

Rincon Valley/Posta Quemada Conceptual Planning Program



Prepared for:

Arizona State Land Department
Southern Arizona Real Estate Division

Tucson, Arizona

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Introduction

The Rincon Valley/Posta Quemada Conceptual Planning Program is being prepared under the auspices of the Arizona State Land Department in compliance with the Arizona Growing Smarter legislation. The Rincon Valley/Posta Quemada Plan Area comprises approximately 145,761 acres of State Trust Land in the southeastern portion of Pima County, with Saguaro National Park north, East Sahuarita Road as the southern border, Cochise County east and South Wentworth Road west. This Conceptual Planning Program focuses on a 39,966 acre area identified as the Study Parcels within the Rincon Valley/Posta Quemada Plan Area.

The majority of the Rincon Valley/Posta Quemada Plan Area is open range within unincorporated Pima County. Defining features within the Plan Area include Interstate 10, which bisects from the southeast to western boundaries, Saguaro National Park and Coronado National Forest forming the northern and northeastern boundaries respectively. The Study Parcels are immediately north of Interstate 10, south and west of the national park and forest, east of Camino Alta Loma and west of the Cochise County line.

This document is organized based on the three phases of the planning process as defined by the Arizona State Land Department. Phase 1 is Inventory Data Collection, Phase 2 is the Needs Assessment and Suitability Analyses, and Phase 3 is the Draft Conceptual Land Use Plan.

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Phase 1- Data Collection, Site Inventory and GIS Database

A GIS database of existing conditions was developed for the 145,761 acre Plan Area in ArcInfo (ESRI). This database consisted of 52 layers (see table below). Several of the data layers were derived from the Pima County Land Information System (PCLIS version 9.0). Other data layers such as the archaeological sites and utility lines were digitized from source maps provided by these agencies. All of the data used for this analysis is in Arizona State Plane Feet projection.

GIS Data Layers

1	General Plan (Pima County)	28	Study Parcel Boundary (original)
2	Specific Plans Dwelling Units (Pima County)	29	Study Parcel Boundary (clipped)
3	Zoning (Pima County)	30	Plan Area Boundary
4	Comprehensive Plan (Pima County)	31	ALRIS* parcels
5	Slope	32	City Limits
6	Floodplains	33	Pima County Parcels
7	Floodways	34	Townships
8	Vegetation/Plant Density	35	Sections
9	Riparian Areas	36	Washes
10	Trails, Pima County	37	Contours
11	Approved Open Space Acquisitions, Pima County	38	Major Streets (existing)
12	Parks in Pima County	39	Major Streets (proposed)
13	Threatened & Endangered Species/Critical Habitat	40	Streets (existing)
14	Pygmy Owl Habitat (US Fish & Wildlife Service)	41	Streets (proposed)
15	Hazardous Waste Sites	42	Electric Facilities, TEP** (existing)
16	Landfills, County Owned	43	Natural Gas
17	Power Line Corridors	44	Archaeology
18	Flood Control (existing)	45	Subsidence Areas
19	Wastewater (proposed)	46	Flood Control (existing)
20	Water Lines, (existing, pipes and canals)	47	Flood Control (proposed)
21	Water Lines, Tucson Water (existing)	48	Wastewater (existing)
22	Water Service Providers	49	Electric Lines (TEP**)
23	Electric	50	Electric Substations (TEP**)
24	Soils (Pima County)	51	Schools (Vail School District)
25	Soils (ALRIS*)	52	Transportation Analysis Zones (TAZ)
26	Minerals		
27	Plan Area Buffer (500')		

*ALRIS = Arizona Land Resource Information System

**TEP = Tucson Electric Power

These data layers are used to create a variety of maps that characterize the Plan Area's attributes. The following maps and narrative represent the relevant dataset for the Rincon Valley/Posta Quemada Study Parcels within the Plan Area. The visual extent of each exhibit represents the Plan Area boundaries.

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PART I: SITE INVENTORY

The Rincon Valley/Posta Quemada Plan Area property is located in southeastern Pima County. Boundaries for the Study Parcels are delineated by Cochise County to the east, Saguaro National Park and Coronado National Forest to the north and northeast, I-10 to the south and Camino Loma Alta to the west. Acquisition of parcels in the far northwest Plan Area from the Saguaro National Park East is pending; therefore, they are included within the boundaries of the Study Parcels. The Plan Area is in unincorporated Pima County.

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Regional Context

Legend

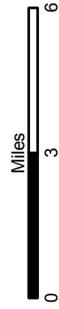
-  Plan Area
-  Study Parcels
-  Township and Range

Highways

-  Highways
-  Interstates

Surface Management

-  BLM
-  National Forest
-  Local or State Parks
-  Military
-  National Parks
-  Other
-  Private
-  State Trust
-  National Wildlife Refuge
-  Wilderness Areas

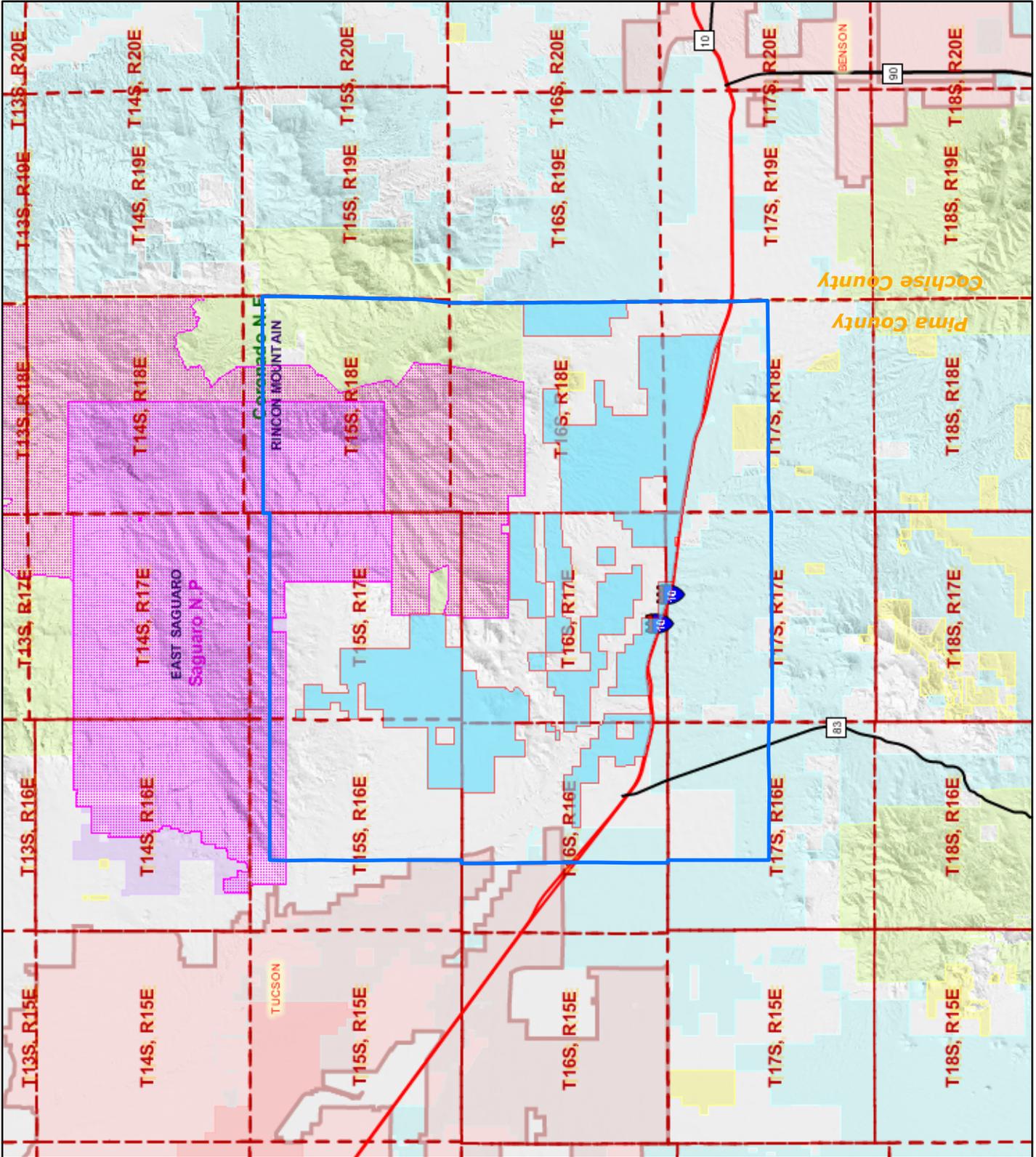


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A. TOPOGRAPHY

1. TOPOGRAPHIC CHARACTERISTICS:

The Study Parcels are located north of Interstate 10 and east of South Camino Loma Alta. This area is located on intrusive igneous geology, which is relatively flat. Continuing east, the Study Parcels skirt the foothills of the Rincon Wilderness Area on gently sloping alluvium plain with drainages into the Cienega Creek that run in a northeast to southwesterly direction.

There are Study Parcels that feature significant peaks with slopes greater than 25% west of East Colossal Cave Road and east of South Pistol Hill Road as well as southeast of East Colossal Cave Road and in the northeast portion of the parcels at the foot of the Rincon Mountains, west of Martinez Wash. Slopes from 15% to greater than 25% are along both sides of Cienega Creek. See **Topography and Drainage Exhibit and Slope Analysis Exhibit**.

2. AVERAGE CROSS-SLOPE:

1. Acreage was calculated for Study Parcels using ArcMap Field Calculator and the Advanced settings with the following formula:

Dim Output as double

Dim pArea as Iarea

Set pArea = [shape]

Output = pArea.area * 0.0002471044 (used to convert square meters to acres)

2. Contour lines were taken from Contour50.shp sent by ALRIS with a 50' contour interval. This corresponds to a 15.24m CI)

3. The Contour lines were clipped to the study parcels and length re-calculated using

Dim dblLength as double

Dim pCurve as ICurve

Set pCurve = [shape]

dblLength = pCurve.Length

4. ArcMap field statistics were used to determine the sum of the lengths.
5. The average cross slope formula was used to determine cross slope for both north and south parcels:

$$I \cdot L \cdot (0.02471044) / A$$

Where:

I = contour interval in **meters**;

L = combined length in **meters** of all contour lines measured on the parcels

0.02471044 = conversion of **square meters** into acres x 100;

A = project site or parcel area in **acres**.

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6. Calculation:

$$I = (15.24); L = 670,071\text{m}; A = 39,966 \text{ acres}$$

$$(15.24)(670,071)(0.02471044) / 39,966 = 6.314$$

$$\text{Average Cross Slope} = 6.3$$

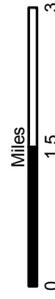
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Topography and Drainage

-  Interstate
-  Major Roads
-  Major Washes (ALRIS)
-  Study Parcels

Elevation Contours (50-Foot)

-  250 Foot Interval

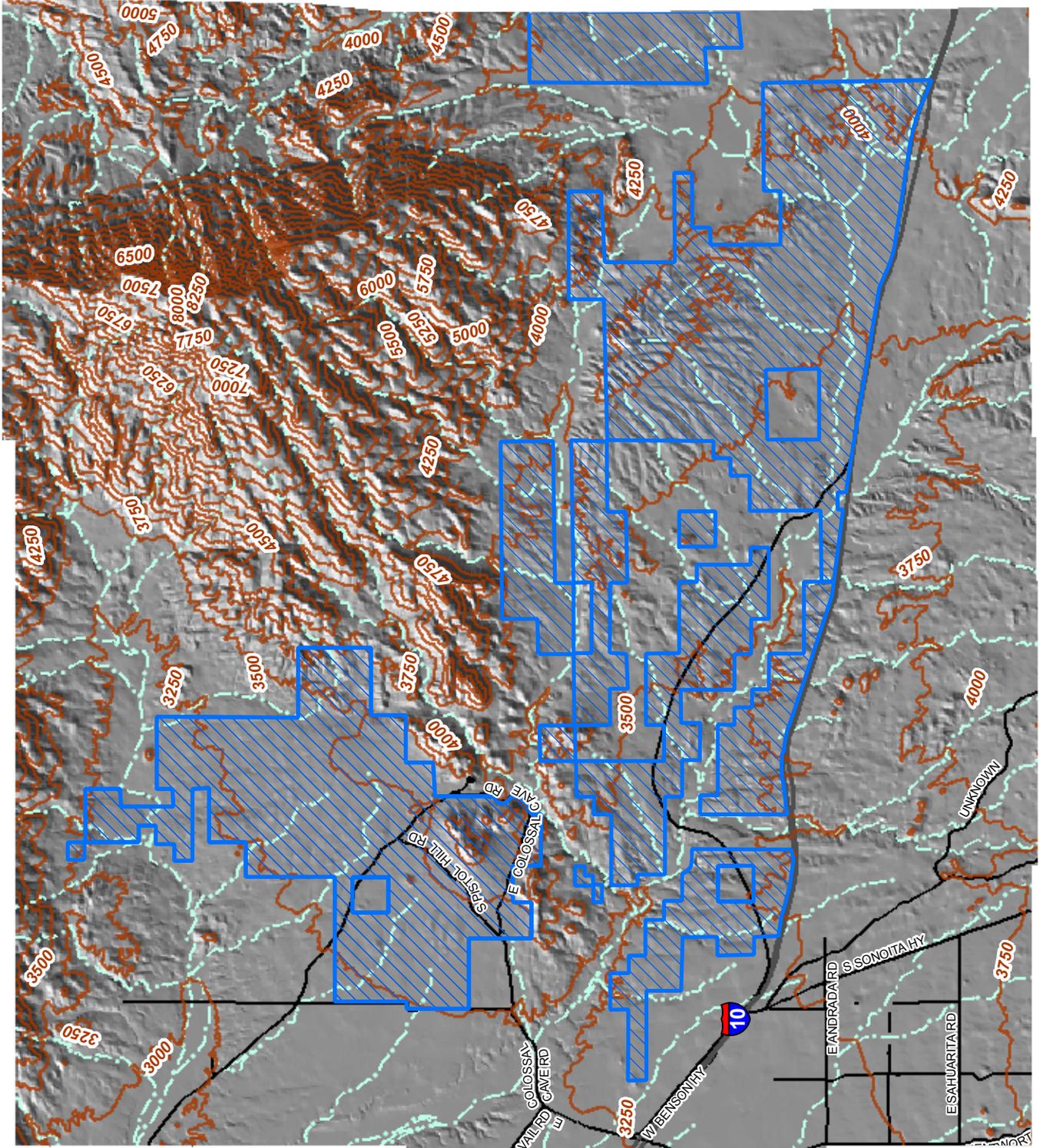


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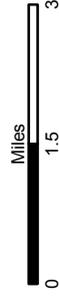
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Percent Slope

-  Interstate
-  Major Roads
-  Major Washes (ALRIS)
-  Study Parcels

Percent Slope

-  0-5%
-  5-10%
-  10-15%
-  15-25%
-  > 25%

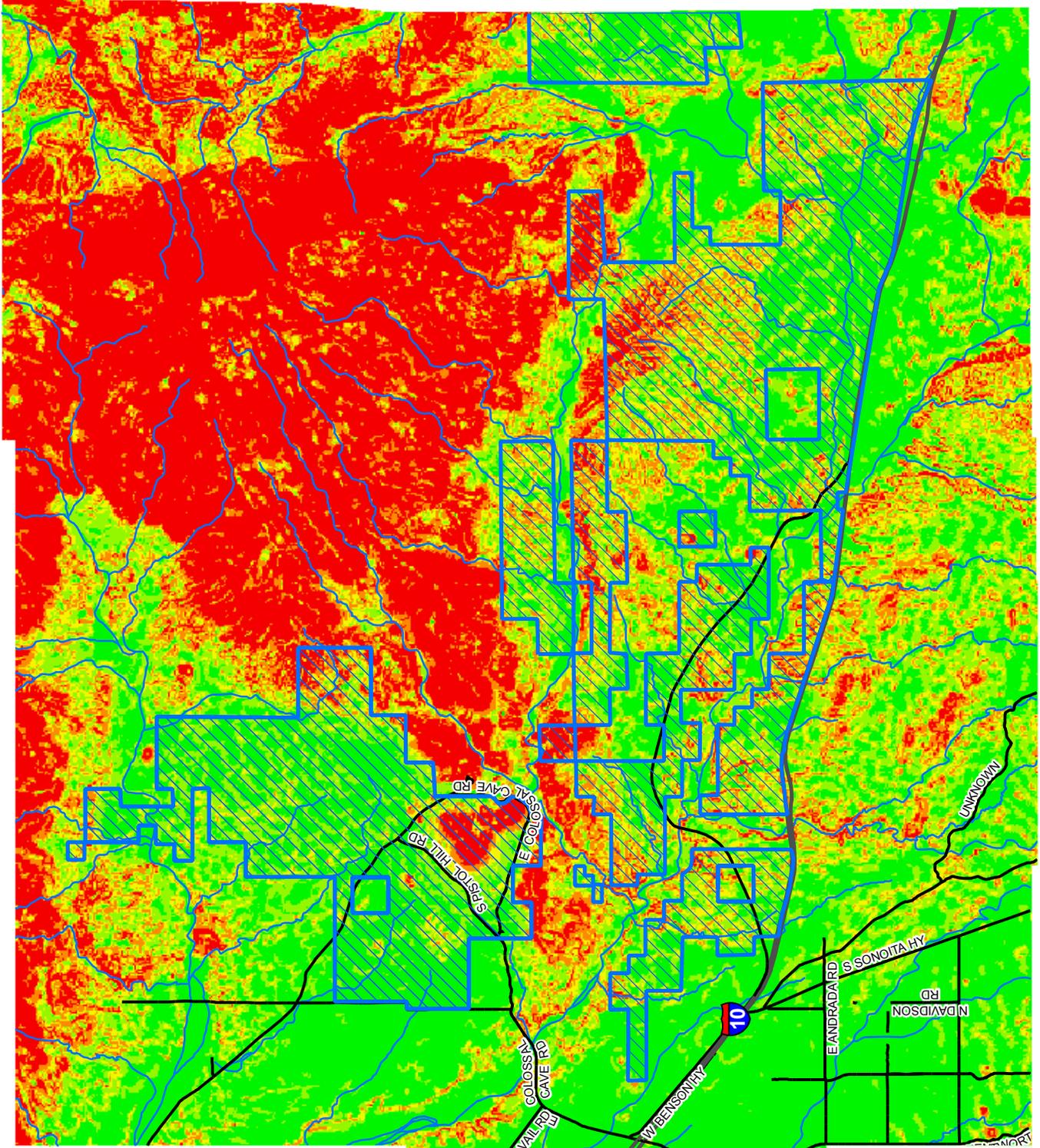


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B. WATER RESOURCES/HYDROLOGY

The Arizona State Land Department (ASLD) owns water rights associated with state lands. The majority of the Study Parcels are within the Tucson Active Management Area (TAMA) limits, as determined by the Arizona Department of Water Resources (ADWR). Within the TAMA, rights are established, wells are regulated, and mandatory conservation programs have been established. The easternmost of the Study Parcels fall outside of TAMA and have fewer water restrictions.

Several water companies service lands at the western edge of the Plan Area according to ADWR. Vail Water Company and Saguaro Water Company's service areas adjoin the western extents of the Study Parcels and both have a 100-year assured water supply. The service area for Vail Water Company includes a portion the Study Parcels east of Camino Loma Alta and north of Colossal Cave Road according to ADWR. See **Water Service Providers Exhibit**.

1. EXISTING HYDROLOGY

Several data sources were used to determine the flood prone areas existing with the Plan Area, including both digital and paper copies of Flood Insurance Rate Maps (FIRMs), including panel numbers 04019C2295 K, 04019C2885 K, 04019C2890 K, 04019C2895 K, 04019C2925 K, 04019C2950 K, 04019C2485 K, 04019C3500 K, 04019C3525 K, all effective February 8, 1999. In addition, Letters of Map Revision (LOMRs) were researched and included on the hydrology exhibits. Federal Emergency Management Agency (FEMA) flood zones that impact this Plan Area include:

- ZONE A Area inundated by 100-year flood with no base flood elevations determined.
- ZONE AE Area inundated by 100-year flood with base flood elevations determined.
- Zone X Areas determined to be outside of the 500-year floodplain.

The following is a brief description of the existing hydrologic conditions for the Plan Area:

Storm water runoff which impacts the study area originates from watersheds which drain the Rincon Mountains, located to the northeast, as well as other mountain ranges, located to the south and east. The watercourses located within and adjacent to the Plan Area are generally characterized as ephemeral natural watercourse, typical of the semi-arid southwest. Portions of the Cienega Creek are characterized as a perennial watercourse, within the boundaries of the Cienega Creek Natural Preserve. Generally the watercourses have sandy channel beds and well-defined, stable channel banks. Floodplains are generally topographically confined within a relatively narrow corridor along the watercourse alignments. The major watercourses, along with known 100-year flood peaks, that are located within or adjacent to the Plan Area, include the following:

- Rincon Creek, 16,000 cfs
- Pantano Wash, 30,000 cfs
- Posta Quemada Canyon, 10,000 cfs - 20,000 cfs

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- Agua Verde Creek, Q100 unknown
- Shaw Canyon, Q100 unknown
- Davidson Canyon Wash, 19,000 cfs
- Cienega Creek, 18,000 cfs
- Mescal Arroyo, 12,000 cfs
- Cumaro Wash, Q100 unknown

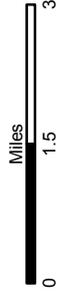
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Water Service Providers

-  Interstate
-  Major Roads
-  Study Parcels

Water Service Providers (ADWR)

-  Unknown
-  PANTANO PROPERTIES HOA
-  RINCON CREEK WATER CO.
-  SAGUARO WATER COMPANY
-  SPANISH TRAIL WATER COMPANY
-  VAIL WATER COMPANY



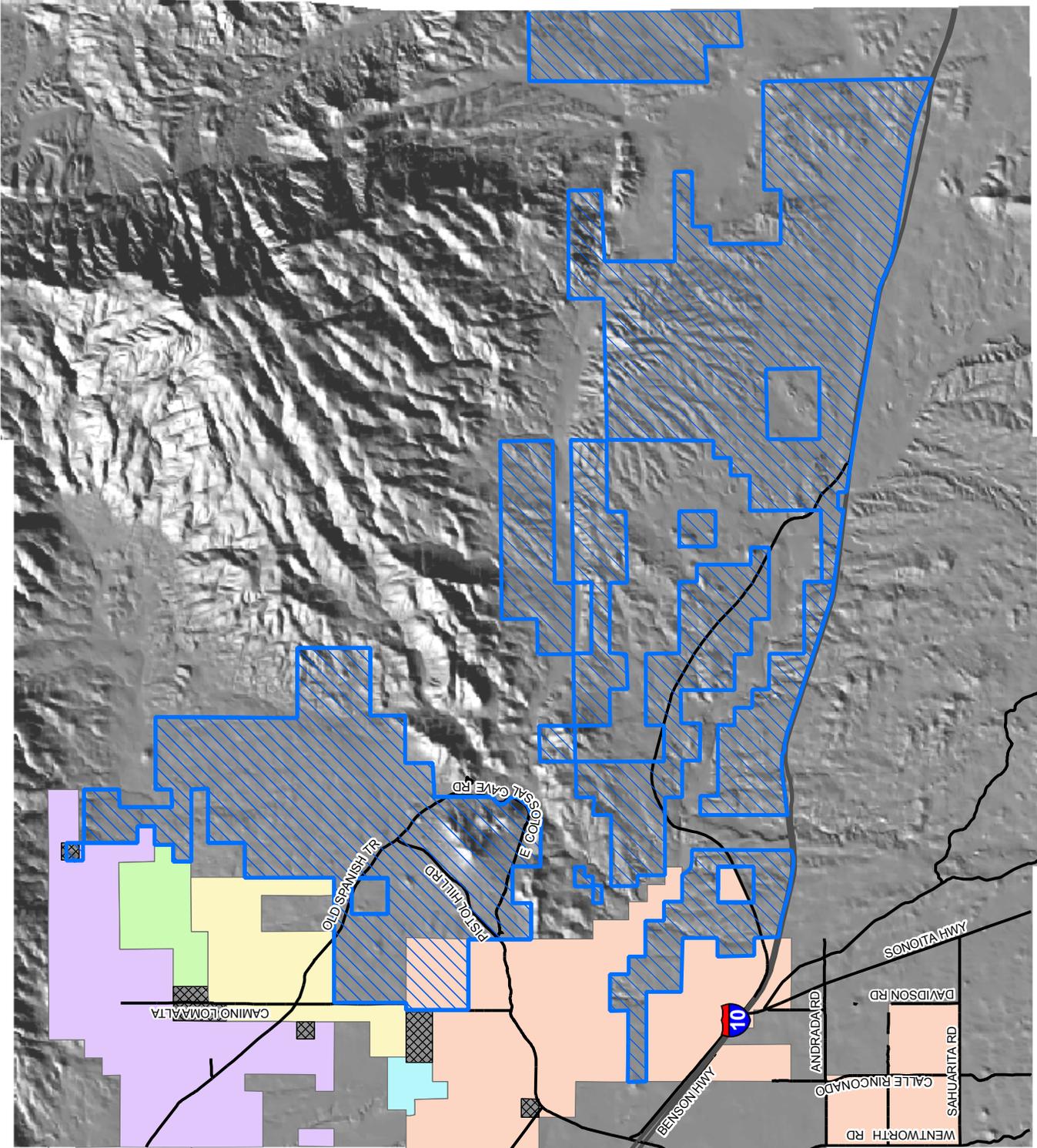
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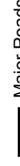
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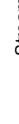


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On and Off-Site Hydrology

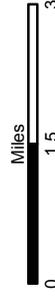
-  Interstate
-  Major Roads
-  Study Parcels

Major Washes (ALRIS)

-  Apparent
-  Stream
-  Wash

Flood Zones (Arroyo Engineering)

-  A
-  AE
-  FW
-  UNK

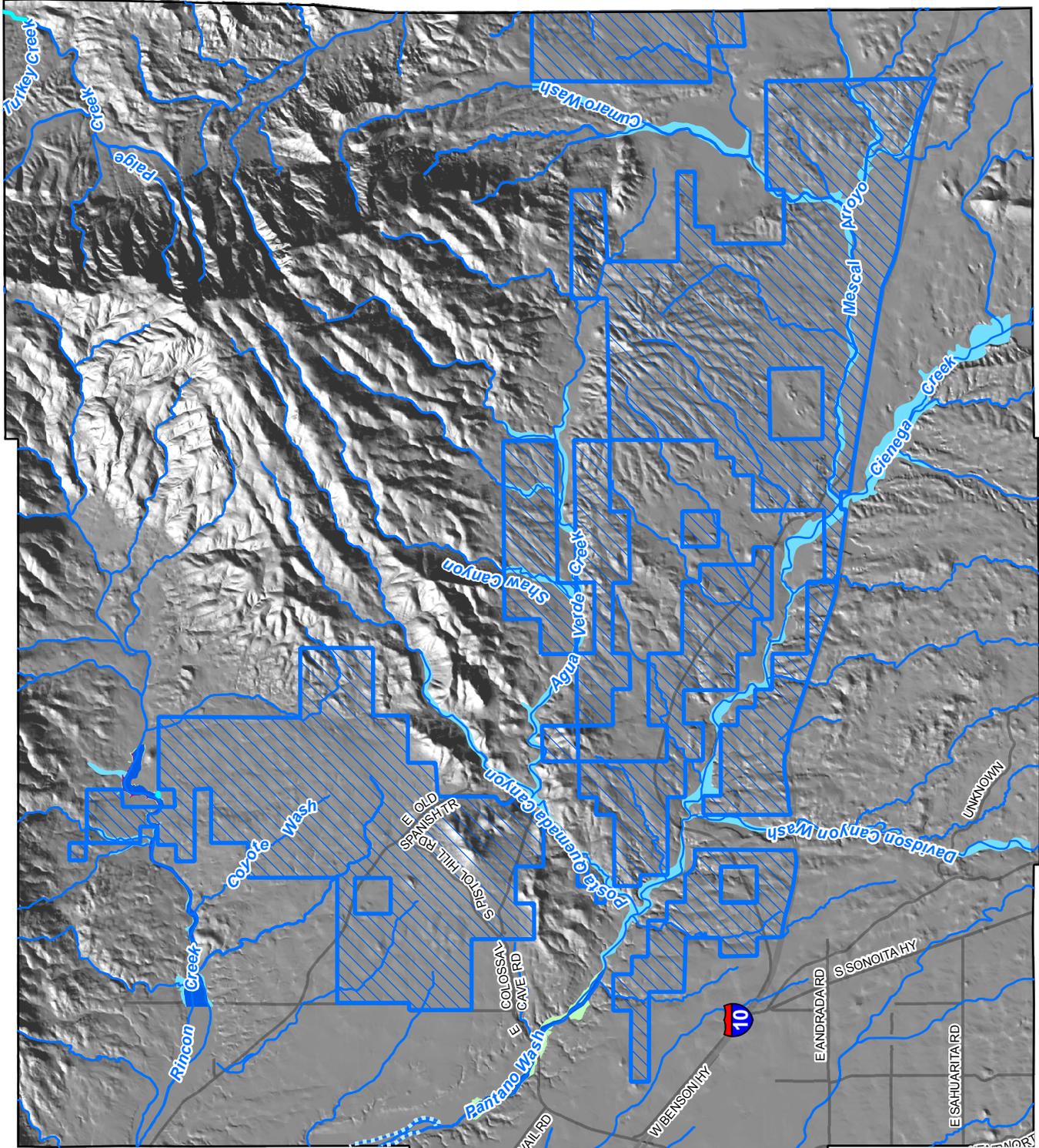


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Well Locations:

Two databases identify the locations of wells and well sites in the Plan Area, two exhibits note the well locations. The **Well Locations – 55 Exhibit** categorizes all wells which have ever been registered with the Arizona Department of Water Resources by water use. The following table correlates with the **Well Locations – 55 Exhibit**, identifying the owners of wells located on the Study Parcels. The **Well Locations – GWSI Exhibit** shows only the Groundwater Site Inventory wells which are regularly monitored by ADWR.

Table 1

WELL USE	WATER USE	OWNER	CANCELLED
WATER PRODUCTION	DOMESTIC	AXSOM, CHESTER	Y
WATER PRODUCTION	DOMESTIC	NOCHEHDEHI, HOOSHANG	Y
WATER PRODUCTION	DOMESTIC	NOCHEHDEHI, HOOSHANG	Y
WATER PRODUCTION	DOMESTIC	NOCHEHDEHI, HOOSHANG	Y
WATER PRODUCTION	DOMESTIC	NOCHEHDEHI, HOOSHANG	
WATER PRODUCTION	DOMESTIC	RYBERG, D L	
WATER PRODUCTION	DOMESTIC	AXSOM, CHESTER	Y
WATER PRODUCTION	DOMESTIC	DAVIS-MONTHAN AFB	
WATER PRODUCTION	DOMESTIC	FALCO	
WATER PRODUCTION	DOMESTIC	MARCHACOS, GEORGE J	
WATER PRODUCTION	DOMESTIC	MAXSON	
WATER PRODUCTION	DOMESTIC	MAXSON	
WATER PRODUCTION	DOMESTIC	MCKENZIE	Y
WATER PRODUCTION	DOMESTIC	NOLL	
WATER PRODUCTION	DOMESTIC	SPARLING	
WATER PRODUCTION	STOCK	151 LLC	
WATER PRODUCTION	STOCK	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK	PIMA COUNTY	
WATER PRODUCTION	STOCK	SALCIDO, M M	
WATER PRODUCTION	STOCK	SALCIDO, M M	
WATER PRODUCTION	STOCK	WHEELER & ARMER	
WATER PRODUCTION	STOCK	WHEELER & ARMER	
WATER PRODUCTION	STOCK	WHEELER & ARMER	
WATER PRODUCTION	STOCK/DOMESTIC	AZ STATE LAND DEPT	
WATER PRODUCTION	STOCK/DOMESTIC	WHEELER & ARMER	
CATHODIC	NONE	EL PASO NATURAL GAS	
GEOTECHNICAL	NONE	STATE OF ARIZONA / ADOT	
GEOTECHNICAL	TEST	ADOT	N
GEOTECHNICAL	TEST	ADOT	
WATER PRODUCTION	STOCK/DOMESTIC	WHEELER TRUST	

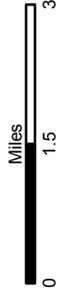
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ADWR
Registered Wells

- Interstate
- Major Roads
- Major Washes (ALRIS)
- Study Parcels

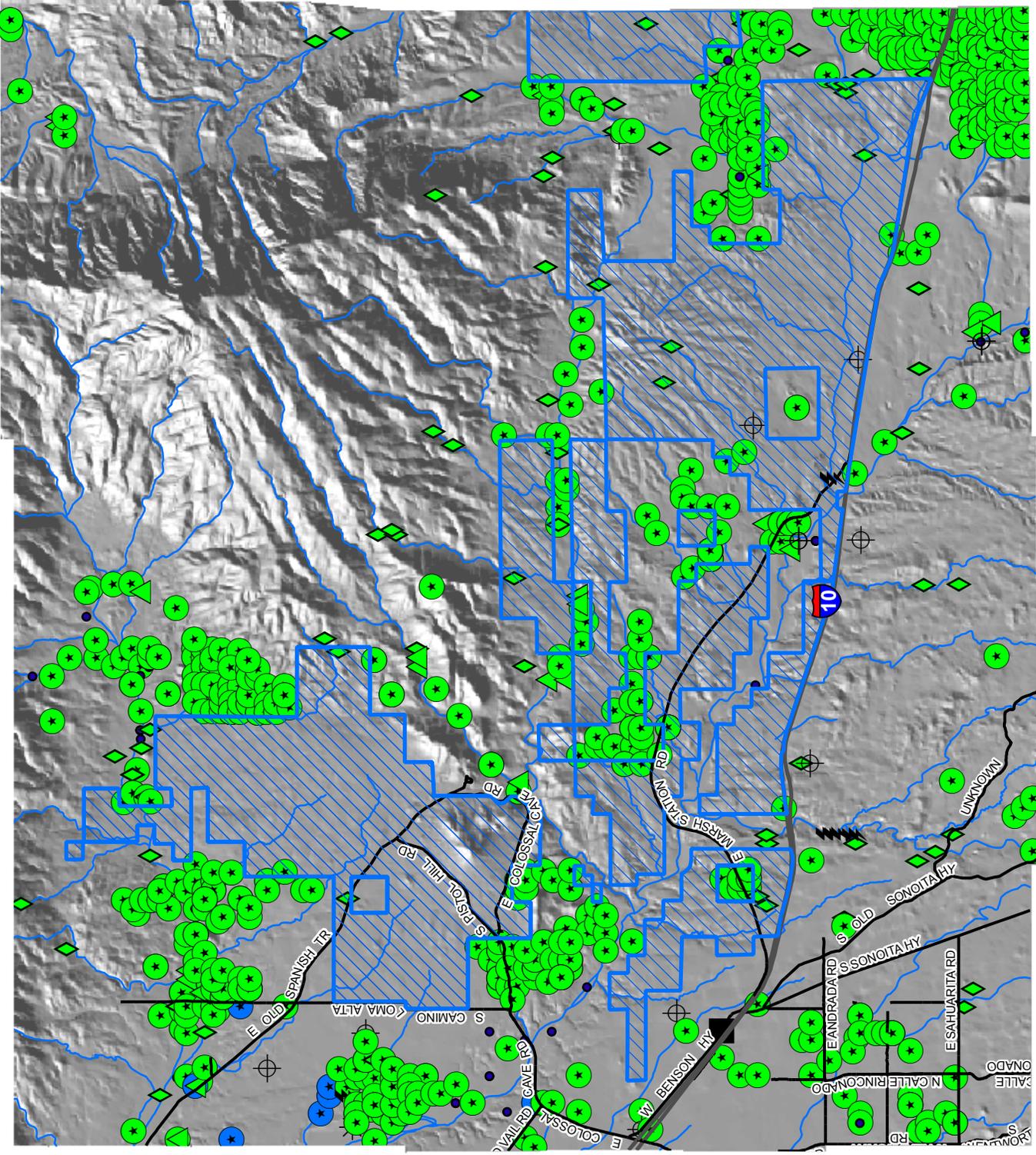
Water Use

- DOMESTIC
- INDUSTRIAL
- INSTITUTION
- IRRIGATION
- PUBLIC SUPPLY
- MUNICIPAL
- STOCK
- UNDETERMINED
- UNUSED
- NONE
- TEST
- MINING



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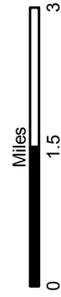
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ADWR Groundwater
Site Inventory Wells

- Interstate
- Major Roads
- Major Washes (ALRIS)
- ▨ Study Parcels

WaterUse

- DOMESTIC
- INDUSTRIAL
- INSTITUTION
- ▲ IRRIGATION
- ★ PUBLIC SUPPLY
- ◆ STOCK
- ⊕ UNDETERMINED
- ⊕ UNUSED

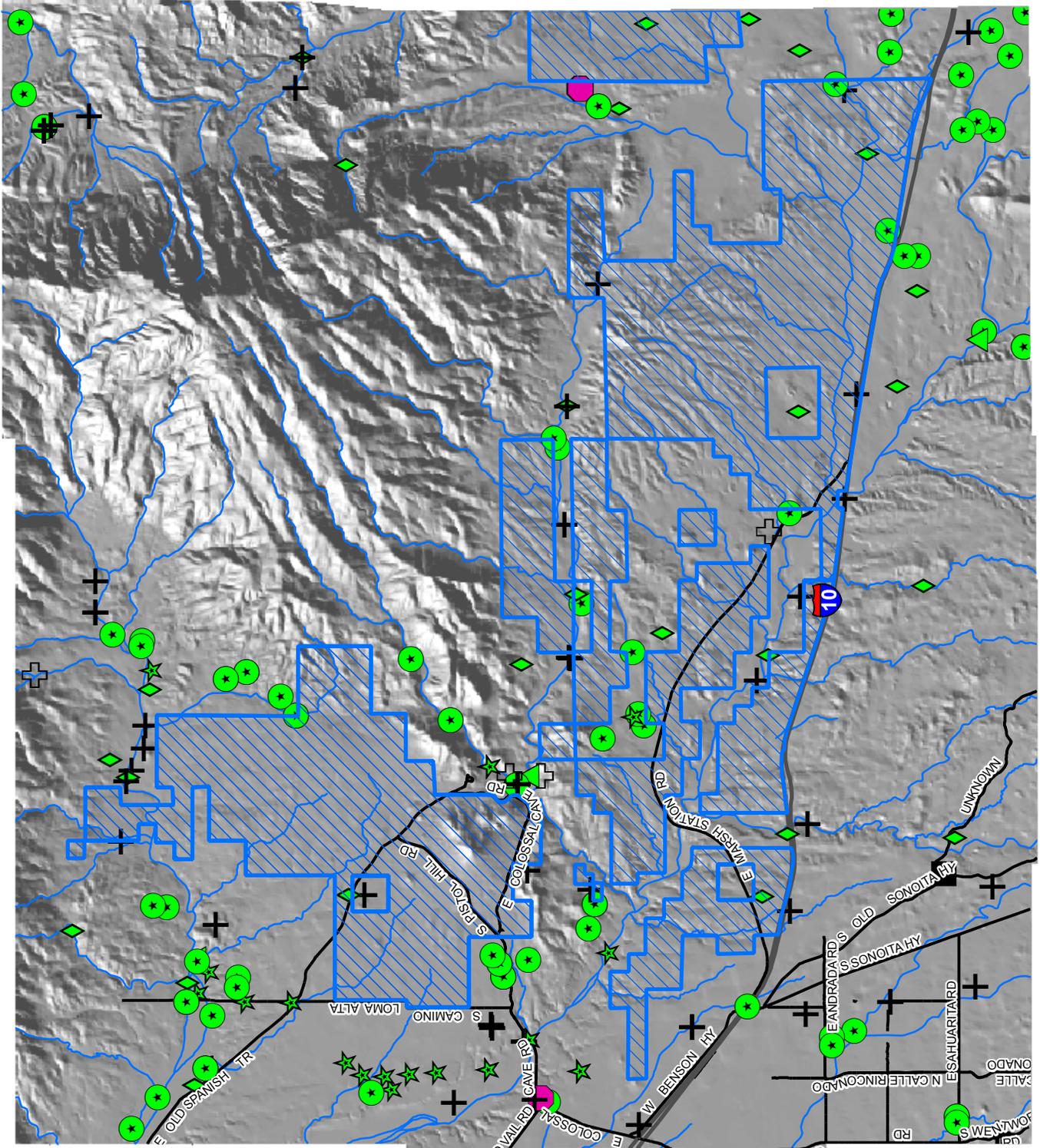


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C. VEGETATION

1. VEGETATION INVENTORY AND DESCRIPTION:

a. *Vegetation Communities and Associations:*

The **Composite Vegetation Exhibit** integrates mapping by ALRIS and Pima County. Vegetation in the Plan Area is diverse, ranging from Riparian Deciduous Woodland to Chihuahuan Desertscrub natural biome as mapped by ALRIS. The northwest Study Parcels are primarily desert grasslands with Creosotebush-Bursage Communities in the washes that run northwest to southeast into the Rincon Valley. There are also Riparian Areas southeast of East Old Spanish Trail and Camino Loma Alta.

Vegetation within the Study Parcels north of I-10 and east of East Colossal Cave Road to Cochise County range from Chihuahuan Desertscrub and Mixed Paloverde-Cacti (ALRIS) to Hydroriparian and Xeroriparian (Pima County) in Cienega Creek.

The **Composite Vegetation Exhibit** illustrates these vegetative communities. The legend includes Pima County Riparian Areas as defined in the *Watercourse and Riparian Habitat Protection and Mitigation Requirements* of 2005. Of the four major riparian categories, Xeroriparian habitats are generally associated with ephemeral water supply and contain plant species also found in upland habitats; however, these plants are typically larger and/or occur at higher densities than adjacent uplands. Xeroriparian habitats have been further subdivided based on the total vegetative volume present. The legend includes the following riparian categories:

- A Xeroriparian A, a subclass in which riparian vegetation is the densest.
- B Xeroriparian B, a subclass in which riparian vegetation is moderately dense.
- C Xeroriparian C, a subclass in which riparian vegetation is less dense.
- D Xeroriparian D, a subclass which is associated with sparse vegetation and which is not a regulated habitat and removal does not require mitigation.
- H Hydroriparian habitats which are generally associated with perennial watercourses and/or springs. Plant communities are dominated by preferential wetland plant species such as willow and cottonwood.
- IRA Important Riparian Areas occur along the major river systems and provide critical watershed and water resources management as well as a framework for landscape linkages and biological corridors.

The majority of Study Parcels are considered by Pima County's Conservation Land System to be Biological Core Management areas. These lands are primarily distinguished from other lands by the potential to support high value habitat for five or more priority vulnerable species as identified by the Sonoran Desert Conservation Plan. Rincon Creek, which bisects the northwestern Study Parcels, Agua Verde and Cienega Creeks which frame the northern and southern Study Parcels, are all Important Riparian Areas. These lands are valued for their high water availability, vegetation density, and biological productivity. The **Pima County Conservation Land System Exhibit** illustrates these vegetative communities.

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b. Federally Listed and Threatened Endangered Plant Species & significant groups of trees:

Twenty plants with Special Status Species designation by the Arizona Game and Fish Department have been identified in the Plan Area including: *Carex chihuahuensis* (a sedge), Arizona Giant Sedge, Desert Sucker, Pima Pineapple Cactus, Acuna Cactus, Needle-spined Pineapple Cactus, San Carlos Wild-buckwheat, Heathleaf Wild-buckwheat, San Pedro River Wild Buckwheat, Mock-pennyroyal, Huachuca Water Umbel, Littleleaf False Tamarind, Weeping Muhly, Lemmon Cloak Fern, Stag-horn Cholla, Broad-leaf Ground-cherry, Whisk Fern, Toumey Groundsel, Nodding Blue-eyed Grass, and Lemmon's Stevia. The term 'Special Status Species' refers to Federal and State classifications for plant and animal species that are either listed as threatened or endangered, are formally recognized candidates for a listing, or are declining to a point where they may be listed. See attached Game and Fish letter.

c. Vegetative Values (scenic, screening, buffering, soil stabilization):

The Plan Area encompasses several significant riparian areas along Pantano Wash, Rincon Creek, Posta Quemada Canyon, Davidson Canyon, Agua Verde Creek, Cienega Creek and their respective tributaries. In addition to biological diversity and the presence of several Special Status Species in the uplands, the Arizona Game and Fish Department and the Wildlife Linkages Workgroup have identified this area as a Critical Landscape Linkage between the Rincon and Whetstone Mountains. The agency notes multiple conservation efforts underway in the Cienega Creek watershed.

2. VEGETATIVE DENSITIES:

Vegetation densities refer to canopy coverage of trees and larger shrubs. Trees and large shrubs have more habitat, screening/buffering and scenic value than smaller shrubs and ground cover. Calculations were measured from aerial photographs and verified during on-site inspection. Smaller shrubs and ground covers were not included in the calculations.

The site was evaluated using these three categories of vegetative density based on the percentage of canopy cover.

• Low	0% - 35%
• Medium	36% - 65%
• High	66% - 100%

The canopy coverage for the majority of the Study Parcels is low density. Areas of high density vegetation are located along the creeks and their associated tributaries including: Cienega, Agua Verde, and Rincon Creeks; Pantano Wash; and Posta Quemada and Davidson Canyons.

See Composite Vegetation Exhibit.

Rincon Valley/Posta Quemada Conceptual Planning Program

D. WILDLIFE

1. ARIZONA GAME AND FISH DEPARTMENT RESPONSE:

A letter from the Arizona Game and Fish Department (AGFD) is included in this document. An attachment to their letter lists forty-four special status species, twenty-three of which are wildlife occurring within the vicinity of the Plan Area. See attached letter from AGFD.

a. *State-Listed Threatened or Endangered Species:*

Twenty-three special status species have been identified within the study area by the Arizona Game and Fish Department. These include the Gila Longfin Dace, Giant Spotted Whiptail, Northern Gray Hawk, Common Black Hawk, Mexican Long-tongued Bat, Western Yellow-billed Cuckoo, Pale Townsend's Big-eared Bat, Greater Western Bonneted Bat, American Peregrine Falcon, Gila Chub, Cactus Ferruginous Pygmy owl, Sonoran Desert Tortoise, Western Red Bat, Lesser Long-nosed Bat, California Leaf-nosed Bat, Cave Myotis, Pocketed Free-tailed Bat, Texas Horned Lizard, Gila Topminnow, Lowland Leopard Frog, Yellow-nosed Cotton Rat, Mexican Spotted Owl, and Northern Mexican Garter Snake.

b. *Density/Diversity of Species:*

According to the Arizona Game and Fish Department, the Plan Area encompasses several important biologically rich riparian areas with sightings of federally listed species including the Chiricahua Leopard Frog, Gila Topminnow and Gila Chub among others. The uplands support a wide variety of sensitive species including the Texas Horned Lizard, Western Burrowing Owl, and Mexican Garter Snake. In addition to providing necessary habitat for a multitude of species, there are major wildlife linkages between the Rincon and Whetstone Mountains.

c. *Aquatic or Riparian Ecosystems*

Riparian Areas are mapped according to Pima County Riparian Habitat - PC Ord 2005-FC2, effective 10/20/2005. Cienega Creek and other reaches of the watershed have been recognized by the Pima County Land Conservation System (PCLCS) as "Important Riparian Areas" and are listed as Biological Core Management Areas. See **Vegetation Exhibit**.

d. *Significant Habitats or Areas of Concern*

All of the riparian areas including Pantano Wash, Rincon Creek, Posta Quemada Canyon, Davidson Canyon, Agua Verde Creek, and particularly Cienega Creek are listed as Important Riparian Areas. The majority of the Plan Area surrounding the riparian ecosystems is Biological Core Management Areas, a classification made by the Pima County Land Conservation System (PCLCS) of lands with habitats for five or more Priority Vulnerable Species. One exception is the area in the vicinity of East Old Spanish Trail, South Pistol Hill Road, and Camino Loma Alta, which is classified as Multiple Use Management Area by the same system. This category identifies those lands that fulfill the five tenets used to construct the LCS, but which are not as biologically rich as those lands designated as Biological Core Management Areas. These areas are primarily distinguished from other lands within the LCS by their potential to support high value habitat for three or more priority vulnerable species as identified by the Sonoran Desert Conservation Plan (SDCP).

The AGFD notes in their correspondence that habitat fragmentation and loss of wildlife corridors are increasing problems. A statewide effort to identify and protect important wildlife movement

Rincon Valley/Posta Quemada Conceptual Planning Program

corridors is underway by the Arizona Wildlife Linkages Workgroup and other organizations. The Department supports preservation and restoration of wildlife corridors to ensure that wildlife can move across the landscape.

Arizona's Heritage Data Management System (HDMS), which is managed by the Arizona Game and Fish Department, has provided geographic information concerning the distribution and occurrence of species and habitats in need of special attention for this study area. The HDMS identifies elements of concern in Arizona and consolidates information about their distribution and status throughout the state. An element of concern can be, but is not limited to, an animal or plant with special status at the federal, tribal, or state level, or a specific habitat necessary for its survival. The HDMS information is made available for prudent weighing of future development, economic growth, and environmental integrity.

Information on threatened and endangered species, proposed critical habitat, and the distribution and occurrence of species and habitats has been mapped using data provided by HDMS and the Arizona State Land Department. The information is weighted in the suitability analysis section of this document. To protect the natural heritage of the area, the agencies have requested that the mapping not be made public; therefore no wildlife map is provided in this document.

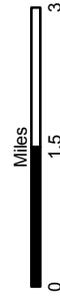
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Composite Vegetation

- Interstate
 - Major Roads
 - Major Washes (ALRIS)
 - ▨ Study Parcels
- ALRIS G&F Vegetation**
- CHIHUAHUA DESERT SCRUB
 - CREOSOTE BUSH - BURSAE COMM.
 - DESERT (SCRUB) GRASSLAND
 - INTERIOR CHAPPARAL
 - MADREAN EVERGREEN WOODLAND
 - MIXED PALOVERDE - CACTI COMM.
 - PINE COMMUNITIES
 - RIPARIAN DECIDUOUS WOODLAND
- Pima County Riparian Areas (2005)**
- A
 - B
 - C
 - D
 - H
 - IRA

Vegetation Density (CBD)

- High
- Med



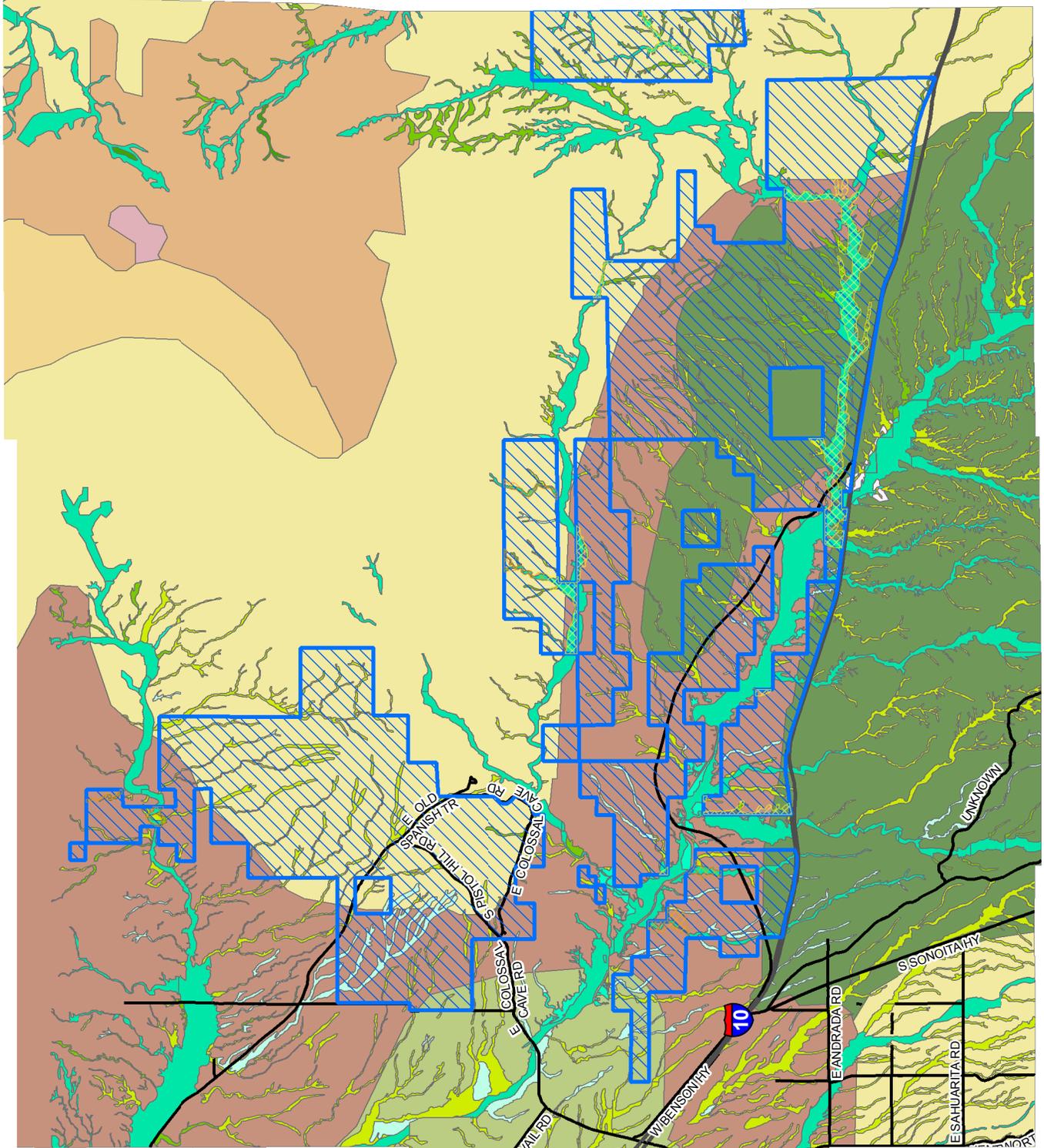
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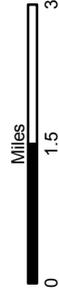
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Pima County
Conservation Land System

-  Interstate
-  Major Roads
-  Study Parcels

Pima County Conservation Land System

-  RIPARIAN
-  BIO_CORE
-  MULT_USE
-  OUTSIDE

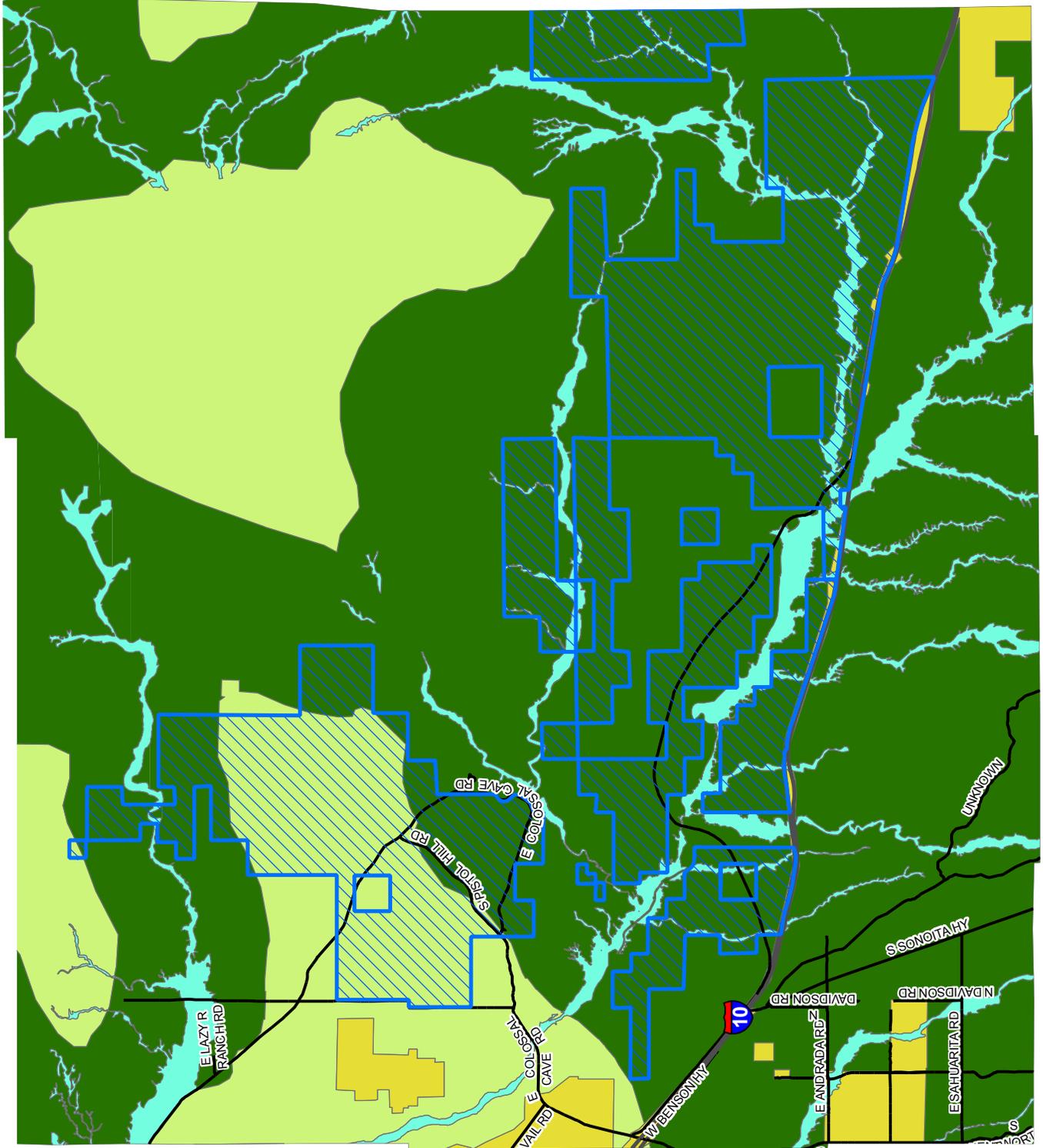


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THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

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Tucson Office, 555 N. Greasewood Rd., Tucson, AZ 85745

December 13, 2006

Ms. Paige Winslett
 CommunityByDesign
 240 N. Court Ave.
 Tucson, AZ 85701

Re: Request for Species and Habitat Information Located Within the "Rincon Valley/Posta Quemada" Study Area.

Dear Ms. Winslett:

The Arizona Game and Fish Department (Department) has reviewed your request for information pertaining to special status species, areas with diverse populations, and aquatic or riparian ecosystems within your project area. The Department understands that this request fulfills a contract requirement from the Arizona State Land Department for a Conceptual Land Use Plan. Attached is the result of a Heritage Data Management System query which lists sensitive species found in the project area.

The area in question is nearly 40,000 acres in size. Due to the size and scope of the project, the Department cannot provide comprehensive information regarding wildlife populations or unique habitats beyond what is available in our Heritage Data Management System without devoting an extensive amount of time researching the literature pertaining to the area. Therefore, given our small staff and limited amount of time, please consider the following a synopsis of only the most obvious habitat values within the area. However, we intend to contact the State Land Department to offer further assistance in future planning of this area as it contains an exceptionally rich and diverse biota and is extremely important to our constituents. This area is of high interest to residents of the Tucson metropolitan area due to its close proximity to the city.

The planning area encompasses several important riparian areas including Pantano Wash, Rincon Creek, Posta Quemada Canyon, Davidson Canyon, Agua Verde Creek, Cienega Creek, and various tributaries of these. These riparian areas have historically provided habitat and water for game species, and several of them, particularly Cienega Creek, provide crucial habitat for a number of nongame and special status species including native fish, amphibians, birds, and mammals. The Chiricahua leopard frog, Gila topminnow, Gila chub, and Huachuca water umbel occupy Cienega Creek and other reaches of the watershed in several locations; these species are federally listed. Pima County has recognized the riparian areas here as "Important Riparian Areas" as defined in the Pima County Comprehensive plan. Under the plan these riparian areas fall under specific land-use regulations and are generally set aside for conservation purposes.

The uplands within the planning area are not as biologically rich as the riparian areas, but are nonetheless important to a number of species, including several special status species. The federally endangered lesser long-nosed bat, has been recorded in the area, as has the Texas horned lizard, Western burrowing owl, Mexican garter snake, and numerous other sensitive species.



AN EQUAL OPPORTUNITY REASONABLE ACCOMMODATIONS AGENCY

13 December 2006

2

In addition to providing necessary habitat for a multitude of game, nongame, and special status species, this area has been identified by our Department and the Wildlife Linkages Workgroup as a major linkage between the sky island habitats of the Rincon and Whetstone mountains. Pima County has recognized it as a Critical Landscape Linkage in the Sonoran Desert Conservation Plan. The need to maintain connectivity between these two large blocks of habitat provides much of the impetus behind current efforts by Pima County and conservation organizations to acquire and preserve land here. There is significant public interest in the area and several organizations actively advocate wildlife habitat conservation and protection in the area. Although the Department is not working with any municipality or other entity to actively inventory or model wildlife habitat or populations in this area beyond our routine management activities, several organizations conduct various monitoring and volunteer projects in the area. Organizations focusing on the area include the Sonoran Institute, Sky Island Alliance, Rincon Institute, Cienega Corridor Conservation Council, and, peripherally, the Sonoita Valley Planning Partnership.

There are multiple conservation efforts underway in the Cienega Creek watershed including a current proposal by BLM to re-establish the federally listed Gila topminnow in the Nogales Spring and Little Nogales Spring. Nogales Spring issues on BLM land and travels 0.55 miles until reaching land administered by the Arizona State Land Department. The water flows on the surface for approximately another 3.5 miles near Wakefield spring, which is approximately 2 miles from the State Land study area and the confluence of Cienega Creek. Numerous other projects are planned or underway for the Cienega Creek watershed in cooperation between BLM and the Department.

An important public access route is encompassed by this study area which is the Empirita exit off of I-10. This route accesses the northeast corner of the Whetstone mountains which already have extremely limited access routes. Other access routes that could be impacted are south off I-10 toward the narrows on Cienega creek via the Pantano substation. There is not only mule deer and javelina habitat within the study area, but these routes access more remote whitetail deer habitat for hunters on the east side of the Empire mountains.

Pima County, via the Conservation Lands System, has designated the majority of the land in this area as Biological Core. Biological Core lands contain habitat for 5 or more Priority Vulnerable Species (as defined in the Sonoran Desert Conservation Plan). Any Development in Biological Core must preserve 80% Natural Undisturbed Open Space (NUOS). The remainder of the land in this area is designated Multiple Use Management Area. These lands are not as biologically rich as Biological Core areas, but contain habitat for 3-4 priority vulnerable species. Development in Multiple Use Management Areas must preserve 66.7 NUOS.

Due to the high value wildlife habitat and linkage values, Pima County has identified several large blocks of property in this area for acquisition for conservation purposes including natural preserve and park expansion.

The Department appreciates the opportunity to provide preliminary comments relative to the proposed planning area, and is interested in reviewing additional planning or environmental documentation when it becomes available. We would also like to work directly with the State Land Department in planning for the area to confront potential land-use conflicts cooperatively at the early stages in the planning process. Addressing issues at an early phase streamlines the planning process so that both agencies spend the least amount of effort for the greatest benefit.

Attached is the result of the Heritage Data Management System Inquiry for the study area. Note a full 52 returns for special status species in this area. If you have any questions regarding this letter, please contact me at 520-388-4442.

Sincerely,



John Windes
Wildlife Habitat Specialist II

Special Status Species within the Rincon Valley ASLD Plan Area

13 December 2006

NAME	COMMON NAME	ESA	USFS	BLM	STATE
<i>Agosia chrysoaster chrysoaster</i>	Gila Longfin Dace	SC		S	
<i>Aspidoscelis burti stictogrammus</i>	Giant Spotted Whiptail	SC	S	S	
Bat Colony					
<i>Buteo nitidus maxima</i>	Northern Gray Hawk	SC	S		WSC
<i>Buteogallus anthracinus</i>	Common Black-Hawk		S		WSC
<i>Carex chihuahuensis</i>	A Sedge		S		
<i>Carex ultra</i>	Arizona Giant Sedge		S	S	
<i>Catostomus clarki</i>	Desert Sucker	SC		S	
<i>Choeronycteris mexicana</i>	Mexican Long-tongued Bat	SC			WSC
<i>Coccyzus americanus occidentalis</i>	Western Yellow-billed Cuckoo	C	S		WSC
<i>Corynorhinus townsendii pallescens</i>	Pale Townsend's Big-eared Bat	SC			
<i>Coryphantha scheeri</i> var. <i>robustispina</i>	Pima Pineapple Cactus	LE			HS
<i>Echinomastus erectocentrus</i> var. <i>acunensis</i>	Acuna Cactus	C			HS
<i>Echinomastus erectocentrus</i> var. <i>erectocentrus</i>	Needle-spined Pineapple Cactus	SC	S		SR
<i>Eriogonum capillare</i>	San Carlos Wild-buckwheat	SC			SR
<i>Eriogonum ericifolium</i> var. <i>ericifolium</i>	Heathleaf Wild-buckwheat		S		
<i>Eriogonum terrenatum</i>	San Pedro River Wild Buckwheat			S	
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat	SC			
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	SC	S		WSC
<i>Gila intermedia</i>	Gila Chub	LE	S		WSC
<i>Glaucidium brasilianum cactorum</i>	Cactus Ferruginous Pygmy-owl	SC			WSC
<i>Gopherus agassizii</i> (Sonoran Population)	Sonoran Desert Tortoise	SC			WSC
<i>Hedeoma dentatum</i>	Mock-pennyroyal		S		
<i>Lasiurus blossevillii</i>	Western Red Bat				WSC
<i>Leptonycteris curasoae yerbabuena</i>	Lesser Long-nosed Bat	LE	S		WSC
<i>Lilaeopsis schaffneriana</i> var. <i>recurva</i>	Huachuca Water Umbel	LE			HS
<i>Lysiloma watsonii</i>	Littleleaf False Tamarind				SR
<i>Macrotus californicus</i>	California Leaf-nosed Bat	SC			WSC
<i>Muhlenbergia xerophila</i>	Weeping Muhly		S		
<i>Myotis velifer</i>	Cave Myotis	SC		S	
<i>Notholaena lemmonii</i>	Lemmon Cloak Fern	SC			
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat			S	
<i>Opuntia versicolor</i>	Stag-horn Cholla				SR
<i>Phrynosoma cornutum</i>	Texas Horned Lizard	SC		S	
<i>Physalis latiphysa</i>	Broad-leaf Ground-cherry		S		
<i>Poeciliopsis occidentalis occidentalis</i>	Gila Topminnow	LE			WSC
<i>Psilotum nudum</i>	Whisk Fern				HS
<i>Rana yavapaiensis</i>	Lowland Leopard Frog	SC	S		WSC
<i>Senecio neomexicanus</i> var. <i>toumeyi</i>	Toumey Groundsel		S		
<i>Sigmodon ochrognathus</i>	Yellow-nosed Cotton Rat	SC			
<i>Sisyrinchium cernuum</i>	Nodding Blue-eyed Grass		S		
<i>Stevia lemmonii</i>	Lemmon's Stevia		S		
<i>Strix occidentalis lucida</i>	Mexican Spotted Owl	LT	S		WSC
<i>Thamnophis eques megalops</i>	Northern Mexican Gartersnake	SC	S		WSC

Critical Habitats for the Gila chub and Mexican spotted owl within planning area.

Arizona Game and Fish Department, Heritage Data Management System,

Rincon Valley/Posta Quemada Conceptual Planning Program

E. SOILS

1. SOILS TESTING:

No known soils testing have occurred within the Plan Area. Study Parcels in the northwest portion of the Plan Area are hard rock areas, not highly erodible. Central and eastern Study Parcels are on highly erodible land with the exception of the southeastern-most area, which are hard rock and range from potentially to not highly erodible land.

2. SEPTIC SUITABILITY:

Alluvial soils are found throughout the Study Parcels. Most of them have somewhat limited septic tank absorption capacity according to the National Resources Conservation Service (NRCS) Soils Data Mart. The **Soils Exhibit** illustrates the suitability of the area for septic absorption. Limitations to septic tank absorption capacity are due to flooding, restricted permeability, or filtering capacity.

3. MINERAL SUITABILITY:

The majority of the Plan Area and Study Parcels are “low” on mineral suitability according to ALRIS. Areas of “moderate” suitability are present in the southwestern and central portions of the Plan Area affecting a small portion of the Study Parcels north and east of E. Colossal Cave Road and north of I-10, west of the Cienega Creek Preserve. See the **Mineral Suitability Exhibit**.

F. CULTURAL/ARCHAEOLOGICAL/HISTORIC RESOURCES

ARCHAEOLOGICAL AND HISTORIC SITES

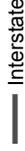
Evidence of Archaic and Hohokam habitation has been identified along Cienega Creek and its surroundings. More recently, the Cienega Creek corridor was used as a major transportation linkage between the Santa Cruz River Valley to the west and the San Pedro River Valley to the east. In the mid-1800s the corridor was used by the Mormon Battalion and the Butterfield stage line. Later, the Pony Express followed portions of the Butterfield line. In the late 1800s the Santa Fe Railroad was laid along the corridor.

ALRIS indicates that of the lands that have been surveyed and resources found, 30% are within the Study Parcels in the far northwest, between Pistol Hill Road and East Colossal Cave Road, in the north central portion, and in the parcels north and south of the Cienega Creek Natural Preserve and continuing east just north of Interstate 10. To comply with the Arizona State Historic Preservation Office, mitigation will be required prior to any development on these lands.

Interagency agreements with Arizona State Land Department preclude the release of information on State Land properties by the State Museum and the State Historic Preservation Office. Archaeological information in digital form has been provided for analysis purposes by the State Land Department from their internal database. Specific mapping of sites is not included in this document, but the presence of cultural resources is weighed in the analysis of the Plan Area.

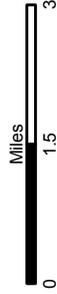
Rincon Valley/ Posta Quemada Conceptual Plan

Soils

-  Interstate
-  Major Roads
-  Study Parcels

ALRIS Soils Erodibility

-  Highly erodible land
-  Potentially highly erodible land
-  Not highly erodible land
-  Hard Rock (ALRIS)

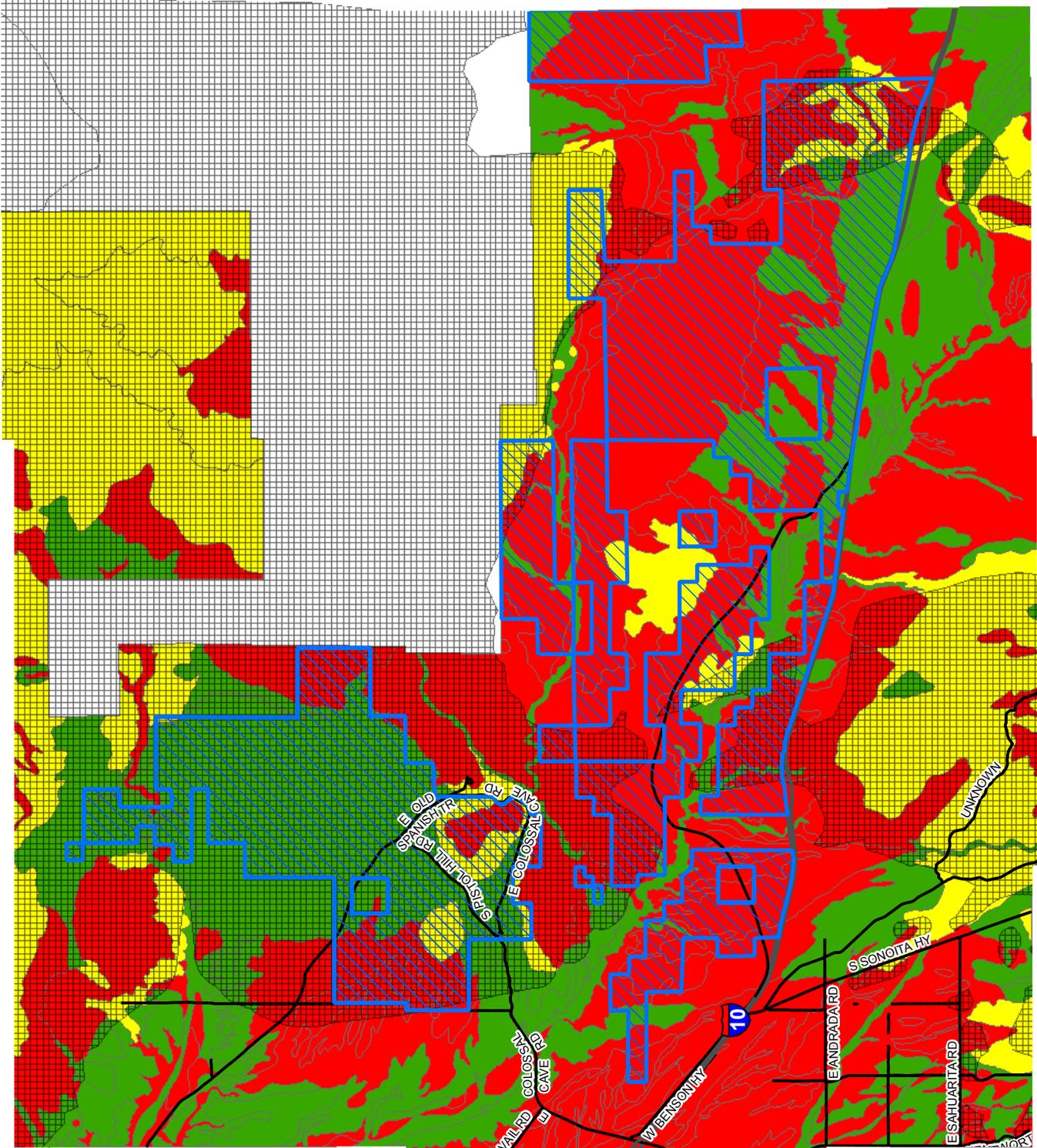


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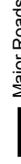
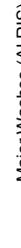
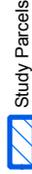
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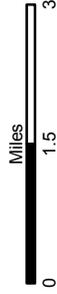
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Rincon Valley/ Posta Quemada Conceptual Plan

Mineral Suitability

-  Interstate
 -  Major Roads
 -  Major Washes (ALRIS)
 -  Study Parcels
 -  Jurisdictional Limits
- Mineral Suitability**
-  LOW
 -  MODERATE

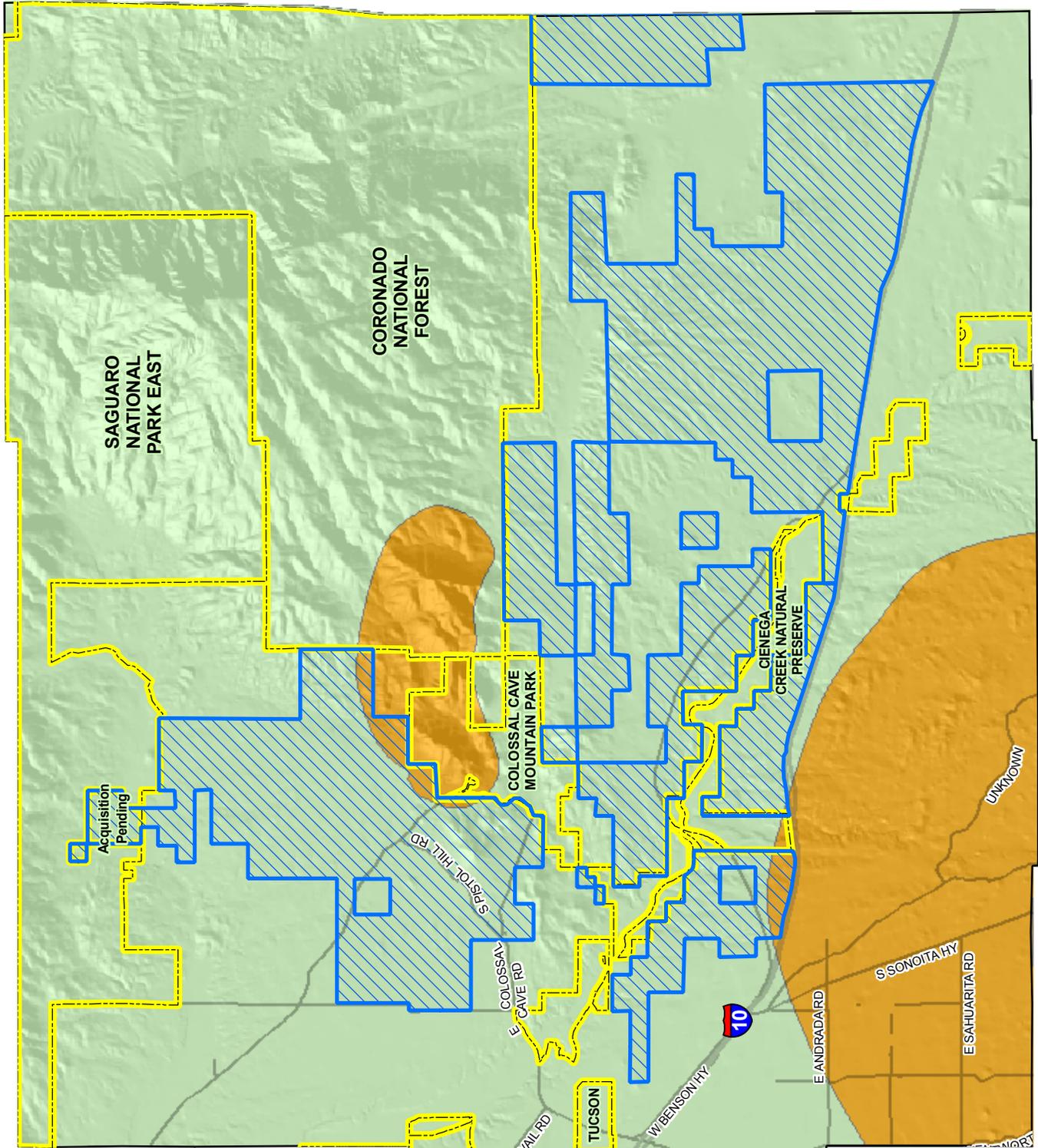


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Rincon Valley/Posta Quemada Conceptual Planning Program

G. EXISTING LAND USES

1. SITE LOCATION IN REGIONAL CONTEXT:

The Rincon Valley/Posta Quemada Plan Area property is located in southeastern Pima County. The area is within the unincorporated limits of Pima County. East Sahuarita Road south of Interstate 10 defines the southern boundary of the Plan Area with the Saguaro National Park and Coronado National Forest as the northern and northeastern boundaries respectively. The Cochise County line defines the eastern boundary and South Wentworth Road the western boundary. The Tucson Urban Buffer affects the western portion of the Plan Area and Study Parcels.

2. SITE DESCRIPTION:

a. Zoning:

The vast majority of the Study Parcels are zoned Rural Homestead (RH), which allow a maximum density of .3 residences per acre. There are a few smaller parcels in the central region of the Plan Area around the Cienega Creek Natural Preserve that are zoned IR (Institutional Reserve) which permit a maximum gross density of 36 acres per residence.

In the southeastern portion of the Plan Area there are three categories of zones present: Suburban Ranch (SR), Suburban Homestead (SH), and Rural Residential (GR-1). The western and northwestern Plan Area encompasses several zoning categories including: Suburban Ranch Estate (SR-2), Institutional Reserve (IR), Single Residence (CR-1 and CR-2), Specific Plan (SP), Rural Residential (GR-1), and Rural Homestead (RH). There are Local and General Business zones (CB-1 and GB-1 respectively) at the intersections of several arterials in the western portion of the Plan Area. In addition, close to I-10 there are Light Industrial/Warehousing (CI-1) and County Manufactured and Mobile Home zones (CMH-1 and CMH-2).

Zoning surrounding the Study Parcels and within the Plan Area is listed below:

- ▶ North: RH, Specific Plan, CR-1, IR
- ▶ West: Specific Plan, CR-1, CR-2, GR-1, CB-1, CB-2, RH, CMH-1, CI-1
- ▶ South: RH, SH, SR, GR-1, CB-1, CB-2, SR-1
- ▶ East: RH, SH, SR, GR-1

See **County Zoning Exhibit**.

b. Existing Land Uses:

1) Existing Land Uses On-site:

The Study Parcels are predominantly undeveloped desert land surrounded by agricultural and park uses. Proximity to the National Forest and National Park has ensured a low intensity of use with the exception of parcels in the western portion of the Plan Area where development ranges from rural to urban in nature.

The Rincon Mountains separate the northwestern Study Parcels from the others. Cienega Creek flows between Study Parcels in the southwestern to south central portion of the Plan Area. These parcels are vacant and considered to be Important Riparian Areas as defined by the Pima County Conservation Land System.

Rincon Valley/Posta Quemada Conceptual Planning Program

2) Surrounding Land Use:

The Study Parcels are predominantly surrounded on the north and northeast by open range and public preserves including: Saguaro National Park East, Coronado National Forest, and the Rincon Mountains. Colossal Cave and Cienega Creek Natural Preserve are west and south respectively. Open range adjoins the Study Parcels on the east. Higher intensity uses adjoin the western Study Parcels, some of which are within the Tucson urban buffer. Among these are several Special Policy (SP) and Rezoning Policy (RP) locations. For example, the Rezoning Policies for RP-49, which is East of S. Camino Loma Alta/Old Spanish Trail, are intended to represent property owner's commitment to protecting on-site biological resources. Land uses in the western portion of the Plan Area range from Resource Transition (RT) to residential uses of increasing density to Community Activity Centers (CAC).

See **Existing Land Uses Exhibit**.

c. Planned Land Uses

Land uses for the vast majority of the Study Parcels are Resource Transition (RT) and Low Intensity Rural (LIR) where the maximum density is 0.3 residences per acre (RAC) for both. A portion of the northwestern-most Study Parcels are within the Public Preserve and subject to pending acquisition. A portion of the Study Parcels east of Camino Loma Alta and south of Old Spanish Trail are Low Intensity Urban .3 and .5 (LIU-0.3 and 0.5 respectively). Maximum densities for LIU-0.5 are 0.5 RAC or 1.2 RAC with 30% Cluster Open Space Plus 20% Natural Open Space or 2.5 RAC with 30% Cluster Open Space Plus 35% Natural Open Space. Maximum densities for LIU-0.3 are 0.3 RAC or 0.7 RAC with 30% Cluster Open Space Plus 20% Natural Open Space, or 1.2 RAC with 30% Cluster Open Space Plus 40% Natural Open Space.

Definitions of Land Use Intensities affecting the Study Parcels include:

URBAN INTENSITY CATEGORIES

Community Activity Center (CAC): Areas designated for medium intensity mixed-use to provide goods and services needed generally on a weekly basis along with compatible medium to high density housing types. The center may include a major supermarket, along with other anchor tenants such as a discount department store, large variety store, or specialty stores such as a hardware/building/home improvement store. The center includes complementary uses such as high density housing, offices, and government services. Public transit provides direct access to these centers as well as connections to regional activity centers. The center has direct access to a major arterial roadway, with pedestrian and bicycle paths providing access from surrounding neighborhoods. Community Activity Centers are generally less than 40 acres in size with a maximum of 24 RAC.

Medium High Intensity Urban (MHIU): Areas designated for a mix of medium to high density housing types and other compatible uses. The maximum density is 24 RAC.

Medium Intensity Urban (MIU): Areas designated for a mix of medium density housing types and other compatible uses. The maximum density is 10 RAC.

Rincon Valley/Posta Quemada Conceptual Planning Program

Low Intensity Urban 0.3, 0.5, and 1.2 (LIU-0.3, LIU-0.5, and LIU 1.2): Areas designated for low density residential and other compatible uses with incentives for clustering residential development and providing natural open space; and to provide opportunities for a mix of housing types throughout the region.

- Maximum density for LIU 0.3 RAC may be increased in accordance with cluster options (0.7 RAC with 30 percent cluster open space plus 20 percent natural open space or 1.2 RAC with 30 percent cluster open space plus 40 percent natural open space).
- Maximum density for LIU 0.5 RAC may be increased in accordance with cluster options (1.2 RAC with 30 percent cluster open space and 20 percent open space or 2.5 RAC with 30 percent cluster open space plus 35 percent natural open space).
- Maximum density for LIU 1.2 RAC may be increased in accordance with cluster options (2.5 RAC with 30 percent cluster open space plus 15 percent natural open space or 4.0 RAC with 30 percent cluster open space plus 30 percent natural open space).

RURAL INTENSITY CATEGORIES

Medium Intensity Rural (MIR): Areas designated for residential uses at densities consistent with rural settlements in close proximity to Rural Activity Centers. The residential gross density applies only to land zoned and planned for residential use, or natural or cluster open space areas. The maximum RAC is 1.3.

Low Intensity Rural (LIR): Areas designated for residential uses at densities consistent with rural and resource-based characteristics. The maximum RAC is 0.3.

URBAN AND RURAL INTENSITY CATEGORIES

Urban Industrial (I): Areas designated for industrial uses that, if properly located and regulated, are compatible with certain types of commercial activities, but generally incompatible with residential uses.

Resource Transition (RT): Private land with environmentally sensitive characteristics that include wildlife corridors, natural washes, floodplains, peaks and ridges, buffers to public preserves, and other environmentally sensitive areas. Development of such land shall emphasize design that blends with the natural landscape and supports environmentally sensitive linkages in developing areas.

Resource Conservation/Public Preserves (RC): Public land that protects existing public open space land necessary to achieve objectives regarding environmental quality, public safety, open space, recreation and cultural heritage and to promote an interconnected regional open space network, including parks, trails, desert belts and other open space areas. The term 'Public Preserves' is now used.

Land Use Designations for the Study Parcels are listed below:

- ▶ North: Public Preserves and Resource Transition (RT)

Rincon Valley/Posta Quemada Conceptual Planning Program

- ▶ West: Low Intensity Urban .3 (LIU-0.3), Low Intensity Urban .5 (LIU-0.5), and Medium Intensity Rural (MIR)
- ▶ South: Medium Intensity Rural (MIR), Low Intensity Rural (LIR), Resource Transition (RT), and Public Preserve
- ▶ East: Resource Transition (RT) and Low Intensity Rural (LIR)

Land uses surrounding the Study Parcels within the Plan Area vary from Resource Transition (RT), Low Intensity Rural (LIR), and Public Preserve to more intense and urban activities in the northwest. Pima County has both large and small Special Policy Areas east and west of Camino Loma Alta north of Colossal Cave Road. Land uses east of Camino Loma Alta range in intensity from Resource Transition (RT) to Community Activity Center (CAC) with residential uses from Low to Medium High Intensity Urban (LIU-.05 to MHIU) where maximum densities are from 0.5 R/AC to 24 R/AC respectively. One of the two Urban Industrial areas southeast of the intersection of Colossal Cave Road and Old Vail Road adjoins the southwestern Study Parcels.

Land Use Designations within the Plan Area and surrounding the Study Parcels are listed below:

- ▶ North: Public Preserves, Resource Transition (RT), and Low Intensity Rural (LIR)
- ▶ West: Low Intensity Urban .3 (LIU-0.3), Low Intensity Urban .5 (LIU-0.5), Low Intensity Urban 1.2 (LIU-1.2), Medium Intensity Rural (MIR), Low Intensity Rural (LIR), Medium Intensity Urban (MIU), Medium High Intensity Urban (MHIU), Community Activity Center (CAC), Urban Industrial (I), and Resource Transition (RT)
- ▶ South: Medium Intensity Rural (MIR), Low Intensity Rural (LIR), Resource Transition (RT), and Public Preserve
- ▶ East: Resource Transition (RT), Low Intensity Rural (LIR), and Medium Intensity Rural (MIR)

The **Pima County Future Land Use Plan Exhibit** shows the designated land uses.

As discussed in Section C: Vegetation above, the vast majority of the Study Parcels are Biological Core Management areas according to Pima County's Conservation Lands System (CLS). The CLS is part of the Environmental Element in Pima County's Comprehensive Plan 2001 Plan Update that was updated in June 2005. According to the Comprehensive Plan, "at least 95 percent of the total acreage in this designation shall be conserved in a natural or undisturbed condition." The **Pima County Conservation Land System Exhibit** illustrates these vegetative communities.

d. *Pending Rezoning, Subdivisions & Development Plans:*

Several developments are planned in the northwest Plan Area. Study Parcels south of the intersection of Camino Loma Alta and East Old Spanish Trail are impacted by Pima County's Special Area Policies from the Rincon Valley Area Plan, which is a Subregional Plan within the Comprehensive Plan. General objectives for this area are: "maintain dark night skies; protect steep slopes from degradation; identify and protect natural landmarks; and encourage the restoration of Rincon Creek areas."

Rincon Valley/Posta Quemada Conceptual Planning Program

There are several proposed developments within the Plan Area that adjoin but are not within the Study Parcels. These are subject to the County's Special Policies and include expansion of the Neighborhood Activity Center located at the southeast corner of Old Spanish Trail and Camino Garanon. Northeasterly from Old Spanish Trail and directly south of the Saguaro National Park is a 780-acre area designated for master planning within the Rocking K Specific Plan. Policies to limit building height, require a cultural resources survey, and restrict new zoning affect the vacant lands on both sides of Vail Road, just west of Colossal Cave Road. Land on the northeast corner of the T-intersection of E. Old Spanish Trail and S. Coyote Creek Ranch Road, adjoin Study Parcels and are within the Resource Transitional zone which limits development.

Recorded Subdivisions zoned Local Business Zone (CB-1) and General Business Zone (CB-2); Single Family Residence (CR-1, 2, and 3); Suburban Ranch Estate (SR-2); Suburban Ranch (SR); Rural Residential (GR-1), Light Industrial (CI-1), and Suburban Homestead (SH) adjoin the western Study Parcels.

The Special Policy to protect on-site biological resources affects the Study Parcels east of S. Camino Loma Alta and south of E. Old Spanish Trail, west of Coyote Creek.

There are several sites within eastern Pima County designated as Floodplain Management Special Areas by the Pima County Flood Control District including Cienega Creek in the center of the Plan Area where the Study Parcels are both north and south of the creek. The Special Area Policy determines that the "Cienega Creek's regulatory floodplain and/or erosion hazard area, whichever is greater, shall be dedicated in fee simple to the Pima County Flood Control District upon approval of any tentative plat or development plan."

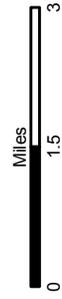
See **Rezoning, Subdivisions & Development Plans Exhibit**.

About one quarter of the Study Parcels in the central and western Plan Area were subject to Pima County's Vail - Posta Quemada Area Master Plan (Zoning Plan), Co13-59-2, until 2004 when the plan was repealed. This plan allowed for high intensity commercial and industrial development. See **Vail-Posta Quemada Exhibit**.

Rincon Valley/ Posta Quemada Conceptual Plan

Existing Land Use

- Interstate
 - Major Roads
 - Major Washes (ALRIS)
 - ▨ Study Parcels
 - ▭ Jurisdictional Limits
- Assessor Land Use**
- Park (prk)
 - Golf Course (gco)
 - Agriculture (agr)
 - Institutional (ins)
 - Single Family Residential (sfr)
 - Multi-Family Residential (mfr)
 - Mobile Home (mtho)
 - Townhouse-Condo (tho)
 - Office (off)
 - Commercial (com)
 - Misc. Government (mig)
 - Industrial (ind)
 - Utilities/Telecomm (utc)
 - Vacant (vac) /Other (oth)
 - Unclassified (unc)

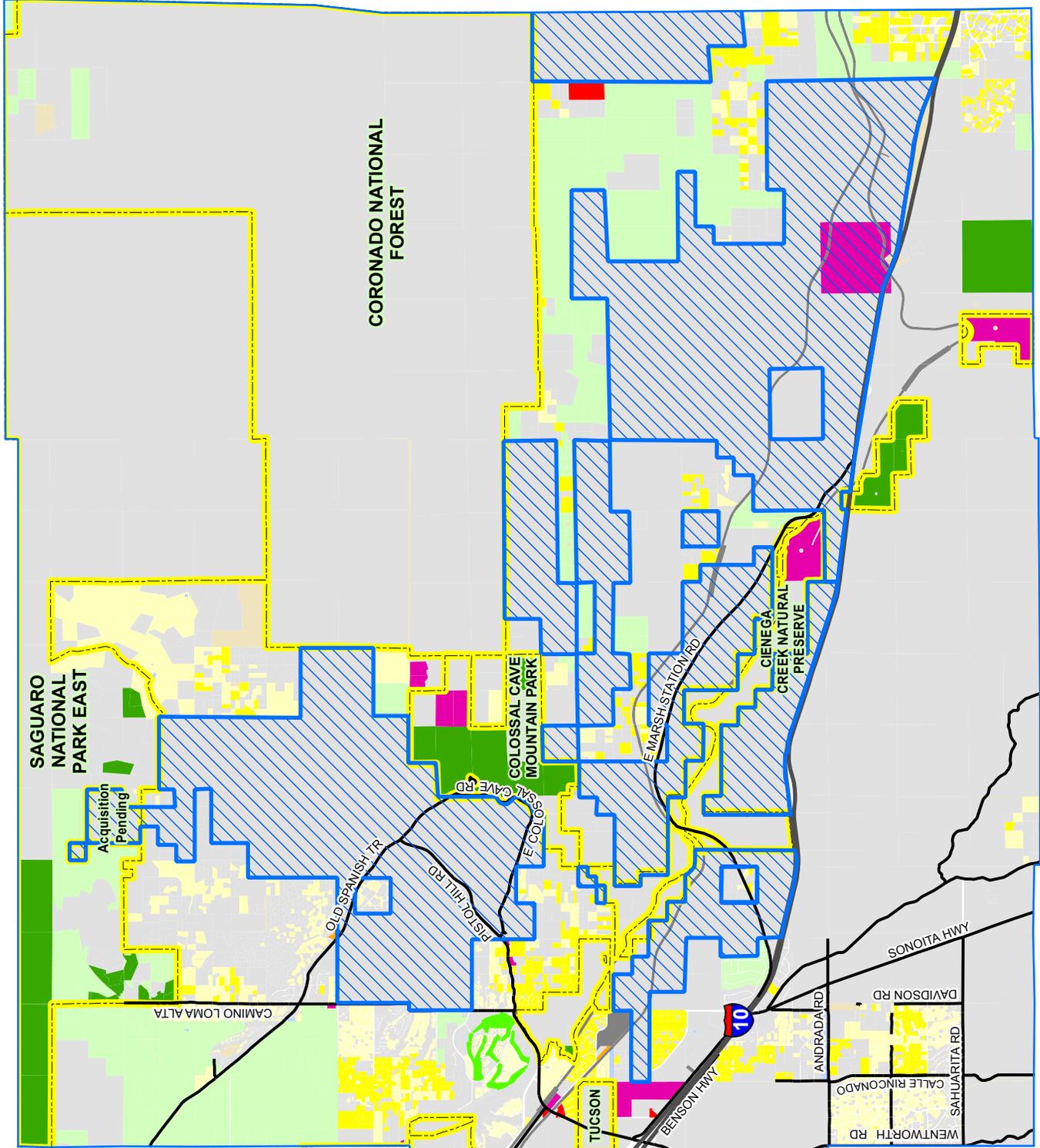


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Rincon Valley/ Posta Quemada Conceptual Plan

Pima County Comprehensive Plan
Future Land Use

Legend

Major Roads (Pima County)

- Interstate
- Major

Jurisdictional Limits

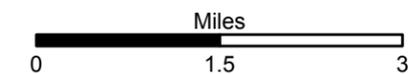
Study Parcels

Pima County Special Policy Areas (small)

Pima County Special Policy Areas (large)

Pima County Comprehensive Plan

- CITY OF TUCSON
- PUBLIC PRESERVES
- RESOURCE TRANSITION
- LOW INTENSITY RURAL
- MEDIUM INTENSITY RURAL
- LOW INTENSITY URBAN 0.3
- LOW INTENSITY URBAN 0.5
- LOW INTENSITY URBAN 1.2
- LOW INTENSITY URBAN 3.0
- MEDIUM INTENSITY URBAN
- MEDIUM HIGH INTENSITY URBAN
- NEIGHBORHOOD ACTIVITY CENTER
- COMMUNITY ACTIVITY CENTER
- URBAN INDUSTRIAL



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Community
ByDesign

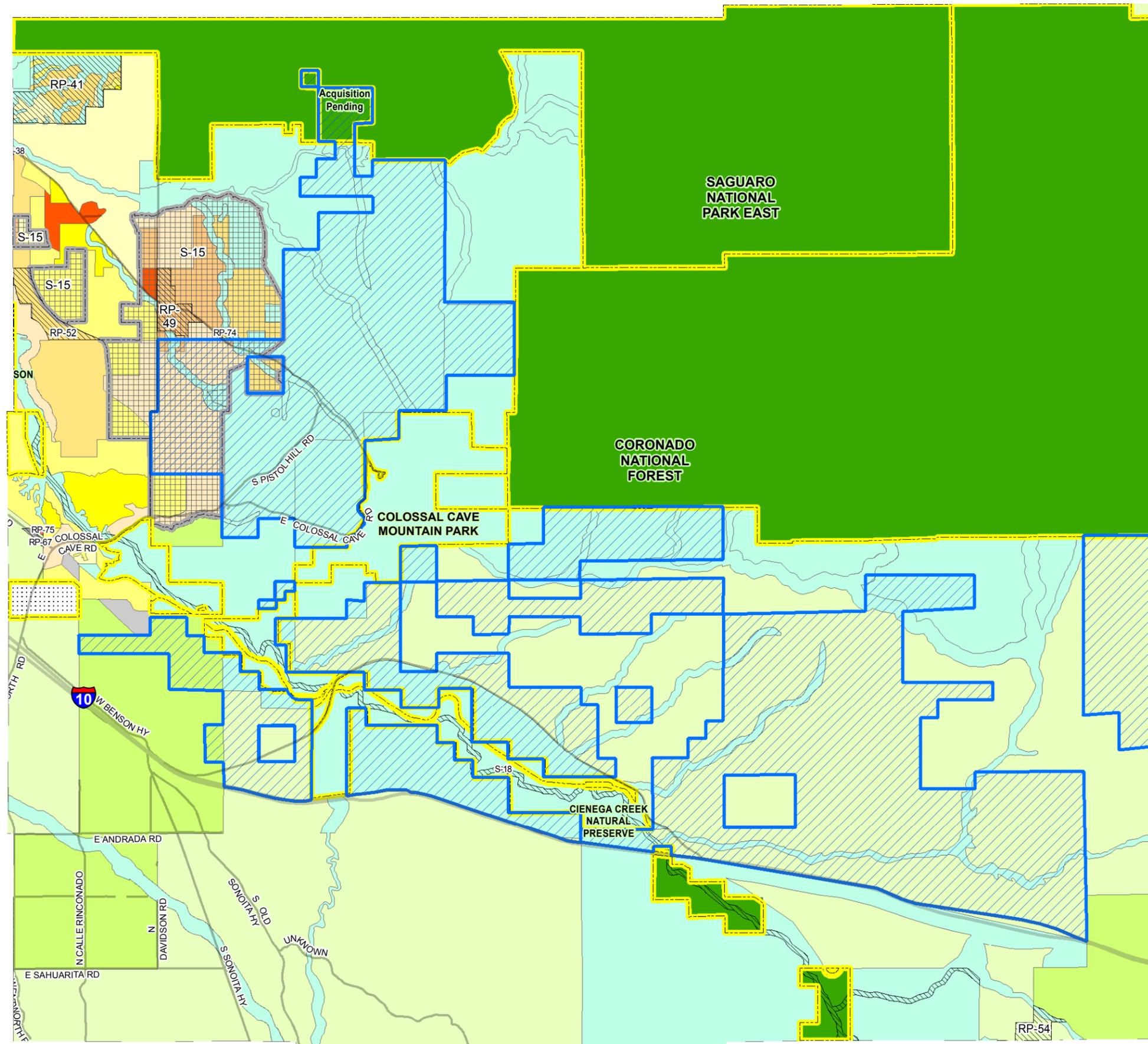


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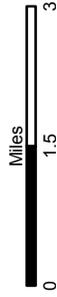
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Rincon Valley/ Posta Quemada Conceptual Plan

Pima County Zoning

- Interstate
 - Major Roads
 - Major Washes (ALRIS)
 - ▭ Study Parcels
 - ▭ Jurisdictional Limits
- Pima County Zoning**
- | | |
|-------|------|
| CB-1 | GR-1 |
| CB-2 | RH |
| CI-1 | SH |
| CI-2 | IR |
| CMH-1 | SP |
| CR-1 | SR |
| CR-2 | SR-2 |
| CR-3 | TUC |
- ▨ Protected Peaks and Ridges

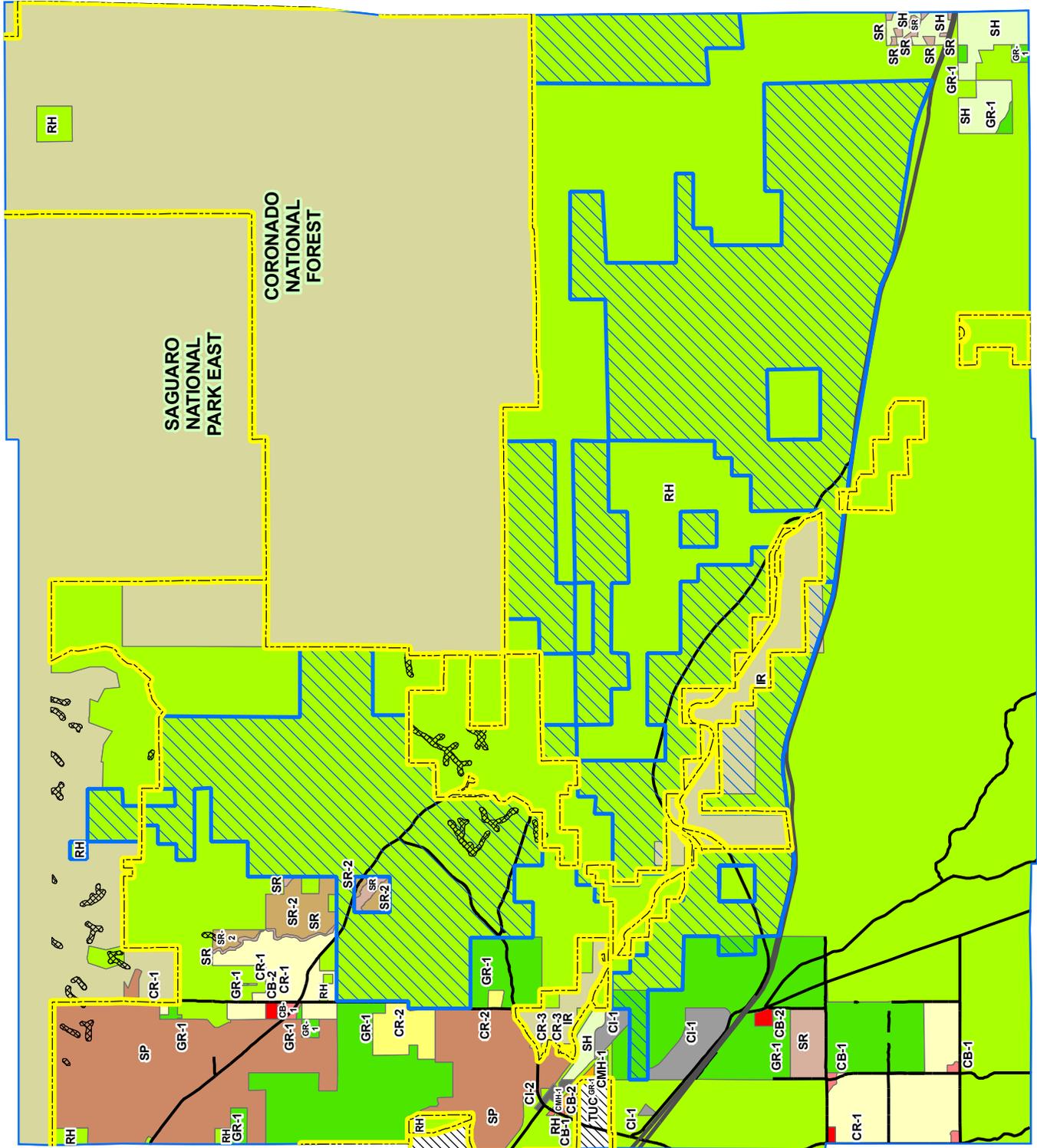


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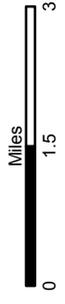
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Rincon Valley/ Posta Quemada Conceptual Plan

Rezoning, Subdivisions and
Development Plans

-  Interstate
-  Major Roads
-  Study Parcels
-  Recorded Subdivisions
-  Approved Development Plans
-  Pima County Rezoning

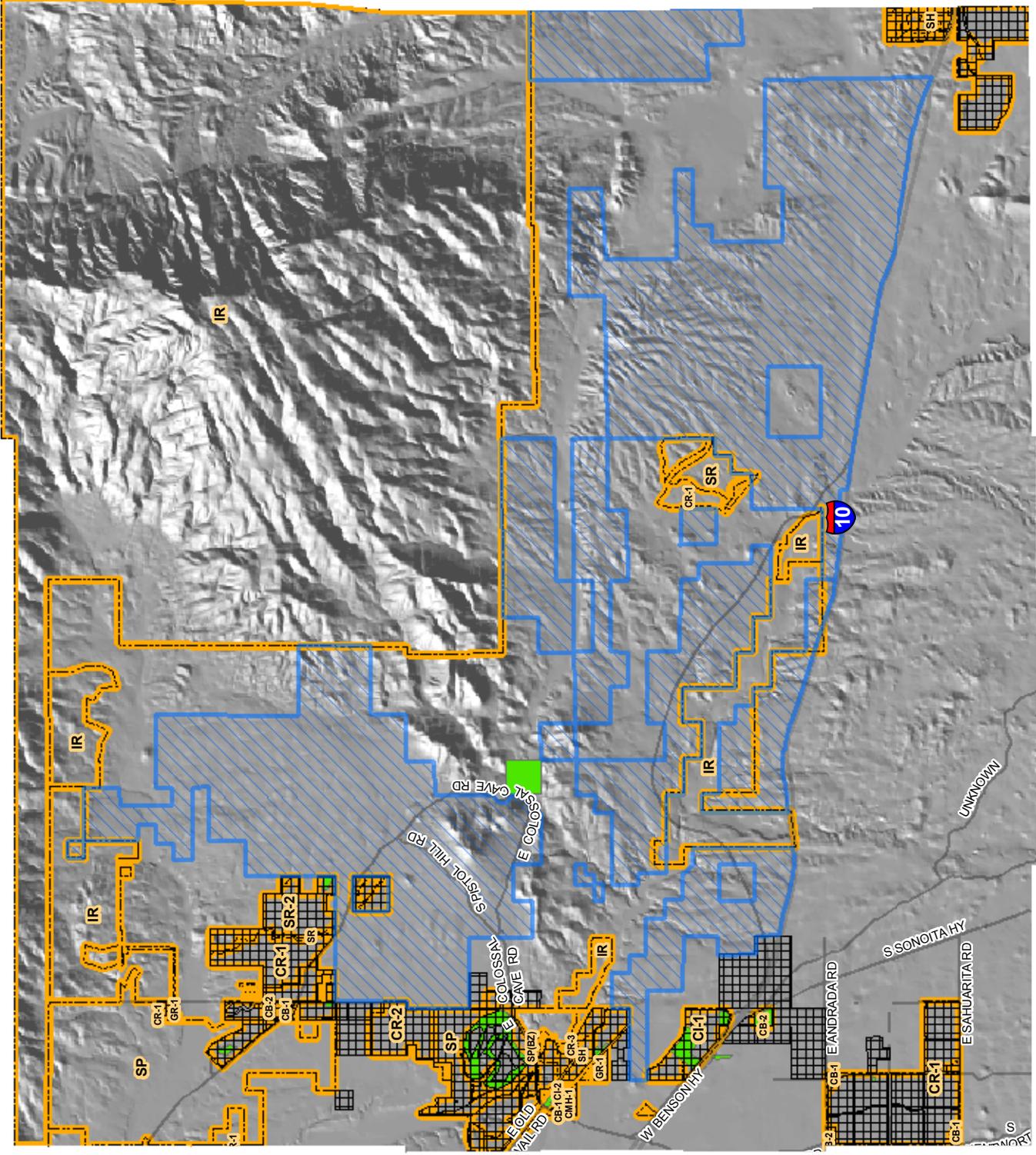


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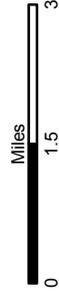
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Rincon Valley/ Posta Quemada Conceptual Plan

Utilities

-  Interstate
-  Major Roads
-  Study Parcels
-  Power Lines (ALRIS)
-  SW Gas Infrastructure Areas

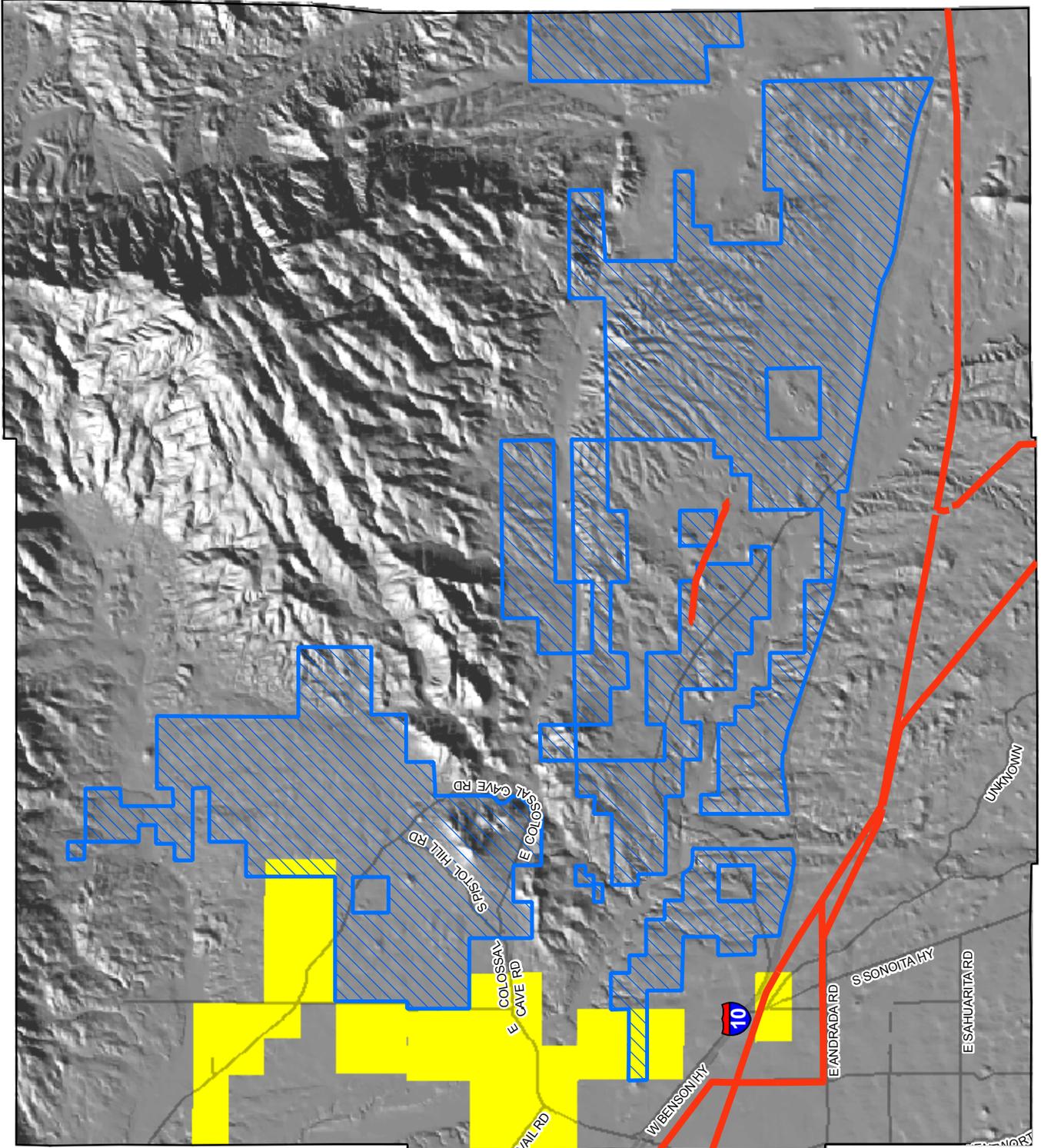


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Rincon Valley/ Posta Quemada Conceptual Plan

Natural and Man-Made
Hazards

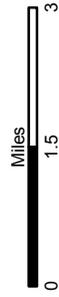
-  Interstate
-  Major Roads
-  Major Washes (ALRIS)
-  Study Parcels

Flood Zones (Arroyo Engineering)

-  A
-  AE
-  FW
-  UNK

-  Earthquake Faults (Pima County)

-  Power Lines (ALRIS)

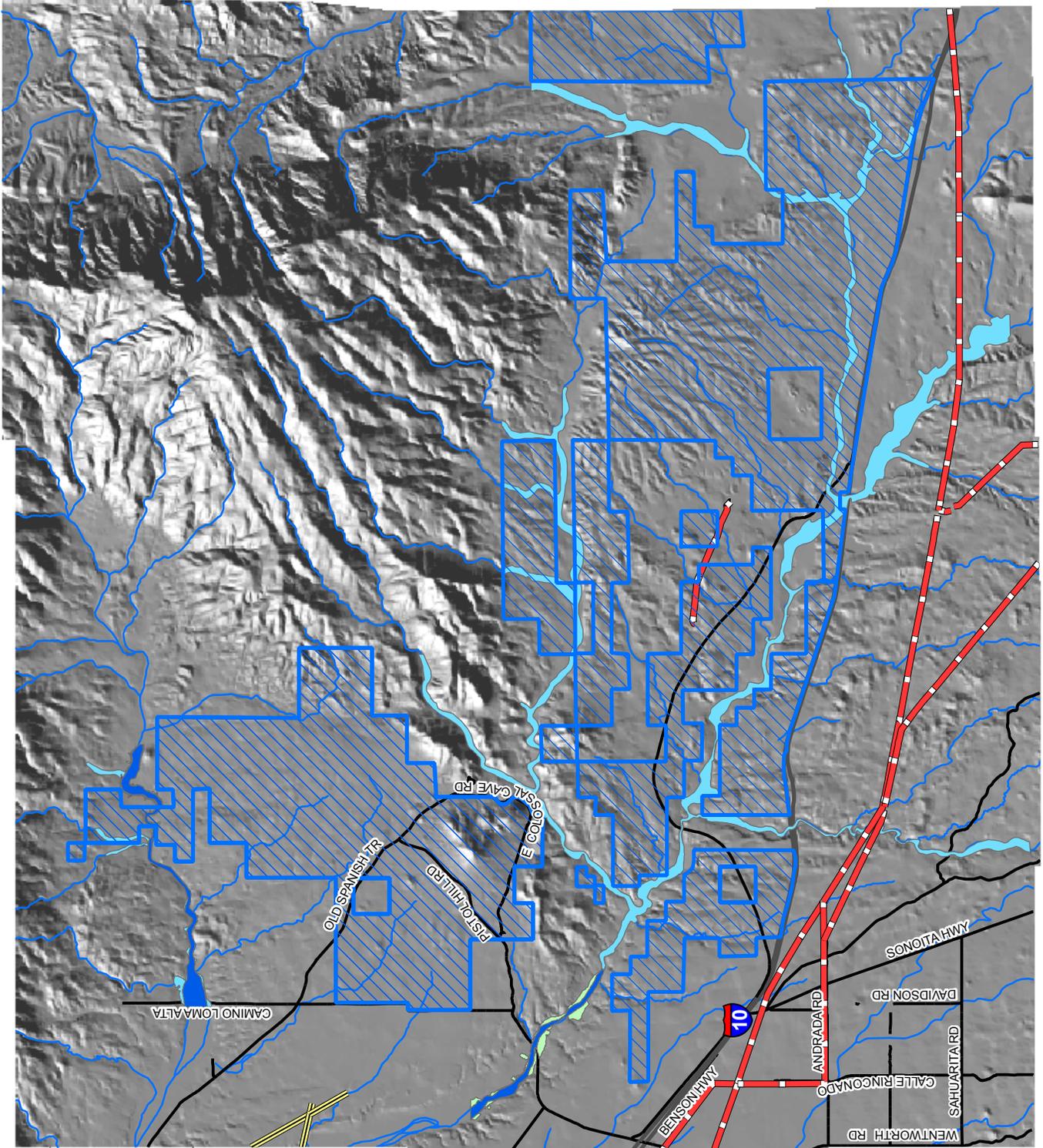


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Rincon Valley/Posta Quemada Conceptual Planning Program

H. TRAFFIC

1. TRANSPORTATION/TRAFFIC – EXISTING CONDITIONS

The existing major north/south and east/west roadways in the Rincon Valley were investigated as part of the Conceptual Planning Program. The roadways were investigated for the following general information: speed limit, roadway section, existing right-of-way widths, existing (2006 and 2002) average daily traffic (ADT), capacity, and pedestrian and bicycle ways. See Table 1. A visual observation was conducted for each roadway in order to determine the roadway cross-section and speed limit information. The right-of-way data was obtained from the adopted (05/18/04) Pima County Major Streets and Scenic Routes Plan. The 2006 and 2002 ADT values were obtained from the Pima County Traffic Engineering website. All of the roadways with the exception of Pistol Hill Road are classified as Major Scenic Routes. Pistol Hill Road is classified as a Major Route. Pistol Hill Road, Old Spanish Trail, and Colossal Cave Road have designated bike lanes and signage as a Designated Bike Route. None of the roadways have sidewalks or designated bus stops, therefore pedestrian activity is considered low.

The capacity values were taken from the Florida Department of Transportation, *2002 Quality/Level of Service Handbook*. The Florida Department of Transportation Handbook is widely used for planning purposes for determining the Level of Service (LOS) of roadways. The LOS is a qualitative description of how well a roadway operates under certain traffic conditions. LOS uses a grading system similar to academic grades, A through F. LOS A is a free-flow traffic condition and LOS F is a forced flow with extreme congestion condition. The capacity values shown in the Table 1 are the maximum ADT for a two-lane roadway to operate at LOS C. At present, there are no bicycle paths and/or sidewalks along any of the roadways investigated as part of this study. None of the roadways investigated are currently under construction. All of the roadways investigated would be functionally classified as either a local road or a collector roadway.

Based on the information shown in Table 1, none of the roadways investigated have a capacity problem at this time. In fact, the roadways have excess capacity available for future development adjacent to the roadways.

2. TRANSPORTATION/TRAFFIC – FUTURE CONDITIONS

The existing and proposed major north/south and east/west roadways in the Rincon Valley were investigated as part of the future conditions portion of this Study. The most significant changes to the north/south roadways are as follows:

- Pistol Hill Road – Colossal Cave Road to Old Spanish Trail – was constructed as a two-lane road with improved shoulders. The new roadway provides for additional connections to the east end of the Rincon Valley. The work was completed in May of 1999. The roadway may need to be improved to a 4-lane or 6-lane roadway cross-section as development continues in the area.

Rincon Valley/Posta Quemada Conceptual Planning Program

- Colossal Cave Road – Camino Loma Alta to Vail Road (Mary Ann Cleveland Way) – This roadway has been identified in the Pima County 5-Year Capital Improvement Plan. Colossal Cave Road roadway cross-section has not yet been determined.
- Colossal Cave Road – Acacia School to Old Vail Road (Mary Ann Cleveland Way) – This roadway has been identified in the Pima County 5-Year Capital Improvement Plan. Colossal Cave Road would be constructed to a 5-lane roadway cross-section with two lanes in each direction and a center two-way left-turn lane.
- Wentworth Road – I-10 to Sahuarita Road – The Southeast Area Arterial Study has identified Wentworth Road as the southerly extension of the Colossal Cave Road alignment. The roadway is identified the roadway as a major arterial roadway. A new interchange with I-10 is also planned.

Rincon Valley/Posta Quemada Conceptual Planning Program

EXISTING CONDITIONS

TABLE 1

NORTH/SOUTH ROADWAYS									
ROADWAY SEGMENT	FROM	TO	SPEED LIMIT	TWO-WAY, TWO-LANE	TWO-WAY, THREE LANE	RIGHT-OF-WAY WIDTH *	2006 ADT**	CAPACITY ***	
Camino Loma Alta	Old Spanish Trail	Colossal Cave Road	45/20	X		150	4,400	9,100	
Pistol Hill Road	Old Spanish Trail	Colossal Cave Road	45	X		120	1,000		

EASTWEST ROADWAYS									
ROADWAY SEGMENT	FROM	TO	SPEED LIMIT	TWO-WAY, TWO-LANE	TWO-WAY, THREE LANE	RIGHT-OF-WAY WIDTH *	2006 ADT**	CAPACITY ***	
Old Spanish Trail	Camino Loma Alta	Colossal Cave Entrance	50	X	X	120	1,000	9,100	
Colossal Cave Road	Camino Loma Alta	end of the road	45/35/30	X		90	1,000	9,100	
Marsh Station Road	Colossal Cave Road	County line	50/35/25	X		150	600	9,100	

* Based on information from the Pima County Major Streets and Scenic Routes Plan
 ** From the Pima County Traffic Engineering Web Site - Traffic Counts
 *** From the Florida Department of Transportation, 2002 Quality/Level of Service Handbook

Rincon Valley/ Posta Quemada Conceptual Plan

Streets

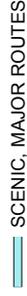


Study Parcels

Major and Senic Routes



MAJOR ROUTES



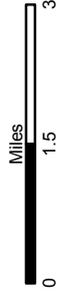
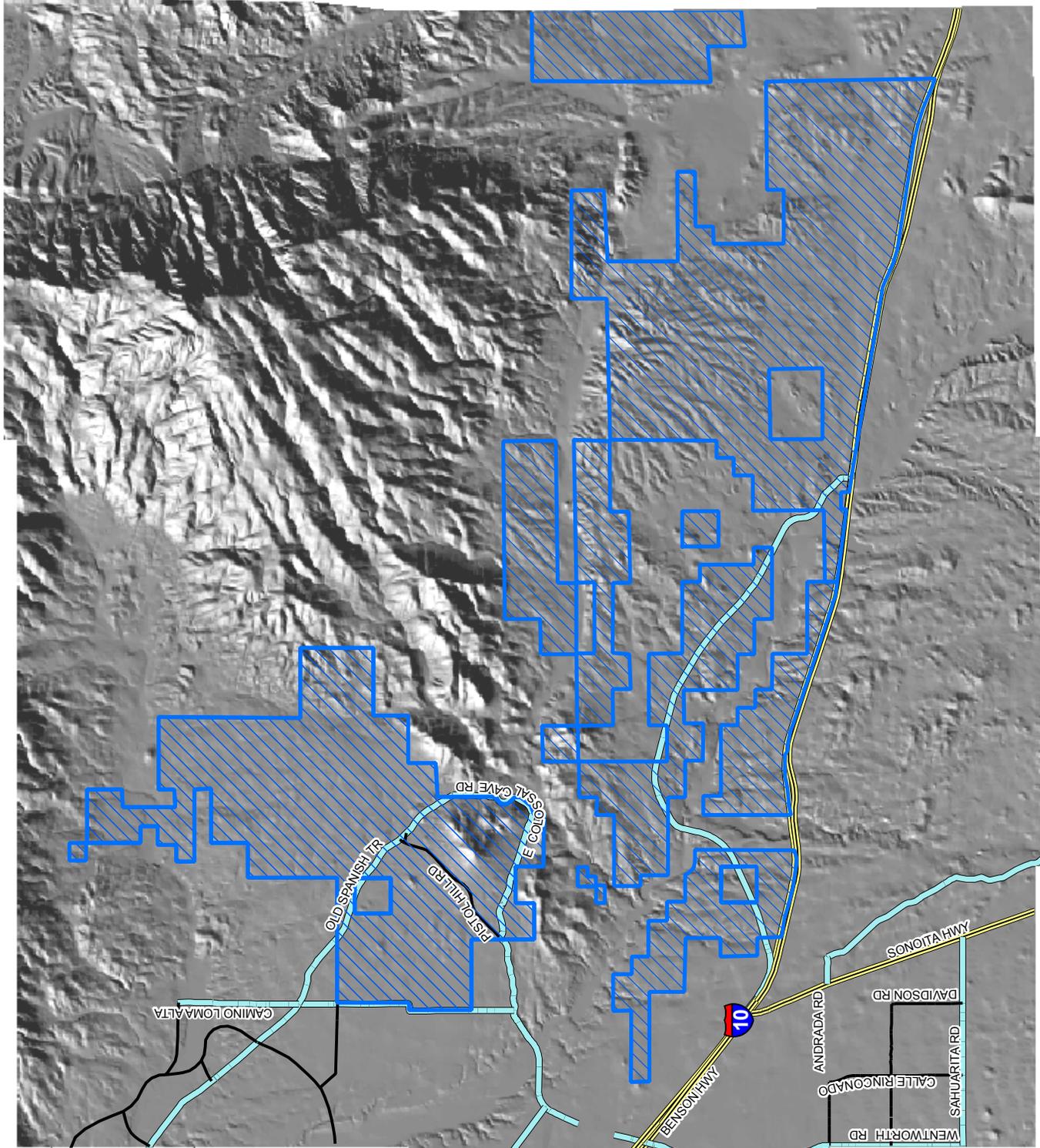
SCENIC, MAJOR ROUTES



SCENIC, NOT MAJOR ROUTES



STATE AND INTERSTATE ROUTES
(ALL ARE SCENIC ROUTES)



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Rincon Valley/Posta Quemada Conceptual Planning Program

I. SEWERS

1. SEWER LETTER:

The Rincon Valley/Posta Quemada Plan Area receives sewer service from Pima County Wastewater Management (PCWW). Pima County Wastewater revised its facility plan in the spring of 2006. A letter of wastewater status for this Plan Area has been requested from PCWW and has not been forthcoming despite numerous requests. A discussion of the existing and planned facilities is located in Phase 3 of this document.

2. LOCATION OF EXISTING PUBLIC SEWERS:

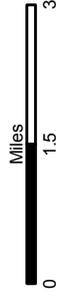
The entire project site lies in the Rincon Valley within the Pima County Wastewater Management (PCWWM) service area. The **Sewer Exhibit** shows the location of existing public sewer and planned Capital Improvement projects in the vicinity of the Study Parcels. A discussion of the existing and planned facilities is located in Phase 3 of this document.

Rincon Valley/ Posta Quemada Conceptual Plan

Existing Sewers

-  Interstate
-  Major Roads
-  Study Parcels

-  2002 Pima County Sewer Lines
-  Sewer Service Areas

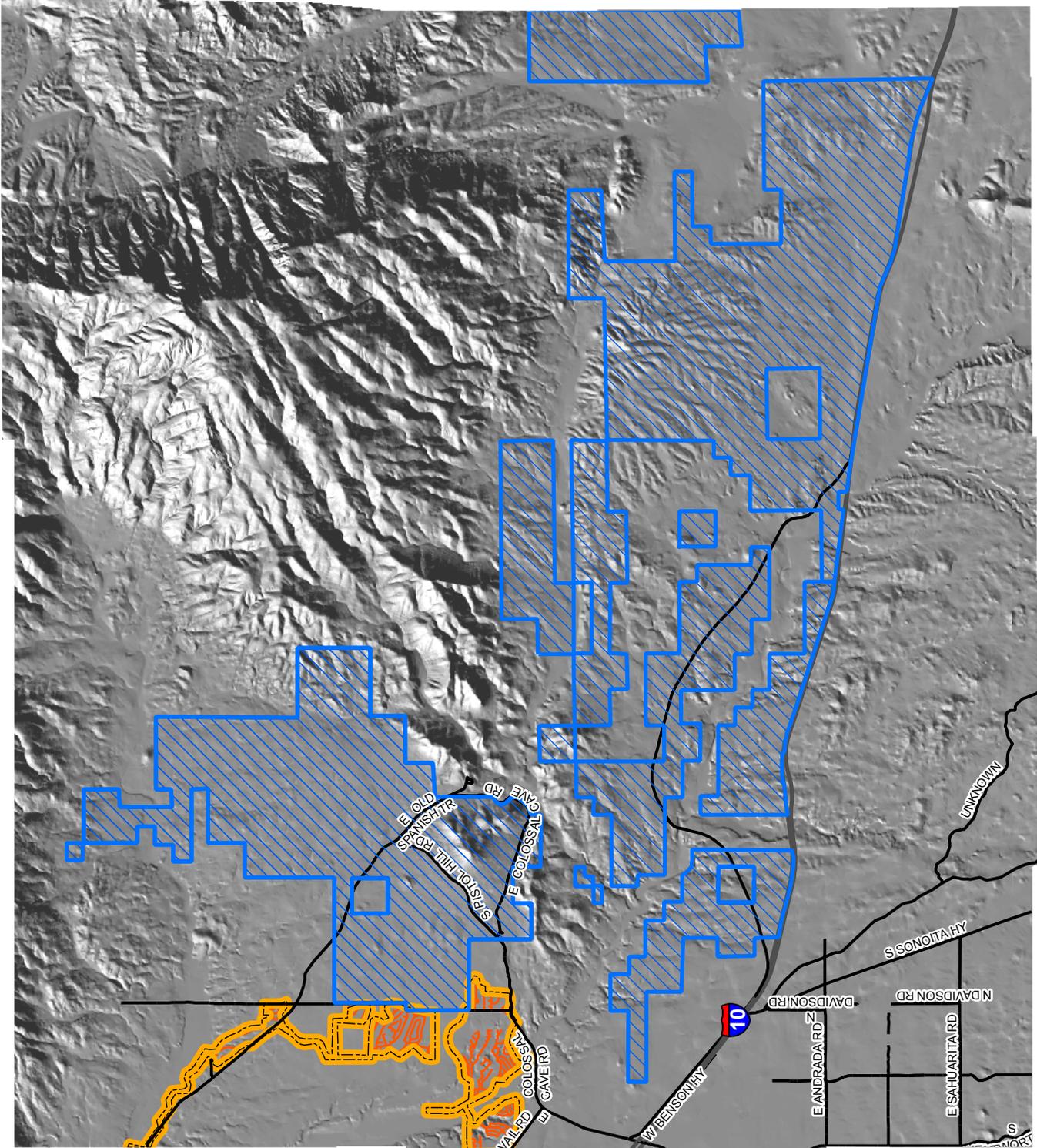


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Rincon Valley/Posta Quemada Conceptual Planning Program

J. SCHOOLS

1. EXISTING/PROPOSED SCHOOLS WITHIN ONE MILE:

The Plan Area falls within the Vail School District (VSD). The school boundary map for the district assigns students in the Plan Area living north of Colossal Cave Road to attend Ocotillo Ridge Elementary School, Old Vail Middle School, and their choice of High School (Cienega, Empire or Vail). The area south of Colossal Cave Road assigns students to Acacia Elementary School, Old Vail Middle School, and their choice of High School.

Currently there are four public schools within the Plan Area. Old Vail Middle School is close to the intersection of E. Colossal Cave Road and E. Mary Ann Cleveland Way. Cienega High School is immediately west on E. Mary Ann Cleveland Way and Acacia Elementary School is on E. Colossal Cave Road north of I-10. Opening in January 2007, Ocotillo Ridge Elementary is west of Camino Loma Alta on E. Rex Molly Drive. There are no other public schools within the Plan Area. Only two schools have vacancies: Ocotillo Ridge Elementary which opened in January 2007 and Empire High School which opened in July 2005. See **Schools Exhibit**.

2. SCHOOLS OUTSIDE ONE-MILE RADIUS:

Empire High School and Cottonwood Elementary School are approximately four miles west of the Plan Area boundary, on East Mary Ann Cleveland Way. Vail High School, which serves the district as a Charter School, is more than four miles west on S. Rita Road and I-10.

3. ENROLLMENT AND CAPACITY

Below is a table of the projected capacity and enrollment for Vail School District schools which service the study area. Enrollment numbers at all schools are expected to increase in the next five years due to rapid increase in development in the western Plan Area, according to Albert Flores, VSD Director of Facilities and Transportation. The district is planning one new school every other year.

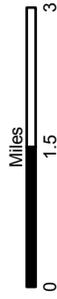
SCHOOL CAPACITIES TABLE

	Ocotillo Ridge Elementary	Old Vail Middle School	Cienega High School	Empire High School	Vail High School	Acacia Elementary School	Cottonwood Elementary School
Enrolled	459	732	1704	550	160	700	625
Capacity	600	730	1650	750	160	656	600
Vacancy	141	Over capacity by 2	Over capacity by 54	200	Waiting list for enrollment.	Over capacity by 44	Over capacity by 25

Rincon Valley/ Posta Quemada Conceptual Plan

Schools

-  Interstate
-  Major Roads
-  Study Parcels
-  School Districts
-  College
-  Elementary School
-  High School
-  Middle School

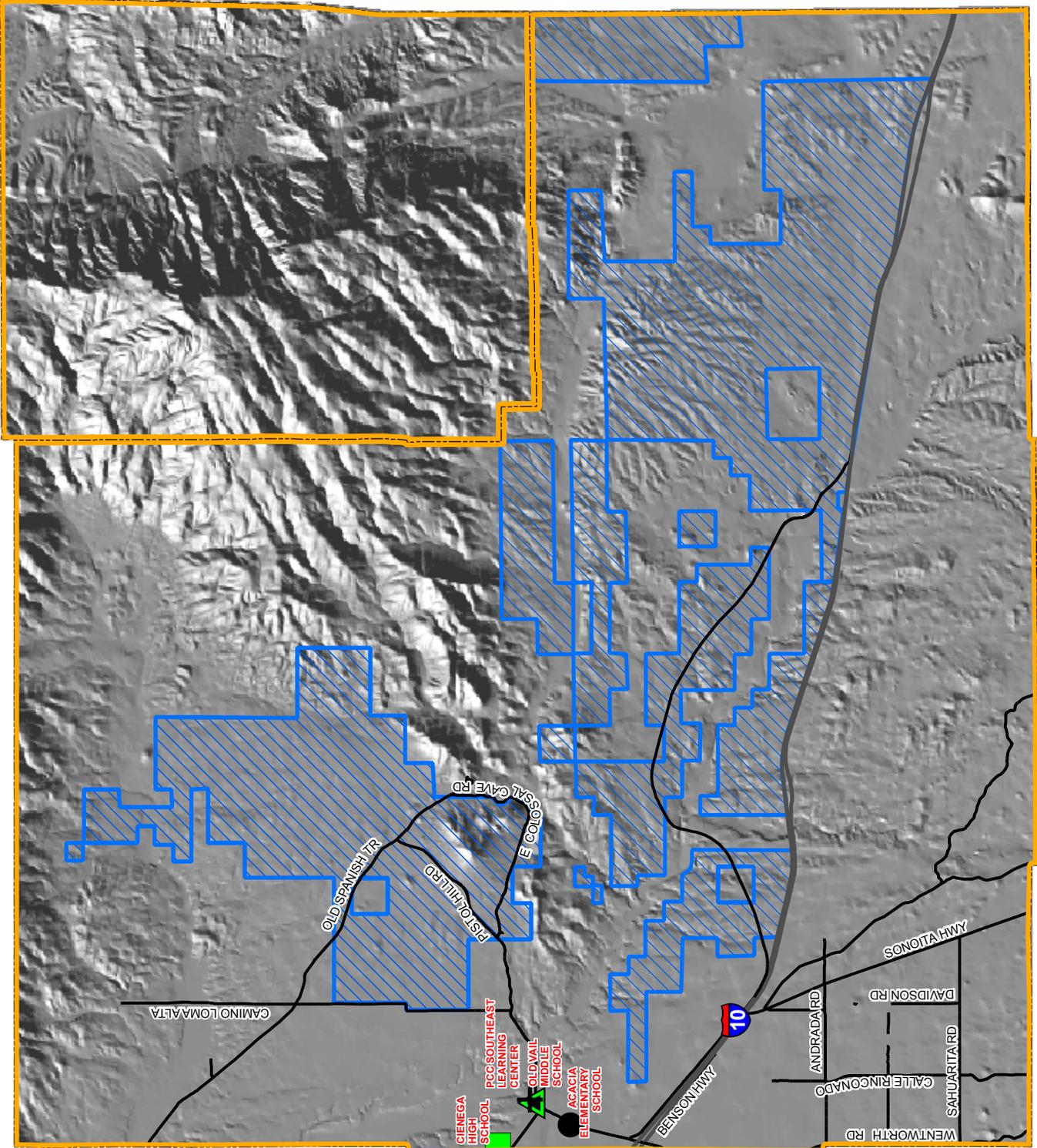


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K. RECREATION AND TRAILS

1. PARKS, RECREATION AREAS, AND ADOPTED PUBLIC TRAILS:

Coronado National Forest is within the center of the Plan Area and adjoins the northwestern and central Study Parcels. Saguaro National Forest East, which is north and west of Coronado National Forest, extends across the northern portions of the Plan Area. The northwestern-most Study Parcels appear to be within the National Park; acquisition by the ASLD is pending.

Pima County's Proposed Parks and Open Space impact the Study Parcels northeast, east, and south of Pistol Hill Road as well as the parcels north and south of Cienega Creek between East Marsh Station Road and I-10.

Colossal Mountain Park and Cave's north, west, and southern boundaries adjoin the Study Parcels and are within the Plan Area east of East Colossal Cave Road. This recreational amenity is on the National Register of Historic Places and offers areas for camping, picnicking, hiking, cave and trail access, and an outdoor cafe. La Posta Quemada Ranch, located southeast of Colossal Cave Mountain Park offers horse trailer and riding stables, picnic areas, playground, and an outdoor café. The Ranch Headquarters is home to the Pima County Parklands Foundation, museum, and research library. Cienega Creek Natural Preserve bisects the Study Parcels from the intersection of East Colossal Cave Road and Camino Loma Alta southeast to the intersection of East Marsh Station Road and I-10. A permit is required to access the natural preserve and horses are not permitted beyond the parking lot.

Information from the Pima County Department of Transportation shows that trails are bountiful through a significant portion of the central to western Plan Area with many running through the Study Parcels. There are four Primary Trails as classified by the Eastern Pima County Trails Master Plan (EPCTMP): Rincon Creek Trail along East Old Spanish Trail intersects with Coyote Wash Trail which continues in a southeasterly direction; Pantano Wash Trail which intersects with Agua Verde Link and runs southeast and through the center of the Cienega Nature Preserve. Secondary Trails include Old Spanish Trail, Alvord Road Monument Boundary Trail, Rocking K, Hope Camp and the Rincon-Madrona Link weaving through the northwestern Study Parcels linking Saguaro National Park East with Colossal Mountain Park and the Coronado National Forest. Secondary Trails southwest of I-10 include: Mt. Fagan West Link, Sahuarita-Mt. Fagan Link, and the Davidson Canyon Trail. In addition, there is a Gas Pipeline Trail parallel and south of I-10. East of Sonoita Highway there are three Gas/Power Trails (West, Middle and East) running north/south that intersect with the Gas Pipeline.

See **Recreation and Trails Exhibit**.

2. PROPOSED TRAIL RIGHTS-OF WAY:

According to both the Arizona Game and Fish Department and Pima County's EPCTMP site, numerous projects and trails are under development and proposed for Cienega Creek Natural Preserve, which extends through the western and south-central Study Parcels.

Rincon Valley/ Posta Quemada Conceptual Plan

Recreation Opportunities
and Trails

-  Interstate
-  Major Roads
-  Major Washes (ALR(S))
-  Study Parcels
-  Jurisdictional Limits
-  Proposed Trails - EPC Trails Master Plan
-  Trails - Colossal Cave
-  Private, Muni and County Parks
-  Pima County OS Acquisitions
-  Federal Parks
-  Federal Wilderness

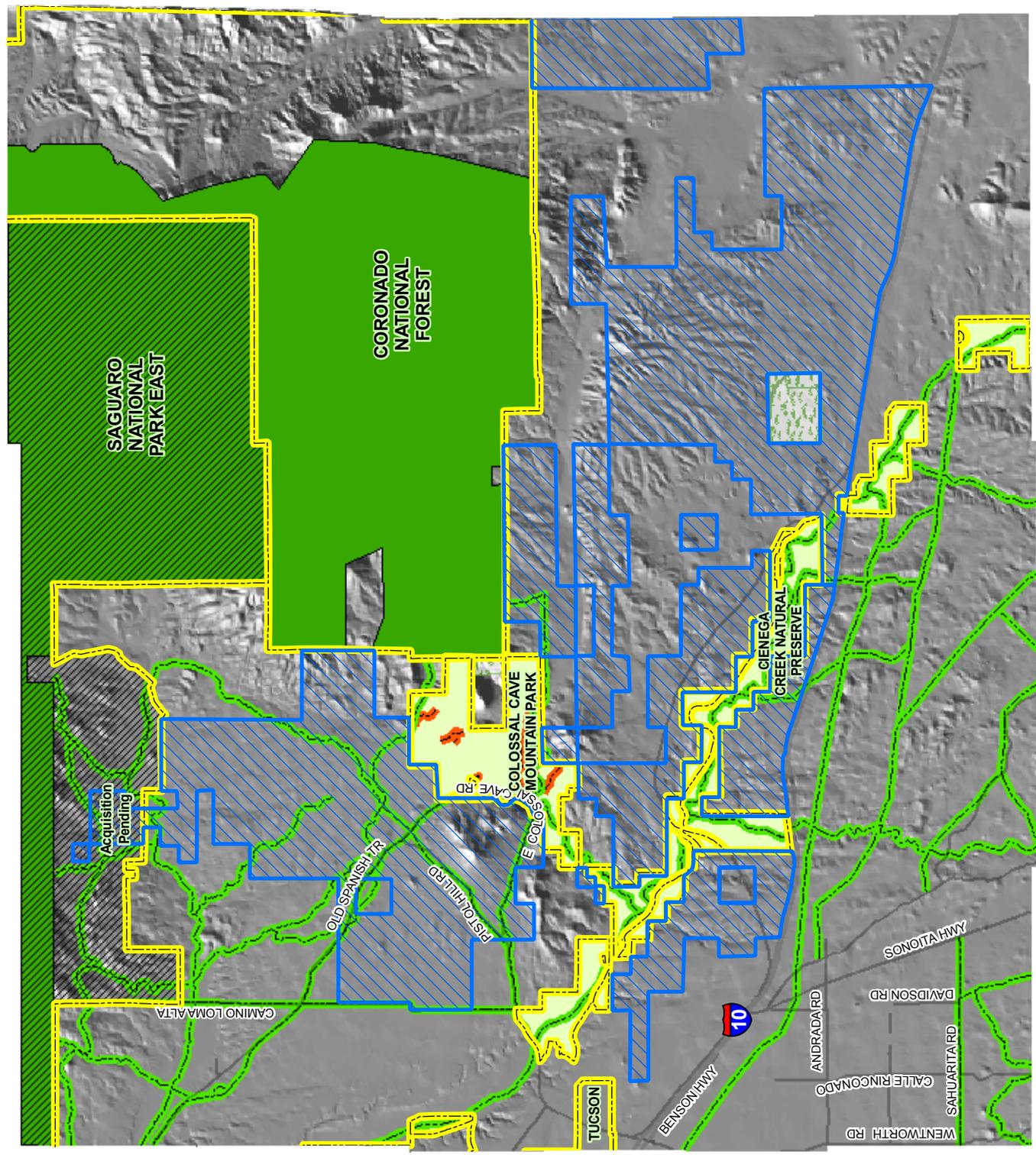


Arizona State
Land Department



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L. COMPOSITE MAP

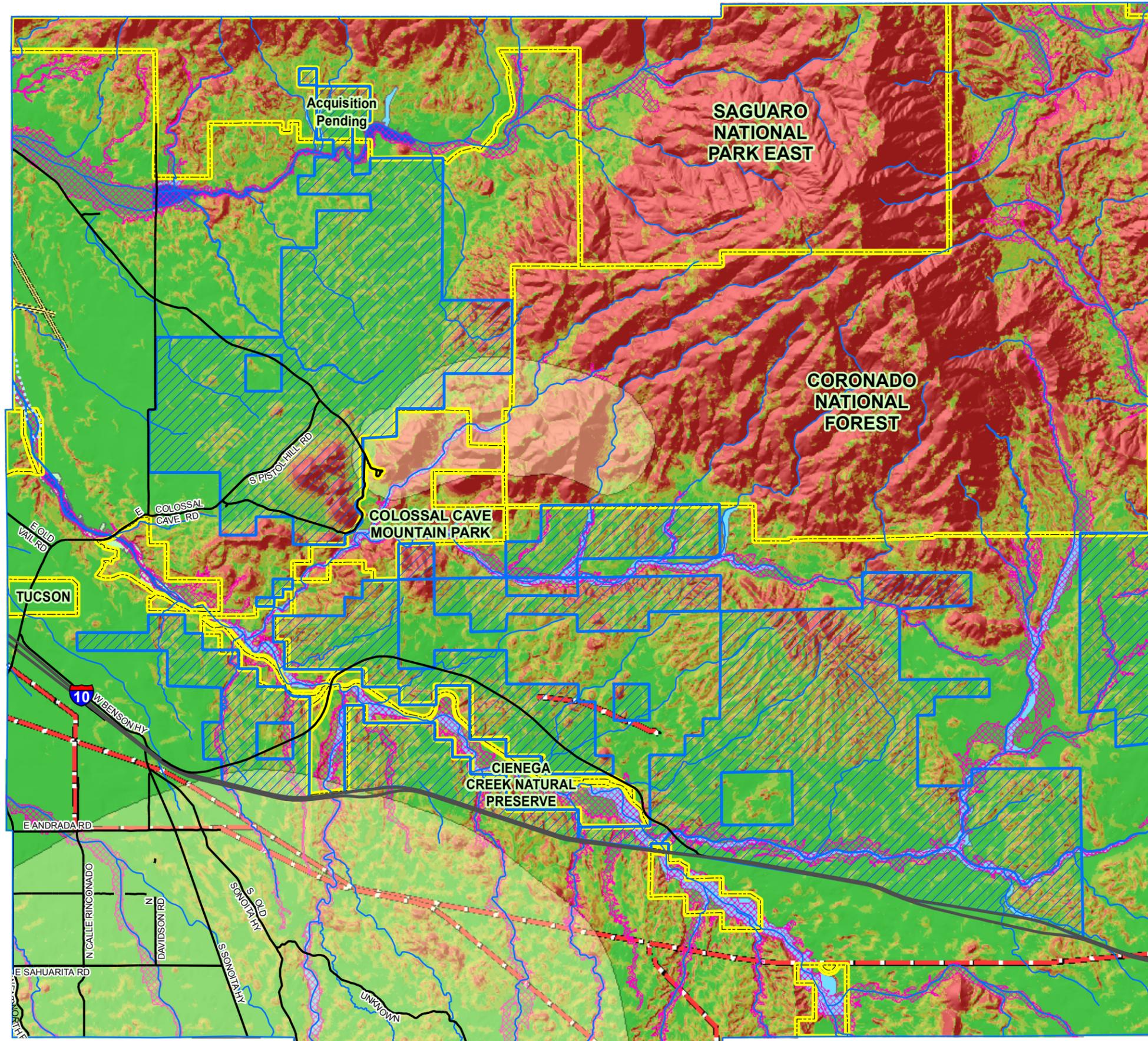
The **Composite Map** is a culmination of the most significant data layers from each of the site inventory characteristics which apply to the Plan Area. This composite map is used to identify opportunities and constraints of development areas that may require special evaluation. The characteristics which were included are:

- Topography
- Floodplains
- Washes/Drainages
- Natural/Manmade Hazards
- Riparian Habitat
- Mineral Reserves

The composite map overlays the significant site characteristics and indicates the relationship of these characteristics to one another and how they may influence development of the plan area. Some sensitive characteristics, such as archaeology and threatened and endangered species, are not disclosed on the map in order to protect these resources.

Rincon Valley/ Posta Quemada Conceptual Plan

Composite Map



Major Roads (Pima County)

- Interstate
- Major
- ▭ Jurisdictional Limits
- ▨ Study Parcels

Major Washes (ALRIS)

- ⋯ Apparent
- Stream
- Wash

Mineral Suitability

- ▭ MODERATE

Pima County Conservation Land System

- ▨ Riparian

Flood Zones (Arroyo Engineering)

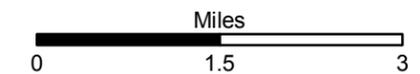
- ▭ A
- ▭ AE
- ▭ FW

Pima County Faults

- ▭ ALRIS Power Lines

Percent Slope

- ▭ 0-5%
- ▭ 5-10%
- ▭ 10-15%
- ▭ 15-25%
- ▭ > 25%



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Phase 2 - Development Suitability and Future Needs Analyses

A. Development Suitability Analysis

One of the steps in developing the Conceptual Plan is creating a Suitability Analysis of the development opportunities and constraints for the area. For the Suitability Analysis, nine GIS data layers influencing the development potential on the State Lands were selected and weighted based on guidelines defined by the State Land Department. These nine data layers, listed according to their weighted value (1.0 having the highest weight), include:

<u>DATALAYER</u>	<u>WEIGHT</u>
• Slopes	1.0
• Floodplains	0.8
• Washes/Drainages	0.7
• Archaeological sites	0.6
• Natural/Manmade Hazards	0.5
• Threatened/Endangered Species	0.4
• Critical Habitat	0.3
• Rare Vegetative Community	0.2
• Mineral Reserves	0.1

Due to the sensitivity of mapping locations such as archaeological sites and threatened and endangered species, this information is displayed as larger general areas to protect these resources.

From this analysis, the following Suitability Map identifies the range of development suitability, from high to low, within the Plan Area.

Rincon Valley/ Posta Quemada Conceptual Plan

Relative Development Suitability

Legend

Major Roads (Pima County)

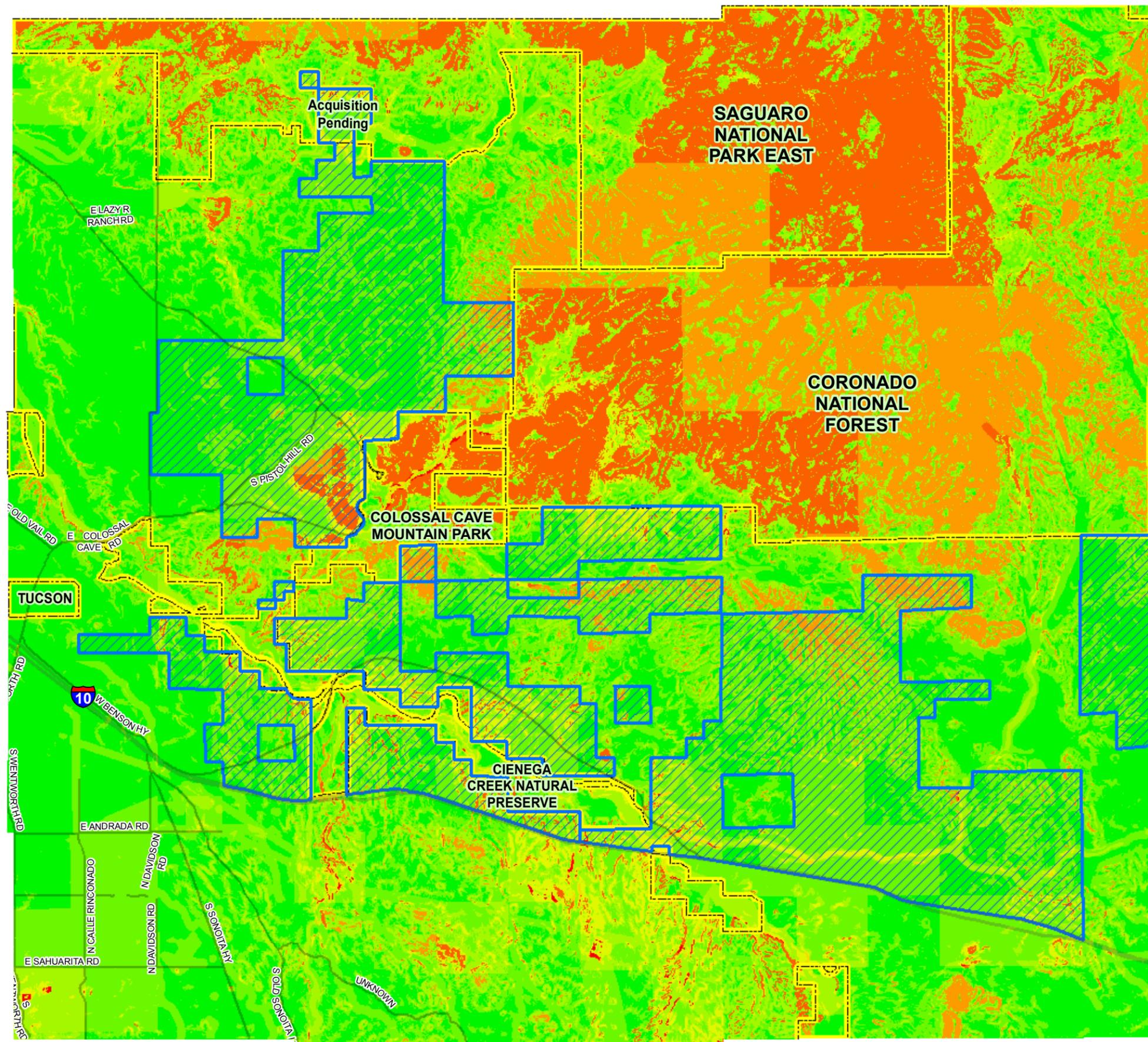
- Interstate
- Major

 Jurisdictional Limits

 Study Parcels

Relative Development Suitability Analysis

-  0 - 0.8 (More Suitable)
-  0.8-2.9
-  2.4 - 4.0
-  4.0 - 5.6
-  5.6 - 7.2
-  7.2 - 8.7
-  8.7 - 10.3
-  10.3 - 13.0 (Less Suitable)



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B. Future Needs Analysis

Historical Population Growth

The population of the Rincon Valley/Posta Quemada Plan Area increased significantly from 1990 to 2000, reflecting the demographics of both the greater Tucson area which adjoins the western boundary of the Plan Area and Unincorporated Pima County where the Plan Area is located. In 1990 the population in Unincorporated Pima County was 247,540. By 2000 the population increased by 23.2% to 305,059 with an equal percent increase in the number of housing units. Tucson's population increased at a slightly lower rate of 20% from its 405,390 in 1990 to 486,699 in 2000. Housing units in Tucson only increased by 14.3% over the decade.

Census data for the Rincon Valley/Posta Quemada Plan Area is based on specific census tracts as reported by the Pima Association of Governments. In 1990 census tract 40.28 encompassed the Study Parcels. Census tracts were redefined for the 2000 census such that data for the same land mass was incorporated in tracts 40.59, 40.60, and 40.61.

Rincon Valley/Posta Quemada Population Growth	1990	2000
Population	4,892	16,575
Population Per Square Mile	11.4	38.6
Annual Percent Change (pop.)	---	24%

Sources: Pima Association of Governments,
census tracts: 1990 tract 40.28, 2000 tracts
40.59, 40.60, 40.61

Population Projections

National demographic forecasts indicate that small and mid-size Arizona communities will grow rapidly over the next generation.

In the following table, the estimated population growth of the Rincon Valley/Posta Quemada Plan Area is presented, indicating increases that will continue in the future. Forecasts are made through the year 2030 with the annual percentage of growth for the 15-year periods between 2000 and 2030 represented.

Rincon Valley/Posta Quemada Conceptual Planning Program

Current and Projected Population Growth for Rincon Valley/Posta Quemada Plan Area

Year	Population	Average Annual % Increase
2000	16,575	--
2015	23,420	3%
2030	41,182	5%

Sources: Year 2000 Census; Pima Association of Governments

According to the Pima Association of Governments, population in Rincon Valley/Posta Quemada can be expected to grow from 16,575 in 2000 to just over 23,420 by 2015 and 41,182 by 2030. Annual growth percentages during this 15-year period from 2015 to 2030 are 5%.

Transportation Analysis Zone (TAZ) data from Pima Association of Governments (PAG) were analyzed for projected growth in the area. Based on the State Department of Economic Security projections, the projected population growth within the area's TAZs underestimate, and do not accurately reflect, the present and anticipated growth for the area. The area's 24% annual growth rate between 1990 and 2000, the conservative 5% projected annual growth rate to 2030, and the trends observed in the area, are stronger indicators of the anticipated growth for the Plan Area.

An analysis of the TAZ data for 2015 and 2030 is located in the Appendix of this document.

Rincon Valley/Posta Quemada Conceptual Planning Program

Phase 3 - Draft Conceptual Plan

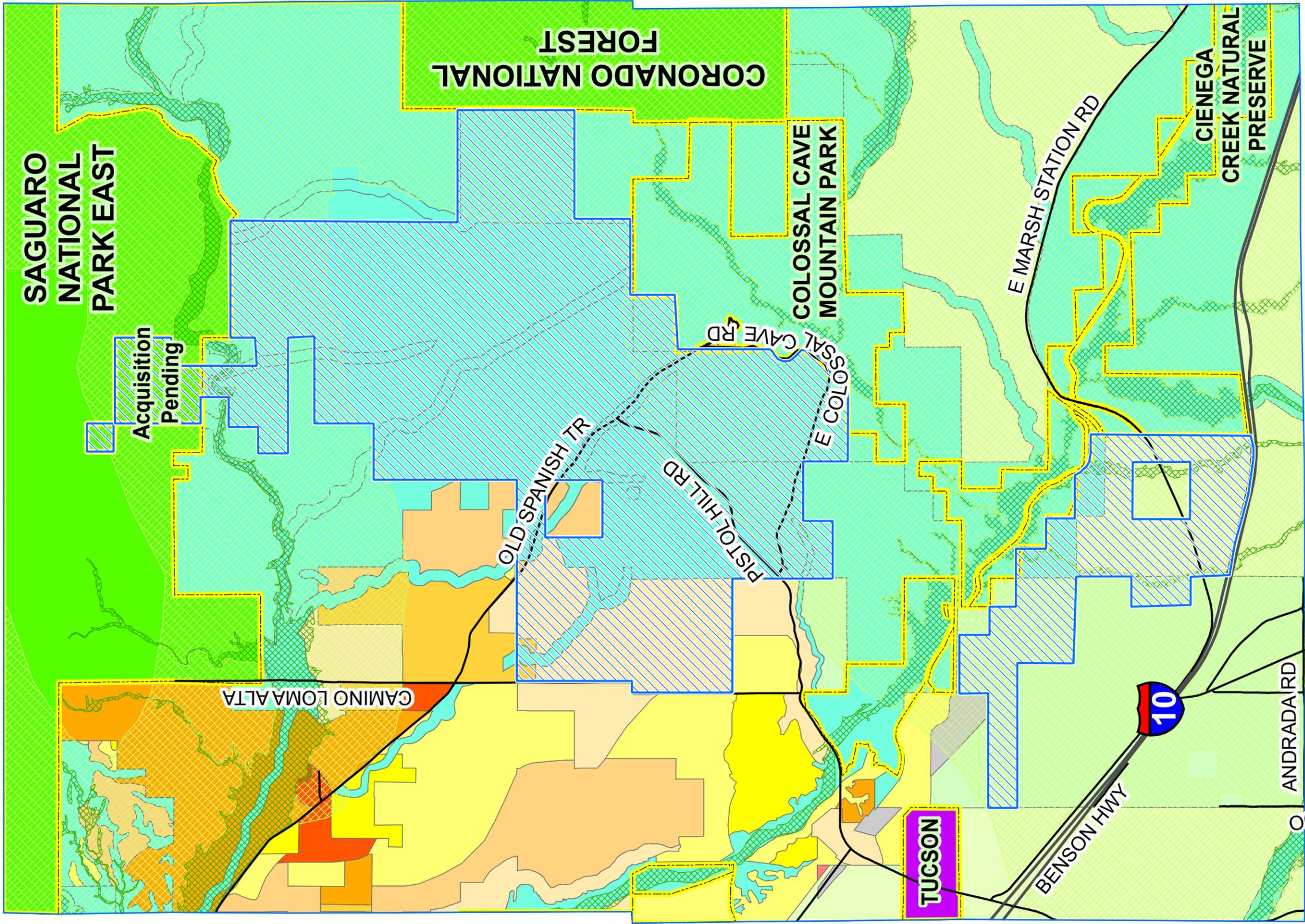
A. INTRODUCTION

As a result of the assessment of the Plan Area in Phase I data collection and Phase II suitability analysis, it has been determined that, given the distance from existing infrastructure and development, conceptual planning of the majority of the eastern portion of the Plan Area should be delayed until development patterns are more firmly established. There are two areas in the western portion of the Plan Area that are currently appropriate for conceptual planning purposes. The first area is a 9,351 acre Study Parcel that is bound by Camino Loma Alta on the west, East Colossal Cave Road on the south, Colossal Cave Mountain Park on the southeast, Coronado National Forest on the east, and Saguaro National Park East on the north. The second area consists of a 1,780 acre Study Parcel bound on the north and east by the Cienega Creek Natural Preserve, I-10 on the south, and east of the North Calle Rinconado alignment to the north of I-10. The Conceptual Plan Area now refers to the Study Parcels within these two blocks of Trust lands for a total of 11,132 acres.

Three previous exhibits that are relevant to the development of the Conceptual Land Use Plan have been reformatted to correspond to the revised Conceptual Plan Area: the existing Pima County Comprehensive Plan Future Land Use exhibit; the Composite Map; and the Development Suitability Map. These three exhibits of the revised Conceptual Plan Area are provided on the following pages.

See **Pima County Future Land Use Plan Exhibit, Composite Map, and Development Suitability Exhibits** for the revised Plan Area.

The following sections on Hydrology, Habitat, Traffic, Sewers, Water, Schools, Recreation and Trails, and Cultural/ Archaeological/Historic Resources are organized to describe the post-development conditions based on the proposed Conceptual Land Use Plan. Based on a factor of 2.47 persons per household, the projections of the number of residences in the Conceptual Plan Area range from a minimum of 2,283 to a maximum of 14,761. Section J, Project Overview concludes Phase 3 with the proposed Conceptual Land Use Plan. The land use categories proposed in the Conceptual Plan are based upon the existing Pima County Comprehensive Plan Land Use Intensity designations.

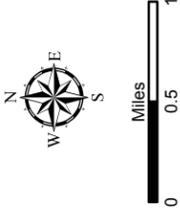


Rincon Valley/Posta Quemada Conceptual Plan
 Pima County Comprehensive Plan Future Land Use

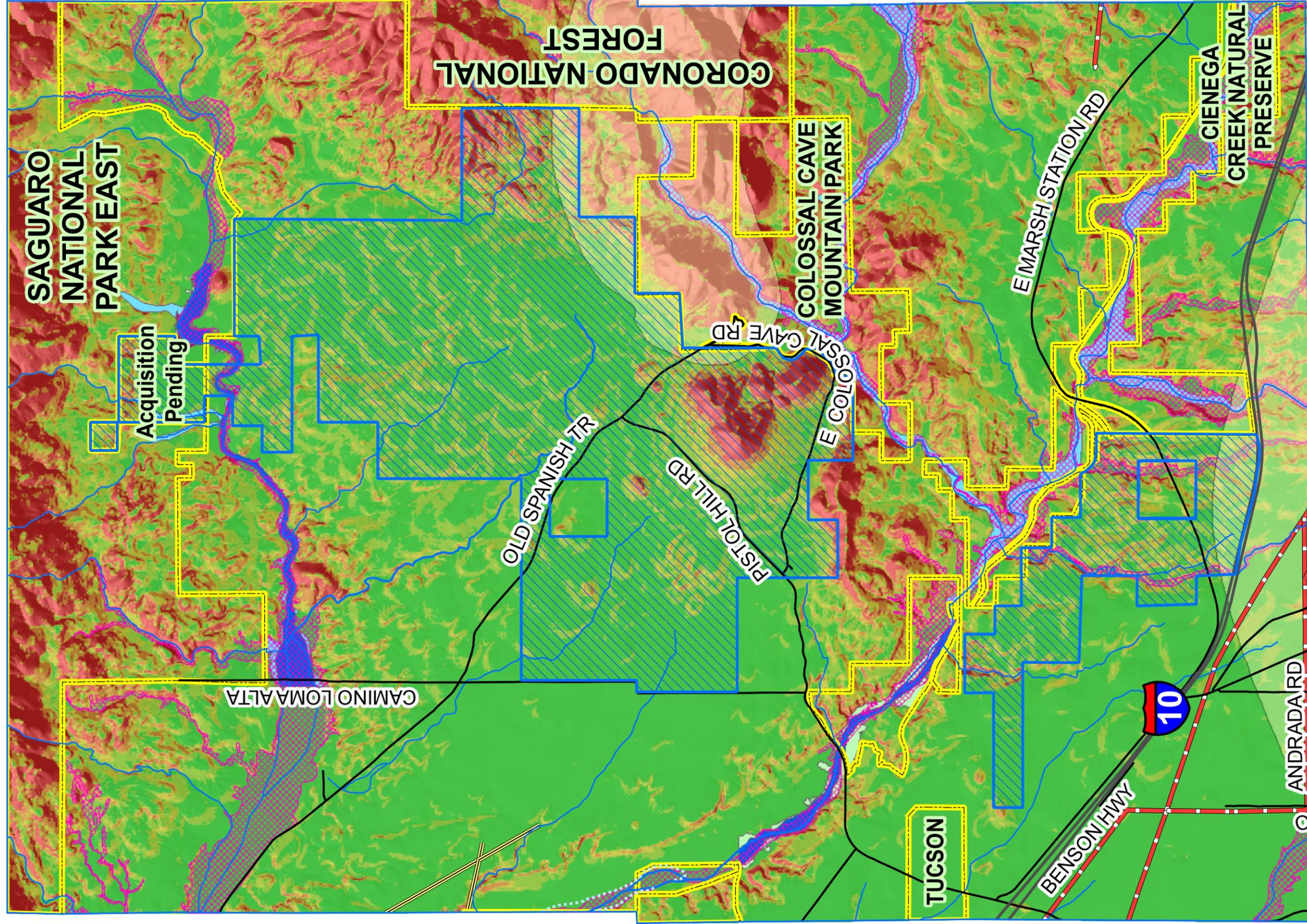
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|---|--|---|--|
| Pima County Comprehensive Plan
CITY OF TUCSON
PUBLIC PRESERVES
RESOURCE TRANSITION
LOW INTENSITY RURAL
MEDIUM INTENSITY RURAL
LOW INTENSITY URBAN 0.3
LOW INTENSITY URBAN 0.5 | LOW INTENSITY URBAN 1.2
LOW INTENSITY URBAN 3.0
MEDIUM INTENSITY URBAN
MEDIUM HIGH INTENSITY URBAN
NEIGHBORHOOD ACTIVITY CENTER
COMMUNITY ACTIVITY CENTER
URBAN INDUSTRIAL | Conservation Land System
RIPARIAN
BIO_CORE | Miscellaneous Layers
Jurisdictional Limits
Study Parcels
Interstate
Major Streets |
|---|--|---|--|



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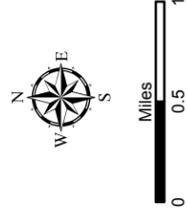


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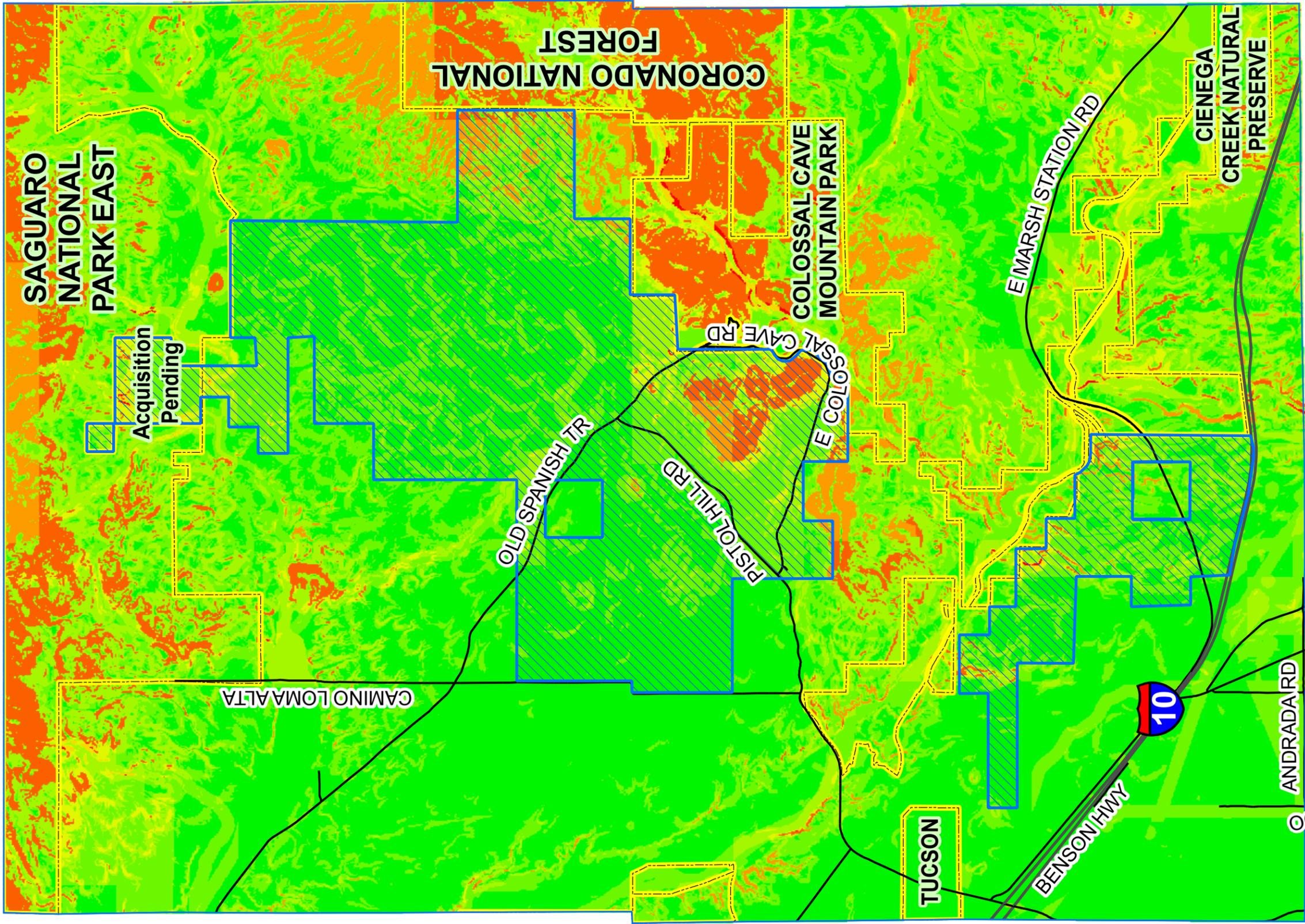
Rincon Valley/Posta Quemada Conceptual Plan
Composite Map

- Mineral Suitability**
MODERATE
- Pima County Conservation Land System**
Riparian
Pima County Faults
ALRIS Power Lines
- Flood Zones (Arroyo Engineering)**
A
AE
FW
- Percent Slope**
0-5%
5-10%
10-15%
15-25%
> 25%
- Miscellaneous Layers**
Jurisdictional Limits
Study Parcels
Interstate
Major Streets



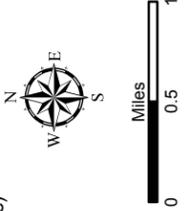
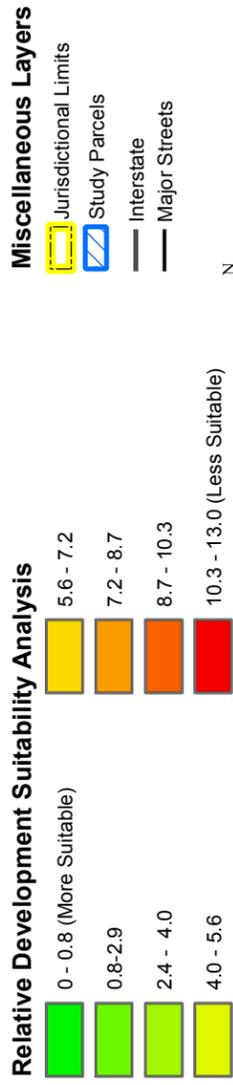
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Rincón Valley/Posta Quemada Conceptual Plan

Relative Development Suitability



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B. DEVELOPED CONDITIONS HYDROLOGY

Stormwater runoff that impacts the Plan Area originates from watersheds that drain the Rincon Mountains, located to the northeast, as well as other mountain ranges, located to the south and east. The watercourses located within and adjacent to the Plan Area are generally characterized as ephemeral natural watercourses, typical of the semi-arid southwest. Portions of the Cienega Creek that are within the boundaries of the Cienega Creek Natural Preserve are characterized as perennial watercourses. Generally the watercourses have sandy channel beds and well defined, stable channel banks. Floodplains are generally topographically confined within a relatively narrow corridor along the watercourse alignments.

The drainage alternative associated with this Plan Area is to provide for minimal disturbance to the existing 100-year floodplains and the associated riparian habitat. Typically disturbances to the natural watercourses would be limited to roadway and utility crossings. Local regulations do require implementing stormwater detention and/or retention for developments having a density of 3 residences per acre, or greater. For lower density developments, Pima County encourages the payment of a fee in lieu of on-site detention/retention, which is intended to fund regional flood control and/or detention facilities county-wide, as needed. New developments would also need to comply with all of the other County regulations related to drainage design.

C. HABITAT

Multiple options are available to minimize development impact to wildlife habitat in and around the Plan Area. To reduce loss of habitat and displacement of threatened species, development may be clustered or directed to less sensitive areas of the site. The floodway, a prime habitat area for many species, may be protected from disturbance by development. Land exchange is another way to preserve valuable habitat and works by directing development away from vulnerable areas. Coordination with the City of Tucson, Pima County, USFWS and AGFD on measures to minimized potential harm to significant species and habitats is recommended.

D. TRAFFIC

1. Traffic – Existing and Proposed Roadways and Access Points

As noted in Phase I of the Plan, there are several major roadway reconstruction projects proposed, as well as new traffic interchanges proposed along I-10. Based on the proposed Conceptual Land Use Plan, the proposed land uses could generate upwards of 113,400 daily trips within the Plan Area and on some of the surrounding roadways. As noted in Phase I of this Plan, the existing roadways have limited capacity as a result of their present roadway cross-sections. These roadways will need to be widened in order to handle the expected increase in the daily traffic. Listed below is a summary of the existing and proposed north-south and east-west roadways.

Existing and Proposed North-South Roadways

Presently there are two north-south roadways within the Plan Area: Camino Loma Alta and Pistol Hill Road, which are both 2-lane roadways. According to the Pima Association of Governments' (PAG) Adopted 2030 *Regional Transportation Plan*, Camino Loma Alta is programmed to widen from two to four lanes. The roadway improvement is slated for the "Medium Time Period".

Rincon Valley/Posta Quemada Conceptual Planning Program

Presently, Pistol Hill Road has not been included in the PAG's Adopted 2030 Regional Transportation Plan. Per the Pima County Major Streets and Scenic Routes Plan, amended May 2004, Camino Loma Alta has been classified as a Scenic Major Route and Pistol Hill Road has been classified as a Major Route. Camino Loma Alta will require 150 feet of right-of-way and Pistol Hill Road will require 120 feet of right-of-way.

Existing and Proposed East-West Roadways

Presently there are three east-west roadways within the Plan Area: Old Spanish Trail, Colossal Cave Road, and Marsh Station Road, which are two-lane roadways. According to the PAG's Adopted 2030 Regional Transportation Plan, Colossal Cave Road is programmed to widen from two to four lanes. The roadway improvement is slated for the "Medium Time Period". Per the adopted RTP, Marsh Station Road is included in the plan but the project is only for a bridge replacement and does not include widening the roadway. At this time, Old Spanish Trail from Camino Loma Alta east to the end, which is the entrance to Colossal Cave, has not been included in the PAG's Adopted 2030 Regional Transportation Plan. Per the Pima County Major Streets and Scenic Routes Plan, amended May 2004, Old Spanish Trail, Colossal Cave Road, and Marsh Station Road have been classified as Major Routes. Old Spanish Trail will require 120 feet of right-of-way, Colossal Cave Road will require 90 feet of right-of-way, and Marsh Station Road will require 150 feet of right-of-way.

Other Proposed Roadways

At this time there are no other roadways planned within the Plan Area.

Proposed Access Points – Interstate – 10 (I-10)

According to the Southeast Area Arterial Plan, Wentworth Road has been identified as the southerly extension of Colossal Cave Road. A new I-10 traffic interchange (TI) at Wentworth Road is planned.

2. Future Roadway Improvements within the Plan Area

The construction of the proposed north/south and east/west roadways noted above will be the responsibility of the Regional Transportation Authority.

Future Roadway Improvements – I-10

The construction of the noted traffic interchange along I-10 will be the responsibility of the Arizona Department of Transportation (ADOT), the Regional Transportation Authority, as well as possible developer funding. The timing and funding sources for the new interchange is unknown at this time.

3. Conceptual Land Use Plan – Changes to the Average Daily Traffic and Level of Service

Based on the proposed Conceptual Land Use Plan, there will be increases in the average daily traffic (ADT) and the Level of Service (LOS) on the roadways noted in Phase I of the Plan. In all cases the ADT will increase on the roadways and the LOS will be degraded. The Level of Service is a qualitative description of how well a roadway and/or intersection operates under certain traffic conditions. LOS uses a grading system similar to academic grades, A through F. LOS A is a free-flow traffic condition and LOS F is a forced flow with extreme congestion condition. See

Rincon Valley/Posta Quemada Conceptual Planning Program

attached Table 2 which shows the roadways, the expected roadway cross-section, the functional classification, the expected future ADT, and the expected future LOS. The results indicate that the roadways will need to be constructed as a 6-lane divided roadway minimum.

4. Minimizing Traffic Impacts

Pima County has adopted Access Management principals within the Pima County Roadway Design Manual. By applying these principles to the proposed Conceptual Land Use Plan (CLUP), traffic impacts to the existing and proposed roadways can be minimized. By locating commercial and industrial uses along the main arterial roadways and by controlling the number of intersecting driveways and the distance between driveways, impacts to the capacity of the roadways can be minimized. The best way to maintain capacity on a roadway is to limit the number of intersecting driveways between major signalized or unsignalized intersections and to provide the maximum distance between driveways. Intersecting driveways create “side friction” along a roadway thus slowing the flow of traffic. By limiting the driveways and maximizing the distance between driveways, the “side friction” will be reduced and the flow of traffic can be maintained between major signalized or unsignalized intersections. Another way to reduce traffic impacts and congestion is to promote alternative modes of transportation in lieu of the automobile such as bicycle and/or public transit.

5. Bicycle and Pedestrian Pathways

The construction of bicycle routes/lanes and pedestrian facilities (i.e. sidewalks, pathways, and trails) will be encouraged along the existing roadways. These facilities shall be designed and constructed to the latest Agency guidelines.

6. Roadway Rights-of-Way and Public vs. Private Roadways

The required roadway rights-of-way will be as dictated by the Agency guidelines for the particular roadway’s functional classification. It is anticipated that the roadways will be designed and constructed to the latest Agency standards with the intent that when the roadways are completed, they will be accepted by the Agency for future dedication and maintenance.

Rincon Valley/Posta Quemada Conceptual Planning Program

TABLE 2

PROPOSED CONDITIONS						
NORTH/SOUTH ROADWAYS						
ROADWAY SEGMENT	FROM	TO	PROJECTED NO. OF LANES - ***	FUNCTIONAL CLASSIFICATION - *	PROJECTED 2025 AVE. DAILY TRAFFIC - **	CAPACITY at LOS D - ***
Camino Loma Alta	Old Spanish Trail	Colossal Cave Road	6	Major Arterial	100,000	49,300
Pistol Hill Road	Old Spanish Trail	Colossal Cave Road	6	Major Arterial	50,000	49,300
EASTWEST ROADWAYS						
ROADWAY SEGMENT	FROM	TO	PROJECTED NO. OF LANES - ***	FUNCTIONAL CLASSIFICATION - *	PROJECTED 2025 AVE. DAILY TRAFFIC - **	CAPACITY at LOS C - ***
Old Spanish Trail	Camino Loma Alta	Colossal Cave Entrance	6	Major Arterial	80,000	49,300
Colossal Cave Road	Camino Loma Alta	end of the road	6	Major Arterial	35,000	49,300
Marsh Station Road	Colossal Cave Road	County line	6	Major Arterial	60,000	49,300

* From the Adopted 2030 Regional Plan

** Based on information from the "Conceptual Land Use Plan"

*** From the Florida Department of Transportation, 2002 Quality/Level of Service Handbook

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E. SEWERS

The project sites are located within the Rincon Valley/Posta Quemada Conceptual Plan Area. The north block is situated just east of Camino Loma Alta and lies entirely within the Pima County Wastewater Management ("PCWWM") Roger Road Sanitary Sewer Basin service area. A small portion of the southwest block (LIU-0.5) is also located within the aforementioned basin. The bulk of the block lies outside of any currently defined basin. Sanitary sewer discharges from this basin are conveyed through the wastewater infrastructure to the existing Roger Road Wastewater Treatment Plant (WWTP) that is located just north of Prince Road between Interstate 10 and the Santa Cruz River, with limited PCWWM diversion capability to the Ina Road Wastewater Pollution Control Facility (WPCF).

According to the 2006 Metropolitan Area Facility Plan Update published by PCWWM and Brown and Caldwell, the current capacity of the Roger Road WWTP is 41 million gallons per day ("MGD"). Per the Plan Update, in the year 2000 flows to the Roger Road WWTP were already exceeding that capacity. The 2006 Metropolitan Area Facility Plan Update has included our project sites as areas within the Roger Road WWTP tributary area that will experience significant population growth, and would further exceed the treatment capacity at the Roger Road Plant. PCWWM is currently able to manage a portion of the Roger Road WWTP flows by diverting them to the Ina Road WPCF, which currently has excess capacity; however, that ability is limited by the current structures. A 2004 Bond Authorization Project was passed by Pima County voters to construct a plant interconnect that will increase the amount of Roger Road wastewater tributary that can be diverted to the Ina Road Plant by the year 2018.

Of the development designations for the Rincon Valley/Posta Quemada Concept Plan Area, the Low Intensity Rural (LIR) and Resource Transition (RT) areas have planned densities less than one dwelling unit per acre and, therefore, have the option of using individual onsite disposal systems (septic) as long as the individual residential lots are a minimum of one acre in size (Pima County Code Title 7). The Low Intensity Urban (LIU) land use categories also have the option of septic systems if they are developed at a one acre minimum lot size. Commercial uses do not have the minimum lot size restriction and can utilize septic disposal systems if necessary.

For the Study Parcels lying directly east of Camino Loma Alta, there are several sewer mains that provide service to the adjacent subdivisions on the west of Camino Loma Alta (south of Old Spanish Trail) that can provide service to that area. Limited offsite sewer main extensions would be necessary if the development of the project sites proceeded in a west to east direction.

As mentioned in the first paragraph, a small portion of the southwest block lies within the Roger Road Sanitary Sewer Basin. Because of topographic issues, only the westernmost section of that block could be served by sewer if an existing main were constructed from the nearest existing manhole (which is approximately 3 miles to the northwest in Mary Ann Cleveland Drive). Without any appropriately located treatment plants in the future, the remainder of the site would likely be served by individual onsite septic disposal sites.

Based on the future planned improvements to the wastewater flow management system to the Roger Road WWTP, it appears the north parcel and a small portion of the southwest parcel can be served by gravity sewer. Septic wastewater disposal systems are options for single dwelling lots sized one acre or greater. Depending upon the sequence of development, the north parcel could

Rincon Valley/Posta Quemada Conceptual Planning Program

be served with limited offsite sewer main construction. The small piece of the southwest parcel would require construction of extensive (3 miles±) offsite sewer main. The remainder of the southwest parcel could be served by onsite disposal systems.

F. WATER

The Rincon Valley/Posta Quemada Plan Area is served by six Water Service Providers including: Vail Water Company, which serves the greatest portion of the western Plan Area; Spanish Trail Water Company serving the northwest; Saguaro Water Company and Rincon Creek Water Company serve developments in the northwest quadrant of the Plan Area west of the Study Parcels; and Pantano Properties HOA provides water west of Camino Loma Alta. There are several unknown water providers within the Plan Area.

See **Water Service Providers Exhibit**, in Phase I, Section B: Water Resources/Hydrology.

G. SCHOOLS

The Plan Area falls within the Vail School District (VSD). The school boundary map for the district assigns students in the Plan Area living north of Colossal Cave Road to attend Ocotillo Ridge Elementary School, Old Vail Middle School, and their choice of High School (Cienega, Empire or Vail). The area south of Colossal Cave Road assigns students to Acacia Elementary School, Old Vail Middle School, and their choice of High School.

ENROLLMENT AND CAPACITY

Enrollment numbers at all schools are expected to increase in the next five years due to rapid increase in development in the area. The standards for multipliers to calculate projected enrollments of students include:

Elementary (5-9 year old)	.32 student/residence
Middle School (10-14 year old)	.10 student/residence
High School (15-17 year old)	.12 student/residence

The numbers of new schools needed to accommodate student populations use the following ratios:

Elementary	600 students/building
Middle School	600 students/building
High School	900 students/building

The estimated number of students generated by the Conceptual Land Use Plan is 4,602 total students based on a mid-range density of 8,522 total new residences as proposed in the Plan. This projected student population consists of 2,727 elementary students, 852 middle school students, and 1,023 high school students.

The proposed land uses will create the need for an additional five (5) Elementary School buildings, one (1) Middle School building, and one (1) High School building.

Rincon Valley/Posta Quemada Conceptual Planning Program

H. RECREATION AND TRAILS

The size and locations of recreation areas for the Study Parcels will be in keeping with Pima County's requirements for open space and recreation areas with respect to existing features including Cienega Creek Natural Preserve, Colossal Cave Mountain Park, and on-going development of a network of trails.

I. CULTURAL/ARCHAEOLOGIC/HISTORIC RESOURCES

All activity on site will comply with ASLD, State Historic Preservation Office (SHPO) and Pima County historic preservation and cultural resources ordinances, regulations and policies. Prior to any transfer of ownership of ASLD lands preceding development, a resource assessment program must be in place to survey and evaluate the significance of resources to be affected by the proposed land use and outline an effective preservation and mitigation plan or data recovery and documentation plan for those resources determined to have significant research or other value.

J. PROJECT OVERVIEW: CONCEPTUAL LAND USE PLAN

The Conceptual Land Use Plan utilizes the Pima County Comprehensive Plan land use designations, including:

URBAN INTENSITY CATEGORIES

Community Activity Center (CAC): Areas designated for medium intensity mixed-use to provide goods and services needed generally on a weekly basis along with compatible medium to high density housing types. The center may include a major supermarket, along with other anchor tenants such as a discount department store, large variety store, or specialty stores such as a hardware/building/home improvement store. The center includes complementary uses such as high density housing, offices, and government services. Public transit provides direct access to these centers as well as connections to regional activity centers. The center has direct access to a major arterial roadway, with pedestrian and bicycle paths providing access from surrounding neighborhoods. Community Activity Centers are generally less than 40 acres in size with a maximum of 24 RAC.

Neighborhood Activity Center (NAC): Areas designated for low intensity mixed-use to provide convenience goods and services within or near suburban residential neighborhoods for day-to-day living needs that do not attract vehicle trips from outside the immediate service area. The center may include a mix of medium density housing types. Neighborhood Activity Centers are generally less than fifteen acres in size. The maximum density is 10 RAC.

Medium High Intensity Urban (MHIU): Areas designated for a mix of medium to high density housing types and other compatible uses. The maximum density is 24 RAC.

Medium Intensity Urban (MIU): Areas designated for a mix of medium density housing types and other compatible uses. The maximum density is 10 RAC.

Low Intensity Urban 0.3, 0.5, 1.2, and 3.0 (LIU-0.3, LIU-0.5, LIU-1.2, and LIU-3.0): Areas designated for low density residential and other compatible uses with incentives for clustering

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residential development and providing natural open space; and to provide opportunities for a mix of housing types throughout the region.

- Maximum density for LIU 0.3 RAC may be increased in accordance with cluster options (0.7 RAC with 30 percent cluster open space plus 20 percent natural open space or 1.2 RAC with 30 percent cluster open space plus 40 percent natural open space).
- Maximum density for LIU 0.5 RAC may be increased in accordance with cluster options (1.2 RAC with 30 percent cluster open space and 20 percent open space or 2.5 RAC with 30 percent cluster open space plus 35 percent natural open space).
- Maximum density for LIU 1.2 RAC may be increased in accordance with cluster options (2.5 RAC with 30 percent cluster open space plus 15 percent natural open space or 4.0 RAC with 30 percent cluster open space plus 30 percent natural open space).
- Maximum density for LIU 3.0 RAC may be increased in accordance with cluster options (4.0 RAC with 30 percent cluster open space).

RURAL INTENSITY CATEGORIES

Medium Intensity Rural (MIR): Areas designated for residential uses at densities consistent with rural settlements in close proximity to Rural Activity Centers. The residential gross density applies only to land zoned and planned for residential use, or natural or cluster open space areas. The maximum RAC is 1.3.

Low Intensity Rural (LIR): Areas designated for residential uses at densities consistent with rural and resource-based characteristics. The maximum RAC is 0.3.

URBAN AND RURAL INTENSITY CATEGORIES

Urban Industrial (I): Areas designated for industrial uses that, if properly located and regulated, are compatible with certain types of commercial activities, but generally incompatible with residential uses.

Resource Transition (RT): Private land with environmentally sensitive characteristics that include wildlife corridors, natural washes, floodplains, peaks and ridges, buffers to public preserves, and other environmentally sensitive areas. Development of such land shall emphasize design that blends with the natural landscape and supports environmentally sensitive linkages in developing areas.

Resource Conservation/Public Preserves (RC): Public land that protects existing public open space land necessary to achieve objectives regarding environmental quality, public safety, open space, recreation and cultural heritage and to promote an interconnected regional open space network, including parks, trails, desert belts and other open space areas.

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The following table summarizes the acreages and population projection for each land use in the Conceptual Plan Area. The number of dwelling units (DU) is calculated at both the minimum and maximum ends of the density ranges for that land use category. The projected population for the area is the number of dwelling units multiplied by 2.47 persons per household (Pima Association of Governments). The Plan Area is estimated to be within a 20 year build-out period.

LAND USE TABLE

Land Use Category (DU/ac)	Total Acreage	Min Density (DU/ac)	Max Density (DU/ac)	Min Total DU	Max Total DU	Min Population (2.47 pph)	Max Population (2.47 pph)
NAC (0-10)	27	0	10	0	270	0	667
MIU (0-10)	287	0	10	0	2,870	0	7,089
LIU-0.3 (0.3-1.2)	2,142	0.3	1.2	643	2,570	1,588	6,348
LIU-0.5 (.5-2.5)	2,115	0.5	2.5	1,058	5,288	2,613	13,061
LIU-1.2 (1.2-4.0)	485	1.2	4.0	582	1,940	1,438	4,792
LIR (0-0.3)	1,485	0	0.3	0	446	0	1,102
RT (0-0.3)	4,589	0	0.3	0	1,377	0	3,401
TOTAL	11,129			2,283	14,761	5,639	36,460

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APPENDIX

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TRANSPORTATION ANALYSIS ZONES (TAZ) ANALYSIS

Population Projections

National demographic forecasts indicate that small and mid-size Arizona communities will grow rapidly over the next generation. The Rincon Valley/Posta Quemada fits this growth scenario and is well positioned with transportation advantages and plenty of developable land area. More developable acreage can be added by flood control projects that protect previously flood-prone land.

In the following table, the estimated population growth of the Rincon Valley/Posta Quemada is presented, indicating that the significant increases in the past will continue in the future, particularly through 2015. Forecasts are made through the year 2030 with the annual percentage of growth in each 5-year period also represented.

Current and Projected Population Growth for Rincon Valley/Posta Quemada

Year	Population	Average Annual % Increase
2000	16,575	---
2015	23,420	3%
2030	41,182	5%

Sources: Year 2000 Census; Pima Association of Governments

According to the Pima Association of Governments, population in the Rincon Valley/Posta Quemada can be expected to grow from 16,575 in 2000 to just over 23,420 by 2015 and 41,182 by 2030. Annual growth percentages during this 15-year period from 2000 to 2030 are 5%.

In performing the Needs Analysis for the Phase II Plan Area, information on Transportation Analysis Zones (TAZs) in a digital format were acquired from the Pima Association of Governments. The TAZ database contains both 2015 and 2030 population projections based on 2000 Census information. The TAZ data were clipped and recalculated to acquire only the portions of the respective TAZs that applied to the Plan Area. After adjusting the population projections for the State Land Study Parcels, the population projections and demographic information were recalculated. The population projections were then calculated to a density basis of people per acre to represent the projected growth areas for 2015 and 2030 and are identified on the following two maps.

Population, employment and school projection information were obtained from the Pima Association of Governments (PAG) for the years 2015 and 2030 in the form of GIS shapefiles. These datasets represent the spatial distribution of DES-determined demographic information to the sub-county level (Transportation Analysis Zones) as determined by PAG and its member jurisdictions. The TAZ data were clipped to the Plan Area and their demographic information was transferred on an area-proportional basis.

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Once the population projections were determined for the State Lands, the TAZ demographic information was used to determine the total acreage needed for residential, commercial, industrial/office, open space and schools. Below are the acreages generated from the Needs Analysis along with the assumptions and methodologies for calculating them.

Need Analysis Projections based on TAZs

	Plan Area	
	2015	2030
Population (# of people)	23,420	41,182
Residential (# of homes)	9,482	16,673
Commercial (# of acres)	58	100
Industrial/Office (#of acres)	181	319
Schools (# of acres)	158	278
Open Space (# of acres)	2,342	4,118

Assumptions:

Population- Source: Pima County Association of Governments Transportation Analysis Zone populations. The populations were recalculated using an adjustment ratio for the TAZ's that were clipped to fit the State land parcels.

Residential: Source- Pima County Association of Governments- Average persons per household (pph) is 2.47pph. This is an average of Pima County's pph.

Commercial Source: Urban Planning and Design Criteria by Joseph DeChlara and Lee Koppleman.

4,000 people needed to support neighborhood commercial center (4-8 ac)

35,000 people needed to support community center (10-30 ac)

150,000 people needed to support regional center (40-100 ac)

Industrial/Office Source: University of Arizona – 45% of the population is employed. The acreage assumes .45 jobs/person, 250 sq ft of office space per employee and a 0.3 F.A.R (Floor Area Ratio).

Schools: This number was calculated by assigning each home 0.5 students and using 600 students to one elementary school, with each school site requiring 20 acres.

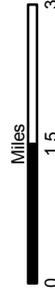
Open Space: Source: Park, Recreation Open Space and Greenway Guidelines, 1996, by National Recreation & Park Association – Uses a standard of 10 acres of open space per 1,000 people.

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2015 Population Density
by TAZ

-  Interstate
-  Major Roads
-  Major Washes (ALRIS)
-  Study Parcels

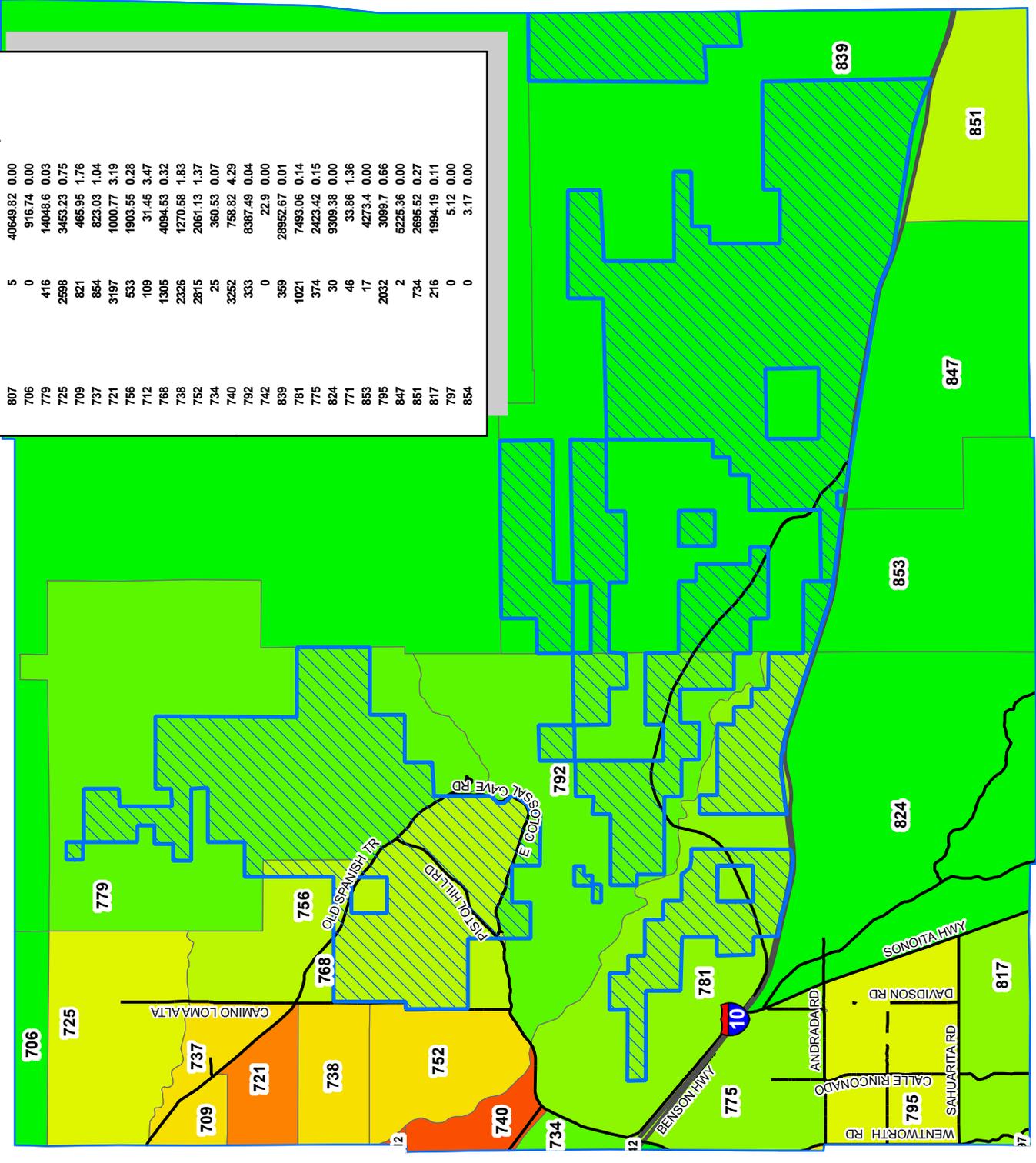
Persons Per Acre 2030



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Map Date: 01/18/07

TAZ	POPTOTAL	Acres	Pop Per Acre
807	5	40649.82	0.00
706	0	916.74	0.00
779	416	14048.6	0.03
725	2598	3453.23	0.75
709	821	465.95	1.76
737	854	823.03	1.04
721	3197	1000.77	3.19
756	533	1903.55	0.28
712	109	31.45	3.47
768	1305	4094.53	0.32
738	2326	1270.58	1.83
752	2815	2061.13	1.37
734	25	360.53	0.07
740	3252	758.82	4.29
792	333	8387.49	0.04
742	0	22.9	0.00
839	359	28952.67	0.01
781	1021	7493.06	0.14
775	374	2423.42	0.15
824	30	9309.38	0.00
771	46	33.86	1.36
853	17	4273.4	0.00
795	2032	3099.7	0.66
847	2	5225.36	0.00
851	734	2695.52	0.27
817	216	1994.19	0.11
797	0	5.12	0.00
854	0	3.17	0.00

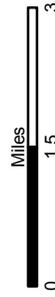
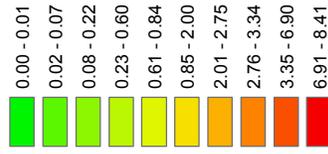


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2030 Population Density
by TAZ

-  Interstate
-  Major Roads
-  Major Washes (ALRIS)
-  Study Parcels

Persons Per Acre 2030



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Map Date: 01/18/07

TAZ	POPTOTAL	Acres	PopPerAcre
807	5	40649.82	0.00
706	0	916.74	0.00
779	549	14048.6	0.04
725	5029	3463.23	1.46
709	1527	465.95	3.28
737	1647	823.03	2.00
721	6136	1000.77	6.13
756	975	1903.55	0.51
712	217	31.45	6.90
768	2470	4094.53	0.60
738	4241	1270.58	3.34
752	5066	2061.13	2.46
734	25	360.53	0.07
740	6380	758.82	8.41
792	337	8387.49	0.04
742	0	22.9	0.00
839	426	28952.67	0.01
781	1450	7493.06	0.19
775	531	2423.42	0.22
824	30	9309.38	0.00
771	93	33.86	2.75
853	21	4273.4	0.00
795	2606	3099.7	0.84
847	2	5225.36	0.00
851	1031	2695.52	0.38
817	388	1994.19	0.19
797	0	5.12	0.00
854	0	3.17	0.00

