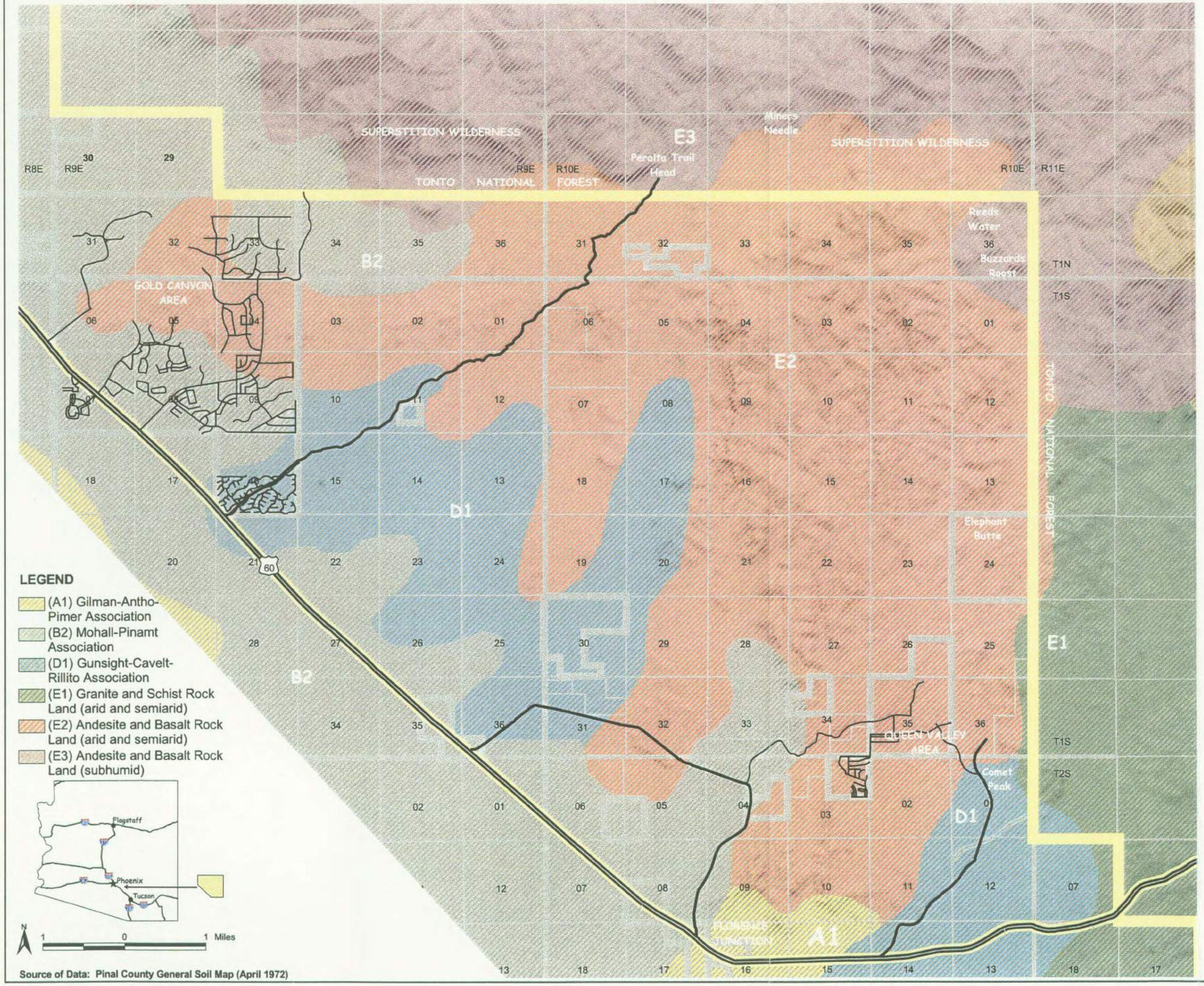

Source of Data: Pinal County General Soil Map (April 1972)

SOILS

There are six main soil associations within the Study Area. While the exact type of soil at any particular place is not documented, the pattern of occurrence on the landscape is documented.

(A1) THE GILMAN-ANTHO-PIMER ASSOCIATION

These soils are deep, medium, moderately course and moderately fine textured soils, formed in recent alluvium from mixed sources, and level to gently sloping.

(B2) THE MOHOLL-PINAMT ASSOCIATION

These soils are deep, nearly level to gently sloping soils formed in old mixed alluvium. They are also found on slight ridges and upper fans with slopes of about one to five percent.

(D1) THE GUNSIGHT-CAVELT-RILLITO ASSOCIATION

This association consists of strongly calcareous, mixed old alluvium from a variety of rocks on slopes of two to 15 percent.

(E1) THE GRANITE AND SCHIST ROCK LAND (ARID & SEMI ARID) ASSOCIATION

Igneous rock outcrop makes up most of this soil association.

(E2) THE ANDESITE AND BASALT ROCK LAND (ARID/SEMIARID) ASSOCIATION

These soils consists of arid and semiarid mountains and buttes composed mainly of andesite and basalt. In addition, there are various mixtures of tuffs and tuff agglomerate rocks, and small amounts of dacite, rhyolite, and sedimentary rocks. Slopes range from 5 to 60 percent or more.

(E3) THE ANDESITE AND BASALT ROCK LAND (SUBHUMID) ASSOCIATION

This association consists of the rough and mountainous areas of andesite, basalt, and tuff agglomerate. Approximately 50 to 60 percent of this association is shallow or very shallow. Gravely, cobbley, or stoney, medium to fine textured solid between rock outcroppings, with small areas of moderately deep soils included. Slopes range from 5 to 45 percent.

SUITABILITY FOR DEVELOPMENT

The importance of soil associations relates to their physical affect on development. Some soils are well suited for development, and others may be extremely prohibitive.

The soil associations in the Study Area are generally split between suitable and unsuitable. All of the Rock Land associations (E1, E2, E3) have severe limitations for all development scenarios. The most suitable soil areas for development are (A1) & (B2), with (D1) soil areas being somewhat suitable, and the remaining soil areas least suitable for development.

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DRAINAGES & FLOODPLAINS

The Study Area's drainage is characterized by washes (ephemeral streams) that drain out of the Superstition Mountains into the valley floor through fan shaped areas of alluvial (sand, mud, gravel, etc.) deposits.

Washes within the alluvial fans are not always clearly defined, and have a tendency to meander. As a result, their floodplains are not easily determined. The direction of drainage is generally southwesterly.

Several of these drainages are considered areas of potential flood hazard by the Federal Emergency Management Agency (FEMA).

ZONE A FLOOD AREAS

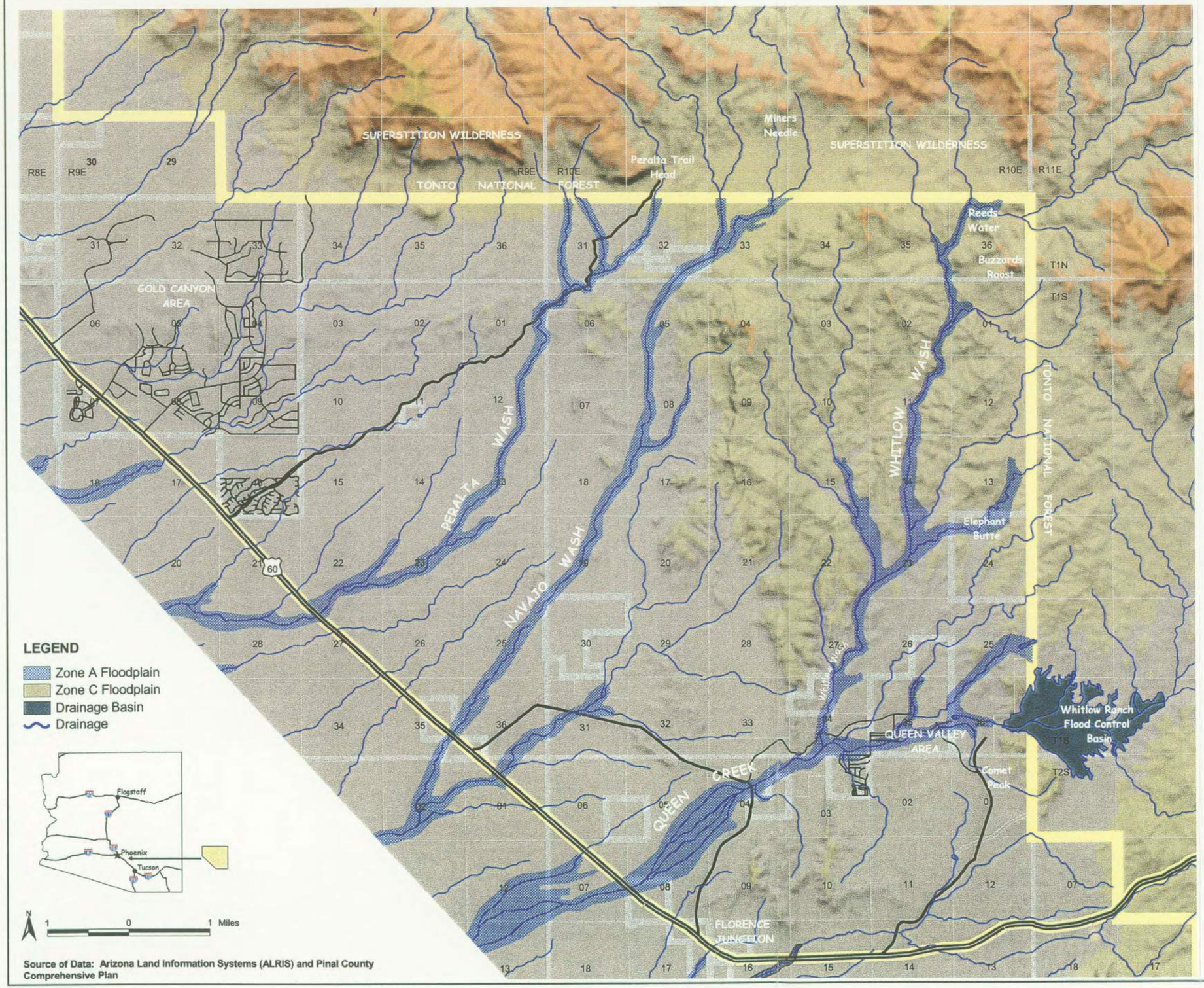
FEMA designates "Zone A" drainages as 100 year flood prone, or where flooding has a one percent chance of occurring in any given year. The Zone A drainages in the Study Area are Queen Creek, Whitlow Wash, Navajo Wash, and Peralta Wash.

ZONE B FLOOD AREAS

FEMA designates "Zone B" drainages as between the limits of the 100 year floodplain and the 500 year floodplain; or those subject to 100 year flooding that is less than one foot in depth; or, in an area where contributing drainage is less than one square mile; or, protected by levees from a base flood. The only Zone B area in the Study Area is the Queen Valley area, which is protected by Whitlow Ranch Dam. Queen Valley's Zone B covers parts of Donna Drive, Queen Valley Drive, and Diane Drive.

ZONE C FLOOD AREAS

The remainder of the Study Area is designated "Zone C" by FEMA. These are areas of minimal flooding.



Source of Data: Arizona Land Information Systems (ALRIS) and Pinal County Comprehensive Plan

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VEGETATION

The natural vegetation of the Study Area is characteristic of the Sonoran Desert Scrub (Arizona Upland Subdivision).

PERENNIAL SPECIES

The dominant perennial species in this type include foothills palo verde, creosote bush, and triangle leaf-bursage along with numerous cacti from the prickley-pear, cholla, and barrel cactus groups. Landscape elements receiving additional runoff water also support more mesic species including mesquite and ironwood. Saguaro cacti also are a visually dominant component of the flora and occur principally on bajadas and mountain sides.

ANNUAL SPECIES

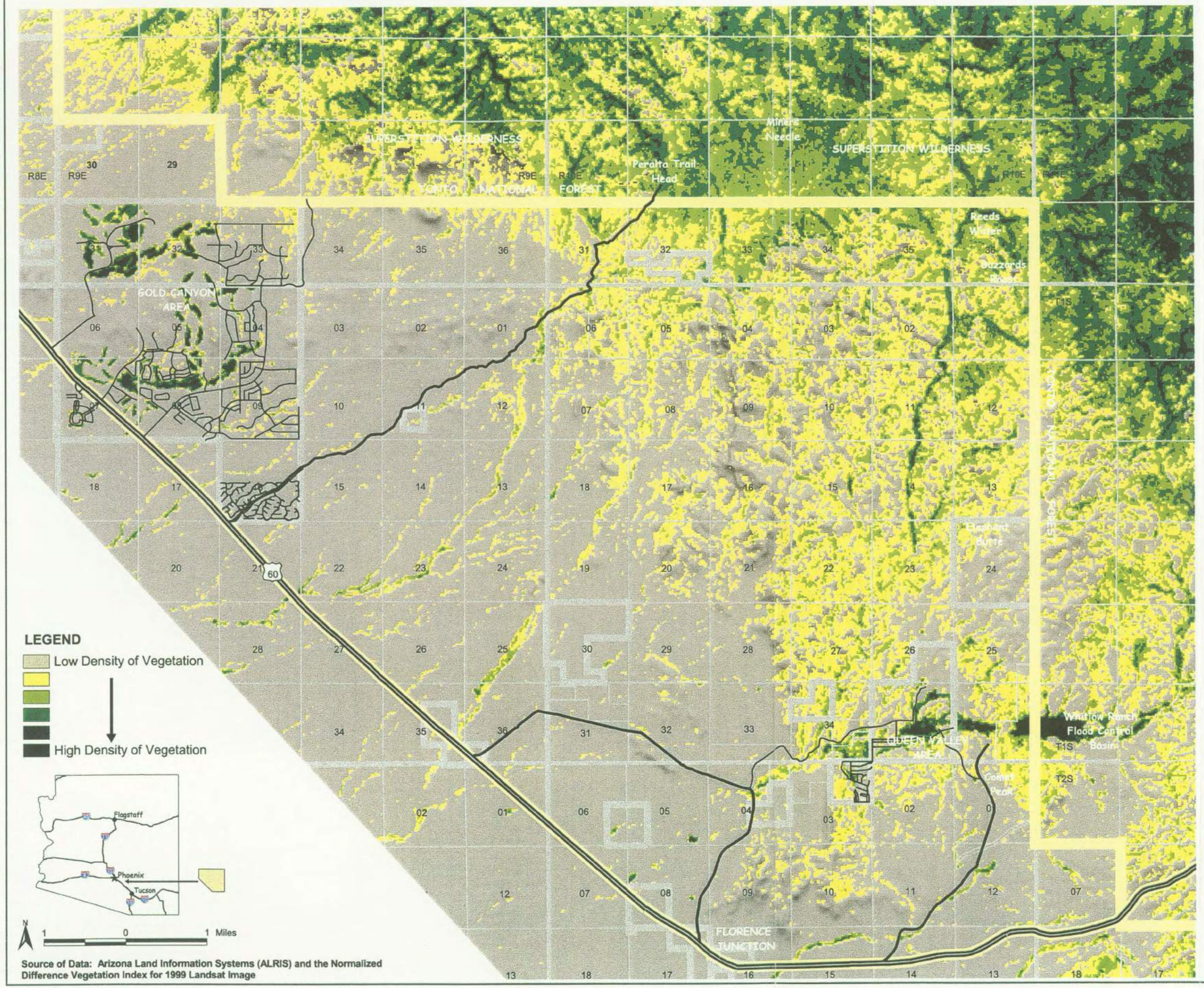
The annual component of the vegetation communities is also ecologically very important to wildlife species and varies greatly from year to year depending upon precipitation patterns. A significant part of the annual flora is now non-native, introduced species.

RIPARIAN

A particularly important component of the vegetation is the riparian type which occurs both near springs and along ephemeral streams. Both riparian woodlands (higher elevations and higher stream flows) and riparian scrub lands (lower elevations and lower stream flows) occur in the Study Area. Species that occur in the riparian woodland include cottonwoods, willow, and desert hackberry. Riparian scrub lands in the Study Area support populations of mesquite and higher densities of species characteristic of the surrounding upland communities.

HABITAT

These riparian communities play critical roles in the feeding, nesting, resting, and travel of wildlife species. While the geographic size of the riparian communities is small, their ecological importance is immense. Riparian communities form ecological corridors through the desert scrub matrix, which are both very important and very susceptible to fragmentation.



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WILDLIFE

Wildlife within the Study Area depend on the vegetation communities to meet basic food and cover needs. Habitat quality depends on plant species present within the community and densities of plants (i.e. biodiversity of the vegetation community). Higher diversity plant communities generally provide better wildlife habitat. Within the Study Area the riparian communities (those associated with the springs and ephemeral streams) provide critical functional links across the landscape and their importance to wildlife habitat cannot be over emphasized.

MAMMALS

Big game species include mountain lions, mule and white-tail deer, and javalina. Small game species include cottontail rabbits and black-tailed jackrabbits, both occurring in low to medium densities. Numerous other mammal species are resident in the Study Area including: rodents (e.g. kangaroo rats, ground squirrels, mice and woodrats), carnivores and omnivores (e.g coyotes, the grey fox, ringtail cat, skunks, and bobcats), and several species of bats.

BIRDS

Game birds which use the Study Area, at least seasonally, include white-winged and mourning doves. Quail, including Gambel's quail are also present. Waterfowl, particularly teal species, use stock tanks in the Study Area in the spring and fall.

A rich diversity of other birds occurs in the Study Area. These birds would include raptors (e.g. turkey vultures, several hawks, and the golden eagle), owls (e.g. the pygmy owl), and numerous songbirds (passeriformes) varying in size from ravens to flycatchers, wrens, and sparrows.

REPTILES

Reptiles include the desert tortoise, numerous lizards, the Gila monster, and several snake species including gopher snakes and the western diamondback rattlesnake.

ENDANGERED SPECIES

The desert tortoise is listed as a candidate species on Arizona's Threatened Native Wildlife list and is listed as a candidate Category 2 species under the Federal Endangered Species Act. The desert tortoise occurs primarily in the Superstition Mountains.

Other species of concern in the Study Area are the federal endangered cactus ferruginous pygmy owl, which occurs both in desert scrub and riparian vegetation, and the Gila monster which is considered a "vulnerable" species.

LEGEND

- Lower Likelihood for habitat
- Higher Likelihood for Habitat
- Federally Designated Critical Habitat for the Cactus Ferruginous Pygmy-Owl

Flagstaff
Phoenix
Tucson

N 1 0 1 Miles

Source of Data: The State of Arizona Game and Fish Department

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ARCHAEOLOGY & HISTORY

The archaeological and historical significance of the Study Area is extremely important. There are numerous archaeological and historical sites within the Study Area, including culturally sensitive sites located throughout the foothills, around springs, and along washes.

ARCHAEOLOGICAL SITES

The archaeological sites within the Study Area are primarily Hohokam petroglyph sites, campsites, grinding sites or areas of shard and lithic scatters, located on ridgelines, rock outcroppings, around springs, along washes, and within floodplains.

SPRINGS

The most likely areas of potential archaeological sites are in areas surrounding the many natural springs within the Study Area.

FLOODPLAINS

The next likely areas are within the floodplains of the Study Area.

WASHES

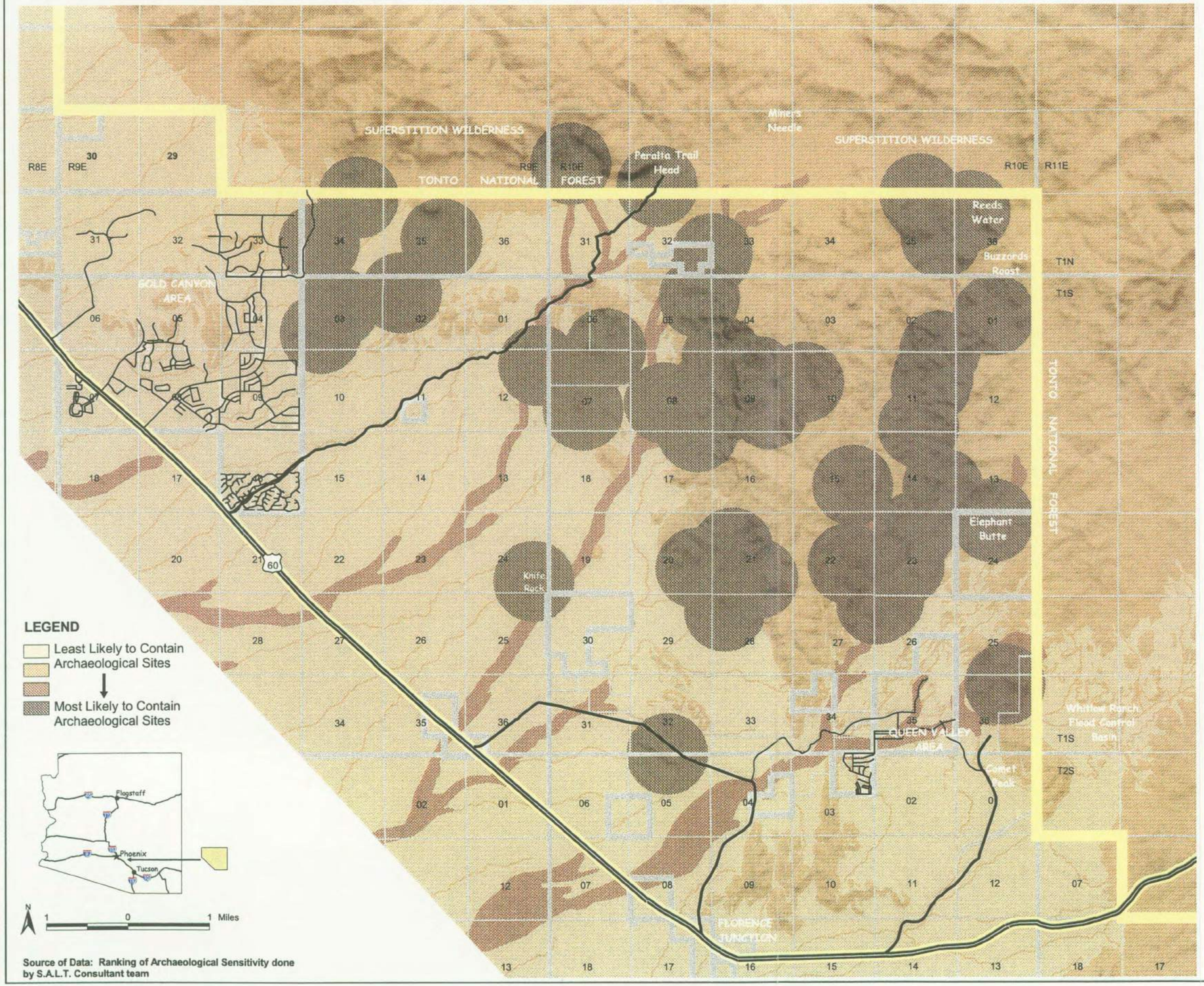
The many washes within the Study Area are also likely areas for potential archaeological sites.

FOOTHILLS

Numerous rock outcroppings and ridgelines throughout the Study Area are likely sites for archaeological petroglyphs and other finds.

HISTORICAL SITES

The historical sites within the Study Area are primarily ranching cabins, corrals, and the like, or mining pits and artifacts.



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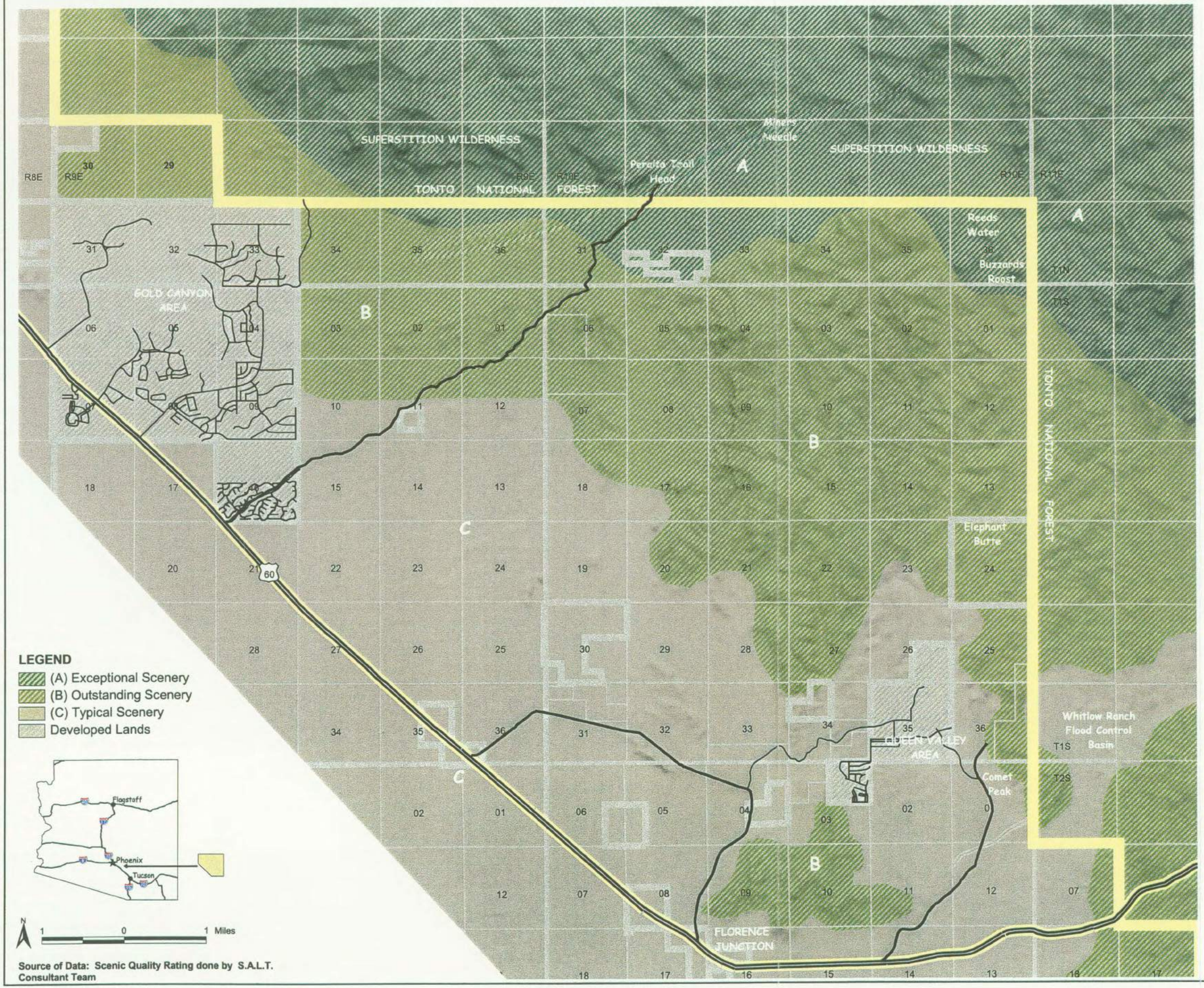

Source of Data: Scenic Quality Rating done by S.A.L.T. Consultant Team

SCENIC QUALITY

Scenic quality is perhaps best described as the overall impression retained after driving through, walking through, or flying over an area of land.

For the purposes of this Study, aspects of the U.S. Forest Service and Bureau of Land Management scenic quality rating systems have been considered and applied to determining scenic quality areas within the Study Area.

The Study Area is divided into scenic quality units that appear homogeneous in landform and vegetation. The scenic quality of these units has then been ranked from what will be deemed Exceptional, to Outstanding, to Typical scenic quality.

Generally, the Superstition Mountains are considered Exceptional the foothills, Outstanding, and the valley, Typical. Those areas which constitute urban development are not rated.

(A) EXCEPTIONAL SCENERY AREAS

These areas combine the most outstanding characteristics of the physiographic region's landforms, vegetation, water, color, and adjacent scenery, with no roads or structures.

(B) OUTSTANDING SCENERY AREAS

These areas include a combination of some outstanding characteristics, and some that are fairly common to the physiographic region, with few roads or structures.

(C) TYPICAL SCENERY AREAS

These areas include features which are fairly common to the physiograhic region, and have many dirt roads and developments. These areas are typical of most state urban trust lands.

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RECREATION & TOURISM

The Tonto National Forest and the Superstition Wilderness are major recreational attractions, drawing visitors from all over the world.

SUPERSTITION WILDERNESS

The Superstition Wilderness bounds the Study Area on the north and east. It is comprised of 159,780 acres, or 242 square miles. The tourism dollars generated by visitors are significant to the cities of Mesa and Apache Junction and to Pinal County.

U.S. HIGHWAY 60

The Study Area is bounded on the southwest by this primary recreational transportation corridor to the Roosevelt Reservoir, scenic Salt River Canyon, and the White Mountains to the northeast.

PERALTA ROAD AND TRAILHEADS

Peralta Road passes through the Study Area to Peralta Trailhead, hub of one of the state's most popular hiking trail systems in the Superstition Wilderness. Frequent users of Peralta road are campers, hunters, and horsemen. Peralta Road has historically been a dirt road, carrying vehicles and horse trailers. However, the first mile has recently been paved and curbed through a new development at the junction with Highway 60. This urbanization of Peralta Road significantly alters the beginning of the wilderness trek experience from Highway 60.

LOST GOLDMINE TRAIL

This eleven mile recreational trail lies on State Trust Land across the northern edge of the Study Area, adjacent to the Superstition Wilderness. It connects with Jacob's Crosscut Trail at Lost Dutchman State Park, completing a trail system around and through the Superstitions.

LOST DUTCHMAN MARATHON

This official 26.2 mile marathon is held in January, and begins on Peralta Road, meandering through the study area on local roads and U.S. 60.

THE TRADITIONS GOLF TOURNAMENT

The annual international Traditions Golf tournament is host to the world's golfing legends and has recently been relocated to the Superstition Mountain golf course in the Study Area.

RENAISSANCE FAIR

The Arizona Renaissance Fair is one half mile past Peralta Road, on the west side of Highway 60. It attracts more than 250,000 visitors on weekends every February and March.

LEGEND

- Highway
- Roadway
- Trail

1 0 1 Miles

Source of Data: Trail and Recreation/Tourist locations provided by S.A.L.T. (inventory done by Jack Carlson) and The United States Geological Survey

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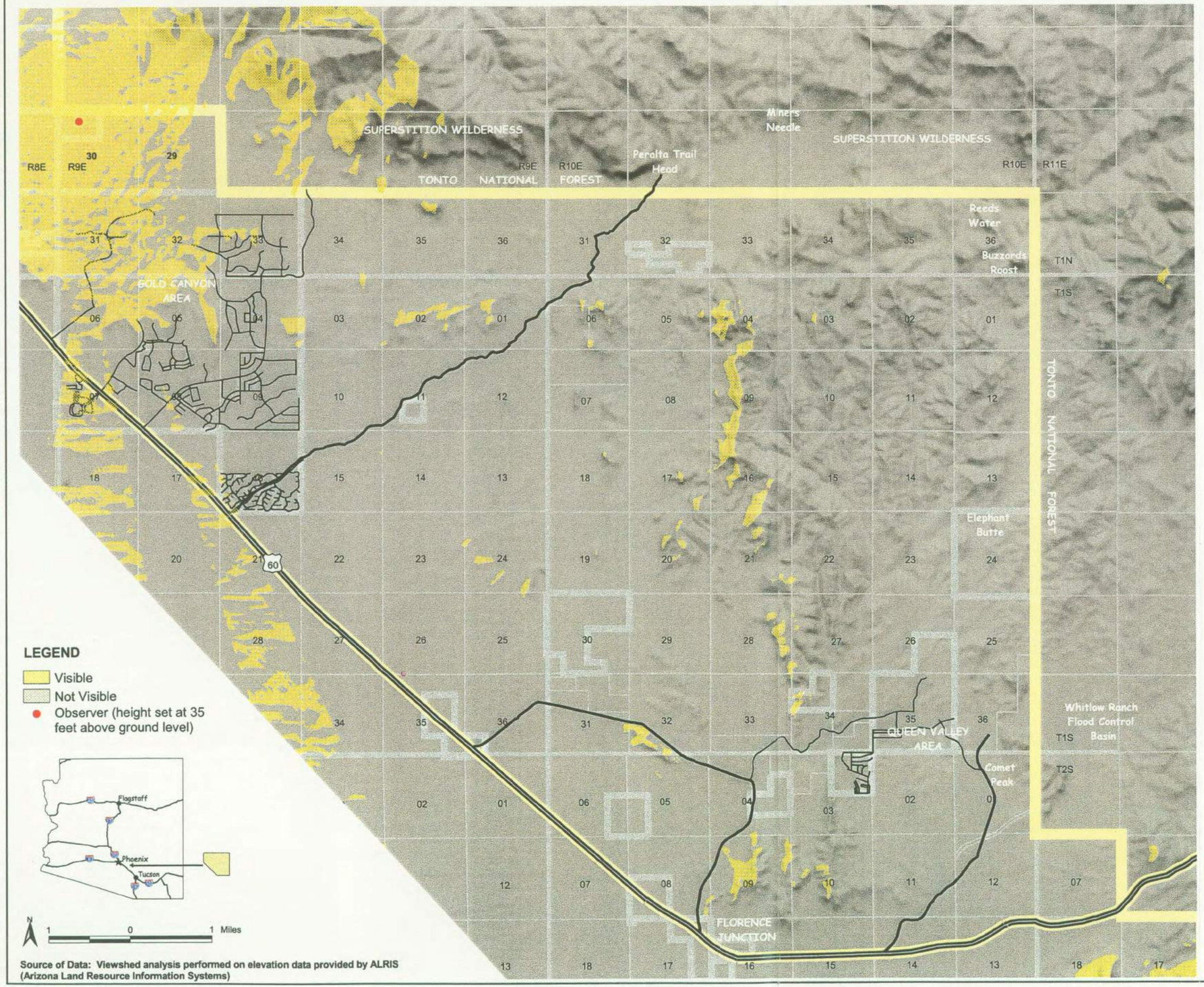
SECTION 30 VIEWSHED

The views into scenic areas should not be blocked or negatively impacted by foreground developments. Likewise, the views out from within scenic areas should not be negatively impacted by developments in the background.

Development within Section 30 would negatively impact the foreground scenic vistas from the Superstition Wilderness Area and the Lost Goldmine Trail, and the background scenic vistas from Hwy 60 and existing high end developments, as well as the edge of the foothills to the east.



Source of Data: Viewshed analysis performed on elevation data provided by ALRIS (Arizona Land Resource Information Systems)

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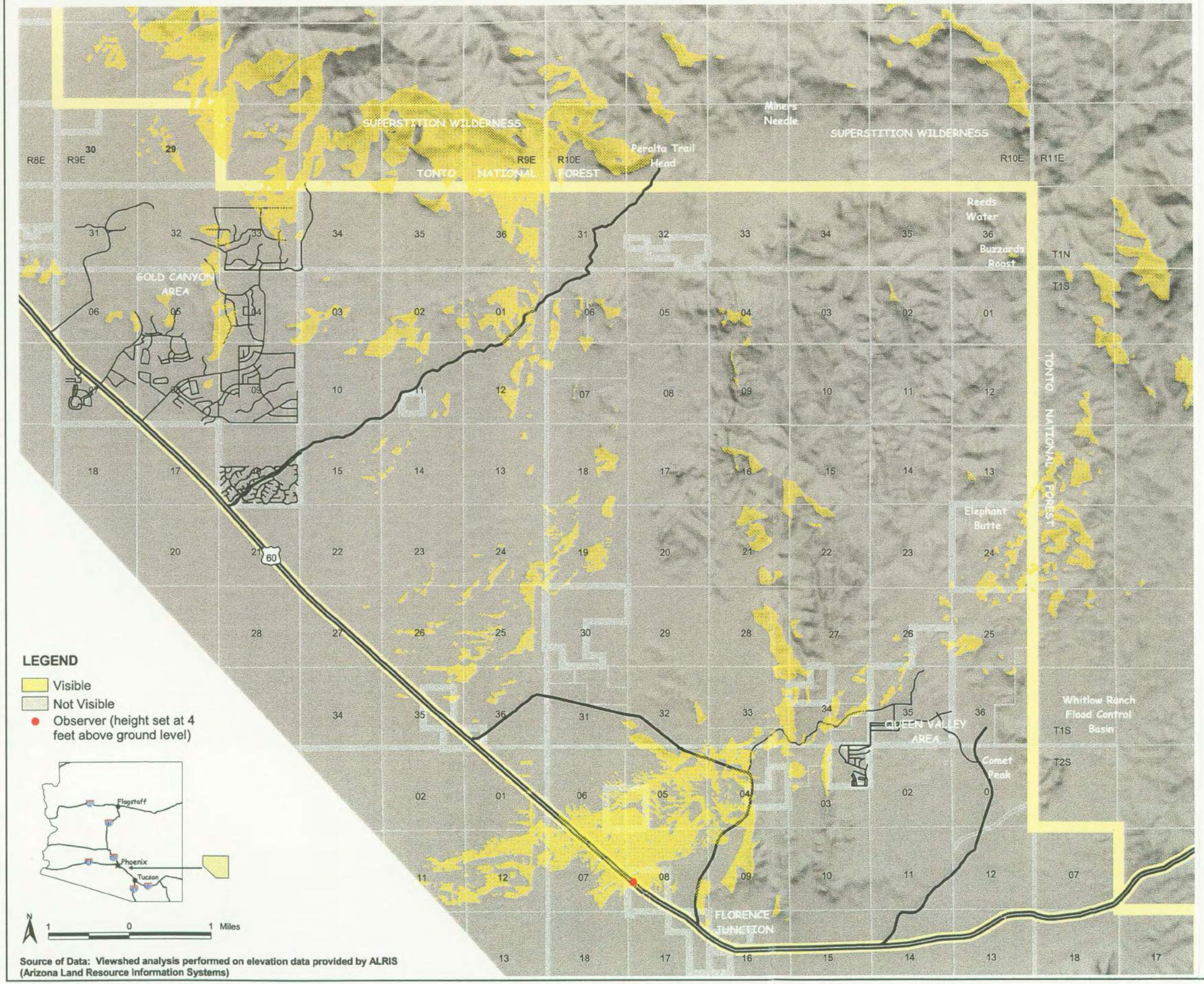
HIGHWAY 60/QUEEN CREEK VIEWSHED

The views into scenic areas should not be blocked or negatively impacted by foreground developments. Likewise, the views out from within scenic areas should not be negatively impacted by developments in the background.

Vistas of the Superstitions from Highway 60 at the crossing of Queen Creek would be negatively impacted if development were to occur in the foreground of the viewshed. Scenic Highway designation may be necessary to provide restrictions to development proximity and visibility.



Source of Data: Viewshed analysis performed on elevation data provided by ALRIS (Arizona Land Resource Information Systems)

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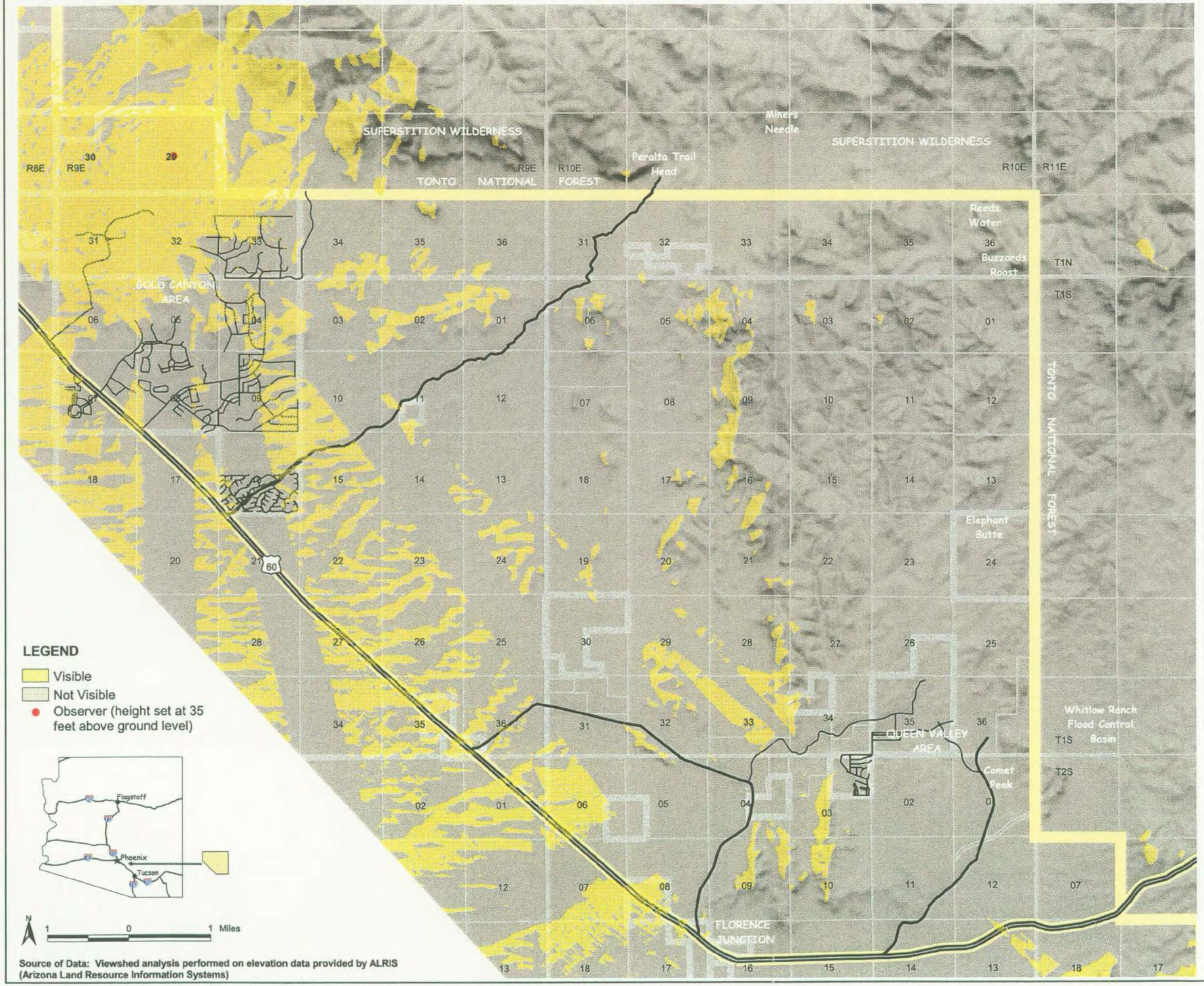
SECTION 29 VIEWSHED

The views into scenic areas should not be blocked or negatively impacted by foreground developments. Likewise, the views out from within scenic areas should not be negatively impacted by developments in the background.

Development within Section 29 would negatively impact the foreground scenic vistas from the Superstition Wilderness Area and the Lost Goldmine Trail, and the background scenic vistas from Hwy 60 and existing high end developments, as well as the edge of the foothills to the east.



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PERALTA TRAILHEAD VIEWSHED

The views into scenic areas should not be blocked or negatively impacted by foreground developments. Likewise, the views out from within scenic areas should not be negatively impacted by developments in the background.

Vistas out from Peralta Trailhead would be negatively impacted in the foreground and middleground if development were to occur anywhere in its viewshed.

SUPERSTITION WILDERNESS
TONTO NATIONAL FOREST
Peralta Trail Head
Miners Needle
Reeds Water
Buzzards Roost
GOLD CANYON AREA
Elephant Butte
TONTO NATIONAL FOREST
Whitlow Ranch Flood Control Basin
QUEEN VALLEY AREA
Comet Peak
FLORENCE JUNCTION
60
R8E R9E R10E R11E
T1N T1S T2S

LEGEND

- Visible
- Not Visible
- Observer (height set at 6 feet above ground level)

Flagstaff
Phoenix
Tucson

N 1 0 1 Miles

Source of Data: Viewshed analysis performed on elevation data provided by ALRIS (Arizona Land Resource Information Systems)

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