APPENDIX C: AGRICULTURE MAPPING CRITERIA

Agriculture

The Agriculture designation in this plan includes several different cropland associations and grazing lands that are individually and collectively important to the local agricultural economy. Sources of data used in mapping these lands include the State Department of Water Resources land use maps, State Department of Conservation Important Farmland Series maps, U.S. Natural Resource Conservation Service (NRCS) soils maps (land capability rating and potential use of soils), U.S. Geological Survey maps (topography and vegetation), LUE official maps (land use categories, natural hazards, and parcel sizes), Assessor's maps and records (property ownership), and Department of Planning and Building maps of properties subject to land conservation contracts.

The following are the general parameters used in mapping lands in the Agriculture designation.

A. Agricultural Preserves. All agricultural preserves subject to land conservation contracts are designated Agriculture in this plan. Since the use and capability of some of those lands are limited, they might otherwise be included in different designations in this plan and in the LUE. However, such properties are committed to development restrictions for 10 to 20 years unless notices of nonrenewal are in effect to terminate contracts within a shorter term. Upon termination of contracts, the appropriate LUE and Agriculture and Open Space Element designations will be evaluated through the general plan amendment process to determine if some other designation is appropriate.

An exception to this mapping of agricultural lands if for land holdings owned by non-profit land conservation organizations, such as The Nature Conservancy, where the land is managed to protect open space resources. Such lands are mapped as Multi-Use Public Lands.

B. Agricultural Use. Areas of the county characterized by a mixture of agricultural and non-agricultural uses are mapped according to the predominant land use. For example, rural subdivisions under single ownership and farmed as a unit may be designated Agriculture. In addition, scattered parcels smaller than the applicable minimum parcel size for new land divisions in the Agriculture category of the LUE which are within a larger agricultural area may be designated Agriculture if necessary to maintain the agricultural integrity of an area. However, rural subdivisions of individually-owned lots that are too small for viable agricultural uses are typically designated Small-Lot Rural in this plan.

Specialized animal facilities such as horse ranches and poultry ranches and non-soil dependent uses such as greenhouses may be designated Agriculture if the underlying parcels meet the criteria for that designation. Specialized animal facilities and non-soil dependent uses may often

be shorter-term uses than other agricultural uses. Consequently, appropriate parcel sizes for future land divisions should be based on the land's existing and potential use for long-term crop and grazing production, rather than the specialized uses.

C. Land Capability. The Natural Resource Conservation Service (NRCS) land capability rating of soils (Classes I through VIII) generally reflects the quality of soils for various agricultural uses. However, it is primarily an index of the level of soil conservation problems, such as erosion. Consequently, the individual soils descriptions should be reviewed to determine potential agricultural uses for an area. Also, soils mapping has limitations of scale. A soil for which grazing is indicated as the best use may contain smaller areas suitable for farming. On the other hand, soils described as farmland may contain small areas unsuitable for farming. The land capability ratings may be periodically updated by the NRCS. When that occurs, the mapping in this plan should be reviewed and revised as appropriate through a general plan amendment.

D. Location. Location is a consideration in mapping Agriculture. Many areas with limited agricultural potential which are distant from urban areas are designated Agriculture if used primarily for grazing. For example, large areas of the southeastern county have a very limited livestock carrying capacity because of the arid climate and sparse vegetation; yet, the area is so distant from urban centers that the Agriculture designation may be appropriate if the land is primarily used for grazing.

Following is a description of the subcategories of the Agriculture designation in this plan and the criteria used to classify lands in those subcategories of Agriculture.

A. Irrigated Lands

1. **ROW CROP TERRAIN AND SOILS.** These areas support the most intensive farming operations, involve labor-intensive practices with above normal traffic and extensive use of equipment and chemicals, are often close to populated areas, and need special recognition to assure that farming will continue. Row crop terrain and soils has the following characteristics:

    a. Existing and potential agricultural uses include various types of vegetables, seed crops, orchards, and other irrigated specialty crops. In valley bottom lands, uses include irrigated field crops and other uses reflecting farmer preference where there is potential for conversion to row crops.

    b. Property sizes generally range from 10 acres to hundreds of acres, but contiguous properties as small as five acres may be included where used for high value, labor-intensive specialty uses such as strawberries or soil-dependent greenhouses. Small intervening properties are included in order to maintain the agricultural integrity of these farmland areas.

c. Topography consists of valley bottom lands with slopes generally between 0 and 5 percent.

d. Soils consist mostly of land capability Classes I and II, but may include some Class III land that has been traditionally used or is currently used for row crop production. Small areas consisting of soils in other land capability classes may be included because they are impractical to map in other categories.

e. Climate is varied, but the most extensive and productive lands are the coastal valleys where year-round moderate temperatures allow multiple cropping. Interior valley bottom lands with superior soils and agricultural water supplies are important for possible future conversion from field crops to row crops.

f. Water is derived from underlying groundwater basins and is typically applied by row, sprinkler or drip irrigation.

2. SPECIALTY CROPS AND FORAGE LANDS. The lands in this classification require sprinkler or drip irrigation and are primarily used for grapes, avocados and apples. This classification also includes irrigated uses such as alfalfa or irrigated pasture where the land is also suitable for orchards and vineyards. Crops can be grown on moderate slopes with seasonal labor requirements. The location of specialty crops and forage lands is determined by availability of water and climatic conditions. Orchard and vineyard production is characterized by the need for large amounts of capital with several years delay but high return on the investment. Crops are grown on a broad range of parcel sizes. Specialty crops and forage lands have the following characteristics:

a. Agricultural uses include irrigated orchards and vineyards such as wine grapes, avocados, citrus, and apples. Also included are irrigated uses such as alfalfa and pasture on gently rolling lands that are also suitable for irrigated orchards and vineyards. Some areas that were primarily used for irrigated field crops have developed with scattered orchards and vineyards. However, not all areas of irrigated field crops will be converted to orchards and vineyards. One reason is that feed crops are commonly associated with livestock operations on the same property.

b. Property sizes generally range from 20 acres to a few hundred acres, but smaller properties used for high value crop production are also included.

c. Topography is gently rolling and rolling on slopes between 5 and 30 percent.

d. Soils consist mostly of Land Capability Classes III and IV.

e. Climate imposes varied requirements for different types of crops. For example, subtropical fruits are limited to areas with a temperate coastal climate and

deciduous fruits and nuts are generally better suited to the interior with its sunny hot summers and cold winters.

f. Water is derived from groundwater sources and is applied either by drip or sprinkler irrigation.

g. Economics, new agricultural techniques and grower preference are other factors which determine the location of various specialty crops.

B. Dry Farm Lands

Dry farm lands includes a broad range of properties that are primarily cultivated for an annual crop, but includes some orchard operations. Parcels are normally large in order to be productive units. Farming activities are seasonal with a moderate amount of labor and a considerable investment in farm machinery. Dry farm lands are divided into two types of croplands, mixed croplands and dry croplands.

1. MIXED CROPLANDS

Mixed croplands consist of two different types of terrain and crop associations. One type of mixed cropland is found in valleys with good soils but insufficient water for major irrigated uses. Such areas are characterized by mixed agricultural uses such as scattered irrigated crops and dry farm grain and hay. The other type of mixed cropland is found in areas of higher than average rainfall such as the easterly slopes of the Santa Lucia Range where dry farm orchards and some vineyards occur. Mixed croplands have the following characteristics:

a. Agricultural uses include dry farm orchards and vineyards and specialty or high value field crops such as almonds and walnuts.

b. Property sizes generally range from 40 acres to several hundred acres.

c. Topography ranges from flat to rolling on slopes between 0 and 30 percent.

d. Soils consist mostly of Land Capability Classes III and IV.

e. Climate is most important with regard to rainfall. For example, dry farm almond orchards are best situated in areas of the county with an average annual rainfall exceeding 12 inches. Dry years or spring frosts can result in very poor harvests. Higher rainfall areas contain substantial intervening areas of dense woodland on steeper slopes.

f. The location is confined to areas of existing production, since such crops as dry farm almonds and walnuts are not anticipated to expand significantly.

2. DRY CROPLANDS

Dry croplands have the following characteristics:

a. Agricultural uses include grain and hay production, which is widespread in the northeastern part of the county. Barley, wheat and oat hay are the principal crops. Other crops include dry beans and safflower.

b. Property sizes generally range from 80 acres to several thousand acres.

c. Topography is flat to rolling on slopes between 0 and 30 percent.

d. Soils consist mostly of Land Capability Classes III and IV. Class VI land has also been commonly used for grain and hay production.

e. The amount and distribution of rainfall is very important. Areas with higher rainfall can usually produce a crop every year. The more arid portions of the county may require two or three-year summer fallow crop rotation practices.

f. The location includes areas of predominant dry farm grain and hay production. Grain stubble fields and intervening non-cultivated areas provide seasonal forage for livestock.

C. Rangelands for Grazing

Grazing lands account for a large percentage of privately-owned land in the county. Cattle ranching is the predominant use on these lands, which have the following characteristics:

1. Property sizes generally range from 100 acres to thousands of acres.

2. Topography is mostly rolling and steep on slopes between 30 and 75 percent. Small intervening valleys and ridgetops that have limited use or potential as farmland are also included.

3. Soils consist mostly of Land Capability Classes IV, VI and VII, but also contain small intervening areas of other land capability classes.

4. The amount and distribution of rainfall is very important for production of grasses and forbs grazed by livestock. The best grazing lands occur on open hillsides on the coastal side of the Santa Lucia Range, while some of the less productive grazing lands are in arid areas in the southeast portion of the county.

5. Natural vegetation consists mostly of grasses and forbs in open to moderately wooded terrain. Large areas of dense woodland, chaparral or barren lands are excluded unless they are part of large operating ranches and/or are located in agricultural preserves.

6. The location is widespread and depends mainly upon property size and quality of land for grazing. Marginal grazing lands located near urban areas are generally not included in Agriculture.

Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.

LEGEND

SOILS ON ALLUVIAL FANS AND PLAINS

1 Mocho-Camarillo-Salinas: Very deep, nearly level to moderately sloping, somewhat poorly drained and well drained loam and silty clay loam soils; on alluvial plains

2 Cropley-Salinas: Very deep, nearly level to moderately sloping, moderately well drained and well drained clay and silty clay loam soils; on alluvial plains

3 Salinas-Marimel: Very deep, nearly level to moderately sloping, somewhat poorly drained and well drained silty clay loam and sandy clay loam soils; on alluvial plains

4 Still-Elder: Very deep, nearly level to moderately steep, well drained sandy loam and gravelly sandy clay loam soils; on alluvial fans

SOILS ON WIND-BLOWN DEPOSITS

5 Oceano-Dune land-Baywood: Very deep, nearly level to moderately steep, excessively drained and somewhat excessively drained fine sand and sand soils; on wind-blown deposits

SOILS ON FOOTHILLS AND TERRACES

6 Tierra-Briones: Moderately deep and very deep, gently sloping to steep, moderately well drained and somewhat excessively drained soils; on foothills and terraces

7 Arnold-Pismo-Briones: Shallow to deep, moderately sloping to very steep, somewhat excessively drained soils; on foothills

8 San Simeon-Concepcion: Moderately deep and very deep, gently sloping to steep, moderately well drained soils; on old marine terraces

9 Chamise: Very deep, moderately sloping to moderately steep, well drained soils; on foothills and dissected terraces

SOILS ON HILLS AND MOUNTAINS

10 Los Osos-Lodo-Diablo: Shallow to deep, moderately sloping to very steep, well drained and somewhat excessively drained soils; on hills and mountains

11 Santa Lucia-Lopez-Rock outcrop: Shallow and moderately deep, moderately sloping to extremely steep, well drained and somewhat excessively drained soils, and Rock outcrop; on hills and mountains

12 Nacimiento-Calodo: Shallow and moderately deep, moderately steep to very steep, well drained soils; on hills and mountains

13 Rock outcrop-Obispo-Henneke: Rock outcrop and shallow, strongly sloping to very steep, somewhat excessively drained and well drained soils; on hills and mountains

14 Millsap-Rock outcrop: Moderately deep, moderately steep to very steep, well drained soils, and Rock outcrop; on mountains

Compiled 1981

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
UNIVERSITY OF CALIFORNIA AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP

SAN LUIS OBISPO COUNTY
CALIFORNIA, COASTAL PART

Scale 1:443,520

1 0 1 2 3 4 5 6 7 Miles

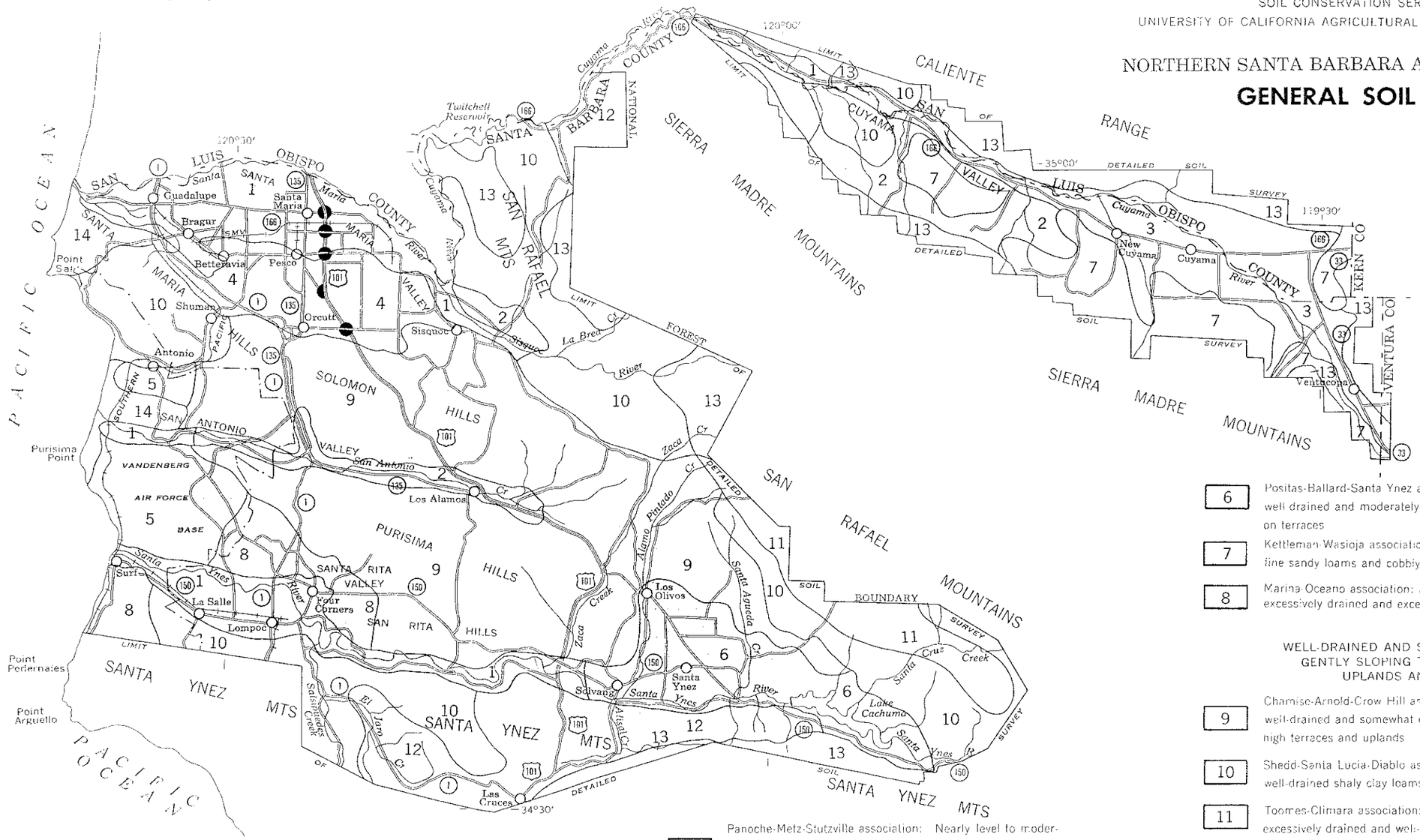
1 0 6 12 Km

This map is for general planning. It shows only the major soils and does not contain sufficient detail for operational planning.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
UNIVERSITY OF CALIFORNIA AGRICULTURAL EXPERIMENT STATION

NORTHERN SANTA BARBARA AREA, CALIFORNIA

GENERAL SOIL MAP



N

1 0 1 2 3 4 5 6 Miles
Scale 1:380,160

SOIL ASSOCIATIONS*

SOMEWHAT EXCESSIVELY DRAINED TO SOMEWHAT POORLY DRAINED, NEARLY LEVEL TO MODERATELY STEEP SOILS OF THE ALLUVIAL FANS, FLOOD PLAINS, VALLEYS, AND TERRACES

1 Sorrento-Mocho-Camarillo association: Nearly level to moderately sloping, well-drained to somewhat poorly drained sandy loams to silty clay loams on flood plains and alluvial fans

2 Pleasanton-Botella-Elder association: Nearly level to moderately steep, well-drained and moderately well-drained sandy loams to clay loams on terraces and alluvial fans and in valleys

3 Panoche-Metz-Stutzville association: Nearly level to moderately sloping, somewhat excessively drained to somewhat poorly drained loamy sands to silty clay loams on flood plains and alluvial fans

SOMEWHAT EXCESSIVELY DRAINED TO SOMEWHAT POORLY DRAINED, NEARLY LEVEL TO VERY STEEP SOILS OF THE TERRACES AND ADJACENT UPLANDS

4 Betteravia-Garey association: Nearly level to moderately steep, moderately well drained and well drained loamy sands to sandy loams on terraces

5 Tangair-Narlon association: Nearly level to strongly sloping, somewhat poorly drained and moderately well-drained sands and loamy sands on terraces

6 Positas-Ballard-Santa Ynez association: Nearly level to moderately steep, well drained and moderately well drained fine sandy loams to clay loams on terraces

7 Kettleman-Wasioja association: Gently sloping to very steep, well-drained fine sandy loams and cobbly fine sandy loams on uplands and terraces

8 Marina-Oceano association: Nearly level to moderately steep, somewhat excessively drained and excessively drained sands on mesas and dunes

WELL-DRAINED AND SOMEWHAT EXCESSIVELY DRAINED, GENTLY SLOPING TO VERY STEEP SOILS OF THE UPLANDS AND HIGH TERRACES

9 Chamise-Arnold-Crow Hill association: Gently sloping to very steep, well-drained and somewhat excessively drained sands to clay loams on high terraces and uplands

10 Shedd-Santa Lucia-Diablo association: Strongly sloping to very steep, well-drained shaly clay loams and silty clays on uplands

11 Toomes-Climara association: Moderately steep to very steep, somewhat excessively drained and well-drained clay loams and clays on uplands

12 Los Osos-Gaviota association: Moderately sloping to very steep, well-drained and somewhat excessively drained clay loams to sandy loams on uplands

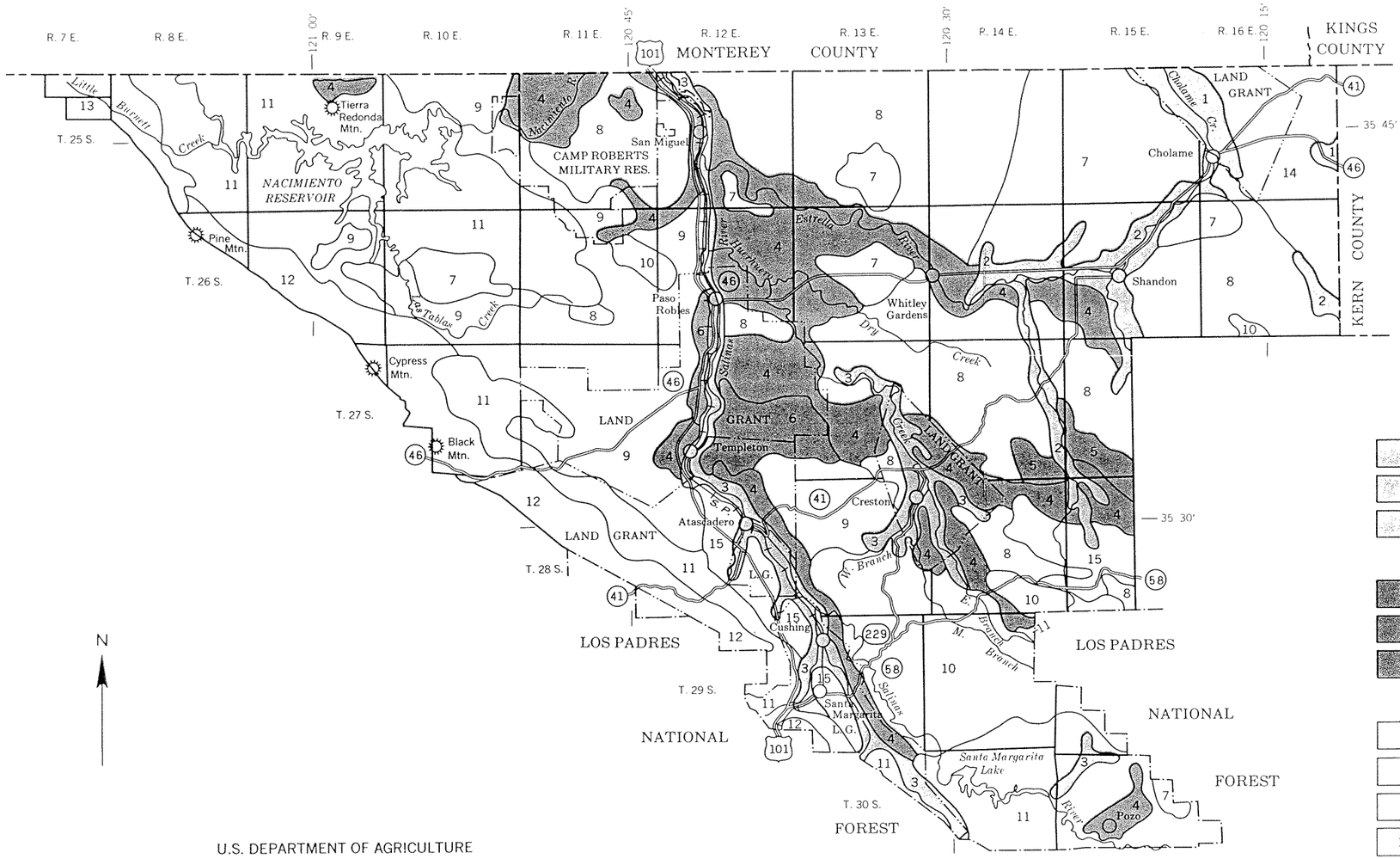
MISCELLANEOUS LAND TYPES

13 Sedimentary rock land-Rough broken land association: Steep to extremely steep, excessively drained lands on uplands

14 Dune land association: Coastal sand dunes and sandy beaches

*Textures in name of associations refer to surface texture of the soils

Published 1971



N

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
UNIVERSITY OF CALIFORNIA AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP

SAN LUIS OBISPO COUNTY, CALIFORNIA, PASO ROBLES AREA

Scale 1: 380,160
1 0 1 2 3 4 5 Miles

Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.

MAP UNITS*

SOILS ON ALLUVIAL PLAINS, ALLUVIAL FANS, AND FLOOD PLAINS

1 — Mocho-Capay-Camarillo: Very deep, nearly level to moderately sloping, poorly drained to well drained clay loams, silty clays, and silty clay loams

2 — Pico-San Emigdio-Sorrento: Very deep, nearly level to moderately sloping, well drained fine sandy loams and clay loams

3 — Still-Elder-Metz: Very deep, nearly level to moderately sloping, well drained and somewhat excessively drained clay loams, loams, and loamy sands

SOILS ON TERRACES

4 — Arbuckle-Positas-San Ysidro: Very deep, nearly level to hilly, moderately well drained and well drained fine sandy loams, coarse sandy loams, and loams

5 — Chanac-Camatta: Very deep, gently rolling to very steep, well drained loams; some are shallow to a hardpan

6 — Lockwood-Concepcion: Very deep, nearly level to rolling, moderately well drained and well drained shaly loams and sandy loams

SOILS ON HILLS AND MOUNTAINS

7 — Nacimiento-Ayar: Moderately deep and deep, strongly sloping to steep, well drained silty clay loams and silty clays

8 — Nacimiento-Los Osos-Balcom: Moderately deep, strongly sloping to very steep, well drained silty clay loams, clay loams, and loams

9 — Linne-Calodo: Shallow and moderately deep, strongly sloping to very steep, well drained shaly clay loams and clay loams

10 — Cieneba-Vista-Andregg: Shallow and moderately deep, strongly sloping to very steep, well drained and excessively drained coarse sandy loams

11 — Dibble-Gaviota-Shimmon: Shallow and moderately deep, strongly sloping to very steep well drained clay loams, sandy loams, and loams

12 — Los Osos-Lompico-Lodo: Shallow and moderately deep, moderately steep to very steep, well drained and somewhat excessively drained clay loams, loams, and gravelly clay loams

13 — Henneke-Rock outcrop: Shallow, moderately steep to very steep, somewhat excessively drained very cobbly clay loams, and Rock outcrop

14 — Ayar-Millsholm-Nacimiento: Shallow to deep, strongly sloping to very steep, well drained silty clays, clay loams, and silty clay loams

15 — San Andreas-Arnold-Santa Lucia: Moderately deep and deep, moderately steep to very steep, well drained and somewhat excessively drained sandy loams, loamy sands, and shaly clay loams

*Textures in the headings refer to surface layer of the major soils.

Compiled 1980