

**DETERMINATION OF ELIGIBILITY FOR HISTORIC TRAILS AND TRAIL
SEGMENTS IN SAGUARO NATIONAL PARK, TUCSON, ARIZONA
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The many miles of trails in Saguaro National Park (both Tucson and Rincon Mountain Districts) have a long history of construction and use. As part of the comprehensive trails plan being proposed for the park it is important to consider the eligibility of the trails for the National Register of Historic Places (NRHP). While the focus of the initial construction and original use of these trails differs between the two districts, these trails today are used largely for recreational purposes. This document provides a summary of the historic development and use of trails, as well as presenting determinations of eligibility for several trails in Saguaro National Park. The King Canyon Road in the Tucson Mountain District (TMD) and segments of the Loma Verde and Cactus Forest Trails and the Garwood Dam Road (a segment of the Freight Wagon and Carrillo Trails) in the Rincon Mountain District (RMD) are recommended eligible to the National Register. Three trails in the Rincon Mountain District—the Telephone Line and Fire Loop Trails and the Garwood Airstrip—while historically interesting, lack sufficient integrity to be considered eligible. The road to the historic Old Yuma Mine has been eliminated from consideration in this document as the vicinity of the mine will not be part of the comprehensive trails plan.

Previous archeological and historical research, as well as archival research, were important for the evaluation of these trails. Archeological survey has been conducted along the length of all the trails considered in this study. Formal determinations of eligibility with SHPO concurrence dated December 9, 1994, for some of the trails and associated properties are included in Appendix A, along with archeological site forms that relate to properties discussed in this document. Appendix B is a comprehensive history of the trail system of Saguaro National Park that examines all of the trails and singles out those recommended eligible to the NRHP.

National Register Bulletin 15 describes the criteria used to evaluate eligibility for the National Register of Historic Places (NRHP) and their application:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high

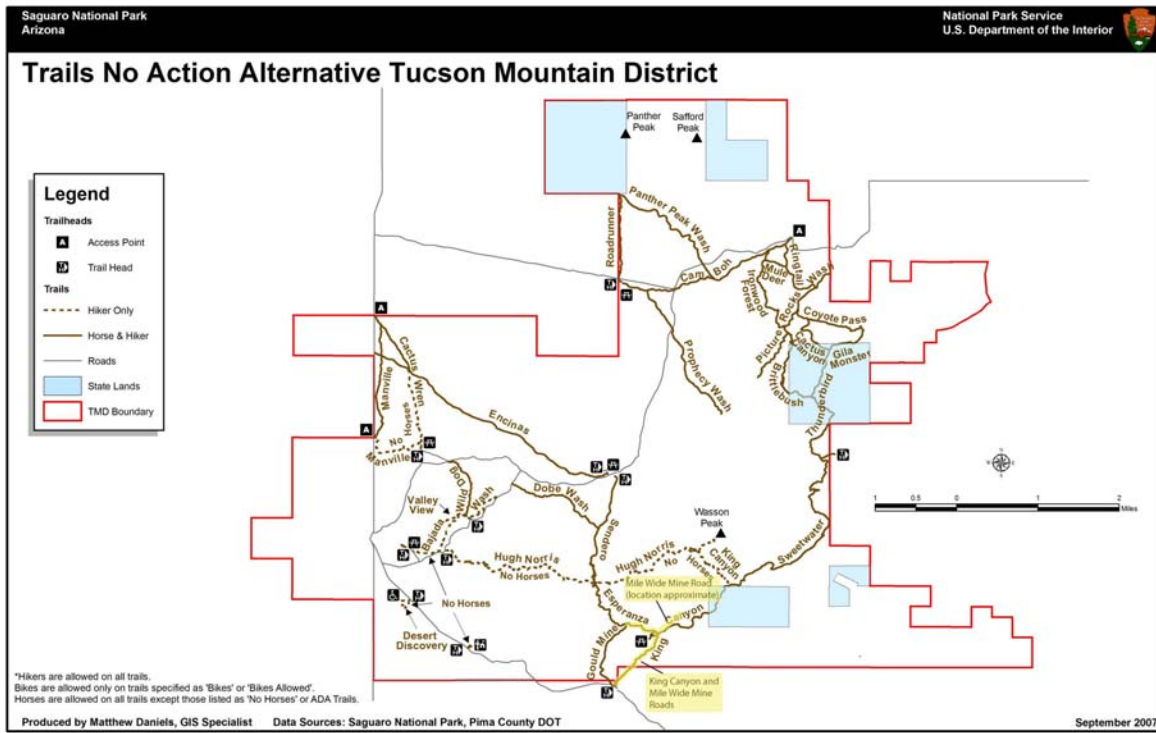


Figure 1. Tucson Mountain District trail system, Saguaro National Park; trail segments discussed in this document are highlighted.

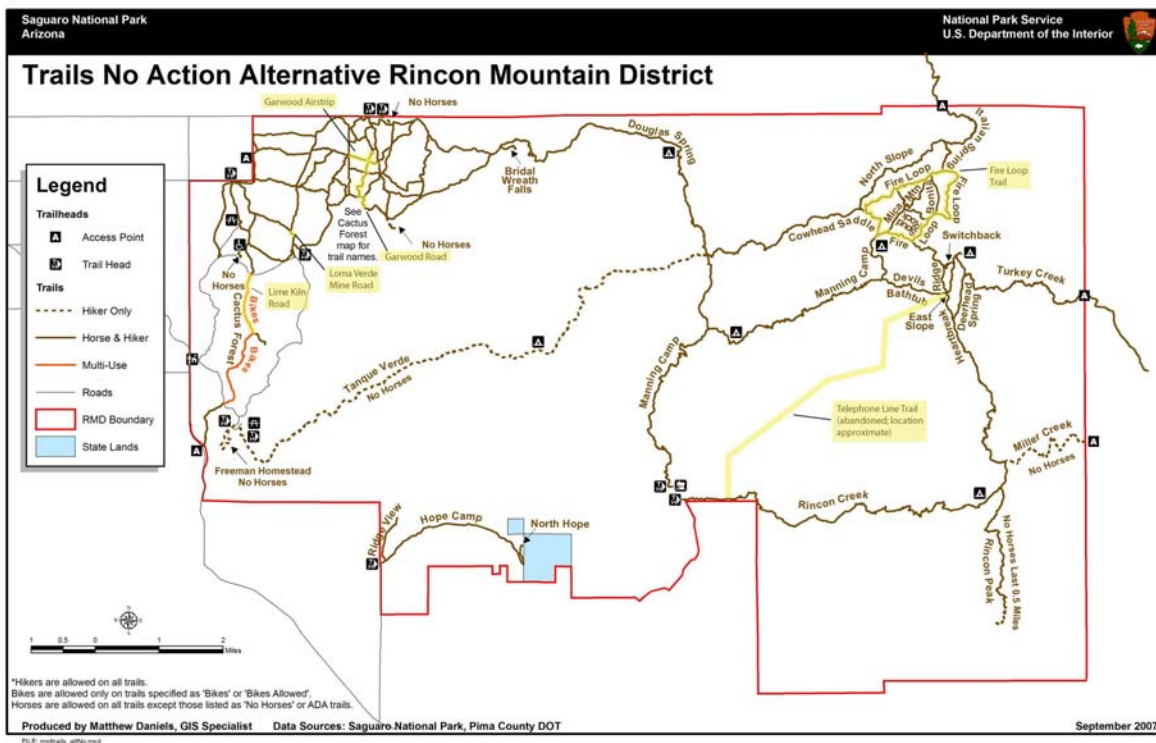


Figure 2. Rincon Mountain District trail system, Saguaro National Park; trail segments discussed in this document are highlighted.

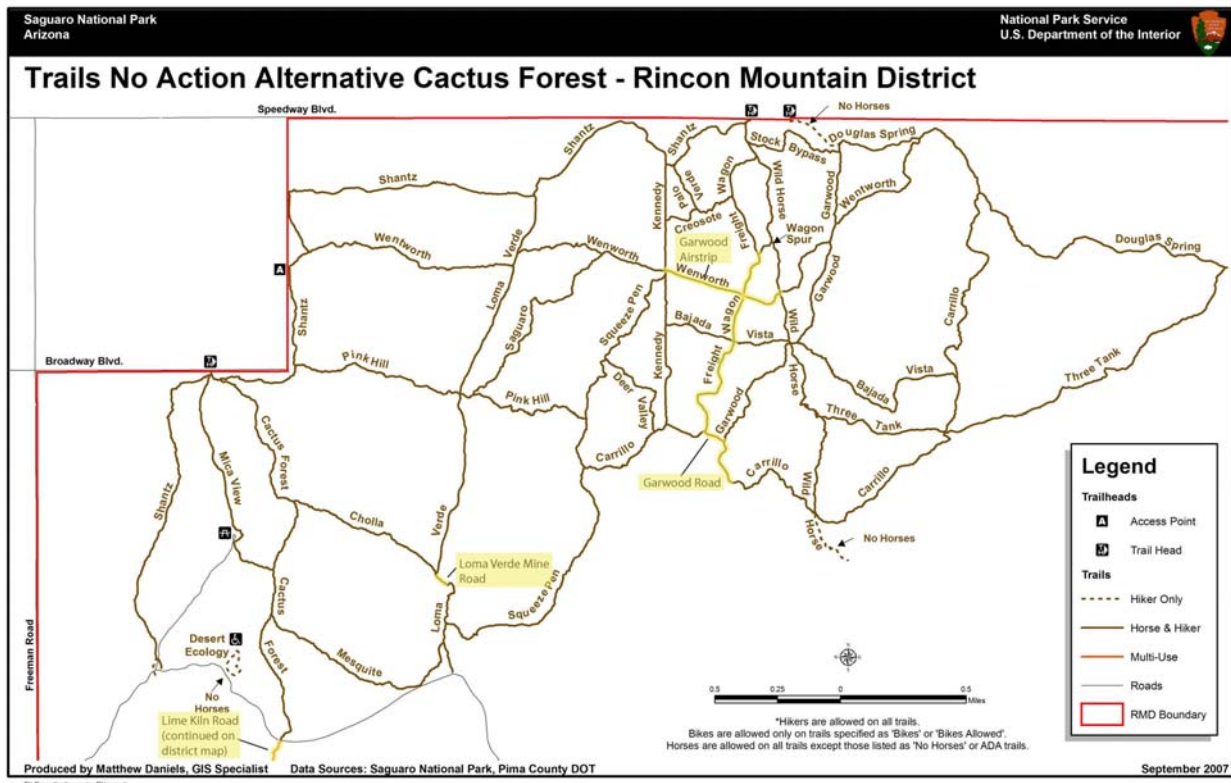


Figure 3. Rincon Mountain District, Cactus Forest area, trail system, Saguaro National Park; trails discussed in this document are highlighted.

artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- D. That have yielded, or may be likely to yield, information important in prehistory or history. [National Park Service (NPS) 1995:2]

These criteria have been applied to all of the trails described below. A brief summary of the history of construction and use of these trail systems follows. A more detailed discussion of this history is available in Appendix B.

HISTORIC CONTEXT OF THE SAGUARO NATIONAL PARK TRAIL SYSTEM

The initial construction of roads that would become the present day trail system in both districts was related to economic activities prior to the designation of Saguaro National Monument, now Saguaro National Park. These activities included mining, and ranching. In the Rincon Mountain District, there is more evidence of ranching than in the Tucson Mountain District, with line camps located at Grass Shack and along the Hope Camp Trail (Cowgill 1967b; Neff, et al. 2001). The Garwood Dam Road, a portion of which is on the List of Classified Structures (LCS) and determined eligible for the National Register of Historic Places, is also related to ranching

(Donohoe 1994). Mining activities in the Rincon Mountain District included the Loma Verde Mine and portions of the road that serviced the mine became part of the Loma Verde Trail (Clemensen 1987). Lime kilns in the Rincon Mountain District lie along the present day Cactus Forest Trail, which appears to follow the path of the road to the lime kilns that is depicted on maps as early as 1897 (Clemensen 1987; Contzen 1897). Other roads on early maps appear to be followed by present-day trails, including the Mica View Trail. Manning Camp located at 7,900' elevation in the Rincon Mountains was supplied by a pack/wagon trail. This trail became the route for the telephone line to Manning Camp. It was later named the Telephone Line Trail and has since been abandoned (Clemensen 1987; Sykes 1974). The Garwood airstrip, dating somewhat later, has also been incorporated into the trail system, as part of the Wentworth Trail (Duek and Mortensen 1980). In addition, there are trails related to fire control and management and possibly recreation in the Rincon Mountains from the time when these lands were under the jurisdiction of the US Forest Service (Clemensen 1987; Yeager 1936).

Mining played a larger role in the history of the Tucson Mountain District than in the Rincon Mountain District. Evidence of numerous mines is present across the district and some of the roads and trails leading to these mines are now part of the trail system. The King Canyon Road leads up King Canyon to the Mam-A-Gah picnic area built by the Civilian Conservation Corps (CCC) and continues on to Gould Mine. The trail splits below the Mam-A-Gah picnic area and also leads to Mile Wide Mine. While the CCC documents claim that the King Canyon Road was constructed in the 1930s, the 1994 Determination of Eligibility states that it was a mining road dating to the early twentieth century (Donohoe 1994; Thomson 1934). It appears that the road was originally a mining road that was later improved by the CCC to provide access to the Mam-A-Gah picnic area. King Canyon Road is on the NPS List of Classified Structures and has been determined eligible for the National Register of Historic Places (NRHP) (Donohoe 1994). A segment of the Sendero-Esperanza Trail may also have been used as a mining road to access Gould Mine and is now part of the park's trail system.

In the 1930s the lands comprising the Rincon Mountain District (RMD) were designated a national monument and the property that is now the Tucson Mountain District (TMD) was part of a county park (Tucson Mountain Park). The CCC constructed the scenic drive in the Rincon Mountain District and developed roads, picnic areas, and camp sites in Tucson Mountain Park. The development of the trail systems in these two areas diverges, at least as is reflected in the historic record. The documentation for the trail system in the Rincon Mountain District at this time period focuses on the Rincon Mountain backcountry, rather than the Cactus Forest area, to support fire control efforts that included construction of trails between look-out points and transportation of supplies along pack trails. Documented maintenance was infrequent until the late 1940s. No trails are specifically mentioned for the Cactus Forest area, although recreational use of this area and the backcountry, by both hikers and horseback riders was noted in several studies of trails and archeology for the area (Duek and Mortensen 1980; King 1976; Saguaro National Monument 1969).

In the Tucson Mountain District, the documentation of recreational use of the trails by both hikers and horses began much earlier, with records of the construction of several roads and trails in Tucson Mountain Park by the CCC in the 1930s, including trails that pass through picnic areas. The records also describe improvement of the King Canyon Road, the Wasson Peak Trail (later the Hugh Norris Trail), and the Rincon Road (later part of the Sendero-Esperanza Trail) (Brown 1937; Clemensen 1987; Meason 1936). The routes of the trails in the picnic areas have

been modified several times since their construction, however some of the CCC features along these trails, such as dams and water crossings, were determined eligible in 1994 (Donohoe 1994). As with the Rincon Mountain District, maintenance of the trails appears to have been infrequent until the property became part of Saguaro National Monument in 1961.

In the 1960s, the documentation of maintenance of the trail systems in both districts of the park increased, and there is more information on recreational use. The Southern Arizona Hiking Club, formed in the late 1950s, had their first hike in the Tucson Mountain Park, to Wasson Peak. Newspaper articles about trails in the park by Pete Cowgill began in the 1960s (Cowgill 1967a,b; 1994). The origins of the Tanque Verde Ridge Trail in RMD are not known, but it was brushed out and maintained during this period, which improved access to the backcountry and the Rincon Mountains (Cowgill 1967a).

However, even though documentation increases, there is still very little mentioned about trails in the western portion of the Rincon Mountain District, with the exception of the Douglas Spring and Tanque Verde Ridge trailheads. A sketch map of horse trails completed in August of 1969 (SNM 1969) was the only documentation of the Cactus Forest area until the 1970s when the network of trails in the Cactus Forest area, made up of old roads, cattle paths, and social trails was mapped. Prior to the 1960s, documentation of trails in the Tucson Mountain District was restricted to the primary trails in the area, Hugh Norris, King Canyon, Sweetwater, Sendero-Esperanza, and Gould Mine Trails. The other trails in this district may also have originally been old roads or social trails used by hikers and riders.

NRHP ELIGIBILITY

As mentioned above, three trails or trail segments in the Rincon Mountain District (Loma Verde and Cactus Forest Trails and Garwood Dam Road) and one trail in the Tucson Mountain District (King Canyon Trail) are recommended eligible in whole or in part to the NRHP. Two of these, the Garwood Dam Road and King Canyon Road were officially determined eligible in 1994 with SHPO concurrence dated December 9, 1994 (Donohoe 1994). These and the other eligible trails will be discussed in relation to National Register Bulletins 15 and 16A (NPS 1995:8, 1997:40-41) and Stein's (1994:49-50) historic context for roads and trails in Arizona.

National Register Criteria

The four NRHP criteria discussed above can be applied to historic trails (NPS 1995:2). Stein (1994) defines the application of these criteria to trails.

Criterion A. In relation to trails criterion A is fairly straightforward and applies to all of the trails recommended eligible to the NRHP. To be listed under criterion A, a property must be associated with a specific event in American prehistory or history or a "pattern of events or a historic trend that made a significant contribution to the development of a community, a State, or the nation" (NPS 1995:12). It must also fall into one of the areas of significance as listed in National Register Bulletin 16 A (NPS 1997).

Criterion B. To be eligible under criterion B, a property must be associated with a person significant in the past (NPS 1995:14). The individual must be directly associated with the

property and the property should be associated with that individual's achievements (Stein 1994:50). This criterion is not commonly used for trails.

Criterion C. To be eligible under criterion C, the property must embody distinctive characteristics of a type, period, or method of construction (NPS 1995:17; Stein 1994:50). In order for a trail to be significant under this criterion, it must be intact and show details of how it was constructed.

Criterion D. To be eligible under criterion D, the property must have yielded or have the potential to yield information about prehistory or history (NPS 1995:21; Stein 1994:51). Stein states that this criterion is often overlooked when evaluating trails and roads. A number of research questions can be asked relating to this criterion, including whether the physical remains of the trail and associated sites and artifacts confirm the location of a route that is unclear, or provide an understanding of period engineering, new insights into conditions encountered by travelers, or the identity of travelers (Stein 1994:51). This criterion applies to all of the trails recommended eligible.

Historic Themes

Several historic themes or areas of significance have been identified for properties eligible under criterion A. These are defined in National Register Bulletin 16A (NPS 1997:40-41) and in Stein's (1994) historic context for historic trails in Arizona. While not all historic themes are represented by the trails at Saguaro National Park, several are, including agriculture, commerce, communications, conservation, entertainment and recreation, industry, and transportation. Transportation relates directly to trails and is defined as "the process and technology of conveying passengers or materials" (NPS 1997:41). This is the most important theme addressed by trails and applies to most, if not all, trails, including all trails discussed here (Stein 1994:50).

Commercial roads, which include the roads to mines and lime kilns, relate to several historic themes, including transportation, commerce (defined as "the business of trading goods, services, and commodities"), and industry (defined as "the technology and process of managing materials, labor, and equipment to produce goods and services") (NPS 1997:40-41). Commerce applies to mining roads, as, obviously, they transported goods and commodities, including moving ore out of the mine area and supplies and equipment into the area (Stein 1994:49). Again, many of the trails discussed in this document relate to this theme. Industry also applies since some roads were used to transport raw material from its source area (Stein 1994:49).

Activities associated with ranching are responsible for some of the roads or trails in Saguaro National Park. Historic themes that apply to ranching roads include transportation as well as agriculture (defined as "the process and technology of cultivating soil, producing crops, and raising livestock and plants") (NPS 1997:40). Ranching roads include the trail related to development of the Garwood property.

A final historic theme is entertainment and recreation, defined as "the development and practice of leisure activities for refreshment, diversion, amusement, or sport" (NPS 1997:40). Trails used historically for tourism and other recreational activities (Stein 1994:49) include hiking trails and roads to picnic areas such as the King Canyon Trail.

Levels of Significance

When determining NRHP eligibility there are three levels of significance: local, state, and national. One must identify the level at which the resource had the greatest impact (NPS 195:9-10; Stein 1994:51). According to Stein (1994) most trails, including all of the trails discussed here, are eligible at the local level (Stein 1994:51). Trails significant at the state level would be those that were used to settle or develop large areas of the state and those significant at the national level would include early prehistoric trails (contributing to knowledge of the Southwest), historic trails related to wars or boundary disputes, or historic trails used for movement of people or goods across the continent (Stein 1994:51).

HISTORIC TRAILS AND TRAIL SEGMENTS RECOMMENDED ELIGIBLE TO THE NRHP

A total of four trail segments are recommended eligible to the NRHP for Saguaro National Park. These segments of the King Canyon, Cactus Forest, Garwood, and Loma Verde Trails are summarized in Table 1 and described below.

King Canyon Trail (1.8 mi) - TMD

Originally built as an access road to Gould and Mile Wide Mines in the early twentieth century, the King Canyon Trail follows along the east side of King Canyon north from the trailhead on Kinney Road near the Arizona-Sonora Desert Museum to Mam-A-Gah Picnic Area (0.9 mi). From there it follows the Sendero-Esperanza Trail west from Mam-A-Gah to the glory hole at the Gould Mine (0.4 mi). Another former mining road goes east from Mam-A-Gah to the mine shafts and foundations at Mile Wide Mine (est. 0.5 mi). Although the latter route is not being used as a formally designated trail, it is still traceable on the ground and it is shown on several old maps, including the CCC map. It was recorded as AZ AA:12:839 (ASM) (Neff et al. 2001). All of these routes were constructed and maintained for mining access. According to park records, it appears that the route from the trailhead to Mam-A-Gah was improved by the CCC for recreation access.

In 1994, the King Canyon Road was recommended eligible for the List of Classified Structures (LCS ID# TMT06) at the local level of significance under criterion A, and as a contributing property to a potential historic district recognizing the contributions of the CCC to the park's development (Donohoe 1994). The Arizona SHPO concurred with this determination of eligibility on December 9, 1994. Donohoe describes the road as a cut-and-fill road through King Canyon with trails and smaller roads splitting off to the Gould and Mile Wide Mines and with "extensive sections of stacked stone rubble retaining wall" (Donohoe 1994). As discussed above, this road is also associated with the CCC; park documentation states that the CCC constructed the King Canyon Road in 1934 (Thomson 1934) which we interpret to mean that the CCC improved this road. King Canyon Trail, Mile Wide Mine Road, and a portion of the Sendero-Esperanza Trail leading to Gould Mine are eligible under criteria A, C, and D, with local level significance.

Criterion A. This road is associated with mining activity in the Amole Mining District and, in 1917, the road was used to transport "more than fifty tons of ore daily" (Donohoe 1994). Mining was an important activity in the Tucson Mountains, as evidenced by the numerous abandoned

Table 1. Summary of Trail Segments Recommended Eligible to the NRHP,
Saguaro National Park

Name of Trail(s)	Total Length	Length Recommended Eligible	Location in Park	Brief History
Cactus Forest Trail	4.3 mi	1.0 mi	Broadway Trailhead to Old Spanish Trail Trailhead	- Same route as road to lime kilns, appears on 1897 map - On 1957 map; road to lime kilns
Garwood /Carillo /Freight Wagon Trails	1.4 mi	0.7 mi	Douglas Spring, Garwood Dam, Carillo, Freight Wagon, and Wildhorse Trails	- 0.3 mi segment of Garwood Road was determined eligible by NPS and Arizona SHPO 12/9/1994 (Donohoe 1994)
King Canyon Trail	2.9 mi	1.8 mi	King Canyon Trailhead to Sweetwater Trail	- Starts out as old mining road to Mile Wide and Gould Mines - Old jeep road to Mam-A-Gah; old mine road visible to the east; abandoned road from a ridge to the intersection with Sweetwater Trail; road runs to Gould Mine (Leavengood 2004) - CCC records state this road/trail was constructed in 1934 (completion would allow a "circle trail trip of wonderful scenic value") (Thomsen 1934d) - On 1937 Master Plan map (Tucson Mountain Park) - Described as "a leading Nature trail" in an article in 1952 (Carr 1952:202) - On 1962 map; road; track continues north to Mile-Wide Mine; east of Mam-A-Gah picnic area: "Wasson Peak Trail" - In February 1965, Anaconda Mining company improved the road up King Canyon and past Gould Mine - King Canyon Road on LCS; contributing property to potential district, eligible under criterion A, with local significance, gives earlier construction date (mining road predates CCC construction by several decades) (Donohoe 1994a,b)
Loma Verde Trail	2.0 mi	0.3 mi	Cactus Forest Loop Drive north to Shantz Trail	- Old road to Loma Verde Mine established late 1890s (NPS 1957) - Loma Verde Mine road revegetated by CCC in the 1930s (Clemensen 1987)

mines in the area, most notably the Gould and Mile Wide Mines. The association of this road with these mining operations, makes King Canyon Road eligible for the NRHP under criterion A, under several historic themes, including transportation (in the operation of the mine and in connection with the use of the park by visitors), commerce (trading in goods and commodities, again in the operation of the mine), and industry (in relation to raw materials, i.e. ore) (NPS1997:40-41; Stein 1994:49-50). Since the present-day trail is also related to CCC construction activities in the park, the historic themes could also include entertainment and recreation (Stein 1994:49), as this was improved to be a trail for motor vehicle, hiking and horse



Figure 4. One of the retaining walls built along the King Canyon Road/Trail.

access to the CCC era Mam-A-Gah Picnic Area. The trail has been closed to vehicles for many years and is now located in designated wilderness. This trail is eligible under criterion A.

Criterion B. No people significant in local or Arizona history are mentioned in the historic records therefore King Canyon Road is not eligible under criterion B.

Criterion C. Initial construction of the road appears to have been in the early 1900s, but CCC documents state that the King Canyon Road was “recently completed” in November 1934, which we interpret as meaning that the original mining road was improved by the CCC (Donohoe 1994; Thomson 1934). The age and association of the massive retaining walls (Figure 4) are in question for, although the walls resemble other CCC features in the park, similar walls are noted on the segment of the Sendero-Esperanza Trail leading to Gould Mine, suggesting perhaps their origin in the mining era. While the 1994 determination of eligibility does not cite criterion C, this must be examined more closely. The rock retaining walls are a distinctive characteristic of this road and the contributions of both mining interests and the CCC are significant to the history of the park. Stein states that a “historic trail may possess this type of significance if it is still intact enough to manifest details about the way it was constructed or historically altered” (Stein 1994:50). Therefore, this trail is also eligible under criterion C.

Criterion D The trail provides important information about mining and CCC activities in the park. Therefore it is eligible under criterion D.

Garwood Dam Road Segment (Freight Wagon and Carrillo Trails, 1.4 mi long with 0.7 mi recommended eligible) - RMD

The historic Garwood Dam Road (LCS ID# RMT13) is a cut-and-fill road about eight to ten feet wide that runs for about a third of a mile (Figure 5). This portion of the Garwood Dam Road is now part of the Carrillo Trail and continues from the Garwood Dam north to the end of a retaining wall. According to park records, construction on the dam began in 1948 (Johnson 2003). The foundation of a house lies along the downhill side of the road about 200 yards north of the dam. The road, the dam (LCS ID# RMD01), and a machinery base (LCS ID# RMF02) were likely associated with ranching in this area prior to NPS acquisition of this parcel of land and the associated grazing lease. The 1994 LCS nomination forms cite local significance under criterion A for these features (Donohoe 1994). The road, dam and machinery base (but not the house foundation) were determined eligible for the National Register by the Arizona SHPO on December 9, 1994.

A review of several historic maps shows that portions of the Freight Wagon and Carrillo Trails follow the road alignment associated with the Garwood Dam and homestead for about 1.4 miles. The segment of the Freight Wagon Trail from the intersection of Wagon Spur Trail south to its



Figure 5. Distinctive outline of the Garwood Dam Road.

junction with the Carillo Trail and the segment of Carillo Trail from this junction east to the Garwood Dam (see Figures 2 and 3) follow the historic route. This route was presumably used for construction and maintenance access to the dam and was used by the Garwood family to access their home site near the dam (Donohoe 1994). The presence of historic features along this trail route will be discussed in the section on NRHP Integrity.

Archeological features and a prehistoric artifact scatter were recorded in the vicinity of the dam as site AZ BB:14:282 (ASM) in 1983 (Simpson and Wells 1983). The Garwood Dam Road and its associated features are located within the Rincon Mountain Foothills Archeological District, which includes both prehistoric and historic properties.

Criterion A. Use of this trail for ranching means that it has significance under the topics of agriculture (the raising of livestock), as well as transportation (moving people and goods to the Garwood house and materials for the construction of the dam) (NPS 1997:40-41; Stein 1994:49-50). The road is eligible under criterion A.

Criterion B. The dam and associated features are associated with a specific, named individual, Nelson Garwood. However, Mr. Garwood was not a prominent figure in Tucson history. Therefore, this road is not eligible under criterion B.

Criterion C. This road does not demonstrate any distinctive characteristics in its construction and, therefore, is not eligible under criterion C.

Criterion D. This road is part of the park's history, specifically related to ranching and so is eligible under criterion D.

Loma Verde Trail Segment (0.3 mi) - RMD

A segment of the Loma Verde Trail that links the mine opening and the associated well site appears to follow the route of the historic road to the Loma Verde Mine, one of the few productive mines in the Rincon Mountain District (see Figures 2 and 3). The mine was in operation in the late 1890s and early 1900s and its ore contained copper and gold (Clemensen 1987:110). It was recorded as a multi-component archeological site, AZ BB:14:100 (ASM) in 1983 (Simpson and Wells 1983). The site includes both a prehistoric quarry and the remains of the historic mine. Two additional mining loci were recorded along this road: AZ BB:14:209 (ASM) and AZ BB:14:210 (ASM). Although the mine opening was filled and the road partially obliterated by the CCC in the 1930s, the road continues to be used as a trail (Clemensen 1987:111). A portion of the Loma Verde Trail (approximately 0.3 mi linking the historical sites of the mine and the well) is eligible under criteria A and D with local level significance. This trail is located within the Rincon Mountain Foothills Archeological District which includes both prehistoric and historic properties.

Criterion A. This road, which is now a portion of a trail, is associated with mining in the Rincon Mountain District and is related to several historic themes including transportation, commerce (in the operation of the mine), and industry (in the production and movement of ore, a raw material) (NPS 1997:40-41; Stein 1994:49-50). This trail is eligible under criterion A.

Criterion B. Clemensen(1987) identifies L. Martin Waer as one of the original developers of this mine, but Waer is not an important character in Tucson's history.

Criterion C. This trail does not have any distinctive characteristics of construction remaining, if it ever had any, and, therefore, is not eligible under criterion C.

Criterion D. The identified road segment to the Loma Verde Mine follows the transportation route linking the site with Tucson and several associated historic sites. This is important information about the site making the site eligible under this criterion.

Cactus Forest Trail Segment (1.0 mi) - RMD

A one mile long segment of the Cactus Forest Trail, from the lime kilns north to Cactus Forest Loop Drive, follows the route of the historic road to the lime kilns (see Figures 2 and 3). This road segment appears on multiple maps, the earliest dating to 1897 (Contzen 1897). Other portions of this trail do not appear to have been roads and are not shown consistently on a variety of historic maps. The lime kilns were in operation from the late 1800s until 1920 (Clemensen 1987:111-114). They were determined eligible for the NRHP on December 9, 1994 and appear on the list of classified structures as LCS ID#s RK1, RK2, and RK3 (Donohoe 1994). The kilns were also recorded as archeological sites AZ BB:14:74 (ASM), AZ BB:14:165 (ASM) and AZ BB:14:188 (ASM) (Simpson and Wells 1983). The Cactus Forest Trail segment is eligible under criteria A and D, with local significance. This trail is also located within the boundaries of the Rincon Mountain Foothills Archeological District, which includes both prehistoric and historic properties.

Criterion A. The historic themes that are applicable to this trail include transportation, and commerce and industry (relating to its use for commercial purposes and the transportation of raw materials and processed lime). Therefore, this trail is eligible under criterion A.

Criterion B. While many individuals are associated with these kilns (see Clemensen 1987), none of these individuals is significant in the history of Tucson and, therefore, the Cactus Forest Trail is not eligible under criterion B.

Criterion C. No distinctive characteristics are present on this road, with the possible exception of the related lime kilns, and this trail is not eligible under criterion C.

Criterion D. This trail to the lime kilns is an important part of the history of the park and Tucson and is, therefore, eligible under criterion D.

NRHP INTEGRITY

Seven qualities are components of NRHP integrity: integrity of location, design, setting, materials, workmanship, feeling, and association (NPS 1995:2). It is not necessary for a historic property to possess all of these qualities to be eligible for the NRHP. Stein's historic context study (1994:52-54) applies these seven aspects to trails in Arizona. While each of the eligible trails was discussed separately above, all of the trails and trail segments that are recommended eligible (King Canyon Road, and segments of Garwood Dam Road, Loma Verde Trail, and Cactus Forest Trail) will be discussed together in this section, as the aspects of integrity are similar for all of these trails.

Location

Location is defined as the place where the “historic property was constructed or the place where the historic event occurred” (NPS 1995:44). Stein states that this is one of the most important qualities and that a trail lacking this quality is not eligible, although re-routed trails are eligible, if the period of use is more than fifty years ago and its basic appearance from that period is retained (Stein 1994:52). The relatively recent age of many of these trails according to the related documents (50 to 100 years old) and the continuing existence and active use of these trails makes this quality fairly easy to assess. Comparison of early maps and early trail maps indicate that all of the trails and trail segments discussed above are in their original or historic location.

Association

Another important quality of integrity for trails is association, which is defined as the “direct link between an important historic event or person and a historic property”, meaning that it is the place where the activity occurred and is “sufficiently intact to convey that relationship to an observer” (NPS 1995:45). This is a subjective quality and is not sufficient alone to support eligibility to the National Register, but, as Stein states, is necessary in all cases for a trail to be considered eligible (NPS 1995:45; Stein 1994:52). In the case of trails, Stein states that this should be “construed to mean that the physical manifestation of the cultural resource matches/links with historical records or oral histories” (Stein 1994:52). Again, after review of the historic maps and documents, all trails and trail segments discussed above meet this quality.

Materials

This quality is defined as “the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property” (NPS 1995:45). In the case of trails, these are the physical manifestations of the trail. As the retention of the visual quality and physical manifestation of a trail is necessary for it to be eligible to the National Register, this quality is necessary for a trail to be considered eligible (Stein 1994:53). It appears that the Cactus Forest and Loma Verde trail segments under consideration for NRHP eligibility possess integrity of materials. In the case of King Canyon Road, the materials reflect the presumed CCC improvement of the road as well as materials associated with the initial mining road.

The segment of the Garwood Dam Road that follows the Carillo Trail and the portion of the Freight Wagon Trail from the junction with Carillo to just north of a major wash crossing (a total of 0.5 miles on the Carillo and 0.2 miles on the Freight Wagon) have evidence of materials such as retaining walls and road cuts (see Figure 5). The northern end of the Garwood Dam Road route is used as a trail but does not show evidence of having been as wide as a road.

Setting

The setting of a property is defined as the physical environment of the property, involving the character of the physical space surrounding the property, including topographic features, vegetation, and other manmade features as well as the relationship between buildings and other features and open space (NPS 1995:45; Stein 1994:53). As it applies to trails, this refers to “how the cultural resource was positioned in its environment” (Stein 1994:53). While important, this quality is not essential for the trail to be eligible, unless is eligible under criterion B (since, in that case, the trail would have to be recognizable to the person significantly associated with it) (Stein 1994:53). The issue of setting for the trails and trail segments in Saguaro National Park is

somewhat more complicated. All are in areas that have experienced development since the initial construction of the trail or road. Both the west and east sides of Tucson, including the areas around the park, have experienced considerable development since the establishment of the park or the construction of the trails, which in some cases may be visible from the trails themselves.

King Canyon Road (now Trail) is in a park, which was the case when the CCC construction/improvement was done, but was not in a park during the historic mining period. The physical environment (topography and vegetation) from the mining period is probably similar, but the CCC added some developments, including the Mam-A-Gah picnic area. However, for most of the trail's length to the Mam-A-Gah picnic area, the integrity of setting (particularly from the CCC period) appears to be intact.

The Loma Verde and Cactus Forest trail segments both follow routes that predate the establishment of the monument. The vegetation and topography appear to be similar to the original conditions, but there are a few changes, including the Cactus Forest Loop Drive which intersects the Cactus Forest Trail. However, for most of the length of these trail segments within the park itself (outside the park, the setting has likely changed significantly), the integrity of setting is intact.

The setting of the Garwood Dam Road segment has changed because the house and other built elements are no longer there. However, the Garwood Dam is still extant and is visible from much of the southern portion of the trail. The northern half of this trail segment does not appear to possess integrity of setting.

Feeling

Integrity of feeling is defined as “the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property” (NPS 1995:45). This is a combination of a number of physical features and characteristics, including design, materials, workmanship, and setting (NPS 1995:45). As it relates to trails, Stein states that it refers to (emphasis original) “*perceptual qualities* of trails as important reminders of how past voyagers experienced travel through the landscape” (Stein 1994:53). This aspect is similar to setting (again, it is not crucial for the eligibility of a trail, except in the case of those eligible under criterion B) and, for the most part follows what was discussed in the previous section.

The Garwood Dam Road segment maintains integrity of feeling along the southern half and lacks it on the northern half for the same reasons these segments maintain or lack integrity of setting. For the reasons discussed above for integrity of setting, the King Canyon Road and the Loma Verde, and Cactus Forest trail segments retain integrity of feeling.

Design

The aspect of design is defined as “the combination of elements that create the form, plan, space, structure, and style of a property” (NPS 1995:44). Design is the result of conscious decisions made in the construction of trails and is not a critical quality unless the trails are eligible under criterion C (Stein 1994:53-54). Many trails evolved from continued use, rather than conscious design decisions. Most of the trails discussed here do not appear to exhibit any specific features that exhibit conscious design decisions and, therefore, do not exhibit integrity of design. The

exception to this is the King Canyon Road, with its rock retaining walls, which does appear to exhibit integrity of design.

Workmanship

Finally, the quality of workmanship is defined as “the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory” (NPS 1995:45). This appears to be the least important of the qualities for evaluating trails, even for those eligible under criterion C, and most of the trails do not possess integrity of workmanship. The exception might be King Canyon Road, with its stacked rubble retaining walls that appear similar to other work by the CCC in Tucson Mountain Park. Parts of the southern half of Garwood Dam Road also show evidence of workmanship in their rock retaining walls.

HISTORIC TRAILS NOT RECOMMENDED ELIGIBLE OR ELIMINATED FROM CONSIDERATION

In addition to the four trails and trail segments discussed above as being eligible for the NRHP, there are three trails in the Rincon Mountain District that are historically interesting, but lack sufficient integrity to be eligible. These are the Telephone Line and Fire Loop Trails, and the Garwood Airstrip (now part of the Wentworth Trail).

It should also be noted that the road to the Old Yuma Mine in the Tucson Mountain District is, no doubt, historic. However, the mine itself is hazardous and all attempts have been made to route foot traffic and horse traffic away from this area. The historic road associated with the mine will not be part of the comprehensive trails plan and is eliminated from consideration in this DOE document.

Some of the NRHP criteria and themes discussed above and some of the qualities of integrity apply to the Rincon Mountain District trails not recommended eligible. Additional historic themes that can be applied to these trails include communications (defined as “the technology and process of transmitting information”), conservation (defined as “the preservation, maintenance, and management of natural or manmade resources”), and entertainment and recreation (defined as “the development and practice of leisure activities for refreshment, diversion, amusement, or sport”) (NPS 1997:40). Communication includes the routes of communication lines (Stein 1994:49), such as the Telephone Line Trail. Conservation applies to the fire management and control activities that led to the construction and maintenance of the Fire Loop Trail. Entertainment and recreation include the recreational use of aircraft at the Garwood Airstrip.

Garwood Airstrip (Wentworth Trail)

Nelson Garwood had a pilot’s license and airplane and built an airstrip near his house in the 1940s or 1950s. He surveyed and maintained this airstrip himself (Johnson 2003). A segment of the present-day Wentworth Trail, between the Kennedy Trail and the Wildhorse Trail, follows the path of the landing strip, which continues to be recognizable as a man-made landscape feature (see Figures 2 and 3). One could argue that the Garwood airstrip might be eligible for the NRHP under criteria A and D, with local level significance, however, the airstrip is overgrown and lacks sufficient integrity to be considered eligible as an individual property. The airstrip is

part of the Rincon Mountain Foothills Archeological District, which includes both prehistoric and historic properties.

NRHP Criterion A. The airstrip is associated with the history of the park and its uses, including ranching. The airstrip addresses the themes of transportation, entertainment and recreation (if the airstrip was used for recreational flying) and possibly agriculture (depending on how large a role the airstrip played in ranching). Therefore, the airstrip could be eligible under criterion A.

NRHP Criterion B. As discussed for the Garwood Dam Road, while associated with a specific, named individual, Nelson Garwood is not important in the history of Tucson. Therefore, this trail segment is not eligible under criterion B.

NRHP Criterion C. This airstrip does not have any distinctive characteristics in its construction and, therefore, is not eligible under criterion C.

NRHP Criterion D. This trail provides information on the park's history and, therefore, could be eligible under criterion D.

NRHP Integrity. While the Wentworth Trail and the former Garwood Airstrip retains integrity of location and association, it has since revegetated and its history as an airstrip is no longer as apparent. Therefore, it is lacking integrity of setting, feeling, design, workmanship, and, most importantly, materials. This means that, although this trail could meet several of the NRHP criteria, it lacks sufficient integrity to be eligible, including integrity of materials, which is necessary for a trail to be eligible (Stein 1994:53).

Telephone Line Trail

The Telephone Line Trail, while now closed, has a long history (see Figure 2). It is associated with Manning Cabin which was recorded as site AZ BB:14:76 (ASM) and listed on the NRHP in 1974 under criteria A and B. Levi Manning built the cabin in 1905 as a summer retreat. He was mayor of Tucson and served, for a time, as surveyor general of Arizona. According to oral history (Sykes 1974) and Clemensen (1987:175, base map), the Telephone Line Trail was initially the 11-mile-long wagon road built to bring supplies to build Manning Cabin in 1904 (Clemensen 1987:175). It was later used by the US Forest Service and the National Park Service as a pack trail to supply Manning Camp when it was the base of fire control operations in the Rincon Mountains. It was also the route of the telephone line to Manning Camp. Segments of the historic Telephone Line Trail and its associated features such as utility poles, glass insulators, and lengths of telephone cable were recorded in 1984 (Simpson and Wells 1984:166).

NRHP Criterion A. Transportation is one of the historic themes for this trail. Other historic themes are commerce, since this trail was used to supply goods and commodities to Manning Camp, both by Manning and the Park Service, and communications, obviously, as the route facilitating communications (telephone service). Therefore, this trail could be eligible under criterion A.

NRHP Criterion B. This trail is associated with Manning Cabin and, therefore, Levi Howell Manning, who is significant in the Tucson area, holding a number of positions in the town and the territory of Arizona, including Chief of the Mineral Department in the Office of the United States Surveyor General for the Territory of Arizona (1885), United States Surveyor General for

Arizona Territory (1893), and a term as Mayor of Tucson (1905), as well as being involved in mining, real estate, and ranching (Clemensen 1987:175). Therefore, the Telephone Line Trail could be eligible under criterion B, at the local level.

NRHP Criterion C. No distinctive characteristics are noted, and, therefore, this trail is not eligible under criterion C.

NRHP Criterion D. This trail has yielded information about history and, therefore, could be eligible under criterion D.

NRHP Integrity. This trail retains integrity of location and association, while it likely lacks integrity of material, design, and workmanship. This is due to the abandonment of the trail and lack of maintenance. It may still retain integrity of setting and feeling, however, as the area has likely not changed much since the trail's use, although it is probably less travelled. Again, the lack of integrity of material is significant. Since all of the necessary qualities of integrity are likely not met, this trail is not eligible for the NRHP.

Fire Loop Trail

This trail located in the Rincon Mountains appears to follow the fire patrol route from Manning Camp to Mica Mountain via Spud Rock (Man Head was added to the fire patrol route in 1941 and Spud Rock was dropped except in times of heightened fire danger) (Clemensen 1987:156-157). Although this trail has been reworked and rerouted several times, it remains in the same general location as shown on early fire control and maintenance maps (National Geographic Trails Illustrated 2000; NPS 1943, 1963). This loop trail, as along with many of the other trails in the area, is related to fire management activities in the Rincon Mountains. The trail is also important in the development of the trail system for fire control and protection in the Rincon Mountains by the US Forest Service and, later, the National Park Service.

This patrol route in the high country of the Rincons has existed as a concept for some time, but based on maps it appears that the routes of connecting trails have wandered over time. Furthermore, only recent maps have used the name "Fire Loop"; older maps give a variety of names to the various parts of this trail network. Although it's an interesting historical concept that fire fighters regularly patrolled to different viewpoints to observe for fires, there is little on the ground or mapped evidence to show that any particular trail segments have been in a particular place for a long period of time.

NRHP Criterion A. This trail relates to the historic theme of transportation. Since this trail was related to the maintenance, preservation, and management of natural resources in the Rincon Mountains in the form of fire control, it is also related to the historic theme of conservation. Therefore, the Fire Loop Trail could be eligible under criterion A.

NRHP Criterion B. No significant people are mentioned in the historic records relating to the Fire Loop Trail, and, therefore, it is not eligible under criterion B.

NRHP Criterion C. No distinctive characteristics are noted, and, therefore, this trail is not eligible under criterion C.

NRHP Criterion D. This trail is part of the history of the Rincon Mountains and early federal government activities in the area and, therefore, could be eligible under criterion D.

NRHP Integrity. While the use of trails between the landmarks along the Fire Loop Trail is documented far back into the history of the park and the name itself suggests its use in fire protection, there is little evidence on the historic maps or on the ground for the presence of this trail (only recently named the “Fire Loop Trail”) in its precise present-day location in the past. Therefore, this trail lacks the necessary qualities of integrity of location, association, and materials, and probably design and workmanship, as well. It probably retains integrity of setting and feeling, however, as the area itself has not changed significantly.

SUMMARY AND CONCLUSION

There are three trail segments in the Rincon Mountain District and one trail in the Tucson Mountain District that are recommended eligible for the National Register at the local level of significance. Additionally, three other trails in the Rincon Mountain District (Wentworth [Garwood Airstrip], Telephone Line, and Fire Loop Trails) are historically interesting and may even meet some of the NRHP criteria, but lack sufficient integrity to be eligible. The road leading to the Old Yuma Mine was eliminated from consideration.

King Canyon Road (the present-day King Canyon Trail), both a mining road and a CCC-constructed/improved road and trail, is eligible with local significance under criterion A with historic themes of transportation, commerce, industry, and entertainment/recreation; criterion C for the construction associated with mining and the CCC; criterion D; and with integrity of location, association, materials, setting, feeling, design, and workmanship.

Garwood Dam Road (made up of segments of the present-day Freight Wagon and Carrillo Trails) is eligible with local significance under criterion A with the historic themes of transportation and agriculture; criterion D; and, for the southern half, integrity of location, association, materials, setting, feeling, and workmanship. A one-third mile long segment of this cut and fill road is on the List of Classified Structures and was determined eligible in 1994 (Donohoe 1994). An additional 0.4 miles (0.2 miles on the Carrillo Trail and 0.2 miles on the Freight Wagon Trail) is considered eligible.

A segment of the Loma Verde Trail, which follows the former Loma Verde Mine Road for 0.3 miles between the historic well and mine is eligible with local significance under criterion A with historic themes of transportation, commerce, and industry; criterion D; and integrity of location, association, materials, setting, and feeling. This road may have extended outside of the park, but only a small portion that is within the boundaries of the park is considered eligible.

A segment of the Cactus Forest Trail, which follows the route of a road to the lime kilns depicted on an 1897 map, is eligible with local significance under criterion A with historic themes of transportation, commerce, and industry; criterion D; and integrity of location, association, materials, setting, and feeling. At one point this road likely extended beyond the boundaries of the park, but only a portion of the road within the park is under consideration here.

Previous archeological and historical research has occurred for Saguaro National Park although not often specifically relating to trails. The 1994 List of Classified Structures inventory led to the determination of eligibility for King Canyon Road and Garwood Dam Road, as well as a number of locations along present-day trails such as the Mam-A-Gah picnic structures along the King Canyon Trail and the three lime kilns along the Cactus Forest Trail. Two properties listed on the National Register are also important to the history of trails. Manning Cabin, as discussed above, is listed under criteria A and B and is directly related to the Telephone Line Trail. The Rincon Mountain Foothills Archeological District, listed under criterion D, covers large portions of the lower elevations of the Rincon Mountain District and includes both prehistoric and historic properties. Several trail segments discussed here, the Loma Verde and Cactus Forest Trails and Garwood Dam Road, are located within this district.

Several themes become evident when discussing the historic trail systems in Saguaro National Park, largely dealing with the development of the park itself and the trail systems within it, both for eligible and non-eligible trails. The earliest stage of trail development relates to the development of roads, largely for commercial purposes, in this case, mining and lime production for the King Canyon, Loma Verde, and Cactus Forest Trails discussed here. Private residences in this area also contributed, including the Telephone Line Trail as the road to Manning Cabin, and Garwood Dam Road and airstrip. Park operations also contributed to the development and use of the trail system, including both the Fire Loop Trail for fire protection and the Telephone Line Trail as the pack trail up to Manning Camp to supply fire protection activities and as the route of the telephone line to the same location. Finally, recreational use of this trail system has been important and is the most important use of this system today. The development of the recreational trail system seems to begin with the construction and improvement of the King Canyon Road by the CCC in the 1930s.

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