



**PIMA COUNTY NATURAL RESOURCES,
PARKS AND RECREATION DEPARTMENT**

TUCSON MOUNTAIN PARK MANAGEMENT PLAN

MAY 2008

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Park Staffing and Administration

1. Introduction

1.0 Purpose of this Document:

The purpose of this document is to present a plan that identifies management objectives, that articulates policies, and that lists specific actions that will be taken related to the management of Tucson Mountain Park.

1.1 Related Documents:

This document was one of two that were prepared as part of the management plan project. A “Background Report” was also prepared. The “Background Report,” dated November 2007, provides a comprehensive summary of the existing conditions, resources, and features of the Park. It includes information related to:

- The history of the park
- Conditions surrounding the park
- The park’s physical resources
- The park’s biological resources
- The park’s cultural resources
- The park’s visual resources
- Developed public use facilities within the park
- The park’s trail system
- Leased facilities within the park
- The existing park infrastructure
- Current public use
- Current park staffing

By reference, the “Background Report” is made an integral part of this Management Plan. Copies of the “Background Report” are on file at the offices of the Pima County Natural Resources, Parks, and Recreation Department. A digital version of the “Background Report” is also available on the Pima County website. (www.pima.gov/nrpr/places/tucs_mtpk/TMP_Mgmt_Plan_Bkgd_Rpt_Nov07.pdf).

1.2 The Planning Process

This Management Plan was prepared with input from various stakeholders and members of the public. Public input was solicited at a series of public open houses. The first of these open houses was conducted on October 17, 2007. At this event, participants were asked to provide input related to existing conditions at Tucson Mountain Park and how they might be changed to enhance resource conservation and public use. Written comments were received and evaluated.

The initial public open house was followed-up with an on-line survey. Survey questions were designed to elicit comments related to the public’s perception of facilities at the park, the condition of the park resources, and current public use of the park. Though not a scientifically valid sample, respondents did provide useful information related to these important issues.

A second public open house was conducted on February 28, 2008. At this meeting key elements of the proposed Management Plan were presented. Written comments were received and evaluated. This public input received is reflected in this Management Plan.

Input was also solicited from other resource management agencies and Pima County Departments. Two workshops were conducted, one on July 27, 2007, and the other on February 21, 2008. Agencies represented at these workshops included: the Arizona Game and Fish Department, the United States Fish and Wildlife Service, the National Park Service (Saguaro National Park), the Bureau of Land Management, the Bureau of Reclamation, and the Tohono O’Odham Nation. Pima County Departments represented at these workshops included the Department of Transportation, the Development Services Department, the Office of Economic Development and Tourism, and the Sheriff’s Department.

1.3 Data Collection

A variety of techniques were utilized to collect data related to the park’s resources and the public’s use of the park. These included:

- Literature reviews
- General field reconnaissance
- Review of maps and files as provided by the Pima County Geographic Information Systems (GIS) Department
- Review of current leases and other agreements
- Review of Tucson Mountain Park related information from the Pima County Natural Resource, Parks, and Recreation Department files
- Review of revenue data from park facilities that assess user fees
- Personal communications with current and retired park staff
- Vehicle counts on park roads at entrances to the park
- Vehicle counts at the entrances to the developed trailheads
- Observational surveys of users at trailheads and overlooks
- Mapping of trails using global positioning system (GPS) equipment
- Trail user counts using electronic counting equipment

The efforts of the many individuals, departments, and agencies that participated in this process through the provision of valuable information is acknowledged.

2. Overview of Existing Conditions

2.1 The Park Site:

Tucson Mountain Park is a 37 square mile natural resource park located in Pima County, Arizona. The site encompasses much of the southern portion of the Tucson Mountain range and portions of the alluvial area to the west. (See Figures 2-A and 2-B).

There are several distinct areas that are collectively managed as Tucson Mountain Park. These include:

1. Lands historically included in Tucson Mountain Park
2. The Central Arizona Project (CAP) Wildlife Mitigation Corridor
3. The Robles Pass Trails Park
4. The BLM Expansion Area

These sub-areas of the park are illustrated in Figure 2-C.

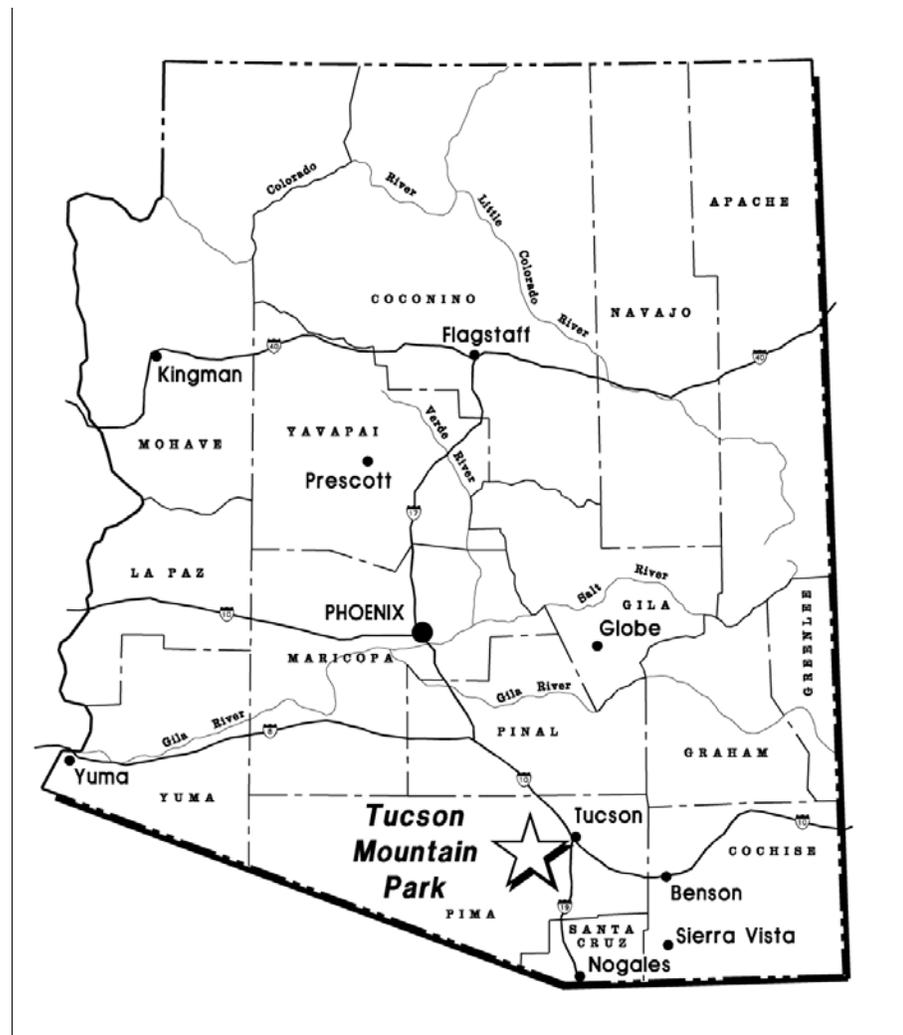
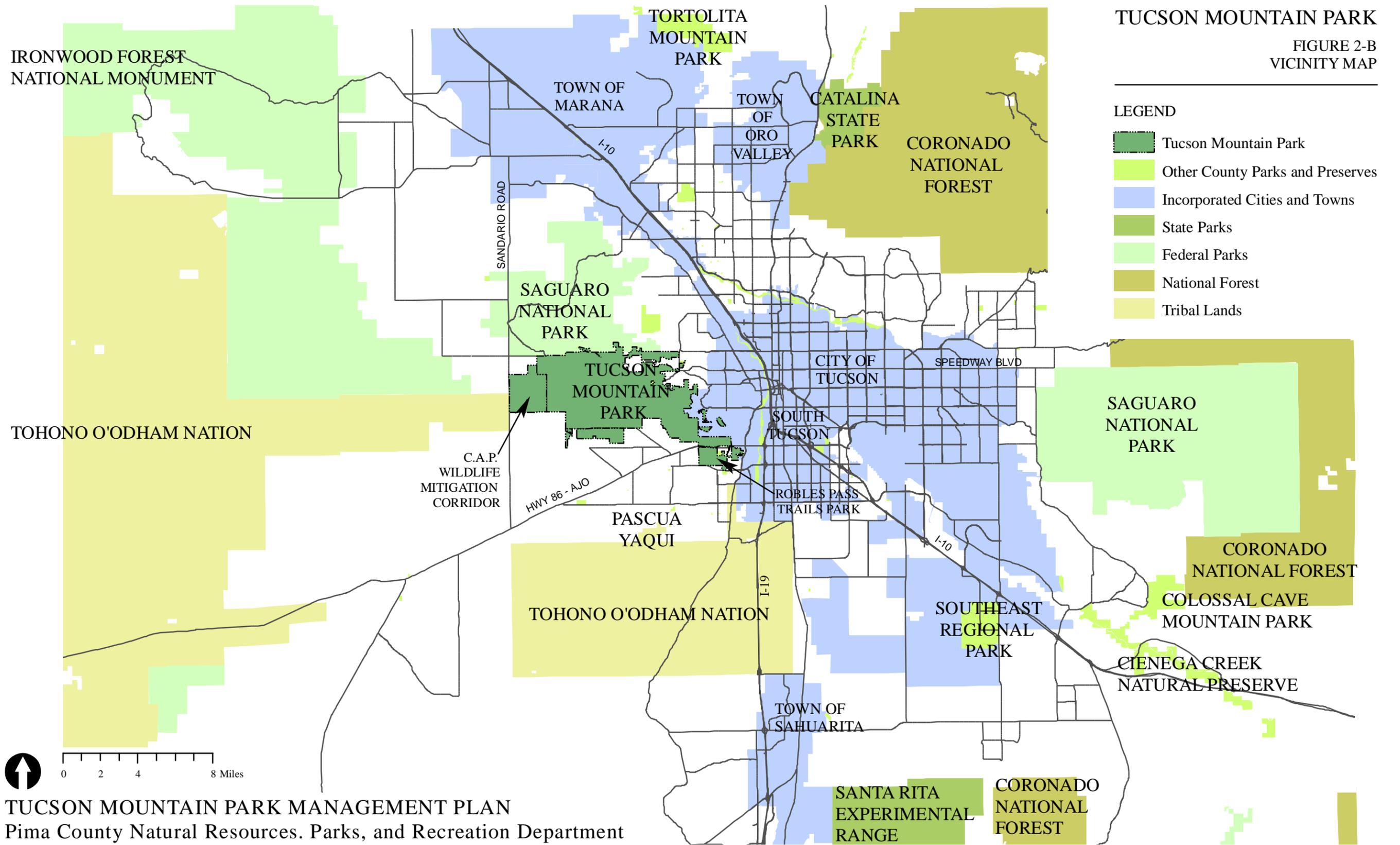


Figure 2-A: Location Map

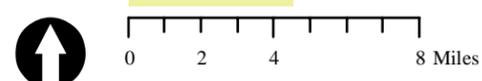
TUCSON MOUNTAIN PARK

FIGURE 2-B
VICINITY MAP



LEGEND

- Tucson Mountain Park
- Other County Parks and Preserves
- Incorporated Cities and Towns
- State Parks
- Federal Parks
- National Forest
- Tribal Lands

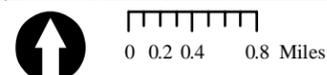
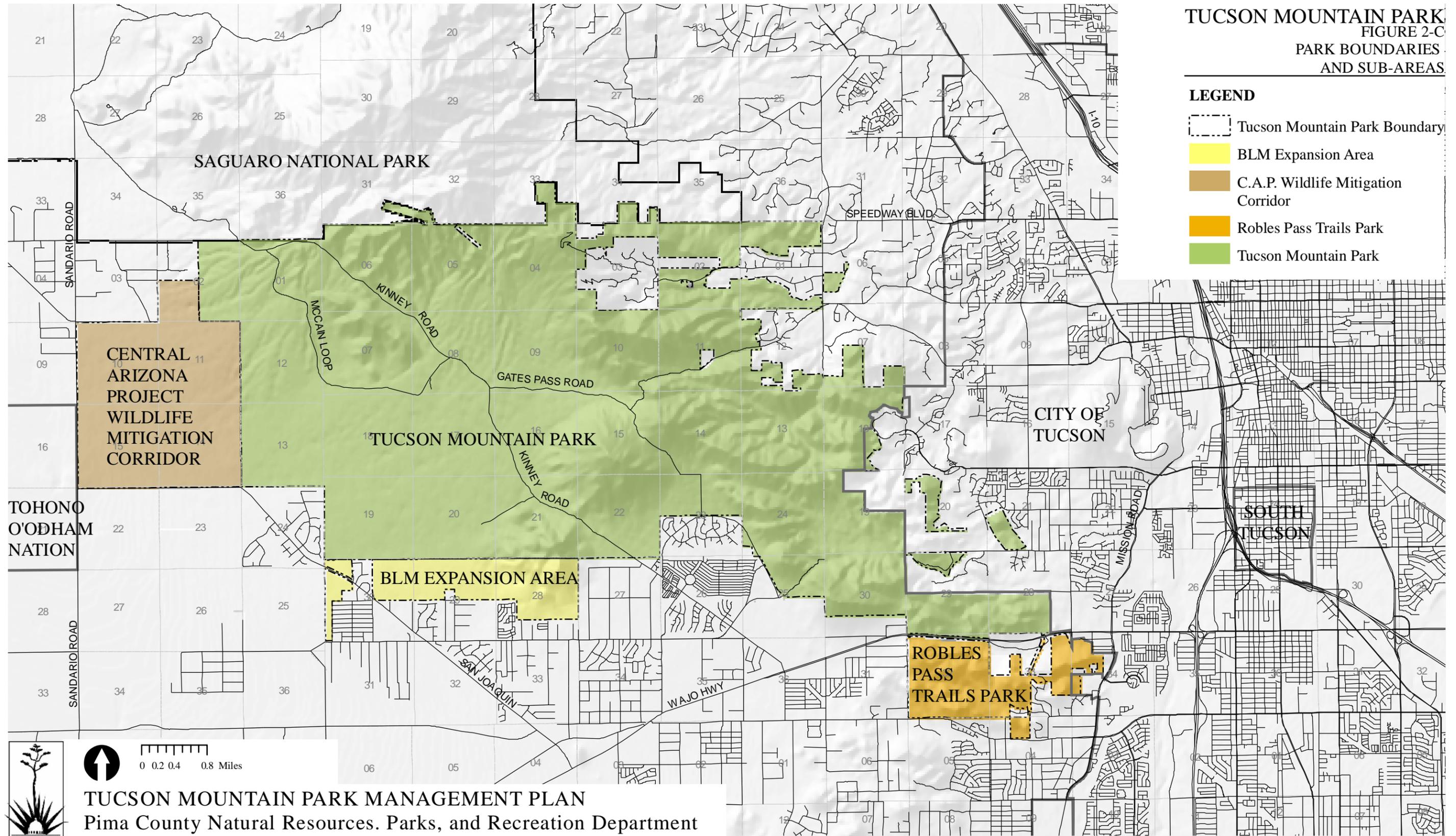


TUCSON MOUNTAIN PARK MANAGEMENT PLAN
 Pima County Natural Resources, Parks, and Recreation Department
 Prepared by McGann & Associates Landscape Architects and Planners

TUCSON MOUNTAIN PARK
FIGURE 2-C
PARK BOUNDARIES
AND SUB-AREAS

LEGEND

-  Tucson Mountain Park Boundary
-  BLM Expansion Area
-  C.A.P. Wildlife Mitigation Corridor
-  Robles Pass Trails Park
-  Tucson Mountain Park



TUCSON MOUNTAIN PARK MANAGEMENT PLAN
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2. Overview of Existing Conditions

2.2 Park History:

The park was established in 1929 when 29,988 acres of federal land in the Tucson Mountains were withdrawn from mining and homesteading at the request of U.S. Senator Carl Hayden. Pima County leased these lands in 1930 and 1931 at an annual rental rate of three cents (\$0.03) per acre and established Tucson Mountain Park. At the time, Tucson Mountain Park was the largest county park in the nation.

In 1932, the Pima County Board of Supervisors appointed a five-member commission to assist the Board with the administration of the park. These individuals were T.D. Mallory of the Tucson Natural History Society, L.B. Hart of the Tucson Protective Game Association, Stanley Kitt of the Tucson Chamber of Commerce, Dr. E.P. Mathewson and C.B. Brown representing the public at-large. Under the direction of the commission, the park was managed to conserve the resources of the site and to provide opportunities for outdoor recreation in a natural setting. Nearly 80 years later, the park continues to be operated for these important public purposes.

During the 1930's and 1940's various projects were undertaken within the park as part of program implemented by the Civilian Conservation Corps (CCC), the Works Projects Administration (WPA), and the Emergency Conservation Work Program (ECWP). These projects resulted in park buildings and other facilities, some of which are still present within Tucson Mountain Park.

In 1937, a Master Plan was prepared for the park under the direction of the National Park Service. This master plan called for the construction of several picnic areas that would serve as destinations for day trips to the park. The Master Plan also shows the Pima County Preventorium, a public health facility for individuals who had been diagnosed with tuberculosis. This facility was subsequently redeveloped and became the Gilbert Ray Campground that continues to operate today.

In 1959, the United States Department of the Interior issued a Public Land Order, that would have reversed the 1929 withdrawal and reopened 7,600 acres of land within the Tucson Mountains to mining entry. This action was met with intense local opposition spearheaded by the Pima County Board of Supervisors. Their efforts resulted in a rescinding of the order and led to a series of legislative proposals to address the long-term status of the park lands. These proposal culminated in a November 15, 1961 proclamation by President John F. Kennedy that transferred 15,360 acres of land to the National Park Service and the establishment of the Tucson Mountain Unit of Saguaro National Park. The remaining park lands were incrementally patented by Pima County under the Recreation and Public Purposes Act to become the Tucson Mountain Park that exists today.

2. Overview of Existing Conditions

2.3 The Park Setting: Tucson Mountain Park is located within the rapidly growing Tucson metropolitan area. When the park was established in 1929, the population of Tucson was approximately 32,506 and the urbanized portion of the city covered a few square miles east of the mountain range. Today, the population of the metropolitan area has grown to over 1,000,000 people and urban development extends around the mountain range.

In the 1970's, 80's and 90's, most of the growth was east of the Tucson Mountain Range. It was characterized by medium to low-density residential development in the Tucson Mountain foothills. It also included the Starr Pass Resort which includes a hotel and golf course adjacent to the park.

Recent years have seen a significant amount of growth in areas southwest and west of Tucson Mountain Park and this growth pattern is anticipated to continue and will include residential, commercial and other land uses. The scope of this anticipated growth resulted in Pima County initiating an area-wide planning effort, the Southwest Infrastructure Plan. The goal of the plan is to outline a strategy for the development of the infrastructure and public services needed to support the anticipated growth.

Urban growth west and southwest of the park is significant in that it will impact the visual resources and unique vistas that have become a distinguishing feature of Tucson Mountain Park. It will also result in higher volumes of automobile traffic on the park's roads not generated by, or related to, facilities within the Park.

2.4 Physical Resources of the Park:

Tucson Mountain Park encompasses much of the southern half of the Tucson Mountain Range. The highest peak in the park is Golden Gate Peak, elevation 4,288 feet. The several other peaks that form the ridge line of that range, Tower Peak, Bushmaster Peak, Bren Peak, and Cat Mountain are above, or near, the 4,000 ft. elevation. Collectively, these peaks and ridges create a dramatic and colorful backdrop for the Tucson metropolitan area.

There are three distinct geological zones within the park; the steep mountain peaks, the foothill areas, and the flat alluvial zones. The mountain peaks are characterized by Rhyolite, an igneous, volcanic (extrusive) formation with shallow soil cover. The foothills are characterized by Andesite, and other rock formations with variable soil cover. The flatter areas in the western half of the park are characterized by alluvial deposits of gravel, sand, silt, and clay.

Anklam - Pantano - Chimenea soils predominate in the mountainous and foothill areas. These are shallow, well-drained soils. Pinaleno - Nickel - Palos Verdes soils predominate in the flatter western portion of the site. These soil types are well-drained and very deep alluvial soils.

2. Overview of Existing Conditions

There are a number of small caves within the park. Also present are numerous small mine shafts and excavations.

As a mountain ridge, the Park drains both east to the Santa Cruz River and west to the Brawley Wash / Black-Wash drainage system. Numerous washes originate and flow out of the park. Because the washes are located near the uppermost elevations of their watersheds, they are not major watercourses. They are, however, important in that they create biological corridors that connect the park with other natural resource and habitat areas.

2.5 Biological (Vegetative) Resources of the Park:

Tucson Mountain Park contains a range of Sonoran Desert vegetative communities. These vegetative communities shift in an elevational gradient from creosote flats on the basin floor to bajadas with palo verde and saguaro cacti to ridges with other vegetative associations.

As classified in the “Biotic Communities of the Southwestern United States and Northwestern Mexico,” (Brown, 1994) the following vegetative communities are present within Tucson Mountain Park.

Arizona Upland - Palo Verde Mixed Cacti Community:

This vegetative community is the most prevalent in the park, encompassing approximately 90% of the park area. Predominant overstory species include foothills palo verde (*Parkinsonia microphylla*), blue palo verde (*Parkinsonia floridum*), ironwood (*Olneya tesota*), ocotillo (*Fouquieria splendens*), and saguaro (*Carnegiea gigantea*). Understory species include triangle-leaf bursage (*Ambrosia deltoidea*), brittlebush (*Encelia farinosa*), and jojoba (*Simmondsia chinensis*).

Mixed Scrub *Parkinsonia microphylla* - *Olneya tesota* Mixed Scrub Association:

This community occurs within the palo verde - mixed cacti matrix and consists of stands of ironwood (*Olneya tesota*). Ironwood stands are identified as a “special element” in the Pima County Sonoran Desert Conservation Plan.

Lower Colorado River Series - Creosote - Bursage Community:

This community occurs in the lowest elevation, westernmost portions of the park. Predominant species are creosote (*Larrea tridentata*) and triangle-leaf bursage (*Ambrosia deltoidea*).

Semidesert Grassland Community:

Small patches of this community occur in the upper elevations of the park. Characteristic species include Arizona cottontop (*Digitaria californica*), Green sprangletop (*Leptochloa dubia*), Plains lovegrass (*Eragrostis intermedia*), and gramma grasses (*Bouteloua* spp.).

2. Overview of Existing Conditions

Sonoran Riparian Scrubland (*Prosopis velutina* mixed scrub series) Community:

This community occurs along canyon bottoms and washes creating relatively dense, lush vegetation. Overstory species include velvet mesquite (*Prosopis velutina*), and blue palo verde (*Parkinsonia floridum*). Understory species include wolfberry (*Lycium* spp.), desert hackberry (*Celtis pallida*), white-thorn acacia (*Acacia constricta*), and catclaw acacia (*Acacia greggii*).

Sacaton Scrub Series (*Sporobolus wrightii* Association) Community:

This plant community occurs in a very limited area of the park along the San Juan Wash. Representative species include Sacaton (*Sporobolus wrightii*), seep willow (*Baccharis salicifolia*), graythorn (*Ziziphus obtusifolia*), white-thorn acacia (*Acacia constricta*), and catclaw acacia (*Acacia greggii*).

Simmondsia chinensis - Mixed Scrub Association:

This community occurs in small patches on isolated north and east facing slopes in middle portions of the range. Jojoba (*Simmondsia chinensis*) is the predominant species in this community.

Two Pima County Priority Vulnerable Species are known to occur, or may occur, within Tucson Mountain Park. The Tumamoc globeberry (*Tumamoca macdougallii*) is known to be present within the park. The Pima pineapple cactus (*Coryphantha scherri* var. *robustispina*) has not been observed, but could potentially exist within the creosote flats in the southwestern portion of the site.

Over 100 invasive, non-native plant species have been observed within Tucson Mountain Park. These include species such as fountain grass (*Pennisetum setaceum*) introduced to the area for use in constructed landscapes. Also present are introduced range species such as buffelgrass (*Pennisetum ciliare*). Buffelgrass is a fire-prone grass introduced from the African savannah that grows in dense stands and crowds out native plants. It can provide the fuel needed for frequent and destructive fires.

2.6 Biological (Wildlife) Resources of the Park:

Tucson Mountain Park supports a wide range of wildlife including large mammals, small mammals, birds, reptiles and amphibians. It would be possible for a visitor to the park to observe in the course of a single day large mammals (deer, coyote, javelina), small mammals (pack rats, mice, and bats), birds (hawks, owls, and songbirds), and reptiles (desert tortoise, Gila monsters, and rattlesnakes).

The presence of the Tucson Mountain Unit of Saguaro National Park adjacent to the site results in a 64 square mile area that can support diverse populations of various wildlife species. At the same time, urban growth in areas surrounding the park is effectively creating an island with restricted connections to other natural resource parks and preserves. The maintenance of viable linkages between the park and other preserved natural resource areas will be important to the long term success of certain wildlife populations currently present within the Park.

2. Overview of Existing Conditions

Several Pima County Priority Vulnerable Species are known to occur or may occur within Tucson Mountain Park. Bird species that may be present include the rufous-winged sparrow (*Aimophila carpalis*), the western burrowing owl (*Athene cunicularia hypugaea*), Swainson's hawk (*Buteo swainsonii*), the cactus ferruginous pygmy owl (*Glaucidium brasilianum cactorum*), Abert's towhee (*Pipilo aberti*), and Bell's vireo (*Vireo bellii*).

A priority vulnerable reptile species that is known to occur within the park is the Sonoran desert tortoise (*Gopherus agassizii*). Mammal species from this list that are known to occur or that potentially occur within Tucson Mountain Park include the Mexican long-tongued bat (*Choeronycteris mexicana*), the pale Townsend's big-eared bat (*Corynorhinus townsendii pallescens*), the lesser long-nosed bat (*Leptonycteris curasoae yerbabuena*), the California leaf-nosed bat (*Macrotus californicus*), Merriam's mouse (*Peromyscus merriami*), and the Arizona shrew (*Sorex arizonae*).

Tucson Mountain Park is also an important element of Pima County's Sonoran Desert Conservation Plan (SDCP). The plan identifies the park as a multiple-use area within the County's Conservation Land System (CLS). Linkages between the park and other natural resource parks and preserves have been identified as important wildlife corridors.

2.7 Cultural Resources within the Park:

Tucson Mountain Park is located on the western side of the Santa Cruz River. Native populations have lived in the area for thousands of years and utilized the resources of the Tucson Mountains. Rock art sites, artifact scatters, quarries, and rock features (piles, circles, and linear features) are evidence of this prehistoric use.

Also present within Tucson Mountain Park are historic features that were constructed more recently. These include various structures, homesteads, ranches, ranch related features, mines, roads, Civilian Conservation Corps (CCC) sites, and Works Progress Administration (WPA) sites.

A total of 48 prehistoric and historic cultural resource sites have been recorded within Tucson Mountain Park. The full extent of the Park's prehistoric and historic features, however, is not known because only 25% of the land area within the current boundary of the park has been surveyed. Additionally, the quality of some of the early surveys is unknown, and the results of these early surveys have not been checked to confirm the status of the cultural resources.

2.8 Visual Resources of the Park:

The Sonoran Desert is a unique and particularly beautiful environment. It is characterized by dramatic landforms, unusual plants, and visual elements that are found in no other location on earth. Its iconic images, in many ways, define Tucson, Pima County and much of southern Arizona. Tucson Mountain Park is a repository of these unique features and iconic images. Collectively, they make the park a popular destination for visitors from the community, from across the United States, and from countries around the globe.

2. Overview of Existing Conditions

Some of the features that contribute to the visual quality of Tucson Mountain Park are:

1. Landforms (mountain peaks, ridges, cliffs, and outcrops)
2. Plant communities (saguaro forests, ironwood forests, riparian woodlands)
3. Specimen plants (saguaro, ocotillo, and prickly-pear)
4. Spaces of various scales (broad valleys, narrow canyons, winding arroyos)
5. Atmospheric / light conditions (summer monsoon season sunsets)
6. Rural / natural character (narrow roads, vegetation to the edge of pavement)
7. Limited development (very few, low profile buildings)
8. Facilities constructed with natural materials (stone walls, stone buildings)

All of these features contribute to the visual quality of Tucson Mountain Park.

An additional feature of Tucson Mountain Park's visual resources is its visual prominence. The peaks and upper elevations of the park are visible from throughout the Tucson basin. More than 1,000,000 area residents can potentially view portions of Tucson Mountain Park each day as they travel to and from various destinations within the metropolitan area.

While the park is generally undeveloped, there are a few existing features within and adjacent to the site that diminish the visual quality of Tucson Mountain Park. These include developed in-holdings, overhead utility lines, foothill residential developments, and communication towers. Some of these conditions can be eliminated over time, while others will likely continue for the foreseeable future.

Of greater concern is the scope of urban development surrounding the park, particularly to the west and southwest. Urban development is becoming a much more prominent feature of the landscape as viewed from the Gates Pass Overlook and other upper elevation sites within the park. Observing the region's spectacular sunsets from the Gates Pass Overlook has long been a popular activity. It is estimated that more than 200,000 people visit the overlook each year. Until recently, the view from the vantage point west of the overlook was of largely undisturbed natural desert. More and more the view is of residential subdivisions and rural homesteads.

2.9 Developed Public Use Facilities:

There are developed sites within the park that offer opportunities for public recreation. (See Figure 7-D). An overview of the scope and conditions of these public use facilities is as follows:

Gilbert Ray Campground:

The campground includes 130 RV spaces each with a 30 amp electrical hook-up, three tent spaces, three educational ramadas, picnic ramadas, centrally located rest room buildings, a dump station, and a registration building. The campground provides a unique opportunity for camping in a Sonoran Desert setting.

2. Overview of Existing Conditions

The electrical distribution system is in fair condition but the 30 amp services at the RV sites need to be upgraded to the current industry standard of 50 amp. Improvements to the water distribution system and sanitary sewage system are also required. The campground registration building is in poor condition and in need of replacement.

Juan Santa Cruz Picnic Area:

The Juan Santa Cruz picnic area consists of a paved drive with pull-outs, picnic tables, three ramadas, and a restroom building. The ramadas are constructed of native stone and are of a style that is similar to many of the original CCC buildings constructed within the park. They are, however, in poor condition and in need of major renovation. The restroom building is only a few years old and is in good condition. The Juan Santa Cruz picnic area is adjacent to the Arizona-Sonora Desert Museum. There have been preliminary discussions between the Museum and Pima County related to the possible expansion of the museum into the area currently occupied by Juan Santa Cruz picnic area. Detailed plans for the possible expansion of the museum have not been finalized.

Brown Mountain Picnic Area:

The Brown Mountain Picnic Area consists of a paved drive with pull-outs, two ramadas, and picnic tables. There are no restrooms at this site. The existing ramadas are in fair condition but in need of some renovation.

Ironwood Picnic Area:

The Picnic Area consists of a paved drive with pull-outs, four ramadas, picnic tables and two restroom buildings. The existing ramadas are in fair condition but need some renovation. The restroom buildings have vault toilets without water service and are in generally good condition.

Archery Range:

The Archery Range consists of a practice range with targets at distances of 20 to 70 yards. There are also three roving target or trail courses. Other improvements at the site include an unpaved access road, and unpaved parking lot, a large ramada, and a restroom building with potable water service. The ramada structure and the restroom building are in need of renovation.

Rifle and Pistol Range:

The range is a bermed facility with shooting distances between 5 and 100 yards. A safety fan, 300 yards beyond the containment berm has been established, fenced, and signed in accordance with applicable standards. The noise levels emanating from the facility are monitored and are below the threshold decibel

2. Overview of Existing Conditions

level for facilities of this type as established by Arizona state statutes.

Other improvements at the rifle and pistol range include an unpaved entry drive, an unpaved parking lot, a large ramada, a small office building, and a vault toilet without water.

Gates Pass Overlook:

The Gates Pass Overlook is a very popular park facility and is considered a premier vantage point for viewing spectacular desert sunsets. Improvements at the site include a paved entry drive, paved parking lots, accessible walkways, viewing areas, a restored look-out building, and a restroom with vault toilets and no water, and interpretive displays.

G-3 Overlook:

The G-3 Overlook consists of a small, paved parking lot, a viewing area, and a few benches. The facility is sometimes used as an alternative overlook when the Gates Pass facility is full. The G-3 Overlook also serves as a trail access point.

2.10 The Park Trail System:

In addition to developed sites, Tucson Mountain Park contains an extensive, multiple-use, non-motorized trail system. (See Figure 8-A). The park's trail system is used by an estimated 150,000 visitors per year.

The popularity of the trail system has not been without consequence. Users of the trail system have not only used the trails developed by the Pima County Natural Resources, Parks, and Recreation Department, they have developed new trails without authorization. Of the 100 miles of trails present within the park, only 62 miles have been evaluated by the Department and made a part of the park's official trail system. The remaining 38 miles of trail are wildcat trails.

Many of these wildcat trails are of poor quality, some extend into sensitive resource areas, and others are unnecessary duplications of parallel trails. The Pima County Natural Resources, Parks, and Recreation Department has begun the process of reviewing these wildcat trails with the intent of closing and revegetating those trails that are of poor quality or that are found to be detrimental to the park's natural and cultural resources.

2.11 Park Trailheads:

As an adjunct to this trail system, there are several developed trailheads that provide for safe and legal public access to the park site. These trailheads are as follows:

Starr Pass Trailhead:

The Starr Pass Trailhead consists of a paved parking lot with 45 spaces and an area large enough to maneuver and park a truck with an equestrian trailer. The paving of the access road and various other improvements are needed.

2. Overview of Existing Conditions

36th Street Trailhead:

The 36th Street Trailhead consists of a paved parking lot with approximately 20 parking spaces. The entry drive is equipped with a gate that can be closed to prevent vehicular access at night.

Camino de Oeste Trailhead:

This recently renovated trailhead consists of an unpaved entry drive and a small unpaved parking lot. Expansion of the lot is not planned due to the constraints of land ownership and topography.

King Canyon Trailhead:

The King Canyon Trailhead consists of an unpaved trailhead that is internal to Tucson Mountain Park. It provides access to certain trails, most of which are located within Saguaro National Park. It is proposed that this trailhead be closed and that a replacement trailhead be constructed in the vicinity of the existing site. The proposed relocation will enhance traffic safety at the point of entry from Kinney Road.

Mile Wide Trailhead:

The Mile Wide Trailhead was constructed to serve the CAP Trail, but its proximity to Tucson Mountain Park allows for its occasional use by park visitors. It consists of a paved parking lot with adequate space for the parking of a truck with equestrian trailer.

J.W. Marriott Resort Hotel Walk-In Entry:

Located near the hotel, this walk-in entry allows hotels guests and others to enter the park on-foot.

Tucson Estates Walk-In Entry:

This walk-in entry is located north of the Tucson Estates subdivision. It provides for pedestrian and bicycle access to the park's trail system but does not include any motor vehicle parking spaces.

Sarasota Trailhead (Planned):

The planned Sarasota Trailhead is located near the Tucson Estates subdivision and consists of two separate sites. The Sarasota (North) Trailhead will include parking spaces for standard automobiles. The Sarasota (South) Trailhead will include access drives and parking spaces for truck / equestrian trailer rigs.

Explorer Trailhead (Planned):

The proposed Explorer Trailhead is located near Kennedy Park, a City of Tucson active recreation park. When developed, this trailhead will include a parking lot for both automobiles and trucks with equestrian trailers.

2.12 Park Roads:

Two principal public roads are present within Tucson Mountain Park. Gates Pass Road provides public access from the City of Tucson and other

2. Overview of Existing Conditions

communities to the east. Kinney Road bisects the park and provides a north-south route through the park. These park roads are maintained by the Pima County Department of Transportation.

The volume of traffic on Gates Pass Road and Kinney Road has increased significantly during the past decade. Current traffic volumes, and traffic volumes recorded ten years ago at the same location are as follows.

Gates Pass Road at East Entry to Park:

- 2007 ADT 4,400 Vehicles
- 1997 ADT 2,400 Vehicles
- Percent Change + 75%

Kinney Road at South Entry to Park:

- 2007 ADT 3,800 Vehicles
- 1997 ADT 1,400 Vehicles
- Percent Change + 171%

Kinney Road at North Entry to Park:

- 2007 ADT 2,900 Vehicles
- 1997 ADT 2,200 Vehicles
- Percent Change + 32%

Some of this traffic is being generated by visitors to the park but an estimated 45% of the overall traffic volume is not park related. In-park traffic that is not generated by facilities within Tucson Mountain Park consists of trips that use the park roads to get to and from destinations that are outside the park.

2.13 Utility Systems:

Utility systems have been constructed to serve the developments within the park. The Pima County Natural Resources, Parks, and Recreation Department (PCNRPR) operates a water system consisting of a well, water storage reservoirs, pump stations, and pipelines. This system provides water to the Arizona-Sonora Desert Museum, Old Tucson, the Gilbert Ray Campground, the Archery Range, and the Juan Santa Cruz Picnic Area.

There is no sanitary sewage collection system within the park. Sewage disposal at the various facilities within Tucson Mountain Park is addressed with on-site collection, treatment, and disposal facilities.

Commercial electric power is provided to the site by the Trico Electric Cooperative. Overhead power lines extend power to the ASDM, Old Tucson, the Gilbert Ray Campground, and a few other park facilities. Overhead power lines also extend through the park to the communication towers on Tower Peak.

Qwest provides telephone service to the park with an underground system that follows the Kinney Road corridor.

2. Overview of Existing Conditions

2.14 Leased Facilities within the Park:

There are three leased facilities within the park, the Arizona-Sonora Desert Museum, Old Tucson Studios, and Sonoran Arthropods Studies Inc.

Arizona-Sonora Desert Museum:

Established in 1952, the Arizona-Sonora Desert Museum (ASDM) is a world renown facility with exhibits and programs that present and interpret the natural and cultural resources of the Sonoran Desert. It is located on 95 acres of land near the northern boundary of Tucson Mountain Park. The Museum's collections include:

- 106 mammals of 31 taxa
- 241 birds of 72 taxa
- 361 reptiles of 86 taxa
- 122 amphibians of 234 taxa
- 840 arthropods of 78 taxa
- 40,000 plant specimens representing 1,300 species
- 14,095 gem, mineral, and fossil specimens

The Museum attracts approximately 445,000 visitors each year. It's mission to preserve, protect, and interpret the unique resources of the Sonoran Desert makes it a compatible use within Tucson Mountain Park.

The current lease agreement between Pima County and the Arizona-Sonora Desert Museum extends through 2028. A key provision of these lease requires Pima County to supply a specified volume of water to the site each year.

Old Tucson Studios:

Old Tucson Studios was established in 1939 and used for several decades as a movie production facility that took advantage of the park's spectacular natural setting. The facility occupies a 180 acre site near the intersection of Gates Pass Road and Kinney Road. Much of the original facility was destroyed in a fire in 1995. The facilities were rebuilt shortly thereafter, but as an old western town theme park.

Old Tucson sponsors several events each year and attracts approximately 230,000 visitors annually. The current lease between Pima County and Old Tucson extends through 2023. Pima County is required by the lease agreement to provide a specified volume of potable water to the Old Tucson Studio site.

Sonoran Arthropods Studies Inc. (SASI):

The Sonoran Arthropods Studies Inc. (SASI) occupies a group of small buildings near the center of the park. The organization conducts research related to Sonoran Desert arthropods and sponsors a limited number of public outreach

2. Overview of Existing Conditions

programs. The number of participants in these programs is limited to a few hundred per year. The current lease between Pima County and SASI extends through 2009.

2.15 Public Use of Tucson Mountain Park:

It is estimated that 2,500,000 people visit or drive through Tucson Mountain Park annually. Of this total, approximately 1,400,000 enter the park to visit or use park facilities. The balance use the park’s road system to travel from off-site points of origin to off-site destinations.

The approximate number of visitors traveling to various park destinations is as follows:

Arizona-Sonora Desert Museum	445,000 per year
Old Tucson Studios	230,000 per year
Other Pima County operated Facilities and Trails	725,000 per year
 Total	 1,400,000 per year

An approximate breakdown of the 725,000 individuals who visit Pima County-operated park facilities or who travel to the park to work or volunteer at the leased facilities is as follows:

Overlooks and Pull-Out Users	415,000 per year
Hikers and Trail Runners	105,000 per year
Mountain Bicyclists	50,000 per year
Overnight Campers (Gilbert Ray Campground)	34,000 per year
Road Bicyclists	22,000 per year
Picnickers	22,000 per year
Rifle / Pistol Range Users	5,000 per year
Equestrians	4,900 per year
Archery Range Users	2,900 per year
Hunters (Archery only)	1,200 per year
S.A.S.I. Program Participants	200 per year
Leased Facility Employees and Volunteers	18,000 per year
 Total	 725,000 per year

2.16 Park Administration and Staffing:

Park operations and management are currently coordinated by the PCNRPR Department’s Natural Resource Park Superintendent. He is supported by a Park Manager.

On-site staff consists of five full-time employees and seasonal employees that are the equivalent of one full-time employee. These employees are responsible for operating and maintaining the facilities and infrastructure associated with the park’s developed sites. Volunteers also make up part of the workforce.

2. Overview of Existing Conditions

The Department's off-site shops and trades support staff are resources that are used from time to time to operate and maintain Tucson Mountain Park. A unit of the Pima County Sheriff's Department provides law enforcement within the park.

At the present time, there are no park staff members specifically assigned to resource management / monitoring or back-country patrol.

3. Biological Resource Management

- 3.1 Management Objectives:** Tucson Mountain Park will be managed with the objective of preserving and enhancing the biological resources of the park as a healthy, discrete Sonoran Desert ecosystem and as part of Pima County’s overall conservation land system.
- 3.2 Policies Related to Biological Resource Management:** It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:
- Support actions by Pima County, other jurisdictions, and resource management agencies that maintain, enhance, and expand biological connections between Tucson Mountain Park and other natural resource areas, parks, and preserves.
 - Accommodate a wide range of public uses within Tucson Mountain Park while concurrently restricting activities, participation levels, and use areas so as to prevent the long-term degradation of the park’s biological resources.
 - Utilize sites at or near the perimeter of the park for moderate and high intensity recreational activities and to use these perimeter sites to buffer the park’s core area from adjacent urban development.
 - Operate and manage the park as required to comply with federal, state, and local mandates related to the protection of special status plant and animal species.
 - Conduct park-specific biological resource monitoring as outlined herein and as recommended by broader Pima County Ecological Monitoring Program (EMP).
 - Support the development and implementation of programs and projects intended to eliminate invasive, non-native, noxious species from the park and to revegetate and restore previously disturbed park areas to a natural condition.
 - Support programs and projects that will reduce or mitigate the negative impacts of urban development surrounding Tucson Mountain Park on the park’s biological resources.
- 3.3 Planned Actions:** The following actions related to the management of Tucson Mountain Park’s biological resources are planned.
- Implement the site / species specific biological resource monitoring program as outlined herein.
 - Participate in the implementation of those elements of the overall Pima County Ecological Monitoring Program (EPM) that relate to Tucson Mountain Park.

3. Biological Resource Management

- Conduct an annual resource management workshop with representatives of the Arizona Game and Fish Department, Saguaro National Park, the Bureau of Land Management, the Bureau of Reclamation, and other resource management agencies to coordinate resource conservation and management activities.
- Conduct field assessments of all unauthorized trails within the park and make a determination as to which of these trails will be retained and which of the trails will be eliminated from the park's trail system.
- Conduct an on-going program to close and revegetate social / wildcat trails that are to be eliminated from the park's trail system.
- Construct the new trails proposed for the Robles Pass Trails Park and other perimeter areas to reduce demand for trails within the park's core area.
- Conduct periodic reconnaissance surveys and prepare maps that identify the presence, scope, and location of non-native and invasive species populations.
- Continue to support the Sonoran Desert Weed Wackers and other volunteer organizations with training, equipment, and logistical support as needed to conduct invasive species removal programs within Tucson Mountain Park.
- Repair existing fences and install new fences as required to minimize trespass and illegal off-highway vehicle (OHV) operation within the park.
- Work with the Pima County Department of Transportation to develop and implement strategies for mitigating the impacts of motor vehicle traffic within the park that is not related to park visitation.
- Construct the traffic calming, traffic safety improvements along Kinney Road and Gates Pass Road as recommended by this Management Plan.
- Work with the Pima County Development Services Department to review development proposals associated with lands adjacent to or near the park to evaluate their compatibility with, or impacts on, the park's biological resources.
- Work with the Pima County Development Services Department to review development proposals within Sonoran Desert Conservation Plan (SDCP) designated corridors that connect Tucson Mountain Park with other natural areas and evaluate the need for dedicated natural open-space corridors within the proposed developments.

3. Biological Resource Management

- Install gates on the entries to caves and mine shafts as needed to protect bat roosts and to eliminate potential hazards to the safety of wildlife and park users.
- Fill-in or modify mine shafts that do not have habitat value and that create a potential hazard to wildlife and park users.
- Maintain the wildlife watering guzzlers and minimize the public's use of park areas that are in the vicinity of these features.
- Continue to work with the Pima County Sheriff's Department to enforce State Statutes, Pima County Ordinances, and Pima County park rules related to:
 - The collection and release of plants and animals within the park
 - The protection of Tucson Mountain Park's natural resources
 - The prohibition related to domestic animals / pets within the park
 - Archery hunting and the use of firearms within the park
- Amend the existing Pima County park rules to require that trail users remain on designated trails or obtain a permit for off-trail activities.

3.4 Framework for Biological Resource Monitoring:

It is recommended that a biological resource monitoring program be implemented at Tucson Mountain Park to assist in the on-going management of park resources and to contribute to the overall Pima County Ecological Monitoring Program (EPM). It is recommended that the Tucson Mountain Park monitoring program include the following elements.

- Site Specific Monitoring
- Species Specific Monitoring
- Landscape Level Monitoring
- Collaborative Monitoring Efforts

The activities associated with each of these elements are described below.

3. Biological Resource Management

SITE SPECIFIC MONITORING:	
Activity:	Repeat Photography
Frequency:	Annual
Description:	Activity involves photographing specific sites within the park to document changes over time. Site should include high activity zones near public use areas, restored / revegetated areas, invasive species eradication sites, and similar areas. UTM coordinates for photo sites should be recorded and used for repeat photography. File to be established at NRP&R Department to allow for periodic review / comparison of photos taken from the same location.
Adaptive Response:	Sites where the degradation of resources is observed to be added to priority list for restoration. If appropriate, public use restrictions or the closure of the subject area may be implemented.
Activity:	Inspection of Special Habitat Features
Frequency:	Annual
Description:	Activity involves field reconnaissance to check the condition of special habitat features such as wildlife guzzlers and bat caves. Human disturbance and/or other modifications to these sites to be recorded.
Adaptive Response:	Sites where the degradation of resources is observed to be added to a priority list for restoration and/or other remedial work. If appropriate, public use restrictions or the closures of the subject area may be implemented.
Activity:	Inspection of Invasive Species Eradication Sites
Frequency:	Annual
Description:	Activity involves field reconnaissance and the inspection of a sample set of sites where invasive species have been removed from the site to determine if additional eradication work is needed.
Adaptive Response:	Areas where stands of invasive species have reestablished shall be added to list of priority sites for on-going eradication work.

3. Biological Resource Management

SPECIES SPECIFIC MONITORING	
Activity:	Monitoring of Indicator Plant and Wildlife Species
Frequency:	Periodic (at 1 to 10 year intervals, as appropriate)
Description:	Activity involves periodic studies to document changes in the population and/or health of plant and wildlife species in the park. Species recommended for monitoring are the saguaro cactus and the desert tortoise. Monitoring of saguaro to follow protocols established for on-going saguaro monitoring program at Saguaro National Park (Turner and Funicelli 2000). Protocols for monitoring of desert tortoise to be established by the Pima County Natural Resources, Parks, and Recreation Department in conjunction with the Arizona Game and Fish Department (AGFD) and/or others.
Adaptive Response:	If significant changes in population are observed, initial response shall be an attempt to isolate and identify cause (or causes) of change. If human caused, appropriate changes in public use rules and regulations will be identified and implemented.
Activity:	
	Monitoring of Pima County Priority Vulnerable Species
Frequency:	As identified by Pima County Ecological Monitoring Program (EPM)
Description:	Activity involves the on-going monitoring and/or implementation of special studies related to Pima County Priority Vulnerable Species and/or other special status species as may be identified by the Pima County Ecological Monitoring Program.
Adaptive Response:	Response to findings to be as identified by the Pima County Ecological Monitoring Program and as coordinated with, and approved by, the Pima County Natural Resources, Parks, and Recreation Department.

3. Biological Resource Management

LANDSCAPE LEVEL MONITORING	
Activity:	Invasive Species Mapping
Frequency:	Annual Updates
Description:	Activity involves field reconnaissance and the mapping of park areas that have become infested with buffelgrass. Maps to be created in digital format for incorporation into the Pima County GIS database. The mapping of other invasive species should also be conducted, as appropriate.
Adaptive Response:	Maps to be used to establish priorities for eradication work and to document changes in the range of invasive species over time. Maps also to be used in conjunction with on-going field work related to the eradication effort.
<hr/>	
Activity:	Establishment / Survey of Vegetative Conditions Within Designated Plots and/or Transects
Frequency:	Periodic (at 1 to 10 year intervals, as appropriate)
Description:	Representative plots and/or transects to be identified and marked (with permanent field markings and the recording of the coordinates associated plot / transect limits). Once established, the monitoring of annual and perennial plants to be conducted at appropriate intervals. The use of protocols currently being used at Saguaro National Park is recommended.
Adaptive Response:	To be identified as changes and trends are observed over time.
<hr/>	
Activity:	Comprehensive Flora and Vertebrate Fauna Inventory
Frequency:	To be developed over a period of several years
Description:	Activity involves the compilation of a comprehensive inventory of flora and vertebrate fauna in park as baseline data. Work should be modeled on the repeatable study designs and standardized field methods utilized by the Plant and Vertebrate Inventory of Saguaro National Park, Tucson Mountain District (Powell et. al. 1996). Floral inventory work should specifically target areas within the park that were not well documented in the Annotated Flora and Vegetation of the Tucson Mountains (Rondeau et. al. 1996)

3. Biological Resource Management

COLLABORATIVE MONITORING EFFORTS	
Activity:	Inter-Agency Monitoring Workshop
Frequency:	Annual
Description:	Activity involves an annual workshop to review new monitoring activities, on-going efforts, and specific project results related to the biological resources of the park, the Tucson Mountains, and adjacent areas. Potential participants include the U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management, Arizona Game and Fish Department, the Desert Laboratory at Tumamoc Hill, the University of Arizona, and Arizona-Sonora Desert Museum.
OTHER MONITORING RELATED ACTIVITIES	
Activity:	Establishment and Operation of Weather Station
Frequency:	Operation of weather station to be on-going
Description:	It is recommended that a weather station be constructed and maintained at the proposed new Visitor Contact Station. The data collected at this station to be used in conjunction with the results from other monitoring activities to identify potential relationships between weather conditions (drought, temperature extremes, etc.) and the observed condition of the park's biological resources.

3.5 Funding and Staffing Needed for Biological Resource Monitoring:

The assignment of new staff to Tucson Mountain Park, as recommended herein, and the appropriation of needed funds will be essential to the implementation of the monitoring program outlined above. The Pima County Natural Resources, Parks, and Recreation Department will engage in monitoring activities at intervals and frequencies that can be supported by available staff and project / program funding.

References Cited:

Powell, B., W. Halvorson, C. Schmidt. 2006. Plant and vertebrate inventory of Saguaro National Park, Tucson Mountain District Final Report. Sonoran Desert Research Station and School of Natural Resources, University of Arizona, Tucson, Arizona. 108 pp.

Rondeau, R., T. R. Van Devender, C. D. Bertelsen, P. Jenkins, R. K. Wilson, and M. A. Dimmit. 1996. Annotated Flora and Vegetation of the Tucson Mountains, Pima County, Arizona. *Desert Plants* 12 (2). 47 pp.

Turner, D.S., and C.S. Funicelli. 2000. Ten-year resurvey of epidermal browning and population structure of saguaro cactus (*Carnegiea gigantea*) in Saguaro National Park, Arizona. Technical Report No. 69, U.S. Geological Survey, Sonoran Desert Field Station, Tucson, AZ. 29 pp.

4. Cultural Resource Management

- 4.1 Management Objectives:** Tucson Mountain Park will be managed with the objective of preserving, protecting, and where appropriate interpreting the cultural resources present within Tucson Mountain Park.
- 4.2 Policies Related to Cultural Resource Management:** It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:
- Operate and manage the park as required to comply with all federal, state, and local mandates related to the protection of cultural resources.
 - Encourage and support on-going research by qualified professionals related to archaeological sites and historic properties within Tucson Mountain Park.
 - Conduct cultural resource surveys in conjunction with future park development and improvement projects.
 - Support the development and implementation of educational and interpretive programs related to the park's cultural, biological and physical resources.
 - Periodically monitor known cultural resource sites to determine their condition.
- 4.3 Planned Actions:** The following actions related to the management of Tucson Mountain Park's cultural resources are planned.
- Conduct a park-wide cultural resource sample survey to establish priorities for subsequent, more detailed surveys.
 - Conduct cultural resource surveys along the park's authorized trail corridors and make adjustments to the trail system when conflicts with cultural resources are identified.
 - Conduct cultural resource surveys in conjunction with all new park development projects and design these projects in a manner that protects the subject resources.
 - Collaborate with the Pima County Cultural Resources Office and others as required to establish and implement a monitoring program utilizing trained volunteers from the Arizona Site Steward Program.
 - Assist the Pima County Cultural Resources Office with an evaluation of the CCC and WPA era structures within the park (and within the Tucson Mountain Unit of Saguaro National Park) to determine if these resources are eligible for nomination to the National Register of Historic Places as a Historic Landscape.

4. Cultural Resource Management

4.4 Scope of Proposed Sample Survey

It is recommended that the scope of the cultural resources sample survey include the following.

- Examination of previously recorded sites to determine and document their current condition.
- Re-recording of known sites (where appropriate) to update the site descriptions based on observed field conditions and contemporary standards for documenting the subject resource.
- A general examination of areas proposed for new development, such as the proposed Visitor Contact Station site.
- Examination of trail segments within and near known sites to evaluate the potential impact of trail use on the subject cultural resources.
- Identification of park areas not previously surveyed with physical features and conditions likely to support cultural resource sites, and an examination of some of these areas.
- Recommendations for follow-up, phased, targeted cultural resource survey work, as appropriate.

5. Visual Resource Management

- 5.1 Management Objectives:** Tucson Mountain Park will be managed with the objective of protecting and enhancing the visual resources associated with Tucson Mountain Park including views internal to the park, off-site vistas as seen from prominent vantage points inside the park, and views of the park from external vantage points in the region.
- 5.2 Policies Related to Visual Resource Management:** It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:
- Protect the natural landforms, vegetation, and other features of Tucson Mountain Park that contribute to the visual quality of the site.
 - Construct new park facilities and improve existing park facilities in a manner that minimizes the visual impact of the subject development when viewed from on-site and off-site vantage points.
 - Actively oppose the construction of above-ground utility lines, communication towers, highways, large structures, and infrastructure improvements within, or in the vicinity of, the site that will diminish the visual resources associated with Tucson Mountain Park.
 - Consider visual resource protection when evaluating potential land acquisitions and park expansion.
- 5.3 Planned Actions:** The following actions related to the management of Tucson Mountain Park's visual resources are planned.
- Actively participate in the review of feasibility studies, alignment studies, and other documents related to new pipelines, transmission lines, and regional infrastructure improvements proposed for areas within or near Tucson Mountain Park to determine their potential impact on the visual resources of the park.
 - Work with the Pima County Development Services Department to review the plans for proposed new developments in the vicinity of the park to determine their impact on the visual resources of Tucson Mountain Park.
 - Design and construct new or renovated park facilities in a manner that protects and enhances the visual resources associated with Tucson Mountain Park.
 - Periodically implement clean-up, restoration, and revegetation projects as may be needed to restore the visual quality of disturbed sites within Tucson Mountain Park.

6. Physical Resource Management

- 6.1 Management Objectives:** Tucson Mountain Park will be managed with the objective of preserving, without degradation, the soils, geologic features, and water resources present within Tucson Mountain Park.
- 6.2 Policies Related to Physical Resource Management:** It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:
- Develop and use the park site in a manner that conserves the soil resources present on the site and that minimizes soil erosion.
 - Develop and use the park site in a manner that preserves the natural character of the geologic formations and surface rock features present within the park.
 - Operate the park in a manner that protects surface water quality, natural surface water drainage patterns, and opportunities for ground water recharge within the park.
 - Prohibit the removal of minerals from the ground surface and the subsurface mining of minerals within the park.
 - Actively participate in the review of all proposals related to mineral extraction on lands adjacent, or in close proximity, to the park site.
 - Require that all new facilities, roadways, utilities, and infrastructure improvements constructed within the park be designed in a manner that will prevent visible excavations, large fill slopes, and exposed rock cut-slopes.
 - Actively participate in the review of development proposals for areas adjacent or near the site to determine their potential impact on the physical resources of Tucson Mountain Park.
- 6.3 Planned Actions:** The following actions related to the management of Tucson Mountain Park's physical resources are planned.
- Review all new construction and park development projects relative to their potential impact on the park's physical resources and require that these impacts be minimized and/or mitigated.

7. Public Use Facilities

7.1 Introduction:

The picnic areas, shooting ranges, and overlooks within Tucson Mountain Park get extensive public use. Facilities at some of these sites date back more than half a century. Others were constructed more recently. All continue to be valuable recreational resources for the community.

Improvements of some type and scope are needed at most of the existing public use facilities within the park. These improvements are necessary to bring the facilities up to reasonable contemporary standards and to meet applicable codes, statutes, and other regulations.

Missing from Tucson Mountain Park is a central facility where visitors can get information about the park, where they can make contact with a park employee, and where they can report observed violations of park rules and regulations. A small Visitor Contact Station is planned to correct this existing deficiency.

7.2 Management Objective:

Tucson Mountain Park will be managed with the objective of providing the public with developed facilities that accommodate a range of uses and activities that are appropriate for the park's natural resource setting, that are safe, and that can be conducted without degradation of the park's biological, cultural, visual, or physical resources.

7.3 Policies Related to Public Use:

It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:

- Provide and maintain trails, picnic areas, overlooks, roadside pull-outs, and other recreational facilities within Tucson Mountain Park that are available for public use without fee.
- Provide and maintain certain developed facilities within the park, including but not limited to: a campground, a shooting range, and an archery range, that are available for public use upon payment of a designated user fee.
- Consider and allow under certain circumstances the use of the park for special events and activities provided that such events and activities do not result in damage to the park's resources, do not create unsafe conditions, do not preclude or hinder normal park operations, and that do not unduly restrict general public use of the park, as determined by the Natural Resources, Parks, and Recreation Department. A user fee shall be charged for approved special events and activities.
- Prohibit all public use of the park for activities that may result in damage to the park's resources, that may create unsafe conditions, that may preclude or hinder normal park operations, or that may unduly restrict general public use of the park, as determined by the Natural Resources, Parks, and Recreation Department.

7. Public Use Facilities

7.4 Planned Actions:

The following actions related to the public's use of Tucson Mountain Park are planned.

- Construction of a new Visitor Contact Station where park users can; obtain information related to park facilities, obtain information related to park rules and regulations, and where users can report observed violations and/or hazardous conditions to Park staff.
- Operate, maintain, and construct as-needed improvements to the existing system of picnic areas, overlooks, roadside pull-outs and other recreational facilities that are available for public use free-of-charge. (Proposed improvements shall be as outlined herein).
- Continue to operate, maintain, and construct as-needed improvements to the campground, shooting range, archery range, and other park facilities that are available to the public on a fee-for-use basis. (Proposed improvements shall be as outlined herein).
- Continue to utilize the special activity / event application form that, when completed, provides the Department with sufficient information related to scope, character, and potential impacts of proposed special activity or event.
- Conduct reviews of all special activity and event proposals based on the various provisions of this Management Plan and issue a timely decision of approval or denial in response to each proposal.
- Collaborate with the Pima County Sheriff's Department to enforce all Pima County park system rules and regulations and all Tucson Mountain Park site specific rules and regulations as they relate to the public's use of the park.
- Periodically update the rules and regulations pertaining to the public's use of the park as deemed necessary and appropriate by the Natural Resources, Parks, and Recreation Department and the Pima County Parks Commission.

7. Public Use Facilities

7.5 New Visitor Contact Station:

It is proposed that a new Visitor Contact Station be constructed at a site near the intersection of Kinney Road and McCain Loop Road. This facility is needed to provide a location where park users can; obtain information related to park facilities, obtain information related to park use rules and regulations, and report observed violations and/or hazardous conditions to park staff.

The proposed Visitor Contact Station will also create a location where interpretive and educational programs can be conducted and/or staged. These programs may be developed and conducted by Pima County staff but may also be presented in partnership with the Arizona-Sonora Desert Museum and/or Saguaro National Park.

The proposed Visitor Center is intended to complement and work in concert with existing facilities and on-going programs at the Desert Museum and at the Saguaro National Park Red Hills Visitor Center.

Recommended Improvements:

SITE DEVELOPMENT	
x	Modify Kinney Road / McCain Loop Road intersection as traffic calming measure and to provide access to Visitor Contact Station
	Construct paved entry drive and parking lot
BUILDINGS AND STRUCTURES	
	Construct new Visitor Contact Station as illustrated in Figure 7-A
	Construct new interpretive / educational plaza as illustrated in Figure 7-A
UTILITIES AND INFRASTRUCTURE	
	Extend water service to new Visitor Contact Station
	Construct septic system for Visitor Contact Station wastewater treatment
	Extend electrical service to new Visitor Contact Station
	Extend telephone service to new Visitor Contact Station
OTHER IMPROVEMENTS	
	Construct interpretive trail originating at Visitor Contact Station

x Indicates high priority improvement

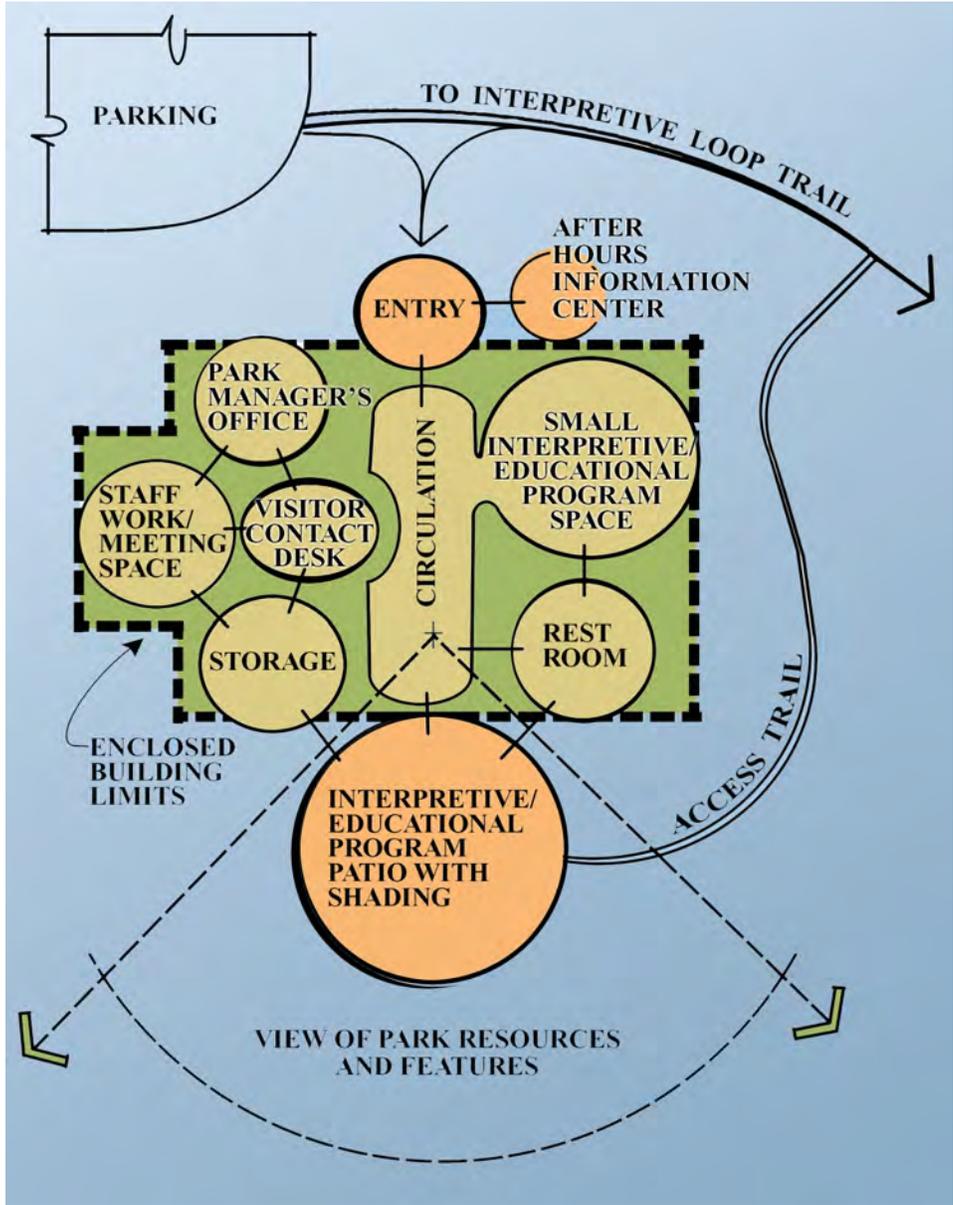


Figure 7-A: Visitor Contact Station Diagram

7. Public Use Facilities

7.6 Gilbert Ray Campground:

The Gilbert Ray Campground continues to be a valued recreational resource that provides users with an opportunity to camp in a natural Sonoran Desert setting. It also complements the facilities at the Tucson Mountain Unit of Saguaro National Park which does not have a campground.

Recommended Improvements:

SITE DEVELOPMENT	
	Seal cracks and slurry-seal campground roads
	Construct islands in registration building parking lot to provide screening and organize traffic circulation and vehicle parking
BUILDINGS AND STRUCTURES	
x	Replace existing Registration Building w/ new structure. See Figure 7-B.
	Repair, renovate, or replace each of 4 ramadas at Camp Host Area.
	Restore CCC era Generator Building as interpretive site
	Make as-needed repairs to restroom near Registration Building
	Make as-needed repairs to restroom buildings in A-Loop and C-Loop
	Remove old restroom building
UTILITIES AND INFRASTRUCTURE	
	Replace potable water distribution system
	Make as-needed repairs to dump station and sewage lagoon as required to maintain compliance with ADEQ and other applicable standards
	Replace overhead electrical line to camp host area with an underground service
	Replace electrical distribution system and install new 50A electrical pedestals at all RV sites
OTHER IMPROVEMENTS	
	Relocate tent sites to be further away from road
x	Construct new campground entry monument sign
	Construct screen wall to enclose dumpster in C-Loop
	Install concrete slab at all A-Loop and C-Loop Picnic Tables

x Indicates high priority improvement.

7. Public Use Facilities

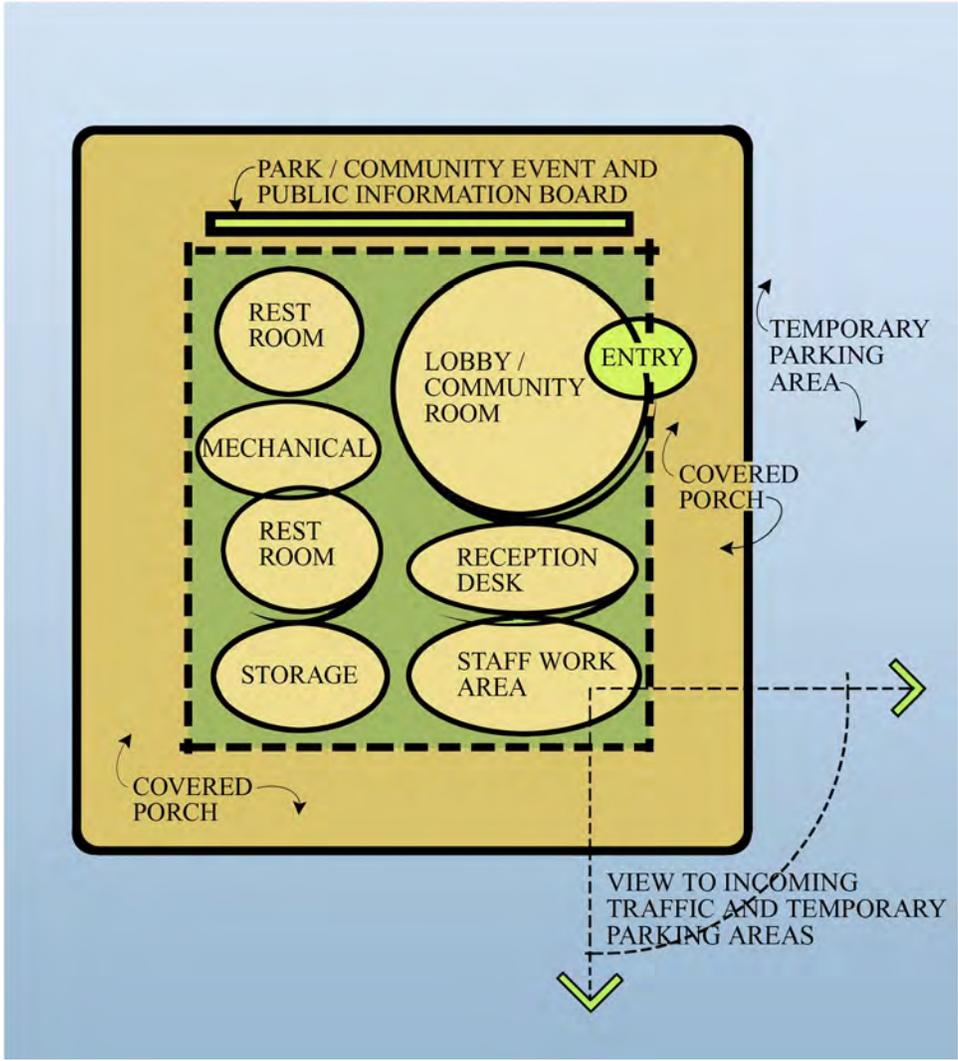


Figure 7-B: New Campground Registration Building Diagram

7. Public Use Facilities

7.7 Juan Santa Cruz Picnic Area:

The Juan Santa Cruz Picnic Area is extensively used, in part due to its proximity to the Arizona-Sonora Desert Museum. Many visitors to the museum plan a picnic as part of their trip but picnicking is not allowed within the museum grounds. The Juan Santa Cruz Picnic Area is a convenient and desirable alternative location for this activity. Included at this site are ramadas and picnic tables that were developed in the 1960's and are now half a century old.

This picnic facility is located in an area where future Arizona-Sonora Desert Museum expansion might occur. If the museum does expand into this site, it is essential that a comparable picnic area be constructed in the immediate vicinity. The salvage and reconstruction of the existing ramada structures should be part of the relocation project.

Recommended Improvements:

SITE DEVELOPMENT	
	Seal cracks and slurry seal picnic area drive and parking areas
BUILDINGS AND STRUCTURES	
	Preserve rock work, reconstruct Ramada No. 1 with new roof structure, new roof deck, and new floor slab.
	Preserve rock work, reconstruct Ramada No. 2 with new roof structure, new roof deck, and new floor slab.
	Preserve rock work, reconstruct Ramada No. 3 with new roof structure, new roof deck, and new floor slab.
	Make as-needed repairs to restroom building
UTILITIES AND INFRASTRUCTURE	
	Connect water system to new main in Kinney Road. Renovate on-site water distribution system as-needed.
OTHER IMPROVEMENTS	
x	Construct new Picnic Area Monument Sign at entry
x	Install new Park Rules and Regulations sign with Trail Map
	Repair and/or replace picnic tables No. 1 through No. 6 and related improvements as-needed
x	Make provisions to handicapped access to picnic sites / tables

x Indicates high priority improvement.

7. Public Use Facilities

7.8 Brown Mountain Picnic Area:

The Brown Mountain Picnic Area consists of a drive that parallels Kinney Road with pull-out parking spaces and picnic sites. The picnic sites include picnic tables and a ramada. The ramada structures were constructed by Youth Conservation Corps crews in 1976. There are no restrooms at the Brown Mountain Picnic Area.

Recommended Improvements:

SITE DEVELOPMENT	
	Seal cracks and slurry seal picnic area drive and parking areas
BUILDINGS AND STRUCTURES	
	Add new floor slab. Repair rock work, make as-needed structural repairs, replace asphalt felt roof with new metal roof deck at Ramada No. 1
	Add new floor slab. Repair rock work, make as-needed structural repairs, replace asphalt felt roof with new metal roof deck at Ramada No. 2
	Add new floor slab. Repair rock work, make as-needed structural repairs, replace asphalt felt roof with new metal roof deck at Ramada No. 3
UTILITIES AND INFRASTRUCTURE	
	Provide water line stub-out in new irrigation main in Kinney Road for potential future use at picnic area
OTHER IMPROVEMENTS	
x	Construct new Picnic Area Monument Sign at entry
x	Install new Park Rules and Regulations sign with Trail Map
x	Make provisions for handicapped access to picnic sites / tables

x Indicates high priority improvement.

Note: New restroom building not recommended for Brown Mountain Picnic Area due to the small number of picnic sites and its proximity to the proposed Visitor Contact Station which will have public restrooms. These restrooms will be open during hours when picnic area is typically in use.

7. Public Use Facilities

7.9 Ironwood Picnic Area:

The location of the Ironwood Picnic Area, close to Old Tucson Studios and close to the southern entrance to the park, make it a popular day-use facility. The picnic area has two restroom buildings with vault toilets. There is no existing water service to this site. The ramadas at this site were constructed by Youth Conservation Corps crews in 1978.

Recommended Improvements:

SITE DEVELOPMENT	
	Seal cracks and slurry seal picnic area drive and parking areas
BUILDINGS AND STRUCTURES	
	Make as-needed structural and roof repairs and add new floor slab at Ramada No. 1
	Make as-needed structural and roof repairs and add new floor slab at Ramada No. 2
	Make as-needed structural and roof repairs and add new floor slab at Ramada No. 3
	Make as-needed structural and roof repairs and add new floor slab at Ramada No. 4
	Make as-needed repairs to restroom buildings 1 and 2
UTILITIES AND INFRASTRUCTURE	
	Extend water service to site terminating in the vicinity of the restroom buildings. Construct exterior hand-wash sinks at each rest room. (Retrofitting of existing restroom fixtures not proposed)
OTHER IMPROVEMENTS	
x	Construct new Picnic Area Monument Sign at entry
x	Install new Park Rules and Regulations sign with Trail Map
	Repair and/or replace picnic tables No. 1 through No. 7 and related improvements as-needed
x	Make provisions to handicapped access to picnic sites / tables

x Indicates high priority improvement.

7. Public Use Facilities

7.10 Archery Range:

The Archery Range is a self-pay facility operated by the Pima County NRP&R Department, Recreation Division, Shooting Sports Section. Facilities at this site include a range with targets at 20 to 70 yards and three roving or trail courses. A large shooting ramada and a restroom building with water and electricity are present on the site. There are two additional small ramadas. Access to the site is via an unpaved road. There is also a large unpaved parking lot.

Recommended Improvements:

SITE DEVELOPMENT	
	Pave entry drive to parking lot
	Pave portions of the cleared area as a parking lot. Mark designated spaces and drives. Revegetate perimeter areas not used for parking.
BUILDINGS AND STRUCTURES	
	Make as-needed structural and roof repairs to large shooting ramada
	Make as-needed structural repairs, replace roof deck, and install metal roof at small ramadas 1 and 2
	Make as-needed repairs to restroom building roof. Make as needed repairs to restroom mechanical, plumbing, and electrical systems. Repair stone veneer at exterior of restroom building.
UTILITIES AND INFRASTRUCTURE	
	Connect water system to new water main in Kinney Road and renovate on-site water distribution system, as-needed
OTHER IMPROVEMENTS	
x	Construct new Archery Range Monument Sign at entry.
x	Install new Park Rules and Regulations Sign with Trail Map
	Redevelop roving courses. Provide new signs and miscellaneous improvements associated with each course.
x	Install fence or markers at perimeter of site to warn off-trail hikers, equestrians, and/or mountain bicyclists

x Indicates high priority improvement.

Note: Construction of additional multi-purpose ramada at this site should be considered. These ramadas could be reserved for approved activities when range is closed. The existing restrooms would serve small groups using these multi-purpose ramadas.

7. Public Use Facilities

7.11 Rifle and Pistol Range:

The Rifle and Pistol Range is a staffed facility operated by the Pima County NRP&R Department, Recreation Division, Shooting Sports Section. Fees are collected for use of the range. Facilities at this site include a bermed shooting range, a large shooting ramada, small vault toilet building, and a small office / storage building. There are no water or electrical services to the site. Access to the site is via an unpaved road. There is also a small unpaved parking lot.

Recommended Improvements:

SITE DEVELOPMENT	
	Pave entry drive to parking lot
	Pave the parking lot. Mark designated spaces and drives.
BUILDINGS AND STRUCTURES	
	Make as-needed structural and roof repairs to large shooting ramada
	Construct a new restroom, office, storage building as a single structure or separate structure based on additional site planning.
UTILITIES AND INFRASTRUCTURE	
	Extend water system to site and new restroom building
	Construct on-site septic system for wastewater disposal
	Extend electrical service to site and to new on-site buildings
OTHER IMPROVEMENTS	
x	Construct new Rifle - Pistol Range Monument Sign at entry.
x	Install new Park Rules and Regulations Sign
x	Repair and/or install fence and markers at perimeter of safety fan to warn off-trail hikers, equestrians, and/or mountain bicyclists
x	Make provisions for handicapped access to range site / facilities

x Indicates high priority improvement.

7. Public Use Facilities

**7.12 Gates Pass
Overlook:**

The Gates Pass Overlook is one of the most popular destinations in the park. It is used extensively by both local residents and visitors to the community. Facilities at the overlook include a primary parking lot, a lower overflow parking lot, a restroom building, an accessible overlook area, a restored look-out building, and fixed interpretive displays.

Recommended Improvements:

SITE DEVELOPMENT	
	Seal cracks, slurry seal drives and parking areas, and re-stripe parking areas as-needed.
x	Install self-closing (solar powered) gate at entry to site.
BUILDINGS AND STRUCTURES	
	Make as-need repairs to restroom building, look-out building, and overlook ramada.
UTILITIES AND INFRASTRUCTURE	
	(Note: There are no utility services to this site and none are planned)
OTHER IMPROVEMENTS	
x	Construct new Overlook Monument Sign at entry
x	Install new Park Rules and Regulations sign with Trail Map
x	Construct accessible trail to remote overlook to provide handicapped accessible viewing opportunity separated from parking lot (and to minimize off-trail pedestrian travel on hillsides). Trail was proposed as part of the 1999 renovation of the overlook but deleted from the scope of the project due to budget constraints.

x Indicates high priority improvement.

7. Public Use Facilities

7.13 G-3 Overlook:

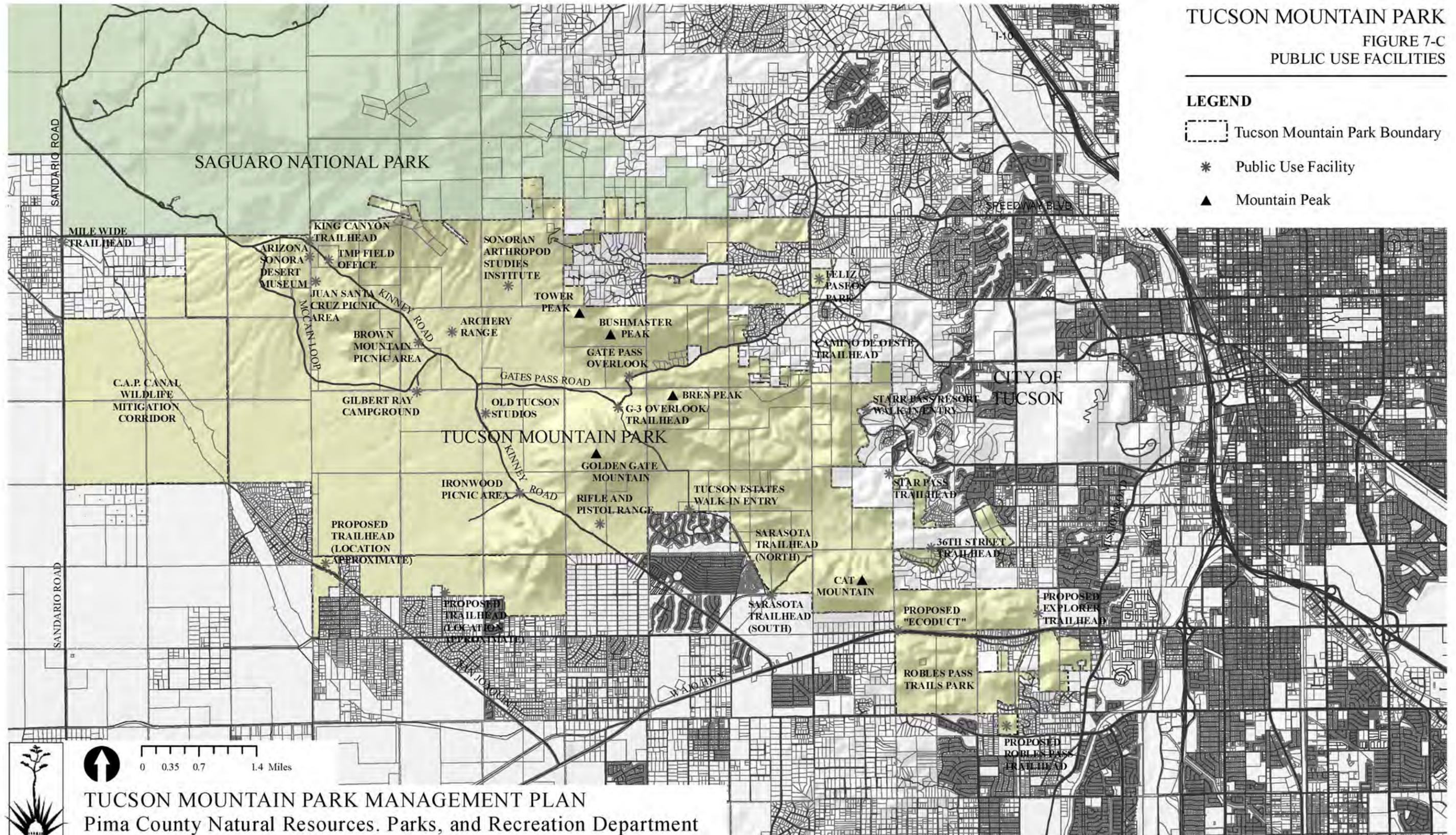
The G-3 Overlook, located on the west side of Gates Pass Road is a popular location for viewing sunsets and taking photographs of the park. Facilities at the overlook include a small paved parking lot, short segments of paved walkway, and a few benches. The popularity and high-level of use at this site warrant the reconstruction and reconfiguration of this overlook.

Recommended Improvements:

SITE DEVELOPMENT	
x	Reconstruct entry and parking lot with a single entry / exit drive, with designated (striped) parking spaces, with a handicapped accessible parking space, and with an accessible walkway to a viewing area.
BUILDINGS AND STRUCTURES	
	(Note: There are no buildings at this site and none are planned)
UTILITIES AND INFRASTRUCTURE	
	(Note: There are no utility services to this site and none are planned)
OTHER IMPROVEMENTS	
x	Construct new Overlook Monument Sign at entry
x	Install new Park Rules and Regulations sign with Trail Map
	Construct small, accessible viewing area with interpretive signs. Due to topography in this area, small retaining walls may be necessary. Retaining walls and other site features should be constructed of native stone to match the existing facilities at the Gates Pass Overlook.

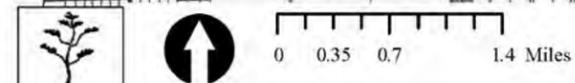
x Indicates high priority improvement.

TUCSON MOUNTAIN PARK
 FIGURE 7-C
 PUBLIC USE FACILITIES



LEGEND

-  Tucson Mountain Park Boundary
-  Public Use Facility
-  Mountain Peak



TUCSON MOUNTAIN PARK MANAGEMENT PLAN
 Pima County Natural Resources, Parks, and Recreation Department
 Prepared by McGann & Associates Landscape Architects and Planners

8. Park Trail System

8.1 Introduction

The trail system within Tucson Mountain Park is a valued and extensively utilized recreational amenity consisting of more than 60 miles of single-track trail. It is estimated that more than 150,000 visitors use the park's trail system annually.

A significant issue associated with the Tucson Mountain Park trail system is the construction of new social or wildcat trails by individuals without authorization by the Pima County Natural Resources, Parks, and Recreation Department. In recent years, this activity has resulted in the construction of more than 40 miles of unauthorized trails. There is a need to evaluate and, in some instances, eliminate these unauthorized trails.

8.2 Management Objectives:

Tucson Mountain Park will be managed with the objective of providing a safe trail system with opportunities for hiking, trail running, mountain bicycling, horseback riding, and similar activities. The trail system will be developed, operated, and maintained in a manner that protects the physical, biological, cultural, and visual resources of the site.

8.3 Policies Related to Tucson Mountain Park Trails:

It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:

- Provide safe and legal access to the Tucson Mountain Park trail system at designated trailheads, entry points, and developed park facilities.
- Prohibit access to the park's trail system from adjacent properties through private gates.
- Prohibit the construction of new trails and/or the modification of existing trails, except as may be approved by the Pima County Natural Resources, Parks, and Recreation Department.
- Accommodate hiking, trail running, mountain bicycling, equestrian use, and similar non-motorized uses on all trails within the park. (Closure of specific segments of individual trails to one or more uses may be considered and implemented if deemed necessary by the Natural Resources, Parks, and Recreation Department for resource protection and/or public safety).
- Prohibit the use of off-highway vehicles (OHV's) and all other motorized vehicles on the park's trails, except as may be needed for maintenance, search-and-rescue operations, and/or law enforcement activities.
- Require that trail users remain on designated trails, except as may be authorized on a case-by-case basis through the issuance of an off-trail activity permit.

8. Park Trail System

8.4 Planned Actions:

The following actions related to the development and operation of the Tucson Mountain Park Trail System are planned.

- Improvement of and development of existing trailheads and designated trailhead sites as outlined herein.
- Construction of two new trailheads or public access points to provide public access to the BLM Expansion Site portion of Tucson Mountain Park.
- Closure and restoration of the existing King Canyon Trailhead and construction of a new King Canyon Trailhead in a nearby location where vehicular access and traffic safety will be enhanced.
- Periodic inspection of all authorized trails, identification of trail deficiencies, and implementation of as-needed remedial work.
- Phased inspection of all unauthorized trails and issuance of a final determination as to whether each of these unauthorized trails should be retained or eliminated.
- Closure of trails to be eliminated including the posting of a closure notice at access points to the subject trail and the phased revegetation / restoration of the trail corridor.
- Preparation, printing, and distribution of trail maps that identify authorized trails and trailheads within the park.
- Posting of the official trail map on the Pima County website with accompanying information related to trail use rules and regulations.
- Installation of informational signs at trailheads and access points that identify authorized trails and applicable rules and regulations.
- Installation of trail identification markers at intervals along each authorized trail.
- Development of a detailed trail plan for the Robles Pass Trails Park portion of Tucson Mountain Park.
- Phased construction of the Robles Park trail system.
- Development of a process for reviewing requests for off-trail activities and for the issuance of off-trail use permits.

8. Park Trail System

8.5 Recommended Trailhead Improvements (Existing Trailheads):

The following improvements to existing trailheads are recommended.

STARR PASS TRAILHEAD	
x	Pave Clearwell Road from Starr Pass Boulevard to trailhead. Work to be implemented in conjunction with the City of Tucson Department of Transportation
x	Install directional sign at the intersection of Starr Pass Boulevard and Clearwell Road
	Restore / revegetate disturbed areas at the perimeter of the trailhead parking lot
x	Install sign(s) with trail map and park rules / regulations
36 th STREET TRAILHEAD	
	Restore / revegetate disturbed areas at the perimeter of the trailhead parking lot
	Install directional sign at the intersection of 36 th Street and La Cholla Boulevard
x	Install sign(s) with trail map and park rules / regulations
CAMINO DE OESTE TRAILHEAD	
	Pave (unpaved portion of) Camino de Oeste and parking lot. Work to be implemented in conjunction with the City of Tucson Department of Transportation
	Install directional sign at the intersection of Camino de Oeste and Gates Pass Road
	Restore / revegetate disturbed areas at the perimeter of the trailhead parking lot
x	Install sign(s) with trail map and park rules / regulations
KING CANYON TRAILHEAD	
	Construct new trailhead with paved entry drive and parking lot at new (nearby) site as needed to improve traffic safety.
	Construct new Trailhead Monument Sign at intersection of new entry drive and Kinney Road

x Indicates high priority improvement

8. Park Trail System

x	Install sign(s) with trail map and park rules / regulations
MILE WIDE TRAILHEAD	
	Construct new Trailhead monument sign at intersection of new entry drive and Sandario Road
x	Install sign(s) with trail map and park rules / regulations
SARASOTA TRAILHEAD	
	Install directional sign at the intersection of Kinney Road and Sarasota Boulevard
	Construct new Trailhead Monument Sign at entry to trailhead
x	Install sign(s) with trail map and summary of park rules and regulations
J.W. MARRIOTT WALK-IN ENTRY	
x	Install sign(s) with trail map and park rules / regulations (at terminus of Bowen Trail and Hidden Canyon Trail and hotel access drive)
TUCSON ESTATES WALK-IN ENTRY	
x	Install sign(s) with trail map and park rules / regulations
x	Modify gates to accommodate pedestrian, equestrian, and mountain bicycle access while restricting OHV access

8.6 New Trailhead Development:

EXPLORER TRAILHEAD (FUTURE)	
	Construct new trailhead with paved entry drive and parking lot. Trailhead to have access from La Cholla Boulevard. Trailhead to be configured to accommodate pick-up truck with equestrian trailers
	Construct new fencing and gates as required to control motor-vehicle access to and circulation through site and to restrict OHV access to park
	Construct new Trailhead monument sign at entry to trailhead
	Install sign(s) with trail map and park rules / regulations

x Indicates high priority improvement

8. Park Trail System

LEAD FLOWER AVENUE TRAILHEAD (FUTURE)	
	Construct new trailhead with paved entry drive and parking lot. Trailhead to be constructed in the vicinity of Lead Flower Avenue and Banks Elementary School. (Actual location to be as selected by PCNRPR upon completion of field reconnaissance and other appropriate studies)
	Install directional sign at the intersection of Bopp Road and Lead Flower Avenue (or other appropriate off-site location)
	Construct new Trailhead Monument Sign at entry to trailhead
	Install sign(s) with trail map and park rules / regulations
SAN JOAQUIN TRAILHEAD (FUTURE)	
	Construct new trailhead with paved entry drive and parking lot. Trailhead to be constructed on the north side of San Joaquin Road west of Purple Sky Trail. (Actual location to be as selected by the PCNRPR upon completion of field reconnaissance and other appropriate studies)
	Construct new Trailhead Monument Sign at entry to trailhead
	Install sign(s) with trail map and park rules / regulations
IRONWOOD TRAILHEAD (FUTURE)	
	Construct a small trailhead with parking spaces for truck / horse trailer parking northwest of the intersection of Kinney Road and the Ironwood Picnic Area entry drive.
WELL ROAD TRAILHEAD (FUTURE)	
	Construct a small trailhead with parking spaces for truck / horse trailer parking at the intersection of McCain Loop Road and the (unpaved / controlled access) Well Road.

8.7 Trail System Improvements:

The following improvements to the existing trail system are proposed.

GENERAL TRAIL SYSTEM IMPROVEMENTS	
x	Install trail identification markers at intervals along all authorized park trails
x	Install sign(s) trail maps at trailheads
x	Install sign(s) with park rules and regulations at trailheads

x Indicates high priority improvement

8. Park Trail System

36 th STREET TRAIL	
	Perform general trail maintenance
AVERY BRYCE TRAIL	
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
BOWEN TRAIL	
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation
BROWN MOUNTAIN TRAIL	
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation
CALICHE FLATS TRAIL	
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
CAMPGROUND TRAIL	
	Relocate and/or reconstruct wash crossing(s)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
CHAPARRAL TRAIL	
	Realign portions of trail (near pull-out G-3)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
CHEOPS TRAIL	
	Relocate and/or reconstruct wash crossing(s)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
COUGAR TRAIL	
	Relocate and/or reconstruct wash crossing (near Gates Pass Road)
	Realign portions of trail (near powerline)
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation
COYOTE TRAIL	
	Perform general trail maintenance

x Indicates high priority improvement

8. Park Trail System

CREOSOTE TRAIL	
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
	Prune vegetation as-need to provide safe trail corridor
EXPLORER TRAIL	
	Realign portions of trail (along powerline)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
GATES PASS TRAIL	
	Realign portions of trail (as-needed to reduce erosion)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
GOLDEN GATE TRAIL	
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation
x	Prune vegetation as-need to provide safe trail corridor
HIDDEN CANYON TRAIL	
	Perform general trail maintenance
IRONWOOD TRAIL	
x	Realign portions of trail (in vicinity of Ironwood Wash)
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation
KERR JAR TRAIL	
	Stabilize and/or reconstruct wash crossings
	Prune vegetation as-need to provide safe trail corridor
MARIPOSA TRAIL	
	Relocate and/or reconstruct wash crossing(s)
OLD ADOBE TRAIL	
	Relocate and/or reconstruct wash crossing(s)

x Indicates high priority improvement

8. Park Trail System

ORCUTT TRAIL	
	Relocate and/or reconstruct wash crossing(s)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
	Prune vegetation as-need to provide safe trail corridor
PALO VERDE TRAIL	
	Relocate and/or reconstruct wash crossing(s)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
	Prune vegetation as-need to provide safe trail corridor
PEAK VIEW TRAIL	
x	Realign portions of trail
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation
	Prune vegetation as-need to provide safe trail corridor
PRICKLY PEAR TRAIL	
	Relocate and/or reconstruct wash crossing(s)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
	Prune vegetation as-need to provide safe trail corridor
PROSPECTOR TRAIL	
	Realign portions of trail
	Relocate and/or reconstruct wash crossing(s)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
	Prune vegetation as-need to provide safe trail corridor
RATTLESNAKE TRAIL	
	Relocate and/or reconstruct wash crossing(s)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
RINGTAIL TRAIL	
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation

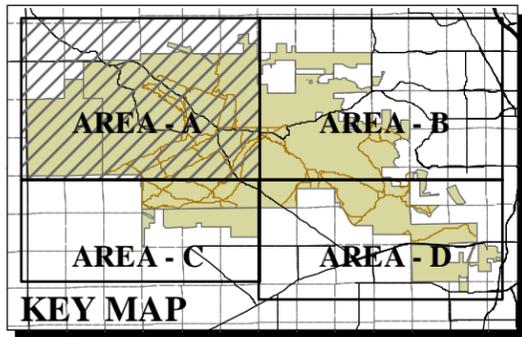
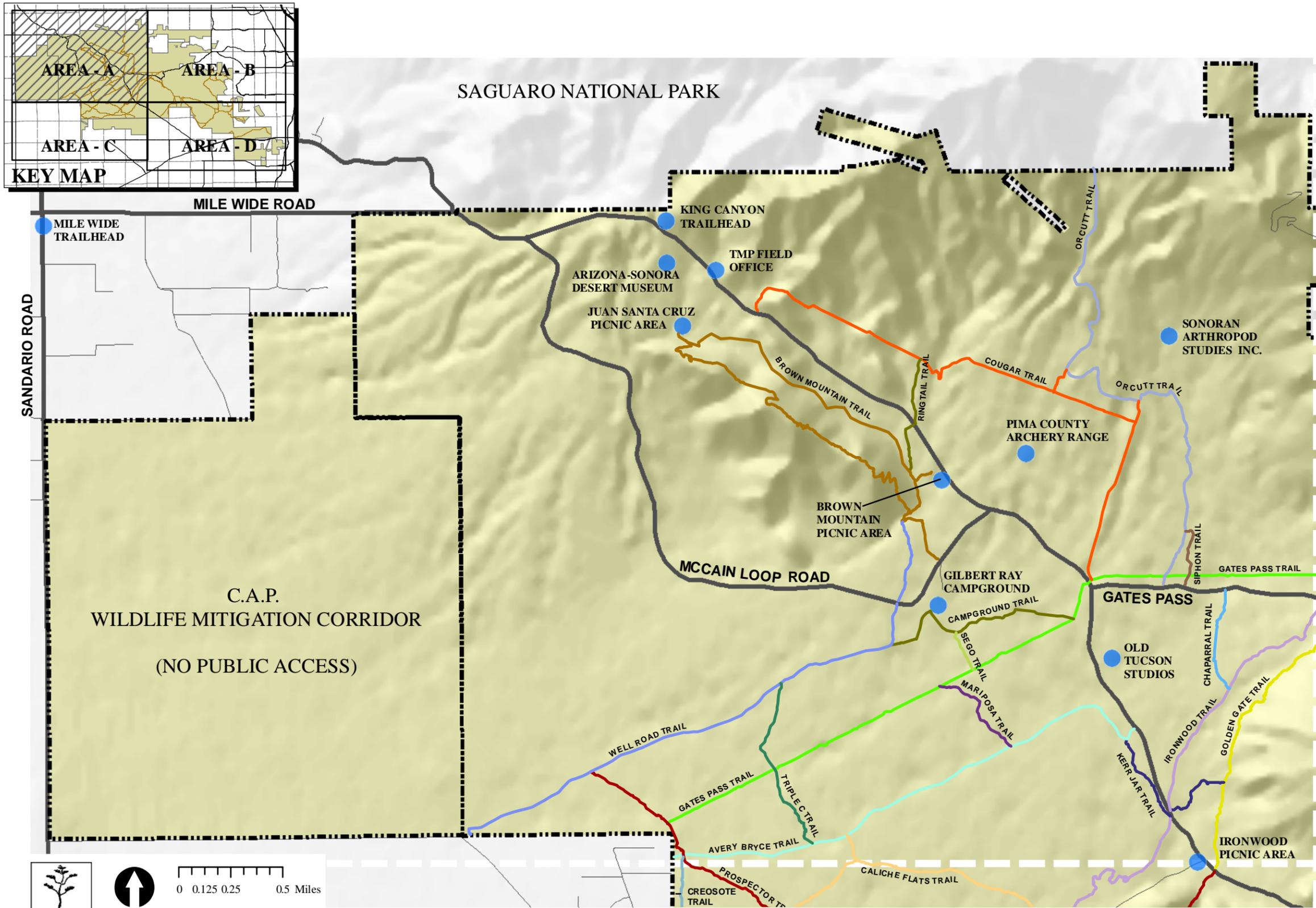
x Indicates high priority improvement

8. Park Trail System

ROCK WREN TRAIL	
	Perform general trail maintenance
SAGUARO RIB TRAIL	
	Perform general trail maintenance
SEGO TRAIL	
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation
SILVER ORE TRAIL	
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
SIPHON TRAIL	
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
STARR PASS TRAIL	
	Realign portions of trail
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
TRIPLE C TRAIL	
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation
TUCSON ESTATES TRAIL	
x	Relocate and/or reconstruct wash crossing(s)
x	Stabilize, repair, revegetate areas with erosion / trail-side degradation
	Prune vegetation as-need to provide safe trail corridor
WELL ROAD TRAIL	
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
YETMAN TRAIL	
	Realign portions of trail (to eliminate trail within wash bottom)
	Stabilize, repair, revegetate areas with erosion / trail-side degradation
	Prune vegetation as-need to provide safe trail corridor

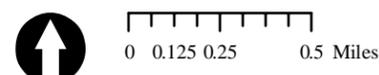
x Indicates high priority improvement

TUCSON MOUNTAIN PARK
 FIGURE 8-A
 TRAILS MAP
 AREA - A



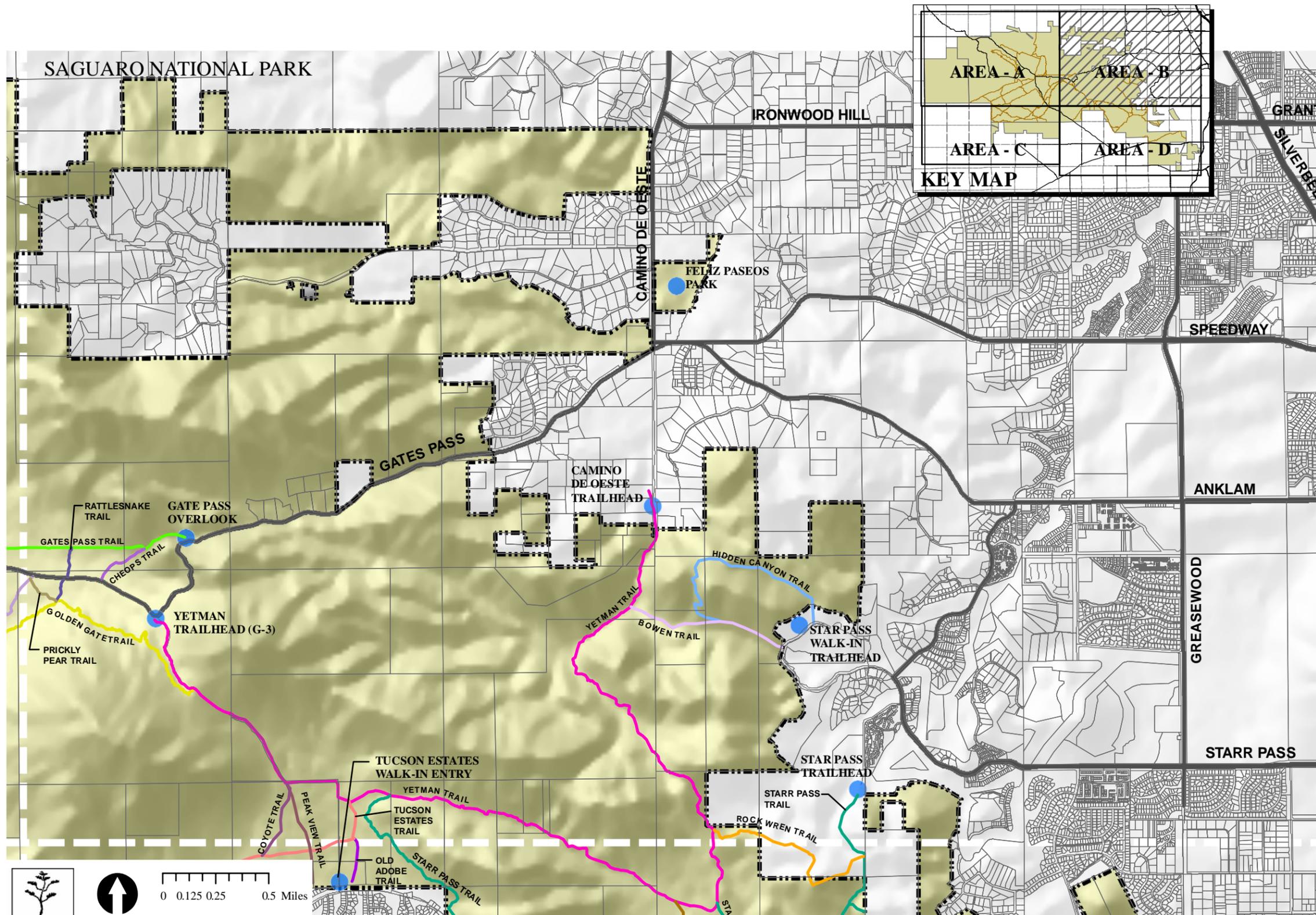
LEGEND

- 36TH STREET TRAIL
- AVERY BRYCE TRAIL
- BOWEN TRAIL
- BROWN MOUNTAIN TRAIL
- CALICHE FLATS TRAIL
- CAMPGROUND TRAIL
- CHAPARRAL TRAIL
- CHEOPS TRAIL
- COUGAR TRAIL
- COYOTE TRAIL
- CREOSOTE TRAIL
- EXPLORER TRAIL
- GATES PASS TRAIL
- GOLDEN GATE TRAIL
- HIDDEN CANYON TRAIL
- IRONWOOD TRAIL
- KERR JAR TRAIL
- MARIPOSA TRAIL
- OLD ADOBE TRAIL
- ORCUTT TRAIL
- PALO VERDE TRAIL
- PEAK VIEW TRAIL
- PRICKLEY PEAR TRAIL
- PROSPECTOR TRAIL
- RATTLESNAKE TRAIL
- RINGTAIL TRAIL
- ROCK WREN TRAIL
- SAGUARO RIB TRAIL
- SEGO TRAIL
- SILVER ORE TRAIL
- SIPHON TRAIL
- STARR PASS TRAIL
- TRIPLE C TRAIL
- TUCSON ESTATES TRAIL
- WELL ROAD TRAIL
- YETMAN TRAIL
- ROBLES TRAIL - PLANNED
- POINTS OF INTEREST
- TMP BOUNDARY



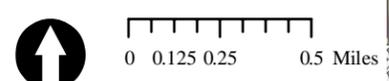
TUCSON MOUNTAIN PARK MANAGEMENT PLAN
 Pima County Natural Resources, Parks, and Recreation Department
 Prepared by McGann & Associates Landscape Architects and Planners

TUCSON MOUNTAIN PARK
 FIGURE 8-B
 TRAILS MAP
 AREA - B



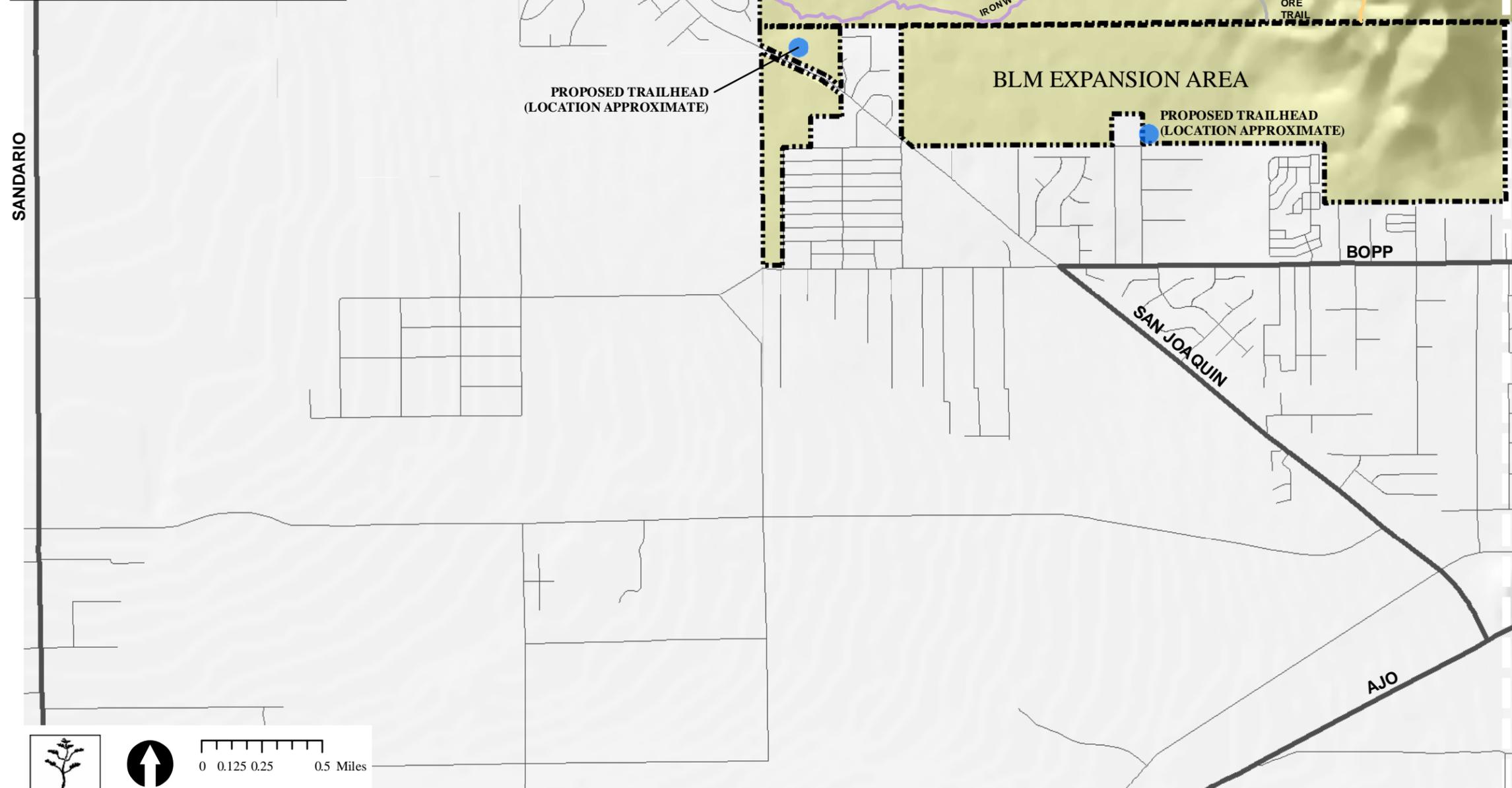
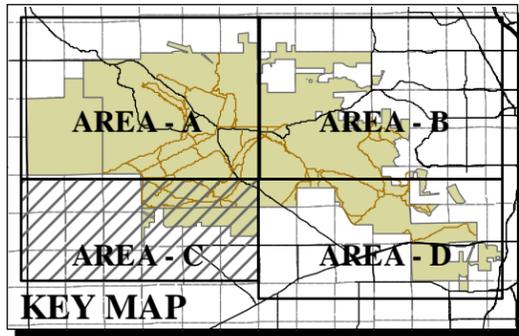
LEGEND

- 36TH STREET TRAIL
- AVERY BRYCE TRAIL
- BOWEN TRAIL
- BROWN MOUNTAIN TRAIL
- CALICHE FLATS TRAIL
- CAMPGROUND TRAIL
- CHAPARRAL TRAIL
- CHEOPS TRAIL
- COUGAR TRAIL
- COYOTE TRAIL
- CREOSOTE TRAIL
- EXPLORER TRAIL
- GATES PASS TRAIL
- GOLDEN GATE TRAIL
- HIDDEN CANYON TRAIL
- IRONWOOD TRAIL
- KERR JAR TRAIL
- MARIPOSA TRAIL
- OLD ADOBE TRAIL
- ORCUTT TRAIL
- PEAK VIEW TRAIL
- PRICKLY PEAR TRAIL
- PROSPECTOR TRAIL
- RATTLESNAKE TRAIL
- RINGTAIL TRAIL
- ROCK WREN TRAIL
- SAGUARO RIB TRAIL
- SEGO TRAIL
- SILVER ORE TRAIL
- SIPHON TRAIL
- STARR PASS TRAIL
- TRIPLE C TRAIL
- TUCSON ESTATES TRAIL
- WELL ROAD TRAIL
- YETMAN TRAIL
- ROBLES TRAIL - PLANNED
- POINTS OF INTEREST
- TMP BOUNDARY



TUCSON MOUNTAIN PARK MANAGEMENT PLAN
 Pima County Natural Resources, Parks, and Recreation Department
 Prepared by McGann & Associates Landscape Architects and Planners

TUCSON MOUNTAIN PARK
FIGURE 8-C
TRAILS MAP
AREA - C



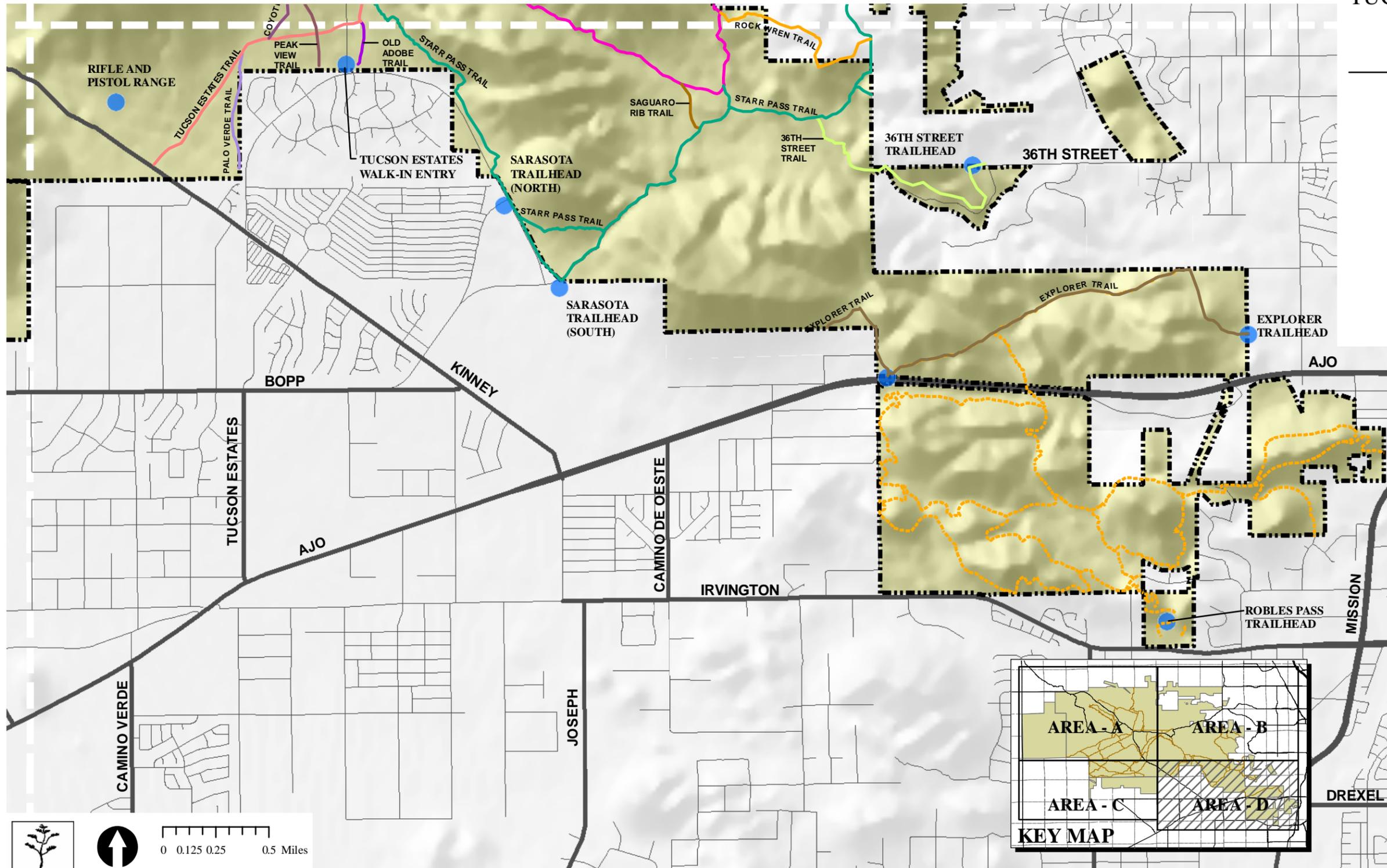
LEGEND

- 36TH STREET TRAIL
- AVERY BRYCE TRAIL
- BOWEN TRAIL
- BROWN MOUNTAIN TRAIL
- CALICHE FLATS TRAIL
- CAMPGROUND TRAIL
- CHAPARRAL TRAIL
- CHEOPS TRAIL
- COUGAR TRAIL
- COYOTE TRAIL
- CREOSOTE TRAIL
- EXPLORER TRAIL
- GATES PASS TRAIL
- GOLDEN GATE TRAIL
- HIDDEN CANYON TRAIL
- IRONWOOD TRAIL
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- TMP BOUNDARY



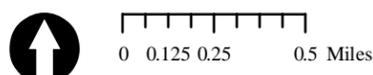
TUCSON MOUNTAIN PARK MANAGEMENT PLAN
 Pima County Natural Resources, Parks, and Recreation Department
 Prepared by McGann & Associates Landscape Architects and Planners

TUCSON MOUNTAIN PARK
FIGURE 8-D
TRAILS MAP
AREA - D

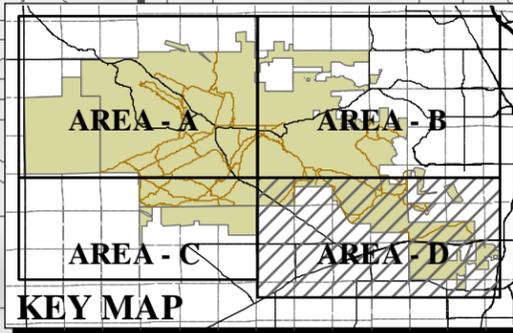


LEGEND

- 36TH STREET TRAIL
- AVERY BRYCE TRAIL
- BOWEN TRAIL
- BROWN MOUNTAIN TRAIL
- CALICHE FLATS TRAIL
- CAMPGROUND TRAIL
- CHAPARRAL TRAIL
- CHEOPS TRAIL
- COUGAR TRAIL
- COYOTE TRAIL
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- WELL ROAD TRAIL
- YETMAN TRAIL
- ROBLES TRAIL - PLANNED
- POINTS OF INTEREST
- TMP BOUNDARY



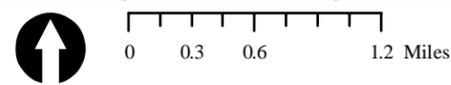
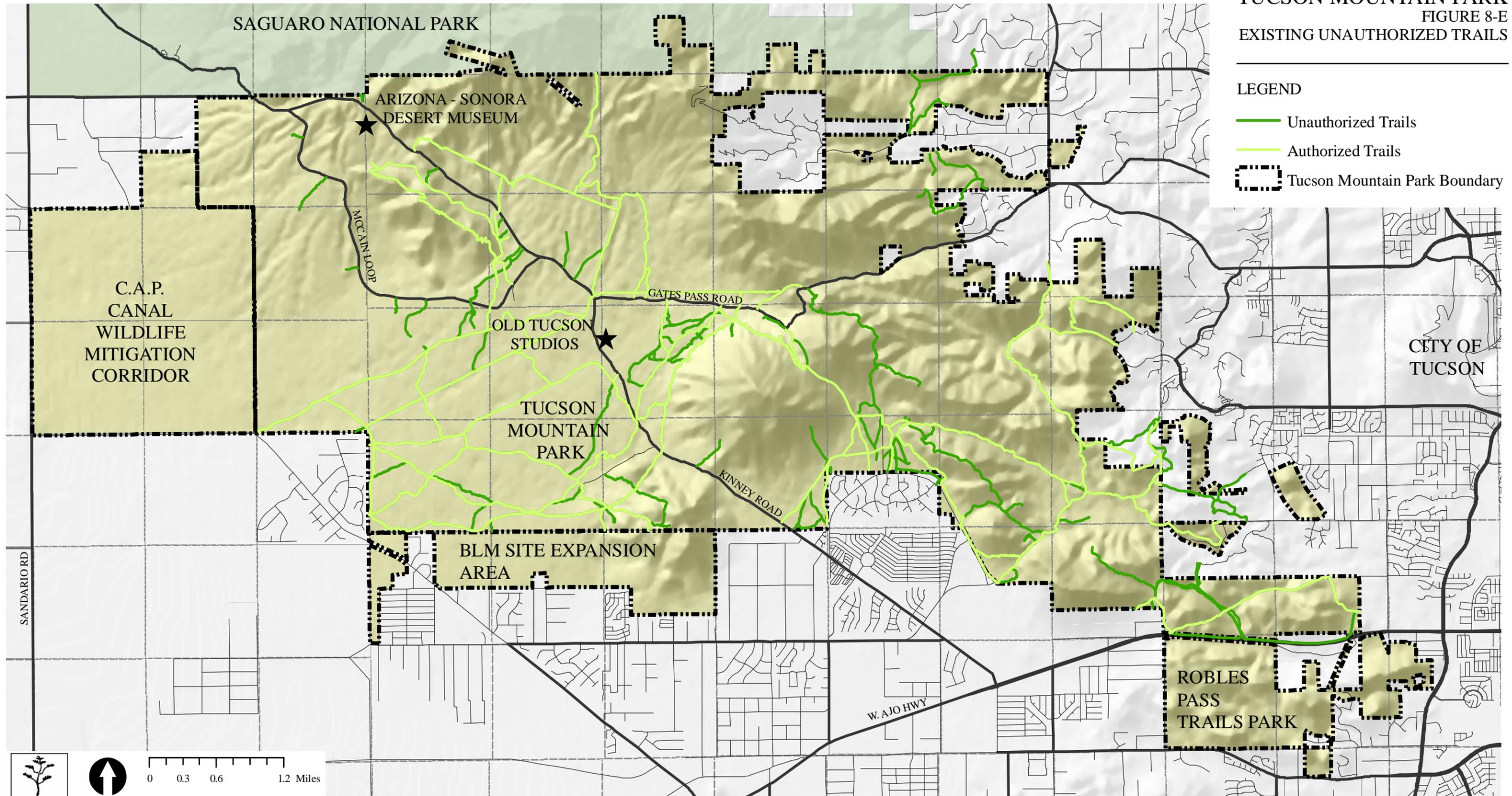
TUCSON MOUNTAIN PARK MANAGEMENT PLAN
 Pima County Natural Resources, Parks, and Recreation Department
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TUCSON MOUNTAIN PARK
FIGURE 8-E
EXISTING UNAUTHORIZED TRAILS

LEGEND

- Unauthorized Trails
- Authorized Trails
- Tucson Mountain Park Boundary



TUCSON MOUNTAIN PARK MANAGEMENT PLAN
 Pima County Natural Resources, Parks, and Recreation Department
 Prepared by McGann & Associates Landscape Architects and Planners

9.1 Introduction:

Gates Pass Road and Kinney Road are the primary roadways within Tucson Mountain Park. Both are paved, two-lane roadways. McCain Loop Road is a secondary paved road. Gates Pass Road and Kinney Road carry a substantial volume of motor vehicle traffic and the volume of traffic has increased dramatically in recent years. Current traffic volumes and traffic volumes at the same locations from ten years ago are as follows:

Location	1997 ADT	2007 ADT	Change
Gates Pass Road at east Entry to Park	2,400 / Day	4,400 / Day	+ 75%
Kinney Road at south Entry to Park	1,400 / Day	3,800 / Day	+ 171%
Kinney Road at north Entry to Park	2,200 / Day	2,900 / Day	+ 32%

There are a few unpaved roads within the park. These include the road connecting the well and the Gilbert Ray Campground and the access road the Sonoran Arthropods Studies Inc. Both of these roads are gated and not open for public use.

9.2 Management Objectives:

Tucson Mountain Park will be managed with the objective of providing a basic system of roads within the park as needed to provide for public, staff, and emergency access to park facilities. The park will also be managed with the objective of minimizing the volume of motor vehicle traffic in the park that is not generated by park facilities.

9.3 Policies Related to Park Roads:

It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:

- Retain Gates Pass Road, Kinney Road, and McCain Loop Road as part of the Pima County roadway system, maintained by the Pima County Department of Transportation.
- Continue to maintain park roads without a paved or cleared shoulder so as to discourage on-street parking and encourage the use of designated roadside pull-outs.
- Prohibit the construction of new public roadways within the park, exclusive of new or improved access drives to proposed and/or existing park facilities.
- Discourage motor vehicle traffic on park roads that is not specifically generated by visitation at park facilities.
- Allow bicycle traffic on all paved park roads consistent with applicable state and county rules and regulations.

9. Park Roads

9.4 Planned Actions:

The following actions related to the maintenance and operation of park roads are planned:

- Adoption (in collaboration with the Pima County Department of Transportation) of a standard Mountain Park and Preserve roadway cross-section for all public roads within the Natural Resource Park System. (See Figure 9-A).
- Maintenance and enforcement (by the Pima County Sheriff's Department) of the 35 mile per hour speed limit on park roads.
- Construction of entry monuments at each roadway entrance to the park to clearly convey to motorists that they are entering Tucson Mountain Park.
- Construction of traffic calming improvements at appropriate locations along Gates Pass Road and Kinney Road. Traffic calming improvements to include median islands, speed tables, intersection configuration changes, traffic control modifications, and similar elements. (See Figure 9-B).
- Assessment of the need for multiple northbound and southbound traffic lanes on Kinney Road in the vicinity of Old Tucson and the possible reduction in pavement width and/or the number of traffic lanes, as appropriate.
- Collaboration with the Pima County Department of Transportation as needed to develop alternate routes for commuter traffic around, rather than through, the park. One alternate route to be investigated is a connection between Sandario Road and San Joaquin Road. (See Figure 9-B).

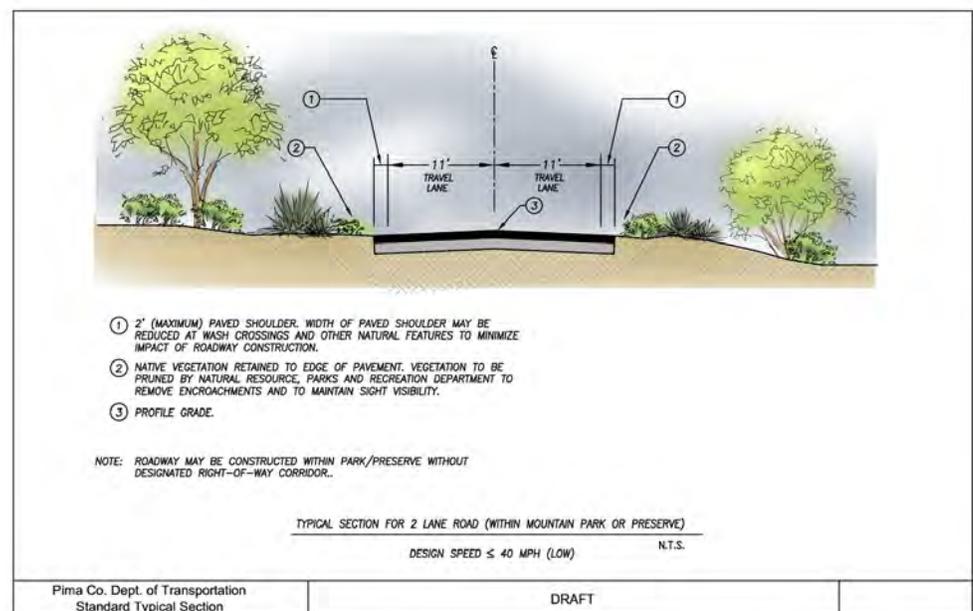
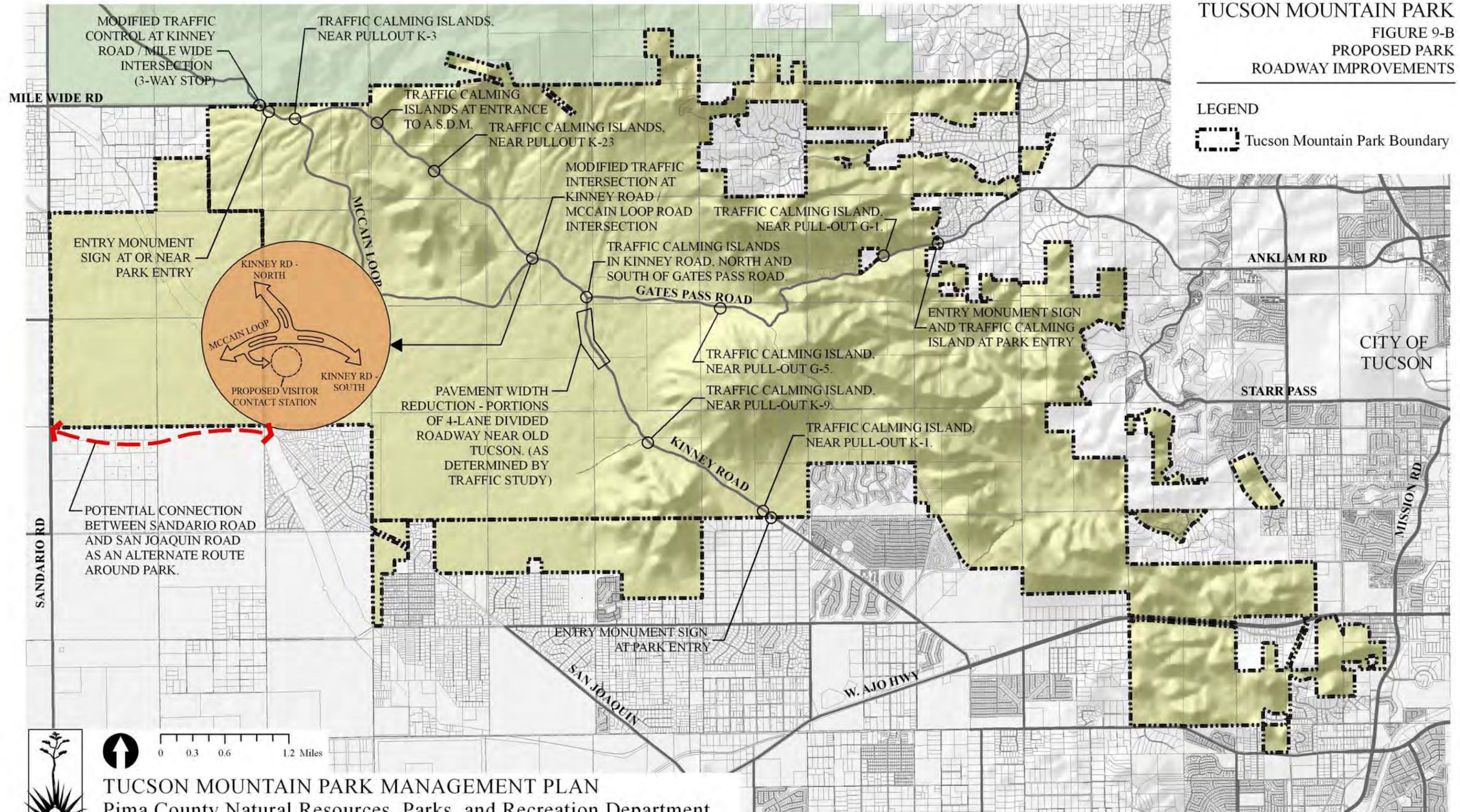


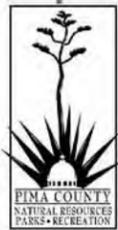
Figure 9-A: Proposed Cross-Section for Mountain Park and Preserve Roadways

TUCSON MOUNTAIN PARK
 FIGURE 9-B
 PROPOSED PARK
 ROADWAY IMPROVEMENTS



TUCSON MOUNTAIN PARK MANAGEMENT PLAN
 Pima County Natural Resources, Parks, and Recreation Department

Prepared by McGann & Associates Landscape Architects and Planners



10. Park Infrastructure / Operations and Maintenance Facilities

10.1 Introduction:

The utility systems within Tucson Mountain Park include a water system that is operated and maintained by the Pima County Natural Resources Parks and Recreation Department. Also present are an overhead electrical distribution system that is operated by the Trico Electric Cooperative and underground phone lines that are operated by Qwest. These utilities are essential to the operation of the leased facilities within the park (Arizona-Sonora Desert Museum and Old Tucson Studios) and essential to the operation of many of the public use facilities operated by Pima County.

In addition to utility systems, there is an operations and maintenance facility located near the entrance to the Gilbert Ray Campground. This walled / fenced compound includes a small workshop building, water storage reservoirs, booster pumps, and outdoor storage areas. Shipping containers are currently being used for the storage of materials and small equipment.

There is also a building located near the entrance to the Arizona-Sonora Desert Museum that is currently being used as a field office for park personnel and volunteers. This stone structure is a renovated residence that does not meet current accessibility requirements.

10.2 Management Objectives:

Tucson Mountain Park will be managed with the objective of providing reliable utility services to the facilities within the Park and with the objective of providing adequate facilities for the operation and maintenance of park improvements.

10.3 Policies Related to Park Infrastructure and Park Operations and Maintenance:

It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:

- Meet its contractual obligation to provide potable water to the Arizona-Sonora Desert Museum and to Old Tucson Studios while working cooperatively with all impacted parties and stakeholders to minimize consumptive water use in the park.
- Work cooperatively with the public utility companies who have facilities in the park to allow these utility companies to perform routine maintenance (and periodic replacement) of the existing utility lines in a manner that minimizes the impact on park resources.
- To prohibit the use of Tucson Mountain Park lands for the construction and operation of utility transmission and distribution lines that are not essential to the operation of park facilities.
- To advocate for and/or require that existing overhead utility lines be installed underground when they are upgraded or replaced, if the undergrounding work can be accomplished in a manner that is not detrimental to the park's resources.

10. Park Infrastructure / Operations and Maintenance Facilities

- Provide on-site facilities as-needed for the operation and maintenance of park infrastructure and public use facilities.
- To continue to utilize the resources of the Pima County Natural Resources, Parks, and Recreation Department's central shops, mechanics, and technicians to supplement staff assigned to Tucson Mountain Park.

10.4 Planned Actions:

The following actions related to park infrastructure and park operations and maintenance facilities are planned.

- Make repairs and improvements to the park's potable water well, pumping system, and storage reservoirs as recommended by the 2008 Water System Study prepared by Psomas Engineering.
- Replace the existing water pipeline(s) extending from the water storage / pumping facilities at the Gilbert Ray Campground to the Arizona-Sonora Desert Museum and to Old Tucson Studios as recommended by the 2008 Water System Study prepared by Psomas Engineering.
- Extend water service to the Rifle / Pistol Range.
- Extend water service to the proposed Visitor Contact Station.
- Provide stub-outs (on the new water main) at the Brown Mountain and Ironwood Picnic Areas for potential future use at these locations.
- Collaborate with the Trico Electrical Cooperative to develop a plan for the replacement of the existing power poles and the upgrading of the existing electrical lines in the park, including the identification of access routes for this work and for the future maintenance activities.
- Construct a new operations and maintenance (O&M) building within the existing O&M compound with adequate space for repair shops, materials storage, and equipment storage. Building to include a loading dock, an office for staff, a meeting room for volunteers, and accessible restrooms. Building height and exterior finishes to be selected to minimize impact on the park's visual resources.
- Revegetate areas at the perimeter of the O&M compound to screen facility from adjacent public use areas and roads.
- Maintain the existing field office building (without improvements needed to make the building accessible per current standards) as an auxiliary park building.

10. Park Infrastructure / Operations and Maintenance Facilities

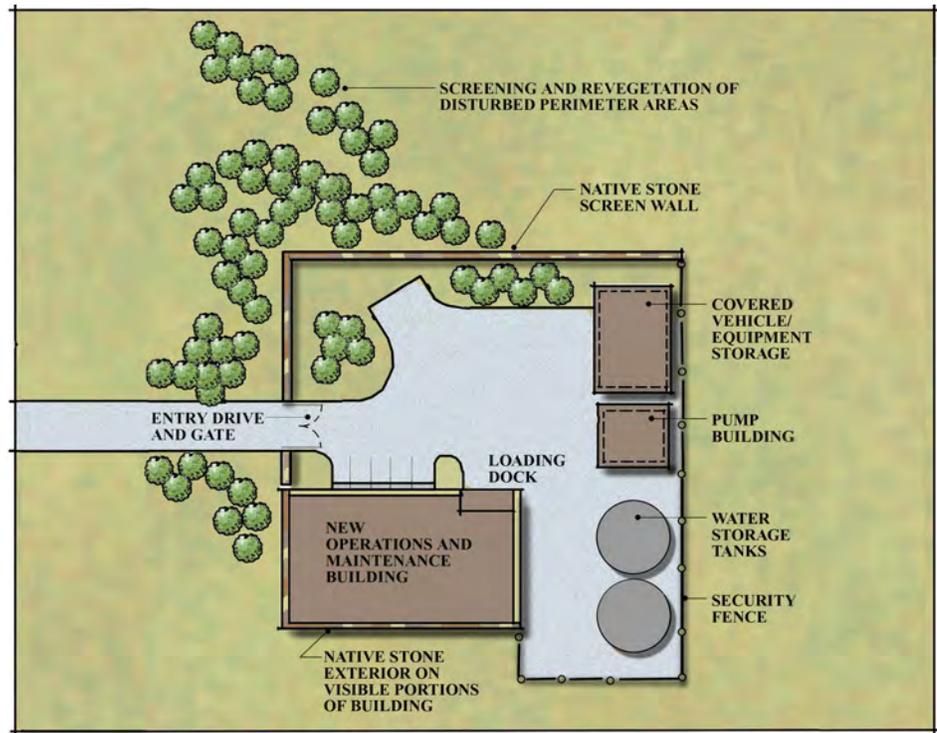


Figure 10-A: Conceptual Site Plan Park Operations and Maintenance Center

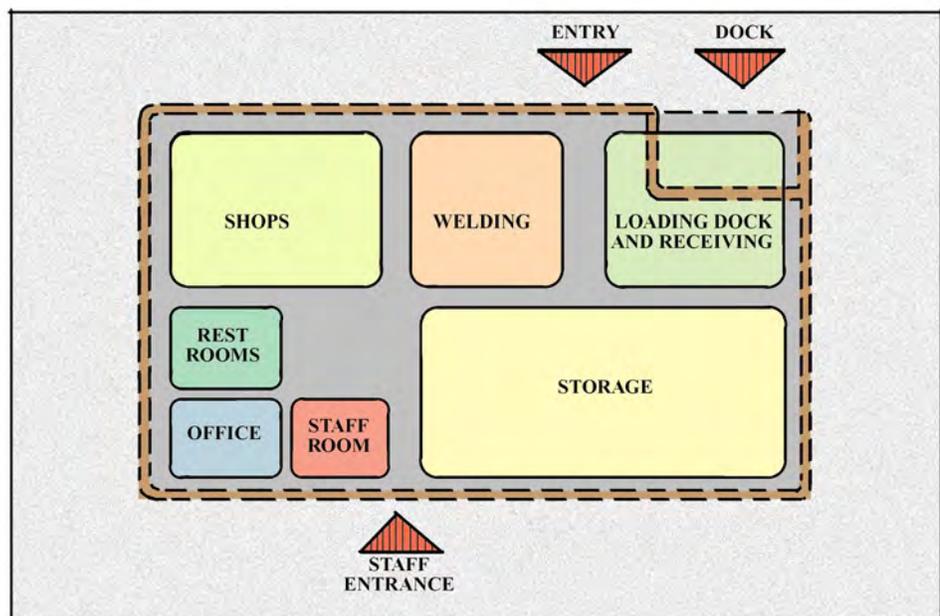


Figure 10-B: Diagram of Proposed Operations and Maintenance Building

11. Park Signs

- 11.1 Introduction:** Over a period of many decades, various signs have been installed within Tucson Mountain Park. These signs were constructed using various materials, forms, and graphic formats. The resulting sign system lacks continuity and fails to convey information to the public in a unified and consistent manner.
- 11.2 Management Objectives:** Tucson Mountain Park will be managed with the objective of providing a comprehensive sign system that provides information needed by the public and that clearly communicates to park visitors that they are within a unique natural resource park.
- 11.3 Policies Related to Park Signs:** It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:
- Provide a comprehensive system of signs within Tucson Mountain Park as needed to identify the park, the park's public use facilities, and applicable rules and regulations for park use.
 - Prohibit the installation of temporary event signs, commercial signs, or other signs not directly related to the park, its facilities, and/or leased properties.
- 11.4 Planned Actions:** The following actions related to signs within Tucson Mountain Park are planned.
- Use of a standard logo and typeface in conjunction with all new park signs. (Graphic standards to be as developed by PCNRPR for the overall County park system).
 - Construction of entry monument signs at the Gates Pass Road entry and at the north and south Kinney Road entrances to the park.
 - Construction of a standard facility identification sign at the entrances to all public use facilities within the park.
 - Installation of kiosks at all trailheads and overlooks with replaceable sign panels for park rules and regulations and for trail / facility maps.
 - Installation of standard facility identification and directional signs within public use areas, as-appropriate.
 - Installation of off-site directional signs at key locations near trailheads and park entrances.
 - Installation of trail identification markers at trail intersections and at ½ mile intervals along all authorized trails.

11. Park Signs

11.5 Preliminary List of Required Signs:

ENTRY MONUMENT SIGNS	
	Gates Pass Road Entrance
	Kinney Road South Entrance
	Kinney Road North Entrance
PUBLIC USE FACILITY ENTRY / IDENTIFICATION SIGNS	
	New Visitor Contract Station
	Gilbert Ray Campground
	Juan Santa Cruz Picnic Area
	Brown Mountain Picnic Area
	Ironwood Picnic Area
	Gates Pass Overlook
	G-3 Overlook
	Archery Range
	Rifle / Pistol Range
	Starr Pass Trailhead
	36 th Street Trailhead
	Camino de Oeste Trailhead
	King Canyon Trailhead
	Sarasota Trailhead
	Future Trailheads (Explorer and two BLM sites)
PARK RULES AND TRAIL / FACILITY MAP KIOSKS	
	Starr Pass Trailhead
	36 th Street Trailhead
	Camino de Oeste Trailhead
	King Canyon Trailhead
	Sarasota Trailhead
	Starr Pass / J.W. Marriott Walk-in Entry
	Tucson Estates Walk-In Entries (2 locations)

11. Park Signs

	Gates Pass Overlook
	G-3 Overlook
	Archery Range
	Rifle / Pistol Range
	Roadside pull-out G-1 near east park entrance
	Roadside pull-out K-1 near south park entrance
	Roadside pull-out K-31 near north park entrance
	Future Trailheads (Explorer and two BLM sites)
FACILITY IDENTIFICATION / DIRECTIONAL SIGNS (TYPICAL LOCATIONS)	
	Various locations within new Visitor Contact Station site.
	All picnic area ramadas
	All restroom buildings
	Various locations in Gilbert Ray Campground (registration building, campground loops, dump station, etc.)
	Various locations within Archery Range and Rifle / Pistol Range
OFF-SITE DIRECTIONAL SIGNS (IDENTIFYING ROUTE TO PARK ENTRY AND/OR TRAILHEAD)	
	Speedway Boulevard at Greasewood
	Sandario Road at Mile Wide Road (2)
	Kinney Road at Bopp Road
	Starr Pass Boulevard and Clearwell Road (2)
	36 th Street and la Cholla Boulevard (2)
	Camino de Oeste and Gates Pass Road (2)
	Kinney Road near entrance to King Canyon Trailhead (2)
	(Future) La Cholla Boulevard near proposed Explorer Trailhead
	(Future) Bopp Road at Lead Flower Avenue
	(Future) San Joaquin Road east and west of proposed trailhead (2)
TRAIL IDENTIFICATION MARKERS	
	At all beginning of all trails and at ½ mile intervals (+/- 150 Total)

12. Leased Facilities

12.1 Introduction:

The Arizona-Sonora Desert Museum (ASDM) leases 95 acres of land within Tucson Mountain Park near the park's northern boundary. On this property the museum operates a zoo, a natural history museum, and botanical garden. The facilities on this site were constructed by, and are operated and maintained by the museum. Pima County is responsible for providing up to 42 acre feet of water to the site each year for irrigation, fire protection, and domestic uses. The current lease between Pima County and the Arizona-Sonora Desert Museum extends through 2028.

Old Tucson Studios leases 180 acres of park land near the intersection of Kinney Road and Gates Pass Road and operates a theme park with the features of an old western town. Equestrian trail rides and special events, such as a seasonal Halloween show, are also conducted at the site. The facilities at the site were constructed by, and are operated and maintained by, Old Tucson Studios. Pima County is responsible for providing up to 18 acre feet of water to the site each year for fire protection and domestic uses. The current lease between Pima County and Old Tucson Studios extends through 2023.

The Sonoran Arthropods Studies Inc. (SASI) leases a group of small buildings near the center of the park and uses these buildings as laboratory, office, and meeting space. The current lease between Pima County and SASI extends through 2009.

12.2 Management Objectives:

Tucson Mountain Park will be managed with the objective of maintaining existing opportunities and creating new opportunities for recreation, resource conservation, environmental education, resource interpretation, and scientific research through partnerships with entities that operate facilities on leased lands within Tucson Mountain Park.

12.3 Policies Related to Leased Facilities:

It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:

- Work in partnership with the operators of leased facilities in Tucson Mountain Park to provide local residents and visitors to Pima County with appropriate opportunities for recreation, education, and resource interpretation.
- Review each lease prior to its current expiration date to determine if renewal is in the best interest of Pima County and to identify amendments to the lease that will better serve the interests of Pima County, Tucson Mountain Park, the Natural Resources, Parks, and Recreation Department, and the lessee.

12. Leased Facilities

12.4 Planned Actions:

The following actions related to the leased facilities within Tucson Mountain Park are planned.

- Continue to provide utility and other specified services to the leased facilities within the park.
- Repair and/or replace the existing water distribution system as required to provide potable water to the Arizona-Sonoran Desert Museum and Old Tucson in accordance with current lease agreements.
- Collaborate with the Pima County Department of Economic Development and Tourism and the Arizona-Sonora Desert Museum to develop a strategic plan that addresses issues of mutual interest that are not included in the provisions of the current lease. These issues include, but are not limited to, facility expansion, water delivery, water conservation, and interpretive / educational programs.
- Collaborate with the Pima County Department of Economic Development and Tourism and Old Tucson Studios to develop a strategic plan that addresses issues of mutual interest that are not included in the provisions of the current lease. These issues include, but are not limited to, water delivery, water conservation, and restoration of areas outside the leased property that have been disturbed by equestrian trail rides and other activities.
- Review and evaluate the research and educational programs currently being conducted by the Sonoran Arthropods Studies Inc. at the park to determine if an extension of the current lease, with or without additional provisions, is in the best interest of Pima County.

13. Park Expansion

- 13.1 Introduction:** Urban development is occurring on lands surrounding Tucson Mountain Park. Most of the surrounding land is privately owned and many of the adjacent parcels have been subdivided. As a result of these conditions, there is limited opportunity for large-scale land acquisition and park expansion. These conditions notwithstanding, expansion of the park should be considered and pursued where feasible and where it will enhance the Department's ability to effectively manage and protect the park's resources.
- 13.2 Management Objectives:** Tucson Mountain Park will be managed with the objective of acquiring new lands and expanding the park in locations where such expansion will improve recreational opportunities available to the public, enhance the Natural Resources, Parks, and Recreation Department's resource management capabilities, and provide / maintain biological corridors.
- 13.3 Policies Related to Park Expansion:** It shall be the policy of the Pima County Natural Resources, Parks, and Recreation Department to:
- Attempt to eliminate private in-holdings within the park boundaries through the purchase of the subject lands from willing sellers at purchase prices that are deemed reasonable and appropriate by the Pima County Board of Supervisors.
 - Attempt to acquire adjacent and nearby public lands, including but not limited to State Trust Lands, where such acquisitions will enhance opportunities for public recreation and/or facilitate resource conservation and management.
 - Attempt to acquire certain adjacent and nearby private lands where such acquisitions will enhance opportunities for public recreation and/or facilitate resource conservation and management.
- 13.4 Planned Actions:** The following actions related to the acquisition of new land and the expansion of the park are planned.
- Monitor the status of in-holdings and enter into discussions with willing sellers when appropriate.
 - Initiate discussions with the State Land Department related to the purchase or long-term lease of the Trust Lands identified herein. (See Figure 13-A)
 - Actively pursue the phased acquisition of adjacent private lands as identified herein. (See Figure 13-A)

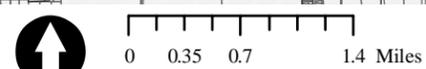
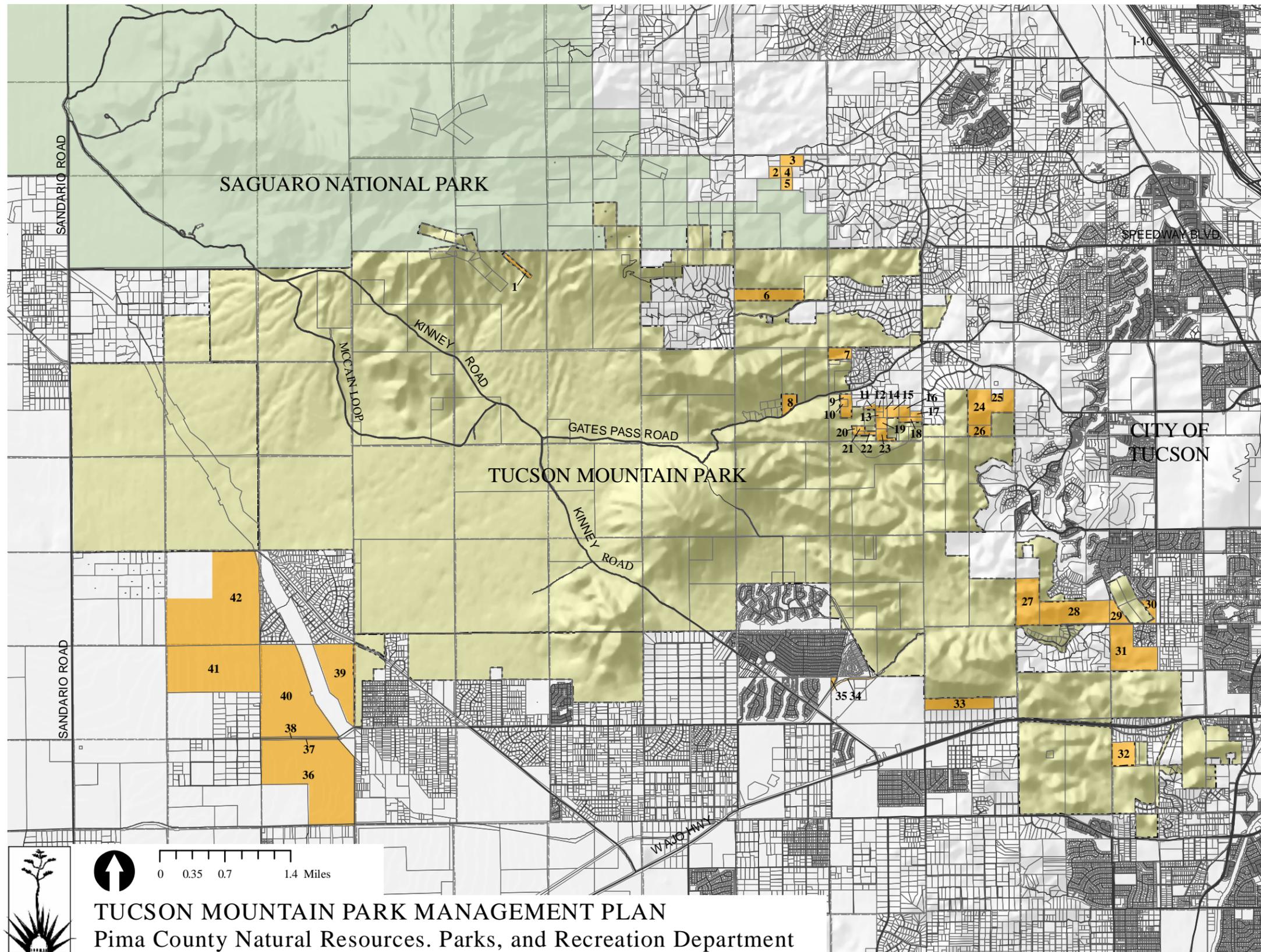
TUCSON MOUNTAIN PARK

FIGURE 13-A
PARK EXPANSION

LEGEND

 Planned Acquisitions

Acquisition Number	Parcel Number	Owner Name	Area (acres)
1	212-090-010	MOSS	9.1
2	214-540-270	WIEWANDT	9.8
3	214-540-231	WIEWANDT	20.3
4	214-540-240	WIEWANDT	10.0
5	214-540-340	WIEWANDT	10.2
6	212-040-03J	AZSTL	61.0
7	212-110-190	PAYNE	20.6
8	212-100-02A	SNIDER	18.0
9	212-110-26B	HILLS	15.9
10	212-110-270	HILLS	4.0
11	212-110-28M	MANGELSDORF	3.7
12	212-110-39C	LAWSON	3.4
13	212-110-39D	CNN DEVELOPMENT	3.4
14	212-110-39E	CNN DEVELOPMENT	3.3
15	212-110-400	GERSTEN	9.9
16	212-110-470	GERSTEN	9.6
17	212-110-46D	LEONARD	5.3
18	212-110-480	DAVIS	8.1
19	212-110-380	SMIMAN LLC	10.0
20	212-110-32B	DERBY	5.5
21	212-110-32A	DERBY	3.2
22	212-110-32C	DERBY	3.4
23	212-110-340	BOLSER	11.7
24	116-080-090	DOS PICOS	92.5
25	116-080-08B	DOS PICOS	5.8
26	116-080-110	SHEPARD	18.5
27	118-020-03A	TUCSON WEST	80.7
28	118-020-040	FRICK	117.2
29	118-033-340	FRICK	20.2
30	118-033-390	FRICK	15.7
31	119-281-510	FRICK	119.4
32	119-351-870	AZSTL	42.1
33	119-320-05A	CAT. BOY SCOUTS	59.0
34	212-200-07A	CAT. BOY SCOUTS	5.9
35	212-200-060	CAT. BOY SCOUTS	2.8
36	211-380-25B	AZSTL	443.8
37	999-999-991		7.9
38	999-999-994		10.9
39	211-320-01B	AZSTL	144.7
40	211-320-01A	AZSTL	359.0
41	211-330-010	AZSTL	320.7
42	211-290-01A	AZSTL	482.9
TOTAL ACRES			2,609.0



TUCSON MOUNTAIN PARK MANAGEMENT PLAN
Pima County Natural Resources, Parks, and Recreation Department

Prepared by McGann & Associates Landscape Architects and Planners

14. Park Administration and Staffing

14.1 Introduction:

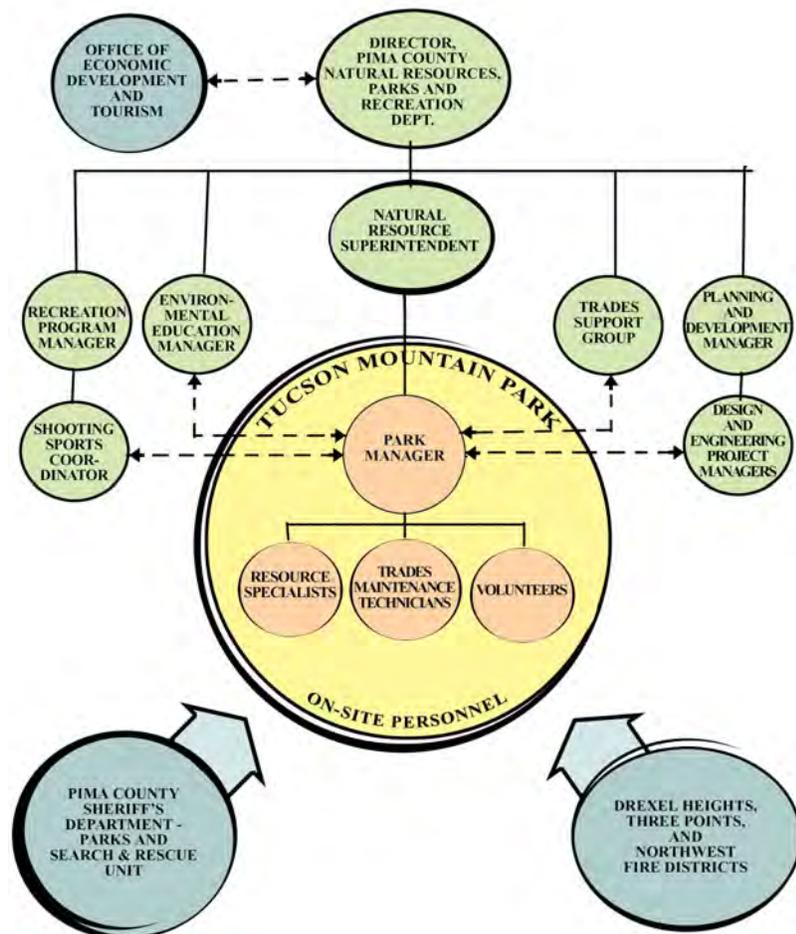
The management of Tucson Mountain Park has historically been coordinated by an on-site Park Manager with the support of both on-site and off-site personnel. It is recommended that this basic approach be retained with some modifications.

The most significant change proposed is the addition of new Resource Management Specialist positions. These new staff members will be responsible for monitoring, maintaining, repairing, and restoring back-country areas, trail corridors, and special habitat features within Tucson Mountain Park. The construction of approximately 70 miles of trails by park users over the past decade, without the consent of the Natural Resources, Parks, and Recreation Department is evidence of the need for the new Resource Management Specialist positions.

The need for additional staff is critical. With the employment of staff as proposed, Tucson Mountain Park will have approximately one maintenance / resource specialist for every 2,600 acres of park. By comparison the City of Phoenix Parks Department has one maintenance staff person for every 1,137 acres of mountain park.

14.2 Park Staff Organization Chart:

Provided below is a chart outlining the organization of staff responsible for the operation, management, and maintenance of Tucson Mountain Park.



14. Park Administration and Staffing

14.3 Park Staff and Responsibilities:

NATURAL RESOURCE SUPERINTENDENT (Off-Site)	
	Responsible for overall management of Tucson Mountain Park and other mountain parks, natural resource parks, open-space, and ranch properties.
PARK MANAGER (On-Site)	
	Responsible for all day-to-day operations of the park. Supervises on-site staff of Trades Maintenance Technicians, Resource Management Specialists, and Volunteers. Coordinates with Environmental Education Manager and Recreation Program / Shooting Sports Manager.
TRADES MAINTENANCE TECHNICIANS (4 Total - On-Site)	
	Responsible for the operation and maintenance of the park water system, picnic areas, overlooks, trailheads, and campground. Assist with the maintenance of shooting range facilities. Report to the Park Manager.
RESOURCE MANAGEMENT SPECIALISTS (4 Total - On-Site)	
	Responsible for monitoring user activities and site conditions along trail corridors, in back-country areas, and in special habitat areas (such as wildlife guzzlers, bat caves, etc.). Responsible for making as-needed repairs to trails. Assist with periodic resource monitoring programs. Report to Park Manager.
VOLUNTEERS (On-Site)	
	Consist of camp hosts, campground volunteers, and participants in other volunteer programs. Assist with various maintenance, monitoring, and non-native plant removal programs. Report to the Park Manager or designee.
RECREATION PROGRAM MANAGER / SHOOTING SPORTS COORDINATOR (Off-Site)	
	Responsible for operation, management, and maintenance of all facilities at the Rifle / Pistol Range and at the Archery Range, exclusive of trash removal. Coordinate all activities with the Park Manager.
ENVIRONMENTAL EDUCATION PROGRAM MANAGER (Off-Site)	
	Responsible for the development and presentation of all environmental education and interpretive programs offered at Tucson Mountain Park. Coordinates all park related activities with the Park Manager.

14. Park Administration and Staffing

PLANNING AND DEVELOPMENT MANAGER AND PLANNING / DESIGN PROJECT MANAGERS (Off-Site)	
	Assist with the planning and design of new and/or renovated public facilities within the park. Coordinate as-needed with the Park Manager on all Tucson Mountain Park projects.
TRADES SUPPORT GROUP (Off-Site)	
	Provide on and as-needed basis, trades personnel, specialized equipment, and other resources needed to make major repairs to park facilities and infrastructure improvements. Are temporarily assigned to the park at the request of the Park Manager and coordinate all activities with the Park Manager.
PIMA COUNTY SHERIFF'S DEPARTMENT - PARKS AND SEARCH-&- RESCUE UNIT	
	Provide law enforcement within Tucson Mountain Park. Conduct regular patrols as scheduled by the Sheriff's Department. Respond to incidents as requested by Natural Resources, Parks, and Recreation Department personnel and/or the public.
DREXEL HEIGHTS FIRE DISTRICT, THREE-POINTS FIRE DISTRICT, AND NORTHWEST FIRE DISTRICT	
	Respond to emergencies, vehicle and/or structure fires, and wildland fires as-needed. Responses made individually or by multiple fire districts in accordance with mutual aid protocols.
PIMA COUNTY DEPARTMENT OF ECONOMIC DEVELOPMENT AND TOURISM	
	Responsible for oversight of lease agreements between Pima County and the Arizona-Sonora Desert Museum and Old Tucson. Coordinates activities with the Natural Resource Manager and the Park Manager.