

1. INTRODUCTION

On September 16, 2014, California enacted the Sustainable Groundwater Management Act (SGMA) to provide a framework for achieving sustainability in high- and medium-priority groundwater basins. Under this framework, local agencies form Groundwater Sustainability Agencies (GSAs) responsible for managing groundwater sustainably through the development and implementation of Groundwater Sustainability Plans (GSPs). GSPs are roadmaps for achieving sustainability that account for the physical and political context of the GSA, the basin water budget, forecasted conditions, and the interests of stakeholders. This GSP covers the jurisdiction of the Terra Bella Irrigation District (TBID or District) GSA, located within the Tule Subbasin of the Tulare Lake Hydrologic Region (Region).

The Tulare Lake Hydrologic Region (Region) encompasses 17,050 square miles in the southern San Joaquin Valley. It is home to roughly 2.3 million residents and contains one-third of California's agricultural land. The Region has the highest groundwater demand in the state, averaging 10.7 million acre-feet of groundwater use annually. 92 percent of the Region's annual groundwater withdrawals are used for agriculture, primarily almonds, pistachios, vineyards, and corn (California Department of Water Resources, 2014, Section 7.7).

The Tule Subbasin (Subbasin)(identified as Subbasin No. 5-22.13 per California Department of Water Resources *Bulletin 118*) encompasses 476,000 acres of land within Tulare County and is one of seven subbasins within the Region designated as critically overdrafted (California Department of Water Resources, 2016a).

1.1. Purpose of the Groundwater Sustainability Plan

Ca WC § 10721(v) defines sustainable groundwater management as “management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results,” which are defined by Ca WC § 10721(x) as:

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply
- Significant and unreasonable reduction of groundwater storage
- Significant and unreasonable seawater intrusion
- Significant and unreasonable degraded water quality
- Significant and unreasonable land subsidence
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial use of the surface water

This GSP describes how the Terra Bella Irrigation District (TBID, District) GSA will implement SGMA within its jurisdiction, in coordination with the other GSAs in the Tule Subbasin. The TBID GSA GSP addresses each sustainability indicator and fulfills SGMA requirements within the TBID GSA GSP Plan Area (Plan Area), consistent with the *2024 Tule Subbasin Coordination Agreement* (2024 Coordination Agreement)

(Appendix A). Table 1-1 summarizes the 2024 Coordination Agreement, its supporting attachments, and identifies the corresponding in-text citations and appendix designations referenced throughout this GSP.

Table 1-1. 2024 Tule Subbasin Coordination Agreement References

Document	Author	Date	Appendix
<i>Tule Subbasin Coordination Agreement</i>	Thomas Harder & Co	08/07/2024	A
Attachment 1 to the Coordination Agreement: <i>Tule Subbasin Coordination Agreement Attachment 1: Tule Subbasin Monitoring Plan v. 3 Draft-Final</i>	Thomas Harder & Co	07/2024	A-1
Attachment 2 to the Coordination Agreement: <i>Tule Subbasin Coordination Agreement Attachment 2: Tule Subbasin Setting</i>	Thomas Harder & Co	07/2024	A-2
Attachment 3 to the Coordination Agreement: <i>Technical Memorandum Re: Update to the Groundwater Flow Model of the Tule Subbasin</i>	Thomas Harder & Co	06/30/2021	A-3
Attachment 4 to the Coordination Agreement: <i>Draft-Final Technical Memorandum Re: Technical Support for Addressing Department of Water Resources Comments Regarding Sustainable Management Criteria for Upper Aquifer Groundwater Levels in the Tule Subbasin.</i>	Thomas Harder & Co	07/17/2024	A-4
Attachment 5 to the Coordination Agreement: <i>Technical Memorandum Re: Addressing SWRCB Staff's Degraded Groundwater Quality Sustainable Management Criteria Deficiencies</i>	4Creeks, Inc.	07/20/2024	A-5
Attachment 6 to the Coordination Agreement: <i>Draft Technical Memorandum Re: Technical Support for Land Subsidence Sustainable Management Criteria in the Tule Subbasin</i>	Thomas Harder & Co	07/22/2024	A-6
Attachment 7 to the Coordination Agreement: <i>Draft-Final Technical Memorandum Re: Technical Support for Addressing State Water Resources Control Board Comments Regarding Interconnected Surface Water in the Tule Subbasin</i>	Thomas Harder & Co	07/10/2024	A-7

SWRCB = State Water Resources Control Board

The 2024 Coordination Agreement expressly authorizes each GSA to prepare and adopt its own GSP, which is subject to review by the Tule Subbasin Technical Advisory Committee (TAC) to facilitate Subbasin-wide coordination prior to submittal to the Department of Water Resources (DWR). The organization structure is detailed in the 2024 Coordination Agreement (**Appendix A**). The TAC Chair serves as the designated Plan manager and Point of Contact for DWR; however, each GSA retains authority over its respective GSP.

Consistent with Ca WC § 10727.6, the 2024 Coordination Agreement establishes the data and methodologies for the subbasin-wide technical and planning foundation for groundwater sustainability. Specifically, the 2024 Coordination Agreement defines the Basin Setting; defines the Subbasin's sustainability goals and the characterization of undesirable results for each applicable sustainability indicator, identifies the data, methodologies, and analytical approaches used to estimate sustainable yield and support GSP development and annual reporting; and sets forth the minimum monitoring network, monitoring protocols, data management standards, identification of data gaps, and general mitigation planning approach to be applied consistently across the Tule Subbasin.

All GSPs and amendments are circulated to the other GSAs through the Tule Subbasin TAC for review, and no document may be submitted to DWR by the Tule Subbasin Plan Manager without the prior written authorization of the GSA that prepared it. Basin-wide monitoring is conducted pursuant to the Tule Subbasin Monitoring Plan, Attachment 1 of the 2024 Coordination Agreement, with individual GSAs responsible for their respective monitoring data and implementation reporting. Annual reports and GSP periodic evaluations, required by 23 California Code of Regulations (CCR) §§ 356.2 and 356.4, respectively, are prepared by each GSA, reviewed by the Tule Subbasin TAC for subbasin-wide consistency, and submitted to DWR by the Subbasin Plan Manager on behalf of the Tule Subbasin.

At the time of this GSP's preparation, the TBID GSA is operating under the Eastern Tule GSP prepared by the Eastern Tule GSA. TBID subsequently formed as a separate GSA and is working with the other Tule Subbasin GSAs to update the 2024 Coordination Agreement to reflect the current GSA structure.

This GSP includes all elements required under SGMA to achieve sustainable groundwater management within the TBID Plan Area, including basin setting information, the sustainability goal, sustainable management criteria (SMCs), monitoring networks, management actions, and implementation measures. These elements are developed and implemented in coordination with the other Tule Subbasin GSAs pursuant to the Subbasin's 2024 Coordination Agreement, which provides the framework for subbasin-wide consistency in monitoring, reporting, and progress toward sustainability.

1.2. Sustainability Goal

Pursuant to 23 CCR § 354.24, per the 2024 Coordination Agreement:

[T]he Sustainability Goal of the Tule Subbasin is defined as the absence of undesirable results, accomplished by 2040 and achieved through a collaborative, Subbasin-wide program of sustainable groundwater management by the various Tule Subbasin GSAs.

The primary goal for the TBID GSA is to achieve long-term groundwater sustainability by 2040 (23 CCR § 354.24). To reach sustainability, the TBID GSA will work collaboratively with the twelve other Tule Subbasin GSAs to operate without causing “undesirable results” as defined in SGMA. By achieving their sustainability goal, the GSAs balance inflows and outflows of groundwater in the Subbasin by 2040 so that long-term negative changes in groundwater storage do not occur after 2040. Stabilizing groundwater storage is expected to stabilize groundwater elevations, thereby preventing water quality degradation and further land subsidence. The sustainability goal is discussed further in **Chapter 3**.

1.2.1. Sustainable Yield

Ca WC § 10721(w) defines sustainable yield as:

[T]he maximum quantity of water calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result.

Per Attachment 2 to the 2024 Coordination Agreement (**Appendix A-2**), the Tule Subbasin defines sustainable yield as:

[T]he long-term average groundwater pumping rate, under projected land use conditions that results in no significant long-term net negative change in groundwater storage in the basin and avoids undesirable results.

The 2024 Coordination Agreement projects a sustainable yield of 412,000 acre-feet/year for the Subbasin (**Appendix A**), which is the average annual groundwater pumping volume that would produce a near-zero net change in groundwater storage for the period from 2040 to 2070 (**Appendix A-2**).

TBID GSA is committed to operating within the projected sustainable yield proposed by the 2024 Coordination Agreement, including any subsequent updates to the coordination agreement. Section 3.03(a) of the *Rules and Regulations of the Terra Bella Irrigation District Groundwater Sustainability Agency* (**Appendix B**) outlines the TBID GSA’s plan for operating within the sustainable yield. The sustainable yield is discussed in greater detail in **Section 2.4.5**. Specific projects and management actions to achieve the sustainability goal are outlined in **Chapter 5**.

1.3. Agency Information

1.3.1. Organization and Management Structure of the Groundwater Sustainability Agency (GSA or Agency)

1.3.1.1 Tule Subbasin Plan Manager and Point of Contact

The Tule Subbasin GSPs are coordinated under the 2024 Coordination Agreement executed by the seven GSAs existing at the time it was written. At that time, TBID was part of the Eastern Tule GSA, which was a signatory to the 2024 Coordination Agreement. Since the execution of the 2024 Coordination Agreement, additional GSAs have formed, and the Subbasin now includes the thirteen GSAs listed in **Table 1-3** below.

Pursuant to 23 CCR § 354.4(b)(1), Don Tucker is designated as the Plan Manager or point of contact with DWR for the Tule Subbasin:

Don Tucker

324 S. Santa Fe, Suite A
Visalia, CA 93292
559-802-3052
Don.tucker@4-creeks.com

1.3.1.2 TBID GSA

TBID is governed by an elected Board of Directors (Board) composed of five members, each serving a four-year term with elections held during even-numbered years. Current Board Members are listed below.

Table 1-2. TBID Board of Directors

Name	Position	Term Expiration	Division
Edwin L. Wheaton	President	2026	Division 3
Geoffrey Galloway	Vice-President	2028	Division 3
Brent E Doyel	Director	2026	Division 1
Kurt Parsons	Director	2028	Division 4
Alfredo Martinez	Director	2026	Division 5

The Board, as the governing entity for TBID GSA, has final authority for the Plan's implementation. Sean Geivet has been appointed as plan manager for the TBID GSA GSP pursuant to 23 CCR § 354.6(c).

Sean Geivet, General Manager

Terra Bella Irrigation District Groundwater Sustainability Agency
24970 Avenue 95
Terra Bella, CA 93720

1.3.1.3 Tule Subbasin GSA Manager Contact Information

The Tule Subbasin is comprised of thirteen GSAs responsible for the implementation of SGMA within their respective service areas. Consistent with the Subbasin's coordination framework, each GSA has designated a manager or primary contact for purposes of plan implementation, coordination, and communication. **Table 1-3** identifies the current manager or designated contact for each Tule Subbasin GSA as of the date of this GSP. Together, all GSAs represent the entire Tule Subbasin.

Table 1-3. Designated Contacts for Tule Subbasin GSAs

GSA	Address	GSA Manager and E-mail	Phone
Alpaugh	219 N. Gouty St. Hanford, CA 93230	David Kahn, Attorney dkahn@kschanford.com	559-584-3337
County of Tulare	2800 W. Burrel Ave Visalia, CA 93291	Denise England, CAO	559-636-5005
Delano-Earlimart Irrigation District	PO Box 7869 Visalia, CA 93290	David Wierenga, District Engineer dwierenga@deid.org	559-300-9221
Tule East	555 N Prospect St Porterville, CA 93257	Rogelio Cudillo, TEGSA Director	559-370-1885
Kern-Tulare Water District	5001 California Ave., Ste 102 Bakersfield, CA 93309	Vanessa Yap, Staff Engineer vanessa@kern-tulare.com	661-327-3132
Lower Tule River Irrigation District	357 E. Olive Ave. Tipton, CA 93272	Eric Limas, General Manager elimas@ltrid.org	559-686-4716
Pixley Irrigation District	357 E Olive Ave. Tipton, CA 93272	Eric Limas, General Manager elimas@ltrid.org	559-686-4716
Porterville Irrigation District	22086 Ave. 160 Porterville, CA 93257-9261	Sean Geivet, General Manager pidgsa@ocsnet.net	559-782-6321
Saucelito Irrigation District	20712 Ave. 120 Porterville, CA 93257	Sean Geivet, General Manager saucelitogsa@ocsnet.net	559-784-1208
Tea Pot Dome Water District	357 E. Olive Ave. Tipton, CA 93272	Eric Limas, General Manager elimas@ltrid.org	559-686-4716
Terra Bella Irrigation District	24790 Ave. 95 Terra Bella, CA 93270	Sean Geivet, General Manager terrabellagsa@ocsnet.net	559-762-7240
Tri-County Water Authority	944 Whitley Ave, Ste. E Corcoran, CA 93212	Deanna Jackson, Executive Director djackson@tcwater.org	559-762-7240
Vandalia Water District	357 E. Olive Ave. Tipton, CA 93272	Eric Limas, General Manager elimas@ltrid.org	559-686-716

1.3.2. Legal Authority of the GSA

Ca WC § 10723 provides that any local agency within a given groundwater basin may become a GSA for that basin. Ca WC § 70721(n) defines a “local agency” as “... a local public agency that has water supply, water management, or land use responsibilities within a groundwater basin.”

TBID was formed in 1915 to provide irrigation water to landowners within its boundaries and currently provides potable water to the Terra Bella community for domestic purposes. The District holds a contract with the U.S. Bureau of Reclamation for 29,000 acre-feet of Class 1 water from the Friant Division of the Central Valley Project. It is responsible for serving the Terra Bella community and farming entities within its boundaries. TBID is a public agency formed under the provisions of the California Water Code, Division 11, for the primary purpose of delivering water to users for the irrigation of agricultural lands. It meets the definition of “local agency” and therefore qualifies to form a GSA. TBID’s Bylaws and Rules and Regulations are included with this GSP as **Appendix B**.

The Tulare Advance-Register and Visalia Times-Delta published notice of TBID’s intent to form a GSA on January 22 and 29, 2025 (**Appendix C**). On February 12th, 2025, the TBID Board of Directors held a public hearing to take public comment regarding the intent to form a GSA, and the Board approved a Resolution to serve as a GSA (**Appendix C**). DWR deemed the District as the exclusive GSA for the TBID service area. Pursuant to this authority, the District notified the Tule Subbasin TAC of its intent to develop a GSP, and the notice was submitted by the Plan Manager to DWR on February 13, 2025 (**Appendix C**).

As a GSA, TBID is authorized by the California Water Code to:

- Adopt rules, regulations, ordinances, and resolutions to support GSP implementation (Ca WC § 10725.2(b))
- Conduct investigations to support sustainable groundwater management (Ca WC § 10725.4)
- Require registration of groundwater extraction facilities within the GSA management area (Ca WC § 10725.6)
- Require measurement and reporting of groundwater extraction from facilities within the GSA management area, de minimis extractors excepted (Ca WC § 10725.8)
- Adopt well spacing standards and regulate groundwater extractions (Ca WC § 10726.4)
- Impose civil penalties and bring actions in the superior court against persons who extract groundwater in excess of an authorized amount or against persons who violate a rule, regulation, ordinance, or resolution of the GSA (Ca WC § 10732)

SGMA also restricts the authorities of GSAs. Per Ca WC § 10726.8(b)

Nothing in this part shall be construed as authorizing a local agency to make a binding determination of the water rights of any person or entity, or to impose fees or regulatory requirements on activities outside the boundaries of the local agency.

Additionally, Ca WC § 10750.8(a) states:

A local agency may not manage groundwater pursuant to this part within the service area of another local agency without the agreement of that other entity.

1.3.3. Estimated Cost of Implementing the GSP and the GSA's Approach to Meet Costs

This GSP consists of Subbasin and TBID GSA-specific components. Subbasin-level elements established under the 2024 Coordination Agreement include, among other things, the Basin Setting, SMCs, and the Subbasin Monitoring Plan. The 2024 Coordination Agreement provides that costs associated with these shared components are allocated among the GSAs based on the number of acres within each GSA's jurisdiction. All remaining costs associated with the development and implementation of the TBID GSA-specific portions of this GSP are the responsibility of TBID GSA.

Table 1-4 summarizes the GSP development and implementation elements, identifies the actual or estimated cost associated with each element, and specifies the responsible party, identified as either TBID GSA or the Tule Subbasin TAC, acting on behalf of the Tule Subbasin GSAs.

Table 1-4. Estimated Costs for GSP Implementation

Element	Description	Responsible Party	Estimated Cost
Annual Administration	Plan manager/point of contact coordination and Tule Subbasin TAC meeting facilitation. TBID GSP Administration.	Tule Subbasin TAC and TBID GSA	Subbasin: \$340,000
			TBID GSA: \$10,200
GSP Development	Actual cost for developing this GSP.	TBID GSA	\$300,000
Model Updates and Extension	Used to estimate the groundwater storage change and subsurface inflow/outflow values for water budgets in the Tule Subbasin.	Tule Subbasin TAC	Subbasin: \$81,000
			TBID GSA: \$2,430
Data Management System	Developed to collect SGMA-related data and improve efficiency and accuracy of reporting requirements.	Tule Subbasin TAC	Subbasin: \$58,000
			TBID GSA: \$1,740
Monitoring	Coordinated land surface, water quality, and water level data collection.	Tule Subbasin TAC and TBID GSA	Subbasin: \$577,000
			TBID GSA: \$17,310

Element	Description	Responsible Party	Estimated Cost
Drinking Water Well Mitigation Program	Partnership with Self-Help Enterprises for groundwater level-impacted drinking water wells and Tule Basin Water Foundation for groundwater quality-impacted drinking water wells.	Tule Subbasin TAC (Mitigation Plan coordination) and TBID GSA (mitigation funding)	Subbasin: \$2,500,000
			TBID GSA: \$10,000
Friant-Kern Canal Mitigation Program	Coordinated effort with Friant Water Authority to define and mitigate impacts to the Friant-Kern Canal.	Tule Subbasin TAC (Mitigation Plan coordination) and TBID GSA (mitigation funding)	Plan Development – Subbasin: \$200,000
			Plan Development – TBID GSA: \$5,000
			Plan Implementation: TBD
Annual Report	Ongoing costs to conduct Annual Reporting.	Tule Subbasin TAC and TBID GSA	Subbasin: \$100,000
			TBID GSA: \$3,000
Periodic Evaluation and 5-year GSP Update	Review Annual Report data, current groundwater conditions, and evaluate the GSP and adjust as needed to ensure interim milestones continue to be met.	Tule Subbasin TAC and TBID GSA	Subbasin: \$745,000
			TBID GSA: 22,350
Implementation of all planned Projects and Management Actions	Implementing demand reduction and supply.	TBID GSA	Variable ongoing and one-time costs (See Chapter 6)

TAC = Technical Advisory Committee; TBID = Terra Bella Irrigation District; GSP = Groundwater Sustainability Plan; GSA = Groundwater Sustainability Agency; SGMA = Sustainable Groundwater Management Act; TBD = to be determined

1.4. GSP Organization

This Groundwater Sustainability Plan follows the organizational structure from the GSP Annotated Outline (California Department of Water Resources, 2016b). The checklist below is adapted from the *Preparation Checklist for GSP Submittal* (California Department of Water Resources, 2016c) to provide an overview of the structure and content of this GSP.

Table 1-5. Preparation Checklist for GSP Submittal

GSP Regulations Section	Water Code Section	Requirement	Location with this GSP
Article 3. Technical and Reporting Standards			
352.2		Monitoring Protocols	Chapter 4
Article 5. Plan Contents, Subarticle 1. Administrative Information			
354.4		General information	Chapter 1
354.6		Agency Information	Section 1.3
354.8(a)	10727.2(a)(4)	Map(s)	Chapter 2
354.8(b)		Description of the Plan Area	Section 2.1
354.8(c) 354.8(d) 354.8(e)	10727.2(g)	Water Resource Monitoring and Management Programs	Section 2.1.6
354.8(f)	10727.2(g)	Land Use Elements or Topic Categories of Applicable General Plans	Section 2.1.7
354.8(g)	10727.4	Additional GSP Contents	Section 2.1.8
354.10		Notice and Communication	Section 2.1.9
Article 5. Plan Contents, Subarticle 2. Basin Setting			
354.14		Hydrogeologic Conceptual Model	Section 2.2
354.14(c)(4)	10727.2(a)(5)	Map of Recharge Areas	Section 2.2.8
	10727.2(d)(4)	Recharge Areas	Sections 2.1.6 & 2.2.8
354.16	10727.2(a)(1) 10727.2(a)(2)	Current and Historical Groundwater Conditions	Section 2.3
354.18	10727.22(a)(3)	Water Budget Information	Section 2.4
	10727.2(d)(5)	Surface Water Supply	Section 2.4
354.20		Management Areas	Section 2.5

GSP Regulations Section	Water Code Section	Requirement	Location with this GSP
Article 5. Plan Contents, Subarticle 3. Sustainable Management Criteria			
354.24		Sustainability Goal	Sections 1.2 & 3.1
354.26		Undesirable Results	Sections 3.2.1, 3.3.1, 3.4.1, 3.5.1, & 3.6.1
354.28	10727.2(d)(1) 10727.2(d)(2)	Minimum Thresholds	Sections 3.2.2, 3.3.2, 3.4.2, 3.5.2, & 3.6.2
354.30	10727.2(b)(1) 10727.2(b)(2) 10727.2(d)(1) 10727.2(d)(2)	Measurable Objectives	Sections 3.2.3, 3.3.3, 3.4.3, 3.5.3, & 3.6.3
Article 5. Plan Contents, Subarticle 4. Monitoring Networks			
354.34	10727.2(d)(1) 10727.2(d)(2) 10727.2(e) 10727.2(f)	Monitoring Networks	Chapter 4
354.36		Representative Monitoring	Chapter 4
354.38		Assessment and Improvement of Monitoring Network	Chapter 4
Article 5. Plan contents, Subarticle 5. Projects and Management Actions			
354.44		Projects and Management Actions	Chapter 5
Article 8. Interagency Agreements			
357.4	10272.6	Coordination Agreements – Shall be submitted to the Department together with the GSPs for the basin and, if approved, shall become part of the GSP for each participating Agency.	Appendix A

GSP = Groundwater Sustainability Plan