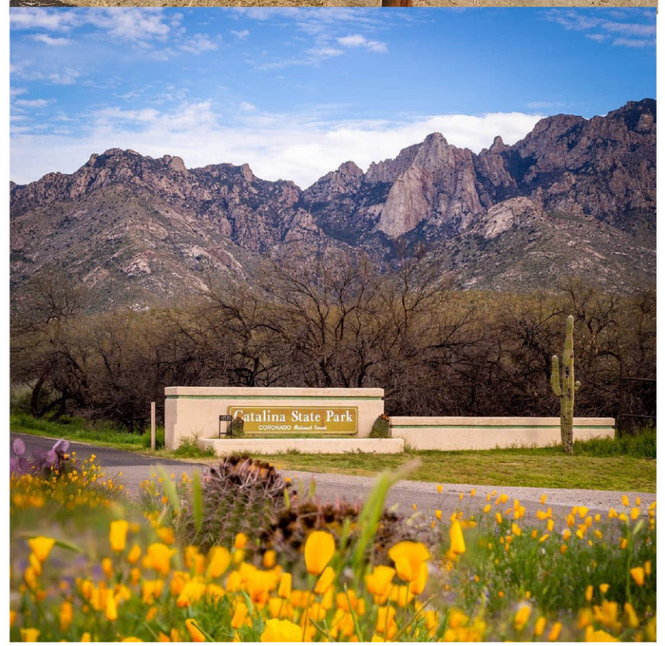
Catalina State Park Master Development Plan



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Park Purpose

Arizona State Parks and Trails (ASPT) operates Catalina State Park (CSP or Park) on 19 acres of state-owned land and on approximately 5,474 acres within the Santa Catalina Ranger District of the Coronado National Forest (CNF)(See Figure 1, Vicinity Map). The park occupies this US Forest Service property through two special-use permits.

By virtue of its location at the foot of the Santa Catalina Mountains, the park is characterized by physical features that produce a setting of impressive natural beauty. A significant function of CSP is the preservation of a substantial mesquite Bosque and riparian ecosystem. These two biological communities are widely accepted as the most highly valued habitat within the arid Sonoran Desert, supporting an abundance of desert wildlife. The dominant cultural resources of the park are associated with prehistoric Hohokam culture. Several major habitation sites within the park are relatively undisturbed, increasing their importance from the perspective of interpretation and future data retrieval.

The park is a haven for desert plants and wildlife and nearly 5,000 saguaros. The 5,400+ acres of foothills, canyons, and streams invites camping, picnicking, and bird watching—more than 150 species of birds call the park home. The park provides miles of equestrian, birding, hiking, and biking trails which wind through the park and into the CNF at elevations near 3,000 feet.

As a recreational resource, the park provides a variety of natural resource-related activities and experiences and is a primary gateway to the CNF's Pusch Ridge Wilderness Area. Of equal significance, CSP offers these outdoor recreational opportunities to the citizens of the City of Tucson and the expanding population and increasingly urbanizing areas of Pima and Pinal counties. The park's location within this growing metropolitan area also makes it an ideal resource for public education and research in a variety of resource-oriented subjectareas.

CSP's purpose is to preserve vital natural resources and processes while providing recreational opportunities, which promote interaction with the natural environment. While resource integrity is a paramount consideration in the design and management of the park, controlled public access and recreational opportunities are considered acceptable compromises in promoting public awareness, enjoyment, and appreciation of these natural surroundings. The purpose of CSP is realized through management of a rich and varied array of resources associated with natural, cultural, recreational, and educational values.

Park History

In the early 1970s, a request was made to Pima County to rezone a 4,000-acre parcel of land lying east of US Highway 89 (Oracle Road) north of Tucson. The property, known as Rancho Romero, was located adjacent to the western slopes of Coronado's Santa Catalina Mountains. The proposed development included a variety of housing units that would accommodate 17,000 people, which would surround golf courses along the Canada de Oro and Sutherland Washes. When this rezoning request came before the Pima County Planning and Zoning Commission, there was so much opposition from the public that the proposed plan was put on hold. The citizens of Tucson preferred the preservation of this area as natural open space, with developed recreational facilities.

Shortly after this action, a letter was sent to ASPT requesting staff to initiate a feasibility study on the Rancho Romero property. At the October 5, 1973 meeting, the ASPT Board was advised that the Chairman of the Pima County Board of Supervisors was creating a special committee called the Oracle Road Greenbelt Committee. The Board directed staff to prepare the feasibility study on the Rancho Romero property for presentation. The feasibility study concluded that the Rancho Romero property would meet the criteria for a state park. As a part of this discussion, the potential for a state land exchange was explored. At their subsequent meeting, the ASPT Board voted to go on record against the establishment of a state park at Rancho Romero.

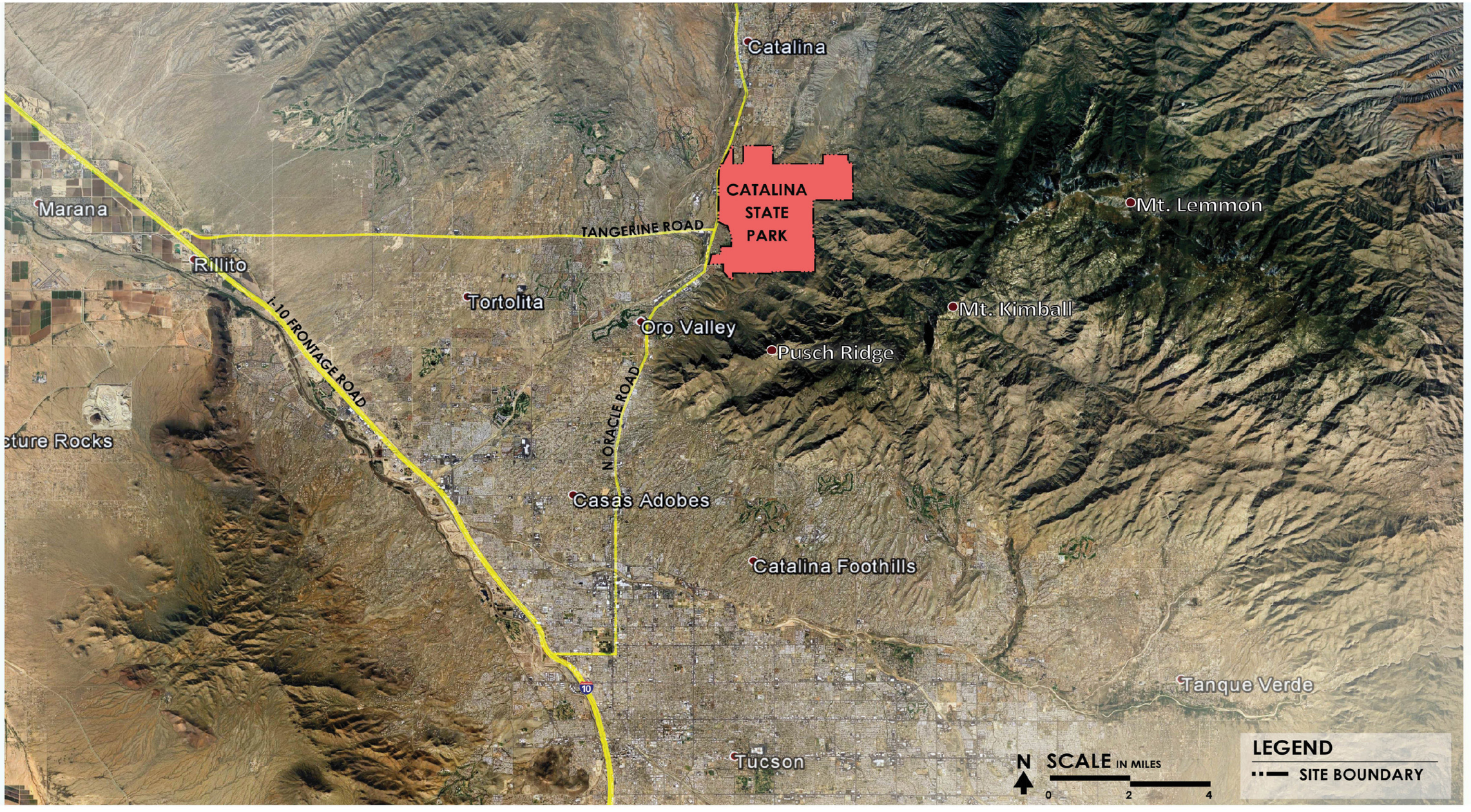
Through the efforts of the Rancho Romero Coalition, an interested citizens group from Tucson, other action groups, and an outgrowth of the Oracle Road Greenbelt Committee, House Bill 2280 was introduced early in the 1974 Arizona Legislative session to establish Catalina State Park. As a result, the Legislature authorized the Arizona State Land Department (ASLD) to obtain any of the described lands through exchanges for state land of equal value. After a complicated series of land trades, leases, purchase of land, and initial construction of facilities, Catalina State Park was dedicated by Governor Bruce Babbitt and the Parks Board and opened to the public on May 25, 1983. In 1991, all of the state land within the boundary of the park became property of the CNF through the Santa Rita land exchange.

Comprehensive Management Plan

The Catalina State Park Master Plan identifies the projected facilities at the park; it was approved by the ASPT Board in 1977 and updated in 1981. The Statement of Management (Management Plan), which is the park's current operational guideline, was completed in 1989 and revised lastly in 2008. This document will be updated to reflect ASPT's new operational considerations and to incorporate the proposed actions of this Master Development Plan (MDP).
Together, the Master Plan and updated Management Plan should be considered the Comprehensive Management Plan for the park.

Purpose of the Master Development Plan

This Catalina State Park MDP is intended to identify known priority improvements and to establish a vision for future park development, management, and growth for the next 10 – 20 years, including long-term site development anticipated by both ASPT and the Forest Service. The MDP outlines broad and specific improvement projects, activities, and recreation uses, which, when complete, will achieve ASPT's vision for the park. It is a flexible document that may change over time as the park matures, park visitor demographics change, and new recreation opportunities are considered. Because the Forest Service is the underlying landowner, it is understood that ASPT actions can only be approved by the Forest Service subsequent to a National Environmental Policy Act (NEPA) evaluation if needed.



CATALINA STATE PARK

#1 Vicinity Map

Surrounding Land Uses/Trends

FIGURE #1: VICINITY MAP

Development on adjacent property around Catalina Sate Park is occurring. Fortunately, land- use trends will affect the park only on portions of its boundary.
A little over six miles of the boundary is bordered by the CNF's Pusch Ridge Wilderness. Wilderness guidelines preclude uses or activities on these lands which could result in negative impacts on neighboring CSP. There is still more than nine miles of park boundary which borders property with a likely potential for future development. Looking beyond the park's immediate borders, the areas to the west in the Town of Oro Valley and south and north of the park are rapidly developing with expansive residential and commercial uses.

CSP has transitioned into an **urban park** functioning within the context of a metropolitan area. Related considerations include increases in the demand for a greater variety of recreation uses, more technologically-based recreation experiences, dramatic increases of visitation, vehicular traffic, altered viewsheds, degradation of air quality, boundary management along adjacent developments, rules and law enforcement challenges, and increased demands on park infrastructure, equipment, and staff. Positive impacts from regional urbanization will revolve around the park's heightened role and importance in satisfying the recreational and educational needs of the surrounding community.

ASPT will monitor and evaluate activity at park borders and work with adjacent land owners to minimize any impact on sensitive wilderness areas in and around CSP.

Adjacent Landownership and Uses

FIGURE #2: LANDOWNERSHIP, EASEMENTS, AND ROW

Federal, state, and private lands surround the park. The entire four miles of the eastern boundary and over two miles of the southern boundary are bordered by CNF. The remaining one mile of the southern boundary is bordered by private property. Almost the entire western boundary of the park abuts the right-of-way of Oracle Road, with the exception of a private parcel that lies between the park and the highway (known as Desert Springs). This parcel consists of approximately 200 acres, which is owned and occupied by individual properties. On the northern park boundary, there are about three miles of boundary with private property. Also, on the north are two separate parcels of undeveloped state land representing almost two miles of common boundary with the park.

National Forest land is identified as Open Space on the Pima Association of Governments 2009 Land Use Classifications Map and is administered by the Forest Service. Lands immediately to the west within the Town of Oro Valley are generally residential in character, although pockets of commercial land are mixed in. Adjacent to the park, private land north of the main entry and at the northwestern border contain relatively small designated areas of industrial use.

Land Ownership

FIGURE #2: LANDOWNERSHIP, EASEMENTS, AND ROW

ASPT owns 19 acres at the entrance to the park in a parcel that is contiguous to the right-of-way of State Route (SR) 77. The remainder of the park, 5,474 acres, is within CNF. There is a 10-acre private residence inholding within the park boundary under permit to ASPT; it is located in the NE l/4 of Section 28.

Agreements, Permits, Easements, and Rights-Of-Way

FIGURE #2: LANDOWNERSHIP, EASEMENTS, AND ROW

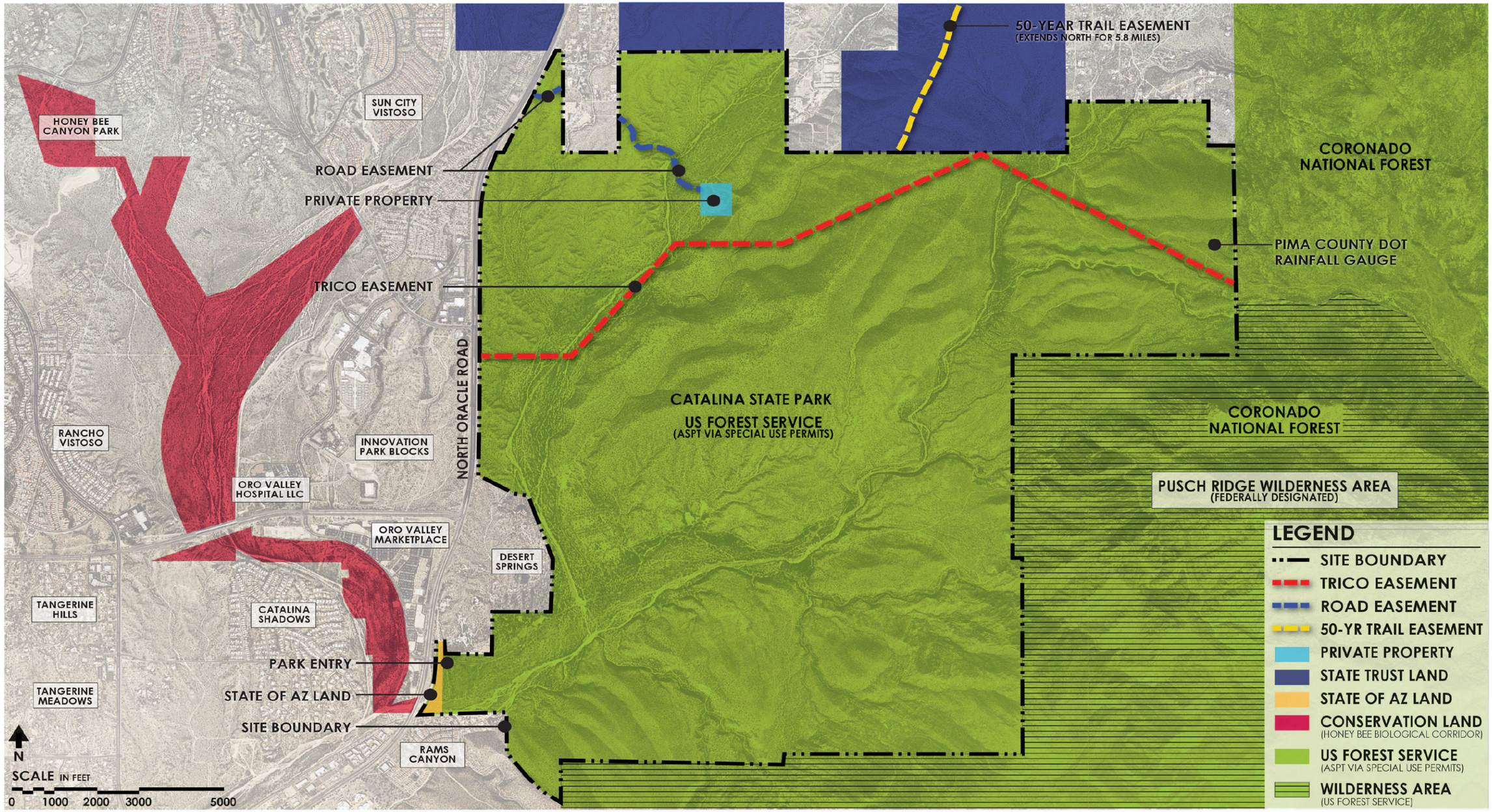
There is one utility easement, two access easements, and a right-of-way for an embankment stabilization structure within the park, none of which will have an impact on park operations and management.

The property under permit from CNF contains a utility transmission easement for the TRICO Electric Cooperative. The power line bisects an undeveloped portion of the park and has had no impact on management and operations, except that the park provides the company with unrestricted access to its facilities for inspection and maintenance.

An easement in Section 20 provides road access to a private parcel adjacent to the park boundary. The 10-acre private inholding located in Section 28 also has an access road easement across park property.

The park has an informal agreement with the Pima County Department of Transportation and Flood Control District through which the County maintains the Cargondera Canyon telemetric rain gauge station in Section 26. The station serves a public safety function as part of an early warning flood detection system on the Canada del Oro watershed. The equipment requires two maintenance visits annually, and can be removed upon 120-day notice from ASPT. The embankment stabilization right-of-way is parallel and west of the Campground/Equestrian Center road.

ASPT also owns a right-of-way granted by ASLD for 5.8 miles of the 50-Year Trail through State Trust land to the north of the park. Park volunteers usually maintain this ROW. The 50-year trail is not an official Forest Service Trail. ASPT will review with Forest Service to define if this is beneficial to the future of CSP.



CATALINA STATE PARK

#2 Landownership, Easements, and ROW

Existing Assets

FIGURE #3: EXISTING FEATURES

CSP, under its special-use permit, is required to submit a Forest Service Fiscal Report every year. Based on the Report and an informal inventory of CSP's resources, the following assets are present in the park:

- Entry Monument Sign
- Ranger/Contact Station
- Volunteer Nature Program - Storage Building
- Mobile Home Residences (3)
- Maintenance Building
- Trail Shop Structure
- Helicopter Landing Pad
- Equestrian Center (Barn/Horse Stable/Corrals)
- Paved Roads (6 miles)
- Equestrian Center Road Flood Protection Revetment
- Potable Water System (well, pump system, and storage tank)
- Electrical Distribution System
- RV Campgrounds (2, with approximately 120 RV slips)
- RV Dump Stations (2)
- Campsites with Electricity (120)
- Ringtail group area Jan 1st thru March 31st. 30 non-electric camp sites)
- Ramada's/Group Use Areas (6)
    a. Gila Monster (800 SF and parking for 100 vehicles)
    b. Flycatcher (200 SF and parking for 50 vehicles)
    c. Ringtail (800 SF and parking for 75 vehicles)
    d. Granite (800 SF and parking for 9 vehicles)
    e. Picnic (800 SF and parking for 32 vehicles)
    f. Romero Ruins (800 SF and parking for 24 vehicles)
- Group Area Restroom/Shower Facilities (1)
- Campground Restroom/Shower Facilities (2, at RV campgrounds)
- Vault Restrooms (2, at equestrian center and trailhead)
- Septic Tanks/Leach Fields (6)
- Bobcat Amphitheater with covered seating
- Day-Use Restroom (no shower)
- Identified/Signed Trails (8)
    a. Sutherland Trail - USFS Trail
    b. Romero Canyon Trail - USFS Trail
    c. 50-Year Trail - ASPT Trail
    d. Bridle Trail - ASPT Trail
    e. Nature Trail - ASPT Trail
    f. Canyon Loop Trail - ASPT Trail
    g. Birding Trail - ASPT Trail
    h. Romero Ruins Interpretive - ASPT Trail
- Picnic Tables at Ramada/Group Use Areas (85)
- Trailhead Kiosks (1)
- Flagpoles
- Miscellaneous Fire Rings, Freestanding BBQs, Tables, and Trash Receptacles
- Perimeter and Interior Park Fencing

Existing Infrastructure

ROADS AND TRAILS

FIGURE #4: ROADS AND TRAILS

The public road system within the park consists of about 6 miles of paved roadway. Additional paved facilities include 120 camping slips, 130 day-use parking units, and a 150-unit trailhead parking lot. There is a dirt road approximately 1,500 feet long that accesses one of the park maintenance areas. Parking facilities at the Equestrian Center and in the group areas, are not surfaced.

There are 12 miles of designated trails within the park, including Sutherland (2.6); Romero Canyon (1.1); Canyon Loop (2.3); Nature (1.0); Birding (1.0); 50-Year (2.0); Bridle (1.4); and Romero Ruin Interpretive (0.7). The trails are maintained by park staff and are generally in good condition. The Sutherland and Romero Canyon trails extend into the CNF and intersect with various other Forest Service trails. The 50-Year Trail extends into state land north of the park and intersects various other trails on both the state land and the CNF. The trail was established to make sure there was access from the park to USFS land if that section of State Trust Land was developed. (This is not an official F.S. trail at this point)

STRUCTURES

Structures in the park include:

1. Ranger/Contact Station: marks the official entry into the park and is about 1,200 SF. The exterior consists of stucco and tile roof accents. Structure includes a small gift shop, office space and restroom. The facility is serviced by a 5,000 SF parking lot (15 spaces and 2 accessible spaces).
2. Maintenance Building: routine maintenance and storage uses. The exterior consists of block construction with relatively smooth stucco finish. Building includes two interior vehicle bays, storage space, laundry facilities, personal lockers, and a small office area. Building includes two exterior lean-to structures, which provides covered areas to park additional equipment. Covered parking is provided for up to six personal vehicles.
3. Rangers' Residences: Facilities include three (3) double-wide mobile home units. These provide housing for the (1) Park Manager, (2) Oracle Park Manager, and the (3) Catalina Assistant Park Manager. Covered parking is provided at all units. Each unit is roughly 1,700 SF in size.
4. Trail Shop: Freestanding structure at the Romero Canyon Trailhead. Structure is CMU construction with open gable roof design. Trail Shop is roughly 250 SF in size.
5. Vault restroom at trailhead: Freestanding structure of CMU construction with a pent roof. Includes three restrooms and is a total of 150 SF in size.
6. Restroom/Shower Building #1 (Campground A) Stucco finish with brick accents. Facility is 1,500 SF

TRAIL SHOP

7. Restroom/Shower Building #2 (Campground B) CMU Structure with standing seam roof. Facility is 2,200 SF
8. Day-Use Restroom: Stucco finish with roof tile accents; facility is 840 SF
9. Group Area Restroom/Shower: CMU construction with standing seam roof. Facility is 2,400 SF
10. Equestrian Vault Restroom: CMU construction with open gable roof design; 120 SF
11. Equestrian Center/Barn: Wood framed, steel siding with saltbox style roof. Structure is 1,800 SF in size. Area includes a 3,700 SF 16 available pens, hitching posts, mounting, dismounting steps, water source, and fire pits.
12. Volunteer Nature Program - Storage Building: 1,300 SF in size. Facility includes parking space for roughly 10 vehicles; parking area is not paved or striped.
13. Ramada's/Group Use Areas (6 total, Standing seam roof)
14. Bobcat Amphitheater: Elevated stage, 24 benches with shade, 2 picnic tables/grills, with thirteen parking spots directly adjacent.

With the exception of the Southern Regional Office, which is made of stabilized adobe and stucco, all the buildings are constructed of concrete block and stucco. The structures are in good condition. The Equestrian Center includes a corral and a feed barn, the latter constructed by ranchers before the park was established.

FENCING

All park boundaries are fenced, with the exception of approximately six miles of common boundary with the CNF on the east and south sides of the park.

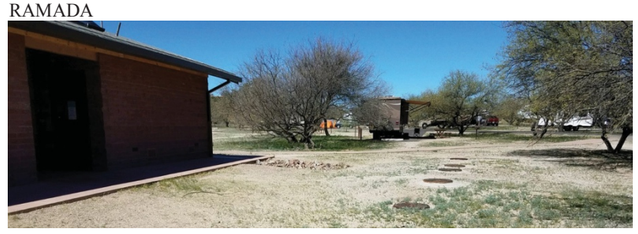
ELECTRICITY

The site is served by Tucson Electric Power (TEP). Primary power lines parallel the park entry road (underground) from SR 77. TEP owns and maintains all of the primary service components up to the service disconnects at each facility. Power lines generally follow park roads; cabinets are evident along the roadways. Park facilities that have electrical service include the Ranger/Contact Station; staff residences; Campgrounds A and B; the Equestrian Center; Day-Use Restroom; Group Area Restroom/Shower, and Gift Shop

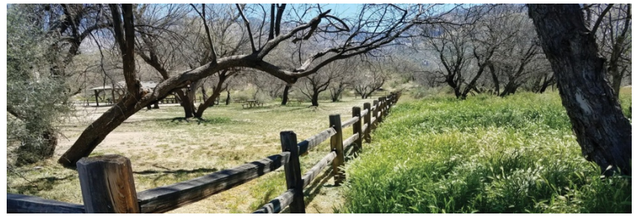
GROUP AREA: RESTROOM/SHOWER BUILDING

EQUESTRIAN CENTER BARN

RAMADA



SEPTIC SYSTEM



FENCING

POTABLE WATER

The park's potable water system consists of a 400-foot well with a submersible pump, a 10,000-gallon storage tank, and a gravity-fed distribution system generally following the existing roads. Inspections of the system were not completed. The capacity and performance of the system will be inspected and evaluated for current use. Any future expansion will have required capacity evaluations and the Forest Service will be notified of CSP intent before proceeding.

UTILITIES

TEP operates and maintains their equipment and facilities through a permit from the CNF. Additional easements are not anticipated, nor should the existing easement substantively impact the proposed development plan. If any new easements are proposed for future Forest Service will need to be consulted for feasibility.

COMMUNICATION

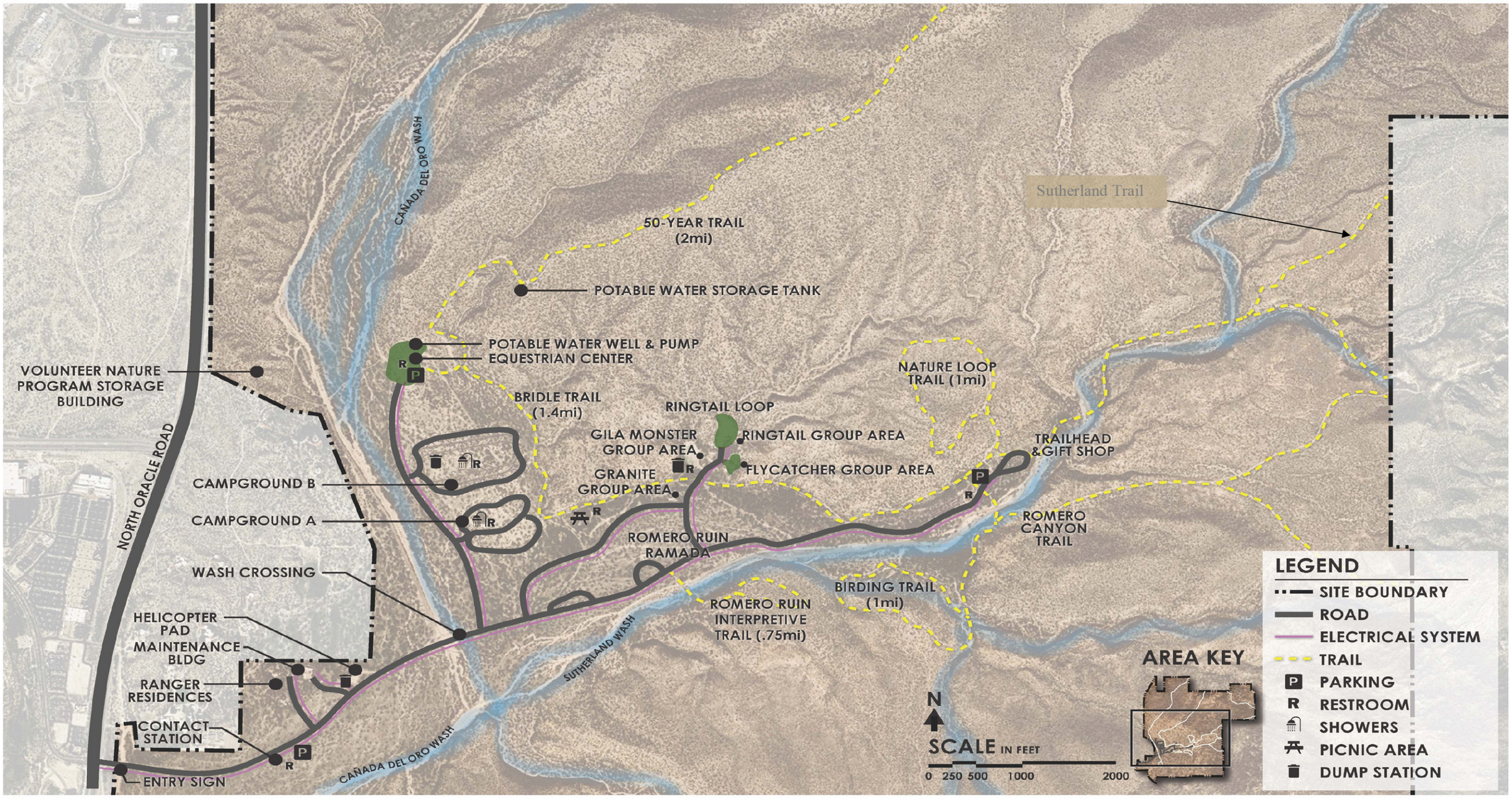
According to ASPT personnel, CenturyLink provides telephone and internet service to the park. Their capacity and performance ability for expansion is unknown. These utilities will need to be reevaluated for expanded capabilities if additional facilities or uses are desired.

SANITATION

There is no central sanitary collection system in the park. Sewer service for CSP is handled by multiple onsite wastewater treatment facilities (septic systems), primarily located at the Ranger/ Contact Station; Campgrounds A and B; the picnic area east of Campground A; and the Group Area Restroom/Shower. The Trail Shop and Equestrian Center both have vault toilets. ASPT is under a department-wide consent order from the Arizona Department of Environmental Quality to improve its septic systems.

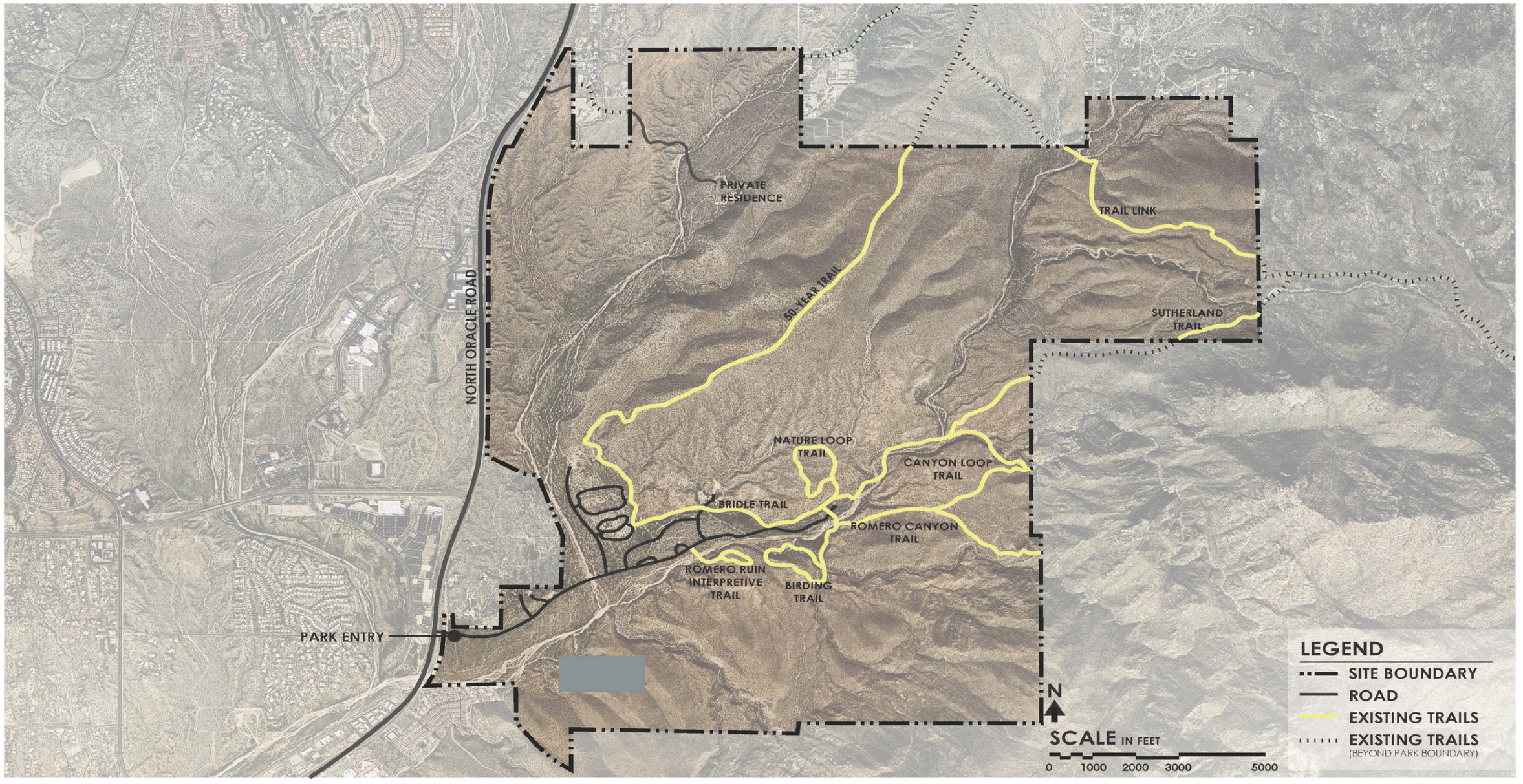
NATURAL GAS

Natural gas is not used in the park. Propane gas is the primary fuel for heating and other uses at one of the ranger residences. AmeriGas refills the tank as needed.



CATALINA STATE PARK

#3 Existing Features



CATALINA STATE PARK

#4 Roads and Trails

Police and Emergency Services

The Park is located within the Pima County and the Golder Ranch Fire District. All medical calls are served by the Fire District. Some ASPT staff are also certified for medical emergencies. Back country search and rescues are primarily handled by Pima County with assistance from the Southern Arizona Rescue Association. Pima County utilizes the park's helipad for rescues as needed. The helipad is also used by the Arizona Department of Public Safety and the Forest Service for firefighting activities.

Canada Del Oro Flooding

When Canada del Oro Wash flows (approximately 4 – 6 times per year), it deposits sufficient sediment on the main park road that no vehicles can pass, leaving park visitors stranded inside the park. CSP has an evacuation plan for such scenarios (and for fires and other natural disasters) if they get an advance warning from the Pima County Flood Control District. Temporary closures of the main road from runoff flows in Canada del Oro are typically managed by park staff unless more extensive measures are needed to remove visitors from the park. While a main park road bridge over Canada del Oro is not currently anticipated, this option may be reviewed and evaluated as park usage increases over the next decades.

Slopes/Soils/Views

FIGURE #5: SLOPE ANALYSIS

The Santa Catalina Mountains represent the end product of Miocen-Pliocene block-faulting and tilting combined with subsequent episodes of volcanism. By virtue of its location along the foothills of the Catalinas, the park's soils are representative of the same rock types found in the range. These rock types are intrusive igneous and metamorphics belonging to the pre-Cambrian to late Tertiary periods. Most evident are granites, quartzites, gneisses, diorite-porphyry and small amounts of schist, shale, and limestone. The soil associations within the park are predominately sandy and gravelly soils with scattered cobbles. Permeability and runoff characteristics vary, with erosion hazard based largely upon slope grades.

The park contains grades that range from relatively flat to a very steep and dissected landscape. The terrain is generally flatter to the west and northwest, while generally steeper to the south and east where the Santa Catalina Mountains start their dramatic rise upward. The watercourses of Canada del Oro and Sutherland Washes carve their paths southerly and westerly through the park, resulting in a riparian corridor that characterizes views of the park from the main road. Views of the mountains and distinct landforms in the lower revision dominate the park site in all locations, and are a prime determinate for the placement of campgrounds, group areas, and trails.

Biological Resources

The Arizona Game and Fish Department Environmental Online Review Tool Report will be utilized to identify Special Status Species and Special Areas documented to be within 3 miles of the park's boundary (including the 5.8 miles of the 50-Year Trail through State Trust land north of the park). This tool identifies the resources from the US Fish and Wildlife Service; Forest Service; Bureau of Land Management; and Arizona's Native Plant List, Species of Greatest Conservation Need, and Species of Economic and Recreation Importance. As a result, these resources will be used to evaluate and protect biological resources during the planning phases of each project or group of projects or as identified in the NEPA evaluation of this MDP.

Cultural Resources

Based on a review of state records, it appears that the majority of the park site has been surveyed for cultural resources. Several dozen cultural sites have been identified in the park through those prior surveys. The majority of which are found south of the Tangerine Road alignment, and concentrated in and around Canada del Oro and Sutherland Washes. A significant number of the largest resource sites are south of the major washes. However, many of the surveys were conducted more than 10 years ago, which means that they do not meet current standards. As a result, unless the environmental process designates otherwise, it is recommended that disturbance areas associated with the proposed activities of this MDP should be re-surveyed to accurately determine the cultural resource boundaries, their National Register of Historic Places (NRHP) eligibility, and incorporate appropriate mitigation measures as identified in the NEPA evaluation of this MDP.

The most evident cultural resources in the park are associated with the Hohokam culture, although there are archaeological indications that the area has been used by several different groups over a period of 7,000 years. Surveys conducted by the Arizona State Museum (ASM) have revealed tools, flakes and projectile points from the Chiricahua Stage of the Archaic Period dating back to 5,000 B.C. Data relating to the Hohokam suggests a continuous occupation of the area that may have begun as early as 300 A.D., ending sometime prior to 1500 A.D.

There are 38 recorded sites on the park, the most impressive being the habitation site known as Romero Ruin or Pueblo Viejo. This is the remains of a Hohokam village that covers about 30 acres. Features of this resource include a stone compound wall, several rooms of stone masonry construction, about a dozen rock and trash mounds, two oval depressions believed to be ball courts and a series of rock alignments identified as irrigation devices. ASM archaeologists have characterized these Hohokam resources as significant within the context of the overall network of sites in the Tucson basin.

Romero Ruin is relatively undisturbed, increasing its importance from the perspective of interpretation and data retrieval. A 3/4 -mile interpretive trail loop winds through the ruin, with signage explaining site features and the Hohokam way of life. With the enigmatic demise of the Hohokam culture prior to 1500 A.D., there ensued a period of almost 400 years about which there is little knowledge regarding human activity in the area of the park.

Historic archaeological sites within the park include several structure foundations associated with cattle ranching activity which dates back to around 1844. There have been a number of archaeological investigations conducted in the area of the park through the years. The most comprehensive of these is the "Archaeological Survey in Catalina State Park with a Focus on the Romero Ruin," conducted and reported in 1987 by the Institute for American Research. A direct result of that project was the nomination of the Park's cultural resources for inclusion in the NRHP. On August 15, 1988, the Sutherland Wash Archaeological District was entered into the Register.

Recreational Resources

Several factors account for the growing importance and popularity of CSP as a recreational resource. The park is adjacent to a major metropolitan area with a population of close to one million people. It is a needed outdoor recreation facility for Tucson-area citizens, as well as regional, statewide, and out-of-state recreationists. Low-elevation campgrounds, group-use areas, and equestrian facilities are offerings which are currently underdeveloped in the region. The park is also becoming increasingly important through its role as a gateway to the CNF. In the coming years, CSP might be one of the few areas through which the northwest slopes of the Santa Catalina Mountains can be directly accessed. The park has an excellent system of hiking, equestrian, and interpretive trails, with a great deal of potential for trail system expansion. The Sutherland and Romero Canyon trails originate at the park's trailhead and extend into the Pusch Ridge Wilderness, integrating the park and CNF trail systems. Only the Sutherland and the Romero Canyon Trails are considered part of the USFS trail system. It is anticipated that other ASPT trails within the Park will need to be added or included in the USFS trail system for enhanced management, tracking and future planning efforts. In order to add trails to the USFS trail system, a series of surveys will need take place to ensure specific trails meet USFS trail guidelines, requirements, and standards. Day-hiking is the most popular activity, although camping, picnicking, nature study, and horseback riding also draw many visitors. As a recreational activity, hunting has been an issue in the past because of safety concerns. Existing hunting regulations and restrictions will be reviewed and revised, if needed, based on park capacity with coordination with the Forest Service and Arizona Game and Fish Department. Very few hunters use the park any longer, however, as the high level of visitation makes it marginally suitable for that purpose.

Educational Resources

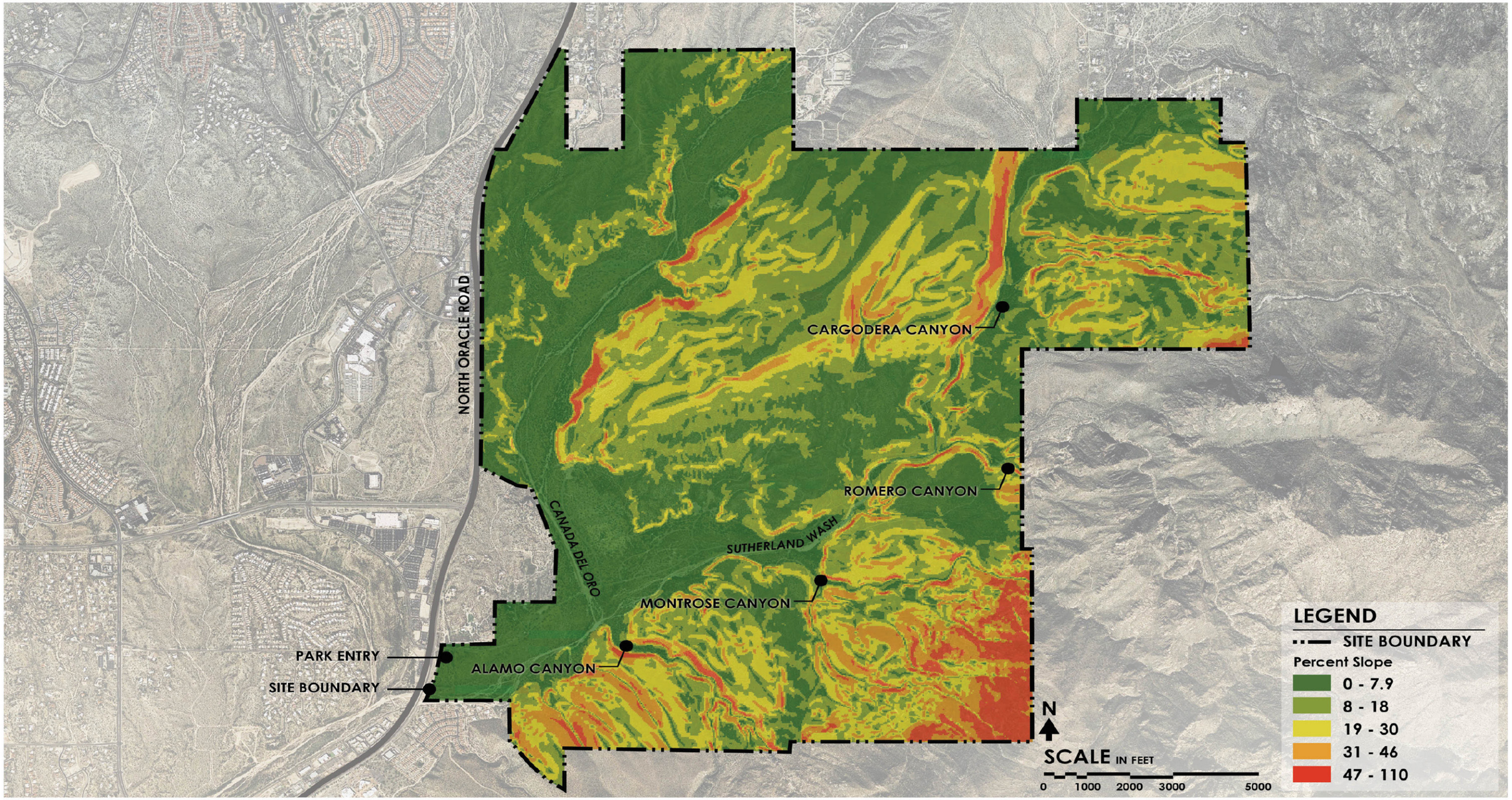
CSP offers excellent opportunities for nature study on both an informal and formal basis. The abundance and variety of natural resources make the area ideal for Sonoran Desert enthusiasts. For over thirty years, ending in 2014, the Tucson Audubon Society, in cooperation with ASPT and the University of Arizona, sponsored the annual Institute of Desert Ecology. Each year, 60 participants from all over the United States would gather in the park for a week of field study related to various aspects of the desert. CSP is one of the more popular birding areas in southeast Arizona. In response to this increasing popularity, the park offers a trail designed specifically for bird-watching. Licensed bird-banders and ornithology classes from the University of Arizona visit on a regular basis. Proximity to the City of Tucson makes the park an attractive resource for teachers representing all levels of the educational system. Park-sponsored volunteer programming is limited by current manpower constraints, but there is a tremendous potential for future program development addressing both natural and cultural resources.

Scientific Resources

The park's research value is a function of several factors. One of these is the diversity of habitat types, vegetation communities, and wildlife to be found in a relatively small geographic area. Another factor is the generally low level of human disturbance within the park. About 85 percent of the acreage is undeveloped, leaving it well-suited for study. The park's proximity to a major university makes it an ideal location for academic studies.

Catalina State Park has been designated an Important Birding Area (IBA) by the Audubon Society. The park has excellent desert habitat and low elevation riparian habitat, which is great for many bird species. Tucson Audubon conducted transect surveys in Catalina State Park as part of the effort to include the property in the Tucson Sky Islands IBA. This is a large IBA for Arizona at over 500 square miles. This IBA does qualify for Global IBA status and Continental IBA status. Species of special significance to this IBA that are here include: Rufous-winged sparrow, yellow-billed cuckoo, Bell's vireo and varied bunting.

This is a world-wide program with over 200 countries partnering and participating. More than 12,000 sites have been identified as IBAs internationally. The global program is run by Birdlife International of the United Kingdom. For each country there is a partner organization that runs the program there; in the United States it is Audubon Society.



CATALINA STATE PARK

#5 Slope Analysis

SWOT Analysis

In 2013, ASPT performed a SWOT (strengths, weaknesses, opportunities and threats) analysis for each state park. These analyses engaged ASPT stakeholders, including ASPT staff, volunteers, partners, friends' groups, and community members, in interactive sessions. Some proposed elements of this MDP (e.g., new trails, a new visitor center and new entrance station) were identified during the SWOT analysis sessions. As a result, the SWOT analysis is in part driving the development needs and priorities for management of CSP. Below is just a summary of the SWOT analysis for the park.

VISION OF THE PARK'S SUCCESS

When asked to envision success for the park, SWOT attendees identified three prominent areas, including:

CAPITAL IMPROVEMENTS AND PARK DEVELOPMENT

Park staff and partners saw this item as crucial to the park's success. Specific ideas include an improved front entrance; a larger Ranger/Contact Station, or, under ideal conditions, additional campgrounds, electrifying more sites, general improvements, finishing projects currently underway, and completing the backlog of maintenance tasks.

FOCUS ON NATURE

An emphasis on enhancing and maintaining the park's focus on nature was considered a key area for success. Specific ideas centered around having a larger focus on the natural elements of the park, more programs for the public to learn about and appreciate the environment and keeping the park natural. This focus dovetails with the lack of balance between the resource needs and revenue generation, a threat identified by park staff.

PROGRAMMING

The third success element revolved around programming. This includes adding more visitor activities, increasing environmental programs, and expanding youth programs and opportunities. While not as prominent, other identified opportunities include increasing revenue and keeping and growing the volunteer program.

THE PARK'S STRENGTHS

CSP's top three strengths were considered to be its resources; community/friend support; and its staff.

PARK RESOURCES

The park's resources were considered the park's major strength. This includes its accessibility and proximity of the park to the Tucson Metropolitan Area, riparian views, archaeological resources, diversity of trails, birding opportunities, and natural scenery.

COMMUNITY/FRIEND SUPPORT

The importance of the community and friend support was a strong message identified in the sessions. This included the support of the local community that fought for the park, a large and dedicated volunteer group along with the Friends of Catalina State Park group.

STAFF

The staff of the park was also considered among the park's greatest strengths. This includes good and knowledgeable rangers, level of accomplishment and success from limited staff, an experienced staff that has been long-time community members, the staffs' good relationship with guests and their management of the park.

THE PARK'S WEAKNESSES

The top three weaknesses for CSP were identified as insufficient facilities, lack of staffing, and the lack of interpretive programs.

FACILITIES

The park lacks facilities to operate as successfully as staff and partners would like. This includes a poor front entrance and signage; a need for a larger Ranger/Contact Station with adequate counter space for efficient visitor check-ins, meeting rooms and office space; and, ideally, a full Visitor and Education Center that can hold displays and sell merchandise. Expanded toilets at trailheads and additional campgrounds are among other needed facilities.

STAFFING

Lack of staff is a prominent weakness. The low staffing level results in the lack of needed patrols, the inability to man the entry gate during busy evenings, resulting in a loss of revenue, insufficient time to be involved with the community, an inconsistent and underdeveloped interpretive program, and the general inability to finish projects or accomplish objectives in a timely manner.

LACK OF INTERPRETIVE PROGRAMS

Both park staff and partners feel that lack of interpretive programming is a weakness for the park's success. Suggested ideas included more interpretive hikes, evening ranger programs, kids' programs, and general nature education.

THE PARK'S OPPORTUNITIES

Many of CSPs' weaknesses were also considered opportunities that could be leveraged to achieve success. The top three opportunities for CSP are: 1) Focus on maximizing public access to the park while preserving the natural environment with existing and newly acquired land. 2) Interpretive and educational programming 3) Capital developments.

PURCHASE OF DESERT SPRINGS PROPERTY

A unique opportunity exists for the park to expand. ASPT could partner with other entities (i.e. Pima County, Oro Valley, and Forest Service) to purchase the Desert Springs property adjacent to the park. ASPT could preserve the environmental resources that are slated for development, secure the natural resources, and expand park opportunities to include horse corrals, camping, and tours of the historic house.

INTERPRETIVE AND EDUCATIONAL PROGRAMS

As noted above, both park staff and partners feel that lack of interpretive programming is a park weakness. Suggested ideas included more interpretive hikes, evening ranger programs, kids' programs and general nature education.

CAPITAL DEVELOPMENT AND PARK IMPROVEMENTS

As mentioned earlier, the park has many opportunities with capital developments. This includes enhancing the front entrance, improving and expanding the ranger station, developing a visitor center, adding campgrounds, and/or electrifying current ones.

THE PARK'S THREATS

The top-three threats to CSP's success were encroaching urban development; ASPT's budget/continued lack of funding; and lack of balance between revenue generation and resource protection.

ENCROACHING DEVELOPMENT

CSP is situated within the Tucson Metropolitan Statistical Area. A specific development, Desert Springs, is proposed on the park's western boundary. ASPT will monitor potential impacts to park and natural resources.

ASPT BUDGET/FUNDING
Funding poses a significant concern to the park. This can affect staffing, capital improvements, and aging equipment and infrastructure.

LACK OF BALANCE BETWEEN REVENUE GENERATION AND RESOURCE/OVERDEVELOPMENT
Both partners and ASPT staff considered that a focus away from the park's natural resources towards a revenue-based orientation is a threat to the park's overall success. The concern was that the park could become too-recreational and too-developed, turning into a "city park" and losing the beauty, mission, and original draw of the park.

Master Development Plan (MDP)

This MDP elaborates on proposed changes to the park. These are desired, anticipated, or planned improvements, facilities, and/or undertakings that are currently known, necessary, or anticipated to address recreation experience, safety, environmental, and operational issues for the next 10-20 years.
These are identified as priority and long-term changes.

PRIORITY CHANGES

This category includes specific projects that ASPT has identified as their priorities for both the near term (within 5 years) and long term as well (within 20 years). Funding of these projects will occur over time as monies are provided by the Arizona Legislature. Completion of these projects will allow ASPT to more efficiently manage and protect the park's resources, visitation, and recreation experience, while providing additional opportunities for park users. These projects will also further ASPT's achievement of the goals and objectives contained in the Statement of Management. The specific, near-term priority projects are:

1. ***Accommodations***
   a. An analysis of existing park infrastructure, capacity, biological and cultural concerns will be completed to ensure the existing park resources are protected and managed for any future development before any additional development proceeds.
   b. Proposed Living quarter expansion for staff and new maintenance facility as shown on figure #7.
   c. New Septic system which is in process with approved plans and approved by USFS.
2. ***Scour Protection on Main Park Road***
   a. Sutherland Wash has eroded a section of its bank immediately adjacent to the existing main park road. If left unchecked, the degradation will worsen and undermine the roadway, resulting in an unsafe situation for park visitors. Repairs will become costlier if not addressed soon.
   b. Scour protection might include gabion baskets and/or rock mattresses, rebuilding the side slope and arming with rip rap, concrete cribbing, or other options yet to be determined.
   c. A determination will be made on the need for a Clean Water Act Section 404 permit prior to executing any work associated with this repair.
   d. Scour protection/bank stabilization along the main park road is a time-sensitive matter.
3. ***New Multiuse Paved Trail***
   a. The new multiuse trail will begin at the park entrance along SR 77, follow the south side of the main park road, and terminate at the existing trailhead parking lot near the Sutherland Trailhead and Trail Shop. The trail would also connect to the existing Town of Oro Valley Canada del Oro River Park Trail outside of the park's limits.
   b. Currently, pedestrians and bicyclists utilize the main park road to access the park and trailheads. The new multiuse trail will create a safer method for non-motorized visitors to visit and enjoy the park. The trail may include some interpretive signage but will not be lighted. The 7-foot-wide trail will likely be made of crushed granite and weave its way along the 1.9-mile route to avoid impacts to on-site resources.
   c. Some benches and trash receptacles are anticipated along the trails alignment at pre-determined locations.
   d. The western segment of this trail (along the park entry) could also align with the 50-Year Trail.
4. ***Tribute Trail***
   a. The Tribute Trail is an attempt to accommodate Pima County's trails planning efforts, wherein the Countywide trail planned west of Oracle Road must cross Oracle Road and connect to the built section of Sutherland Trail within the CNF. The CSP entry area was a logical location for the crossing.
   b. Should the new multiuse paved trail be built first (Item 3, this page), it would suffice for the County's connector and would eliminate the need for the alignment shown on Figure 7, Developed Park Area.
5. ***Upgraded Restroom at Campground A***
   a. The existing Campground/Restroom #1 at Campground A, needs upgrade due to termite and water damage. The new restroom building would occupy roughly the same footprint as the existing structure, with an upgraded/expanded septic system/field. The architecture of this new restroom will either remain consistent with the already existing/established restroom facilities or capitalize on the opportunity to update the architecture of the park.
   b. It is anticipated that any new restroom facilities will utilize low-water-use components and other sustainable materials/fixtures and construction methods.
6. ***Alamo Canyon Loop Trail***
   a. The Alamo Loop Trail is currently a complex system of "social trails," which are created by visitors who choose to travel outside developed trails. These social trails have damaged the existing vegetation, increasing the risk of erosion that could impact archaeological and riparian areas.
   b. The goal for the Alamo Canyon Loop Trail will be to establish and maintain a single trail and to rehabilitate the "social trails" disturbance back to a native landscape. This restoration has the potential to be an educational project on the rehabilitation of native landscapes.
   c. Secondarily, a designated, Forest Service-approved trail would allow for signage to be installed and proper maintenance to be initiated.
   d. The Trail would be approximately 3.1 miles in length and include an elevation change of approximately 300 vertical feet. The southernmost loop of the Alamo Canyon Loop Trail will enter into the Pusch Ridge Wilderness for a short distance before returning to the park if approved by Forest Service.
   e. The rehabilitation of social trails back to a native condition may include scarifying the trail/footpaths (to reduce compaction), potential import of soil/material, native seed application (hand seeding), and possible reintroduction of native material/scatter (i.e. brush, cobble, branches, etc) which will help blend the trail rehabilitation into the native landscape. Verification of any NEPA requirements will occur.
   f. Signage may also assist in preventing park visitors from continually utilizing social trails.

7. ***New Contact Station/Visitor Center (based on the Park's Business Plan)***
   a. The Contact Station is the original structure that welcomed visitors for the first time in 1983. Park staff has outgrown the existing structure and requires more office space and a larger gift shop area. Visitors will pay park entry fees, rent camp sites/RV slips or visit the gift shop for souvenirs or basic necessities. The existing structure is roughly 1,100 sf.
   b. The architecture of this new structure has not been developed, but it will blend into the park setting through creative use of colors, finishes, materials, and form. The anticipated footprint of this new structure will be 3,000 sf (50' x 60') and it is undetermined if a second story or loft area may be included.
   c. The new Contact Station will include some type of porte-cochere where park rangers can interact with park visitors under a shade canopy or structure that protects from inclement weather conditions, but still allow for unobstructed access of RV's and high-ground clearance vehicles.
   d. Entries into the facility will include a main entry for visitors, side access door for park rangers to interact with incoming vehicles and any code required emergency exits, which would be signed accordingly.
   e. The facility will include office space for park rangers as well as a small conference room for staff meetings, space for park volunteers to work (workroom), and potentially a locker room for staff.
   f. Sustainable materials and practices will be utilized in the development of this facility, which will also add to the overall environmental educational opportunities associated with the park. Opportunities for grey-water collection and reuse will be available for supplemental irrigation water. Wind and solar energy opportunities will also be potential sustainable options for the facility.
   g. Improvements to both visitor and staff parking areas would also be included in this project. The overall size of a new parking lot is not known at this time; however, it will be directly related to the capacity of the Contact Station.

8. ***Campsites***
   a. Park staff sees a need to increase the number of campsites in general to align with the increase in park visitation. Non-electric campsites in particular.
   b. There is an available area that could be used for another campground loop located between Campground B and the Equestrian Center.

9. ***Replace Existing Vault Toilets at the Equestrian Center and at the Trailhead***
   a. The existing toilet facilities at the Equestrian Center and the Trailhead receive many complaints from park visitors due to odor.
   b. The existing toilet facilities will be removed, and replaced with modern, flush toilet facilities. This exercise will involve demolition of both above- and below-grade features of the facilities.
   c. The new facilities will deliver waste to new septic fields. Due to its proximity of the Trailhead to Sutherland Wash, the septic field associated with the Trailhead toilets will require further investigation.

10. ***New Park Entry Sign***
   a. A new monument sign for the park will be designed and built at or near the existing sign location along Oracle Road, optimally closer to Oracle Road should rights-of-way and easements allow. The new monument sign will (layout, materials, aesthetics) will adhere to the current CNF sign plan and requirements.
   b. Sign lighting, exterior or interior, will aid in queuing visitors and identifying the entry in evening hours. Solar panels may be an option for powering said light fixtures.
   c. New landscape will be added around the sign to help anchor the monument sign into the natural environment. Landscape will include a variety of trees, shrubs, accent/cactus and groundcover plants. Boulders or rock mulch may be added to the sign landscape as well.
   d. The anticipated footprint for the new monument sign will be determined by the current edition of the CNF approved sign plan.

11. ***50-Year Trail Loop***
   a. The 50-Year Trail Loop will spur off of the main 50-Year Trail alignment and provide hikers with new and different views/vistas as well as additional changes in elevation.
   b. The Loop Trail will spur off the main trail just past the Equestrian Center then merge back with the main trail approximately one mile north. The two points where the trails merge are opportunities for informational signage or benches.
   c. The intent will be to develop this trail as part of the USFS trail system if approved by the Forest Service.

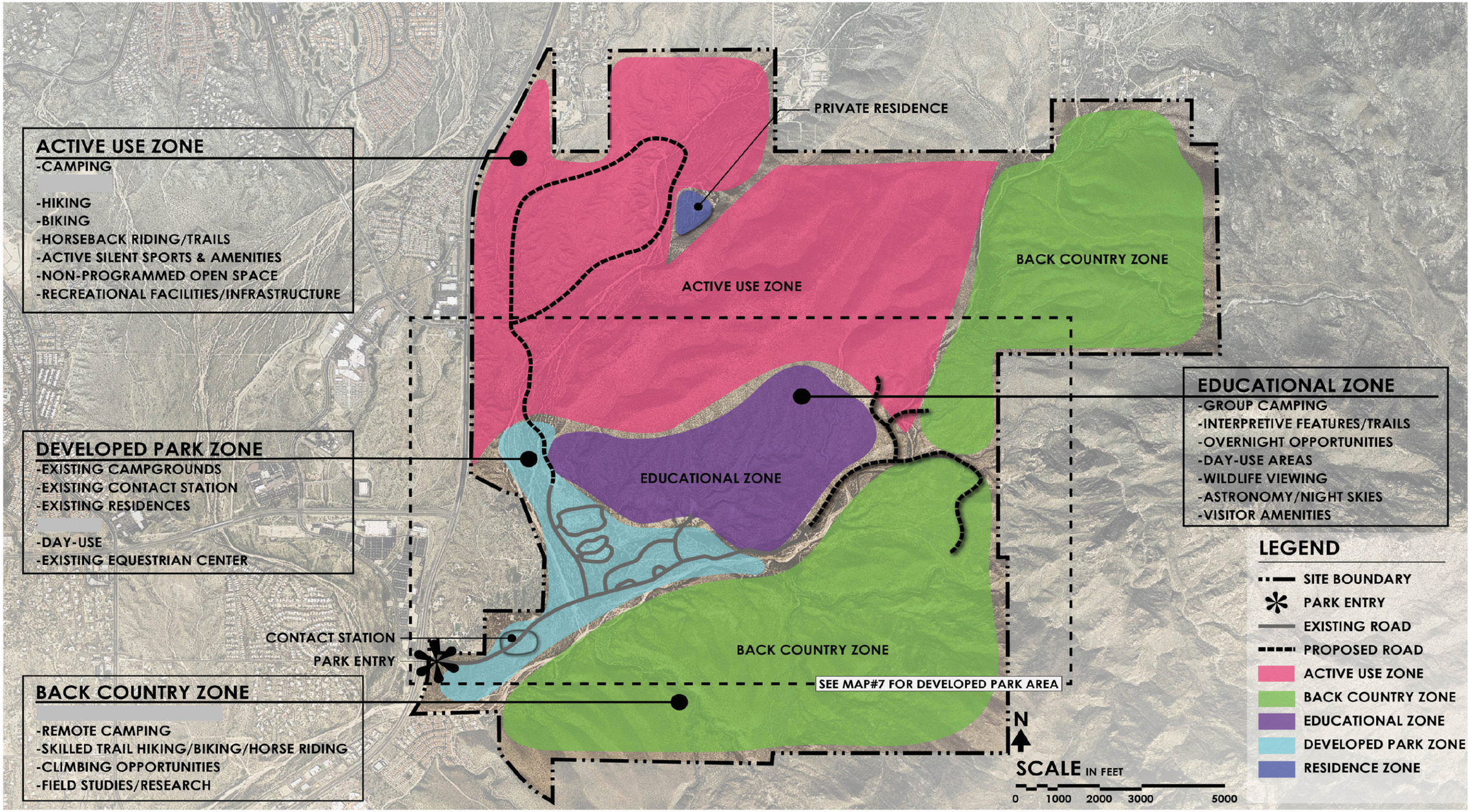
Long-term Changes

The park's Management Plan has very specific management objectives for its natural, cultural, recreational, and educational resources. Those objectives recognize that, over time, the park (and its offerings) must change to meet evolving recreation needs. At the same time, the objectives demonstrate a concern that the natural character of the park could be harmed through the addition of development and facilities. Related to the Recreation Resource objective, the Management Plan states:

> *Respond to public needs for new and additional recreational facilities and uses while adhering to the underlying purpose and goals of the park as not to compromise the natural character or resources of the park.*

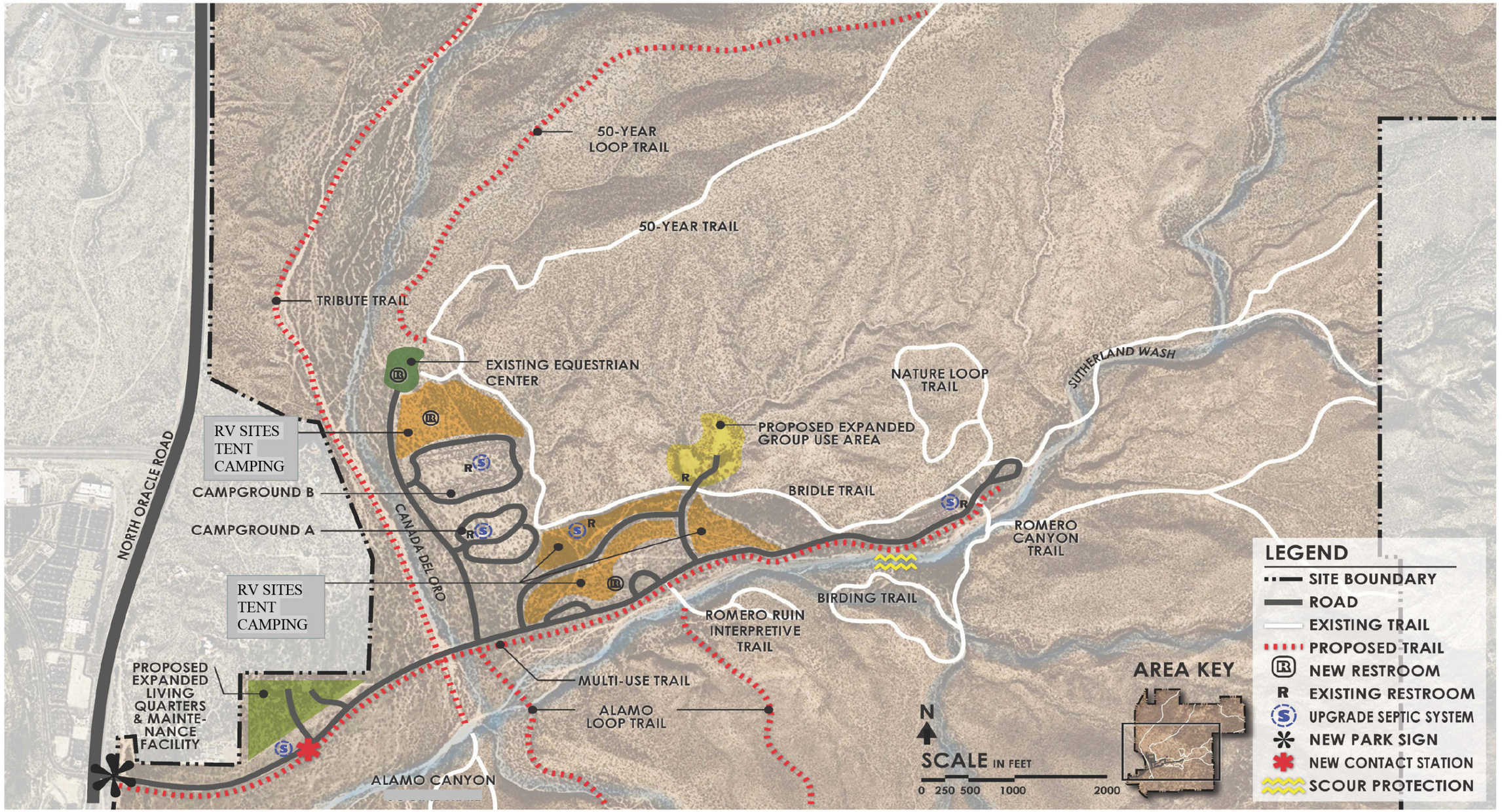
The SWOT analysis puts a fine point on this concern and adds a fiscal dimension to the challenge. It states:

> *Both partners and ASPT staff considered that a focus away from the park's natural resources towards a revenue-based orientation is a threat to the park's overall success. The concern was that the park could become too recreational and too developed, turning into a "city park" and losing the beauty, mission, and original draw of the park.*



CATALINA STATE PARK

#6 Overall Master Development Plan



CATALINA STATE PARK

#7 Developed Park Area

The following information identifies the anticipated level, type, and location of ASPT development over the next 10 – 20 years. This vision of future development in CSP will achieve the goals of broadening the park's recreational opportunities and providing sustaining funds for long-term operations, while limiting recreation development to the more suitable land areas of the park.

Anticipated Recreation Needs

Internal park visitation tabulations for the last 5 years show an average increase in visitation of 11% per year. ASPT believes that the encroaching urbanization will cause an increasing demand for a variety of recreation uses at the park, especially for more highly active uses. Recreation uses proposed in this plan are not intended to compete with or duplicate recreation opportunities provided by either the local or regional recreation facilities. They have been chosen to attract a somewhat younger, more active community into CSP's service population. While the recreation uses identified herein have been specifically identified by name, it is expected that other/additional future recreation trends and facilities will need to be considered in the next decades.

More precisely, ASPT has completed the 2018 Statewide Comprehensive Outdoor Recreation Plan (SCORP) analysis. The SCORP has identified that the expansion of multiuse trail rights-of-way, renovation of existing trails, and construction of new trails is a very high priority across all recreation providers in the state. Several emergent themes also stand out in the SCORP; they are the incorporation of technology into the recreation industry; engagement of youth/teenagers; and connectivity through physical connections, shared economics, and organizational networking of aligned strategies. The pillars of Arizona recreation, as noted in the SCORP, are conservation of public lands; ensuring social equity and access to public parks; promoting individual and community wellness; and optimizing capacity and vitality of the public parks through the use of business tools to address waste and inefficiencies. These pillars result in the statewide recreation priorities of: preservation and conservation; accessibility and inclusion; engagement; collaboration and partnerships; marketing and education; and securing sustainable funding. In summary, the SCORP conclusions portend a need for more diverse recreation uses and facility management strategies.

Land Use Planning

EXISTING CSP MANAGEMENT PLAN (July 2008)

The current Management Plan identifies three (unmapped) zones within the park, each representing a geographic area for which there are specific use and management prescriptions. The zones are:

1. ***Natural Zone.*** The vast majority of park lands fall within this zone, which comprise about 4,660 acres, or 85 percent of the facility. Hiking and equestrian trails accommodate day-use activities. Overnight camping is prohibited. Vehicular access on these lands is restricted to two dirt roads. One road provides the only access to a private inholding in Section 28, and the other is Forest Road 643, which runs through the northeast corner of the park and into the CNF. Otherwise, there are no structures or maintained roads within the park. The only other man-made intrusion is a utility transmission line which pre-dates the park.
2. ***Cultural Zone.*** This is a very small area of approximately 30 acres which is not identified on map for preservation reasons consists of the Hohokam habitation site known as Pueblo Viejo, or Romero Ruin. Although this site represents only a small portion of the park's cultural resources, it is the focal point of archaeological interest and activity. Within this zone, the preservation and interpretation of cultural resources is of paramount importance. The remainder of the park's cultural resources are too diffuse to be consolidated into a manageable zone(s). All of the park's known resources, however, are included in the Sutherland Wash Archaeological District.
3. ***Park Development Zone.*** About 800 acres, or 15 percent of the park, is developed for intensive visitor use and vehicular access. This zone includes all infrastructure, roadway and parking facilities, maintenance facilities, the rangers' residences, campgrounds, picnic areas, group reservation areas, the Equestrian Center, Trailhead and the Ranger/Contact Station. Future development of administrative and visitor services facilities will take place only within this zone.

Proposed Land Use Plan

FIGURE #6: OVERALL MASTER DEVELOPMENT PLAN
FIGURE #7: DEVELOPED PARK AREA

Park lands were assessed to determine where new and additional recreation uses could be placed on the site. Topography was the primary suitability determinant considered for this assessment. Uses not restricted, and even enhanced by topographic relief, such as challenge courses, were located where the terrain would optimize the user experience.

Similar to the current Management Plan, zones within the park that seemed suitable for differing levels of site development, environmental protection, and user experience were identified. The zoning proposed herein is broadly consistent with the zones identified in the Management Plan, although it offers a more elaborate subdivision of areas. The zones identified as part of this MDP include:

Developed Park Zone. This zone is equivalent to the Park Development Zone of the existing Management Plan.

Educational Zone. This zone attempts to take advantage of the on-site cultural resources by developing facilities intended solely for the purpose of educating the public on the cultural resources and social history of the park and surrounding lands, as well as possibly encouraging the development of a cultural research center that could be supported by the University of Arizona.

Back Country Zone. Uses in this portion of the park would be extremely limited to minimize environmental disturbance and reduce potential wildfire-related concerns, yet offer an exclusive opportunity to a small group of outdoor enthusiasts who would be willing to pay premium fees for such a unique experience.

Active Zone. The most concentrated and diverse active recreation uses would occur in this zone. We expect that the activities and facilities would focus on revenue-generating recreation events, tournaments, and competitions, as well as everyday opportunities.

The terrain is favorable for access from Oracle Road and site development, although any new facilities must be sensitively placed within and adjacent to the Canada del Oro floodplain. A second entry to the park is recommended to provide control options for this portion of the park during events and to avoid overwhelming the existing Ranger/Contact Station; whether the new entry would be a staffed entry depends on how the uses in this zone are structured. Substantial infrastructure (e.g., power, water, roads, drainage, etc.) must be installed to support the proposed recreation uses in this portion of the park. It is expected that some/many of these uses would be offered through private concessionaires or vendors. These entities could be given the responsibility for collecting fees and providing facility maintenance under separate agreements with ASPT. Private entities might also be prepared to fund and/or install the facilities and infrastructure in this zone as part of public/private partnerships (also known as P3s).

While the specifics of the anticipated recreation use and land allocations identified above may change over time, it is believed that the trends and trajectory of future recreation delivery are reasonable to assume. The combination of a broader recreation program, especially in light of the encroaching metropolitan urbanization, plus the introduction of revenue-generating opportunities; development of a higher level of educational/research facilities; and the preservation of significant portions of the park offers CSP a sustainable long-term future. It is recommended that ASPT and the Forest Service collectively develop a baseline decision-support tool or criteria list for ASPT's use when evaluating potential recreation facilities, uses, and activities that might be considered for incorporation into CSP's recreation delivery program. The elements outlined in this MDP complies with the Forest Service Term Permit and Special Use Permit, both of which were issued December 13, 1990 by the Coronado National Forest.

Implementation/Phasing

The implementation timing and/or phasing for changes to the park will depend on a number of variables that cannot be predicted at this time, including ASPT's funding availability; public demands for increased opportunities at the park; political decisions by state and local leaders; the depth and receipt of philanthropic gifts/support; the ability to develop P3s; and/or interest from educational institutions. The priority changes identified above have been listed in the general order of importance to ASPT. However, this prioritization list is subject to the above factors and assignment of staff and volunteer resources. It is much more difficult to predict the timing of when (and if) long-term changes will occur because of the diversity of possible realization options. Flexibility will be important during the implementation of this MDP. Any of the above factors, if expedited or delayed, could significantly affect the park's phasing priorities.

Park Staffing

No estimate has been included in this MDP on the staffing adjustments that would be required to implement the proposed park changes. Since the timing of the modifications is unknown and the extent of participation of outside vendors cannot be ascertained, projections on the potential staffing needs are not possible.