2. PLAN AREA AND BASIN SETTING

The Subbasin is in the southern portion of the San Joaquin Valley Groundwater Basin in California's Central Valley. The Subbasin is bound by the Sierra Nevada mountain range to the east, the Tulare County boundary to the west and south, and the Lower Tule River and Porterville Irrigation District boundaries to the north (see **Figure 2-1**). The California Department of Water Resources (DWR) classifies the Tule Subbasin and its neighbors as high-priority and critically overdrafted. As of 2026, there are thirteen GSAs within the Subbasin including the Porterville Irrigation District GSA as shown in **Figure 2-2**.

Below the surface, the Subbasin is divided into upper and lower aquifers separated by the Corcoran Clay confining unit. Groundwater levels in the upper aquifer experienced steady declines from 1987 through 2015, and relative stability since 2015. The lower aquifer has also experienced historical declines that vary in severity depending on the location within the subbasin (Thomas Harder & Co, 2024).

2.1. Description of the Plan Area

2.1.1. Area Covered by GSP

The GSP Plan Area is defined as the service area for the Porterville Irrigation District (PID or District). The Area is a 16,900-acre region located in the southeastern portion of the Subbasin (**Figure 2-3**). The PID service area shares its eastern boundary with the City of Porterville/Tule East GSA, its southern boundary with LTRID GSA and Tule East, its western boundary with LTRID GSA, and its northern boundary with the Kaweah Subbasin. The Tule River runs east to west through the district boundary along with several canals and ditches including the Porter Slough and the Poplar Ditch. Deer Creek runs east-west through the northern part of the GSA. State Route 65 and the Friant-Kern Canal lie to the west.

2.1.2. Existing Well Types and Well Density

According to the DWR, of the roughly 54,000 wells constructed in the Tulare Lake Hydrologic Region from 1977 – 2010, close to 13,000 were drilled in Tulare County. Domestic and irrigation wells accounted for 80% of wells constructed in the County during that period with more domestic wells than irrigation (California Department of Water Resources, 2014).

Well distribution throughout the PID GSA is shown in **Figure 2-4**, which was generated using DWR's *Well Completion Report Map Application* (Completion Report Map) tool. The Completion Report Map categorizes wells as either domestic, production, public supply, or unknown. **Table 2-1** below shows the frequency of wells by type in the PID. This number only reflects information obtained from DWR. Well counts will be updated as PID completes its well inventory.

Table 2-1 Well Types Within PID

Well Type	Well Count
Domestic	241
Production	101
Public Supply	6
Unknown/Other	174
Total	**522**

Well density is highest along the PID's eastern boundary, where the service area meets the western edge of the City of Porterville. Density generally decreases moving west across the PID service area, except for regions along the Tule River, where well density remains high.

Well Construction, Destruction, and Abandonment

The Tulare County Environmental Health Services Division permits well construction within Tulare County. Part IV, Chapter 13 of the *Tulare County Code* (Tulare County Well Ordinance) outlines requirements for well construction, reconstruction, and abandonment. The Tulare County Well Ordinance establishes standards for minimum setbacks (Tulare County Code § 4-13-1035), casing placement (Tulare County Code §§ 4-13-1036 through 4-13-1039), annular seals (Tulare County Code §§ 4-13-1040 through 4-13-1044), and pump installation (Tulare County Code § 4-13-1049) for newly constructed and reconstructed wells. *Article 7* of the Tulare County Well Ordinance requires landowners to abandon new wells (§ 4-13-1060) and sets well destruction standards (§§ 4-13-1061 through 4-13-1066). The current Tulare County Environmental Health Services Division applications for well construction and destruction are included with this GSP as **Appendix 2-4** and **Appendix 2-5** respectively.

According to § 4-13-1000, the Tulare County Well Ordinance adopts the standard, and any revisions, set forth in:

- California DWR *Bulletin 74-81*
- California DWR *Bulletin 74-90*
- California DWR Water Wells, Monitoring Wells, Cathodic Protection Wells *Supplement to Bulletin 74-81*
- Geothermal Heat Exchange Wells (Draft April 1999)

2.1.3. Land Use

Land use within the Subbasin is primarily agricultural with scattered urban areas including the City of Porterville, and the Terra Bella and Alpaugh Communities. **Figure 2-6** shows the general land use designations within the PID GSA. Land use within PID is almost exclusively agricultural use, with small

regions of urban development on the east side of the Plan Area. **Figure 2-7** further classifies agricultural land use by dominant crop type.

2.1.4. Summary of Jurisdictional Areas and Other Features

Local Agencies within Plan Area

Local agencies with jurisdiction in the Tule Subbasin are broadly characterized as either counties, communities and cities, irrigation districts, community service districts, cemetery districts, public utility districts, water districts, reclamations districts, or storm water districts. Specific agencies located within the Subbasin include:

Counties

- **Tulare County**
- **Kings County**

Communities and Cities

- **Alpaugh Community**
- **City of Porterville**
- **Terra Bella Community**

Public Utilities

- **Earlimart Public Utility District**
- **Woodville Public Utility District**
- **Terra Bella Sewer Maintenance District**
- **Pixley Public Utility District**
- **Porter Vista Public Utility District**

Community Services Districts

- **Richgrove Community Services District**
- **Tipton Community Services District**
- **Allensworth Community Services District**
- **Teviston Community Services District**
- **Poplar Community Services District**

Water Resources

- **Terra Bella Irrigation District**
- **Saucelito Irrigation District**
- **Delano-Earlimart Irrigation District**
- **Alpaugh Irrigation District**
- **Vandalia Irrigation District**
- **Atwell Island Water District**
- **Pioneer Water Company**
- **Shiloh Water Company**
- **Porterville Irrigation District**
- **Ducor Irrigation District**
- **Pixley Irrigation District**
- **Lower Tule River Irrigation District**
- **Angiola Water District**
- **Teapot Dome Water District**
- **Williams Mutual Water company**
- **Deer Creek Storm Water District**

- **WH Wilber Reclamation District**

The Porterville Irrigation District is the local agency responsible for implementing this GSP. The District's jurisdiction is confined to its service area boundary, which is located in the northeastern region of the Tule Subbasin adjacent to the City of Porterville. PID provides irrigation water to 16,900 acres of agricultural lands within its boundaries.

The PID GSA is located entirely within Tulare County, which retains jurisdiction over land use planning. Tulare County maintains land holdings within the County.

Federal Agencies within Plan Area

Regions of the Tule Subbasin managed by federal agencies are summarized in the table below:

Table 2-2 Federal Agency Jurisdiction in the Tule Subbasin

Area	Federal Jurisdiction
Friant-Kern Canal	United States Bureau of Reclamation
Pixley National Wildlife Refuge	United States Fish and Wildlife Service
Lake Success	United States Army Corps of Engineers
Sequoia National Forest Headquarters near Porterville	United States Forest Service

PID holds a contract with the United States Bureau of Reclamation (USBOR) for 15,000 acre-feet of Class 1 water, and 30,000 acre-feet of Class 2 water, from the Friant Division of the Central Valley Project. The water is delivered through the Friant-Kern Canal which is operated by the Friant Water Authority. Surface water supply is discussed further **Section 2.2** of this GSP.

According to land management data from Cal Fire there are no federally owned or managed lands within the PID service area boundary (California Department of Forestry and Fire Protection, 2025).

State Agencies within Plan Area

The California Department of Parks and Recreation and the Department of Fish and Wildlife manage land in the southwestern region of the Tule Subbasin. There are no state agencies with any significant land holdings or water management responsibilities within the Plan Area (California Department of Forestry and Fire Protection, 2025).

Tribal Lands within Plan Area

There are no tribal lands within either the Tule Subbasin or the Plan Area (California Department of Forestry and Fire Protection, 2025)

Other Tule Subbasin GSP Plan Areas

The PID GSA is one of thirteen GSAs within the Tule Subbasin. Each GSA within the subbasin has exclusive jurisdiction over its Plan Area. The GSAs coordinate the development and implementation of their individual GSPs in accordance with the 2024 Coordination Agreement (Thomas Harder & Co, 2024). **Figure 2-2** shows the location of the GSAs within the subbasin.

Alternative Plans

There are no alternative plans or adjudicated areas within the Tule Subbasin.

2.1.5. Water Resources Monitoring and Management Programs

Water Resource Monitoring Entities, Management Programs, and Data Sources

Tule Subbasin Aquifer Recharge and Water Banking Programs

Local agencies within the Tule Subbasin operate aquifer recharge and groundwater banking projects to offset depletion and overdraft. This subsection highlights key projects within the Subbasin.

Allensworth Multi-Benefit Recharge and Flood Management Project: Angiola Water District and the Tri-County Water Authority (TCWA) collectively manage a multi-benefit project meant to augment groundwater resources and provide flood management to the Alpaugh and Allensworth communities, which are considered severely disadvantaged.

The agencies divert flood waters from White River to an 80-acre recharge basin, with the goal of recharging up to 1,500 acre-feet to the Upper Aquifer annually (Tri-County Water Authority, 2023).

Turnipseed Recharge Basin Groundwater Bank: Delano-Earlimart Irrigation District (DEID) manages a 944-acre recharge facility known as the "Turnipseed Water Banking Facility". The facility has the capacity to recharge 12,928 acre-feet per month over an average of 2.41 months each year (Intera, 2024).

Pixley Groundwater Bank: The Pixley Irrigation District operates the Pixley Groundwater Bank. In 2021, Pixley Irrigation District purchased 831 acres of land to develop into recharge basins. Flood waters are diverted from the Friant-Kern Canal through a 4.5 mile pipeline to the recharge basin. The District operates sixteen recovery wells to pump banked water during times of shortage to distribute to farmers.

Lower Tule River Irrigation District (LTRID) Recharge and Distribution Projects: The Lower Tule River Irrigation District owns 4,516 acres of land used as dedicated groundwater recharge areas. They divert

unused Tule River surface water and Friant-Kern Canal water into these recharge basins. The LTRID was awarded a $7.6 million grant in 2022 to develop recharge facilities.

City of Porterville Groundwater Recharge: The City of Porterville diverts treated wastewater into percolation ponds, they store local and imported surface water in recharge basins, and they operate stormwater detention basins to recharge groundwater.

Terra Bella Irrigation District Recharge and Banking: The Terra Bella Irrigation District (TBID) is allocated water in excess of its demand in years when Class 1 water is at 100% or greater allocation. They deliver an average of 1,200 acre-feet annually from Deer Creek into recharge basins. TBID pumps the stored groundwater in times of shortage to meet agricultural demand.

PID Groundwater Banking Policy

The PID GSA encourages owners within its jurisdictional area to engage in groundwater banking and recharge activities to support the sustainable management of the Tule Subbasin. Under the Rules and Regulations of the Porterville Irrigation District GSA (2025), the GSA expressly honors the groundwater banking and recharge policies (**Appendix 2-1** and **Appendix 2-2**) of special districts operating within its boundaries, acknowledging that these entities have established policies to facilitate the underground storage and beneficial use of surface water.

- Owners performing recharge or groundwater banking activities are required to report the diversion of surface water to underground storage to the PID GSA. Consistent with the District's objectives to facilitate the beneficial use of water and comply with SGMA, the GSA manages these activities through a formal accounting system. Prior to crediting or debiting an owner's account for banking activities, the PID GSA ensures the request is consistent with applicable policies, including any "Banking Leave Behind" requirements or operational constraints.
- According to the established reporting and accounting procedures, owners seeking to credit their account with groundwater recharge or banking must ensure the following:
- **Reporting Diversions**: Owners must report, or cause to be reported, all surface water diversions intended for underground storage to the PID GSA.
- **Account Categorization**: Banked water is tracked within the online water accounting database under "Surface Water Recharge Credits and Debits".
- **Transfer Authorization**: Transfers of recharge credits are recognized by the GSA only when authorized by the applicable surface water entity.
- **Consistency Review**: All credits or debits must be verified by PID GSA staff to ensure consistency with applicable groundwater banking or recharge policies.

While the GSA maintains oversight for sustainability and SGMA compliance, it deferentially honors existing District agreements regarding the technical outlines of banking facilities, including site locations, conveyance, recovery facilities, and monitoring plans to ensure that unacceptable impacts to water levels and quality are mitigated.

PID Groundwater Recharge

In 2023, PID proposed the "North Basin Recharge Project". Under the project, PID would install a new turnout on the Friant-Kern Canal allowing PID to divert surplus water to a five-acre basin for groundwater recharge. The United States Bureau of Reclamation (USBR) took public comment on the matter as part of their evaluation of PID's Environmental Assessment. On July 7, 2024, the USBR issued a Finding of No Significant Impact, allowing the project to proceed without an environmental impact statement. Project construction is scheduled for November 2026.

Tule Subbasin Surface Water Exchanges

Surface water availability fluctuates annually. According to the USBR (2025), Class 1 water was delivered at 100% allocation for the Friant Division Contractors, while Class 2 water was at 0% allocation in early Spring 2025. To manage for shortages, agencies within the Tule Subbasin exchange water with agencies inside and outside the Subbasin. This section summarizes key water exchanges involving the Tule Subbasin.

Kern-Tulare Water District: The Kern Tulare Water District (KTWD) is involved in several multi-party exchanges to deliver water from the Friant-Kern Canal system and to recover Central Valley Project water from West Kern and Rosedale groundwater banks.

Pixley Lower Tule River Irrigation Districts, and Kern-Tulare Water District: The Districts receive 3,000 acre-feet of CVP Friant water supplies in exchange for an equivalent amount of the Districts' CVP water to Kern County for either delivery or for banking in the Kern Water Bank.

Delano-Earlimart Irrigation District and Kern Tulare Water District: The Districts receive up to 20,000 acre feet from the Rosedale Groundwater Bank in exchange for surface water from the CVP Friant Division.

Porterville and Saucelito Irrigation Districts: Porterville and Saucelito receive Kaweah River water from private landowners in exchange for CVP Friant water.

Terra Bella Irrigation District: Terra Bella Irrigation District (TBID) exchanges unused water with the Lower Tule River Irrigation District (LTRID). In exchange, the LTRID provides up to 12,000 acre-feet from its CVP Friant-Kern supply during drought years.

Porterville Irrigation District Tule River Water: PID has an agreement with the Porter Slough Ditch Company, Hubbs & Miner Ditch Company, Rhodes-Fine Ditch Company, and the Gilliam-McGee Ditch Company for access to Tule River water.

State and Federal Monitoring and Management Agencies

The following state and federal agencies maintain public-facing databases used in subsequent sections of this GSP:

Table 2-3 Water Management Datasets

Entity	Dataset	Data Description
California Department of Water Resources	Water Data Library[1]	Water quality, groundwater elevations, and continuous data
	Well Completion Report Map Application[2]	Map displaying well construction reports
	SGMA Data Viewer[3]	SGMA basin boundaries and characteristics, environmental data related to sustainability indicators
	CASGEM[4]	Long-term groundwater elevation monitoring
California Water Resources Control Board	GeoTracker[5]	Groundwater elevation and water quality data from regulated facilities
	Electronic Data Library[6]	Water quality data and monitoring schedules for public water supply systems.
California Department of Toxic Substances Control	EnviroStor[7]	Data related to the Hazardous Waste Management and Site Mitigation and Restoration programs
California Environmental Protection Agency	Regulated Site Portal[8]	Data warehouse publishing data from various hazardous materials and water quality datasets.
California Department of Pesticide Regulation	CalPIP[9]	Pesticide Use Reports, Groundwater Protection Areas, Endangered Species data

[1] https://wdl.water.ca.gov/
[2] https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Completion-Reports
[3] https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer
[4] https://water.ca.gov/programs/groundwater-management/groundwater-elevation-monitoring--casgem
[5] https://www.waterboards.ca.gov/ust/electronic_submittal/
[6] https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/EDTlibrary.html
[7] https://dtsc.ca.gov/your-envirostor/
[8] https://siteportal.calepa.ca.gov/nsite/map/help
[9] https://calpip.cdpr.ca.gov/main.cfm

United States Geological Survey	National Water Information System database[10]	Water quality measurements, groundwater level information, surface water flows.

2.1.6. Land Use Elements or Topic Categories of Applicable General Plans

Ca. GOV § 65300 requires each county and city to adopt a comprehensive, long-term general plan addressing nine mandatory elements identified in Ca. GOV § 65302 which include Land Use, Circulation, Housing, Conservation, Open-Space, Noise, Safety, Environmental Justice, and Air Quality.

Relevant general and community plans within the PID GSA include the *Tulare County General Plan 2030 Update* (Tulare County Resource Management Agency, 2012) (**Appendix 2-4**), the *Porterville Area Community Plan* (Tulare County Resource Management Agency, 2015) (**Appendix 2-5**), the *City of Porterville 2020 Urban Water Management Plan* (Carollo Engineers, 2022) (**Appendix 2-6**), and the *Rural Valley Lands Plan.*

The *Tulare County General Plan* conveys a need to collaborate with agencies such as the PID to make good land use decisions. PID intends to play an active role in the development of land use decisions to achieve the GSP Sustainability Goal.

Tulare County General Plan (Tulare GP) 2030 Update

The Tulare County Board of Supervisors adopted *Tulare County General Plan 2030 Update* (Tulare GP) in August of 2012. The Tulare GP uses a three-part system to manage growth and resource preservation. Part I contains 14 Elements that apply to the entire County; Part II contains 3 Area Plans that cover the major geographic areas of the County; Part III includes existing planning documents which outline policies relevant to specific portions of the county.

Land Use

The Tulare GP addresses Land Use in *Part I, Chapter 4*. The chapter is divided into two sections. The first section addresses land use designations, which are defined by the Tulare GP as "an applied policy on the General Plan Land Use Diagrams that defines allowable uses and development standards for agricultural, residential, commercial, industrial, development, and other basic categories of land use" (Tulare County Resource Management Agency, 2012). The second section of *Chapter 4* outlines Goals, Policies, and Implementation Measures.

Figure 4-1 of the Tulare GP shows the PID GSP Plan Area is primarily designated as "Valley Agricultural." The Rural Valley Lands Plan (RVLP) (*Part 2, Chapter 1* of the Tulare GP) establishes policies and implementation measures for the Central Valley in regions zoned for agriculture. The policies set forth in

[10] https://www.usgs.gov/tools/national-water-information-system-nwis-mapper

the RVLP establish minimum parcel sizes for the agricultural areas and provide criteria for evaluating zoning changes to non-agricultural uses.

The Urban Development Boundary for the City of Porterville is directly east of the PID GSA Plan Area. Land use planning within the City is subject to the Tulare GP, the *Porterville Area Community Plan*, and the *City of Porterville 2020 Urban Water Management Plan*.

Population

The Tulare GP describes a rapidly growing county population. To manage the expansion, *Part I, Component B* emphasizes the need to direct new growth toward incorporated cities and existing communities while preserving the separation between new development and natural resources, such as agriculture.

The County manages growth primarily through UDBs. *Policy PF-2.4* of the Tulare GP requires the County to develop community plans that define policies, establish boundaries, and characterize the current and future needs of the community. Specific discussion of population within the City of Porterville is discussed in **Section 2.1.6.2** below.

Water Resources and Supply

Part 1, Chapter 11 of the Tulare GP addresses Goals and Policies related to water resource management within the County. The Chapter acknowledges its own limitations in water resource management, and the goals it sets forth in the GP reflect the County's intent to manage water resources collaboratively with agencies such as PID.

> "Policies in this Element discussing the management of water resources are relative to the areas of water usage that the County has regulatory control, such as the approval of new land use development. The policies in this Element should not be construed to insert the County into the allocation or management of water resources. This is a complicated system over which the County does not have direct regulatory control." (Tulare County Resource Management Agency, 2012)

The following is a list of Policies from *Part I* of the Tulare GP related to water resource management.

WR-1.1 Groundwater Withdrawal

> "The County shall cooperate with water agencies and management agencies during land development processes to help promote an adequate, safe, and economically viable groundwater supply for existing and future development within the County. These actions shall be intended to help the County mitigate the potential impact on ground water resources identified during planning and approval processes."

WR-1.2 Groundwater Monitoring

"The County shall support the collection of monitoring data for facilities or uses that are potential sources of groundwater pollution as part of project approvals, including residential and industrial development."

WR-1.3 Water Export Outside County

"The County shall regulate the permanent export of groundwater and surface water resources allocated to users within the County to cities and service providers outside the County to the extent necessary to protect the public health, safety and welfare. The County shall strive for a "no net loss" where there may be water exchanges serving a public purpose."

WR-1.4 Conversion of Agricultural Water Resources

"For new urban development, the County shall discourage the transfer of water used for agricultural purposes (within the prior ten years) for domestic consumption except in the following circumstances: 1. The water remaining for the agricultural operation is sufficient to maintain the land as an economically viable agricultural use, 2. The reduction in infiltration from agricultural activities as a source of groundwater recharge will not significantly impact the groundwater basin."

WR-1.5 Expand Use of Reclaimed Wastewater

"To augment groundwater supplies and to conserve potable water for domestic purposes, the County shall seek opportunities to expand groundwater recharge efforts"

WR-1.6 Expand Use of Reclaimed Water

"The County shall encourage the use of tertiary treated wastewater and household gray water for irrigation of agricultural lands, recreation and open space areas, and large landscaped areas as a means of reducing demand for groundwater resources."

WR-1.7 Collection of Additional Groundwater Information

"The County shall support additional studies focused on furthering the understanding of individual groundwater source areas and basins."

WR-1.8 Groundwater Basin Management

"The County shall take an active role in cooperating in the management of the County's groundwater resources."

WR-1.9 Collection of Additional Surface Water Information

"The County shall support the additional collection of water quality and flow information for the County's major drainages as part of project approvals."

WR-1.10 Channel Modification

"Channel modification shall be discouraged in streams and rivers where it increases the rate of flow, rate of sediment transport, erosive capacity, have adverse effect on aquatic life or modify necessary groundwater recharge."

WR-1.11 Groundwater Overdraft

"The County shall consult with water agencies within those areas of the County where groundwater extraction exceeds groundwater recharge, with the goal of reducing and ultimately reversing groundwater overdraft conditions in the County."

WR-2.1 Protect Water Quality

"All major land use and development plans shall be evaluated as to their potential to create surface and groundwater contamination hazards from point and non-point sources. The County shall confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products, or wastes; floating debris; and runoff from the site."

WR-2.2 National Pollutant Discharge Elimination System Enforcement

"The County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. EPA NPDES program as implemented by the Water Quality Control Board."

WR-2.3 Best Management Practices

"The County shall continue to require the use of feasible BMPs and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board."

WR-2.4 Construction Site Sediment Control

"The County shall continue to enforce provisions to control erosion and sediment from construction sites."

WR-2.5 Major Drainage Management

"The County shall continue to promote protection of each individual drainage basin within the County based on the basins unique hydrologic and use characteristics."

WR-2.6 Degraded Water Resources

"The County shall encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate."

WR-2.7 Industrial and Agricultural Sources

"The County shall work with agricultural and industrial concerns to ensure that water contaminants and waste products are handled in a manner that protects the long-term viability of water resources in the County."

WR-2.8 Point Source Control

"The County shall work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the California Environmental Quality Act review and project approval process) and monitored to ensure long-term compliance."

WR-2.9 Private Wells

"The County shall ensure that private wells are adequately constructed to provide protection from bacteriological and chemical contamination and do not provide a hazard as to contaminate the aquifer."

WR-3.1 Develop Additional Water Sources

"The County shall encourage, support and, as warranted, require the identification and development of additional water sources through the expansion of water storage reservoirs, development of groundwater banking for recharge and infiltration, and promotion of water conservation programs, and support of other projects and programs that intend to increase the water resources available to the County and reduce the individual demands of urban and agricultural users."

WR-3.2 Develop an Integrated Regional Water Management Plan

"The County will participate with other agencies and organizations that share water management responsibilities in the County to enhance modeling, data collection, reporting and public outreach efforts to support the development and implementation of appropriate Integrated Regional Water Management Plans (IRWMP) within the County."

WR-3.3 Adequate Water Availability

"The County shall review new development proposals to ensure the intensity and timing of growth will be consistent with the availability of adequate water supplies. Projects must submit a Will-Serve letter as part of the application process, and provide evidence of adequate and sustainable water availability prior to approval of the tentative map or other urban development entitlement."

WR-3.4 Water Resource Planning

"The County shall continue participation in State, regional, and local water resource planning efforts affecting water resource supply and quality."

WR-3.5 Use of Native and Drought Tolerant Landscaping

"The County shall encourage the use of low water consuming, drought-tolerant and native landscaping and emphasize the importance of utilizing water conserving techniques, such as night watering, mulching, and drip irrigation."

WR-3.6 Water Use Efficiency

"The County shall support educational programs targeted at reducing water consumption and enhancing groundwater recharge."

WR-3.7 Emergency Water Conservation Plan

"The County shall develop an emergency water conservation plan for County operated water systems to identify appropriate conservation policies that can be implemented during times of water shortages caused by drought, loss of one or more major sources of supply, contamination of one or more sources of supply, or other natural or man-made events."

WR-3.8 Educational Programs

"The County shall encourage the development of educational programs, both by water purveyors and public agencies, in order to increase public awareness of water conservation opportunities and the potential benefits of implementing conservation measures and programs including water quality."

WR-3.9 Establish Critical Water Supply Areas

"The County shall designate Critical Water Supply Areas to include the specific areas used by a municipality or community for its water supply system, areas critical to groundwater recharge, and other areas possessing a vital role in the management of the water resources in the County, including those areas with degraded groundwater quality."

WR-3.10 Diversion of Surface Water

"Diversions of surface water or runoff from precipitation should be prevented where such diversions may cause a reduction in water available for groundwater recharge."

WR-3.11 Policy Impacts to Water Resources

"The County shall monitor actions taken at the federal and State level which impact water resources in order to evaluate the effects of these actions on the County's resources."

WR-3.12 Joint Water Projects with Neighboring Counties

"Tulare County will work with neighboring counties to promote development of joint water projects, such as a cross-valley canal, and other efforts to expand water supply."

WR-3.13 Coordination of Watershed Management on Public Land

"The County shall work cooperatively with State and federal land managers to coordinate watershed management on public land."

PF-5.2 Criteria for New Towns

"When evaluating proposals for New Town development, the County shall require all of the following…9. That adequate and sustainable water supplies be documented."

AG-1.13 Agriculture Related Land Uses

"The County shall allow agriculturally-related uses, including value-added processing facilities by discretionary approvals in areas designated Valley or Foothill Agriculture, subject to the following criteria… 3. The operational or physical characteristics of the use shall not have a significant adverse impact on water resources or the use or management of surrounding agricultural properties within at least one-quarter (1/4) mile radius"

AG-1.17 Agricultural Water Resources

"The County shall seek to protect and enhance surface water and groundwater resources critical to agriculture."

HS-2.7 Subsidence

"The County shall confirm that development is not located in any known areas of active subsidence. If urban development may be located in such an area, a special safety study will be prepared and needed safety measures implemented. The County shall also request that developments provide evidence that its long-term use of ground water resources, where applicable, will not result in notable subsidence attributed to the new extraction of groundwater resources for use by the development."

HS-5.4 Flood Hazards

"The County shall encourage multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes. Where appropriate, the County shall also encourage the use of flood and/or stormwater retention facilities for use as groundwater recharge facilities."

HS-6.7 Water Supply System

"The County shall require that water supply systems be adequate to serve the size and configuration of land developments, including satisfying fire flow requirements. Standards as set forth in the subdivision ordinance shall be maintained and improved as necessary."

City of Porterville

The PID GSA includes approximately 160 acres of incorporated lands within the City of Porterville. The following sections outline the planning framework applicable to these overlapping jurisdictions.

Porterville Urban Water Management Plan (2022)

CA. WC §§ 10610-10656 and § 10608 require every urban water supplier providing over 3,000 acre-feet per year to develop and submit an Urban Water Management Plan (UWMP). The UWMPs must include an assessment of water reliability over 20 years, a description of demand management, a water shortage contingency plan, and a discussion of the use of recycled water. The City of Porterville adopted the *City of Porterville 2020 Urban Water Management Plan* (Carollo Engineers, 2022) (Porterville UWMP) in January of 2022. Updated UWMPs are required every five years. An updated UWMP for the City of Porterville must be adopted and submitted by July 1, 2026.

The City of Porterville (City) is located directly east of the PID GSA Plan Area, on the eastern side of the Friant-Kern canal. As of 2020, the City of Porterville provided water to an estimated 74,907 people and projected growth within the city was 2.5 percent (Carollo Engineers, 2022). The City relies solely on groundwater for its drinking water supply. While the City is not within PID GSA Plan Area, the Porterville UWMP describes actions and management strategies which affect groundwater resources within the PID GSA.

Land Use

As of 2022, the service area for the City of Porterville was 6,482 acres (Carollo Engineers, 2022). **Table 2-4** below is a summary of acreage by land use presented in the Porterville UWMP.

Table 2-4 Land Uses Within the City of Porterville UDB

Land Use	Acres
Residential	3,872
Mixed/Other	1,692
Commercial	608
Industrial	309
Total	**6,482**

Water Supply and Demand

The City of Porterville relies exclusively on groundwater to provide drinking water for its population. A collection of 36 wells located throughout the city pump groundwater either directly to consumers or to

storage tanks. Water is distributed through a total of roughly 276 miles of pipeline to consumers throughout City boundaries.

Along with groundwater diversions, the City relies on available surface water for aquifer recharge. The City has acquired the rights to surface water shares from the Pioneer Water Company, the Porter Slough Ditch Company, and Porterville Irrigation District totaling 2,039 acre-feet per year (as of 2022). When the surplus surface water is available, the City purchases additional water from surrounding irrigation and water districts. The City recharges the aquifer using over 48 acres of percolation ponds with all available surface water to improve the reliability of groundwater supply for the City's residents. Between 2010 and 2020, the City devoted an average annual volume of 4,026 acre-feet per year to groundwater recharge.

Based on the *Eastern Tule Groundwater Sustainability Plan*, the Porterville UWMP reports a sustainable yield for the City of 17,355 acre-feet per year. City groundwater demand decreased from 2002 to 2020, with 2020 pumping levels measured at 11,192 acre-feet per year. Projected demand by 2040 is 25,539 acre-feet annually according to the Porterville UWMP.

Relevant Provisions of the Porterville UWMP

The Porterville UWMP focuses on strategies to ensure a reliable water supply for the City's residents. The plan recognizes the City must prepare for a growing population and water supply shortages by encouraging water use efficiency, water conservation, and pursuing additional groundwater recharge.

As noted above, the City has the right to surface water shares from multiple agencies including the Porterville Irrigation District. They also purchase surplus surface water when available. All surface water is used for aquifer recharge to ensure a reliable supply of groundwater.

In 2020, the City completed a feasibility study to determine the best use of recycled wastewater. The study found that the City could provide treated wastewater to surrounding irrigation districts in exchange for surface water from the Friant-Kern canal which could be used for additional groundwater recharge. As of 2026, no such exchange with the Porterville Irrigation District exists.

Porterville Area Community Plan (2015)

The *Porterville Area Community Plan* (Tulare County Resource Management Agency, 2015) (Porterville Community Plan) is a component of the Tulare GP. The Porterville Community Plan, together with the Tulare GP, defines the land use policy for the 12,757-acre Urban Development Boundary (UDB) surrounding the City of Porterville. The City adopted a "planning area" encompassing 36,341 acres, which includes the UDB and "any land outside its boundaries which, in the planning agency's judgement, bears relation to its planning" (Ca. Gov. Code § 65300). While the City boundaries do not overlap with the PID service area, the planning area includes regions south of the Tule River in the region surrounding the Porterville Municipal Airport, which are included in PID's service area.

Land Use

At 40.3% of the total land coverage, residential use is the largest land use classification within the Porterville Community Plan planning area. Agricultural use accounts for 32.8% of the total planning area. The remaining uses include mixed, commercial, industrial, open space, and unclassified uses.

The region of the planning area overlapping the PID service area is primarily agricultural, rural residential, or low-density residential. In general, the Porterville Community Plan favors density over expansion for new development to reduce the cost of required infrastructure. New residential development in this region would likely come in the form of "clustered housing" with most new development occurring within the UDB itself.

Water Resources

The City of Porterville relies exclusively on surface water for potable water within the UDB. The Porterville Community Plan acknowledges an average of 0.75 ft/year decline in water levels monitored by the California Department of Water Resources and well yields that have decreased substantially over the past several years. Groundwater quality is generally best on the western edge of the planning area (the eastern region of the PID service area). Most production wells for the City of Porterville are drilled in this region.

The following list itemizes key implementation policies from the Porterville Community Plan related to the management of water resources. The policies address the need to minimize surface and groundwater contamination, promote multi-use and open space development, and make land use planning decisions that protect groundwater recharge.

Guiding Policy, OSC-G-8

"Ensure adequate water quality and supply for the entire Porterville community."

OSC-I-37

"Establish watershed protection standards and review procedures in the Zoning Ordinance to protect groundwater resources."

OSC-I-38

"Continue to work with the Central Valley Regional Water Quality Control Board (RWQCB) for short- and long-term solutions for excessive salts in the groundwater, and maintain a valid RWQCB permit for all wastewater treatment operations."

OSC-I-39

"Adopt the Regional Water Quality Control Board's policies on soil disturbance activities in order to minimize the disturbance of soil, vegetation, organic debris, and other materials that control runoff. These policies include: Planning and conducting operations and activities in a manner that will not disturb extensive areas of soil or that will disrupt local drainage; Promptly reseeding or stabilizing areas where soil is disturbed to prevent erosion; Establishing restrictions on activities in water protection

zones, designated by the U.S. Forest Service and the California Department of Forestry and Protection; Stabilizing and maintaining the stream flow regimen and apply soil control measures in a timely manner; Prohibiting organic or earthen material from being discharged into any streams or placed at locations where they can pass into streams in quantities that could impair any beneficial use of the water; and Regulating operations and activities that cause increased turbidity levels in local streams so that streams are not affected for extended periods or for more than ten percent of the time and operations and activities shall not violate water quality objectives."

OSC-I-40

"Support the identification of degraded surface water and groundwater resources and promote restoration where appropriate."

OSC-I-41

"Monitor and enforce provisions to control non-point source water pollution, including storm water flows, contained in the United States Environmental Protection Agency NPDES program as implemented by the Regional Water Quality Control Board."

OSC-I-42

"Support the collection of monitoring data for facilities or uses that are potential sources of groundwater pollution as part of project approvals, including residential and industrial development."

OSC-I-43

"Work with agricultural and industrial uses to ensure that water contamination and waste products are handled in a manner that protects the long-term viability of water resources."

OSC-I-44

"Work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the CEQA review and project approval process) and monitored to ensure long-term compliance."

OSC-I-45

"Continue to require use of feasible and practical best management practices (BMPs) and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities and urban runoff in coordination with the Regional Water Quality Control Board."

OSC-I-46

"Adopt water well standards meeting the requirements of the State with Department of Water Resources."

OSC-I-47

"Prepare a Groundwater Management Plan and develop groundwater monitoring programs with federal, State, and local agencies and the private sector to improve local groundwater pollution detection and monitoring."

OSC-I-48

"Protect groundwater recharge areas by carefully regulating the type of development within these areas."

OSC-I-49

"Promote the combined use of recharge areas, public recreation, wetland mitigation programs and/or banking, as part of the open space or recreational trail system to the extent deemed feasible by good engineering or geotechnical practice."

OSC-I-50

"Do not allow new septic systems within the Porterville Area unless wastewater collection facilities are unavailable and the applicant agrees to connect when permanent facilities are constructed."

OSC-I-51

"Prior to the approval of individual projects, require the County Engineer and/or Building Official to verify that the provisions of applicable point source pollution programs have been satisfied."

OSC-I-52

"Establish requirements for appropriate Best Management Practices to be implemented during construction efforts to control the discharge of pollutants, prevent sewage spills, and avoid discharge of sediments into streets, stormwater conveyance channels, or waterways."

OSC-I-53

"Require development to retain areas of open space as natural or landscaped to aid in the recharge and retention of runoff."

OSC-I-54

"Support efforts to create additional water storage where needed, in cooperation with federal, State, and local water authorities. Additionally, support and/or engage in water banking in conjunction with these agencies where appropriate."

OSC-I-55

"Participate in the development, implementation, and maintenance of a program to institute recharge aquifers underlying the Planning Area. The program shall make use of flood and other waters to offset existing and future groundwater pumping."

OSC-I-56

"Incorporate natural drainage systems and groundwater recharge features into developments where appropriate and feasible."

OSC-I-57

"Update the emergency water conservation plan to include appropriate conservation policies that can be implemented during times of water shortages caused by drought, loss of one or more major sources of supply, contamination of one of more sources of supply, or other natural or manmade events."

Rural Valley Lands Plan

Tulare County adopted the Rural Valley Lands Plan (RVLP) in 1975. The RVLP pertains to the regions of the Central Valley below the 600 ft elevation contour outside of urban areas (i.e. Urban Development Boundaries, Hamlet Development Boundaries, and Urban Area Boundaries). The RVLP defines minimum parcel sizes for areas zoned as agriculture and establishes criteria for evaluating zoning changes to non-agricultural uses. The provisions of the RVLP are incorporated into *Part II, Chapter 1* of the Tulare GP.

Effect of Implementation of Land Use Plans

The goals and policies of the land use plans are generally consistent with the goals of this GSP. The plans outline a framework for managing new development sustainably, preserving water resources, providing public education, and encouraging the exploration of new sources of water.

The Tulare GP policies related to this GSP can be categorized into three broad groups:

1. Policies intended to conserve existing water resources.
2. Policies meant to preserve groundwater recharge.
3. Policies intended to prevent unsustainable development.

To conserve existing water resources, Tulare County plans to regulate water exports to areas outside the County (*WR-1.3*) and reuse treated wastewater for irrigation (*WR-1.6*). The County recognizes that, to preserve existing resources, they must identify new sources of water (*WR-3.1*) and work with other counties to develop new water projects (*WR-3.12*). The County realizes they must work collaboratively with local water agencies to prevent overdraft (*WR-1.11*) and plan for shortages (*WR-3.7*). They also identify a need for public education (*WR-3.6* & *3.8*).

The Tulare GP discusses potential management strategies for preserving, and augmenting, groundwater recharge within the basin. The plan takes a twofold approach. First, the County seeks to prevent activities that reduce natural recharge. For instance, they want to minimize the loss of recharge from converting agricultural land to urban development (*WR-1.4*), prevent stream channel modifications that reduce recharge (*WR-1.10*), and prevent new diversions of surface water that would result in less recharge (*WR-*

3.10). The second approach is to augment recharge (*WR-1.5*) through projects such as water banking (*WR-3.1*).

Finally, the County proposes to preserve water resources by preventing unsustainable development. They require the use of Best Management Practices (*WR-2.3*) and adopt domestic well construction standards (*WR-2.9*) to prevent contamination of the resource. They require new developments (*WR-3.3*) and new towns (*PF-5.2*) to document the adequacy of water supply during the planning process. The County also evaluates the impact that new agricultural uses in the Valley and Foothill Agriculture regions will have on water resources prior to their approval.

Taken as a whole, the County's policies appear to complement the goals of this GSP. The County seeks to work with agencies such as PID GSA to make informed land use decisions. They intend to keep apprised of relevant legislation, and work with other counties and agencies to promote research of the water resources in the region.

Effect of Implementation on Water Supply Assumptions

Water supply assumptions built into the Tulare GP are based on the *Phase 1 – Water Supply Evaluation* (Tully & Young, 2009). The report estimates that conversion of agricultural land to urban use and conservation measures adopted by water users have the potential to reduce future county-wide demand from 2,700,000 acre-feet to 2,545,000 acre-feet annually.

The PID relies primarily on imported surface water for irrigation use. The management actions proposed in this GSP do not affect the permissible land use designations as outlined in the relevant land use plans discussed above. The common goals of PID and Tulare County emphasize water conservation and preservation of groundwater recharge.

2.1.7. Additional GSP Elements

Groundwater Dependent Ecosystems

23 CCR § 351(m) defines Groundwater Dependent Ecosystems (GDEs) as "ecological communities or species that depend on groundwater emerging from the aquifers or on groundwater occurring near the groundwater surface." **Figure 2-8** shows GDEs within the PID GSA. GDEs are unlikely throughout most of the PID GSA due to the depth of groundwater. However, **Figure 2-8** demonstrates that certain regions of the Plan Area adjacent to the Tule River have shallow groundwater that supports GDEs.

Interconnected Surface Water

The Upper Tule River, Upper Deer Creek, and Upper White River Areas are identified as potential interconnected surface water (ISW) within the Tule Subbasin (**Figure 2-9**). Of these, the Tule River is the only one that flows through the plan area. Only the upper section of the river (the Upper Tule River area) is a potential ISW. **Section 3.8.1** discusses interconnected surface water in detail.

2.1.8. Notice and Communication

Stakeholder participation is critical to the success of the PID GSA. PID encourages all landowners, growers, and community members to be involved with the GSA. Stakeholders can sign up for email updates to receive notices, submit questions or comments to direct the GSAs policy, and attend public meetings to stay informed. The following meetings are held at the Porterville Irrigation District Office at 22086 Avenue 160, Porterville, CA 93257 and are open to the public.

Table 2-5 Meetings Held by the Porterville Irrigation District

Meeting	Frequency
Porterville Irrigation District Board Meeting	9:00AM the second Tuesday of each month
PID GSA Board Meeting	02:00PM the third Thursday of each month
PID GSA Stakeholder Committee Meeting	09:00 AM the first Thursday of each month

The PID GSA provides regular updates on their website (portervilleid.org/gsa) to keep stakeholders informed of agency activities and deadlines. The website provides access to past meeting minutes and agenda.