

Historic Landscape Assessment 2017, Faraway Ranch Orchard, Chiricahua National Monument, Arizona

Nicholas M. Hlatky

Department of Anthropology

University of New Mexico

A report submitted in fulfillment of Colorado Plateau
Cooperative Ecosystem Studies Unit Cooperative Agreement
Number H1200-09-0005

March 2018

Abstract

This report represents an initial assessment of the historic orchard located at Faraway Ranch Historic District, Chiricahua National Monument, Arizona. It provides a historic context, documentation of existing vegetation conditions, assessment of historic integrity, and initial recommendations for treatment options. Fieldwork was conducted in June of 2017 and lasted approximately one week, which included nine person-days. Field personnel included Nicholas Hlatky, Logan Dustin Whitney, Dean Portman, and Rachel Ellenson. This project is located in the south half of the southeast quarter and south half of the southwest quarter of Section 27 in Township 16 South, of Range 29, east of the Gila-Salt Meridian.

Acknowledgements

This project could not have been undertaken without the support of numerous people. First and foremost, I would like to thank Park Archeologist Kristina Whitney and Chief of Resources Michael Holt for allowing me the opportunity to work in Chiricahua National Monument, and for their continued encouragement of my interest in Faraway Orchard. Vegetation mapping and identification could not have been completed as efficiently without the help of Dean Portman, whose expertise in obscure and annoying grasses was invaluable. Both Logan Dustin Whitney and Rachel Ellenson assisted in GPS mapping and tree assessment, and their patience with my obsessive nature in the field was greatly appreciated. Fieldwork would not have been possible without the support of the ever patient and encouraging Bruce Huckell, who tolerated my orchard project during a field season that was supposed to be largely concerned with archaeological excavation and survey. Finally, I would like to thank Francisco Uviña, whose excitement about this project has been a continual source of motivation.

Table of Contents

Abstract	i
Acknowledgements	ii
List of Figures	iv
List of Tables	v
Introduction.....	1
Study Area	1
History of Work.....	3
Project Scope and Limitations.....	4
Historic Context	4
Methodology	7
Analysis and Evaluation.....	11
Stafford Orchard	11
Main House Orchard	16
Western Orchard	24
Integrity Synthesis.....	27
Recommendations	29
Stabilization.....	30
Replacement.....	31
Stabilization Maintenance Plan	32
Non-Contributing Vegetation Removal.....	32
Interpretive Programs.....	32
Fruit Tree Propagation	33
Irrigation, Wildlife, and Wildfire Protection	34
Conclusion	35
References	37
Appendix A: Propagation Services	38
Appendix B: Tree Spatial Data	39

List of Figures

Figure 1: Overview of Chiricahua National Monument and Faraway Ranch Historic District, present day.	2
Figure 2: View of Stafford Orchard looking west ca. 1900s. Note gridded fruit trees. Adapted from Johnson et al. 2013:127.	6
Figure 3: Main House in 1908 looking north, with gridded fruit trees visible in the background. Adapted from Johnson et al. 2013:151.	7
Figure 4: Stafford Orchard ca 1950s, looking west. Note lack of gridded fruit trees and encroaching vegetation. Adapted from Johnson et al. 2013:196.	8
Figure 5: Overview of orchard study areas, present day.	10
Figure 6: Stafford Orchard study unit map, present day.	13
Figure 7: Overview of Stafford Orchard study unit persimmon concentration, looking west.	14
Figure 8: Improper limb pruning of a persimmon tree in the Stafford Orchard study unit.	15
Figure 9: Persimmon tree in poor health with large amounts of attached/hanging deadwood, looking east. Standing dead persimmon tree is visible to the right.	16
Figure 10: Main House study unit map, present day.	17
Figure 11: Main House vegetation map circa 1990. Adapted from Kumble 1990:20. Note that map orientation is flipped.	18
Figure 12: Improper limb pruning on apricot tree T-9 visible in center. Example of proper limb pruning visible on left branch.	20
Figure 13: (a) extensive root suckers and water sprouts visible on pear tree T-7c, looking east; and (b) standing dead pear tree T-7b, looking east.	21
Figure 14: Pear tree T-13, looking northeast.	22
Figure 15: (a) pear tree T-6 in poor condition exhibiting almost no new growth, looking northwest; and (b) pear tree (no designation) in poor condition, looking southeast.	24
Figure 16: Western Orchard study unit map.	26
Figure 18: Western Orchard study unit overview, looking west. Remnant fence posts visible.	27
Figure 19: Proper pruning method for fruit trees. Adapted from Dolan and Gjesfeld 2012:80.	Error!

Bookmark not defined.

List of Tables

Table 1: Periods of Significance Defined for Faraway Ranch.....	1
Table 2: Faraway Orchard Tree Count.	11
Table 3: Stafford Orchard Study Unit Vegetation Inventory.....	12
Table 4: Main House Study Unit Vegetation Inventory	19
Table 5: Changes in Main House Study Unit Vegetation Since 1990	23
Table 6: Western Orchard Study Unit Vegetation Inventory.....	25

Introduction

Faraway Ranch is a focal point of tourism at Chiricahua National Monument. The canyon in which it is situated has seen continued use for at least 400 years, however the extant buildings of a once prosperous guest ranch remain the most visible evidence of its occupation. During the early part of Faraway Ranch's use there was a thriving fruit orchard associated with it, providing a variety of fruits for consumption and sale. Since the 1950s, however, the orchard has fallen into a state of neglect and few original trees remain. This report presents an evaluation of the condition of the orchard as it was in the summer of 2017 and provides initial recommendations for treatment.

Study Area

Faraway Ranch is located in southeastern Arizona within Chiricahua National Monument, under the jurisdiction of the National Park Service (NPS). The Chiricahua Mountains are a northwest-southeast trending mountain range in the basin and range province of the southwest. The range is 4 – 20 miles (6.4 – 32.3 km) wide and about 40 miles (64.5 km) long. Elevations range from 9,795 feet (2,985 meters) at the peaks, to 4,000 feet (1,219 meters) in the Sulphur Springs valley to the west.

Faraway Ranch is located at the west end of Bonita Canyon, a box canyon in the western slopes oriented due east-west for approximately 2 miles (3.2 km) (Figure 1). Bonita Creek runs through the canyon, meandering its way along the northern wall. The surrounding biotic community can be classified as a Chaparral biotic community, containing multiple species of oak, juniper, and elm trees, as well as manzanita, agave, prickly pear, yucca, apache plume, sumac, and other various grasses. The historic orchard (subsequently referred to as Faraway Orchard) is located within the historic boundaries of Faraway Ranch.

Table 1: Periods of Significance Defined for Faraway Ranch.

Property	Date	Reference
Historic District	1879-1977	NRHP 1980
Stafford Cabin	1879	NRHP 1975
Camp at Bonita Canyon	1885-1886	NRHP 1980
Erickson Ranch	1887-1917	NRHP 1980
Stafford Homestead period	1879-1888	Johnson et al. 2013
Erickson Ranch period	1889-1916	Johnson et al. 2013
Guest Ranch period	1917-1960s	Johnson et al. 2013
Ranch Twilight period	1960s-1977	Johnson et al. 2013
Orchards	1888-1917	Current report

Faraway Orchard consists of three separate areas and does not encompass the entire historic district (see Figure 1). Additionally, due to a long history of work conducted at Faraway Ranch, there are several different periods of significance for different aspects of the larger Historic District

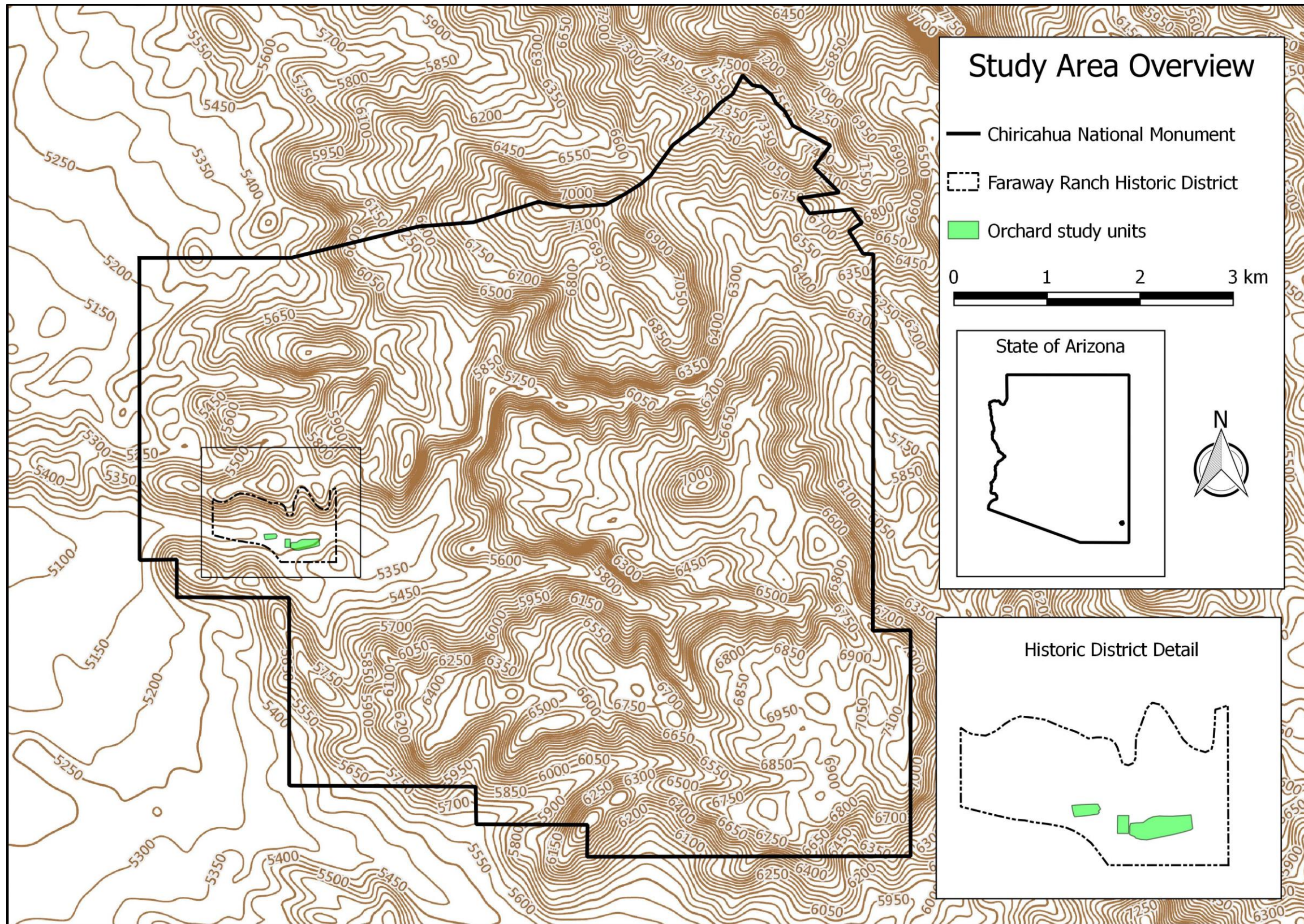


Figure 1: Overview of Chiricahua National Monument and Faraway Ranch Historic District, present day.

(Table 1). A 2013 Cultural Landscape Report broke down the largest overarching period of significance into four smaller subset periods with different themes (see Table 1). This report adds an additional period of significance for the orchard areas.

History of Work

Faraway Ranch was privately owned and operated until 1977, when it was acquired by NPS. Immediately following the acquisition of the property, it was nominated to the National Register of Historic Places (NRHP) as the Faraway Ranch Historic District¹. The Stafford Cabin, already included in the NRHP on its own merits², was incorporated into this district. An inventory of the historic buildings and structures was completed in 1983, which included detailed histories of both extant and non-extant buildings/structures³. During this initial inventory, several features were discovered that were determined to be associated with a little-known military camp that briefly existed in the late 19th century.

In 1986, a survey was undertaken to document the archaeological remains of what was determined to be a historic Buffalo Soldier camp in Bonita Canyon⁴. This consisted of pedestrian survey throughout much of the Faraway Ranch Historic District, as well as the ridges to the immediate south of the district. Results indicated that most evidence of the camps' existence was concentrated in an area just west of the main ranch house, as well as on the ridge to the south of the historic district. No remains associated with Faraway Ranch or its use were considered during the survey.

Following the historic buildings and structure inventory, in the late 1980s an inventory of the historic landscape associated with the main ranch house was conducted by Peter Kumble of the University of Arizona⁵. This involved establishing historic vegetation patterns through archival research, as well as mapping the vegetation present at the time of investigation. Vegetation mapping consisted of species identification and health assessment. Recommendations for a restoration treatment were made, however these were never acted upon. It is worth noting that both the vegetation mapping and establishment of historic vegetation patterns considered only a small portion of the full extent of Faraway Orchard.

In 2002 a Cultural Landscape Inventory of Faraway Ranch Historic District was completed, however it only provided documentation and evaluation of landscape elements that contributed to

¹ National Register of Historic Places, "'Faraway Ranch Historic District' National Register Nomination Form, Dos Cabezas, Cochise County, Arizona, National Register #80000368," 1980.

² National Register of Historic Places, "'Stafford Cabin' National Register Nomination Form, Dos Cabezas, Cochise County, Arizona, National Register #75000171," 1975.

³ Louis Torres and Mark Baumler, "Historic Structures Report, Historical And Archeological Data Sections: History Of The Buildings And Structures Of Faraway Ranch, Chiricahua National Monument, Arizona" (Denver, Colorado: United States Department Of The Interior, National Park Service Branch Of Planning, Alaska/Pacific Northwest/Western Team, 1984).

⁴ Martyn D. Tagg, "The Camp at Bonita Canyon: A Buffalo Soldier Camp in Chiricahua National Monument, Arizona," Western Archeological and Conservation Center Publications in Anthropology, 42 (Tucson, Arizona: National Park Service, 1987).

⁵ Peter A. Kumble, "Historic Landscape Restoration Report: The Faraway Ranch, Chiricahua National Monument" (Tucson, Arizona: University of Arizona, 1990).

the landscape significance⁶. By 2013, a full Cultural Landscape Report that included treatment recommendations was published⁷. The report found that a general management philosophy of *Rehabilitation* was appropriate for Faraway Ranch Historic District and recommended that historic and existing vegetation be comprehensively inventoried and monitored. It was suggested that the area surrounding the main house be rehabilitated to accurately depict the period of significance for the guest ranch operation (1917-1960s; see Table 1).

Despite a wide array of projects conducted in and around the Faraway Ranch Historic District, few have devoted significant attention to Faraway Orchard. Perhaps the most explicit consideration was Kumble's report, however it was only concerned with the area surrounding the main house. The 2013 Cultural Landscape Report gave wider consideration to the orchard areas⁸, however modern conditions were not systematically assessed. This report aims to remedy these informational gaps.

Project Scope and Limitations

The purpose of this document is to provide: (1) a historic context for Faraway Orchard; (2) an inventory and documentation of existing conditions; (3) an evaluation of orchard integrity; and (4) initial recommendations for treatment options. It should not be considered an official historic preservation approach, treatment plan, or planning document. Rather, it is a preliminary review of the integrity of the historic landscape associated with the orchard. Additional consultation with specialists in the fields of cultural geography, horticulture, and landscape architecture should be undertaken before determining appropriate treatment approaches for Faraway Orchard. It is primarily concerned with Faraway Orchard and does not consider the greater cultural landscape of Faraway Ranch Historic District.

Historic Context

Bonita Canyon has attracted both animal and human occupants since at least the 17th century for a wide variety of reasons. Early Apache occupants found it to be a productive source of wild plants and game, Euroamerican homesteaders recognized its agricultural and ranching potential, the United States Army understood its strategic worth, and later residents appreciated its recreational value. This wide variety of uses throughout time have resulted in a complex and layered history associated with the landscape.

Native Americans have occupied southeastern Arizona for nearly 13,000 years. The earliest evidence of occupation in the Chiricahua Mountains dates to the early archaic period, approximately 8,000 years ago. Initially characterized by seasonally mobile hunter-gatherer groups, by A.D. 1150 the region was home to complex farming villages scattered across the adjacent Sulphur Springs Valley. By the arrival of the Spanish in the 1640s, however, the region

⁶ National Park Service, "Cultural Landscape Inventory: Faraway Ranch, Chiricahua National Monument" (Washington D.C.: United States Department of the Interior, National Park Service, 2002).

⁷ Lauri Macmillan Johnson et al., "Chiricahua National Monument - Faraway Ranch: Cultural Landscape Report Parts One and Two: History, Analysis, and Treatment" (Washington D.C.: United States Department of the Interior, National Park Service, 2013).

⁸ Johnson et al.

was largely occupied by Apache groups. Employing a highly mobile lifestyle, they gathered wild plants and hunted game in the canyon, leaving few physical traces of their presence. Most known archaeological sites are located on terraces north of Bonita Creek, and there is no evidence of aggregated, year-round settlement.

Rising tensions between the Army and a band of Apache led by a man named Cochise eventually erupted into the Apache Wars in 1861. By 1862, the threat of Apache raids on both Euroamerican traders and Union troops became enough to precipitate the establishment of Fort Bowie in nearby Apache Pass. Despite Cochise's surrender in 1872, continuing resistance by an Apache band led by Geronimo kept tensions in southeastern Arizona high. In 1885 a temporary camp of Buffalo Soldiers was established in Bonita Canyon in order to guard against Geronimo and his band of Apache warriors.

"Buffalo Soldiers" refer to all-African American regiments in the United States Army. These regiments, commanded mostly by white officers, were composed of Civil War veterans, former slaves, and freemen. Members of the 10th Cavalry regiment were dispatched to Bonita Canyon to guard the spring located there in order to deny the Apaches access to water. The camp was located near the mouth of Bonita Canyon, adjacent to the site that Faraway Ranch would one day occupy. The camp consisted mostly of tents, however officers occupied a cabin built by a squatter named Newton. This cabin would later be incorporated into the Faraway main house, acting as the core of the building as new additions were built. Settlers in the area occasionally sold produce to the occupants of the Buffalo Soldier Camp, as well as troops stationed at Fort Bowie. Following Geronimo's surrender in 1886, the camp was disbanded.

Despite the threat of Apache raids, Euroamerican homesteaders occupied Bonita Canyon as early as 1870s. The first arrival was army veteran Ja Hu Stafford in 1879, who built a log cabin just south of Bonita Creek after filing a homesteading claim. It was Stafford who established the original orchard during his time in Bonita Canyon, planting the trees in 1888. Species present included common pear (*Pyrus communis*), peach (*Prunus sp.*), persimmon (*Diospyros virginiana*), apple (*Malus sp.*), and cherry (*Prunus sp.*) trees⁹. The trees were planted in a general grid pattern consisting of rows oriented roughly north south (Figure 2) and was partially irrigated by a ditch that Stafford dug from Bonita Creek. This ditch is no longer visible today and has been presumably infilled at some point. In addition to the orchard, Stafford fenced off a small garden in the northwest corner of the meadow adjacent to his cabin. Stafford and his wife made their living largely by selling produce from the garden and orchard to soldiers stationed at nearby Fort Bowie, as well as the Bonita Canyon Buffalo Soldier camp during its existence. In the late 1880s Stafford's wife gave birth to a young daughter named Reveley who died in her infancy. She was buried in the Stafford orchard under a pile of stones marked by two yucca plants, still visible today.

In 1886 Swedish immigrant Neil Erickson filed a homesteading claim in Bonita Canyon just west of Stafford's orchard. Erickson had been previously stationed at Fort Bowie and had become enamored with the canyon during his stay there. Located on his newly acquired homestead was the small cabin formerly occupied by commanding officers at the Buffalo Soldier camp, which would eventually form the hub of the main house at Faraway Ranch. Erickson was joined at his

⁹ Johnson et al., 192.



Figure 2: View of Stafford Orchard looking west ca. 1900s. Note gridded fruit trees. Adapted from Johnson et al. 2013:127.

homestead by his wife Emma Peterson, and his two daughters, Lillian and Hildegard Erickson.

Over the years Erickson and his family substantially improved the property. A large vegetable garden was planted immediately north of the house, and an orchard was planted to the northwest near a stock tank. Fruits present in the Erickson orchard included apples, pears, plums, peaches, and apricots. Sometime during this period, several fruit trees were planted in the immediate vicinity of the house, mainly pear and apricot trees (Figure 3). Surplus from the garden and orchard were sold or traded at nearby towns, and cattle ranching became a focus of Neil's time managing the ranch.

In 1917 Hildegard Erickson came up with the idea of shifting the ranch towards a guest-oriented business model. With the support of her sister Lillian, the two women began to accommodate deer hunters visiting the surrounding area, providing them with lodging and home cooked meals. Shortly after the start of the guest ranch business, Ja Hu Stafford passed away and Lillian was able to acquire his property, which included the expansive orchard just east of the Faraway Ranch house. Surplus fruits and vegetables continued to be sold throughout the 1920s, however the main focus of the ranch shifted towards continuing guest accommodation.

Lillian married Ed Riggs, a nearby rancher, in 1923 and the two continued to develop the property as a guest ranch. By this time Hildegard had married and moved away, and Emma and Neil had left due to Neil's work as a forest ranger throughout Arizona. Throughout the 1920s and 1930s the



Figure 3: Main House in 1908 looking north, with gridded fruit trees visible in the background. Adapted from Johnson et al. 2013:151.

property continued to expand, with the main house gaining a second story and multiple new buildings constructed in support of the growing influx of guests. Lillian took over sole ownership of the ranch following the death of Ed in 1950 and continued to entertain guests. Following her death in 1978, the property was acquired by NPS.

With the start of the guest ranch in 1917 the orchard had begun to be neglected, as fruit sales were no longer a primary moneymaker. By 1950 many of the fruit trees had disappeared, and native junipers had begun to encroach on the meadow (Figure 4). With the sale of Faraway Ranch to NPS in 1978, a new period of use at Faraway Ranch began. By this time most of the orchard had disappeared, with only a few trees persisting through increasingly dry conditions. Thus, the period of significance for Faraway Orchard is defined as the span of time ranging from its inception in 1888 to the start of the guest ranch business in 1917 (see Table 1). Unless explicitly stated, all further references to the “period of significance” in this report refer to 1888-1917.

Methodology

In order to accurately document and assess the health of Faraway Orchard, an assessment plan was developed prior to fieldwork. Archival research was conducted to determine the previous locations of fruit trees. Following locational determinations, a thorough documentation of existing vegetation conditions was conducted, as well as an assessment of extant fruit tree health.

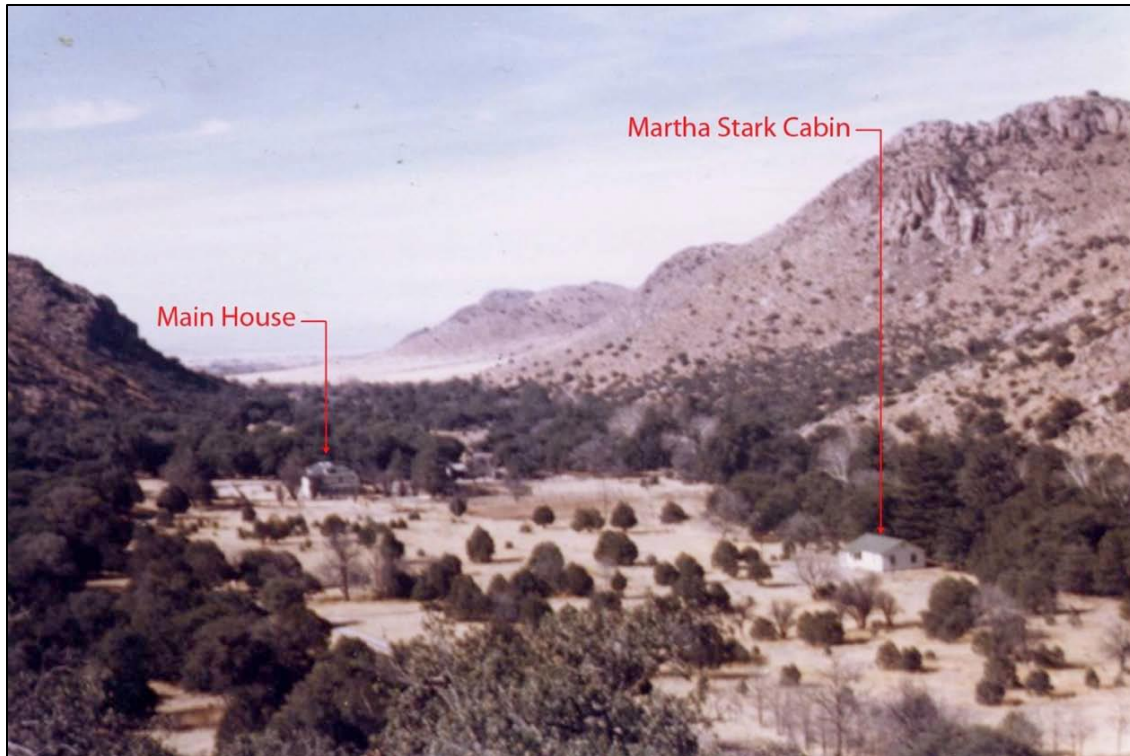


Figure 4: Stafford Orchard ca 1950s, looking west. Note lack of gridded fruit trees and encroaching vegetation. Adapted from Johnson et al. 2013:196.

Through archival research, it was determined that there were three primary areas in Faraway Historic District in which fruit trees were grown during the late 19th and early 20th centuries. These are subsequently referred to as: the Stafford Orchard, the Main House Orchard, and the Western Orchard (Figure 5). These areas were identified through a combination of historical photograph analysis and reconstruction efforts of previous investigators¹⁰.

The Stafford Orchard is located between the Stafford Cabin and Faraway Ranch main house and is analogous to the original orchard planted by Ja Hu Stafford in 1888. The Main House Orchard is located in the area surrounding the main house and consisted of several trees planted by the Ericksons in the late 1800s and early 1900s. This area was the subject of the historic landscape study conducted by the University of Arizona¹¹. The Western Orchard is located northwest of the main house, adjacent to the modern parking area.

Vegetation mapping was conducted in all three identified orchard areas. This consisted of identification of ground cover, shrub, and tree species. Ground cover species and shrubs were recorded using presence/absence criteria in each orchard area, and trees were mapped using a

¹⁰ National Park Service, “Cultural Landscape Inventory: Faraway Ranch, Chiricahua National Monument”; Johnson et al., “Chiricahua National Monument - Faraway Ranch: Cultural Landscape Report Parts One and Two: History, Analysis, and Treatment”; Lisa Wegman-French, “Chiricahua National Monument: Faraway Ranch Special History Study” (Washington D.C.: United States Department of the Interior, National Park Service, 2006).

¹¹ Kumble, “Historic Landscape Restoration Report: The Faraway Ranch, Chiricahua National Monument.”

Trimble Geo 7x Global Positioning System unit with sub-meter accuracy. Species identification was accomplished largely through examination of leaf morphology, and unknown specimens were collected for further analysis at Park Headquarters. Ultimately, all species present were identified during fieldwork.

Identified trees were classified as either contributing or non-contributing trees. Here the terms contributing and non-contributing are linked to the historic landscape of Faraway Orchard, which has a defined period of significance from 1888-1917 (see Table 1). Contributing trees were defined as trees that were present in 1917, which marked the start of Faraway Orchard decline, or trees of the same genetic stock. It should be noted that while a majority of trees classified as contributing are fruit trees, there were several non-fruit trees classified as contributing. Non-contributing trees were generally native species that have begun to encroach on the orchard areas since 1917.

Fruit tree assessment was done in accordance with NPS standards for historic orchard documentation. Health stressors were identified and documented during fieldwork. Stressors are defined as factors that cause unfavorable living conditions over sustained periods. The presence of stressors in historic fruit trees can result in diminished resilience, and difficulties in reversing their deterioration.

The most common health stressors are: (1) encroaching competitive vegetation, (2) structural instability of fruit trees, and (3) reservoirs of disease infection on the site¹². Encroaching competitive vegetation is any vegetation growing within the root or canopy zone of a fruit tree. These will typically consume nutrients, light, and/or the physical space needed by a fruit tree. Typical examples of this sort of stressor include brushy undergrowth, overhang overgrowth, and/or root suckers and water sprouts from the tree itself.

Structural instability of fruit trees is often due to defects in the main scaffold limbs, trunk, or roots of the tree, and can result in partial uprooting or even total collapse. Other defects that can result in structural instability include loss of bark, cavities in the limbs, hollow trunks, detachment from the roots, or root damage.

Reservoirs of disease infection typically include deadwood attached or hanging in tree canopies, downed dead trees and accumulated debris, or severely infected living trees within the orchard. Removal of these reservoirs of disease can promote orchard health and longevity.

Following established NPS protocols, tree health was classified as Good, Fair, or Poor condition. Definitions for each condition class are¹³:

- Good:** The tree has new growth at the terminal ends of shoots and only minor physical damage, defects, disease, or insect damage, and/or only minor dieback or deadwood present.
- Fair:** The tree has decreased new growth with moderate physical damage, defects, disease or insect damage, or moderate dieback or deadwood present.

¹² Susan A. Dolan and Cortney Cain Gjesfeld, "Historic Orchard and Fruit Tree Stabilization Handbook" (Washington D.C.: United States Department of the Interior, National Park Service, 2012), 33–34.

¹³ Dolan and Gjesfeld, 41.

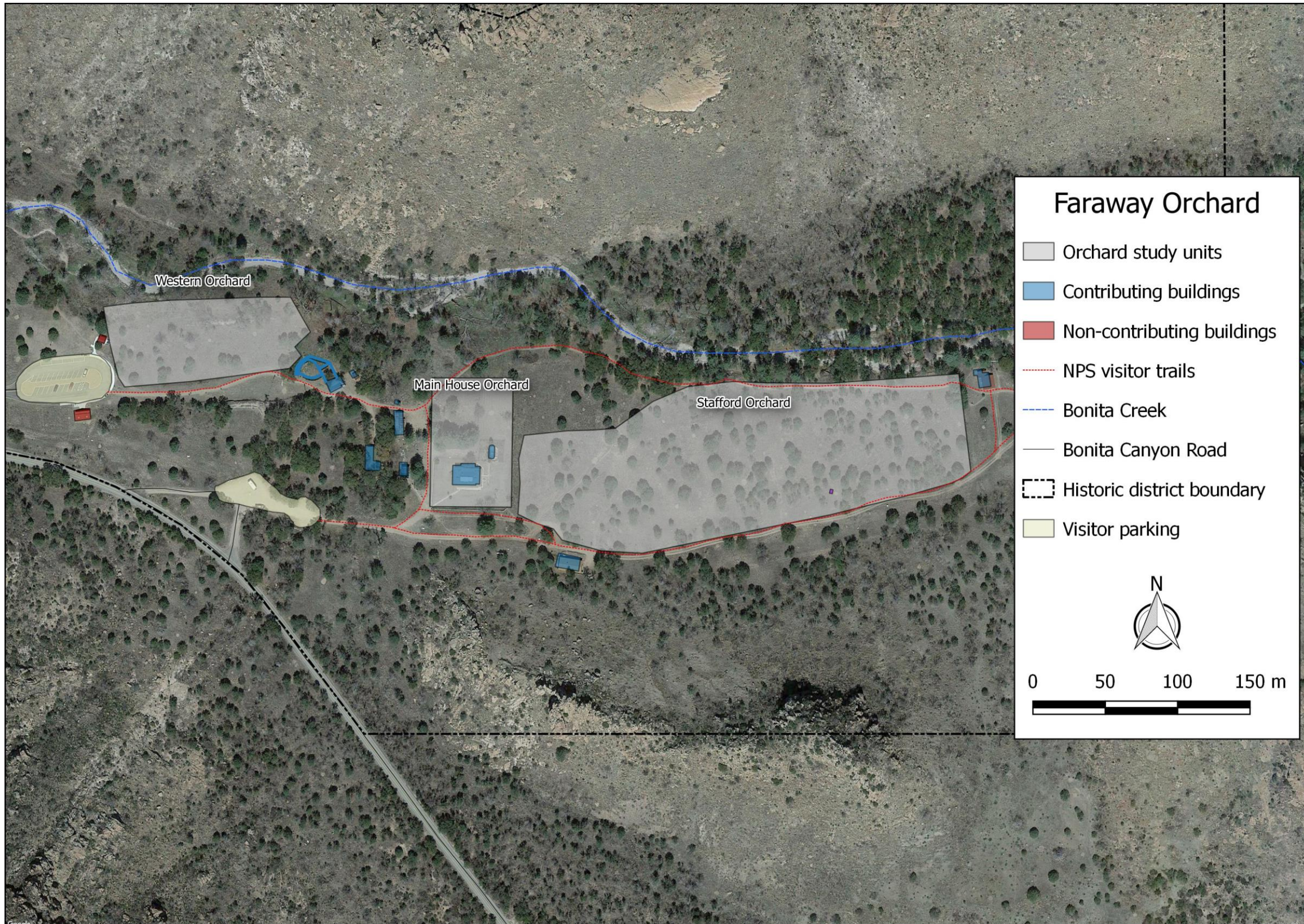


Figure 5: Overview of orchard study areas, present day.

Poor: The tree is in a general state of decline with little or no new growth, major physical damage, defects, disease or insect damage, or major dieback or deadwood present.

Following initial field visits, a fourth category of Standing Dead was added to the condition assessment, upon the discovery of several deceased fruit trees. Typical detrimental effects on Faraway Orchard trees included improper limb pruning, the presence of attached deadwood, root suckers, water sprouts, over-crowding, and over-shading.

Analysis and Evaluation

Overall, 44 different species of plants were identified in the three orchard study units. These included five varieties of agave, three varieties of cactus, 14 varieties of ground cover, seven varieties of shrub, 14 varieties of tree, and one variety of vine. During fieldwork 417 individual trees were mapped, including 107 contributing fruit trees, 21 contributing trees, and 289 non-contributing trees (Table 2). These results are discussed below, organized by orchard study unit.

Table 2: Faraway Orchard Tree Count.

Orchard Study Unit	Contributing Trees	Contributing Fruit Trees	Non-contributing Trees	Grand Total
Main House	14	9	9	32
Stafford Orchard	7	98	227	332
Western Orchard	0	0	53	53
Grand Total	21	107	289	417

Stafford Orchard

The Stafford Orchard study unit is the largest of the three study units and contained both the greatest diversity in plant species and the greatest number of trees (Table 3, Table 2). A majority of the contributing fruit trees were present in the Stafford Orchard study unit, concentrated in a dense cluster located near the southeast corner of the unit (Figure 6). These contributing fruit trees are all of the persimmon variety and were assessed to be in “Fair” condition.

The meadow in which the Stafford Orchard study unit is situated was covered mostly by Lehmann lovegrass, an invasive species. Also present in moderate amounts were bluestem prickly poppy and sumac, as well as sparser amounts of silverleaf nightshade and golden crownbeard. It is difficult to tell from historical photographs what the typical groundcover species were during the period of significance.

Scattered species of agave and cacti were found throughout the meadow, although not in great density. Additionally, a few small manzanita shrubs were present as well. These species were likely present during the period of significance due to their natural occurrence in the region.

Table 3: Stafford Orchard Study Unit Vegetation Inventory

Type	Scientific Name	Common Name
agave	<i>Agave parryi</i>	Parry's agave
agave	<i>Agave schottii</i>	Schott's agave
agave	<i>Dasylirion wheeleri</i>	sotol
agave	<i>Yucca elata</i>	soaptree yucca
agave	<i>Yucca x schottii</i>	Schott's yucca
cactus	<i>Cylindropuntia acanthocarpa</i>	buckhorn cholla
cactus	<i>Echinocereus pectinatus</i>	rainbow cactus
cactus	<i>Opuntia</i> sp.	prickly pear
ground cover	<i>Argemone pleiacantha</i>	bluestem prickly poppy
ground cover	<i>Eragrostis lehmanniana</i>	Lehmann lovegrass
ground cover	<i>Rhus</i> sp.	sumac
ground cover	<i>Solanum elaeagnifolium</i>	silverleaf nightshade
ground cover	<i>Verbesina encelioides</i>	golden crownbeard
shrub	<i>Arctostaphylos</i> sp.	manzanita
tree	<i>Cupressus arizonica</i>	Arizona cypress
tree	<i>Diospyros kaki</i>	asian persimmon
tree	<i>Juglans major</i>	Arizona walnut
tree	<i>Juniperis deppeana</i>	alligator juniper
tree	<i>Pinus engelmanni</i>	Apache pine
tree	<i>Prosopis</i> sp.	mesquite
tree	<i>Quercus emoryi</i>	Emory oak
tree	<i>Quercus hypoleucooides</i>	silverleaf oak

At some point in the late 1800s, Stafford planted a row of eight Arizona cypress trees just west of the cabin to act as a windbreak and provide shade. These trees still remain today and were in good condition. They are classified as contributing trees in this analysis (see Figure 6), due to their historic character.

A majority of the contributing fruit trees in the Stafford Orchard study unit were located in a dense cluster southwest of the Stafford Cabin (see Figure 6). There were 88 persimmon trees present in this concentration, spaced approximately 1-2 meters apart in a random non-gridded pattern (Figure 7).

Many of the trees in this concentration appeared to be under 25 years of age. There were three older trees interspersed throughout the area, and it appeared a majority of the trees here were

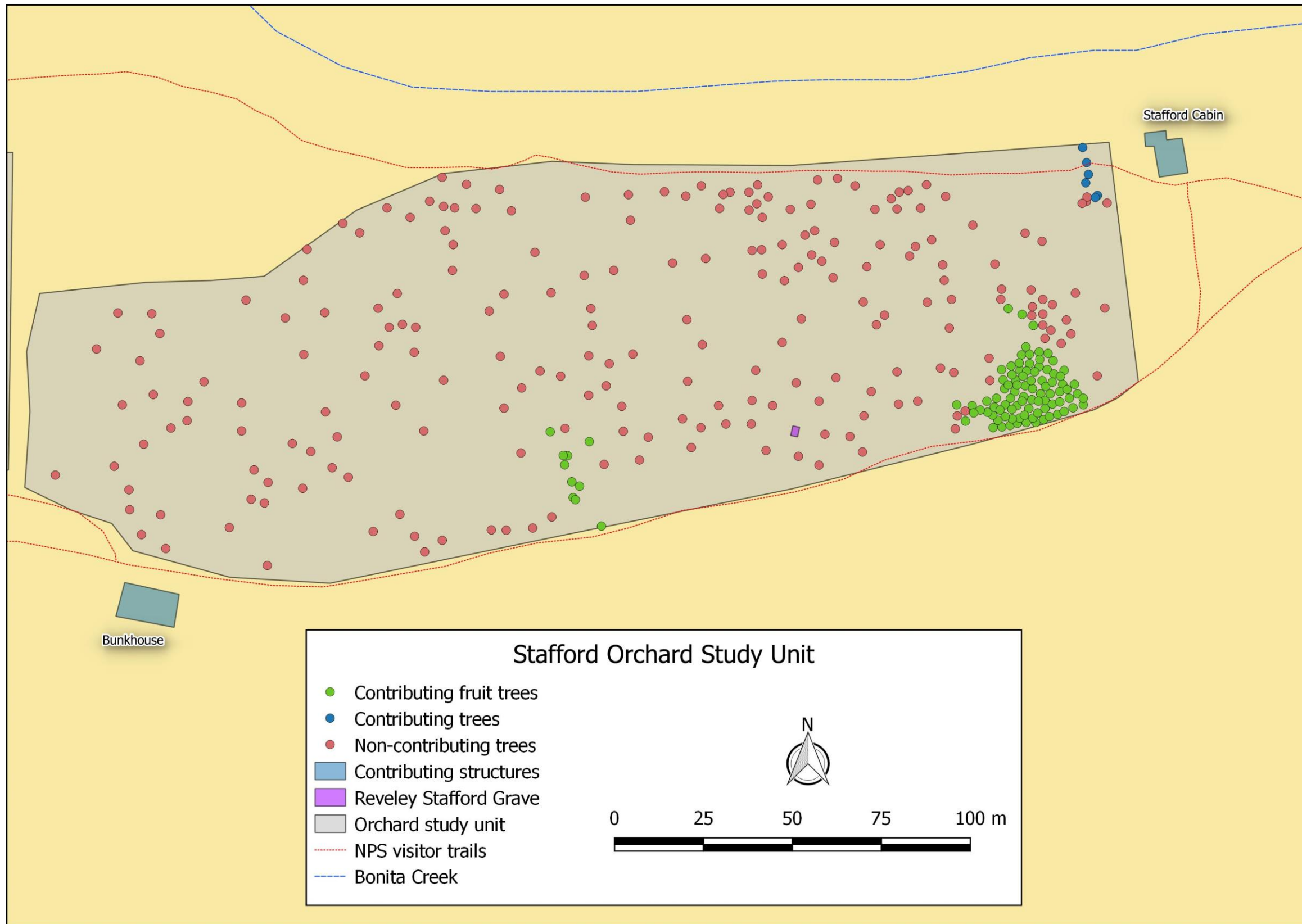


Figure 6: Stafford Orchard study unit map, present day.



Figure 7: Overview of Stafford Orchard study unit persimmon concentration, looking west.

saplings that propagated from the older trees. It is unlikely that any of these trees were present during the period of significance for Faraway Orchard, as persimmon trees typically have a lifespan of about 60 years, and instead they represent seedlings of the original orchard. It should be noted, however, that these trees represent the same genetic stock as the trees originally planted by Stafford in 1888, and therefore are classified as contributing trees.

The health of the trees in this area was classified as Fair. While moderate physical damage and less than ideal conditions (including overcrowding and overshadowing) were present throughout the area, there was still new growth evident on many of the younger trees. The persistent survival of a considerable population of persimmon trees with an average lifespan of 60 years, over 130 years after initial planting, indicates that overall conditions in this area continue to be conducive to fruit tree growth.

Detrimental effects and health stressors included encroaching competitive vegetation, both in the form of undergrowth around the base of the trees, as well as overlapping canopies of other persimmon trees. A majority of trees exhibited attached and/or hanging deadwood (see Figure 7), and a significant amount of fallen dead trees/tree limbs. Other health stressors included several instances of improper limb pruning, with cuts made inside the branch bark collar, preventing full healing (Figure 8).



Figure 8: Improper limb pruning of a persimmon tree in the Stafford Orchard study unit.

A more scattered concentration of 10 persimmon trees were present approximately 100 meters to the west of the larger concentration. They were spaced out in a north-south orientation over roughly 25 meters. A single large tree of presumably older age was located immediately adjacent to the dirt road, and nine younger trees were scattered to the north. As with the other concentration, these younger trees were likely propagated from the older one.

Seven of the trees in this western concentration were classified as in Fair health. A fair amount of hanging and/or attached deadwood was present on a majority of the trees (Figure 9), and there were moderate amounts of shrubby undergrowth around the base of the trees. Two trees were classified as in Poor health, exhibiting minimal new growth, extensive attached deadwood, and significant dieback on the upper main trunk. A single tree was classified as standing dead (see Figure 9).

As previously mentioned, native junipers and other species have been encroaching on the Stafford Orchard study unit since approximately 1917. These non-contributing trees consist of 227 individuals, mostly native alligator junipers that have proliferated since the orchard has ceased to be tended. This has resulted in the modern condition of ubiquitous junipers throughout the entire orchard area, and a loss of the visual character of the original gridded orchard.



Figure 9: Persimmon tree in poor health with large amounts of attached/hanging deadwood, looking east. Standing dead persimmon tree is visible to the right.

The integrity of the Stafford Orchard is fair. While it retains integrity of location, setting, and association due to the largely undeveloped nature of Bonita Canyon, it is lacking in design, materials, workmanship, and feeling. The absence of the original gridded pattern of fruit trees originally planted by Stafford has had a detrimental effect on the design, workmanship, and feeling. Additionally, the lack of pear, peach, apple, and cherry trees, which were present during the period of significance, detracts from the integrity of materials in the Stafford Orchard.

Main House Orchard

The Main House study unit is the smallest of the three orchard areas, and has had the most previous work devoted to it. Because this area was the focal point of Faraway Ranch, the Main House contains the most contributing non-fruit trees of all the study units (Figure 10), due to both the care taken by the occupants of Faraway in landscaping around their house and extensive historic

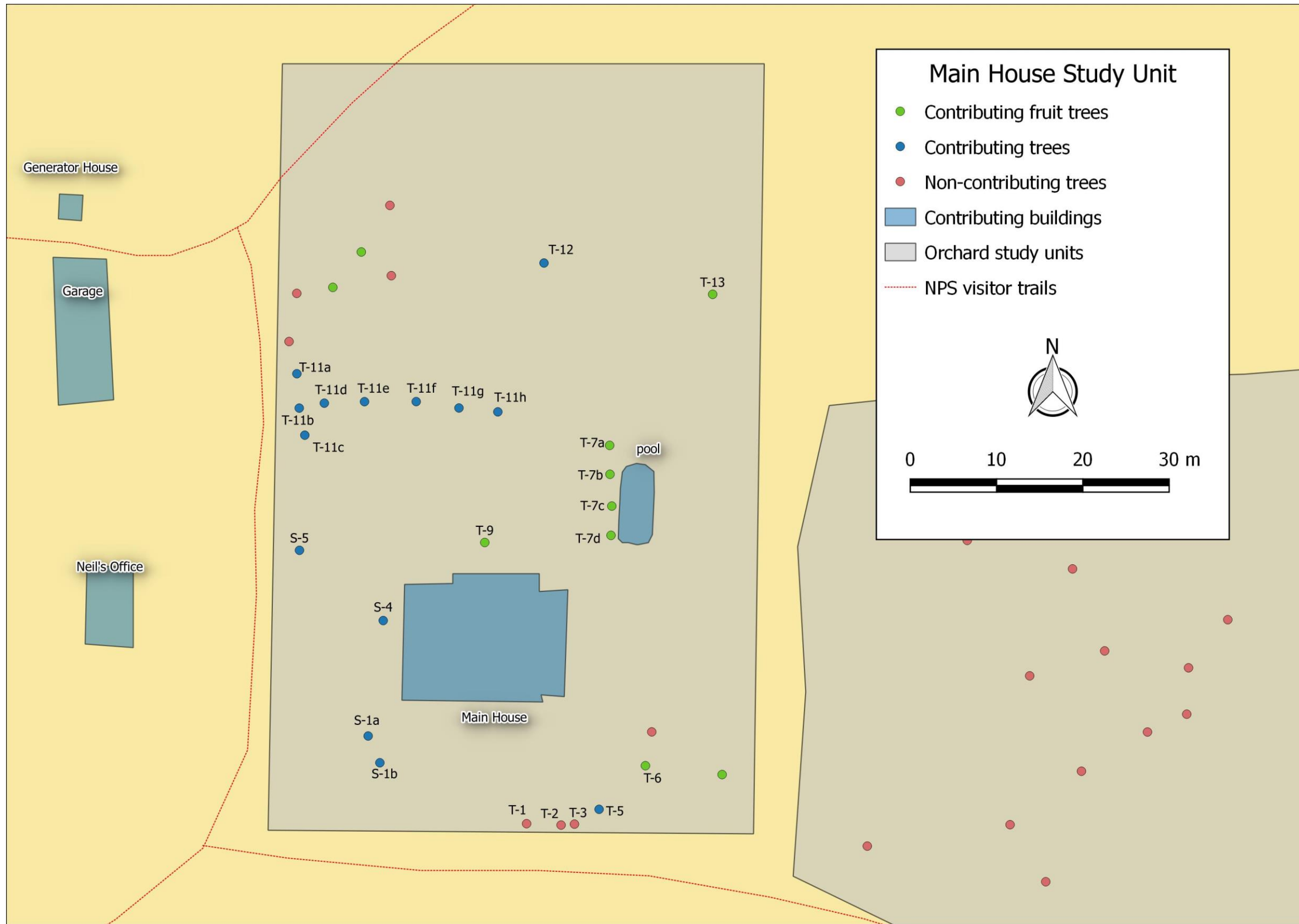


Figure 10: Main House study unit map, present day.

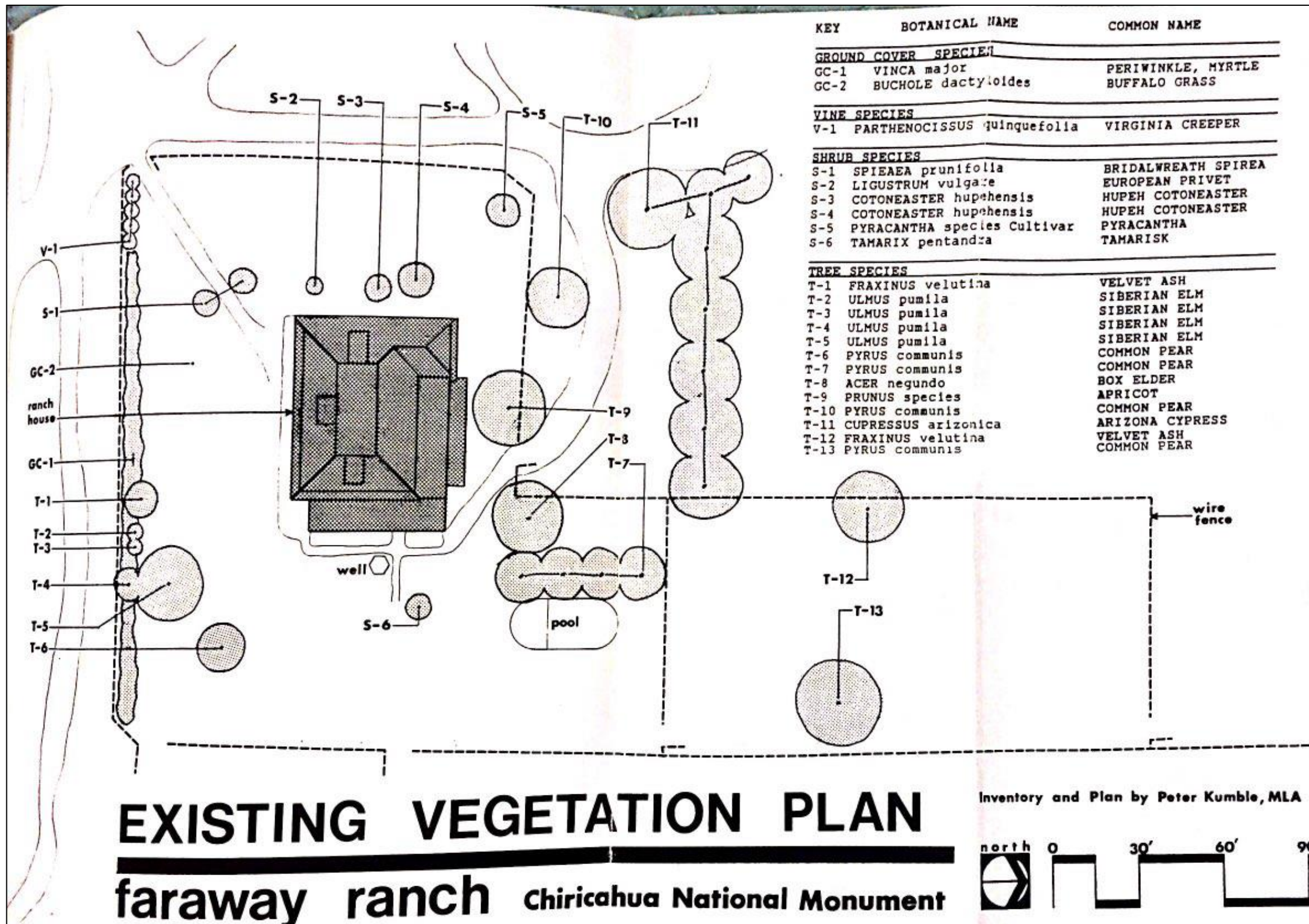


Figure 11: Main House vegetation map circa 1990. Adapted from Kumble 1990:20. Note that map orientation is flipped.

photographic documentation. Additionally, changes to the vegetation surrounding the Main House over the last 27 years can be tracked by comparing the results of 2017 vegetation mapping to Kumble’s¹⁴ 1990 vegetation mapping (Figure 11). It should be noted that in this section, the alphanumeric designations used by Kumble for identifying specimens are re-used, however new designations are not given to specimens not previously identified.

Groundcover at the Main House study unit was the least diverse of all study units (Table 4), likely due to continual landscaping for over 100 years. Species documented during field efforts included buffalo grass, periwinkle, coyote gourd, and sacred datura. A majority of the acreage in the study unit contained buffalo grass, with additional species only sparsely scattered due to maintenance efforts. Neither coyote gourd or sacred datura were noted during the 1990 vegetation mapping.

Table 4: Main House Study Unit Vegetation Inventory

Type	Scientific Name	Common Name
ground cover	<i>Bouteloua dactyloides</i>	buffalo grass
ground cover	<i>Curcubita palmata</i>	coyote gourd
ground cover	<i>Datura meteloides</i>	sacred datura
ground cover	<i>Vinca major</i>	bigleaf periwinkle
shrub	<i>Brickellia grandiflora</i>	tasselflower brickellbush
shrub	<i>Cotoneaster hupehensis</i>	hupeh cotoneaster
shrub	<i>Pyracantha</i> sp. Cultivar	pyracantha
shrub	<i>Spiraea prunifolia</i>	bridalwreath spirea
tree	<i>Acer negundo</i>	box elder
tree	<i>Cupressus arizonica</i>	Arizona cypress
tree	<i>Fraxinus velutina</i>	velvet ash
tree	<i>Juniperis deppeana</i>	alligator juniper
tree	<i>Malus</i> sp.	apple
tree	<i>Prunus</i> sp.	apricot
tree	<i>Pyrus communis</i>	common pear
tree	<i>Ulmus pumila</i>	Siberian elm
vine	<i>Parthenocissus quinquefolia</i>	Virginia creeper

Shrubs present at the Main House consisted of tasselflower brickellbush, hupeh cotoneaster (S-3, S-4), pyracantha (S-5), and bridalwreath spirea (S-1a, S-1b). Additionally, several Virginia creeper vines were present along the southern wall. With the exception of tasselflower brickellbush, all of these shrubs were mapped by Kumble in 1990 (see Figure 11) and are classified as contributing resources due to their historical presence at the Main House.

There were multiple contributing non-fruit trees located at the Main House study unit, including Arizona cypresses, a Siberian elm, and a velvet ash tree. Directly north of the main house was a row of large Arizona cypress trees (T-11a – T-11h), oriented in an east-west fashion (see Figure 10). These were likely planted as a windbreak by the Erickson family sometime in the late 1800s

¹⁴ Kumble, “Historic Landscape Restoration Report: The Faraway Ranch, Chiricahua National Monument.”



Figure 12: Improper limb pruning on apricot tree T-9 visible in center. Example of proper limb pruning visible on left branch.

or early 1900s. A large mature Siberian elm (T-5) was present to the south of the house, adjacent to the fence. In warmer climates this species can live to be 100 to 150 years old, and this individual was likely planted early on in the history of Faraway Ranch. A mature velvet ash tree (T-12) was located north of the row of Arizona cypresses, along the edge of the garden. This particular species has a typical lifespan of 30-40 years, and the individual tree was likely not present during the orchard period of significance. However, historical photographs indicate that several velvet ash trees were planted in a row along the east side of the house (see Figure 3), and this individual possibly represents a seedling from this population. Due to this relationship to original contributing trees, this velvet ash was classified as contributing.

The Main House study unit contained nine contributing fruit trees, including an apricot tree, two persimmon trees, and six pear trees (see Table 4). The apricot tree (T-9) was located immediately north of the house and was classified as in Fair condition. It appeared well watered and cleared around the base of the trunk, however there were several pieces of attached/hanging deadwood, as well as some examples of improper limb pruning (Figure 12).

Immediately east of the apricot tree was a row of four pear trees, directly adjacent to the historic pool. Three of these trees were classified as in Poor condition (T-7a, T-7c, T-7d), and the fourth was classified as Standing Dead (T-7b). The three live trees exhibited minimal new growth, and extensive root suckers and water sprouts were present (Figure 13a). The health of these trees was sufficiently degraded that it is doubtful they can be rehabilitated. The Standing Dead tree had no evidence of growth, and appeared to have extensively pruned limbs, possibly related to its death



a



b

Figure 13: (a) extensive root suckers and water sprouts visible on pear tree T-7c, looking east; and (b) standing dead pear tree T-7b, looking east.

(Figure 13b). Kumble identified these trees as near the end of their life-cycle in 1990, and it is unsurprising that their condition has not improved since.

A mature pear tree (T-13) was located northeast of the historic pool, adjacent to the garden fence. This tree was classified as Fair condition, and at the time of fieldwork was producing fruit (Figure 14). Significant amounts of undergrowth were present in the vicinity of the trunk, and copious amounts of attached/hanging deadwood were present as well. Despite these health stressors, however, this tree appeared to be quite healthy.

Southeast of the main house were two pear trees, one on each side of the property fence. The western pear tree (T-6) was classified as in Poor condition, and besides a few small sprouting twigs exhibited no growth at all (Figure 15a). In 1990 Kumble classified this tree as in Poor condition, noting that it apparently almost died at one point¹⁵. It is likely that in several years this tree will be classified as Standing Dead. The eastern tree was classified as in Poor condition; however, this tree exhibited increased growth when compared to its western counterpart (Figure 15b). Significant amounts of attached/hanging deadwood as well as undergrowth surrounding the trunk were impacting the health of the tree.

¹⁵ Kumble, 18.



Figure 14: Pear tree T-13, looking northeast.

Two large persimmon trees were present just north of the Arizona cypress row and were classified as in Fair condition. Both trees were relatively large, suggestive of a long lifespan. Sparse amounts of attached/hanging deadwood and little evidence of new growth were the only health stressors present on both trees. The pair was located in an area where historical photographs suggest a small orchard was present, planted in rows (see Figure 3). For unknown reasons these trees were not recorded by Kumble in 1990.

Several non-contributing trees were present in the Main House study area as well. South of the main house were one velvet ash (T-1) and two Siberian elms (T-2, T-3). These trees were all relatively young in age, and historical photographs indicate that these species were not present in this location during the orchard period of significance (see Figure 3). Directly north of tree T-6 was an apple tree sapling, planted in memory of missing park ranger Paul Fugate. While apples were historically present in Faraway Orchard, this tree does not represent the same genetic stock as historic trees, and therefore was classified as non-contributing. Finally, north of the row of Arizona cypresses (T-11a – T-11h) were four alligator junipers. Historical photographs indicate that these trees were not present in the area during the orchard period of significance (see Figure 3).

Several changes have taken place over the last 27 years since Kumble originally mapped the vegetation (Table 5). Most noticeable was the degradation of the pear trees adjacent to the pool

Table 5: Changes in Main House Study Unit Vegetation Since 1990

Number	Species	Significance	1990 Status*	2017 Status**	Comment
S-1a	bridalwreath spirea	contributing	"surviving"	N/A	moderate health
S-1b	bridalwreath spirea	contributing	"surviving"	N/A	moderate health
S-2	European privet	N/A	"very poor condition"	not present	presumably died and removed
S-3	hupeh cotoneaster	N/A	"poor condition"	not present	presumably died and removed
S-4	hupeh cotoneaster	contributing	"fairly healthy"	N/A	moderate health
S-5	pyracantha	contributing	"apparently healthy"	N/A	moderate health
S-6	tamarisk	N/A	"poor condition"	not present	presumably died and removed
T-1	velvet ash	non-contributing	"fairly healthy"	N/A	appears to be in good health
T-2	Siberian elm	non-contributing	"healthy"	N/A	appears to be in good health
T-3	Siberian elm	non-contributing	"healthy condition"	N/A	appears to be in good health
T-4	Siberian elm	N/A	"healthy condition"	not present	presumably died and removed
T-5	Siberian elm	contributing	"healthy"	N/A	appears to be in good health
T-6	common pear	contributing	"poor condition"	poor	nearly dead
T-7a	common pear	contributing	"very poor condition"	poor	nearly dead
T-7b	common pear	N/A	"very poor condition"	standing dead	-
T-7c	common pear	contributing	"very poor condition"	poor	nearly dead
T-7d	common pear	contributing	"very poor condition"	poor	nearly dead
T-8	box elder	N/A	"good health"	not present	presumably died and removed
T-9	apricot	contributing	"healthy"	fair	-
T-10	common pear	N/A	"good health"	not present	presumably died and removed
T-11a	Arizona cypress	contributing	"good health"	N/A	appears to be in good health
T-11b	Arizona cypress	contributing	"good health"	N/A	appears to be in good health
T-11c	Arizona cypress	contributing	"good health"	N/A	appears to be in good health
T-11d	Arizona cypress	contributing	"good health"	N/A	appears to be in good health
T-11e	Arizona cypress	contributing	"good health"	N/A	appears to be in good health
T-11f	Arizona cypress	contributing	"good health"	N/A	appears to be in good health
T-11g	Arizona cypress	contributing	"good health"	N/A	appears to be in good health
T-11h	Arizona cypress	contributing	"good health"	N/A	appears to be in good health
T-12	velvet ash	contributing	"good health"	N/A	appears to be in good health
T-13	common pear	contributing	"better condition than T-6 or T-7"	fair	-

Note: Only trees documented by Kumble are listed here. Additional trees were documented and not listed in this table.

*Kumble did not standardize health terminology. Unstandardized terms are listed.

**2017 health only systematically assessed for fruit trees. Anecdotal health assessment given in comments.

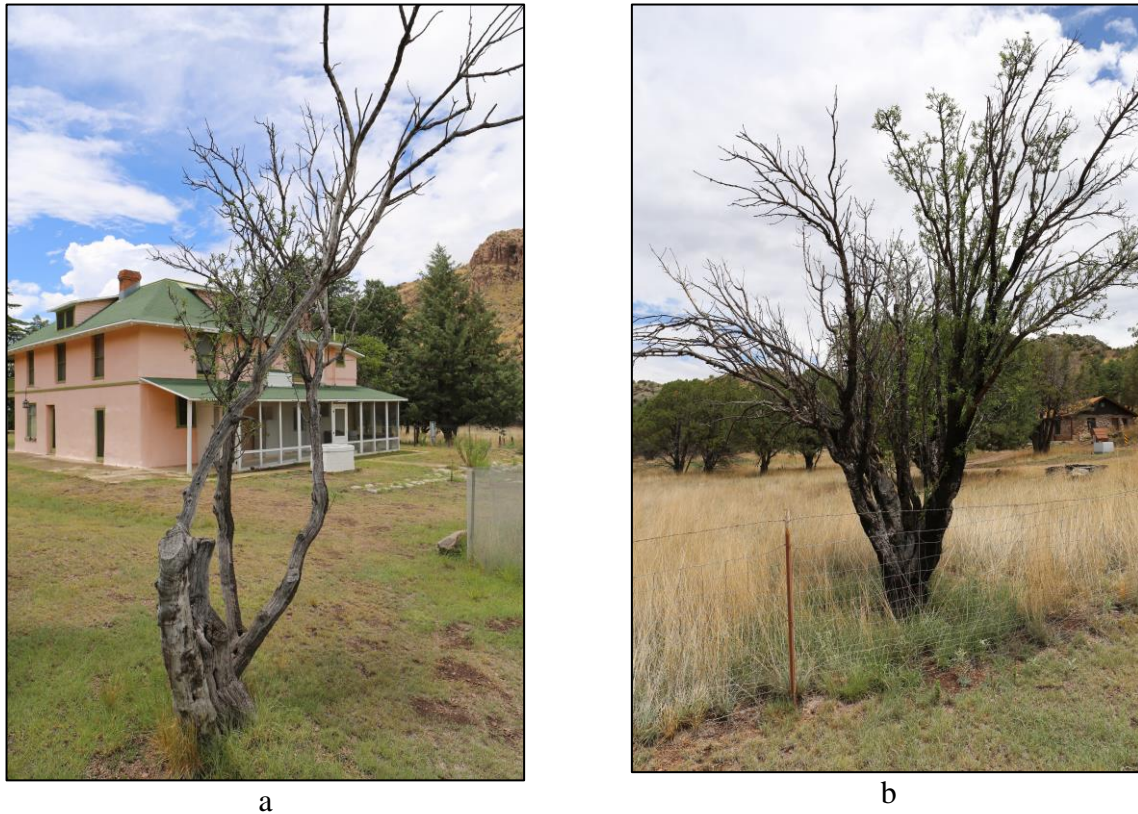


Figure 15: (a) pear tree T-6 in poor condition exhibiting almost no new growth, looking northwest; and (b) pear tree (no designation) in poor condition, looking southeast.

(T-7a – T-7d) and south of the house (T-6), one of which had fully died (T-7b). Several specimens identified by Kumble have since died and been removed, specifically European privet (S-2), a hupeh cotoneaster (S-3), a tamarisk (S-6), a Siberian elm (T-4), a box elder (T-8), and a pear tree (T-10). In the intervening period, a tasselflower brickellbush shrub has replaced the deceased tamarisk. Additionally, coyote gourd and sacred *Datura* were present as ground cover along the margins of the study unit, when previously none were noted.

The Main House study unit’s integrity remains good. It retains integrity of location, setting, and association due to the largely undeveloped nature of Bonita Canyon. While the full extent of the gridded fruit tree pattern is no longer present (see Figure 3), the remaining line of pear trees adjacent to the pool provides a small sense of the original design and workmanship. Feeling associated with the orchard is still moderate, due to the presence of several fruit-bearing trees. However, the lack of diversity in remaining fruit tree species does not reflect the historic character of the orchard and detracts from the integrity of materials in the Main House Orchard. Overall, these combined components have resulted in the retention of integrity in the Main House Orchard.

Western Orchard

The Western Orchard study unit is directly adjacent to the modern visitor parking lot, northwest of the main house (Figure 16). It had the greatest diversity in groundcover species (Table 6), likely

due to the fact that it has not been as well maintained as either the Main House or Stafford Orchard study units. While this area contained several varieties of fruit trees during the orchard’s period of significance, there were no remaining fruit trees. There were remains of a low rock wall running east-west along the southern boundary of the study unit, and several remnant fence posts were present as well.

Table 6: Western Orchard Study Unit Vegetation Inventory

Type	Scientific Name	Common Name
cactus	<i>Cylindropuntia acanthocarpa</i>	buckhorn cholla
ground cover	<i>Argemone pleiacantha</i>	bluestem prickly poppy
ground cover	<i>Curcubita palmata</i>	coyote gourd
ground cover	<i>Eragrostis lehmanniana</i>	Lehmann lovegrass
ground cover	<i>Erigeron</i> sp.	fleabane
ground cover	<i>Fallugia paradoxa</i>	Apache plume
ground cover	<i>Mirabilis longiflora</i>	sweet four o'clock
ground cover	<i>unknown greasewood</i>	greasewood
ground cover	<i>Verbascum</i> sp.	mullein
shrub	<i>Vitis arizonica</i>	Arizona wild grape
tree	<i>Juglans major</i>	Arizona walnut
tree	<i>Juniperis deppeana</i>	alligator juniper
tree	<i>Prosopis</i> sp.	mesquite
tree	<i>Quercus emoryi</i>	Emory oak
tree	<i>Quercus hypoleucoides</i>	silverleaf oak

The groundcover was thick in the Western Orchard study unit (Figure 17) and consisted primarily of dense stands of Lehmann lovegrass. Also present in considerable amounts were bluestem prickly poppy, coyote gourd, fleabane, Apache plume, sweet four o'clock, greasewood, and mullein. Additionally, several buckhorn cholla were scattered throughout the study unit, often obscured by tall grass. The only shrub present was an Arizona wild grape, located on the banks of Bonita Creek.

Fifty-three non-contributing trees were located in the Western Orchard study unit, a majority of which were alligator junipers (Appendix B). Also present were Arizona cypress, Arizona walnut, Emory oak, and silver leaf oak. These trees were scattered at random throughout the study unit (see Figure 16), however it should be noted that they were less dense than the undeveloped area upslope.

The integrity of the Western Orchard is poor. While it retains integrity of location, setting, and association due to the lack of development in Bonita Canyon, it is lacking I design, materials, workmanship, and feeling. The absence of any extant fruit trees in the study unit diminishes the

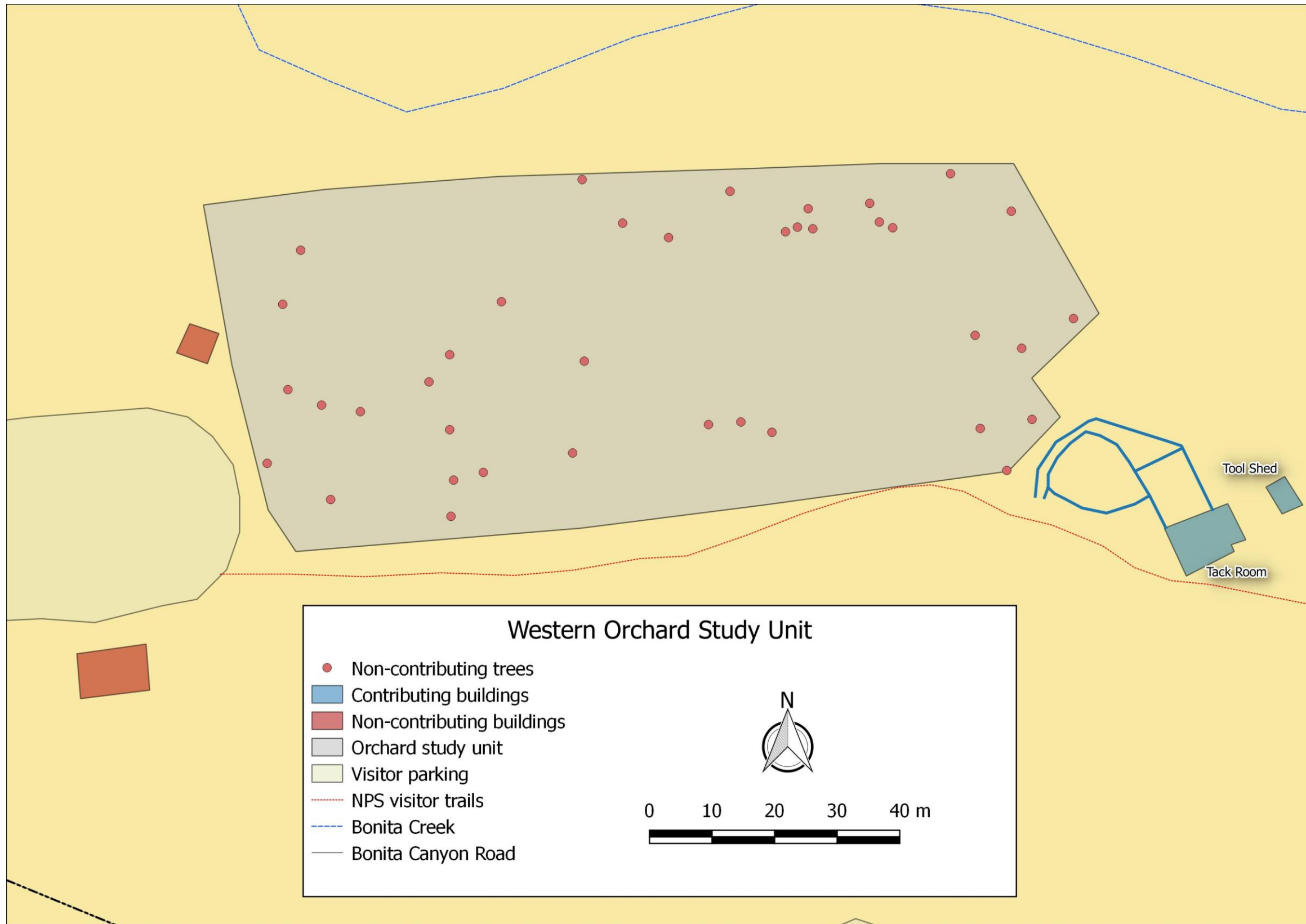


Figure 16: Western Orchard study unit map, present day.



Figure 17: Western Orchard study unit overview, looking west. Remnant fence posts visible.

integrity of materials, and the lack of a gridded orchard pattern is detrimental to the design, workmanship, and feeling. The presence of the low stone wall and extant fence posts preserves some semblance of design in terms of the extent of the orchard, but overall the lack of any historical fruit trees has resulted in overall poor integrity.

Integrity Synthesis

In the National Register, integrity is defined by seven aspects: location, design, setting, materials, workmanship, feeling, and association¹⁶. Taken together, these aspects form the basis for the evaluation of integrity for any property within the current regulatory framework.

Overall, the integrity of Faraway Orchard is fair. While the Main House study unit still retains much of its historic integrity, the complete disappearance of the Western Orchard is detrimental to the integrity of the orchard as a whole. There are still significant amounts of fruit trees remaining in the Stafford and Main House study units, however, and these contributing fruit trees provide a sense of the diversity once present.

Faraway Orchard still retains excellent integrity of location. None of the remaining orchard trees have been moved since the orchard period of significance, and development of infrastructure in Bonita Canyon since the orchard's operation has been minimal.

¹⁶ Beth L. Savage and Sarah Dillard Pope, "How to Apply the National Register Criteria for Evaluation" (Washington D.C.: United States Department of The Interior, National Park Service, Cultural Resources, 1997).

The integrity of the design of the orchard remains fair. While there are no remains of the original gridded orchard pattern in the Stafford or Western study units, the Main House retains a semblance of the original design. Specifically, the row of pear trees adjacent to the pool, as well as the row of Arizona cypresses, provide a sense of the original layout of the area. Additionally, while the Stafford and Western study units lack an original gridded pattern, the areas still remain less densely populated by encroaching trees and vegetation, and a sense of where the orchards once stood can still be attained.

Integrity of setting is excellent. The physical environment surrounding Faraway Orchard still illustrates the character that was present during the defined period of significance. The native vegetation has persisted, and minimal new invasive species have entered Bonita Canyon in the intervening period.

Integrity of materials remains fair. In the context of a historic orchard, materials can be defined as the specific species of tree grown during the period of significance. Faraway Orchard still retains pear, persimmon, and apricot trees. While the persimmon trees may not represent individuals that were present themselves during the defined period of significance, the extant trees most certainly represent the same genetic stock. Absent species include peach, apple, plum, and cherry trees. Specifically, the Stafford Orchard is lacking in apple, plum, and peach trees, while the Main House and Western Orchards are lacking in peach, apple, and cherry trees. While there is a young apple tree present in the Main House study unit, as discussed above this individual does not represent the same genetic stock as the historical trees and is thus classified as non-contributing.

Faraway Orchard retains poor integrity in terms of workmanship. Only in the Main House study unit are the aesthetic principles of the defined period of significance evident in the form of the landscaped yard. Comparisons with Kumble's¹⁷ previous vegetation mapping indicate that while the layout has remained the largely the same under the stewardship of NPS, several of the individual specimens are deteriorating in health, or have died. The Stafford study unit retains minimal evidence of aesthetic principles, with the exception of the Reveley Stafford gravesite and the row of Arizona cypresses immediately west of the Stafford Cabin. The Western Orchard study unit retains almost no evidence of aesthetic principles, outside of the remnant field wall and fence.

Integrity of feeling is fair. As previously discussed, the Main House study unit retains a strong feeling of aesthetic principles that were present during the defined period of significance, however both the Stafford and Western Orchard study units lack similar characteristics. While there is a distinct lack of gridded fruit trees remaining at Faraway Orchard, the orchard areas remain relatively more open in comparison to the surrounding natural environment. Additionally, the lack of significant infrastructure development in Bonita Canyon has reduced potential impacts to integrity of feeling.

Finally, Faraway Orchard's integrity of association is fair. This category typically is a conglomerate of all the preceding categories, exemplifying the direct link between a property and the person or event for which the property is significant. The overall lack of remaining materials and workmanship is extremely detrimental to the overall integrity of association. While nearly half

¹⁷ Kumble, "Historic Landscape Restoration Report: The Faraway Ranch, Chiricahua National Monument."

of the original species remain in Faraway Orchard, the total number of remaining trees is dwarfed that of the historic orchard at its height (see Figure 3).

Recommendations

NPS guidelines for managing cultural landscapes state: “Cultural landscape management focuses on preserving a landscape’s physical attributes, biotic systems, and use when that use contributes to its historical significance”¹⁸. As defined by NPS, there are four general types of cultural landscapes: historic site, historic designed landscape, historic vernacular landscape, and ethnographic landscape¹⁹. Under provided definitions, Faraway Orchard can be classified as a historic vernacular landscape, due to the fact that it is a landscape that has evolved through the use and activities of the individuals who occupied it.

Appropriate treatment recommendations identified in the Secretary of the Interior’s Standards for the Treatment of Historic Properties (adapted for cultural landscapes) are²⁰:

- 1) **Preservation** – defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. For cultural landscapes, this typically involves the protection and stabilization of a landscape with high integrity and authenticity.
- 2) **Rehabilitation** – defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving the portions or features which convey its historical or cultural values.
- 3) **Restoration** – defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular time or period of time. This can involve removal of features from other periods in its history, as well as reconstruction of missing features.
- 4) **Reconstruction** – defined as the act or process of depicting the form, features, and character of a non-surviving property through new construction for the purpose of replicating its appearance at a specific period of time.

Faraway Orchard is a component of a larger historic district, which has a general management philosophy of *Rehabilitation*²¹. Emphasized goals in the treatment plan for Faraway Ranch Historic District include: revealing the cultural landscape by representing important characteristics from the district period of significance (1879-1977; see Table 1); preserve extant contributing resources; improvement of the understanding of development at Faraway Ranch for both visitors and park staff by facilitating the opportunity to interpret the cultural landscape; and aid in the

¹⁸ National Park Service, “NPS-28: Cultural Resource Management Guidelines” (Washington D.C.: United States Department of the Interior, National Park Service, 1998), 87.

¹⁹ Charles A. Birnbaum, “Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes,” Preservation Briefs 36 (Washington D.C.: United States Department Of The Interior, National Park Service, Cultural Resources, Preservation Assistance Division, 1994), 2.

²⁰ Birnbaum, “Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes.”

²¹ Johnson et al., “Chiricahua National Monument - Faraway Ranch: Cultural Landscape Report Parts One and Two: History, Analysis, and Treatment,” 49.

preservation of natural resources by monitoring and controlling invasive plant material, establishing native grasses and vegetation, and minimizing soil erosion.

Due to the previous determination of a management philosophy of *Rehabilitation*, this report advocates a similar approach. While it is acknowledged that a management approach grounded in restoration would result in a more accurate depiction of the landscape as it existed during the orchard period of significance, it is also recognized that implementing such an approach would create unnecessary confusion within an already complex management plan. Development of a treatment plan guided by principles already in place will facilitate a synergistic approach to management at Faraway Ranch Historic District.

Working within the framework of a rehabilitation management approach still affords ample opportunity and options for both preserving and interpreting Faraway Orchard for future visitors. Treatment recommendations include: (1) stabilization of remaining fruit trees; (2) replacement of pear trees in the Main House study unit; (3) implementation of a stabilization maintenance plan aimed at promoting fruit tree health and growth; (4) selective clearing of non-contributing trees in the Stafford Orchard study unit; (5) development of further interpretive programs to communicate the significance of Faraway Orchard to visitors; and (6) exploration of further fruit tree propagation through partnerships with federal repositories, southern Arizona master horticulturalists, and/or other orchard/garden organizations.

The above recommendations are confined to the Main House and Stafford Orchard study units. It is the conclusion of this report that the Western Orchard study unit has deteriorated to such a point that the development of an effective treatment plan would place undue strain on Monument resources. At this time, it is judged that such an allotment of resources is both unrealistic and unwise.

Stabilization

Stabilization actions do not alter the integrity of the potential or known cultural resources, or cause any loss of information, while at the same time, arrest deterioration in condition²². Removing health stressors is key to stabilization of cultural and biotic resources. Implementation of regular pruning of attached/hanging deadwood, clearing of the ground surrounding the base of fruit trees, as well as pruning of root suckers and water sprouts will encourage continued health of extant fruit trees. As discussed in the analysis section, the apricot tree (T-9), and the northern two persimmon trees in the Main House study unit were in the best condition and require minimal stabilization. The northern pear tree (T-13) in the Main House study unit, as well as all persimmon trees in the Stafford Orchard study unit, would benefit from the removal of attached/hanging deadwood, as well as clearing of the orchard floor. Removal of root suckers and water sprouts whenever encountered would be beneficial as well.

Clearing of encroaching vegetation should be done in accordance to established guidelines, which state “the general standard for a stable orchard floor is to have a continuous, herbaceous ground cover that is no taller than six inches”²³.

²² Dolan and Gjesfjeld, “Historic Orchard and Fruit Tree Stabilization Handbook,” 31.

²³ Dolan and Gjesfjeld, 70.

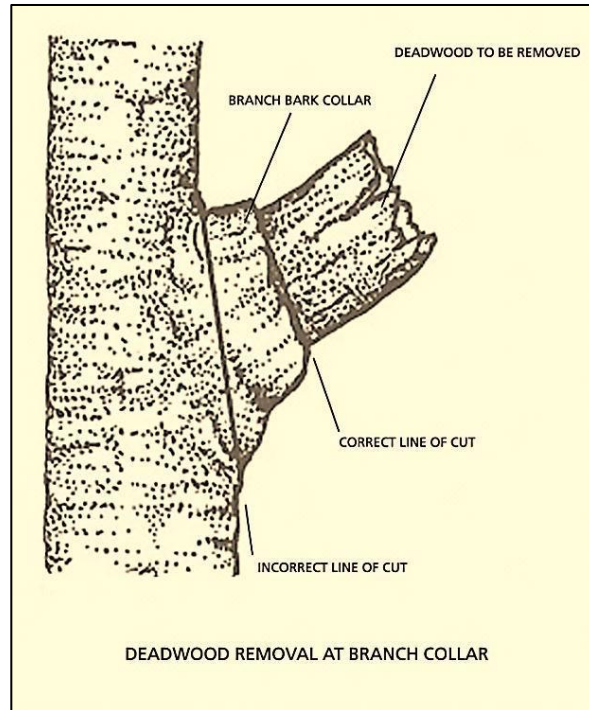


Figure 18: Proper pruning method for fruit trees. Adapted from Dolan and Gjesfjeld 2012:80.

These guidelines recommend the use of either power equipment or hand tools in vegetation removal, however these methods should utilize flush-cutting at the ground level rather than pulling or uprooting vegetation in order to avoid disruption of fruit tree feeder roots. Root suckers present at the base of tree trunks should be flush cut with hand tools. Coordination with natural resource specialists should be undertaken during the clearing process in order to avoid undue impacts on wildlife and rare plants.

Removal of attached/hanging deadwood should be undertaken in order to promote new growth as well as avoiding interference with wound repair. Smaller deadwood removal can be undertaken by adequately trained volunteers with hand tools, however qualified professionals should only undertake removal of larger branches and scaffold limbs. In all cases proper care should be taken to correctly prune attached deadwood, leaving sufficient branch bark collar to promote subsequent healing (**Error! Reference source not found.**).

Replacement

Several pear trees located in the Main House study unit (T-6, T-7a – T-7d, unnumbered tree along eastern boundary) were in either poor condition or standing dead. The trees classified as poor condition had deteriorated to such a point that stabilization is likely not a viable course of action. Instead, replacement of these trees is considered a desirable alternative. NPS guidelines for rehabilitation of cultural landscapes explicitly discourage removal of deteriorated historic vegetation without replacement, preferably with vegetation of the same genetic stock²⁴.

²⁴ Charles A. Birnbaum and Christine Capella Peters, “The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes” (Washington D.C.: United States Department of the Interior, National Park Service, 1996), 66.

Replacement of these trees would keep in line with the 2013 Cultural Landscape Report's recommendation of rehabilitating the main house character area to the guest ranch period of significance, as these trees were still present during this time.

Replacement of the deteriorated pear trees could be accomplished by obtaining scions (a piece of the previous year's growth with 3-4 buds) from a remaining pear tree, likely T-13. Following the removal of deceased trees, these scions could then be grafted onto rootstock set in place at the Main House and allowed to grow. Scions would likely take five to seven years to mature, and both watering and periodic monitoring regimens should be instituted if such an approach is implemented.

Stabilization Maintenance Plan

The development of a continuous stabilization maintenance plan is key in stabilizing orchard health. Following initial fruit tree stabilization, regular inspections of contributing fruit trees should be instituted in order to monitor recovery. New instances of attached/hanging deadwood, root suckers, and water sprouts should be addressed using previously described measures. It should be noted, however, that a full maintenance plan should be developed in conjunction with a formal preservation plan. The scope of such a full maintenance plan should involve provisions for periodic mowing of the orchard floor, as well as mulching considerations.

Non-Contributing Vegetation Removal

Removal of non-contributing features that detract from or have altered the spatial organization and land patterns is an appropriate treatment under a rehabilitation approach. Historical photographs indicate that the Stafford Orchard study unit had a more open feeling to it, with gridded rows of fruit trees and lack of juniper trees (see Figure 2). This feeling and spatial organization has been lost in the intervening years. Removal of juniper trees over a certain height (4') has been suggested by previous studies²⁵, and would contribute to both restoring the original open feeling of the orchard, as well as provide more space for potential future fruit tree propagation. Any such vegetation removal should be conducted by qualified horticulturalists, after consultation with appropriate individuals to ensure no cultural or natural resources would be disturbed during such activities. Of particular importance would be avoidance of the Reveley Stafford grave, located within the orchard (see Figure 6).

Interpretive Programs

Current interpretive programs involving Faraway Ranch provide little to no information on the historic orchard. Further development of such programs would enhance visitor experience at Faraway Ranch and help educate visitors about historic orchards in general. Potential additions could include new signage, depiction of missing fruit trees through temporary exhibits, and visitor participation in seasonal events.

²⁵ Johnson et al., "Chiricahua National Monument - Faraway Ranch: Cultural Landscape Report Parts One and Two: History, Analysis, and Treatment," 221.

A modest increase in signage surrounding the Stafford Orchard study unit would assist visitors in understanding the full development of Faraway Ranch. Interpretive displays located adjacent to extant persimmon trees that depict how the orchard appeared during its period of significance, as well as provide brief informative text, can illustrate the significance of the orchard within the context of the larger historic district. Limiting new signage additions to only one or two locations could allow visitors to remain engaged in the surrounding landscape while still informing them of its historical development.

If missing fruit tree grids are not replaced, temporary exhibits could assist in interpreting the orchard area for visitors. Paired with the removal of junipers to provide a better sense of open space, implementation of mowing patterns would be useful in depicting the original orchard layout in the absence of actual fruit trees. Alternatively, temporary colored stakes could serve as markers for non-existent fruit trees. This would result in relatively minor impacts to the landscape itself while still providing visitors with a sense of the original orchard layout. If implemented with new signage discussed above, this multi-pronged approach to interpretation would enhance visitor experience.

In the event of further fruit tree propagation, seasonal events such as visitor participation in fruit harvests would create further opportunities for engagement and education. Such an event could promote greater interest in visitation at Chiricahua National Monument, as well as assist in a small aspect of orchard maintenance.

Fruit Tree Propagation

A rehabilitation management approach allows for the replacement of missing fruit trees, given that the historic identity of the fruit tree is known and historically accurate tree species and spacing are used. Implementation of such a strategy goes beyond basic stabilization work and should not be undertaken without development of a formal treatment plan. The possibility is briefly discussed here, however, in order to provide a starting point for future avenues of rehabilitation and interpretation at the Faraway Orchard.

As previously discussed, historically there was a wider variety of fruit tree species at Faraway Orchard than is represented by surviving trees. Absent species include peach, apple, plum, and cherry trees. In keeping with the original layout of the orchard period of significance, any newly propagated trees should be planted in a grid pattern similar to the original orchard (see Figure 2).

Propagation can be accomplished through two mechanisms. First, scions can be cut from existing fruit trees and grafted onto rootstock. This technique will ensure that newly established trees are of the same genetic stock as the original orchard. Alternatively, germplasm can be obtained from designated repositories and planted in order to propagate fruit tree species no longer present. A starting point for obtaining such germplasm is the National Plant Germplasm Repository (NPGR), managed by the United States Department of Agriculture, which includes repositories that specialize in historic varieties of fruit trees. Specifically, the NPGR in Geneva, New York specializes in historic apple varieties, while the NPGR in Davis, California specializes in historic stone fruit varieties (plum, cherry, peach, apricot, olive) (Appendix A).

If NPGR repositories do not contain appropriate genetic stock of germplasm for historic fruit trees, partnerships with southern Arizona non-profits and master horticulturalists can be explored. Tumacacori National Historic Park, located south of Tucson, partnered with both Native Seed Search and the Sonoran Desert Museum to identify genetically appropriate stock to reconstruct a historic orchard associated with Father Kino²⁶, and could be considered a potential partner in such endeavors.

Propagation in the Main House study unit would remain compatible with existing management plans if it is confined to the replacement of pear trees in poor health, as previously discussed. This would be consistent with the current management plan that aims to restore the main house area to the guest ranch period of significance (1917 – 1960s; see Table 1). A different approach can be employed in the Stafford Orchard study unit, however, and newly propagated trees could be placed in a grid pattern consistent with historical photographs. This approach would still be consistent with a rehabilitation management approach, which allows for the replacement of missing historical features. In this case, replacement of missing historical features would be focused on the orchard period of significance (1888 – 1917; see Table 1).

If new trees are propagated, browsing protection from wildlife will have to be considered until the trees reach a sufficiently mature age. Installation of temporary tree cages can provide such protection, preventing damage of saplings by deer and/or bear. Once propagated trees have reached a sufficient age and gained adequate canopy height, these cages can be removed.

Irrigation, Wildlife, and Wildfire Protection

A paramount concern in management of Faraway Orchard is water availability. Maintaining healthy fruit trees requires a sufficient supply of water. In historical times, water was diverted from Bonita Creek in order to water Faraway Orchard. In modern times, however, Bonita Creek does not flow reliably and water must be drawn from alternative sources. Current irrigation regimens, whether natural or park managed, are clearly sufficient for existing fruit trees, with the obvious exception of six pear trees in the Main House study unit.

If water cannot be consistently supplied to existing fruit trees, it is best to avoid additional irrigation. Over time old fruit trees typically develop a balance with their environment, which can be easily disrupted by heavy irrigation or fertilization²⁷. Existing fruit trees in Faraway Orchard, especially those with a “Fair” health assessment, have already proven resilient in the face of modern environmental conditions and do not necessarily require additional irrigation. If new trees were to be introduced, however, irrigation regimens would have to be developed that address the health concerns and requirements of both new and old trees.

In the event of additional fruit tree propagation, both visitor and wildlife safety will have to be taken into consideration. Any increase in the fruit tree population could possibly increase wildlife interest in the orchard, specifically deer and/or bears. While tree protection in the form of

²⁶ Jesús Manuel García-Yáñez and Robert M. Emanuel, “The Kino Fruit Trees Project: Phase I (January 2005-2005): Report to the National Park Service, Cooperative Ecosystem Studies Unit, Desert Southwest, and Tumacacori National Historic Park” (Tucson, Arizona: Arizona-Sonora Desert Museum, 2005).

²⁷ Dolan and Gjesfjeld, “Historic Orchard and Fruit Tree Stabilization Handbook,” 104.

temporary tree cages is discussed in above sections, both visitor and wildlife protection should be accounted for. Increased presence of bears and/or deer would be potentially dangerous to visitors who are unaware of how to deal with wildlife encounters, as well as have the unwanted effect of further altering wildlife behavior. Consultation with appropriate experts would be necessary if orchard expansion plans are explored in order to provide proper protections to both visitors and wildlife.

Another important consideration in management of Faraway Orchard is fire protection. Implementation of previously discussed recommendations such as deadwood removal can serve as important contributions to fuel reduction strategies that will passively protect the area from threat of wildfires. Additional development and implementation of a formal preservation plan that involves periodic maintenance such as orchard floor mowing to clear encroaching vegetation will also contribute to a reduction in available fuel. Removal of these potential fuel sources can both promote a fast moving, cool and less damaging fire in the unfortunate instance of wildfire. Additionally, such precautions would negate the presence of ladder fuels that would allow the fire to spread upward into tree canopies. In the event of threatening wildfires, fire retardant should not be applied directly to fruit trees as it could eventually become toxic.

Conclusion

A central goal in any rehabilitation treatment approach is the identification, retention, and preservation of historic materials and features. This report has identified contributing objects associated with Faraway Orchard and has provided assessment of their overall health. An initial framework for a treatment approach has been tentatively identified, and some paths forward explored.

Faraway Orchard as a whole is in Fair condition, however certain areas identified retain different levels of historic integrity. Specifically, the Western Orchard study unit retains a poor level of integrity, while the Stafford Orchard study unit exhibits fair integrity, and the Main House study unit retains much of its historic integrity. These considerations should be accounted for in any future work conducted at Faraway Ranch.

Tentative treatment recommendations include fruit tree stabilization, fruit tree replacement, implementation of a maintenance plan, selective vegetation removal, implementation of additional interpretative programs, and exploration of fruit tree propagation. These recommendations are confined to the Main House and Stafford Orchard study units, as it is judged that the Western Orchard study unit has deteriorated to such a point that any treatment approach would require unacceptable amounts of resources. Efforts in the Main House study unit should remain within the framework of current management plans, which call for an interpretive focus to the guest ranch period of significance (1917 – 1960s). Conversely, rehabilitation in the Stafford Orchard study unit would be best served focusing on the orchard period of significance (1888 – 1917).

The recommendations presented here constitute only a short-term stabilization plan. Further study and development of long term treatment, management, and interpretive plans would facilitate both the long-term health of Faraway Orchard as well as increased visitor interest and foot traffic at

Chiricahua National Monument. It is hoped that this report represents the first step towards realizing that goal.

Protecting a cultural landscape such as Faraway Orchard requires a multi-disciplinary approach, and as stated in the Project Scope and Limitations section, the recommendations provided here do not constitute a formal preservation plan or treatment approach. If further steps are to be taken, experts in the fields of horticulture, landscape architecture, biology, and cultural resources should be consulted during development of such a plan, and their recommendations incorporated into future management decisions.

References

- Birnbaum, Charles A. "Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes." Preservation Briefs 36. Washington D.C.: United States Department Of The Interior, National Park Service, Cultural Resources, Preservation Assistance Division, 1994.
- Birnbaum, Charles A., and Christine Capella Peters. "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes." Washington D.C.: United States Department of the Interior, National Park Service, 1996.
- Dolan, Susan A., and Cortney Cain Gjesfeld. "Historic Orchard and Fruit Tree Stabilization Handbook." Washington D.C.: United States Department of the Interior, National Park Service, 2012.
- García-Yáñez, Jesús Manuel, and Robert M. Emanuel. "The Kino Fruit Trees Project: Phase I (January 2005-2005): Report to the National Park Service, Cooperative Ecosystem Studies Unit, Desert Southwest, and Tumacácori National Historic Park." Tucson, Arizona: Arizona-Sonora Desert Museum, 2005.
- Johnson, Lauri Macmillan, Helen Erickson, Patrick Mundus, and Taran M. Jensvold. "Chiricahua National Monument - Faraway Ranch: Cultural Landscape Report Parts One and Two: History, Analysis, and Treatment." Washington D.C.: United States Department of the Interior, National Park Service, 2013.
- Kumble, Peter A. "Historic Landscape Restoration Report: The Faraway Ranch, Chiricahua National Monument." Tucson, Arizona: University of Arizona, 1990.
- National Park Service. "Cultural Landscape Inventory: Faraway Ranch, Chiricahua National Monument." Washington D.C.: United States Department of the Interior, National Park Service, 2002.
- . "NPS-28: Cultural Resource Management Guidelines." Washington D.C.: United States Department of the Interior, National Park Service, 1998.
- National Register of Historic Places. "'Faraway Ranch Historic District' National Register Nomination Form, Dos Cabezas, Cochise County, Arizona, National Register #80000368," 1980.
- . "'Stafford Cabin' National Register Nomination Form, Dos Cabezas, Cochise County, Arizona, National Register #75000171," 1975.
- Savage, Beth L., and Sarah Dillard Pope. "How to Apply the National Register Criteria for Evaluation." Washington D.C.: United States Department of The Interior, National Park Service, Cultural Resources, 1997.
- Tagg, Martyn D. "The Camp at Bonita Canyon: A Buffalo Soldier Camp in Chiricahua National Monument, Arizona." Western Archeological and Conservation Center Publications in Anthropology, 42. Tucson, Arizona: National Park Service, 1987.
- Torres, Louis, and Mark Baumler. "Historic Structures Report, Historical And Archeological Data Sections: History Of The Buildings And Structures Of Faraway Ranch, Chiricahua National Monument, Arizona." Denver, Colorado: United States Department Of The Interior, National Park Service Branch Of Planning, Alaska/Pacific Northwest/Western Team, 1984.
- Wegman-French, Lisa. "Chiricahua National Monument: Faraway Ranch Special History Study." Washington D.C.: United States Department of the Interior, National Park Service, 2006.

Appendix A: Propagation Services

National Plant Germplasm Repository for Apples

USDA, Agricultural Research Service
Plant Genetic Resources Unit
Cornell University Experiment Station
630 W. North Street
Geneva, New York 14456-0462

National Plant Germplasm Repository for Tree Fruit/Nut Crops and Grapes – Davis, California

USDA, Agricultural Research Service
One Shields Avenue, UCD
Davis, California 95616-8607

Native Seed Search

Nonprofit organization
3584 E. River Road
Tucson, Arizona 85718

Arizona-Sonora Desert Museum

Zoo and museum
2021 N. Kinney Road
Tucson, Arizona 85743

Appendix B: Tree Spatial Data

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
main	alligator juniper	non-contributing	N/A	653718.5712	3542545.801	-
main	alligator juniper	non-contributing	N/A	653717.236	3542544.235	-
main	apple	non-contributing	good	653749.8285	3542485.474	-
main	arizona cypress	non-contributing	N/A	653707.1224	3542529.908	-
main	arizona cypress	non-contributing	N/A	653707.9334	3542535.481	-
main	arizona cypress	non-contributing	N/A	653718.861	3542537.69	-
main	persimmon	contributing fruit tree	fair	653712.1008	3542536.234	-
main	persimmon	contributing fruit tree	fair	653715.3403	3542540.374	-
main	bridalwreath spirea	contributing	N/A	653716.9734	3542484.504	S-001a
main	bridalwreath spirea	contributing	N/A	653718.3785	3542481.434	S-001b
main	hupeh cotoneaster	contributing	N/A	653718.5194	3542497.857	S-004
main	pyracantha	contributing	N/A	653708.6934	3542505.823	S-005
main	velvet ash	non-contributing	N/A	653735.4875	3542474.656	T-001
main	siberian elm	non-contributing	N/A	653741.0354	3542474.691	T-002
main	siberian elm	non-contributing	N/A	653739.4842	3542474.557	T-003
main	siberian elm	contributing	N/A	653743.8602	3542476.444	T-005
main	pear	contributing fruit tree	poor	653758.0578	3542480.668	T-006
main	pear	contributing fruit tree	poor	653743.455	3542518.477	T-007a
main	pear	contributing fruit tree	standing dead	653743.757	3542513.52	T-007b
main	pear	contributing fruit tree	poor	653743.0578	3542511.448	T-007c
main	pear	contributing fruit tree	poor	653743.6847	3542508.21	T-007d
main	apricot	contributing fruit tree	fair	653730.15	3542507.048	T-009
main	arizona cypress	contributing	N/A	653708.9814	3542523.205	T-011a
main	arizona cypress	contributing	N/A	653707.4453	3542522.417	T-011b
main	arizona cypress	contributing	N/A	653712.4131	3542518.982	T-011c

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
main	arizona cypress	contributing	N/A	653712.8212	3542521.059	T-011d
main	arizona cypress	contributing	N/A	653715.82	3542520.196	T-011e
main	arizona cypress	contributing	N/A	653722.1837	3542521.266	T-011f
main	arizona cypress	contributing	N/A	653726.9388	3542521.759	T-011g
main	arizona cypress	contributing	N/A	653730.2909	3542520.976	T-011h
main	velvet ash	contributing	N/A	653734.3978	3542538.999	T-012
main	pear	contributing fruit tree	fair	653756.1266	3542536.097	T-013
stafford	alligator juniper	non-contributing	N/A	653775.0044	3542472.665	-
stafford	alligator juniper	non-contributing	N/A	653786.0534	3542508.134	-
stafford	alligator juniper	non-contributing	N/A	653791.5111	3542475.384	-
stafford	alligator juniper	non-contributing	N/A	653791.8985	3542518.309	-
stafford	alligator juniper	non-contributing	N/A	653793.5269	3542492.602	-
stafford	alligator juniper	non-contributing	N/A	653795.7462	3542468.86	-
stafford	alligator juniper	non-contributing	N/A	653796.0368	3542463.307	-
stafford	alligator juniper	non-contributing	N/A	653798.304	3542505.025	-
stafford	alligator juniper	non-contributing	N/A	653799.451	3542456.36	-
stafford	alligator juniper	non-contributing	N/A	653799.6899	3542481.682	-
stafford	alligator juniper	non-contributing	N/A	653801.4143	3542518.246	-
stafford	alligator juniper	non-contributing	N/A	653802.169	3542495.614	-
stafford	alligator juniper	non-contributing	N/A	653803.7728	3542512.724	-
stafford	alligator juniper	non-contributing	N/A	653804.744	3542461.997	-
stafford	alligator juniper	non-contributing	N/A	653806.3342	3542452.552	-
stafford	alligator juniper	non-contributing	N/A	653807.2732	3542486.325	-
stafford	alligator juniper	non-contributing	N/A	653811.7918	3542488.452	-
stafford	alligator juniper	non-contributing	N/A	653811.9179	3542493.806	-
stafford	alligator juniper	non-contributing	N/A	653816.3837	3542499.431	-
stafford	alligator juniper	non-contributing	N/A	653827.0203	3542493.622	-
stafford	alligator juniper	non-contributing	N/A	653827.1382	3542485.801	-
stafford	alligator juniper	non-contributing	N/A	653827.8269	3542522.452	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	alligator juniper	non-contributing	N/A	653830.115	3542466.702	-
stafford	alligator juniper	non-contributing	N/A	653830.8181	3542474.947	-
stafford	alligator juniper	non-contributing	N/A	653833.8529	3542465.729	-
stafford	alligator juniper	non-contributing	N/A	653834.8	3542471.507	-
stafford	alligator juniper	non-contributing	N/A	653834.9437	3542448.249	-
stafford	alligator juniper	non-contributing	N/A	653841.46	3542482.518	-
stafford	alligator juniper	non-contributing	N/A	653843.8733	3542528.252	-
stafford	alligator juniper	non-contributing	N/A	653844.29	3542507.468	-
stafford	alligator juniper	non-contributing	N/A	653844.5443	3542470.007	-
stafford	alligator juniper	non-contributing	N/A	653844.777	3542536.911	-
stafford	alligator juniper	non-contributing	N/A	653846.664	3542480.332	-
stafford	alligator juniper	non-contributing	N/A	653850.0069	3542519.287	-
stafford	alligator juniper	non-contributing	N/A	653850.6325	3542491.507	-
stafford	alligator juniper	non-contributing	N/A	653852.7294	3542475.895	-
stafford	alligator juniper	non-contributing	N/A	653854.0467	3542484.56	-
stafford	alligator juniper	non-contributing	N/A	653854.6965	3542544.368	-
stafford	alligator juniper	non-contributing	N/A	653857.3193	3542473.288	-
stafford	alligator juniper	non-contributing	N/A	653859.4932	3542541.764	-
stafford	alligator juniper	non-contributing	N/A	653861.5441	3542501.758	-
stafford	alligator juniper	non-contributing	N/A	653864.9811	3542520.748	-
stafford	alligator juniper	non-contributing	N/A	653865.3461	3542510.255	-
stafford	alligator juniper	non-contributing	N/A	653867.0392	3542548.877	-
stafford	alligator juniper	non-contributing	N/A	653868.1637	3542515.444	-
stafford	alligator juniper	non-contributing	N/A	653870.2957	3542524.945	-
stafford	alligator juniper	non-contributing	N/A	653870.3537	3542493.657	-
stafford	alligator juniper	non-contributing	N/A	653871.8736	3542516.323	-
stafford	alligator juniper	non-contributing	N/A	653875.3003	3542508.553	-
stafford	alligator juniper	non-contributing	N/A	653875.6084	3542515.556	-
stafford	alligator juniper	non-contributing	N/A	653878.3206	3542486.573	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	alligator juniper	non-contributing	N/A	653879.0054	3542550.91	-
stafford	alligator juniper	non-contributing	N/A	653882.4201	3542557.651	-
stafford	alligator juniper	non-contributing	N/A	653882.9563	3542549.529	-
stafford	alligator juniper	non-contributing	N/A	653883.4723	3542542.743	-
stafford	alligator juniper	non-contributing	N/A	653883.6901	3542500.857	-
stafford	alligator juniper	non-contributing	N/A	653885.7078	3542531.662	-
stafford	alligator juniper	non-contributing	N/A	653885.806	3542538.868	-
stafford	alligator juniper	non-contributing	N/A	653886.0644	3542549.164	-
stafford	alligator juniper	non-contributing	N/A	653889.2739	3542555.799	-
stafford	alligator juniper	non-contributing	N/A	653892.0646	3542549.048	-
stafford	alligator juniper	non-contributing	N/A	653896.2198	3542520.396	-
stafford	alligator juniper	non-contributing	N/A	653898.6014	3542554.499	-
stafford	alligator juniper	non-contributing	N/A	653899.5126	3542507.786	-
stafford	alligator juniper	non-contributing	N/A	653900.2844	3542525.191	-
stafford	alligator juniper	non-contributing	N/A	653900.7653	3542493.292	-
stafford	alligator juniper	non-contributing	N/A	653901.9008	3542459.139	-
stafford	alligator juniper	non-contributing	N/A	653902.0002	3542548.581	-
stafford	alligator juniper	non-contributing	N/A	653905.6432	3542499.027	-
stafford	alligator juniper	non-contributing	N/A	653905.711	3542480.81	-
stafford	alligator juniper	non-contributing	N/A	653908.793	3542537.053	-
stafford	alligator juniper	non-contributing	N/A	653909.3363	3542459.868	-
stafford	alligator juniper	non-contributing	N/A	653910.7417	3542503.838	-
stafford	alligator juniper	non-contributing	N/A	653913.5132	3542525.802	-
stafford	alligator juniper	non-contributing	N/A	653914.6665	3542463.037	-
stafford	alligator juniper	non-contributing	N/A	653916.5538	3542502.485	-
stafford	alligator juniper	non-contributing	N/A	653918.0149	3542487.892	-
stafford	alligator juniper	non-contributing	N/A	653922.7461	3542530.779	-
stafford	alligator juniper	non-contributing	N/A	653924.4927	3542497.252	-
stafford	alligator juniper	non-contributing	N/A	653924.7469	3542521.546	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	alligator juniper	non-contributing	N/A	653925.2319	3542516.819	-
stafford	alligator juniper	non-contributing	N/A	653929.1272	3542477.973	-
stafford	alligator juniper	non-contributing	N/A	653930.1496	3542506.189	-
stafford	alligator juniper	non-contributing	N/A	653930.9962	3542532.344	-
stafford	alligator juniper	non-contributing	N/A	653933.8452	3542494.306	-
stafford	alligator juniper	non-contributing	N/A	653934.3643	3542487.315	-
stafford	alligator juniper	non-contributing	N/A	653934.8125	3542553.604	-
stafford	alligator juniper	non-contributing	N/A	653936.7268	3542508.964	-
stafford	alligator juniper	non-contributing	N/A	653939.0349	3542479.357	-
stafford	alligator juniper	non-contributing	N/A	653941.4203	3542485.774	-
stafford	alligator juniper	non-contributing	N/A	653944.9331	3542554.58	-
stafford	alligator juniper	non-contributing	N/A	653947.5089	3542534.652	-
stafford	alligator juniper	non-contributing	N/A	653950.9488	3542553.436	-
stafford	alligator juniper	non-contributing	N/A	653950.9587	3542491.064	-
stafford	alligator juniper	non-contributing	N/A	653951.7805	3542518.866	-
stafford	alligator juniper	non-contributing	N/A	653952.248	3542501.582	-
stafford	alligator juniper	non-contributing	N/A	653953.5614	3542483.076	-
stafford	alligator juniper	non-contributing	N/A	653955.2481	3542556.382	-
stafford	alligator juniper	non-contributing	N/A	653956.1659	3542488.673	-
stafford	alligator juniper	non-contributing	N/A	653956.2288	3542511.934	-
stafford	alligator juniper	non-contributing	N/A	653956.7962	3542536.027	-
stafford	alligator juniper	non-contributing	N/A	653961.036	3542494.922	-
stafford	alligator juniper	non-contributing	N/A	653963.1815	3542489.808	-
stafford	alligator juniper	non-contributing	N/A	653968.7923	3542549.794	-
stafford	alligator juniper	non-contributing	N/A	653969.7902	3542538.487	-
stafford	alligator juniper	non-contributing	N/A	653970.316	3542489.915	-
stafford	alligator juniper	non-contributing	N/A	653970.4235	3542496.504	-
stafford	alligator juniper	non-contributing	N/A	653971.3302	3542504.958	-
stafford	alligator juniper	non-contributing	N/A	653972.4755	3542538.734	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	alligator juniper	non-contributing	N/A	653972.7847	3542531.945	-
stafford	alligator juniper	non-contributing	N/A	653974.1131	3542553.579	-
stafford	alligator juniper	non-contributing	N/A	653974.5638	3542482.569	-
stafford	alligator juniper	non-contributing	N/A	653976.2356	3542495.151	-
stafford	alligator juniper	non-contributing	N/A	653978.244	3542540.262	-
stafford	alligator juniper	non-contributing	N/A	653978.6569	3542512.89	-
stafford	alligator juniper	non-contributing	N/A	653979.0166	3542530.187	-
stafford	alligator juniper	non-contributing	N/A	653980.3698	3542550.174	-
stafford	alligator juniper	non-contributing	N/A	653982.7568	3542501.631	-
stafford	alligator juniper	non-contributing	N/A	653982.8898	3542533.95	-
stafford	alligator juniper	non-contributing	N/A	653983.6877	3542481.06	-
stafford	alligator juniper	non-contributing	N/A	653983.9343	3542519.557	-
stafford	alligator juniper	non-contributing	N/A	653984.6144	3542543.034	-
stafford	alligator juniper	non-contributing	N/A	653986.1383	3542551.702	-
stafford	alligator juniper	non-contributing	N/A	653986.5594	3542537.505	-
stafford	alligator juniper	non-contributing	N/A	653987.2841	3542544.309	-
stafford	alligator juniper	non-contributing	N/A	653987.8971	3542558.522	-
stafford	alligator juniper	non-contributing	N/A	653989.2452	3542496.582	-
stafford	alligator juniper	non-contributing	N/A	653989.5153	3542478.678	-
stafford	alligator juniper	non-contributing	N/A	653991.0393	3542487.346	-
stafford	alligator juniper	non-contributing	N/A	653992.6527	3542531.216	-
stafford	alligator juniper	non-contributing	N/A	653992.9173	3542541.101	-
stafford	alligator juniper	non-contributing	N/A	653993.4743	3542559.018	-
stafford	alligator juniper	non-contributing	N/A	653993.9022	3542503.24	-
stafford	alligator juniper	non-contributing	N/A	653998.0797	3542486.835	-
stafford	alligator juniper	non-contributing	N/A	653998.4685	3542557.034	-
stafford	alligator juniper	non-contributing	N/A	654001.2339	3542524.552	-
stafford	alligator juniper	non-contributing	N/A	654001.6605	3542482.566	-
stafford	alligator juniper	non-contributing	N/A	654001.9219	3542492.657	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	alligator juniper	non-contributing	N/A	654002.1188	3542534.446	-
stafford	alligator juniper	non-contributing	N/A	654003.8874	3542499.479	-
stafford	alligator juniper	non-contributing	N/A	654004.1514	3542550.533	-
stafford	alligator juniper	non-contributing	N/A	654005.0525	3542518.229	-
stafford	alligator juniper	non-contributing	N/A	654005.748	3542540.677	-
stafford	alligator juniper	non-contributing	N/A	654007.2869	3542520.939	-
stafford	alligator juniper	non-contributing	N/A	654008.6559	3542553.586	-
stafford	alligator juniper	non-contributing	N/A	654010.3537	3542550.73	-
stafford	alligator juniper	non-contributing	N/A	654010.9027	3542555.472	-
stafford	alligator juniper	non-contributing	N/A	654011.0415	3542505.145	-
stafford	alligator juniper	non-contributing	N/A	654011.5917	3542496.096	-
stafford	alligator juniper	non-contributing	N/A	654013.378	3542555.921	-
stafford	alligator juniper	non-contributing	N/A	654014.068	3542537.612	-
stafford	alligator juniper	non-contributing	N/A	654015.682	3542540.312	-
stafford	alligator juniper	non-contributing	N/A	654016.956	3542497	-
stafford	alligator juniper	non-contributing	N/A	654016.9681	3542551.035	-
stafford	alligator juniper	non-contributing	N/A	654018.5231	3542557.646	-
stafford	alligator juniper	non-contributing	N/A	654019.2267	3542524.721	-
stafford	alligator juniper	non-contributing	N/A	654020.2036	3542542.233	-
stafford	alligator juniper	non-contributing	N/A	654023.227	3542506.358	-
stafford	alligator juniper	non-contributing	N/A	654023.4111	3542535.282	-
stafford	alligator juniper	non-contributing	N/A	654023.8899	3542530.967	-
stafford	alligator juniper	non-contributing	N/A	654023.9495	3542554.434	-
stafford	alligator juniper	non-contributing	N/A	654025.5393	3542517.612	-
stafford	alligator juniper	non-contributing	N/A	654026.0386	3542525.647	-
stafford	alligator juniper	non-contributing	N/A	654026.968	3542505.179	-
stafford	alligator juniper	non-contributing	N/A	654031.7221	3542546.523	-
stafford	alligator juniper	non-contributing	N/A	654036.8337	3542509.342	-
stafford	alligator juniper	non-contributing	N/A	654038.0906	3542535.71	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	alligator juniper	non-contributing	N/A	654039.894	3542525.856	-
stafford	alligator juniper	non-contributing	N/A	654040.0573	3542528.741	-
stafford	alligator juniper	non-contributing	N/A	654046.4388	3542544.481	-
stafford	alligator juniper	non-contributing	N/A	654048.3323	3542528.66	-
stafford	alligator juniper	non-contributing	N/A	654048.6478	3542521.46	-
stafford	alligator juniper	non-contributing	N/A	654048.8173	3542523.932	-
stafford	alligator juniper	non-contributing	N/A	654051.2293	3542542.289	-
stafford	alligator juniper	non-contributing	N/A	654051.6814	3542526.034	-
stafford	alligator juniper	non-contributing	N/A	654051.7436	3542521.918	-
stafford	alligator juniper	non-contributing	N/A	654051.7901	3542518.831	-
stafford	alligator juniper	non-contributing	N/A	654052.4664	3542515.136	-
stafford	alligator juniper	non-contributing	N/A	654054.0867	3542517.425	-
stafford	alligator juniper	non-contributing	N/A	654054.3915	3542524.634	-
stafford	alligator juniper	non-contributing	N/A	654057.0377	3542513.764	-
stafford	alligator juniper	non-contributing	N/A	654058.3859	3542520.372	-
stafford	alligator juniper	non-contributing	N/A	654082.1602	3542545.949	-
stafford	alligator juniper	non-contributing	N/A	654069.3288	3542553.287	-
stafford	alligator juniper	non-contributing	N/A	654063.5073	3542553.601	-
stafford	alligator juniper	non-contributing	N/A	654063.6629	3542554.873	-
stafford	alligator juniper	non-contributing	N/A	654062.3116	3542553.084	-
stafford	alligator juniper	non-contributing	N/A	654069.1337	3542523.887	-
stafford	alligator juniper	non-contributing	N/A	654060.8035	3542527.939	-
stafford	alligator juniper	non-contributing	N/A	654059.7494	3542516.474	-
stafford	alligator juniper	non-contributing	N/A	654067.3021	3542504.881	-
stafford	alligator juniper	non-contributing	N/A	654030.3479	3542494.448	-
stafford	alligator juniper	non-contributing	N/A	654028.1383	3542493.062	-
stafford	alligator juniper	non-contributing	N/A	654027.649	3542489.418	-
stafford	alligator juniper	non-contributing	N/A	654037.1665	3542503.105	-
stafford	alligator juniper	non-contributing	N/A	653828.3167	3542534.288	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	apache pine	non-contributing	N/A	653963.3485	3542554.711	-
stafford	arizona cypress	contributing	N/A	654066.5929	3542555.359	-
stafford	arizona cypress	contributing	N/A	654066.0098	3542554.782	-
stafford	arizona cypress	contributing	N/A	654063.247	3542558.849	-
stafford	arizona cypress	contributing	N/A	654063.982	3542561.226	-
stafford	arizona cypress	contributing	N/A	654063.4167	3542564.516	-
stafford	arizona cypress	contributing	N/A	654062.2384	3542568.73	-
stafford	arizona cypress	contributing	N/A	654083.0342	3542556.647	-
stafford	arizona cypress	non-contributing	N/A	653922.7252	3542552.707	-
stafford	arizona walnut	non-contributing	N/A	653989.4312	3542535.786	-
stafford	arizona walnut	non-contributing	N/A	653924.3528	3542508.323	-
stafford	emory oak	non-contributing	N/A	653929.3815	3542499.981	-
stafford	emory oak	non-contributing	N/A	653972.5388	3542547.798	-
stafford	emory oak	non-contributing	N/A	653970.9345	3542551.601	-
stafford	emory oak	non-contributing	N/A	653968.6585	3542554.8	-
stafford	emory oak	non-contributing	N/A	653971.0746	3542556.876	-
stafford	emory oak	non-contributing	N/A	653961.4489	3542554.054	-
stafford	emory oak	non-contributing	N/A	653960.4746	3542550.115	-
stafford	emory oak	non-contributing	N/A	653951.6412	3542460.177	-
stafford	emory oak	non-contributing	N/A	653953.9342	3542448.243	-
stafford	emory oak	non-contributing	N/A	653935.4852	3542546.459	-
stafford	emory oak	non-contributing	N/A	653897.728	3542459.141	-
stafford	emory oak	non-contributing	N/A	653883.9911	3542456.033	-
stafford	emory oak	non-contributing	N/A	653879.0926	3542452.718	-
stafford	emory oak	non-contributing	N/A	653876.1954	3542457.056	-
stafford	emory oak	non-contributing	N/A	653871.9625	3542463.127	-
stafford	emory oak	non-contributing	N/A	653864.5445	3542458.222	-
stafford	emory oak	non-contributing	N/A	653873.5936	3542546.294	-
stafford	emory oak	non-contributing	N/A	653866.1267	3542560.25	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	emory oak	non-contributing	N/A	653861.5718	3542557.197	-
stafford	emory oak	non-contributing	N/A	653824.108	3542458.709	-
stafford	emory oak	non-contributing	N/A	653829.4696	3542437.374	-
stafford	emory oak	non-contributing	N/A	653825.9476	3542559.348	-
stafford	emory oak	non-contributing	N/A	653821.2134	3542568.833	-
stafford	emory oak	non-contributing	N/A	653816.7698	3542570.926	-
stafford	emory oak	non-contributing	N/A	653813.5516	3542571.028	-
stafford	persimmon	contributing fruit tree	fair	653913.8542	3542486.893	-
stafford	persimmon	contributing fruit tree	fair	653917.613	3542480.306	-
stafford	persimmon	contributing fruit tree	fair	653918.0626	3542477.694	-
stafford	persimmon	contributing fruit tree	fair	653918.8574	3542480.279	-
stafford	persimmon	contributing fruit tree	fair	653920.1392	3542472.955	-
stafford	persimmon	contributing fruit tree	fair	653920.5749	3542468.562	-
stafford	persimmon	contributing fruit tree	fair	653921.2326	3542467.952	-
stafford	persimmon	contributing fruit tree	fair	653922.3318	3542471.78	-
stafford	persimmon	contributing fruit tree	fair	653924.8805	3542484.299	-
stafford	persimmon	contributing fruit tree	fair	653928.6473	3542460.68	-
stafford	persimmon	contributing fruit tree	fair	654027.9318	3542496.137	-
stafford	persimmon	contributing fruit tree	fair	654030.4817	3542491.647	-
stafford	persimmon	contributing fruit tree	fair	654032.2777	3542495.996	-
stafford	persimmon	contributing fruit tree	fair	654032.7223	3542493.945	-
stafford	persimmon	contributing fruit tree	fair	654034.5711	3542494.796	-
stafford	persimmon	contributing fruit tree	fair	654036.395	3542497.294	-
stafford	persimmon	contributing fruit tree	fair	654036.6484	3542494.21	-
stafford	persimmon	contributing fruit tree	fair	654038.1084	3542493.408	-
stafford	persimmon	contributing fruit tree	fair	654038.2646	3542489.911	-
stafford	persimmon	contributing fruit tree	fair	654038.4878	3542495.679	-
stafford	persimmon	contributing fruit tree	fair	654039.071	3542498.157	-
stafford	persimmon	contributing fruit tree	fair	654039.5777	3542491.99	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	persimmon	contributing fruit tree	fair	654040.1546	3542494.88	-
stafford	persimmon	contributing fruit tree	fair	654040.3974	3542506.206	-
stafford	persimmon	contributing fruit tree	fair	654040.7431	3542490.155	-
stafford	persimmon	contributing fruit tree	fair	654040.8545	3542503.331	-
stafford	persimmon	contributing fruit tree	fair	654041.3053	3542500.867	-
stafford	persimmon	contributing fruit tree	fair	654041.5805	3542496.343	-
stafford	persimmon	contributing fruit tree	fair	654041.6302	3542493.05	-
stafford	persimmon	contributing fruit tree	fair	654042.0008	3542523.315	-
stafford	persimmon	contributing fruit tree	fair	654042.3238	3542501.912	-
stafford	persimmon	contributing fruit tree	fair	654043.0001	3542498.217	-
stafford	persimmon	contributing fruit tree	fair	654043.0116	3542490.601	-
stafford	persimmon	contributing fruit tree	fair	654043.0702	3542507.275	-
stafford	persimmon	contributing fruit tree	fair	654043.3143	3542504.809	-
stafford	persimmon	contributing fruit tree	fair	654043.4603	3542495.136	-
stafford	persimmon	contributing fruit tree	fair	654043.6041	3542492.462	-
stafford	persimmon	contributing fruit tree	fair	654044.2129	3542500.088	-
stafford	persimmon	contributing fruit tree	fair	654044.37	3542503.384	-
stafford	persimmon	contributing fruit tree	fair	654044.8054	3542501.949	-
stafford	persimmon	contributing fruit tree	fair	654044.8923	3542496.187	-
stafford	persimmon	contributing fruit tree	fair	654045.0703	3542491.249	-
stafford	persimmon	contributing fruit tree	fair	654045.3326	3542508.133	-
stafford	persimmon	contributing fruit tree	fair	654045.5704	3542506.078	-
stafford	persimmon	contributing fruit tree	fair	654045.6689	3542492.699	-
stafford	persimmon	contributing fruit tree	fair	654045.9188	3542510.406	-
stafford	persimmon	contributing fruit tree	fair	654045.9548	3542521.728	-
stafford	persimmon	contributing fruit tree	fair	654046.3213	3542497.444	-
stafford	persimmon	contributing fruit tree	fair	654046.4225	3542504.444	-
stafford	persimmon	contributing fruit tree	fair	654046.7162	3542498.685	-
stafford	persimmon	contributing fruit tree	fair	654047.0007	3542493.543	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	persimmon	contributing fruit tree	fair	654047.0833	3542501.778	-
stafford	persimmon	contributing fruit tree	fair	654047.1254	3542512.688	-
stafford	persimmon	contributing fruit tree	fair	654047.4347	3542505.9	-
stafford	persimmon	contributing fruit tree	fair	654047.5487	3542491.492	-
stafford	persimmon	contributing fruit tree	fair	654048.1905	3542510.646	-
stafford	persimmon	contributing fruit tree	fair	654048.2135	3542495.414	-
stafford	persimmon	contributing fruit tree	fair	654048.2309	3542507.971	-
stafford	persimmon	contributing fruit tree	fair	654048.7159	3542503.243	-
stafford	persimmon	contributing fruit tree	fair	654049.0034	3542497.896	-
stafford	persimmon	contributing fruit tree	fair	654049.1033	3542518.688	-
stafford	persimmon	contributing fruit tree	fair	654049.1637	3542500.986	-
stafford	persimmon	contributing fruit tree	fair	654049.3913	3542492.755	-
stafford	persimmon	contributing fruit tree	fair	654049.7126	3542505.729	-
stafford	persimmon	contributing fruit tree	fair	654050.2371	3542491.533	-
stafford	persimmon	contributing fruit tree	fair	654050.7137	3542494.216	-
stafford	persimmon	contributing fruit tree	fair	654050.8695	3542511.304	-
stafford	persimmon	contributing fruit tree	fair	654050.8708	3542497.512	-
stafford	persimmon	contributing fruit tree	fair	654050.9316	3542507.188	-
stafford	persimmon	contributing fruit tree	fair	654051.1074	3542509.249	-
stafford	persimmon	contributing fruit tree	fair	654051.4602	3542499.58	-
stafford	persimmon	contributing fruit tree	fair	654051.8179	3542503.29	-
stafford	persimmon	contributing fruit tree	fair	654052.3961	3542492.389	-
stafford	persimmon	contributing fruit tree	fair	654052.7289	3542497.746	-
stafford	persimmon	contributing fruit tree	fair	654052.7631	3542495.482	-
stafford	persimmon	contributing fruit tree	fair	654052.8767	3542501.659	-
stafford	persimmon	contributing fruit tree	fair	654053.2188	3542506.399	-
stafford	persimmon	contributing fruit tree	fair	654053.3573	3542510.93	-
stafford	persimmon	contributing fruit tree	fair	654054.038	3542493.237	-
stafford	persimmon	contributing fruit tree	fair	654054.1485	3542499.62	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
stafford	persimmon	contributing fruit tree	fair	654054.7192	3542502.922	-
stafford	persimmon	contributing fruit tree	fair	654054.8124	3542496.748	-
stafford	persimmon	contributing fruit tree	fair	654054.8359	3542508.894	-
stafford	persimmon	contributing fruit tree	fair	654055.0987	3542505.192	-
stafford	persimmon	contributing fruit tree	fair	654056.3035	3542493.889	-
stafford	persimmon	contributing fruit tree	fair	654056.8276	3542500.278	-
stafford	persimmon	contributing fruit tree	fair	654056.8711	3542497.397	-
stafford	persimmon	contributing fruit tree	fair	654056.9692	3542504.603	-
stafford	persimmon	contributing fruit tree	fair	654057.6237	3542502.349	-
stafford	persimmon	contributing fruit tree	fair	654057.9783	3542506.265	-
stafford	persimmon	contributing fruit tree	fair	654058.1522	3542494.74	-
stafford	persimmon	contributing fruit tree	fair	654058.8862	3542500.927	-
stafford	persimmon	contributing fruit tree	fair	654059.5439	3542498.466	-
stafford	persimmon	contributing fruit tree	fair	654060.6183	3542495.807	-
stafford	persimmon	contributing fruit tree	fair	654060.9325	3542502.399	-
stafford	persimmon	contributing fruit tree	fair	654061.8	3542499.736	-
stafford	persimmon	contributing fruit tree	fair	654063.4731	3542498.526	-
stafford	persimmon	contributing fruit tree	fair	654063.501	3542496.674	-
stafford	silver leaf oak	non-contributing	N/A	653838.9352	3542517.616	-
stafford	silver leaf oak	non-contributing	N/A	653826.0706	3542531.923	-
west	alligator juniper	non-contributing	N/A	653488.6644	3542566.544	-
west	alligator juniper	non-contributing	N/A	653490.7653	3542591.894	-
west	alligator juniper	non-contributing	N/A	653491.7967	3542578.324	-
west	alligator juniper	non-contributing	N/A	653497.2106	3542575.935	-
west	alligator juniper	non-contributing	N/A	653498.8841	3542560.934	-
west	alligator juniper	non-contributing	N/A	653503.4299	3542574.999	-
west	alligator juniper	non-contributing	N/A	653514.3189	3542579.898	-
west	alligator juniper	non-contributing	N/A	653517.5626	3542584.269	-
west	alligator juniper	non-contributing	N/A	653517.7421	3542572.333	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
west	alligator juniper	non-contributing	N/A	653518.1563	3542558.547	-
west	alligator juniper	non-contributing	N/A	653518.4832	3542564.316	-
west	alligator juniper	non-contributing	N/A	653523.221	3542565.622	-
west	alligator juniper	non-contributing	N/A	653525.7075	3542592.831	-
west	alligator juniper	non-contributing	N/A	653537.4434	3542568.924	-
west	alligator juniper	non-contributing	N/A	653539.0848	3542583.564	-
west	alligator juniper	non-contributing	N/A	653559.0889	3542573.778	-
west	alligator juniper	non-contributing	N/A	653564.2525	3542574.268	-
west	alligator juniper	non-contributing	N/A	653569.2404	3542572.696	-
west	alligator juniper	non-contributing	N/A	653597.1588	3542614.285	-
west	alligator juniper	non-contributing	N/A	653601.4751	3542588.619	-
west	alligator juniper	non-contributing	N/A	653602.5252	3542573.814	-
west	alligator juniper	non-contributing	N/A	653606.8652	3542567.19	-
west	alligator juniper	non-contributing	N/A	653606.968	3542608.463	-
west	alligator juniper	non-contributing	N/A	653608.9507	3542586.673	-
west	alligator juniper	non-contributing	N/A	653610.7754	3542575.379	-
west	alligator juniper	non-contributing	N/A	653617.1512	3542591.531	-
west	arizona cypress	non-contributing	N/A	653561.9764	3542610.957	-
west	arizona cypress	non-contributing	N/A	653575.2872	3542605.191	-
west	arizona cypress	non-contributing	N/A	653572.8255	3542605.415	-
west	arizona cypress	non-contributing	N/A	653570.9251	3542604.656	-
west	arizona walnut	non-contributing	N/A	653470.2041	3542605.138	-
west	arizona walnut	non-contributing	N/A	653544.8778	3542605.634	-
west	emory oak	non-contributing	N/A	653453.4015	3542614.084	-
west	emory oak	non-contributing	N/A	653462.5941	3542603.43	-
west	emory oak	non-contributing	N/A	653493.5011	3542600.538	-
west	emory oak	non-contributing	N/A	653514.8504	3542614.358	-
west	emory oak	non-contributing	N/A	653511.8929	3542616.813	-
west	emory oak	non-contributing	N/A	653516.4934	3542616.995	-

Orchard Unit	Tree Type	Status	Fruit Tree Health	Easting	Northing	Tree number
west	emory oak	non-contributing	N/A	653538.309	3542612.465	-
west	emory oak	non-contributing	N/A	653584.3215	3542609.382	-
west	emory oak	non-contributing	N/A	653585.9064	3542606.427	-
west	emory oak	non-contributing	N/A	653588.0466	3542605.544	-
west	emory oak	non-contributing	N/A	653584.2541	3542629.165	-
west	silver leaf oak	non-contributing	N/A	653446.9105	3542656.972	-
west	silver leaf oak	non-contributing	N/A	653450.209	3542655.025	-
west	silver leaf oak	non-contributing	N/A	653423.7097	3542671.246	-
west	silver leaf oak	non-contributing	N/A	653466.4149	3542649.326	-
west	silver leaf oak	non-contributing	N/A	653449.5655	3542617.098	-
west	silver leaf oak	non-contributing	N/A	653465.7458	3542605.742	-
west	silver leaf oak	non-contributing	N/A	653524.877	3542620.143	-
west	silver leaf oak	non-contributing	N/A	653528.5263	3542620.013	-
west	silver leaf oak	non-contributing	N/A	653552.264	3542603.438	-
west	silver leaf oak	non-contributing	N/A	653574.4974	3542608.381	-