOW THEREFORE, it is agreed as follows:

1. The Parties agree that the statements set forth in the preceding "Whereas" clauses are true and correct to the best of their knowledge and are being relied upon by the Parties in entering into this Agreement.
2. The Agency grants permission to CWS to construct the Connection from its piping system to a tie-in with the Agency's piping system and make use of the Agency's existing easement or right-of-way near 5401 Auburn Ave, as shown and described in Exhibits "A-1, A-2, B-1 and B-2", attached hereto, subject to the conditions set forth in the following sections of this Agreement.
3. This Agreement shall become effective on the date signed below, and shall remain in effect throughout the term provided by Article 2 of the Treated Water Contract dated June 13, 1974, between the Agency, CWS, and ENCSD and any extensions, amendments, or renegotiations thereto unless all parties mutually agree to earlier termination.
4. Detailed plans and specifications shall be prepared by CWS for the Connection for review and approval by the Agency and ENCSD, and shall be subject to the Agency's right-of-way. Record as-built drawings and specifications will be on permanent file at CWS and copies provided to the Agency and ENCSD.
5. Metering will be by an AWWA approved device. Provisions will be made for accommodation of transducers, telemetry equipment, and the HCGWTP SCADA monitoring and control system. Records of the daily and accumulated flows will be maintained by both the Agency and CWS. Copies of all flow records will be provided to ENCSD. Costs incurred for meeting the requirements of this provision shall be the responsibility of CWS.
6. The Connection shall be constructed by CWS through force account, and/or licensed contractors, at the sole expense of CWS. Construction shall be subject to the inspection and approval of the Agency at each stage. CWS shall provide the Agency and ENCSD with the schedule of construction and timely updates of construction progress. CWS will obtain an encroachment permit from the Agency prior to commencement of construction. Any shutdowns of the Agency's east transmission pipeline for purposes of construction or disinfection of the Connection will be performed only after prior consent has been obtained from ENCSD and in a manner and under conditions that do not result in negative or harmful effects on the operations, finances and water supply of ENCSD.
7. The Connection shall be operated by CWS in a manner and under conditions that do not result in negative or harmful effects on the operations, finances, and water supply of the Agency's Improvement District No. 4, ENCSD and other Treated Water Contractors. Responsibilities for operations and maintenance of the Connection by CWS and related administrative procedures shall be in accordance with the provisions of the Treated Water Contract dated June 13, 1974. All water delivered to the Connection by CWS from the NEBWTP shall meet all State of California Department of Health Services potable water quality requirements.
8. Agency shall have access to the Connection for inspection purposes at any time. Agency shall provide CWS with advance notice of such inspections to the extent practical. Agency will maintain ownership of the Connection which subject to final design changes will generally consist of the following: _____

9. CWS shall defend, indemnify, and hold harmless the Agency and ENCSD, their employees, directors, contractors and agents, from damages and losses including reasonable attorney fees and consultant fees to the extent caused by the negligence or willful misconduct of CWS, its employees and agents, including without limitation, negligence or misconduct in the design of, construction of, or operation and maintenance of the Connection, or design of the CWS system, and from the day to day management and operations of flow through the Connection to ENCSD.
10. Agency shall defend, indemnify and hold harmless CWS and ENCSD, their employees, directors, contractors and agents from damages and losses including reasonable attorney fees and consultant fees, to the extent caused by the negligence or willful misconduct of the Agency or its employees, directors, contractors or agents, including without limitation, negligence or misconduct in operational control of the Connection.

11. Dispute Resolution.

(1) Intent. Agency, ENCSD, and CWS desire and intend to resolve all disputes or other matters arising out of or in connection with this Agreement through reasonable, business like dispute resolution procedures without resort to litigation. Accordingly, any disputes among the parties shall be resolved in accordance with this section, excepting those construction disputes resolved according to the requirements of Public Contract Code sections 20104 et seq., and excepting those disputes where an imminent threat to public health or safety, requires immediate judicial action.

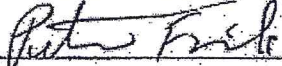
(2) Initial Meeting. As a first step, any party may call a special meeting to initially resolve a dispute. The initial meeting shall be held within three (3) working days after delivery of a written request for such a meeting. The written request shall contain a statement of the nature of the dispute. The meeting shall be attended by the authorized representatives of the Agency, ENCSD and CWS. Disclosures made by the parties during such meetings shall be protected as discussions for the resolution of a disputed claim under the California Evidence Code.

(A) Mediation. If the dispute has not been resolved within five (5) working days after the conclusion of the initial meeting, any party may initiate mediation by written notice to the others. All parties shall attend and participate in the mediation that shall be non-binding and without prejudice. The parties shall first attempt to agree upon a mediator. If agreement cannot be reached on selection of a mediator, the parties shall attempt to agree upon a mediation entity, e.g. AAA, JAMS, etc., to appoint a mediator. If agreement cannot be reached, the parties shall petition the Kern County Superior Court for appointment of a mediator. Costs of mediation shall be borne equally by each party.

(8)
4

Failure of Mediation. If mediation fails to resolve the dispute within 30 days the parties are free to pursue other legal remedies.

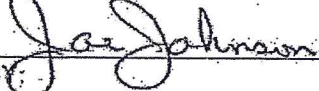
IN WITNESS WHERE OF, the parties hereto have executed this contract on the _____ day of 2001.



BY:
Peter Frick
President, Board of Directors
Kern County Water Agency



BY:
Robert Guzzetta
Vice President, Engineering/Water Quality
California Water Service Company



BY:
Joe Johnson
President, Board of Directors
East Niles Community Services District

ATTEST



BY:
Secretary
Kern County Water Agency
P.O. Box 58
Bakersfield, California 93302



BY:
Paul G. Eketron
Secretary
California Water Service Company



BY:
Kelly K. Ulrich, Manager and Secretary
East Niles Community Services District
P.O. Box 6038
Bakersfield, Ca. 93386

Appendix F

Water Shortage Contingency Plan

Appendix G

60-Day Notification to Cities and Counties



July 21, 2026

Jeevan S. Muhar
Chief Executive Officer
Arvin – Edison Water Storage District
P.O. Box 175
Arvin, CA 93203-00175
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Mr. Muhar,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Please send comments to: Josh Nord, PE
Ardurra Group, Inc.
1800 21st Street, Suite C
Bakersfield, CA 93301
(661) 837-4262 X 1001 or email at: jnord@ardurra.com

ENCSD is scheduled to hold a public hearing on the 2025 UWMP and WSCP on **September 21, 2026 at 5:30 PM**. The District encourages local agencies, the public, and other interested parties to provide written comments on the public draft prior to the public meeting.

Sincerely,

A handwritten signature in black ink, appearing to read "Josh Nord".

Josh Nord, PE
District Engineer



July 21, 2026

Dr. Karling Aguilera-Fort
Superintendent
Bakersfield City School District
1300 Baker Street
Bakersfield, CA 93305
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Dr. Karling Aguilera-Fort,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Sincerely,

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Josh Nord, PE
District Engineer



July 21, 2026

Aimee X. Espinoza
County Clerk
1115 Truxtun Avenue
Bakersfield, CA 93301-4639
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Ms. Espinoza,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Sincerely,

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Josh Nord, PE
District Engineer



July 21, 2026

Kristina Budak
Water Resources Director
City of Bakersfield
Water Resources Department
1000 Buena Vista Road
Bakersfield, CA 93311
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Ms. Budak,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Josh Nord, PE
District Engineer



July 21, 2026

Doug Nunneley
General Manager
North of the River Municipal Water District
4000 Rio Del Norte Street
Bakersfield, CA 93308
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Mr. Nunneley,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Sincerely,

Josh Nord, PE
District Engineer



July 21, 2026

Dr. Karling Aguilera-Fort
Superintendent
Bakersfield City School District
1300 Baker Street
Bakersfield, CA 93305
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

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Sincerely,

Josh Nord, PE
District Engineer



July 21, 2026

Lora Brown
Superintendent
Fairfax School District
1500 S. Fairfax Rd.
Bakersfield, CA 93307
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Ms. Brown,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Sincerely,

A handwritten signature in black ink, appearing to read "Josh Nord".

Josh Nord, PE
District Engineer



July 21, 2026

John Mendiburu
Kern County Superintendent of Schools
Kern County Office of Education
1300 17th St. City Center
Bakersfield, CA 93301
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Mr. Mendiburu,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Sincerely,

Josh Nord, PE
District Engineer



July 21, 2026

Julie Drimakis
City Clerk
City of Bakersfield
1600 Truxtun Avenue
Bakersfield, CA 93301
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Ms. Drimakis,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Sincerely,

Josh Nord, PE
District Engineer



July 21, 2026

Tamara Johnson
Division No. 4 Director
Kern County Water Agency
3725 South H Street
Bakersfield, CA 93304-6538
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Ms. Johnson,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Sincerely,

Josh Nord, PE
District Engineer



July 21, 2026

Steven L. Teglia
General Manager
Kern Delta Water District
501 Taft Highway
Bakersfield, CA 93307-6247
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Mr. Teglia,

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Sincerely,

Josh Nord, PE
District Engineer



July 21, 2026

Patricia Poire
Executive Director
Kern Groundwater Authority
1800 30th Street
Bakersfield, CA 93301
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Ms. Poire,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Sincerely,

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Josh Nord, PE
District Engineer



July 21, 2026

Michael Zulfa, Ed.D.
Superintendent
Kern High School District
5801 Sundale Ave.
Bakersfield, CA 93309
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Mr. Zulfa,

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Josh Nord, PE
District Engineer



July 21, 2026

Wesley Shryock
Improvement District 4 Manager
Kern County Water Agency
P.O. Box 58
Bakersfield, CA 93302-0058
(Submitted Electronically)

Subject: East Niles Community Services District Urban Water Management Plan 2025-Notification of UWMP Review

Dear Mr. Shyock,

The East Niles Community Services District (ENCSD) is currently in the process of reviewing and updating its Urban Water Management Plan (UWMP) for the 2025 cycle. The District is also preparing a Water Shortage Contingency Plan (WSCP), which is a detailed plan for the District's actions in the event of severe water shortage conditions. The Department of Water Resources requires water suppliers to update their UWMP every five years. Among other things, the UWMP will evaluate current and projected water supplies and demands within ENCSD's service area over a 20-year planning horizon.

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Josh Nord, PE
District Engineer

Appendix H

Newspaper Notification

Appendix I

Adoption Resolution

Appendix J

2025 UWMP Checklist

Table F-1. Urban Water Management Plan Checklist

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	n/a	chapter 1
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier’s plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan preparation	n/a	chapter 2
x	x	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	n/a	chapter 2
x	n/a	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	2-1	chapter 2
x	x	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	2-2	chapter 2
x	x	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	2-3	chapter 2
x	x	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	n/a	chapter 2
x	x	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	n/a	chapter 2
x	n/a	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan preparation	2-4 R	chapter 2
n/a	x	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan preparation	2-4 W	chapter 2
x	x	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	n/a	chapter 3
x	x	Section 3.3	10631(a)	Describe the climate of the Supplier’s service area. ch. 3	System description	n/a	chapter 3
x	x	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	3-1	chapter 3
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier’s water management planning.	System description	n/a	chapter 3
x	x	Section 3.5	10631(a)	Describe the land uses within the service area... include the current and projected land uses within the existing or anticipated service area affecting the Supplier’s water management planning. Describe the land uses within the service area.	System description and baselines	n/a	chapter 3
x	Optional	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	4-1 and 4-2	chapter 4
x	Optional	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System water use	4-5	chapter 4
x	n/a	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	4-6	chapter 4
x	n/a	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System water use	4-3	chapter 4
x	n/a	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System water use	4-3	chapter 4

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System water use	4-3	chapter 4
x	n/a	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall... Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System water use	4-3	chapter 4
x	x	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	n/a	chapter 4
n/a	x	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	n/a	n/a
x	n/a	Section 5.2	10608.40	Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	5-1	chapter 5
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	n/a	chapter 7
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System supplies	n/a	chapter 7
x	x	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water... (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water supplies and recycled water	6-1	chapter 6
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System supplies	n/a	chapter 3
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	n/a	chapter 3
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System supplies	n/a	n/a
x	x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins... (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin...	Water supplies and recycled water	n/a	chapter 6
x	x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins... describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	n/a	chapter 6
x	x	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water... (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System supplies	n/a	chapter 6
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	6-9	chapter 6
x	x	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	6-8 and 6-9	chapter 6
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	n/a	chapter 6

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	n/a	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System supplies (recycled water)	6-2	chapter 6
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System supplies (recycled water)	6-3	chapter 6
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	6-4	chapter 6
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	6-4	chapter 6
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	6-4 and 6-5	chapter 6
x	x	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System supplies (recycled water)	6-6	n/a
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	n/a	n/a
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	6-7	chapter 6
x	x	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System supplies	6-7	chapter 6
x	x	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	O-1A, O-1B, O-1C, and O-2	chapter 6
x		Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water supply reliability assessment	n/a	chapter 7
x	x	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	7-2, 7-3, and 7-4	chapter 7
x	x	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	n/a	chapter 7
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	n/a	chapter 7
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water supply reliability assessment	n/a	chapter 7
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	n/a	chapter 7
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	7-5	chapter 7
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water supply reliability assessment	n/a	chapter 7
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	n/a	chapter 8

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	Relevant Submittal Table	2025 UWMP Location
x	x	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier’s water reliability for the current year and one dry year pursuant to factors in the code.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	8-1	chapter 8
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	8-2	chapter 8
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	8-3	chapter 8
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	8-2	chapter 8
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Table 8-3	chapter 8
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	8-2 and 8-3	chapter 8
x	x	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	n/a	chapter 8
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	n/a	chapter 8
x	n/a	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. <i>Water Shortage Emergencies</i> .	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	n/a	chapter 8
x	n/a	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, <i>Excessive Residential Water Use During Drought</i> .	Water shortage contingency planning	n/a	chapter 8

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x	n/a	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	n/a	chapter 8
x	n/a	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	n/a	chapter 8
x	x	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	n/a	chapter 8
x	n/a	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	n/a	chapter 9
n/a	x	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	n/a	chapter 9
x	n/a	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan adoption, submittal, and implementation	n/a	chapter 10
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	10-1	chapter 10
x	x	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	Plan adoption, submittal, and implementation	n/a	chapter 10
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	n/a	chapter 10
x	x	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	10-1	chapter 10
x	x	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	n/a	chapter 10
x	x	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	n/a	chapter 10
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan adoption, submittal, and implementation	n/a	chapter 10
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	n/a	chapter 10
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	n/a	chapter 10

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x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	chapter 10
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	n/a	chapter 10
x	x	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	n/a	chapter 10