

# TULARE COUNTY RESOURCE MANAGEMENT AGENCY Ahmad Alkhayyat, Asst. Director, Public Works

Reed Schenke, Director Michael Washam, Associate Director Aaron Bock, Asst. Director, Economic Development &

Economic Development & Planning | Public Works 5961 S. Mooney Blvd. Visalia, CA 93277 | (559) 624-7000 | tularecounty.ca.gov/RMA

# PROJECT REVIEW COMMITTEE **CONSULTATION AND FACT SHEET**

Project Number: PRC 25-02	Today's Date: May 20, 2025				
Applicant/Address: Smee Homes, 444 N. Prospect Suite A,			Microsoft Teams Virtual PRC Meeting		
Porterville, CA 93257			Meeting Date: June 12, 2025		
<b>Phone:</b> (559) 788-0525					
Email: mari@smeehomes.com			Please Respond by June 6, 2025		
Property Owner: Michael L. K	Geener, Allen and	Sharon Wilson Trust,			
Cathy Fox					
Agent: N/A					
Planner: Mr. Sandy Roper	Email: SRoper@	<u> tularecounty.ca.gov</u>	<b>Phone</b> : (559) 624-7101		
Consultation List:					
	Vorks/Eng.		n, Associate Director		
⊠ Kevin Bangsund, Environmental Health			Assistant Director		
	ompliance		☐ Gary Mills, Chief Environmental Planner		
Mark Phillips, Fire Department			n, Building Division		
	UP	⊠ Alida Verduzco S	⊠ Alida Verduzco Silva, Economic Development Manager		
Other (City, Town Council, etc.):			☑ Javier Cisneros, Economic Development		
City of Visalia, Tulare County I					

Project Description: The request is to change the zoning from the AE-20 (Exclusive Agricultural - 20 Acre Minimum Parcel Size) Zone to the R-1 (One Family) Zone and subdivide 29.79 acres into 127 lots (ranging in size from 5,000 square feet to 12,500 square feet). The north and east sides of the Project are contiguous with the boundary of the City of Visalia. The Project site is located within the Visalia Urban Area Boundary ("UAB"). The Project site is within the Sphere of Influence ("SOI") for the City of Visalia. Figure 2-2 (Land Use Diagram) of the Visalia General Plan shows that Project site is within the Low Density Residential Land Use Designation. Figure 2-3 of the Visalia General Plan shows that Project site is within Urban Growth Boundary Tier 3. If the City of Visalia requires annexation, then all applications would be processed by the City of Visalia instead of the County.

If the City of Visalia does not require annexation, then a Zone Change (PZC) and Tentative Subdivision Map ("TSM") Application would need to be submitted to Tulare County. The TSM would need to be approved by the Tulare County Planning Commission and the PZC would need to be approved by the Tulare County Board of Supervisors. PZC filing fees and Tentative Subdivision Map ("TSM") filing fees to subdivide the property depend on the number of parcels proposed and are as follows:

- There is an initial deposit of \$6,451 for PZC. If the initial deposit for the PZC is depleted, then there is an additional charge of \$115 per hour.
- There is an initial deposit of \$11,422 for a TSM with more than 100 parcels, plus \$17 per parcel over 100 parcels. The TSM for the proposed 127 lot subdivision would have an initial deposit of \$11.881 [\$11,422 + (27 X \$17) = \$11,881]. If the initial deposit for the TSM is depleted, then there is an additional charge of \$115 per hour.

Please note that there is an additional charge of \$669 for a Vesting Tentative Subdivision Map and \$1,085 for any exceptions that are requested. In addition to the fees listed above, the following fees would also need to be submitted with the applications when they are filed:

- \$58 to file the CEQA Notice of Determination for the Project.
- \$150 to Record the TSM Resolution adopted by the Planning Commission.
- \$3,043 for the Initial Deposit for County Preparation of MND. If the initial deposit is depleted, then
  the applicant is billed \$115.00 per hour for the preparation of the MND. If a consultant prepares the
  MND, then there is an Initial Deposit of \$2,743 for the Environmental Planning Division to peer
  review the consultant prepared MND. If the initial deposit is depleted, then the applicant is billed
  \$115.00 per hour for the preparation of the MND.
- 2,698.75 for the 2025 California Department of Fish and Wildlife (CDFW) Fee for a MND. Please note
  that if the Project is approved in 2026, then the difference between the 2025 CDFW Fee and the 2026
  CDFW Fee would need to be paid prior to recording the TSM. CDFW Fees change each year on
  January 1<sup>st</sup>.

The processing time for applications that are categorically exempt from environmental review is approximately 3 months from the date of submittal. However, since this project will require the preparation of a MND by either a consultant or the Tulare County Resource Management Agency Environmental Planning Division, if the City of Visalia does not require annexation, the processing time will depend on how long it takes to prepare the MND.

**Location:** Located on the southwest corner of Visalia Parkway and South Center Drive, in the unincorporated area of Tulare County (APN: 121-610-001).

# General Plan Designation <u>and</u> Consistency Finding

The Project site is located within the Visalia Urban Area Boundary and the Land Use Designation is "Valley Agriculture."

The proposed project is consistent with General Plan Policy PF-4.19 because the Rural Valley Lands Plan (RLVP) is only advisory within County Adopted City Urban Area Boundaries (CACUABs).

PF-4.21 states that as an exception to the County policies that the RLVP is only advisory within CACUABS, the County may work with an individual city to provide that the requirements of the RLVP will apply to applications for special use permits, variances, or divisions of land within a CACUAB except in those areas that overlap with a County UDB, an HDB, or Corridor Plan area. The City of Visalia is being sent a copy of this Consultation and Fact Sheet to give them the opportunity to comment on PRC 25-028 and participate in the PRC meeting.

It is noted that the County has a severe shortage of housing within the Unincorporated portions of the County under the 2012 General Plan Update (2030) and cannot meet the requirements of the Housing Element Update's (2023) housing attainment goals for the Regional Housing Needs Assessment ("RHNA").

Regional Housing Needs Assessment: The current RHNA, adopted on December 12, 2023, is the sixth Housing Element cycle and covers a 8.5-year projection period (June 30, 2023 – December 15, 2031). The Tulare County RHNA recommends that the County provide land use and zoning for approximately 9,243 units in the unincorporated portion of the County (1,155 units per year over the 8.5-year RHNA planning period).

Staff Comment: This Project's 127 single-family dwelling units will provide approximately 1.37% of the projected housing need for the County by December 15, 2031.

The proposed Project is consistent with the following applicable Tulare County General Plan Policies; (a) PF-1.3 Land Uses in UDBs/HDBs; (b) LU-3.1 Residential Developments; (c) LU-1.10 Roadway Access; (d) ERM-5.2 Park Amenities; (e) ERM-5.3 Park Dedication Requirements; (f) ERM-5.5 Collocated Facilities; (g) ERM-5.6 Location and Size Criteria for Parks;

	(h) Haveing Cuiding Dringinla 4.4. (i) Haveing Cuiding Dringinla 2.2. (i)
	(h) Housing Guiding Principle 1.1; (i) Housing Guiding Principle 2.2; (j) Housing Policy 2.21; (k) TC-1.2 County Improvement Standards; (I) AG-
	1.14 Right-to-Farm Noticing; (m) WR-3.3 Adequate Water Availability; (n)
	PFS-1.4 Standards of Approval; (o) PFS-2.4 Water Connections; (p) PFS-
	3.2 Adequate Capacity; and (q) PFS-3.3 New Development Requirements.
Plan Area and Boundary Type:	The project site is located within the Visalia UAB.
Development subject to MOU	Development of the project site is subject to a MOU with the City of Visalia.
with city? Entitlement, Zoning Designation	The Project site is in the AE-20 (Exclusive Agricultural – 20 Acre Minimum
and Consistency Finding:	Parcel Size) Zone and if the Board of Supervisors approves a Zone Change to R-1, then the proposed subdivision would be consistent with the Zoning Ordinance. Section 6.F. of the Tulare County Zoning Ordinance (TCZO) requires every main building shall have a lot area of not less than six thousand (6,000) square feet per family. An Exceptions Application, to allow lot areas of less than 6,000 square feet, will need to be submitted along with the TSM Application since the subdivision proposes to create 127 parcels ranging in size from 5,000 square feet to 12,500 square feet.
	The next step following the PRC meeting would be to submit an Application for a Zone Change and a Tentative Subdivision Map to Tulare County, if the City of Visalia doesn't require annexation.
Agricultural Preserve/Contract?	The property is not restricted by a California Land Conservation Act (Williamson Act) Contract.
Preliminary Environmental Review Determination:	An environmental review document [Mitigated Negative Declaration (MND)] is required to be prepared in order to be consistent with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.
Subdivision Ordinance/	A Tentative Subdivision Map would be required to be approved by the
Other Facts: /bistory of site	Planning Commission and a final map would be required to record in order to comply with the Subdivision Map Act. Section 7-01-2645 of the Tulare County Subdivision Ordinance allows (1) Lot Exceptions for area, frontage, width, depth, width to depth ratio and (2) Road Exceptions for width (graded), width (paved), radius of curvature, cul-de-sac length, radius of cul-de-sac paved or graded, design speed, and other road exceptions. Any Exception may be granted subject to any reasonable conditions, which are deemed necessary to effectuate the purposes of the Tulare County Subdivision Ordinance (reference Section 7-01-2645). Creating parcels that are less than 6,000 square feet in size would require the approval of a Lot Exception for area.  Approximately the eastern 23.52 acres of the Project site are within Zone
Other Facts: (history of site, flood zone, airport, hazard zones, water test for wells, etc.	X (0.2 percent Annual Chance Flood Hazard) as shown on the National Flood Insurance Program, Flood Insurance Rate Map (FIRM), Map Number 06107C0937E, for Community Number 065066 (Tulare County Unincorporated Areas), dated June 16, 2009. Construction of buildings within a Zone X (0.2 percent Annual Chance Flood Hazard) requires no specific flood mitigation measures; however, it is recommended that all finished floor levels be elevated one (1) foot above adjacent natural ground.  Approximately the western 6.27 acres of the Project site are within Zone
	AE (Special Flood Hazard Area) as shown on the National Flood Insurance Program, Flood Insurance Rate Map (FIRM), Map Number 06107C0937E, for Community Number 065066 (Tulare County Unincorporated Areas), dated June 16, 2009. An elevation certificate and associated flood hazard mitigation measures will be required on all proposed buildings within a FEMA Zone A. The subject parcel is located in a federally identified Special Flood Hazard Area as depicted on said plat. Individual site plan approval is required for any parcel located within or partially within a special flood hazard area prior to the issuance of any permits. The location of a structure within the special flood hazard area

shall require compliance with the National Flood Insurance Program under the Federal Emergency Management Agency (FEMA) and the special provisions of the Tulare County Flood Damage Prevention Ordinance.

- Soils on the northeast 2.9 acres of the Project site are Grangeville sandy loam, 0 to 2 percent slopes [Class Wet I and Class Dry IVc] Prime, which is rated moderate for sewage disposal with a low shrinkswell potential.
- Soils on the southeast 12.4 acres of the Project site are Tagus loam, 0 to 2 percent slopes [Class Wet I and Class Dry IVc] Prime, which is rated moderate for sewage disposal with a low shrink-swell potential.
- Soils on the remaining portion of the Project site are Nord fine sandy loam, 0 to 2 percent slopes [Class Wet I and Class Dry IVc] Prime, which is rated severe for sewage disposal with a low shrink-swell potential.
- Visalia Unified School District Area 7.
- A1602205 Building Permit for water line connection for crop irrigation.

Please review this proposal and forward electronically any comments and/or recommendations, along with any suggested development requirements, conditions of approval, design criteria, and/or improvement standards that you feel are necessary and/or relevant to this proposal prior to <u>June 6, 2025</u>, so that the information can be included for discussion at the PRC meeting.

**Attachments:** Application

**Operational Statement** 

Site Plan APN Map Aerial Image

PRC 25-028 Firmette PRC 25-028 Soil Report

LAFCO - Mura Map - City of Visalia

Visalia General Plan Figure 2-2 Land Use Diagram

Visalia General Plan Figure 2-3 Proposed Development Footprint by Tier

TULARE COUNTY RESOURCE MANAGEMENT AGENCY

Reed Schenke, Director

Sandy Roper, Chief Planner Special Projects Division

Economic Development and Planning Branch

May 20, 2025

Date



# RESOURCE MANAGEMENT AGENCY

5961 S. Mooney Blvd Visalia, CA 93277 559-624-7000 559-615-3002

Aaron R. Bock Reed Schenke Sherman Dix Economic Development and Planning

Public Works Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

eral Information:		IEW COMMITTE		
Applicant Smee Homes, Ir	C.			
Mailing Address 444 N Pros	spect Street Ste A	City Porterville	State Ca	7 <sub>ip</sub> 93257
Applicant Smee Homes, Ir Mailing Address 444 N Pros Phone 559-788-0525	Cell Phone 559	-300-2626 E-Mail mari	@smeehon	nes.com
Property Owner (if different)  Mailing Address 17326 San  Phone 510-363-4170	Michael L. Keener, Allen K. Wilson	and Sharon K. Wilson as Trustee of the All	en and Sharon Wila	aon 2010 Trust, and Cathy Fo
Mailing Address 17326 San	Franciscan Dr	City Castro Valley	_ State Ca	Zip_94552-1619
Phone 510-363-4170	Cell Phone	E-Mail	ael.keener(	@outlook.com
Agent (if applicable) Christina Mailing Address 444 N Pros Phone 559-788-0525  Site Address: Vacant Land	[	City	Town:	Visalia
Physical Location of Site (cr	oss streets & nearest	community): Visalia Par	kway/Coun	ity Center
Assessor's Parcel No.: 12	1-610-001-000			1 11
oject Number: PRC257  rrent Zoning: AE - ZO  oject Description 127 location  ricultural Preserve (if application  ing Fee(s): 601 - 66  te Received: 4129126	228 Supervisor Di General Plan Land U Subdinision ale) – Preserve No.	se: Agriculture ba	Developmen BUDB/HDB	MSC: Yes No

PERMIT CENTER HOURS: MONDAY - Friday 9:00 A.M. TO 4:30 P.M.

Application Received/Reviewed by:

## PROJECT REVIEW COMMITTEE APPLICATION

#### REQUIREMENTS, FEES AND INSTRUCTIONS (Please use dark blue or black ink)

The application form must be filled out completely before the County can officially accept the application for processing. File the completed application with the Resource Management Agency Permit Center, at 5961 S. Mooney Blvd., Visalia CA 93277. Phone is (559) 624-7100.

1. Ordinance No. 352, as amended, requires a filing fee to be paid at the time of filing a land use application. This fee is to cover the cost to the County for investigations and processing the application through the preliminary review process.

PRELIMINARY PROJECT REVIEW FEE	\$601.00 (Subject to Change at Any Time)
	(SUBJECT TO CHANGE AT ANY TIME)

- 2. This application must be filled out with full and complete answers and must be signed by at least one of the property owners (Owner's Affidavit).
- 3. A minimum of one (1) full size site plan copy and one (1) reduced copy (8½" x 11") shall be submitted.
- 4. The Site Plans shall be clearly and legibly drawn and of a suitable size to allow proper review, as determined by the Planning Director. The scale of the map should be 1 inch equals 100 feet, or other scale if more appropriate. Site Plans shall include the following:
  - a. Location map
  - b. Date prepared and by whom
  - c. North point and scale
  - d. Lot dimensions and net areas
  - e. All existing and proposed development, including square footage of each
  - f. Distances (in feet) between existing & proposed development and closest property boundary
  - g. Walls, fences and barriers, including type and height
  - h. Parking and loading areas, including dimensions
  - i. Access to the site and surrounding circulation
  - j. Signs, including size and materials
  - k Drainage plans
  - I. Landscaping
  - m. Existing and proposed utilities, sewage disposal systems and domestic water supply systems
  - n. Locations and names of water courses and areas subject to flooding or ponding of surface water
  - o. Lighting
  - p. Easements including those for access and public utilities
- 5. Operational Statement: Please attach a detailed Operational Statement

#### **SUMMARY OF REQUIREMENTS FOR SUBMITTAL WITH THIS APPLICATION:**

		Applicant	Stan
1.	Completed Application and Filing Fee	V	
2.	Owner's Affidavit (Signed by Property Owner)	V	
3.	Preliminary Site Plan (1 copy) (additional copies may be required)	~	
4.	Operational Statement	V	П

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## PLEASE FILL OUT THE FOLLOWING INFORMATION COMPLETELY

Proposed use o	Proposed use of site? Residential single-family development					
Please attach an the property.	operational statement stating <u>exactly</u> and in <u>detail</u> what is intended to be done on, or with,					
	ze(s) (in acres or sq. ft. as appropriate): 127 lots (5000 sqft-12,500 sqft)					
	of the parcel is being developed or utilized for the proposed use? 29+ acres					
	he project site? Vacant land					
	licate the total number of employees and shifts per employee.					
Days and Hour	s of Operation (if seasonal, include months of operation):					
Parking: Speci surfacing.	y the number of on-site parking spaces, including the location, size, and type of					
developed imp	project site, <u>prior to the proposed use</u> , including all above and below ground overnents (residences, outbuildings, barns, sheds, covers, shop buildings, septic tank-leach nestic/agricultural wells, fuel storage tanks, etc.), including the size of each.					
	opes (%) and general terrain of the subject site: Fairly Level the type and size of any large trees on site.					
	identify the type and location of any on-site or nearby water courses (rivers, canals, natural drainage channels, creeks, etc.).					
pasture, open	aracter and land use of the surrounding properties (orchards, vineyards, row crops, space, water courses, railroads, roads, rural residential, subdivisions, commercial, es, vacant, city or county boundary):					
DIRECTION	CHARACTER/LAND USE					
North	Commercial Development					
South	Mobile Home Park					
East	Existing Single Family Residential					
West	VacantLand					
12	sposal (please check appropriate box):					
☐ Septic <sup>-</sup>	ank-Leach Lines: Size of tankgallons & length of linesft.					
☐ Septic ☐ Seepag						

14.	Water supply (please check appropriate box):	
	Domestic Well – Size of pump Gallons per minute	
	☐ Irrigation Well:	
	Irrigation District – Name:	
	Private Water Company – Name: CalWater	
	Community System – Name: City of Visalia	
15.	Solid Waste Disposal: City of Visalia	
16.	Source of energy (please check appropriate box):	
	■ Electricity – Company name: SCE	
	Natural Gas – Company name: Southern California Gas	
	Propane: Size of tank Provider	
17.	Will the project require the development of public service facilities (roads, sewer lines, water lines, etc.)? If so, describe the required development:	
18.	Provide any additional information that may be helpful in evaluating this request. (Use the back of the application or attach a separate sheet.)  Please see attached Operational Statement	าเร

# **OWNER'S AFFIDAVIT**

# (Must be signed by property owner)

STATE OF CALIFOR		}	<b>.</b>	SS,		
I, (We,) the undersign	ned, say	y: ´				
I (We) own property other documents and and information above knowledge and belie correct.	l maps ⁄e refer	required her red to are, ir	eby to the be all respects	est of my (o , true and o	our) ability and correct to the b	the statements est of my (our)
Executed on April	22	, 20	25 at V	<u>isalia</u>		ı
Property Owner: Name: Michael L					L Keener	04/28/2025
Address:					_ State:	
Optional – additional Name: Sharon W Address:	/ilsor	1			. <i>Wilson</i> State:	,
If there is an agent, to taken on this applicat	ion, ple			r who desire	es notification o	f the action
Relationship:						
Address:		V Acequia Av	enue			
Telephone:		Ca 13-6139	Zip	93291	_	
FAX No.:				<u> </u>		
			,			
Signed:				Date:	<u>.</u>	
Additional	Owne	ers:				
Allen K Wil	son	Allen J	K Wilson	04/28/2	2025	•
Cathy Fox				04/28/2		

## Operational Statement Smee Homes, Inc. – Visalia Parkway

#### APN 121-610-001-000

Smee Homes, Inc. proposes a new sin residential project with the development of 127 single-family residential lots. The homes will range in size from 1250 sq. ft. to 2500 sq. ft., situated on lot sizes ranging from 5,000 sq. ft. to 12,500 sq. ft.

#### **Project Details:**

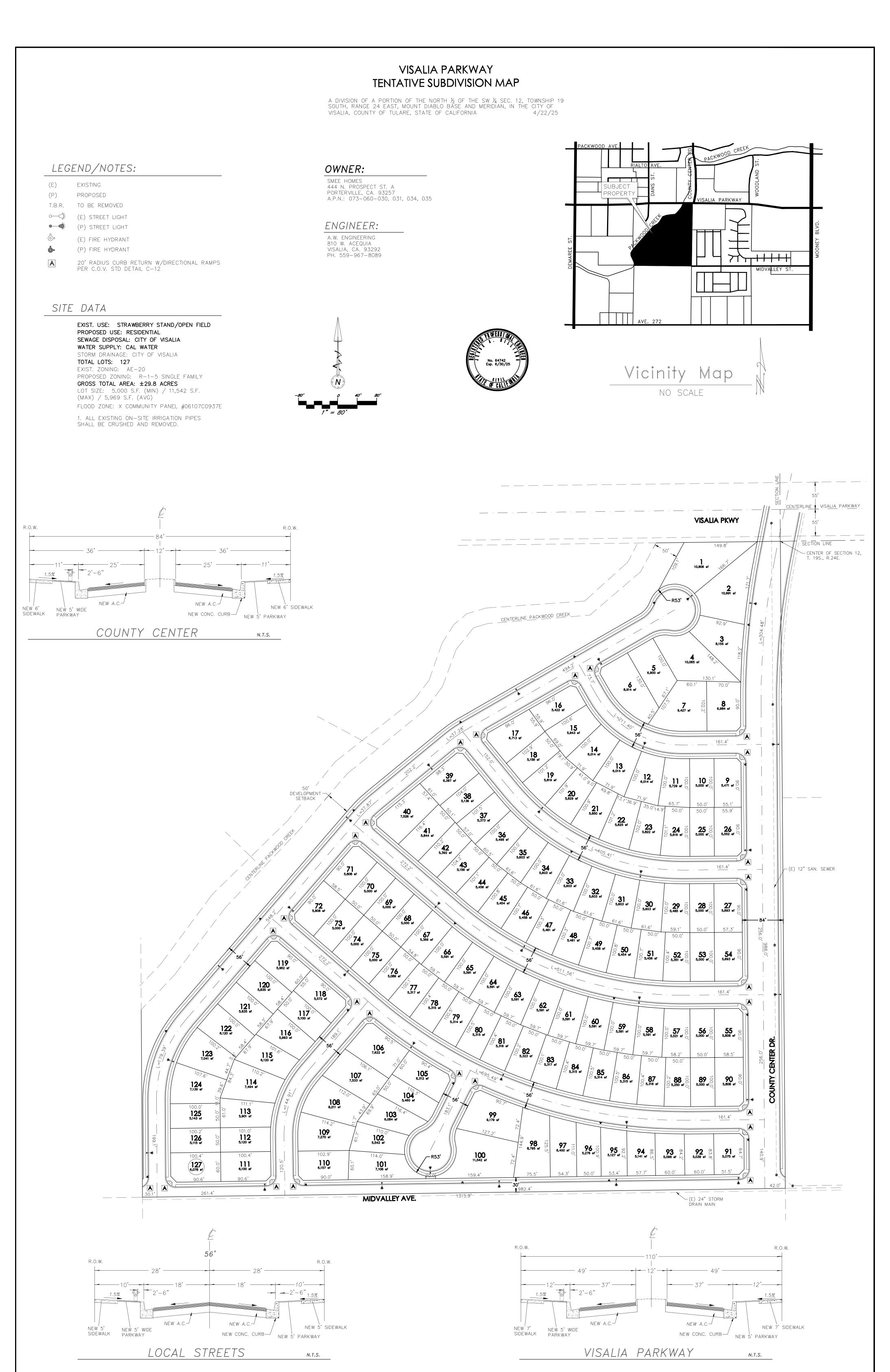
- Total Lots: 127 single-family residential lots
- **Home Sizes:** 1250 sq. ft. 2500 sq. ft.
- Lot Sizes: 5,000 sq. ft. 12,500 sq. ft.
- **Phasing:** The project will be completed in three phases, with each phase estimated to take one year.
- Infrastructure: N/A.
- **Zoning:** The existing zoning is Rural/Agriculture Residence, and we are proposing a change to R-1-5 (Single Family Residential).

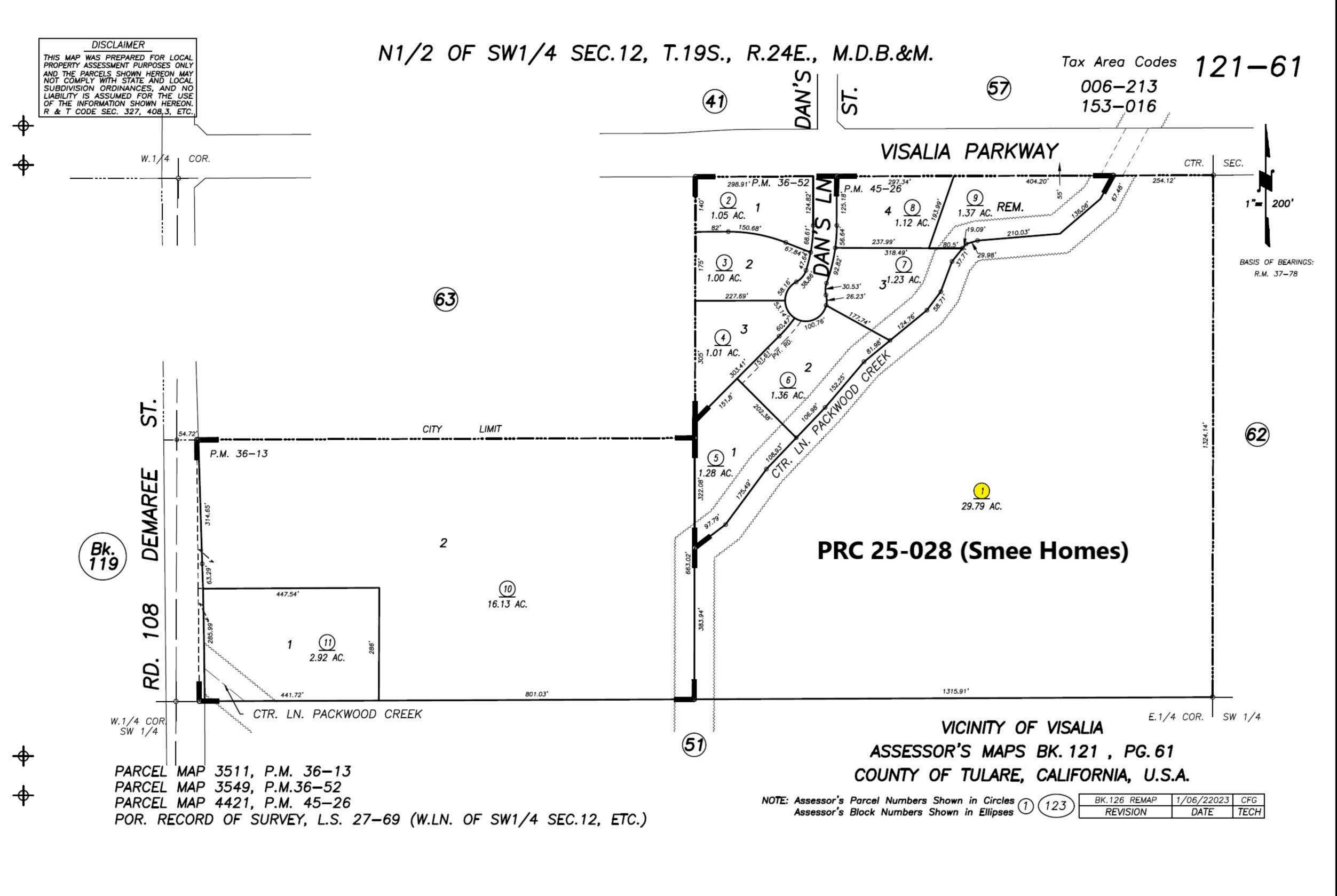
## **Utility and Service Providers:**

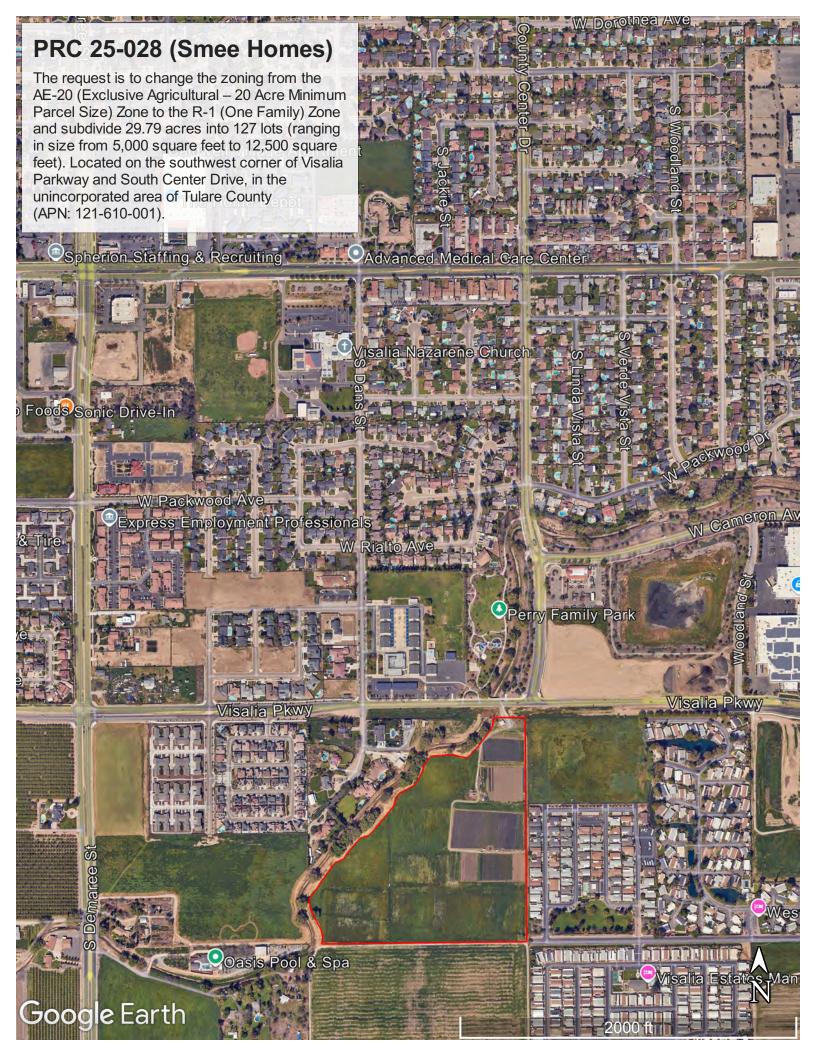
- Liquid Waste Disposal: City of Visalia
- Water Supply: California Water Service (Cal Water)
- Energy Provider: Southern California Edison (SCE)

This project aligns with the ongoing residential development in the area and will contribute to the region's housing needs while ensuring compliance with all county regulations.

Please let me know if you need any modifications!







# National Flood Hazard Layer FIRMette

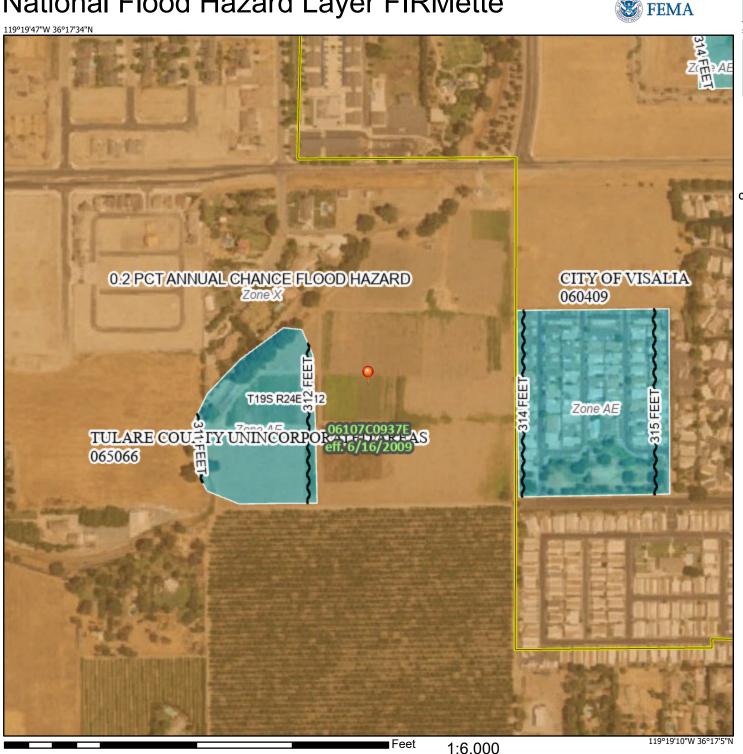
250

500

1,000

1.500

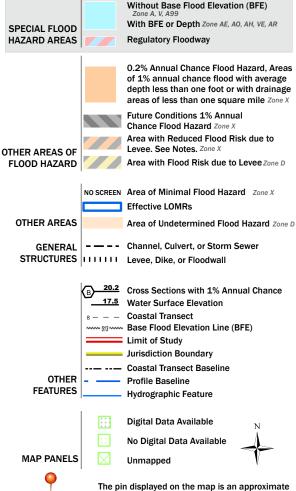




2,000

#### Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

point selected by the user and does not represent

an authoritative property location.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/20/2025 at 10:54 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



**NRCS** 

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Tulare County, Western Part, California

PRC 25-028



# **Preface**

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2 053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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# **How Soil Surveys Are Made**

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

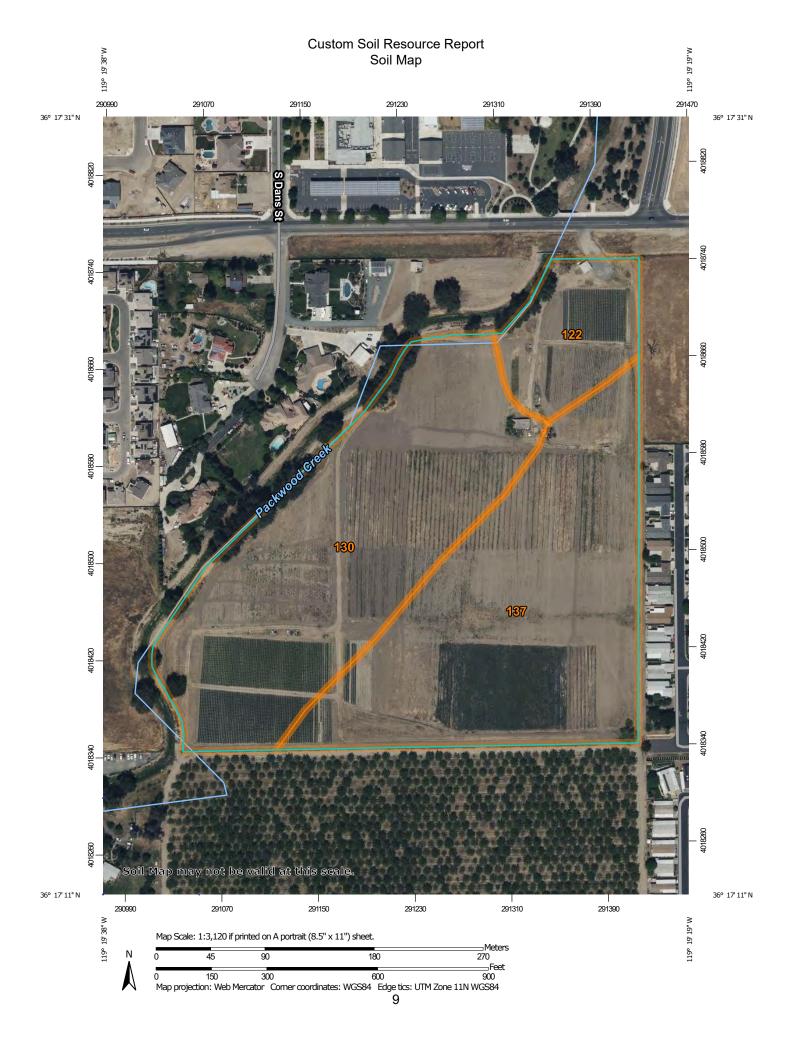
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons

-

Soil Map Unit Lines

Soil Map Unit Points

#### **Special Point Features**

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Blowout

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Borrow Pit

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Clay Spot

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Closed Depression

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Gravel Pit

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Landfill Lava Flow

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Marsh or swamp

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Mine or Quarry

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Miscellaneous Water
Perennial Water

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Rock Outcrop

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Saline Spot

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Sandy Spot

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Severely Eroded Spot

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Sinkhole

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Sodic Spot

Slide or Slip

Spoil Area



Stony Spot



Very Stony Spot



Wet Spot Other



Special Line Features

#### Water Features

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Streams and Canals

#### Transportation

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Rails

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Interstate Highways

US Routes

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Major Roads

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Local Roads

#### Background

Marie Control

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tulare County, Western Part, California Survey Area Data: Version 18, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Mar 16, 2022—May 30. 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
122	Grangeville sandy loam, drained, 0 to 2 percent slopes	2.9	10.2%
130	Nord fine sandy loam, 0 to 2 percent slopes	12.8	45.5%
137	Tagus loam, 0 to 2 percent slopes	12.4	44.3%
Totals for Area of Interest		28.1	100.0%

# **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Tulare County, Western Part, California

#### 122—Grangeville sandy loam, drained, 0 to 2 percent slopes

#### **Map Unit Setting**

National map unit symbol: hp4s Elevation: 190 to 400 feet

Mean annual precipitation: 8 to 12 inches

Mean annual air temperature: 63 to 64 degrees F

Frost-free period: 250 to 275 days

Farmland classification: Prime farmland if irrigated and either protected from flooding

or not frequently flooded during the growing season

#### **Map Unit Composition**

Grangeville and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Grangeville**

#### Setting

Landform: Alluvial fans, flood plains

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Convex, linear

Parent material: Alluvium derived from granitic rock sources

#### Typical profile

Ap - 0 to 16 inches: sandy loam Bg - 16 to 27 inches: sandy loam

2C - 27 to 67 inches: stratified loamy sand to silt loam

#### **Properties and qualities**

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00

in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Rare Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Gypsum, maximum content: 1 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

#### Interpretive groups

Land capability classification (irrigated): 1 Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: A

Ecological site: R017XY906CA - Non-Alkali San Joaquin Valley Desert

Hydric soil rating: Yes

#### **Minor Components**

#### Yettem

Percent of map unit: 3 percent Landform: Flood plains, alluvial fans

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### Tujunga

Percent of map unit: 3 percent Landform: Flood plains

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### Grangeville, saline-sodic

Percent of map unit: 2 percent Landform: Alluvial fans, flood plains

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: Yes

#### Nord

Percent of map unit: 1 percent Landform: Alluvial fans, flood plains

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### Hanford

Percent of map unit: 1 percent Landform: Alluvial fans, flood plains

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### 130—Nord fine sandy loam, 0 to 2 percent slopes

#### **Map Unit Setting**

National map unit symbol: hp51 Elevation: 190 to 520 feet

Mean annual precipitation: 8 to 12 inches

Mean annual air temperature: 61 to 64 degrees F

Frost-free period: 250 to 275 days

Farmland classification: Prime farmland if irrigated and either protected from flooding

or not frequently flooded during the growing season

#### **Map Unit Composition**

Nord and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Nord**

#### Setting

Landform: Alluvial fans, flood plains

Landform position (two-dimensional): Footslope, toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Convex, linear

Parent material: Alluvium derived from mixed

#### **Typical profile**

Ap - 0 to 11 inches: fine sandy loam

C1 - 11 to 38 inches: stratified sandy loam to loam

C2 - 38 to 50 inches: stratified loamy coarse sand to coarse sandy loam

2Btb - 50 to 72 inches: stratified sandy loam to silt loam

#### **Properties and qualities**

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches; More than 80 inches

Drainage class: Well drained Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Very rare Frequency of ponding: None

Calcium carbonate, maximum content: 4 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 10.0

Available water supply, 0 to 60 inches: Low (about 4.9 inches)

#### Interpretive groups

Land capability classification (irrigated): 1 Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: B

Ecological site: R017XY906CA - Non-Alkali San Joaquin Valley Desert

Hydric soil rating: No

#### **Minor Components**

#### Grangeville, saline-sodic

Percent of map unit: 3 percent Landform: Alluvial fans, flood plains

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: Yes

#### Hanford

Percent of map unit: 3 percent Landform: Alluvial fans, flood plains

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### Tujunga

Percent of map unit: 3 percent

Landform: Flood plains

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### **Tagus**

Percent of map unit: 2 percent Landform: Fan remnants

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### **Akers**

Percent of map unit: 2 percent Landform: Fan remnants

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### Colpien

Percent of map unit: 2 percent Landform: Fan remnants

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### 137—Tagus loam, 0 to 2 percent slopes

#### **Map Unit Setting**

National map unit symbol: hp58 Elevation: 230 to 400 feet

Mean annual precipitation: 9 to 12 inches

Mean annual air temperature: 63 to 64 degrees F

Frost-free period: 250 to 300 days

Farmland classification: Prime farmland if irrigated and either protected from flooding

or not frequently flooded during the growing season

#### **Map Unit Composition**

Tagus and similar soils: 85 percent *Minor components:* 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Tagus**

#### Setting

Landform: Fan remnants

Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from granitic rock sources

#### Typical profile

*Ap - 0 to 17 inches:* loam *Bk1 - 17 to 40 inches:* loam *Bk2 - 40 to 63 inches:* loam

#### Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Very rare Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 12.0

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 1 Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: B

Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans

Hydric soil rating: No

#### **Minor Components**

#### Tujunga

Percent of map unit: 5 percent Landform: Flood plains Hydric soil rating: No

#### Hanford

Percent of map unit: 5 percent Landform: Alluvial fans, flood plains

Hydric soil rating: No

#### Grangeville

Percent of map unit: 3 percent Landform: Alluvial fans, flood plains

Ecological site: R017XY907CA - Aridic Alkali Desert

Hydric soil rating: No

#### Colpien

Percent of map unit: 2 percent Landform: Fan remnants

Ecological site: R017XY907CA - Aridic Alkali Desert

Hydric soil rating: No

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