National Park Service
U.S. Department of the Interior
San Antonio Missions National Historical Park
San Antonio, Texas

Draft Environmental Assessment

Rancho de las Cabras

Enhance Visitor Services and Rehabilitate the Cultural Landscape

November 2013

Rancho Ruins, NPS 2010

Rancho Riparian Vegetation, URS 2010

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Draft Environmental Assessment
Rancho de las Cabras
Enhance Visitor Services and Rehabilitate the Cultural Landscape

SUMMARY

The two parcels of land totaling 99.2 acres, which make up the present Rancho de las Cabras (or the Rancho) were acquired by the Texas Parks and Wildlife Department (TPWD) in 1977 and 1982. TPWD acquired the land with the intention of establishing an historical park. Subsequently, TPWD realized that it would not be possible to establish a park for an indefinite period of time, so the ruins were covered with sand as a means of protecting and preserving them. Proceedings were then initiated to transfer ownership of the property to the federal government. Prior to the transfer of the Rancho to the National Park Service (NPS), NPS made a commitment to develop and provide public use of the area (NPS 1998a). Rancho de las Cabras became part of San Antonio Missions National Historical Park (SAAN), administered by NPS, in 1995 (NPS 1998b).

The Rancho de las Cabras site contains the only physical remains of the ranchos used to raise livestock for the San Antonio Missions (Mission Espada). The property is significant in the areas of American history, agriculture, archeology, and culture. Currently, the Rancho property does not have the required visitor services needed to promote public use of the property. The purpose of the project is to improve the site in order to make it more suitable for public use.

A total of two action alternatives and the no-action alternative have been identified for the project based on program goals and objectives, internal and external scoping, guidance from existing park plans, and policy guidance from the NPS.

No-Action Alternative

Under this alternative, no improvements to the current park infrastructure would be made. Should the no-action alternative be selected, visitor support services at Rancho de las Cabras would not be created, public access to the Rancho would continue to be limited and preservation of the historic resources would not be ensured. As a result, the Rancho would continue to provide limited visitor experience and the cultural and historical significance of the Rancho would not be sufficiently protected and shared.

Alternative 1 – Moderate Action

Alternative 1 includes creating various visitors service at Rancho de las Cabras. These improvements include realigning and re-graveling the entrance road from County Road 144, creating a gravel 25 car parking area, and an open air visitor contact station that would include a sitting area, indoor office, interpretative panels, and a restroom. A pedestrian trail would also be constructed from the visitor contact station, with a loop inside the ruins and a loop outside of the ruins. The alternative also includes implementing strategies in order to ensure the preservation of the Rancho compound ruins. These strategies are currently being developed as a separate action and could include leaving the ruins buried, the partial exposure of the ruins, or the full exposure of the ruins. A vegetation rehabilitation and management program would also be created in the area surrounding the visitor contact station and Rancho compound ruins. This effort would clear successional growth and result in a landscape surrounding the ruins that is more representative of the Spanish colonial period.

Alternative 2 – Maximum Action (Preferred Alternative)

Alternative 2 would include all of the components of alternative 1 with some notable differences. The park entrance road and extended parking area would be finished with an all-weather surface instead of gravel. The visitor contact station would be enclosed and could be extended to include an auditorium and outdoor educational area. The section of trails immediately surrounding the ruins would remain the same as described under alternative 1. However, the pedestrian trail network would be extended further under this alternative, creating a northern loop and an eastern trail loop. The northern loop would generally surround the landscape rehabilitation area and could include a stone bridge over a drainage swale. The eastern loop would route through the riparian area and then split into two directions. One segment would route to the south, terminating at a viewpoint located at the confluence of the San Antonio River and Picosa Creek. The other segment would route to the north, crossing Picosa Creek via a proposed pedestrian bridge, emerging from the riparian area and then forming a large loop around the edges of an existing pasture. The eastern loop would also include a potential future connection to the City of Floresville Hike and Bike Trail. This alternative would also include a larger-scale vegetation rehabilitation and management program that could include the pasture located to the northeast of the ruins, over Picosa Creek.

NOTE TO REVIEWERS AND RESPONDENTS
If you wish to comment on the Environmental Assessment, you may post comments online at http://parkplanning.nps.gov/ or mail comments to: Susan Snow, 2202 Roosevelt Avenue, San Antonio, Texas 78210-4919.

This Environmental Assessment is available for public review for 30 days. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. Although you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

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PURPOSE AND NEED

Introduction

San Antonio Missions National Historical Park (SAAN) is considering various park improvements to Rancho de las Cabras (or the Rancho). The park improvements would enhance visitor services at the Rancho and also rehabilitate the cultural landscape. The purpose of this Environmental Assessment (EA) is to examine the environmental impacts associated with the proposed park improvements. This EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR] §1508.9), and the National Park Service (NPS) Director's Order (DO)-12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making).

Background

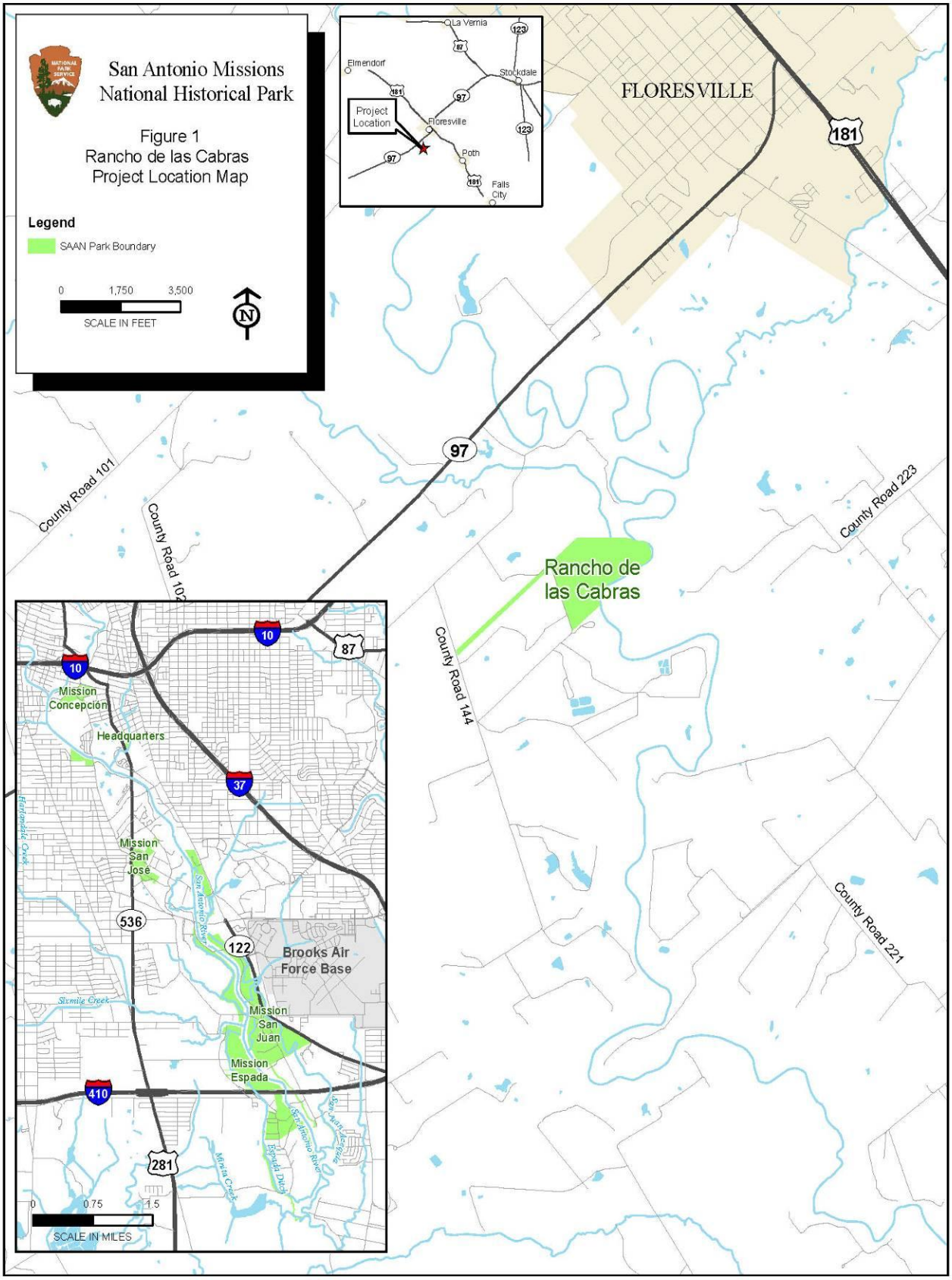
The SAAN was established by Public Law, 92 Stat. 3635, P.L. 95-629, approved November 10, 1978. The park is located on alternate sides of the San Antonio River as it flows through the southern half of San Antonio. The 18th century Spanish missions of San Antonio are historically and architecturally significant remnants of the Spanish quest for lands and Christian converts in the New World. Preserved inside the park's boundaries is the largest concentration of Spanish colonial resources in the United States (U.S). SAAN consists of Mission Concepción, Mission San José, Mission San Juan, and Mission Espada (NPS 1982).

As stated in the park's General Management Plan and Development Concept Plan (GMP/DCP), the parks' purpose is to:

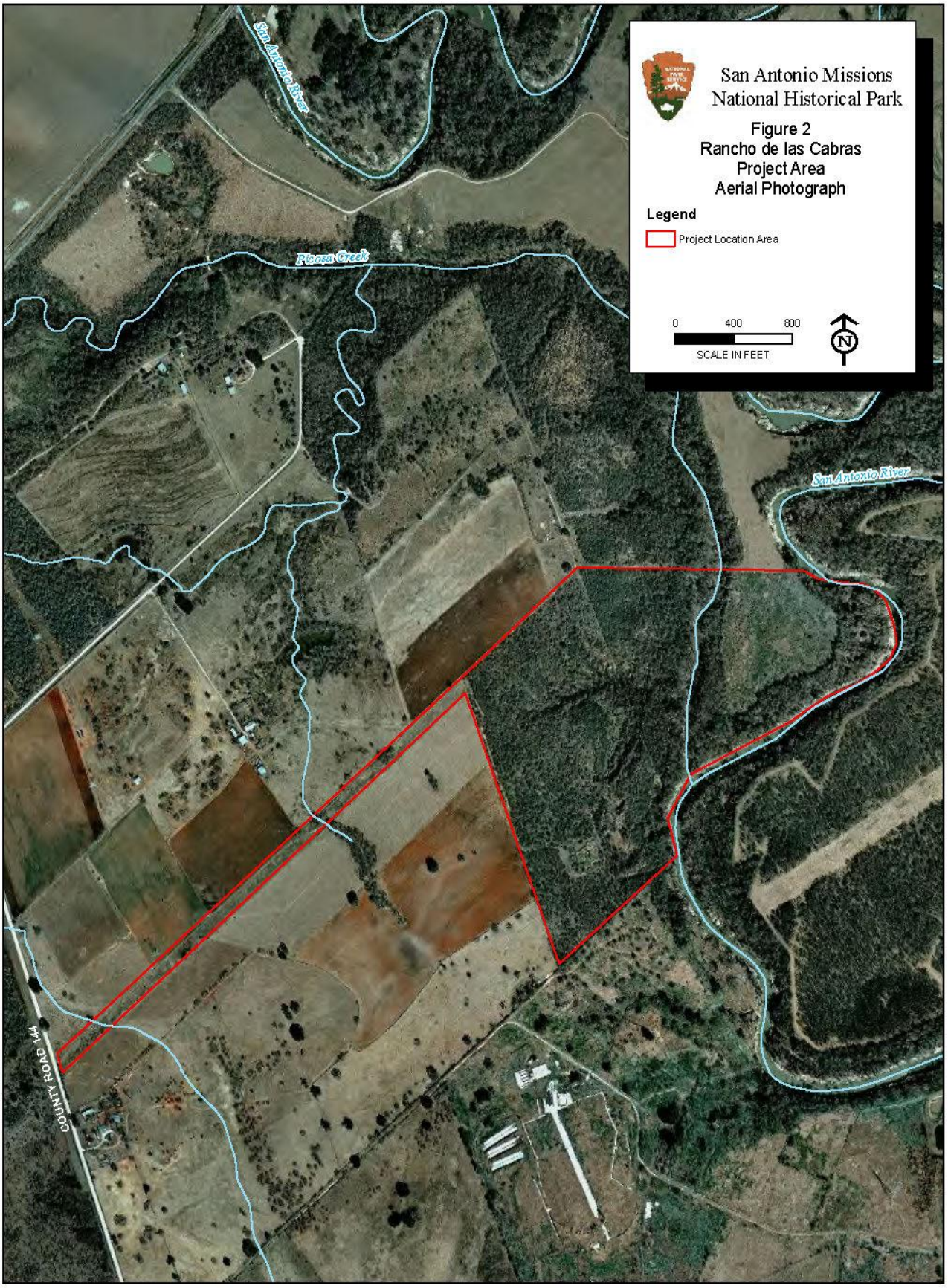
> *...provide for the preservation, restoration, and interpretation of the Spanish Missions of San Antonio, Texas, for the benefit and enjoyment of present and future generations of Americans, there is hereby established the San Antonio Missions National Historical Park...consisting of Concepción, San José, San Juan, and Espada Missions, together with areas and features historically associated therewith.*

Rancho de las Cabras is located in Wilson County, Texas, approximately 23 miles southeast of San Antonio. It is approximately three miles southwest of Floresville, near State Road 97. The Rancho consists of 99.2 acres, most of which are in a compact block of land bounded on the east by the San Antonio River, with the rest in a long, narrow (0.7 mile by 100 feet; 8.5-acre) strip that extends to County Road 144 (NPS 1998a). Figure 1 shows the park boundaries and the location of the proposed park improvements. Figure 2 presents an aerial photograph of the Rancho property.

Each of the SAAN missions had a Rancho on which to raise livestock. The ranchos were established at considerable distances from each mission. The rancho provides a unique opportunity to interpret this integral and important aspect of the region's mission complexes. The rancho is also an excellent location to tell the story of the frontier ranches established during the Spanish colonial period that served as the entry point for cattle ranching in this country and helped to establish the American tradition of cowboys, ranches, and trail drives (NPS 1998a). Rancho de las Cabras is the Rancho associated with Mission Espada.


San Antonio Missions
National Historical Park
Figure 1
Rancho de las Cabras
Project Location Map
Legend
SAAN Park Boundary
0
1,750
3,500
SCALE IN FEET
N
La Vernia
Elmendorf
Stockdale
Project Location
Floresville
Poth
Falls City
FLORESVILLE
181
97
County Road 101
County Road 102
County Road 223
Rancho de las Cabras
County Road 144
County Road 221
10
87
Mission Concepción
Headquarters
37
Mission San José
536
122
Brooks Air Force Base
Mission San Juan
Mission Espada
410
281
0
0.75
1.5
SCALE IN MILES

1


San Antonio Missions
National Historical Park
Figure 2
Rancho de las Cabras
Project Area
Aerial Photograph
Legend
Project Location Area
0
400
800
SCALE IN FEET
N
San Antonio River
Piosa Creek
San Antonio River
COUNTY ROAD 144

Mission Espada's ranchlands were established along the San Antonio River south of the city of San Antonio based on a grant of land that became known as Rancho de las Cabras. Around this time a stone structure was built on the land to house the Indian vaqueros (cattle herders or cowboys) and their families who maintained herds of livestock at the Rancho for the mission (NPS1998b). Beginning in 1770, San Antonio residents increased pressure on the missions to release some of their landholdings which they believed were leaving insufficient pastureland for their own livestock. These efforts led to a judgment which permitted mission lands to be leased by local residents. The first known private rancher to lease the northern portion of Rancho de las Cabras was Ignacio Calvillo, who is reported to have acquired a lease in 1773 or 1774. The remainder of Mission Espada's ranchlands, including the Rancho compound ruins and adjacent areas, continued in use by the mission until at least 1787, and possibly until the secularization of the mission's property in 1794. By 1820, according to archeological investigations of the site, the stone Rancho compound was abandoned and allowed to fall into disrepair (NPS 1998b).

The two parcels of land totaling 99.2 acres, which make up the present Rancho, were acquired by the Texas Parks and Wildlife Department (TPWD) in 1977 and 1982 respectively. TPWD acquired the land with the intention of establishing a historical park and interpreting the Spanish colonial history of the Rancho to the public.

Beginning in 1980, the University of Texas at San Antonio conducted five seasons of archeological fieldwork in and adjacent to the Rancho's ruins for TPWD. After the fieldwork was completed, TPWD realized that it would not be possible to establish a park for an indefinite period of time, so the ruins were covered with sand as a means of protecting and preserving them. Proceedings were then initiated to transfer ownership of the property to the federal government. Prior to the transfer of the Rancho to the NPS, NPS made a commitment to develop and provide public use of the area (NPS 1998a). Rancho de las Cabras became part of SAAN, administered by NPS, in 1995 (NPS 1998b).

Since 1995, NPS has been involved in the planning necessary to properly protect the site's historic resources, and to provide appropriate interpretation of and visitor access to the property. Remains of the walls of its fortified compound and interior rooms still stand underneath mounds of this protective sand. A GMP Amendment EA was released by the NPS in 1998. The GMP Amendment EA, as discussed later in this chapter, was created in order to guide the management and development of the Rancho.

Currently the Rancho has an unimproved entrance road that provides vehicle access to the site from County Road 144. It is approximately one mile from the entrance at the county road to an informal parking area. The parking area is about 200 feet from the ruins and there are no support facilities on the property. The only current public use of the area consists of archeology field school activities, park sponsored events, and scheduled guided tours that originate at nearby Floresville City Park on the San Antonio River. The tours take place on the first Saturday of each month. The gate to the Rancho is locked at all times with the exception of during the tour, no NPS employees are permanently on site (NPS 1998a).

Purpose and Need

The Rancho de las Cabras site contains the only physical remains of the Ranchos used to raise livestock for the missions, in this case Mission Espada. The property is significant in the areas of American history, agriculture, archeology, and culture. Currently, the Rancho de las Cabras property does not have the required infrastructure to provide adequate visitor services to promote the proper public use of the park. The current lack of infrastructure results in:

- An inability to provide comfort stations and/or shelters for visitors.

- The lack of a venue to educate park visitors on the significance of the historic resource, restricting the educational value of the park.
- Inability to permanently staff the property.
- A restriction on the amount of visitors that the park can accommodate.
- A lack of trails prevents visitors from approaching the ruins and walking around the grounds of park without park ranger escorts.

There is therefore a need to create the necessary infrastructure in order to address these current operational constraints.

The current landscape surrounding the Rancho compound is dominated by invasive successional growth. This successional growth is not representative of the native prairie landscape of the period of significance. There is therefore a need to implement a vegetation management program to remove the invasive vegetation and rehabilitate the natural landscape.

The purpose of the project is therefore to improve the site in order to make it more suitable for public use and be more representative of historic conditions. The project is needed in order to accomplish the objectives listed below:

Objective 1:

Provide the necessary infrastructure required to accommodate permanent staff and extend visitors hours at the park.

Objective 2:

Provide the necessary infrastructure to enable visitors to have an interesting, enriching, and informative experience in the park.

Objective 3:

Promote the rehabilitation of the natural and cultural landscape in order to be more representative of historic conditions.

Relationship to Other Plans and Policies

This project has been developed in a manner consistent with NPS legal mandates and Management Policies 2006 (NPS 2006). The SAAN General Management Plan Amendment and Environmental Assessment Rancho de las Cabras Site (GMP Amendment EA) (NPS 1998a) and the Rancho de las Cabras Cultural Landscape Report (CLR) (NPS 1998b) provide broad directions for the management of the park and identify actions to improve the quality of both visitor and employee experience, as well as for the management and protection of the historic and natural resources of the park in order to allow NPS to meet current and future functional, maintenance, and management needs at the site, while protecting its resources.

The approved GMP Amendment EA identified a number of goals for Rancho. Items marked with an asterisk “*” would be addressed as part of the proposed action:

- The preservation of the Rancho ruins will be management's highest priority (this will be addressed separately).
- The visitor to the Rancho will learn about the Rancho's role in the life of Mission Espada and in the evolving Southwest cattle and ranching industry*.
- When budgeting and staffing allow, the Rancho will be open to the public and staffed on a scheduled basis*.

- The community of Floresville will be encouraged to "adopt" the site, with local volunteers becoming involved in its interpretation and maintenance.
- The proposed preservation treatment of the walls, the exposure of the occupation levels, and archeological investigations will be open for public viewing and will be interpreted.

The GMP Amendment EA also included recommendations for managing park resources and operations. Recommendations marked with an asterisk “*” would be addressed as part of this project.

- An entrance sign and gate at the new entrance.
- A surfaced all-weather road would enter the southern corner of the site from the road to the Promised Land Dairy. It would lead to a surfaced, 25-car parking area southwest of the ruins.*
- The 0.7-mile long strip of land that contains the existing unimproved entrance road would be offered in trade for the land needed for construction of the proposed entrance. The property owner whose land is adjacent to the strip also owns the land that would be needed for the proposed entrance and has said that he would be interested in such a trade. The park boundary would be adjusted to accommodate the two changes. The proposed entrance was selected because it is closer to the ruins. In addition, Wilson County has agreed to maintain the road that goes to the Promised Land Dairy (a private road), thereby relieving the NPS of the need to improve and maintain the existing entrance road.
- The interior of the chapel walls, which have evidence of original plaster that would require special preservation treatment, would not be exposed. All or most of the compound walls would be exposed, including the subsurface evidence of the original walls that were removed in a later phase of construction. This would expose all of the ruins, including the entire outline or "floor plan" of the compound. The exposed walls might require very limited replacement of fallen stones, but no rehabilitation or reconstruction of the walls would occur. The walls would be stabilized and pointed, as necessary.
- All or much of the upper of the compound's two occupation levels would be exposed, as would a portion of the lower level.
- Interpretation, which may consist of personal services, non-personal services, or a combination of the two will be provided in and around the compound to interpret the ruins and describe the purpose of the Rancho, the work that was done there, the people who did it, and the Rancho's relationship to Mission Espada*.
- A 2,100 square-foot open-air visitor contact interpretation facility, including office and storage space for the ranger, a sheltered sitting area, restrooms, and sheltered exhibits for interpretive messages and park information would be near the parking area, approximately 250 feet southwest of the ruins*.
- An interpretive trail would describe the native vegetation, the scene as it would have been when grazed, and the vegetation that is there now. It would lead to the overlook of the San Antonio River valley*.
- A trail to the river would provide a connection for canoeists and riverside hikers and a means for canoeists to carry their boats to the parking lot.

- Ethnographic research is under way at Mission San Juan. The results of that research may suggest the lines of ethnographic research that should be conducted at the Rancho (NPS 1998a).

The 1998 CLR recommended “rehabilitation” as the primary overall approach to resource management at Rancho de las Cabras. Rehabilitation is defined as "the process of making possible a compatible use for a property through repair, alterations, and additions, while preserving those portions or features which convey its historical, cultural, or architectural values. The CLR concluded that rehabilitation would allow for the establishment of a rich and fulfilling visitor experience, and the implementation of necessary functional site improvements, allowing the park to pursue resource management initiatives that are intended to promote sustainability.

The CLR also identified five treatment areas and specific goals for each of these areas (NPS 1998b). Goals identified by an asterisk “*” would be addressed by the proposed action.

Treatment Area 1: Rancho Compound

- Preserve and stabilize cultural and archeological resources;
- Interpret the site's history and extant cultural and archeological resources*; and
- Interpret on-going archeological investigations*.

Treatment Area 2: Quarry

- Preserve the quarry and associated wet areas*;
- Stabilize the slopes that pose a risk to visitors and threaten the Rancho compound*; and
- Continue to investigate the history of the quarry. Should more information become known, interpret the quarry through least-intrusive visitor access systems.

Treatment Area 3: Mesquite Uplands

- Consider altering the existing upland vegetative community through vegetation management strategies, such as controlled burning, mechanical clearing, or other suitable methods, to reduce mesquite dominance*; and
- Allow for minimal development of pedestrian and service circulation systems to provide access to the Rancho compound and its environs*.

Treatment Area 4: Agricultural Lands

- Maintain the open character and agricultural use of the field north of the confluence of the San Antonio River and Picosa Creek until interpretive goals for the area have been identified*;
- Transfer the panhandle to a private landowner in order to acquire a potential alternative entrance parcel;
- Maintain agricultural use through covenants or leases; and
- Develop visitor access and parking facilities and a visitor contact/interpretation facility within a newly established woodland of native trees and plantings at the potential alternative entrance parcel.

Treatment Area 5: San Antonio River and Picosa Creek Riparian Systems

- Protect and enhance these sensitive water resources and their associated riparian habitats*;

- Prohibit livestock access and grazing (part of current operations); and
- Accommodate water access by canoeists, rafters, and kayakers in the least intrusive manner possible, should the need for access be demonstrated.

The proposed park improvements are consistent with the broader goals and management policies outlined in both of these documents. As outlined above, the proposed park improvements would however not address all of the GMP Amendment EA or CLR suggestions/recommendations at this time. The proposed park improvements do however include modifying some aspects of the recommended actions. These modifications and additions are primarily a result of the length of time since the recommendations were made, as the study was published in the late 1990's. The following modifications and/or reasoning why certain recommendations are not proposed to be implemented at this time are presented below:

- The proposed action originally included exposing the Rancho ruins in order to implement the GMP and CLR recommendations. Upon further reflection, it was decided that determining whether to expose the ruins, and if so, to what extent would require extensive specialist coordination and study. The exposure of the ruins was therefore dismissed from consideration within the scope of this document which focuses exclusively on addressing visitor services and cultural landscape related project objectives. Determining the correct management approach to the ruins remains a key objective of the park planning staff and would not affect the success of the proposed improvements outlined within the alternatives being considered. The proposed preservation treatment of the walls, the exposure of the occupation levels, and archeological investigations will be open for public viewing and will be interpreted.
- The land trade involving the 0.7-mile long strip of land that contains the existing unimproved entrance road was recommended to be traded with the property owner for a strip of land that would enable to the park entrance to the ruins. This is no longer seen as an important management goal as the existing entrance parcel is adequate and would enable the park visitor to experience the landscape while entering the park.
- As the land swap is no longer being proposed, the visitor access, parking facilities and a visitor contact station would no longer be located as the alternative entrance parcel, but rather within the general location of the current informal parking area as illustrated in the proposed action figures.

Scoping

Scoping is a process to identify the resources that may be affected by a project proposal and to explore possible alternative ways of achieving the proposal while minimizing adverse impacts. SAAN conducted internal scoping with appropriate NPS staff, as described in more detail in the *Consultation and Coordination* chapter. The park also conducted external scoping with the public and interested and affected groups and agencies.

External scoping was initiated with the distribution of a scoping letter to inform the public of the proposed project and to generate input on the preparation of this EA. The scoping letter was mailed to over 260 addresses which included federal, state, local agencies and local landowners. Scoping information was also posted on the park's website. The public scoping meeting was held on January 13, 2011. A total of 18 people attended the meeting, which included an open house, a formal presentation in which the preliminary project alternatives were described, and a question and answer session.

A public comment period commenced on January 11, 2011 and was open until January 27, 2011. In total, 12 letters, emails, NPS planning, environment and public comment (PEPC) website submissions, and phone call comments were received during the meeting and scoping period. Overall, no major concerns were raised regarding any of the proposed alternatives. Two comments were received that expressed support of alternative 2 – Maximum Action. One comment was received in favor of either of the build alternatives. This comment also suggested that park should include an educational and historical program. Two comments suggested that canoe access be considered as part of the proposed action. One of these comments also suggested that hike and bike access should be considered. One comment suggested that the reconstruction of the ruins should be considered.

Impact Topics Retained For Further Analysis

Impact topics for this project have been identified on the basis of federal laws, regulations, and orders; NPS *Management Policies* 2006; NPS staff knowledge of resources at SAAN; and in consideration of input provided by the public during scoping. Impact topics that are carried forward for further analysis in this EA are listed below.

Impact topics retained for further analysis are:

- Vegetation
- Visitor Use and Experience
- Park Operations and Management
- Cultural Landscapes
- Archeological Resources
- Socioeconomics

Impact Topics Dismissed From Further Analysis

In this section, NPS takes a “hard look” at all potential impacts by considering the direct, indirect, and cumulative effects of the proposed action on the environment, along with connected and cumulative actions. Impacts are described in terms of context and duration. The context or extent of the impact is described as localized or widespread. The duration of impacts is described as short-term, ranging from days to three years in duration, or long-term, extending up to 20 years or longer. The intensity and type of impact is described as negligible, minor, moderate, or major, and as beneficial or adverse. The NPS equates “major” effects as “significant” effects. The identification of “major” effects would trigger the need for an EIS. Where the intensity of an impact could be described quantitatively, the numerical data is presented; however, most impact analyses are qualitative and use best professional judgment in making the assessment.

The NPS defines “measurable” impacts as moderate or greater effects. It equates “no measurable effects” as minor or less effects. “No measurable effect” is used by NPS in determining if a categorical exclusion applies or if impact topics may be dismissed from further evaluation in an EA or EIS. The use of “no measurable effects” in this EA pertains to whether NPS dismisses an impact topic from further detailed evaluation in the EA. The reason NPS uses “no measurable effects” to determine whether impact topics are dismissed from further evaluation is to concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail in accordance with CEQ regulations at 1500.1(b).

In this section of the EA, NPS provides a limited evaluation and explanation as to why some impact topics are not evaluated in more detail. Impact topics are dismissed from further evaluation in this EA if:

- they do not exist in the analysis area, or

- they would not be affected by the proposal, or the likelihood of impacts are not reasonably expected, or
- through the application of mitigation measures, there would be minor or less effects (i.e. no measurable effects) from the proposal, and there is little controversy on the subject or reasons to otherwise include the topic.

Due to there being no effect or no measurable effects, there would either be no contribution towards cumulative effects or the contribution would be low. For each issue or topic presented below, if the resource is found in the analysis area or the issue is applicable to the proposal, then a limited analysis of direct and indirect, and cumulative effects is presented.

Topography, Geology, and Soils

According to the NPS *Management Policies* 2006, NPS will preserve and protect geologic resources and features from adverse effects of human activity, while allowing natural processes to continue. These policies also state that NPS will strive to understand and preserve the soil resources of park units and prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil, or its contamination of other resources.

The soils at Rancho de las Cabras are predominantly red sand with large chunks of sandstone visible as outcroppings, and surface stones scattered throughout the landscape. The site has three distinct topographical sections. The higher, western section, which includes the ruins and part of the entrance road, which is at an elevation of 400-410 feet, the central section consists of a steep valley side that drops about 75-feet to Picosa Creek and the San Antonio River, and the eastern section which is a level area about 25 feet above the creek and river (NPS 1998a).

The planned park improvements are not anticipated to cause more than minor subsurface soil disturbances. Permanent surface level disturbances would result from the improvements to the entrance road and parking lot and from the construction of the proposed contact station and trail networks. Additional temporary disturbances would result from the proposed vegetation rehabilitation and management program. These temporary disturbances would however be mitigated through the reestablishment of native prairie. As these effects are minor or less in degree, these topics are dismissed from further analysis.

Paleontological Resources

According to NPS *Management Policies* 2006, paleontological resources (fossils), including both organic and mineralized remains in body or trace form, will be protected, preserved, and managed for public education, interpretation, and scientific research. Appropriate steps would be taken to protect any paleontological resources that are inadvertently discovered during construction activities. Should currently unidentified paleontological resources be discovered during project implementation, work in that location would stop until the resources are properly evaluated and avoided if necessary. As the proposed park improvements would not disturb any known paleontological sites, the impact of the improvements on these resources is expected to be negligible. As these effects are minor or less in degree, this topic is dismissed from further analysis.

Ethnographic Resources

National Park Service's DO-28 *Cultural Resource Management Guideline* defines ethnographic resources as any site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it. According to DO-28 and Executive Order 13007 on sacred sites, the NPS should try to preserve and protect ethnographic resources.

No specific ethnographic resources, including tribal resources, have been identified by the park or were raised as issues during public scoping which included a public scoping meeting and tribal coordination efforts. Therefore no impacts to significant ethnographic resources are expected. As these effects are minor or less in degree, this topic is dismissed from further analysis.

Prime and Unique Farmlands

The Farmland Protection Policy Act of 1981, as amended, requires federal agencies to consider adverse effects to prime and unique farmlands that would result in the conversion of these lands to non-agricultural uses. Prime or unique farmland is classified by the U.S. Department of Agriculture's Natural Resources Conservation Service, and is defined as soil that particularly produces general crops such as common foods, forage, fiber, and oil seed; unique farmland produces specialty crops such as fruits, vegetables, and nuts.

Some soils within Ranch de las Cabras are considered prime farmland soils. The proposed park improvements would result in negligible impacts to prime farmland soils through minor ground disturbances. As these effects are minor or less in degree, this topic is dismissed from further analysis.

Museum Collections

According to DO-24 *Museum Collections Management,* the NPS requires the consideration of impacts on museum collections (historic artifacts, natural specimens, and archival and manuscript material), and provides further policy guidance, standards, and requirements for preserving, protecting, documenting, and providing access to, and use of, NPS museum collections.

The proposed park improvements would result in surficial ground disturbances, particularly during the establishment of the vegetation rehabilitation and management program. These actions would be closely monitored in order to ensure that any artifacts that are discovered are cataloged and stored appropriately. The action alternatives would therefore result in beneficial effects to museum collections, and any adverse effects would be negligible. As these effects are minor or less in degree, this topic is dismissed from further analysis.

Historic Structures and Districts

NPS DO-28 Cultural Resource Management Guideline defines “historic properties” as any site, district, building, structure, or object eligible or listed in the National Register of Historic Places (NRHP), which is the nation’s inventory of historic places and the national repository of documentation on property types and their significance. The term “historic structures” refers to constructed works that are architecturally designed or engineered to serve a human activity. These may include buildings, roads, trails, bridges, irrigation ditches, or earthen berms. Historic districts are groups of buildings, properties or sites that have been designated as historically or architecturally significant.

The NPS would protect and manage cultural resources in its custody through effective research, planning, and stewardship and in accordance with these policies and guidelines. Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of their undertakings on historic properties and to afford the Advisory Council on Historic Preservation an opportunity to comment in the consultation process.

There are no buildings located on the Rancho de las Cabras property, only the ruins of various portions of the Rancho compound. The ruins of the Rancho compound include remnant walls associated with the Spanish colonial era structure. The ruins primary significance is as an

archeological site as it has yielded, and may be expected to continue to yield, important information about the Rancho. Potential impacts to the Rancho ruins are therefore discussed in the *Archeological Resources Environmental Consequences* chapter. Potential impacts to above ground historic resources are discussed in the *Cultural Landscape Environmental Consequences* chapter. The topic of Historic structures and Districts is therefore dismissed from further analysis as it is sufficiently studied in other topics being considered.

Water Resources

NPS policies require protection of water quality consistent with the Clean Water Act of 1977 (CWA). The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." To enact this goal, the U.S. Army Corp of Engineers (USACE) has been charged with evaluating federal actions that result in potential degradation of waters of the U.S. and issuing permits for actions consistent with the CWA. The U.S. Environmental Protection Agency (EPA) also has responsibility for oversight and review of permits and actions that affect waters of the U.S.

The San Antonio River is adjacent to the eastern edge of Rancho de las Cabras and Picosa Creek passes through the Rancho. A pedestrian bridge could be constructed over Picosa Creek as part of the proposed improvements. Based on the size of the proposed pedestrian bridge, it is anticipated that should a discharge of dredge or fill material into a water of the U.S. result, it would most likely be permitted under Section 404 of the Clean Water Act, Nationwide Permit 14, *Linear Transportation Crossings*. It is further assumed that, should a discharge occur, the volume of discharge would be below USACE Pre-Construction Notification reporting requirements. A final determination regarding permitting requirements would be conducted during final design of the pedestrian bridge.

Water quality and quantity may be affected by ground disturbances. All construction activities would be performed in accordance with the Texas Discharge Elimination System Construction General Permit. Conditions of the permit would ensure that unacceptable impacts to water quality do not result from construction activities. Storm water management best practices would therefore be implemented to ensure water quality is maintained during construction activities. As these effects are minor or less in degree, this topic is dismissed from further analysis.

Floodplains

Executive Order 11988 Floodplain Management requires all federal agencies to avoid construction within the 100-year floodplain unless no other practicable alternative exists. NPS under NPS *Management Policies* 2006 and DO-77-2 Floodplain Management will strive to preserve floodplain values and minimize hazardous floodplain conditions. According to DO-77-2 Floodplain Management, certain construction within a 100-year floodplain requires preparation of a Statement of Findings for floodplains.

The majority of the proposed park improvements would take place outside of the 100 year-floodplain (Map # 48493C0475C, November 26, 2010), parts of the proposed pedestrian trail would however fall within the 100 year-floodplain. It is not anticipated that the proposed park improvements would impact floodplain values and functions or flood risks to development. A Statement of Findings for floodplains would not be prepared. As these effects are minor or less in degree, this topic is dismissed from further analysis.

Wetlands

For regulatory purposes under Section 404 of the CWA, the term wetlands means "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient

to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Executive Order 11990 Protection of Wetlands requires federal agencies to avoid adversely impacting wetlands, where possible. Further, Section 404 of the CWA authorizes the USACE to prohibit or regulate, through a permitting process, the discharge of dredged or fill material within waters of the U.S. NPS policies for wetlands as stated in NPS *Management Policies* 2006 and DO-77-1 Wetlands Protection strive to prevent the loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. In accordance with DO-77-1, proposed actions that have the potential to adversely impact wetlands must be addressed in a Statement of Findings for wetlands.

According to National Wetland Inventory mapping, no wetlands have been documented within the area of the proposed park improvements. This finding was further confirmed by SAAN staff. A Statement of Findings for wetlands would not be prepared. As there would be no effects to wetlands, this topic is dismissed from further analysis.

Wildlife

According to NPS *Management Policies* 2006, NPS strives to maintain all components and processes of naturally evolving park unit ecosystems, including the natural abundance, diversity, and ecological integrity of animals (NPS 2006).

Due to the rural nature of Rancho de las Cabras, evidence of wildlife is abundant at the site. Species include deer, rabbits, raccoons, and numerous birds and reptiles. Numerous species of fish also occur in the San Antonio River. The San Antonio River corridor is an important resource for numerous wildlife species as it serves as source of food, shelter, and dispersal. The river corridor also plays an important role for migratory and nesting birds (NPS 1998a). The proposed park improvements with the potential to affect wildlife include the development of a pedestrian trail system and the implementation of a vegetation rehabilitation and management program.

Impacts as a result of these elements are considered to be both short-and long-term. Wildlife would be temporarily affected by construction crews and their equipment. During construction, wildlife would experience effects from noise and disturbances associated with the heavy equipment and vehicles. The noise may result in the temporary movement of wildlife away from the construction areas. Walking surveys would be conducted by NPS personnel prior to the initiation of any construction activities that have the potential to harm or displace wildlife. There is available habitat adjacent to the proposed park improvements. Wildlife populations generally could use other areas of the local habitats with negligible adverse effect on the population. The proposed park improvements would also only result in negligible impacts to the San Antonio River Corridor area which would be associated with pedestrian trails. The proposed project could result in an increase in visitor traffic. This could result in a negligible adverse impact to the wildlife and wildlife habitat in the immediate vicinity of the pedestrian trails.

The proposed vegetation rehabilitation and management program would have a long term beneficial impact on local wildlife as the program would ultimately create a more ecologically diverse habitat within the park.

As the potential effects to wildlife are minor or less in degree, this topic is dismissed from further analysis.

Threatened, Endangered, Rare, and Protected Species

The Endangered Species Act of 1973 requires examination of impacts on all federally-listed threatened, endangered, and candidate species. Section 7 of the Endangered Species Act requires all federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitats. In addition, the NPS *Management Policies* 2006 and DO-77 Natural Resources Management Guidelines require NPS to examine the impacts on federal candidate species, as well as state-listed threatened, endangered, candidate, rare, declining, and sensitive species.

There are no federally listed plant, or wildlife, species known to occur at Rancho de las Cabras. The recently listed candidate species, Sprague's Pipit (*Anthus spragueii*) has been listed in Wilson County. The Sprague's Pipit is only in Texas during migration and winter, (or mid-September to early April). It is strongly tied to native upland prairie, and can be locally common in coastal grasslands, and uncommon to rare further west. The species is also sensitive to patch size and avoids habitat edges (TPWD 2011). Based on the successional growth found on the Rancho, current habitat is not suitable for the Sprague's Pipit. The proposed vegetation rehabilitation and management program may in fact have a long-term beneficial effect on the Sprague's Pipit due to the potential to create native prairie. No adverse effects to federally threatened, endangered, proposed, and candidate species are anticipated as a result of the proposed park improvements.

One species listed by the State of Texas as threatened, the Texas tortoise (Gopherus berlandieri), has been observed at the Rancho with the last observation occurring in 2008. The park completed a two-year study in 2011 that failed to locate any tortoises in or near the park (Dittmer 2011). The study concluded that there was very little suitable habitat and that it is highly unlikely tortoises are present or that a population could be sustained. However, walking surveys for the tortoise would be performed prior to any construction activities. Should the presence of the tortoise be detected during these surveys, measures would be implemented to ensure that construction activities do not impact the species. Construction phase discovery procedures, which would include ceasing work immediately, would also be developed in consultation with NPS and construction contractor. In addition, construction personnel would be educated on the regulatory consequences for harassment to state-listed species. Based on these mitigation measures, it is anticipated that potential effects to threatened, endangered, rare or protected species are highly unlikely (and thus minor or less in degree), this topic is therefore dismissed from further analysis.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by the Department of Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the U.S. to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes.

The lands comprising the park are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. As there are no Indian trust resources, this topic is dismissed from further analysis.

Soundscapes

In accordance with NPS *Management Policies* 2006 and DO-47 Sound Preservation and Noise Management, an important component of the NPS mission is the preservation of natural soundscapes associated with national park units. Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all the natural sounds that occur in park units, together with the physical capacity for transmitting natural sounds. Natural sounds occur within and beyond the range of sounds that humans can perceive and can be transmitted through air, water, or solid materials. The frequencies, magnitudes, and durations of human-caused sound considered acceptable vary among NPS units as well as potentially throughout each park unit, being generally greater in developed areas and less in undeveloped areas.

The existing landscape at Rancho de las Cabras is rural in nature with very little existing ambient noise. Roadway traffic and farm equipment are the primary sources of noise generation. An increase in park visitors would have the potential to increase noise levels associated with the park. It is anticipated that this increase would however be negligible.

During construction, human-caused sounds would likely increase due to construction activities, equipment, vehicular traffic, and construction crews. Any sounds generated from construction would be temporary, lasting only as long as the construction activity is generating the sounds. Due to the lack of current facilities in the park and the associated controlled visitor access, impacts to soundscapes related to construction activities are anticipated to be negligible. As these effects are minor or less in degree, this topic is dismissed from further analysis.

Lightscapes

In accordance with NPS *Management Policies* 2006, NPS strives to preserve natural ambient lightscapes, which are natural resources and values that exist in the absence of human caused light. No outside lighting is anticipated to be introduced into the park as part of the proposed improvements. Should lighting be needed, minimal and discrete downward facing lighting would be installed, resulting in a negligible to minor impact on lightscapes. As these effects are minor or less in degree, this topic is dismissed from further analysis.

Environmental Justice

Executive Order 12898, General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The population of the U.S. Census block in which Rancho de las Cabras is located is 23.3 percent minority, and the adjacent block group (Block Group ID 484939806003) is 51.38 percent minority. As the proposed visitor services would be available for use by all park staff and visitors regardless of race or income, and the construction workforces would not be hired based on their race or income, it is not anticipated that the proposed action would not have disproportionate health or environmental effects on minorities or low-income populations or communities, as these effects are minor or less in degree, this topic is dismissed from further analysis.

Land Use

The surrounding landscape is actively used for agricultural purposes. The neighboring farms and ranch lands are under intense management, growing crops such as hay and peanuts. A dairy operation is also located immediately south of the Rancho property. The economy

associated with these neighboring land uses appears to be relatively strong and viable. Those areas not in agricultural use have reverted to a physical state resembling that of the Rancho de las Cabras site (NPS 1998a). It is anticipated that the proposed improvements would enhance the existing ranchland nature of the area rather than impact established land uses. As the effects to land use are minor or less in degree, this topic is dismissed from further analysis.

Air Quality

The Clean Air Act of 1963 (42 USC 7401 et seq.) was established to promote the public health and welfare by protecting and enhancing the nation's air quality. The act establishes specific programs that provide special protection for air resources and air quality related values associated with NPS units. Section 118 of the Clean Air Act requires a park unit to meet all federal, state, and local air pollution standards. Further, the Clean Air Act provides that the federal land manager has an affirmative responsibility to protect air quality related values (including visibility, plants, animals, soils, water quality, cultural resources, and visitor health) from adverse pollution impacts.

The park area is designated a Class II area under the Clean Air Act. The park's air quality is good, except for ground-level ozone during the hot season (May through October). Construction activities such as hauling materials and operating heavy equipment could result in temporary increases of vehicle exhaust, emissions, and fugitive dust in the general project area. Any exhaust, emissions, and fugitive dust generated from construction activities would be temporary and localized and would likely dissipate rapidly.

The operation of the proposed park improvements would result in a negligible degradation of local air quality as a result of increased visitor traffic. The Class II air quality designation for the park would not be affected by the proposed park improvements. As these effects are minor or less in degree, this topic is dismissed from further analysis.

Climate Change

Although climatologists are not in agreement about the long-term results of global climate change, it is clear that the planet is experiencing a warming trend that affects ocean currents, sea levels, polar sea ice, and global weather patterns. Although these changes will likely affect precipitation patterns and amounts in SAAN, it would be speculative to predict localized changes in temperature, precipitation, or other weather changes, in part because there are many variables that are not fully understood and there may be variables not currently defined. Impacts from construction equipment emissions would be temporary and would not measurably contribute to global climate change. An anticipated increase in park visitation may have a negligible effect on global climate change. This negligible effect would be mitigated through NPS sustainability initiatives which would be integrated into the design, construction, and operation of proposed park improvements. As these effects are minor or less in degree, this topic is dismissed from further analysis.

ALTERNATIVES CONSIDERED

A total of two action alternatives and the no-action alternative have been identified for the project. These alternatives were presented to the public during a project scoping meeting and discussed with an interdisciplinary team of NPS employees during a project planning workshop.

The conceptual layout of the no-action alternative is presented in ***Figure 3***. Conceptual layouts of each of the action alternatives are presented in ***Figures 4*** *and* ***5***. A summary table comparing alternative components is presented at the end of this chapter.

Alternatives Considered

No–Action Alternative

Under this alternative, no improvements to the current park infrastructure would be made. Should the no-action alternative be selected, visitor support services at Rancho de las Cabras would not be created, public access to the Rancho would continue to be limited and the cultural landscape would not be rehabilitated.

Alternative 1 – Moderate Action

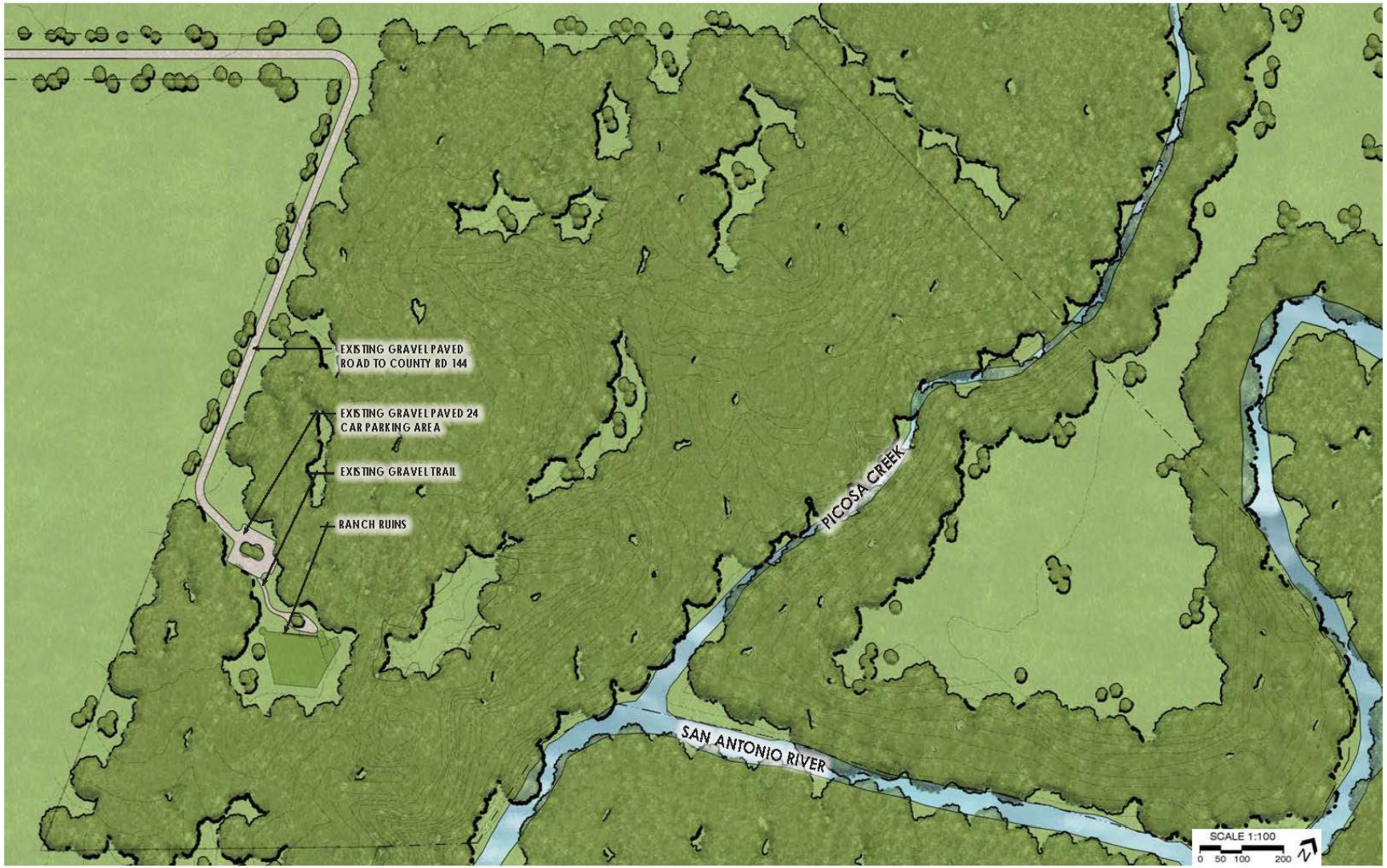
Alternative 1 includes creating various visitor services at Rancho de las Cabras. These improvements include realigning and re-graveling the entrance road from County Road 144, extending the parking lot and developing and an open air visitor contact station. A pedestrian trail would also be constructed from the visitor contact station. These actions would address the project objective of providing the necessary infrastructure required to accommodate permanent staff and extend visitors hours at the park while enabling an interesting, enriching, and informative visit to the park.

A vegetation rehabilitation and management program would also be implemented as part of this alternative. The program would focus on the area surrounding the visitor contact station and Rancho compound ruins. This program would promote the rehabilitation of the natural and cultural landscape in order to be more representative of historic conditions.

The main components of this alternative are mapped in **Figure 3** and are further described below:

- **Realigning and re-graveling the entrance road from County Road 144:** As recommended in the park GMP, the entrance road would be realigned in order to incorporate curvature.
- **Gravel 25-car parking area**: As recommended in the park GMP, the existing gravel parking lot would be improved and extended to accommodate up to 25 cars as recommended in the park GMP.
- **Open air visitor contact station:** As recommended in the park GMP, a 2,100 square-foot open-air visitor contact station, including office and storage space for the ranger, a sheltered sitting area, toilets, and sheltered exhibits for interpretive messages and park information. The contact station would be near the parking area, approximately 250 feet northeast of the ruins. The facility will enable Rancho visitors to be able to learn about the Rancho's role in the life of Mission Espada and in the evolving Southwest cattle and ranching industry.
- **Utilities:** Utility conduits would be run from the park entrance and generally follow the alignment of the existing park property fence line. The utility alignment would be

NO-ACTION ALTERNATIVE



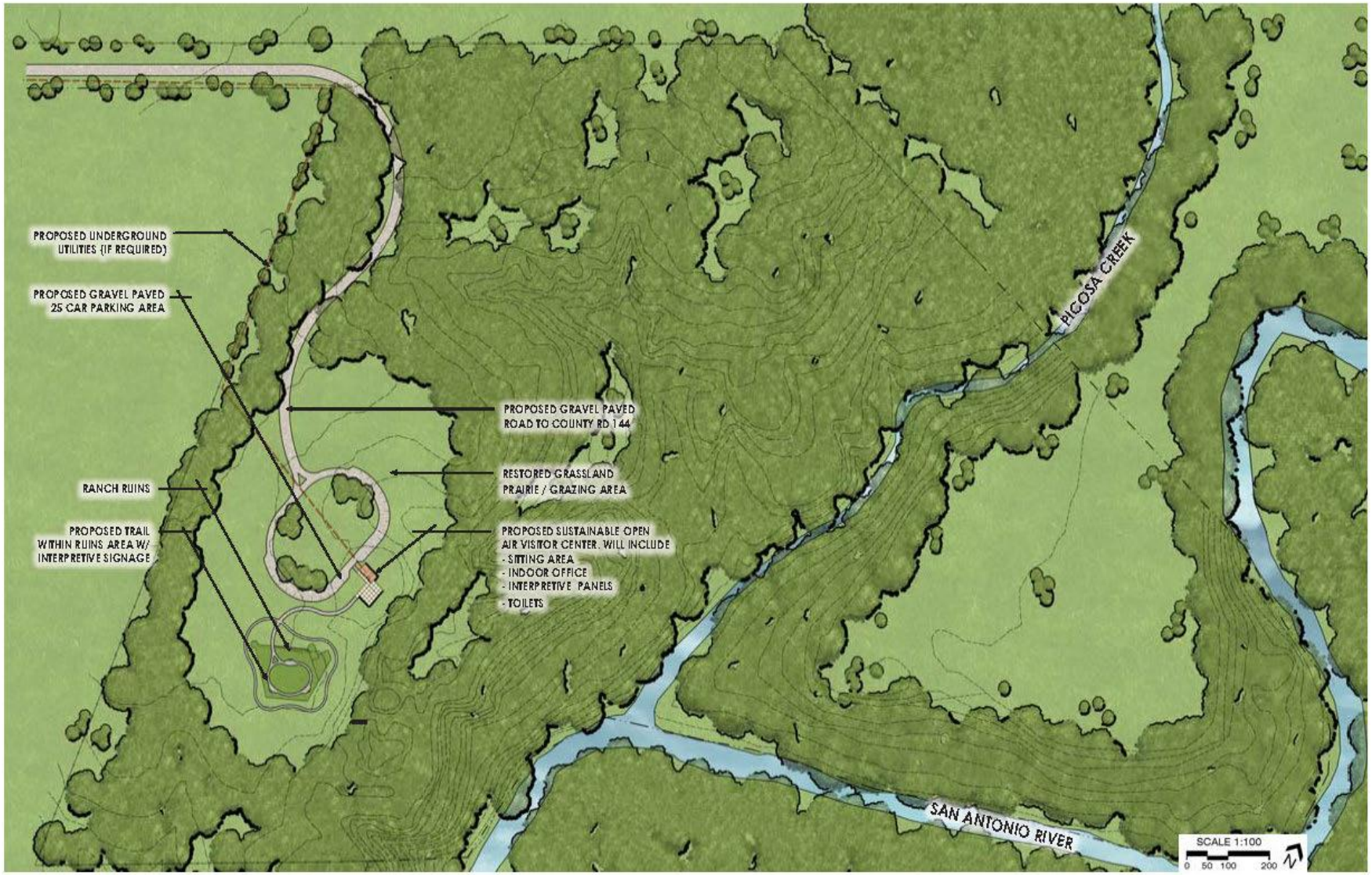
RIALTO STUDIO

OCTOBER 20, 2010

SAN ANTONIO MISSIONS NATIONAL HISTORICAL PARK
RANCHO DE LAS CABRAS

SCHEMATIC LAYOUT PLAN
NO ACTION PLAN

ALTERNATIVE 1: MODERATE ACTION



RIALTO STUDIO

OCTOBER 20, 2010

SAN ANTONIO MISSIONS NATIONAL HISTORICAL PARK
RANCHO DE LAS CABRAS

Figure 4 SCHEMATIC LAYOUT PLAN
MODERATE ACTION PLAN

trenched, conduit laid, and then backfilled. Utilities would include electricity and water in order to support the visitor contact station.

- **Pedestrian trail:** As suggested in the CLR, a pedestrian trail would be created in order to allow for minimal development of pedestrian and service circulation systems to provide access to the Rancho compound and its environs. The trail would be constructed from the visitor contact station to the ruins, with loops inside and outside of the ruins.
- **Vegetation rehabilitation and management program:** As suggested in the CLR, this alternative would include altering the existing upland vegetative community through vegetation management strategies. The program would be limited to the area surrounding the visitor contact station and Rancho compound ruins. This effort would clear successional growth, restoring native grassland/prairie and result in a landscape surrounding the ruins that is more representative of the Spanish colonial period. A vegetation rehabilitation and management plan would be developed. The plan would; establish a protocol for the program including the methods to be utilized for clearing such as controlled burning, mechanical clearing, the timing of activities and ongoing program management requirements.

Photograph 1: Example of mesquite/hackberry dominance just outside of rancho compound

The 1998 CLR recommended “rehabilitation” as the primary overall approach to resource management at Rancho de las Cabras. Rehabilitation is defined as "the process of making possible a compatible use for a property through repair, alterations, and additions, while preserving those portions or features which convey its historical, cultural, or architectural values. This alternative is consistent with this approach.

Alternative 2 – Maximum Action

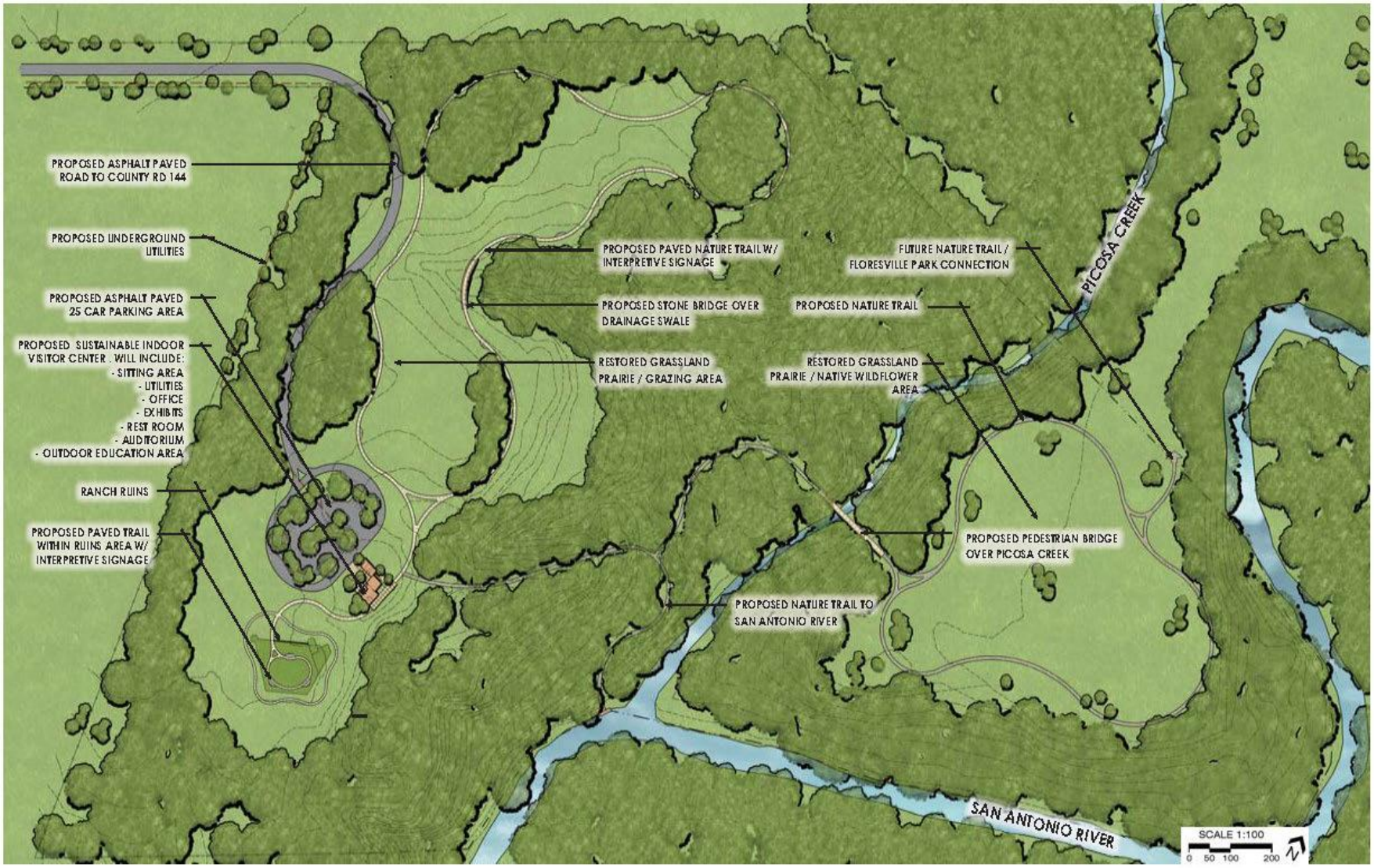
Alternative 2 would include all of components of alternative 1 with some notable additions. The park entrance road and extended parking area would be further improved, as would the visitor contact station. A larger-scale vegetation rehabilitation and management program would also be introduced along with an extended pedestrian trail network.

The further improved access road and parking facility and the improved visitor contact station and extended trail network would further address the project objectives of providing the necessary infrastructure required to accommodate permanent staff and extend visitors hours at the park while further enabling an interesting, enriching, and informative visit to the park.

The further extension of the vegetation rehabilitation and management program would further restore both the natural and cultural landscape. These additional components are described in more detail below:

- **Improved entrance road:** As recommended in the park GMP, the roadway would be refinished in an all-weather finish. This could include the use of asphalt.
- **Improved parking area:** As recommended in the park GMP, the parking area would also be refinished in an all-weather finish which could also include the use of asphalt.
- **Improve visitor contact station:** The visitor contact station would be enclosed and could be extended to include an auditorium and outdoor educational area for a total footprint of approximately 2500 square feet.
- **Extension of vegetation management program:** This alternative would include a larger-scale vegetation rehabilitation and management program that could include the pasture located to the northeast of the ruins, over Picosa Creek.
- **Extension of the trail network:** The section of trails immediately surrounding the ruins would remain the same as described under alternative 1. The pedestrian trail network would also be extended in order to create a northern loop and an eastern trail loop. The northern loop would generally surround the vegetation rehabilitation area and include a stone bridge over a drainage swale. The eastern loop would route through the riparian area and then split into two directions, one segment would route to the south, terminating at a GMP suggested viewpoint located at the confluence of the San Antonio River and Picosa Creek. The other segment would route to the north, crossing Picosa Creek via a proposed pedestrian bridge, emerging from the riparian area and then forming a large loop around the edges of the existing pasture. The eastern loop would also include a potential future connection to the City of Floresville Hike and Bike Trail. The trails would have interpretative signage placed

ALTERNATIVE 2: MAXIMUM ACTION



RIALTO STUDIO

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SAN ANTONIO MISSIONS NATIONAL HISTORICAL PARK
RANCHO DE LAS CABRAS

Figure 5 SCHEMATIC LAYOUT PLAN MAXIMUM ACTION PLAN

along the routes. As recommended in the park GMP, the interpretive trails would describe the native vegetation, the scene as it would have been when grazed, and the vegetation that is there now.

Photograph 2: Riparian area from the proposed pedestrian trail

This alternative is consistent with the 1998 CLR recommended approach of “rehabilitation”. Per the CLR, and outlined above, this approach allows for the establishment of a rich and fulfilling visitor experience, and the implementation of necessary functional site improvements, allowing the park to pursue resource management initiatives that are intended to promote sustainability.

Mitigation Measures

The following mitigation measures were developed to minimize the degree and/or severity of adverse effects that would result from the implementation of the action alternatives.

Design:

- All components of the proposed park improvements would be designed and installed in a manner that is complementary to the rural setting of the Rancho.
- All components of the proposed park improvements would be designed and installed in a manner that is consistent with the 1998 CLR - Recommended Design Guidelines.
- Sustainable building technologies would be incorporated into the design of all of the proposed park improvements.
- Pedestrian trails would be designed and routed to ensure that the removal of any significant heritage trees within the riparian area are avoided to the greatest extent possible.
- The long-term preservation strategy for the ruins proposed as part of the park improvements would be determined during final design. Options include leaving the ruins buried, partial exposure of the ruins, or full exposure of the ruins. This would be a separate action.
- Additions, alterations, or related new construction would be designed to avoid destruction of historic materials, features, and spatial relationships that characterize the cultural landscape. New features would be designed in a way that they are differentiated from the old but are also compatible with the historic materials, features, and massing of the landscape.
- Additions and adjacent or related new construction would be designed in such a way that should the structure need to be removed in the future, the essential form and integrity of the cultural landscape would not be impaired.
- Comprehensive documentation of any features to be replaced, removed, or altered would precede actual physical work as defined by the Section 106 coordination process. All SHPO required mitigation measures must be in place prior to any physical work being undertaken.
- A Storm Water Pollution Prevention Plan (SW3P) would be developed during project design and implemented and maintained during construction to minimize impacts as specified by EPA regulations for construction projects. The SW3P would include both construction and staging areas.
- A labor analysis would be conducted during project final design in order to ensure that adequate operations and management systems are revised in order to mitigate potential adverse impacts to park operations and management.

Construction:

- Construction materials and labor would be sourced locally to the greatest extent possible.
- Construction zones, particularly for the visitor contact station and parking lot, would be identified and fenced with construction tape or some similar material prior to any construction activity. The fencing would define the construction zone and confine activity

to the minimum area required for construction. All protection measures would be clearly stated in the construction specifications, and workers would be instructed to avoid conducting activities beyond the construction zone as defined by the construction zone fencing.

- Standard erosion control measures, such as silt fences and/or sand bags, would be used to minimize any potential soil erosion where soils are disturbed until revegetation takes place.
- Re-vegetation and re-contouring of disturbed areas would take place following construction. Re-vegetation efforts would rely solely on the use of native vegetation.
- Weed control methods would be implemented to minimize the introduction of noxious weeds. Construction equipment would be washed prior to entering the work site for the first time.
- Water would be sprayed on construction sites during dry periods to control fugitive dust generated by construction.
- Construction equipment would not be permitted to idle for long periods of time to reduce noise and emissions.
- The contractor would regularly monitor and check construction equipment to identify and repair any leaks to avoid and minimize possible soil contamination from construction equipment.
- All ground penetrating activities will be monitored by a professional archeologist.
- Should construction unearth previously undiscovered cultural resources, work would be stopped in the area of any discovery, and the park would consult with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation, as necessary, according to §36 CFR 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed.
- NPS would ensure that all contractors and subcontractors are informed of the penalties for illegally collecting artifacts or intentionally damaging paleontological materials, archeological sites, or historic properties. Contractors and subcontractors would also be instructed on procedures to follow in case previously unknown paleontological or archeological resources are uncovered during construction.
- Construction personnel would be responsible for ensuring trash is properly disposed of and not left uncontained onsite overnight. A trash abatement program, which would include a recycling plan, would be initiated during pre-construction phases of the project, and would continue throughout the duration of the project.
- Pre-construction surveys would be conducted for bird nests for all construction activities scheduled within the nesting season (generally April 1 through July 15) to address species protected under the Migratory Bird Treaty Act, , No construction activities would be conducted in identified nesting areas until the young have fledged.
- Walking surveys would be performed by NPS personnel prior to any activities that have the potential to harm or displace wildlife. These surveys would identify any significant vegetation assemblages or wildlife habitation areas such as burrows or nests. Should the presence of species of interest, particularly either the Texas tortoise or Texas horned

lizard, be detected during these surveys, management strategies would be implemented to ensure that constructions activities do not impact either of these species.

- NPS would ensure that all contractors and subcontractors are informed of the NPS mission of preserving natural resources and biodiversity. Contractors and subcontractors would also be instructed on procedures to follow if wildlife species of interest are encountered during construction.

Operations:

- A vegetation rehabilitation and management program would be developed and implemented based on recommendations and guidelines as described in the 1993 Guiding Principles of Sustainable Design and the 1998 Rancho de las Cabras CLR. These strategies could include controlled burning, mowing or grazing.
- The local community would be utilized and involved as much as possible to assist with the interpretation of the site, park maintenance and security.

Alternatives Considered and Dismissed

Only one alternative was considered and dismissed, that of implementing all the community suggestions made during the development of the GMP Amendment EA in 1998. Specifically, three components are not being pursued: an office in Floresville, reconstructing the chapel, and a small land trade.

Floresville Office

Residents of Floresville suggested that an office be established in Floresville, at a convenient distance from the park, for the administration of Rancho de las Cabras. The GMP Amendment EA planning team considered the suggestion but decided that there was no need for an office in the foreseeable future (NPS 1998a).

Chapel Reconstruction

During the 1998 study residents of Floresville also suggested that NPS should reconstruct the chapel. This topic was also raised during the scoping process associated with this document, with the suggestion that the ruins should be rebuilt as part of the proposed park improvements.

The ruins plays a major role in the long term of management of Rancho, as previously discussed, both the GMP and CLR recommend approaches, including

> *"The interior of the chapel walls, which have evidence of original plaster that would require special preservation treatment, would not be exposed. All or most of the compound walls would be exposed, including the subsurface evidence of the original walls that were removed in a later phase of construction. This would expose all of the ruins, including the entire outline or "floor plan" of the compound. The exposed walls might require very limited replacement of fallen stones, but no rehabilitation or reconstruction of the walls would occur. The walls would be stabilized and pointed, as necessary."*

With this in mind the proposed action originally included exposing the Rancho ruins in order to implement the GMP and CLR recommendations, as well as fulfill community desires.

However, this project element was dismissed for two reasons. First, NPS policy requires that if what remains of a historic structure is sufficient to convey to the visitor what it once looked like and to interpret its story, the structure should not be rebuilt but rather preserved in its current

condition (NPS 1998a). This is also supported by the Secretary of the Interior's Guidelines for Historic Preservation.

Second, park staff decided that determining whether to expose the ruins, and if so, to what extent, would require extensive specialist coordination and study beyond the scope and timeline of this project. To facilitate addressing visitor services and cultural landscape related project objectives, the exposure of the ruins was therefore dismissed from consideration within the scope of this document. Determining the correct management approach to the ruins remains a key objective of the park planning staff and would not affect the success of the proposed improvements outlined within the alternatives being considered.

Land Trade

The land trade involving the 0.7-mile long strip of land that contains the existing unimproved entrance road was recommended to be traded with the property owner for a strip of land that would enable to the park entrance to the ruins. This is no longer seen as an important management goal as the existing entrance parcel is adequate and would enable the park visitor to experience the landscape while entering the park. As the land swap is no longer being proposed, the visitor access, parking facilities and a visitor contact station would no longer be located as the alternative entrance parcel, but rather within the general location of the current informal parking area as illustrated in the proposed action figures.

Alternative Summaries

Table 1 summarizes the key components of the no-action and alternatives 1 and 2, comparing the ability of these alternatives to meet the project objectives (as identified in the *Purpose and Need* chapter). As shown in the following table, alternatives 1 and 2 meet each of the objectives identified for this project, while the no-action alternative does not meet the objectives of the project.

Table 2 summarizes the anticipated environmental impacts for the no-action alternative and alternatives 1 and 2. Only those impact topics that have been carried forward for further analysis are included in this table. The *Environmental Consequences* chapter provides a more detailed explanation of these impacts.

Table 1 – Alternatives Summary and Project Objectives

	No-Action Alternative	Alternative 1: Moderate Action	Alternative 2: Maximum Action
Alternative Summary	Under this alternative, no improvements would be made to park infrastructure.	Under alternative 1, basic visitor services would be created. These services include the construction of the Rancho ruins inner and outer loop pedestrian trails, the construction of the open air visitor contact station, the realignment of the entrance road, a proposed gravel parking lot and the implementation of a vegetation rehabilitation and management program.	Alternative 2 would have the same elements as alternative 1 but would include more developed visitor services (an enclosed visitor contact station, all-weather entrance road and parking lot), extended trail network, and larger vegetation rehabilitation and management program.
Project Objectives	**Meets Project Objectives?**	**Meets Project Objectives?**	**Meets Project Objectives?**
Provide the necessary infrastructure required to accommodate permanent staff and extend visitors hours at the park.	No, the alternative would not provide the necessary infrastructure required to accommodate permanent staff and extend visitors hours at the park.	Meets objective, this alternative would provide the necessary infrastructure required to accommodate permanent staff and extend visitors hours at the park.	Meets objective, this alternative would provide the necessary infrastructure required to accommodate permanent staff and extend visitors hours at the park.
Provide the necessary infrastructure to enable visitors to have an interesting, enriching, and informative experience in the park.	No, the alternative would not provide the necessary infrastructure required to enable visitors to have an interesting enriching, and informative experience in the park.	Meets objective, this alternative would provide the necessary infrastructure to enable visitors to have an interesting, enriching, and informative experience in the park.	Meets objective, this alternative would provide the necessary infrastructure to enable visitors to have an interesting, enriching, and informative experience in the park.
Promote the rehabilitation of the natural and cultural landscape in order to be more representative historic conditions.	No, the alternative would not promote the rehabilitation of the natural and cultural landscape in order to be more representative historic conditions.	Meets objective, this alternative would promote the rehabilitation of the natural and cultural landscape in order to be more representative historic conditions.	Meets objective, this alternative would promote the rehabilitation of the natural and cultural landscape in order to be more representative historic conditions.

Table 2 – Environmental Impact Summary

Impact Topic	No-Action Alternative	Alternative 1 – Moderate Action	Alternative 2 – Maximum Action
Vegetation	The Rancho uplands would continue to be dominated by successional vegetation which could lead to adverse, indirect, site-specific, long-term and minor impacts on the overall the Rancho vegetation community. When considered with other past, present, and reasonably foreseeable future actions, this alternative would contribute an incremental adverse, local, long-term negligible impact to the adverse, local, short- and/or long-term, and minor cumulative effect on vegetation.	Adverse short-term, beneficial long-term, site-specific, long-term, and negligible to moderate impacts primarily from the additional bio-diversity and ecological integrity that would result from the vegetation rehabilitation and management program. Adverse, site-specific, short-term and negligible impacts could also result from construction activities. When considered with other past, present, and reasonably foreseeable future actions, the implementation of alternative 1 would contribute an incremental adverse short-term, beneficial long-term, site-specific negligible cumulative effect on vegetation.	Adverse short-term, beneficial long-term, site-specific and moderate. Short-term adverse impacts would result from construction related disturbances, long-term beneficial impacts would result from the extended vegetation rehabilitation and management program which would enhance species bio-diversity and further mitigate the negative impact that the dense proliferation of successional growth has had on the landscape. When considered with other past, present, and reasonably foreseeable future actions, the implementation of the preferred alternative would contribute an incremental adverse short-term and beneficial long-term, site-specific, negligible to minor cumulative effect on vegetation.

Impact Topic	No-Action Alternative	Alternative 1 – Moderate Action	Alternative 2 – Maximum Action
Cultural Landscapes	Visitor services would not be enhanced and the landscape would not be rehabilitated. As the Rancho still maintains a rural setting, the no-action alternative would not impact the significance or integrity of the cultural landscape. When considered with other past, present, and foreseeable future actions, the no-action alternative would contribute an incremental adverse, long-term, negligible to minor cumulative effect on the cultural landscape.	Beneficial, local, long-term, moderate impact on the cultural landscape as the integrity of setting and feeling and association would be enhanced through the vegetation rehabilitation and management program and the introduction of interpretation tools such as the visitor contact station. When considered with other past, present, and foreseeable future actions, the implementation of alternative 1 would contribute an incremental beneficial, local, long-term, minor cumulative effect to the cultural landscape.	Beneficial, local, long-term moderate impact on the cultural landscape as the integrity of setting and feeling and association would be further enhanced through the extended vegetation rehabilitation and management program. When considered with other past, present, and foreseeable future actions, the implementation of the preferred alternative would contribute an incremental beneficial, local, long-term, minor to moderate cumulative effect on the cultural landscape.

Impact Topic	No-Action Alternative	Alternative 1 – Moderate Action	Alternative 2 – Maximum Action
Archeological Resources	Would not include ground penetrating activities and no direct impacts to archeological resources would result as the archeological record would remain undisturbed. When considered with other past, present, and foreseeable future actions, the no-action alternative would provide a beneficial incremental impact to the overall adverse or beneficial, local short- and/or long-term, and negligible to minor cumulative effect as archeological resources would be preserved.	Adverse, site-specific, short-term negligible to minor impact could result from the discovery of unknown archeological resources. Construction phase archeological monitoring would ensure that any archeological resources that are disturbed would be appropriately coordinated per the National Historic Preservation Act. As a result of these efforts, should archeological resources be discovered, beneficial, local, long-term, minor impacts could result from the potential contributions made to the archeological record of the Spanish colonial period. When considered with other past, present, and foreseeable future actions, the implementation of alternative 1 would contribute an incremental adverse or beneficial, local, short- and/or long-term, minor cumulative effect on archeological resources.	Adverse or beneficial, site-specific or local, short- and/or long-term, and minor to moderate impacts could result from the discovery of unknown archeological resources. When considered with other past, present, and foreseeable future actions, the implementation of the preferred alternative would contribute an incremental adverse or beneficial, local, short- and/or long-term, minor to moderate cumulative effect on archeological resources.

Impact Topic	No-Action Alternative	Alternative 1 – Moderate Action	Alternative 2 – Maximum Action
Visitor Use and Experience	Adverse, direct and/or indirect, long-term, moderate impact to visitor use and experience as the park's ability to provide an enriching visitor use and experience would continue to be severely limited due to the lack of support services. When considered with other past, present, and foreseeable future actions, the no-action alternative would result in an incremental adverse, local, long-term, moderate effect to the overall beneficial minor to moderate cumulative effect on visitor use and experience.	Beneficial, local, moderate impact on visitor use and experience. These beneficial impacts to visitor use and experience would primarily result from the introduction of vegetation rehabilitation and management program, the development of a visitor contact station and improvements to parking, circulation and connectivity. When considered with other past, present, and reasonably foreseeable future actions, the implementation of alternative 1 would contribute an incremental beneficial, local, long-term, minor cumulative effect on visitor use and experience.	Beneficial, local, moderate impact on visitor use and experience. These beneficial impacts to visitor use and experience would primarily result from the extension of vegetation rehabilitation and management program and the enhanced educational and recreational opportunities offered by the extended pedestrian trail network. When considered with other past, present, and reasonably foreseeable future actions, the implementation of the preferred alternative would contribute an incremental beneficial, local, long-term, minor cumulative effect on visitor use and experience.

Impact Topic	No-Action Alternative	Alternative 1 – Moderate Action	Alternative 2 – Maximum Action
Park Operations and Management	Operations and management of the Rancho would not be impacted and would continue to involve managing and operating monthly visitor site tours, basic maintenance and site security. When considered with other past, present, and foreseeable future actions, the no-action alternative would contribute an adverse, indirect, long-term, negligible cumulative effect on park operations and management as the existing operations and management structure may not be sufficient to accommodate the anticipated increase in park visitors.	Adverse, short- and/or long-term moderate impact on park operations and management. Opportunities for support through the NPS system and local partnerships have however been identified and efforts are currently underway to secure the resources necessary to address potential adverse impacts to the parks operations and management. As a result of these efforts it is anticipated that the potential adverse impacts would be sufficiently mitigated to result in in adverse, site-specific, short-and/or long-term, and minor impacts on park operations and management. When considered with other past, present, and reasonably foreseeable future actions, it is anticipated that the alternative could contribute an incremental adverse, site-specific, short-and/or long-term, minor to moderate cumulative effect as the existing operations and management structures may not be sufficient to accommodate the anticipated increase in demand to visit Rancho de las Cabras.	Adverse, short-and/or long-term and moderate impact on park operations and management. Opportunities for support through the NPS system and local partnerships have however been identified and efforts are currently underway to secure the resources necessary to address potential adverse impacts to the parks operations and management. As a result of these efforts it is anticipated that the potential adverse impacts would be sufficiently mitigated to result in in adverse, site-specific, short-and/or long-term, and minor impacts on park operations and management. When considered with other past, present, and reasonably foreseeable future actions, it is anticipated that the alternative could contribute an incremental adverse, site-specific, short-and/or long-term, minor to moderate cumulative effect as the existing operations and management structures may not be sufficient to accommodate the anticipated increase in demand to visit Rancho de las Cabras.

Impact Topic	No-Action Alternative	Alternative 1 – Moderate Action	Alternative 2 – Maximum Action
Socioeconomics	Based on this anticipated increase in the number of people visiting the park, as park visitors spend money in the local area, the no-build alternative could result in indirect, beneficial, local, long-term negligible impact on socioeconomics. When considered with other past, present, and foreseeable future actions, the no-action alternative would contribute an indirect beneficial, local, long-term negligible impact to the beneficial, regional, long-term moderate cumulative effect on socioeconomics.	Beneficial, regional, long-term, and moderate impact on socioeconomics as the alternative would result in an increase in the number of people visiting the park who in turn, contribute to the local economy. When considered with other past, present, and foreseeable future actions, alternative 1 would contribute a beneficial, local, long-term moderate impact to the beneficial, regional, long-term moderate cumulative effect on socioeconomics.	Beneficial, local, long-term, and moderate and primarily result from the further economic opportunities offered by increased park visitors. When considered with other past, present, and foreseeable future actions, the preferable alternative would contribute a beneficial, local, long-term moderate impact to the beneficial, regional, long-term moderate cumulative effect on socioeconomics.

Environmentally Preferable Alternative

According to the CEQ regulations implementing NEPA (43 CFR 46.30), the environmentally preferable alternative is the alternative "that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources." The environmentally preferable alternative is identified upon consideration and weighing by the Responsible Official of long-term environmental impacts against short-term impacts in evaluating what is the best protection of these resources. In some situations, such as when different alternatives impact different resources to different degrees, there may be more than one environmentally preferable alternative."

Alternative 2 is the environmentally preferable alternative for several reasons, 1) The alternative would create an appropriate level of the necessary infrastructure to provide each visitor an interesting, enriching, and informative experience in the park, enabling Rancho's history and significance to be explained. 2) The alternative would better restore the natural and cultural landscape in order to be more representative of historic conditions. 3) While there would be much ground disturbance and vegetation removal, most of the disturbance would be in areas of previously disturbed elements of the biological and physical environment, and most of the vegetation removal would result in beneficial effects to the environments by increasing biodiversity.

For these reasons, Alternative 2 best protects, preserves, and enhances historical, cultural, and natural resources, thereby making it the environmentally preferable alternative.

Alternative 1 is not environmentally preferable because it provides a lesser level of improvement in park infrastructure and less restoration and protection of the cultural and natural landscape. The visitor experience would likely be less than desired.

The no-action alternative is not the environmentally preferable alternative because current park infrastructure does not allow the potential of the park to be utilized, and no-action does not protect, preserve, and enhance historical, cultural and natural resources because invasive species and other modern disturbances will continue to degrade the environment unchecked. In short, the necessary infrastructure required to accommodate permanent staff and extend visitors hours at the park would not be created and the modified cultural landscape would not be rehabilitated.

Preferred Alternative

No new information came forward from public scoping or consultation with other agencies to necessitate the development of any new alternatives, other than those described and evaluated in this document. As it meets the purpose and need for the project, the project objectives, and is the environmentally preferred alternative, alternative 2 is also recommended as the NPS preferred alternative. For the remainder of the document, alternative 2 will be referred to as the preferred alternative.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter analyzes the potential environmental consequences, or impacts, that would occur as a result of implementing the proposed park improvements. Resources analyzed in this chapter include: vegetation, cultural landscapes and archeological resources. Visitor use and experience, park operations and management and socioeconomics are also analyzed in addition to the resources listed. Direct, indirect, and cumulative effects are analyzed for each resource topic carried forward. Potential impacts are described in terms of type, context, duration, and intensity. General definitions of terms are provided below, while more specific impact thresholds are given for each resource at the beginning of each resource section.

Type describes the classification of the impact as either beneficial or adverse, direct or indirect:

- *Beneficial:* A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.
- *Adverse:* A change that moves the resource away from a desired condition or detracts from its appearance or condition.
- *Direct:* An effect that is caused by an action and occurs in the same time and place.
- *Indirect:* An effect that is caused by an action but is later in time or farther removed in distance, but is still reasonably foreseeable.

Context describes the area or location in which the impact would occur. Are the effects site-specific, local, regional, or even broader?

Duration describes the length of time an effect would occur, either short-term or long-term:

- *Short-term* impacts generally last only during construction, and the resources resume their pre-construction conditions following construction.
- *Long-term* impacts last beyond the construction period, and the resources may not resume their pre-construction conditions for a longer period of time following construction.

Intensity describes the degree, level, or strength of an impact. For this analysis, intensity has been categorized into negligible, minor, moderate, and major. Because definitions of intensity vary by resource topic, intensity definitions are provided separately for each impact topic analyzed in this EA.

Cumulative Effects

The CEQ regulations, which implement NEPA of 1969 (42 USC 4321 et seq.), require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative effects are considered for both the no-action and action alternatives.

Cumulative effects were determined by combining the impacts of the alternative with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at SAAN and the City of Floresville which is located approximately three miles from Rancho de las Cabras. The geographic scope for this analysis includes elements mostly within the park's boundaries and within the City of

Floresville, while the temporal scope includes projects within a range of approximately 5 to 10 years. Given this, the following regional, SAAN and local Floresville projects were identified for the purpose of conducting the cumulative effects analysis:

San Antonio River Improvements Project

The San Antonio River Improvements Project (SARIP) is a $358.3 million multi-year project that is currently underway and aims to restore and enhance 13 miles of the San Antonio River both north and south of downtown San Antonio. The project is a collaborative effort between the City of San Antonio, Bexar County, SARA, the USACE, the National Park Service, and the San Antonio River Foundation. Enhancements include flood control, amenities, ecosystem restoration/rehabilitation and recreational improvements (SARIP 2011). SARA provides project and technical management as well as overall project coordination between the project partners. SARA will also conduct on-going operation and maintenance activities when the SARIP project is completed.

SARIP is comprised of four distinctive reaches: the Museum Reach, a four-mile segment of the river from Hildebrand Avenue south to Lexington Avenue; the Downtown Reach, a segment of the original River Walk from Lexington Avenue to Houston Street; the Eagleland, a one-mile segment from South Alamo to Lonestar Boulevard; and the Mission Reach, an eight-mile section of the river extending from Lonestar Boulevard south to Loop 410 South (SARIP 2011).

The Mission Reach Ecosystem Restoration and Recreation Project will restore riverine features and riparian woodlands, reintroduce native plants, enhance aquatic habitat, and reconnect the river to the historic missions that relied on it hundreds of years ago. The connections will be made through the development of “mission portals.” These portals will be located at Mission Concepción, Mission San Jose, Mission San Juan and Mission Espada. The portals will feature historic and artistic interpretations of the story of the missions and highlight their social and cultural importance to the area. The portals will reinforce the importance of the river to the missions and encourage visitors to circulate between the missions and the river.

Before the river was channelized in the 1950-60s, it meandered through the city, passing near San Antonio's historic missions. Today, the old river channel is still evident. The Mission Reach project will also restore two historic remnants of the river. The result will allow park visitors to see how the river may have looked 250 years ago, at the height of the mission period (SARIP 2011).

According to an Economic Impact Study conducted in 2011, it is anticipated that the impact of these SARIP construction projects is expected to exceed $518 million, and support an average of 981 additional jobs per year over the four years from 2010 through 2013 (Halaby et al. 2011).

Project planners are working closely with NPS to ensure that the relationship of the river and the missions are clearly illustrated and that the portals are included in all park planning initiatives. Bexar County is providing funding for the portals, with additional private funding being provided by the San Antonio River Foundation (SARIP 2011).

Projects within or Adjacent to the Park

San Juan Demonstration Farm and Associated Services

Survival of the mission communities rested on their being able to be self-sustaining. The crops cultivated at Mission San Juan characterized the mission landscape and served both as staples and as commodities for sale or trade with the presidio, other missions, and other civilian communities in the area. The park GMP/DCP therefore identifies the mission as an economic contact station as an important interpretive theme for Mission San Juan. Today the landscape surrounding Mission San Juan has changed considerably from the Spanish colonial landscape

as it has been manipulated for various uses. The purpose of the proposed project is to develop a Spanish colonial demonstration farm and associated support services at Mission San Juan. The development of the demonstration farm would provide benefits to visitor use and experience while increasing the cultural integrity of the setting and promote connectivity to local development initiatives which are complementary to the park's mission statement.

Dependent on the outcome of the project planning process, important elements of this project could include re-introducing farming activities on the historic labores (agricultural fields). Creating the associated supporting infrastructure would include a barn, a reconstructed asphalt parking lot, a visitor contact station, community gardens and various pedestrian trails. Environmental clearance for the project has been completed.

San José Cultural Landscape Restoration

The current cultural landscape within the Mission San José compound, located approximately 2.4 miles to the northwest of Mission San Juan, has been greatly modified over time diminishing the integrity of the cultural setting of the mission. A project is currently in the planning phase that would restore the cultural landscape surrounding the mission, increase the cultural integrity of the setting and promote connectivity to local development initiatives which are complementary to the park's mission statement.

Dependent on the outcome of the project planning process, important elements of this project could include combining the Huisache "bowl" and the Harris House "bowl" and closing and removing San José Drive. The removal of these elements would both restore the cultural landscape and create an open space which could be used as a public gathering area. Other elements being considered as part of this project include reconfiguring the parking lot and the outdoor recreational area at Harris House, expanding the current trail system, and creating an adaptive use restroom facility. Environmental clearance for this project is anticipated in 2014.

Re-Watering the San Juan Acequia

The San Juan acequia was established in 1731 and was used for watering farmland on the east side of the San Antonio River. The acequia begins on the east bank of the river, across from Mission San Jose, and flows south. It is thought that the acequia watered over 500 acres (Guerra 1987). The mouth of the San Juan acequia is located on the east bank of the San Antonio River, opposite Mission San José. Water from the San Antonio River was diverted into the acequia by the San Juan dam, from which point water flowed south before reconnecting to the San Antonio River. Once within the San Juan Acequia, water flowed roughly 2.5 miles to a point just east of Mission San Juan. Here the acequia divided into two smaller canals which are evident today, known as the acequia afuera (or outside canal) and the acequia en medio (or middle canal). It was from these two branches of the acequia afuera and acequia en medio that lateral ditch canals were dug to irrigate crops grown on Mission San Juan's labores. The channelization of the San Antonio River in 1957 resulted in the severing of water flow to the San Juan Acequia and the burial of the original San Juan Dam with backfill from the widening and straightening of the river. A new San Juan Dam was constructed in the 1960's, but failed during a major flood in 1977. SARA began pumping water from below the failed San Juan Dam through pipes into the former river channel and the San Juan Acequia. The pumping ended in 1979 when the flow of the acequia was interrupted downstream (NPS 2010). No water has flowed in the San Juan Acequia since except for a brief period in October 1992 when the NPS pumped water to temporarily revive the acequia for a media event to publicize plans to restore the Spanish irrigation (McWilliams 2009). A joint venture between SAAN, the City of San Antonio, Los Compadres, the Conservation Society, and SARA returned water to the acequia system in September 2011.

Photograph 3: The San Juan Acequia

San Juan Acequia Trail

As an extension of the SARIP, a trail has been completed along the historic San Juan acequia. The trail begins at the San Juan Diversion Dam and runs southward to Mission San Juan. The trail then enters the labores, running parallel with the San Juan Acequia, to a point where it joins the existing trail network near Mission Espada.

Mission Reach Hike/Bike Trail

The Mission Reach Hike and Bike Trail runs from Mission Concepción to Mission Espada, along eight miles of dedicated paved pathways that are reserved for the hiker and biker, offering scenic views and local trail connectivity. Phase I and II of the project have been completed to date, with the final phase to be completed before the end of 2013.

Mission Library

Construction of the Mission Library was recently completed and the library opened on April 30, 2011. The building is located on the historic Mission Drive-in property, adjacent to Mission San José. The library will be an important community facility serving as a place of both learning and as a community focal point for local residents. It is anticipated that the library's mission and purpose will be complementary to that of SAAN and that a long-term partnerships and learning opportunities will result.

Stinson Municipal Airport – Runway Extension

A runway extension was recently completed as Stinson Municipal Airport. The runway previously had a length of 4,835 feet, and is now approximately 5,002, making Stinson more appealing for a wider variety of general aviation aircraft, including small corporate jets. Additional improvements include an extension of taxiways, replacement and upgrade of taxiway lighting and navigational aids for both runways, a new engine run-up area for Runway 32 and a helipad (SA Aviation Dpt. 2010).

Rancho De las Cabras Ruins Preservation Project

The alternative also includes implementing strategies in order to ensure the preservation of the Rancho compound ruins. These strategies are currently being developed as a separate action and could include leaving the ruins buried, the partial exposure of the ruins or the full exposure of the ruins.

Floresville Local Projects

According the City of Floresville Economic Development Corporation that following projects are currently being planned or are under construction within the City of Floresville:

- El Rancho Grande – A 305-acre business park is being development located one mile south of Floresville on FM 537 off US 181.
- Floresville Veteran's Business Park – A 50-acre site for is being developed as a medical park.
- Avalon Community - A 500-acre tract community of over 800 homes, an 18-hole golf course, several parks along the San Antonio River, and other amenities is currently being developed.
- Hike and Bike Trail - Efforts are currently underway to create a 2.9 mile Hike and Bike trail on the old San Antonio Aransas Pass Railroad right-of-way. The trail would pass through the city and out to the Avalon Community. The hike and bike trail will also be part of the regional SARA plans for canoeing trails, portages, and hike and bike trails.
- Railroad Depot - The original Floresville Railroad Depot was recently bought and moved to its original location on the railroad right-of-way. The Railroad Depot would be the midpoint along the Hike and Bike Trail.
- The Floresville convention contact station is a 44,500-square-foot facility that was opened in 2010. The contact station features sport courts, banquet, and meeting facilities. The contact station is visible when looking from the highest point of the Rancho.

Vegetation

Affected Environment

The historical use of the lands for farming and ranching have greatly altered the appearance and composition of the historic southern tallgrass prairie vegetation that would have been found at the Rancho (Cogan 2007). Today, the majority of the upland areas include vegetation that is representative of the successional communities that evolved after the abandonment of agriculture. These upland areas are now a brushy mesquite savanna with second growth trees and shrubs. The dominant species of this second growth is mesquite (*Prosopis glandulosa)*, many of which are very large. Additional upland tree species include hackberry (*Celtis pallida*), and huisache (*Acacia farnesiana*). In addition to the natives, a few non-native trees such as chinaberry (*Melia azedarach*) and privet (*Ligustrum japonicum*) are also present but these species are actively being removed by the park and would not likely not be a component of the park in the future (Cogan 2007).

The riparian woodlands at Rancho support a variety of species including cedar elm (*Ulmus crassifolia*), eastern cottonwood (*Populus deltoides*), pecan (*Carya illinoinensis*), black willow (*Salix nigra*), sugarberry (*Celtis laevigata*), and box elder (*Acer negundo*).

At the Rancho site shrubs occur both as associates to the riparian vegetation and in the upland scrublands. The scrublands support tall shrubs primarily blackbrush acacia and mesquite. Perennials include sideoats grama (*Bouteloua curtipendula*), yellow bluestem (*Bothriochloa ischaemum var. songarica*), Texas wintergrass (*Nassella leucotricha*), and Virginia wildrye (*Elymus virginicus*). Common annuals include Carolina canarygrass (*Phalaris caroliniana*) and browntop signalgrass (*Urochloa fasciculate*).

The U.S. Geological Survey (USGS) and NPS formed the USGS-NPS Vegetation Mapping Program to cooperatively inventory and map the vegetation in the U.S. National Parks. Based on the study, **Table 3** presents the vegetation association and acreage found at Rancho de las Cabras (Cogan, 2007):

Table 3 – Vegetation Type and Acreage

Vegetation Type	Acres
Bermuda Grass Herbaceous Alliance	0.27
Black Willow Temporarily Flooded Shrubland Alliance Stand	0.63
Cedar Elm - Sugarberry / Possum-haw / Virginia Wild Rye Forest	22.59
Chaparro - Prieto Shrubland	13.55
Eastern Cottonwood Termporarily Flooded Alliance	8.15
Honey Mesquite - Granjeno / Prickly-pear species - South Texas Ericameria Woodland	29.32
Huisache - (Honey Mesquite) Woodland	1.26
Live Oak Temporarily Flooded Forest Alliance	2.21
Old Field Weedy Herbaceous Vegetation	2.21
Park Facilities (ruins)	1.02
Planted / Cultivated	13.90
Silver Beardgrass - Johnsongrass Herbaceous Vegetation	4.85
Transitional	0.08

Impact Analysis

The impact analysis of vegetation was based on the knowledge and best professional judgment of planners and biologists, data from park records, and studies of similar actions and effects, when applicable.

Intensity Level Definitions

The intensity thresholds of an impact on vegetation communities are defined as follows:

Negligible: The action might result in a change in vegetation, but the change would not be measurable or would be at the lowest level of detection.

Minor: The action might result in a detectable change, but the change would be slight and have a local effect on a population. This could include changes in the abundance or distribution of individuals in a local area but not changes that would affect the viability of local populations. Changes to local ecological processes would be minimal.

Moderate: The action would result in a clearly detectable change in a population and could have an appreciable effect. This could include changes in the abundance or distribution of local populations but not changes that would affect the viability of regional populations. Changes to local ecological processes would be of limited extent.

Major: The action would be severely adverse or exceptionally beneficial to a population. The effects would be substantial and highly noticeable, and they could result in widespread change and be permanent. This could include changes in the abundance or distribution of a local or regional population to the extent that the population would not be likely to recover (adverse) or would return to a sustainable level (beneficial). Important ecological processes would be altered, and “landscape-level” (regional) changes would be expected.

Impacts of the No-Action Alternative

Under this alternative, no modifications would be made to the existing conditions, with the exception of the ongoing removal of the non-native trees as discussed above. There would no vegetation rehabilitation implemented and there would be no vegetation removal or ground disturbance as a result of construction activities. The Rancho uplands would continue to be dominated by successional vegetation which could lead to adverse, indirect, site-specific, long-term and minor impacts on the overall Rancho vegetation community.

Cumulative Effects: The past, present, and reasonably foreseeable future actions with the potential to affect vegetation, are related primarily to development around the park, and other park development initiatives not related to the Rancho de las Cabras project. These initiatives include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and Floresville local projects, as described in the cumulative impact section of this document.

All of these projects have resulted in individual negligible impacts to vegetation through ground disturbance and vegetation removal. It is however anticipated that where impacts to vegetation are or were necessary as part of these projects, impacts have been or would be limited to the greatest extent possible and mitigated as required. As a result, the overall cumulative effect of other past, present, and reasonably foreseeable future actions on vegetation would be adverse, local, short- and/or long-term, and minor.

When considered with other past, present, and foreseeable future actions, the no-action alternative would not contribute a noticeable incremental impact to the overall adverse, local, short- and/or long-term, and minor cumulative effect on vegetation.

Conclusion: Under the no-action alternative, the Rancho uplands would continue to be dominated by successional vegetation which could lead to adverse, indirect, site-specific, long-term and minor impacts on the overall the Rancho vegetation community. When considered with other past, present, and reasonably foreseeable future actions, this alternative would contribute an incremental adverse, local, long-term negligible impact to the adverse, local, short- and/or long-term, and minor cumulative effect on vegetation.

Impacts of Alternative 1 – Moderate Action Alternative

Park improvements included as part of alternative 1 with the potential to vegetation include the realignment of the entrance road, the proposed gravel parking lot, the construction of the open air visitor contact station, the installation of utilities, the construction of the pedestrian trails, and the implementation of a vegetation rehabilitation and management program.

Vegetation impacted as a result of the construction of the entrance road, parking lot, and the visitor contact station would consist of approximately 1.3 acres of Honey Mesquite - Granjeno / Prickly-Pear species - South Texas Ericameria woodland and 0.45 acres of planted/cultivated vegetation. Impacts to this vegetation type as a result of these elements are anticipated to be adverse, site-specific, long-term, and negligible.

Vegetation impacted as a result of the construction of the inner and outer loop pedestrian trails adjacent to the ruins would consist of approximately 0.1 acres of Honey Mesquite - Granjeno / Prickly-Pear species - South Texas Ericameria woodland. Impacts to this vegetation type as a result of these elements are anticipated to be adverse, site-specific, long-term, and negligible.

Vegetation impacted as a result of the installation of utilities would consist of approximately 0.1 acres of Honey Mesquite - Granjeno / Prickly-Pear species - South Texas Ericameria woodland. Impacts to this vegetation type as a result of these elements are anticipated to be adverse, site-specific, long-term, and negligible.

Alternative 1 also includes the implementation of a vegetation management program. This initiative would involve rehabilitating the vegetative landscape to the north and surrounding the Rancho ruins, the visitor contact station and parking lot. This initiative would continue to impact Honey Mesquite - Granjeno / Prickly-pear species - South Texas Ericameria Woodland as the primary focus of the management program would be to remove the dominate mesquite trees from this area. The alternative could create up to approximately 22 acres of prairie surrounding the Rancho ruins which is more consistent with native prairie from the period of significance of the Rancho. Although this action would have an adverse, site-specific, short-term minor impact on Honey Mesquite - Granjeno / Prickly-pear species - South Texas Ericameria Woodland, the action would ultimately result in a beneficial, long-term site-specific moderate impact on vegetation as additional bio-diversity and ecological integrity would be created within the Rancho vegetation populations. Previous adverse impacts on the landscape from successional vegetation would also be mitigated.

As a result, this project element would have an adverse short-term, beneficial long-term, site-specific, minor to moderate impact on Rancho vegetation community as a whole.

During construction, only minimal disturbances to vegetation outside the footprint of the visitor services are anticipated. Re-vegetation and re-contouring of any disturbed areas would take place following construction and would utilize native vegetation. The potential to introduce invasive species is also increased during construction activities due to contaminated soils,

construction equipment, and vehicles driving into the park. Mitigation measures would be implemented in order to reduce the potential for impacts from noxious weeds displacing native species. Construction related impacts would be adverse, site-specific, short-term, and negligible.

A detailed approach to the vegetation management aspect of alternative 1 would be developed during final design. The approach would consider aspects such as conducting pre-clearing surveys in order to identify any significant vegetation assemblages or wildlife habitation areas such as burrows or nests. Additional operation approaches would be developed and implemented in order to ensure that the rehabilitated vegetative landscape is properly managed. Both construction and operational approaches and mitigation measures are discussed in the 1998 CLR.

Cumulative Effects: The past, present, and reasonably foreseeable future actions with the potential to affect vegetation, would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and local Floresville projects. All of these projects have resulted in individual negligible impacts to vegetation through ground disturbance and vegetation removal. It is however anticipated that where impacts to vegetation are or were necessary as part of these projects, impacts have been or would be limited to the greatest extent possible and mitigated as required. As a result, the overall cumulative effect of other past, present, and reasonably foreseeable future actions on vegetation would be adverse, local, short- and/or long-term, and minor.

The implementation of alternative 1 could cause adverse long-term, beneficial, site-specific, negligible to moderate impacts on the Rancho vegetation associations as a result of the vegetation rehabilitation and management program. Additional adverse, site-specific, short-term negligible impacts could result from construction activities. When considered with other past, present, and reasonably foreseeable future actions, the implementation of alternative 1 would contribute an incremental adverse short-term, beneficial long-term, site-specific, negligible cumulative effect on vegetation.

Conclusion: Overall, under alternative 1, impacts to vegetation would be adverse short-term, beneficial long-term, site-specific, long-term, and negligible to moderate and primarily result from the additional bio-diversity and ecological integrity that would result from the vegetation rehabilitation and management program. Adverse, site-specific, short-term and negligible impacts could also result from construction activities. When considered with other past, present, and reasonably foreseeable future actions, the implementation of alternative 1 would contribute an incremental adverse short-term, beneficial long-term, site-specific negligible cumulative effect on vegetation.

Impacts of the Alternative 2 - Maximum Action (Preferred Alternative)

Potential impacts would be similar to those described under alternative 1. Additional elements of this alternative include enhancing the entrance road, visitor contact station and parking area. A larger-scale vegetation rehabilitation and management program would also be introduced as well as an extended pedestrian trail network.

Vegetation impacted as a result of the construction of the entrance road, and parking lot would be the same as discussed under alternative 1 and consist of approximately 1.2 acres of Honey Mesquite - Granjeno / Prickly-Pear species - South Texas Ericameria woodland and 0.44 acres of planted/cultivated vegetation.

The open air visitor contact station would now be primarily indoors and include an auditorium and outdoor education area. Vegetation impacted as a result of the construction of the

extended visitor contact station would consist of approximately 1.3 acres of Honey Mesquite - Granjeno / Prickly-Pear species - South Texas Ericameria woodland and 0.45 acres of planted/cultivated vegetation. Impacts to vegetation associated with these elements would be similar to those described under alternative 1, adverse, site-specific, long-term, and negligible.

New elements introduced as part of the preferred alternative include the implementation of a larger-scale vegetation rehabilitation and management program and the implementation of a more robust park pedestrian trail system.

As shown in ***Figure 5***, the vegetation rehabilitation and management program could be extended to the pasture (planted/cultivated vegetation type) located to the northeast of the ruins, across Picosa Creek. Early successional vegetation would be removed from the approximately 12 acres of pasture in order to re-establish native grassland. Although this action would essentially result in a larger-scale adverse, site-specific, short-term minor to moderate impact on the landscape, the extended program would ultimately result in a larger area of rehabilitated vegetation. This would result in additional benefits to both vegetation and species bio-diversity and further mitigate the negative impact that the dense proliferation of successional growth has had on the landscape, resulting in a beneficial, long-term site-specific moderate impact on vegetation.

The installation of a more robust park pedestrian trail system would include creating both the northern and eastern pedestrian trail loops. The northern loop would generally follow the outer edge of the rehabilitation area that would extend to the north of the ruins impacting honey mesquite - granjeno / prickly-pear species - South Texas ericameria woodland. The eastern loop would run to the east of the Rancho compound ruins. The trail would route through the riparian vegetation types and then split into two directions, one segment would route to the south, terminating at a look-out point located at the confluence of the San Antonio River and Picosa Creek. The other segment would route to the north, crossing Picosa Creek via a proposed pedestrian bridge. At this point the trail would emerge from the riparian area and form a large loop around the edges of the pasture vegetation rehabilitation area.

Both loops would result in adverse, short-and/or long-term, site-specific and minor impacts to 0.58 acres of planted/cultivated, 0.31 acres of Chaparro - Prieto shrubland, 0.35 acres of cedar elm - sugarberry / possum-haw / Virginia wild rye forest, 0.13 acres of honey mesquite - granjeno / prickly-pear species - South Texas ericameria woodland, 0.06 acres of live oak temporarily flooded forest Alliance, and 0.05 acres of Huisache - (honey mesquite) woodland.

Additional benefits would be afforded to vegetation through the construction of the trail as it would provide an avenue to educate park visitors regarding the importance of riparian vegetation as well as provide an avenue to illustrate the importance of the vegetation rehabilitation and management program.

Construction related impacts would be similar to those described under alternative 1 but would be at a slightly larger scale due to the increased extent of vegetation rehabilitation and pedestrian trail development. These adverse impacts would however be mitigated during final design by avoiding the removal of any significant heritage trees within the riparian area. Construction related impacts would be adverse, site-specific, short-term, and negligible to minor. Both construction and post-construction management approaches would be developed in the same manner as described under alternative 1.

Cumulative Effects: The past, present, and reasonably foreseeable future actions with the potential to affect vegetation, would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and local Floresville projects.

All of these projects have resulted in individual negligible impacts to vegetation through ground disturbance and vegetation removal. It is however anticipated that where impacts to vegetation are or were necessary as part of these projects, impacts have been or would be limited to the greatest extent possible and mitigated as required. As a result, the overall cumulative effect of other past, present, and reasonably foreseeable future actions on vegetation would be adverse, local, short- and/or long-term, and minor.

The implementation of the preferred alternative would result in beneficial long-term, site-specific, moderate impacts to vegetation as a result of the extended vegetation rehabilitation and management program. Additional adverse, site-specific, short-term negligible to minor impacts could result from construction activities. When considered with other past, present, and reasonably foreseeable future actions, the implementation of the preferred alternative would contribute an incremental adverse short-term, beneficial long-term, site-specific, long-term, minor cumulative effect on vegetation.

Conclusion: Overall, under the preferred alternative, impacts to vegetation would be adverse short-term, beneficial long-term, site-specific and moderate. Short-term adverse impacts would result from construction related disturbances, long-term beneficial impacts would result from the extended vegetation rehabilitation and management program which would enhance species bio-diversity and further mitigate the negative impact that the dense proliferation of successional growth has had on the landscape. When considered with other past, present, and reasonably foreseeable future actions, the implementation of the preferred alternative would contribute an incremental adverse short-term and beneficial long-term, site-specific, negligible to minor cumulative effect on vegetation.

Cultural Landscapes

Affected Environment

Based on available documentation and archeological evaluation, Rancho de las Cabras is thought to have been primarily occupied as part of Mission Espada's ranchlands between ca. 1760 and 1820. This period constitutes the primary period of significance for the property, one that imparts a unique identity to the site and has the potential to yield the most information about this important aspect of mission life. While the property continued to be utilized by subsequent owners as part of larger ranching complexes, it appears that it was never again occupied or served as a primary component of a cultural system (NPS 1998b).

Assessment of Significance

Rancho de las Cabras is currently listed on the National Register of Historic Places and is a Texas State Antiquities Landmark. The property is significant in the areas of American history, agriculture, archeology, and culture. Rancho de las Cabras meets the listing requirements of the National Register of Historic Places under Criteria A (association with events that have made a significant contribution to the broad patterns of our history), and D (has yielded and is likely to continue to yield information important in history and prehistory) (NPS 1998b).

Criterion A

Rancho de las Cabras is associated with the operations of the Spanish colonial missions that have made a significant contribution to the broad patterns of the history of San Antonio, Texas, the American Southwest, and the nation. It is associated with the cultures of both Spanish colonizers and Native Americans. In 1731, Mission San Francisco de la Espada was one of three missions re-established on the San Antonio River from what is now East Texas. Mission Espada was part of the Spanish colonial system for the establishment and management of a

defensive and settlement frontier in the American Southwest. In addition to the land necessary for the mission's compound, each mission was granted land for farming and ranching. Espada's grazing land became known as Rancho de las Cabras-the Goat Ranch-and it provided livestock for the inhabitants of the mission. Rancho de las Cabras, in its support of Mission Espada, is significant in the agricultural and cultural history of the Texas frontier. The missions and their ranches played a major role in the development of the American cattle industry, a significant phenomenon in westward expansion. The regulations which governed the industry, the techniques for handling herds from horseback, even the cattle themselves, had their origins in the Spanish colonial period. Therefore, modern ranching inherited the equipment, vocabulary, and folklore of the Indian vaqueros (cattle herders or cowboys) (NPS 1998b).

Criterion D

Rancho de las Cabras has yielded and is likely to continue to yield critical information about the Spanish colonial period. Archeological investigations conducted at Rancho de las Cabras indicate that the site is an important and significant cultural resource related to Spanish mission ranching during the Spanish colonial period. The archeological deposits appear to be intact and undisturbed, and as such may provide invaluable information in the interpretation of a mission ranch as a frontier institution. The archeological record of the rancho compound is the sole known example of this type of resource in the region. The site can be expected to reveal information concerning Spanish colonial life, including the manner in which Spanish and Native American cultural traditions were adapted to mission life, the organization of the mission landscape, historic land use, and ranching and other agricultural practices (NPS 1998b).

James Ivey, one of the site's principal archeological investigators to date, notes in his 1983 summary of archeological investigations that: "The potential for Rancho de las Cabras is very great. Rancho de las Cabras is one of the best preserved Colonial sites in Texas in terms of archeology, and it is certainly one of the most important in terms of cultural and historical studies. It would not be excessive to say that it is a site which is critical to our understanding of the development of the San Antonio River Valley (NPS 1998b).

Contributing Resources

The CLR identified features which survive from the site's periods of significance-prehistory, and 1760-1820-and are organized according to the landscape characteristics utilized in the comparative analysis of historic and existing conditions. All existing park features were identified as either contributing, non-contributing, or undetermined. The following features were determined to be contributing resources:

Responses to Natural Features and Systems

- Picosa Creek
- Landforms
- Drainageways/hydrology

Land Uses and Activities

- Agriculture (grazing)

Buildings and Structures

- Rancho compound ruins

Vegetation

- Lower riparian vegetative community

Views and Viewsheds

- Views to the San Antonio River from the western upland plateau
- Portions of the panoramic view from the rancho compound

Archeological Resources

- The ruins of the rancho compound include remnant walls (Photos K30 and K31) associated with a Spanish colonial era structure originally composed of dwellings, a chapel, bastions, and other features that housed and protected mission members involved in tending the rancho's livestock. The ruins consist of remnant wall sections, some of which are only a few inches to a foot high, and others which stand up to six and eight feet in height. There are no sections of roofing that remain. The above-ground resources are currently protected beneath irregular mounds of sand and soil installed by the State of Texas during their administration of the property. Volunteer vegetation has colonized portions of the mounds. Stones that have fallen, or been removed from, the compound walls are visible in the vicinity of the soil mounds.

Assessment of Integrity

The 1998 CLR presented an assessment of the landscapes integrity. The report found that the property retains a high degree of integrity of location in association with the Spanish colonial period of significance as it continues to exist as a site on the location of the historic rancho and retains sufficient undeveloped land around the ruins to convey the sense of an historic ranch. Rancho de las Cabras retains limited integrity of setting for the Spanish colonial period. Much of the surrounding area continues to be used for ranching and agriculture, which contributes to the integrity of setting. Although some incompatible development has occurred within the site's viewshed, portions of the site remain in open fields, with views of the surrounding landscape that are relatively unencumbered by large-scale urban, industrial, or residential development. The texture of the landscape, including the invasion of mesquite over prairie land, and the prevalence of crop fields where livestock once roamed, however, has changed the landscape considerably. These factors, coupled with the loss of cultural features and lack of pastured livestock, diminish the site's integrity of setting (NPS 1998b).

The site also retains limited integrity of feeling for the Spanish colonial period of significance, based on the criteria discussed above under integrity of setting. The continued presence of landforms and water resources that characterized the site and helped to structure the landscape during the Spanish colonial period can be utilized to support an understanding of its cultural landscape development. However, the current evidence that the property has been left fallow for some time diminishes the integrity of feeling, as do some twentieth century features such as vehicle tracks and barbed wire.

Few above-ground resources survive from the Spanish colonial period to provide integrity of association for this period. The ruins and associated panoramic views of the surrounding landscape provide important connections between the two periods. Otherwise, however, the site lacks integrity of association (NPS 1998b).

CLR Management Recommendations

The CLR identified five treatment areas and specific goals for each of these areas (NPS 1998b).

Treatment Area 1: Rancho Compound

- Preserve and stabilize cultural and archeological resources;

- Interpret on-going archeological investigations.

Treatment Area 2: Quarry

- Preserve the quarry and associated wet areas;
- Stabilize the slopes that pose a risk to visitors and threaten the Rancho compound; and
- Continue to investigate the history of the quarry. Should more information become known, interpret the quarry through least-intrusive visitor access systems.

Treatment Area 3: Mesquite Uplands

- Consider altering the existing upland vegetative community through vegetation management strategies, such as controlled burning, mechanical clearing, or other suitable methods, to reduce mesquite dominance; and
- Allow for minimal development of pedestrian and service circulation systems to provide access to the Rancho compound and its environs.

Treatment Area 4: Agricultural Lands

- Maintain the open character and agricultural use of the field north of the confluence of the San Antonio River and Picosa Creek until interpretive goals for the area have been identified*.
- Transfer the panhandle to a private landowner in order to acquire a potential alternative entrance parcel;
- Maintain agricultural use through covenants; and
- Develop visitor access and parking facilities and a visitor contact/interpretation facility within a newly established woodland of native trees and plantings at the potential alternative entrance parcel.

Treatment Area 5: San Antonio River and Picosa Creek Riparian Systems

- Protect and enhance these sensitive water resources and their associated riparian habitats;
- Prohibit livestock access and grazing; and
- Accommodate water access by canoeists, rafters, and kayakers in the least intrusive manner possible, should the need for access be demonstrated.

Impact Analysis

NPS-28 outlines the following rehabilitation standards for historic landscapes:

• Additions, alterations, or related new construction do not destroy historic materials, features, and spatial relationships that characterize the cultural landscape. New work is differentiated from the old and is compatible with the historic materials, features, and massing of the landscape.

• Additions and adjacent or related new construction are undertaken in such a manner that if removed in the future, the essential form and integrity of the cultural landscape would be unimpaired. All proposed recommendations should be implemented in accordance with the Secretary of the Interior's Standards for Historic Preservation Projects, the most recent *Cultural Resource Management Guideline*, NPS DO-28, and the most recent *Guidelines for the*

Treatment of Historic Landscapes.

For Section 106 of the National Historic Preservation Act the following determinations can be made.

If the impact is barely perceptible or does not modify the cultural landscape, the determination would be no impact. For impacts that would alter the cultural landscape but not diminish the integrity (such as a trail that respects existing topography) the determination of effect would be no adverse impact.

If the impact is major and alters the cultural landscape, then the determination of effect would be adverse. If the impact is major but restores the cultural landscape to its historic appearance the determination of effect would be no adverse impact. If the impact is major and adverse, the adverse impact can be mitigated to reduce the effect to no adverse effect.

Intensity Level Definitions

For purposes of analyzing potential impacts to cultural landscapes, the thresholds of change for the intensity of an impact are defined as follows:

Negligible: Impact(s) is at the lowest levels of detection- barely perceptible and not measurable.

Minor: Adverse: The impact would not affect a character defining pattern(s) or feature(s) of a National Register of Historic Places eligible or listed cultural landscape.

Beneficial: The result is preservation of character defining patterns and features in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.

Moderate: Adverse: The impact would alter a character defining pattern(s) or feature(s) of the cultural landscape but would not diminish the integrity of the landscape to the extent that its National Register eligibility is jeopardized.

Beneficial: The result is rehabilitation of a landscape or its pattern and feature in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.

Major: Adverse: The impact would alter a character defining pattern(s) or feature(s) of the cultural landscape to the extent that it is no longer eligible to be listed in the National Register.

Beneficial: The result is rehabilitation of a landscape or its patterns and features in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.

Impacts of No-Action Alternative

Under this alternative, no modifications would be made to the existing conditions. The no-action alternative would not enhance visitor services, and the landscape would not be rehabilitated. As the Rancho still maintains a rural setting, the no-action alternative would not impact the significance or integrity of the cultural landscape.

Cumulative Effects: The past, present, and reasonably foreseeable future actions with the potential to affect vegetation, are related primarily to development around the park, and other park development initiatives not related to the Rancho de las Cabras project. These initiatives include the regional projects, projects within the park boundary but geographically removed from

Rancho de las Cabras and the Floresville local projects as described in the cumulative impact section of this document.

The actions in around the primary area of SAAN would benefit the regional cultural landscape and could result in an overall beneficial, local, long-term, minor cumulative effect on the regional cultural landscape. Development initiatives within the City of Floresville are primarily a result of urban expansion and may have an adverse, long-term, negligible to minor cumulative effect on the local cultural landscape.

When considered with other past, present, and foreseeable future actions, the no-action alternative would contribute an incremental adverse, long-term, negligible cumulative effect on the cultural landscape.

Conclusion: The no-action alternative visitor services would not be enhanced, and the landscape would not be rehabilitated. As the Rancho still maintains a rural setting, the no-action alternative would not impact the significance or integrity of the cultural landscape. When considered with other past, present, and foreseeable future actions, the no-action alternative would contribute an incremental adverse, long-term, negligible to minor cumulative effect on the cultural landscape.

Impacts of Alternative 1 – Moderate Action Alternative

Park improvements included as part of alternative 1 with the potential to impact the cultural landscape are the realignment and re-graveling of the entrance road, the development of a gravel parking lot, the development of a visitor contact station, pedestrian trails, and the implementation of a vegetation rehabilitation and management program.

The development of the entrance road, parking lot would introduce new elements into the cultural landscape. The construction of these features would not require the removal, replacement or modification of any of the CLR identified landscape contributing features. These elements would however diminish the integrity of association, feeling and setting for the Spanish colonial period of significance. The final design of these features would ensure that are installed in a manner that is respectful of the current cultural landscape. Complementary design, color choices and the use of vegetative screens would mitigate the impact on the cultural landscape. It is therefore not anticipated that these structures would adversely affect the overall integrity of feeling, association, and setting for the period of significance and would therefore result in an adverse, local, long-term, minor effect on the cultural landscape. For purposes of Section 106 under the NHPA, the determination of effect related to the development of the improved entrance road and parking area is anticipated to be “no adverse effect”.

The visitor contact station would be located adjacent to the reconfigured entrance road, and the improved parking lot in a previously disturbed grassed open area. The construction of the contact station would not require the removal, replacement or modification of any of the CLR identified landscape contributing features with the exception of views and viewsheds as it would be visible from the rancho compound. Although potentially impacting views and vistas, the introduction of this structure has an important role to play in facilitating park visitors understanding of the various contributing features that they would interact with while visiting the park, fulfilling a CLR recommended goal of interpreting the site's history and cultural and archeological resources. The visitor contact station would strengthen the link between the mission property and observer by ensuring that the observer has been informed about the site’s history. The effect of the addition of this contemporary addition to the cultural landscape would be mitigated through the use of compatible design approaches which are respectful of the cultural landscape, as discussed above. It is therefore not anticipated that these structures would adversely affect the overall integrity of feeling, setting, location and association for the

period of significance and would therefore result in an adverse, local, long-term, minor effect on the cultural landscape.

The utilities associated with the visitor contact station would be run underground and would not affect the parks cultural landscape.

The development of a trail network would introduce an additional contemporary feature to the cultural landscape. The construction of the trail system would not require the removal, replacement or modification of any of the CLR identified landscape contributing features. The introduction of the trails would however not affect the integrity of location of the cultural landscape as related to the period of significance. The use of local materials that complement the current landscape would ensure no adverse impacts to the integrity of materials would result from the construction of the trails. Although the trails would have a negligible adverse effect on the integrity of feeling and association of cultural landscape, they would serve as an important tool to provide the park visitor with the opportunity to interact with the landscape. This allows the visitor a sense of enhanced setting, feeling, and association that the various other components of this alternative would provide. For purposes of Section 106 under the NHPA, the determination of effect related to the construction of the pedestrian trail is anticipated to be “no adverse effect”.

As discussed in the affect environment section, one of the factors associated with the diminished landscape's integrity of association, feeling, and setting for the Spanish colonial period of significance is the loss of the broad patterns of vegetation that characterized the period. Alternative 1 includes the implementation of a vegetation rehabilitation and management program. This physical landscape rehabilitation would enhance the cultural landscape integrity of feeling as the landscape would be more representative of the Rancho’s Spanish colonial period of significance. Alternative 1 would also not impact any landforms or water resources that characterized the site and which can be utilized to support an understanding of its cultural landscape development, adding to the limited integrity of feeling. The vegetation rehabilitation would also enhance the views of the surrounding landscape which would provide an important connection between the current conditions and the period of significance, enhancing the integrity of association of the landscape.

Overall, alternative 1 would allow for the protection of existing cultural landscape resources, but also re-introduce existing features and new uses necessary to meet both the need for protection and public use. The alternative would therefore enhance the interpretational, educational, and recreational opportunities for the park visitor while protecting cultural resources and allowing for public access and enjoyment. The alternative would result in a beneficial, local, long-term, moderate impact on the cultural landscape.

All modifications that would result from the implementation of alternative 1 would be installed in accordance with NPS-28 and follow the design guidelines and recommendations as suggested in the 1998 CLR. Comprehensive documentation of any features to be replaced, removed, or altered would precede actual physical work as defined by the Section 106 coordination process. If removal, replacement, or alteration occurs, the significance of the altered, removed, or destroyed cultural landscape feature would be acknowledged through appropriate mitigation.

Cumulative Effects: Past, present, and reasonably foreseeable future actions would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the Floresville local projects. Actions in around the primary area of SAAN would benefit the regional cultural landscape and could result in an overall beneficial, local, long-term, minor cumulative effect on the regional cultural landscape. Development initiatives within the City of Floresville are primarily a result of urban expansion and may have an adverse, long-term, minor cumulative

effect on the local cultural landscape.

The implementation of alternative 1 would result in a beneficial, local, long-term, moderate impact on the cultural landscape as the integrity of setting and feeling and association would be enhanced through the vegetation rehabilitation and management program and the introduction of interpretation tools such as the visitor contact station. When considered with other past, present, and foreseeable future actions, the implementation of alternative 1 would contribute an incremental beneficial, local, long-term, minor cumulative effect to the cultural landscape.

Conclusion: Alternative 1 would result in a beneficial, local, long-term, moderate impact on the cultural landscape as the integrity of setting and feeling and association would be enhanced through the vegetation rehabilitation and management program and the introduction of interpretation tools such as the visitor contact station. When considered with other past, present, and foreseeable future actions, the implementation of alternative 1 would contribute an incremental beneficial, local, long-term, minor cumulative effect to the cultural landscape.

Impacts of Alternative 2 - Maximum Action Alternative (Preferred Alternative)

The preferred alternative would generally include all of the elements of alternative 1 but would enhance some existing elements as described under alternative 1. The entrance road would be finished using a more weather resistant material which could include asphalt, the parking area would be refinished in the same manner. The open air visitor contact station would now be primarily indoors and include an auditorium and outdoor education area. Impacts to cultural landscapes associated with these elements would be similar to those described under alternative 1, adverse, site-specific, short-term, and minor.

The installation of utilities would continue to not affect the cultural landscape.

Elements introduced as part of the preferred alternative with the potential to affect the cultural; landscape include the implementation of a more robust park pedestrian trail system and a larger-scale vegetation rehabilitation and management program.

As shown in ***Figure 5***, a larger landscape area would be rehabilitated on the northwestern portion of the Rancho. This action would further enhance cultural landscape integrity of feeling as a larger portion of the landscape would be more representative of landscape during the Spanish colonial period of significance. In addition the more extensive vegetation removal would further enhance the viewshed from the Rancho compound ruins, further enhancing the integrity of association.

The trails themselves would extend the addition of the contemporary feature onto the cultural landscape that would be visible from the Rancho compound. The introduction of the trails would not affect the integrity of location of the cultural landscape as related to the period of significance. The construction of the trail system would not require the removal, replacement or modification of any of the CLR identified landscape contributing features with the exception of view and viewsheds. The introduction of the trails would not affect the integrity of location of the cultural landscape as related to the period of significance. Through the addition of the contemporary feature, the trails would have a negligible adverse effect on the integrity of feeling and association of cultural landscape. The pedestrian trail system would however be designed to blend into the landscape as much as possible, mitigating impacts to the views and vistas contributing features. It would also provide a connection throughout the landscape allowing park visitors to more comprehensively experience the landscape, enhancing setting, feeling, and association. The extended trail system would not affect the overall integrity of the site and would have a beneficial, local, long-term moderate impact on the Rancho cultural landscape. For purposes of Section 106 under the NHPA, the determination of effect related to the construction of the extended trail network is anticipated to be “no adverse effect”.

A more robust park pedestrian trail system is proposed under this alternative, creating both the northern and eastern pedestrian trail loops, as shown in ***Figure 5***. The northern loop would generally follow the outer edge of the rehabilitation area that would extend to the north of the ruins impacting honey mesquite - granjeno / prickly-pear species - South Texas ericameria woodland. An eastern loop would run to the east of the Rancho compound ruins. The trail would route through the riparian vegetation types and then split into two directions, one segment would route to the south, terminating at a look-out point located at the confluence of the San Antonio River and Picosa Creek. The other segment would route to the north, crossing Picosa Creek via a proposed pedestrian bridge. At this point the trail would emerge from the riparian area and form a large loop around the edges of the pasture vegetation rehabilitation area.

As discussed under alternative 1, one of the factors associated with the diminished landscape's integrity of association, feeling, and setting for the Spanish colonial period of significance is the loss of the broad patterns of vegetation that characterized the period. The preferred alternative would result in a larger portion of the landscape being rehabilitated, enhancing the landscape contributing features. Views of the surrounding landscape would be improved providing an important connection between the current conditions and the period of significance, enhancing the integrity of association of the landscape. In addition, the integrity of feeling would be further enhanced as the landscape would be more representative of the Rancho's Spanish colonial period of significance.

Alternative 2 would also not impact any landforms or water resources that characterized the site and which can be utilized to support an understanding of its cultural landscape development, adding to the limited integrity of feeling. The extended vegetation and management program would improve the overall integrity of the site and would have a beneficial, local, long-term moderate impact on the Rancho cultural landscape. For purposes of Section 106 under the NHPA, the determination of effect related to the construction of the extended trail network is anticipated to be "no adverse effect".

Overall, the preferred alternative would allow for the protection of existing cultural landscape resources, but also further re-introduce existing features through the extended vegetation rehabilitation, and new uses through the further development of the support services, necessary to meet both the need for protection and public use. The alternative would therefore enhance the interpretational, educational, and recreational opportunities for the park visitor while protecting cultural resources and allowing for public access and enjoyment. The alternative would result in a beneficial, local, long-term, moderate impact on the cultural landscape.

All modifications that would result from the implementation of the preferred alternative would be installed in accordance with NPS-28. Comprehensive documentation of any features to be replaced, removed, or altered would precede actual physical work as defined by the Section 106 coordination process. If removal, replacement, or alteration occurs, the significance of the altered, removed, or destroyed cultural landscape feature would be acknowledged through appropriate mitigation.

Cumulative Effects: Past, present, and reasonably foreseeable future actions would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the Floresville local projects. Actions in around the primary area of SAAN would benefit the regional cultural landscape and could result in an overall beneficial, local, long-term, minor cumulative effect on the regional cultural landscape. Development initiatives within the City of Floresville are primarily a result of urban expansion and may have an adverse, long-term, minor cumulative effect on the local cultural landscape.

The implementation of the preferred alternative would result in a beneficial, local, long-term,

moderate impact on the cultural landscape as the integrity of setting and feeling and association would be further enhanced through the extended vegetation rehabilitation and management program. When considered with other past, present, and foreseeable future actions, the implementation of the preferred alternative would contribute an incremental beneficial, local, long-term, minor to moderate cumulative effect on the cultural landscape.

Conclusion: The preferred alternative would result in a beneficial, local, long-term moderate impact on the cultural landscape as the integrity of setting and feeling and association would be further enhanced through the extended vegetation rehabilitation and management program. When considered with other past, present, and foreseeable future actions, the implementation of the preferred alternative would contribute an incremental beneficial, local, long-term, minor to moderate cumulative effect on the cultural landscape.

Archeological Resources

Affected Environment

The majority of the resources associated with the period of significance for Rancho de las Cabras are archeological, and the primary aspect of the site's significance relates to these archeological resources which are primarily composed of the Rancho ruins. Extensive archeological investigations have taken place at Rancho. These investigations have revealed substantial information about the layout of the Rancho compound and eighteenth century life at the site and have yielded numerous artifacts that contribute to the understanding of life on the site during the period (NPS 1998b).

Generally artifacts recovered from the Rancho compound can be organized into three categories, Spanish colonial period occupation, ca. 1760-1820; sporadic visitation during the nineteenth and twentieth centuries; and pre-Spanish colonial deposits for which specific dates have not yet been determined (NPS 1998b).

The Spanish colonial period artifacts are composed of ceramics, glass, metal, bone, construction materials, and lithics, and can be organized into collections relating to kitchen and household activities, clothing and personal life, stable and workshop items, armaments, and construction materials (NPS 1998b).

The artifacts uncovered within the area of the compound that appear to date from the nineteenth and twentieth centuries occur mostly on the surface or in the first stratum of soil, and include chinaware, stoneware, glass beverage bottles, cut and wire nails, tin can fragments, baling wire, and cartridge cases. Archeologists involved with excavation of the site have determined that these artifacts are indicative only of sporadic site visits by local hunters, picnickers, and treasure hunters. There are also layers of cultural material that have been observed beneath the Spanish colonial era deposits within the compound that may relate to prehistoric occupation of the site. Little investigation of this material has been undertaken to date (NPS 1998b).

Elsewhere on the site, possible prehistoric artifacts, such as arrowheads and other stone tools, and artifacts from other periods have also been observed along the escarpments and river terraces where erosion has occurred. The site also contains trash piles located in the arroyo just northeast of the ruins. Though the items visible at the surface appear to date from the twentieth century, these features may be covering older deposited materials and debris (NPS 1998b).

The above-ground resources of the Rancho compound ruins are currently protected beneath irregular mounds of sand and soil installed by the TPWD during their administration of the property. Volunteer vegetation has colonized portions of the mounds. In addition stones have

fallen, or been removed from the compound walls and are visible in the vicinity of the soil mounds (NPS 1998b).

Impact Analysis

Intensity Level Definitions

The results of archeological investigations will continue to inform landscape understanding and interpretation of the Spanish colonial missions. Affects to archeological resources can be beneficial or adverse, direct or indirect, or short- or long- term. For the purposes of this analysis, levels of impact to archeological resources were defined as follows:

Negligible: The impact on archeological sites is at the lowest levels of detection, barely perceptible and not measurable.

Minor: The impact on archeological sites is measurable or perceptible, but it is slight and localized within a relatively small area of a site or a group of sites. The impact does not affect the character defining features of a National Register of Historic Places eligible or listed archeological site and would not have a permanent effect on the integrity of any archeological sites.

Moderate: The impact is measurable and perceptible. The impact changes one or more character defining feature(s) of an archeological resource but does not diminish the integrity of the resource to the extent that its National Register eligibility is jeopardized.

Major: The impact on archeological site(s) is substantial, noticeable, and permanent. The impact is severe or of exceptional benefit. For National Register eligible or listed archeological sites, the impact changes one or more character defining feature(s) of an archeological resource, diminishing the integrity of the resource to the extent that it is no longer eligible for listing in the National Register.

Impacts of No-Action Alternative

Under this alternative, no modifications would be made to the existing conditions. The no-action alternative would not include ground penetrating activities and no direct impacts to archeological resources would therefore result.

Cumulative Effects: The past, present, and reasonably foreseeable future actions with the potential to affect archeological resources, are related primarily to development around the park, and other park development initiatives not related to the Rancho de las Cabras project. These initiatives include the regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and local Floresville projects as described in the cumulative impact section of this document.

These actions all have the potential to disturb archeological resources. It is however anticipated that all of these actions would follow the correct reporting and mitigation protocols as required by the National Historic Preservation Act. Through this coordination process, adverse impacts resulting from disturbances could be mitigated through the benefits derived from the resultant additions to the archeological record. The overall cumulative effect of other past, present, and foreseeable future actions on archeological resources could be adverse or beneficial, local short- and/or long-term, and negligible to minor.

When considered with other past, present, and foreseeable future actions, the no-action alternative would provide a beneficial incremental impact to the overall adverse or beneficial,

local, short- and/or long-term, and negligible to minor cumulative effect as archeological resources would not be disturbed but rather preserved.

Conclusion: The no-action alternative would not include ground penetrating activities and no direct impacts to archeological resources would result as the archeological record would remain undisturbed. When considered with other past, present, and foreseeable future actions, the no-action alternative would provide a beneficial incremental impact to the overall adverse or beneficial, local short- and/or long-term, and negligible to minor cumulative effect as archeological resources would be preserved.

Impacts of Alternative 1 – Moderate Action Alternative

Realigning and re-graveling the park entrance road and establishing the 25-car gravel parking area would require ground disturbing activities with the potential to disturb archeological resources. These activities would be shallow excavations required to establish the roadbed and parking area. There is evidence that much of the area where these elements would be located was farmed for many years. The soil disturbances associated with the farming activities have reduced the potential to encounter undisturbed archeological assemblages (NPS 1998a). Adverse, site-specific, short-term, and negligible impacts could result from the installation of these elements.

The construction of the open air visitor contact station and the associated utilities have the potential to disturb archeological resources. Shallow excavations would be associated with setting the foundations of the visitor contact station and with trenching for utilities. Both of these features would also be established in areas where farming activities have disturbed soils. Adverse, site-specific, short-term, and minor impacts could result from the installation of these elements

The construction of the Rancho compound ruins inner and outer loop pedestrian trails have the potential to disturb archeological resources. As discussed, the archeological record is known to include numerous resources associated with the Rancho compound from the time that it was occupied by those who tended cattle herds and are thought to have lived and worked at the compound. The compound has been extensively surveyed over the years. The trail would be routed in manner to avoid any significant archeological resources. Due to the large amount of survey data available, the construction of the pedestrian trails are anticipated to have an adverse, site-specific, short-term, and minor impact on archeological resources.

The development of the vegetation rehabilitation and management program also has the potential to disturb archeological resources. Previous archeological sampling has indicated that there were probably exterior structures (fences and corrals) surrounding the Rancho compound, but very little is known about their extent or whether there were other structures (NPS 1998a). The removal of the invasive vegetation associated with the program has the potential to increase the possibility of identifying previously unknown landscape features. The development of the vegetation rehabilitation and management program could therefore result in a beneficial, site-specific, short and/or long-term, and minor to moderate impact on archeological resources.

The history of Rancho ensures that even following extensive archeological investigations, the potential to encounter archeological resources during ground disturbing activities is always relevant. Construction phase archeological monitoring would be implemented throughout the project in order to ensure that any archeological resources that are disturbed would be appropriately coordinated per the National Historic Preservation Act. Additional archeological coordination and/or investigations would be conducted, as needed. As a result of these efforts, should archeological resources be discovered, beneficial, local, long-term, minor to moderate impacts could result from the potential contributions made to the archeological record of the

Spanish colonial period. These resources would further contribute to the understanding of the mission system, and to the understanding of the evolution of the American cowboy culture that grew up around the Texas cattle industry, and was built on the legacy of the mission ranches (NPS 1998a).

Cumulative Effects: Past, present, and reasonably foreseeable future actions would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the Floresville local projects. These actions all have the potential to disturb archeological resources. It is however anticipated that all of these actions would follow the correct reporting and mitigation protocols as required by the National Historic Preservation Act. Through this coordination process, adverse impacts resulting from disturbances could be mitigated through benefits derived from the resultant additions to the archeological record. The overall cumulative effect of other past, present, and foreseeable future actions on archeological resources could be adverse or beneficial, local short- and/or long-term, and negligible to minor.

The implementation of alternative 1 could disturb archeological resources during construction activities but these disturbances could also contribute to the Spanish colonial archeological record. The alternative could therefore result in adverse or beneficial, site-specific or local, short- and/or long-term, and minor to moderate impacts on archeological resources. When considered with other past, present, and foreseeable future actions, the implementation of alternative 1 would contribute an incremental adverse or beneficial, local, short- and/or long-term, minor cumulative effect on archeological resources.

Conclusion: Alternative 1 would result in adverse, site-specific, short-term negligible to minor impact could however result from the discovery of unknown archeological resources. Construction phase archeological monitoring would ensure that any archeological resources that are disturbed would be appropriately coordinated per the National Historic Preservation Act. As a result of these efforts, should archeological resources be discovered, beneficial, local, long-term, minor impacts could result from the potential contributions made to the archeological record of the Spanish colonial period. When considered with other past, present, and foreseeable future actions, the implementation of alternative 1 would contribute an incremental adverse or beneficial, local, short- and/or long-term, minor cumulative effect on archeological resources.

Impacts of Alternative 2 - Maximum Action Alternative (Preferred Alternative)

Potential impacts would be similar to those described under alternative 1. Additional elements of this alternative include enhancing the entrance road, parking area and visitor contact station. A larger-scale vegetation rehabilitation and management program would also be introduced as well as an extended pedestrian trail network.

Impacts associated with further enhancing the park entrance road and parking area would be the same as described under alternative as the footprint would remain unchanged. Adverse, site-specific, short-term, and negligible impacts may therefore result from the installation of these elements.

The visitor contact station would be larger, resulting in additional ground disturbance, and therefore increasing the potential that archeological resources could be encountered. As described under alternative 1, there is evidence that the area was farmed for many years, reducing the potential to encounter undisturbed archeological resources (NPS 1998a). Adverse, site-specific, short-term, and minor impacts could therefore result.

The larger-scale vegetation rehabilitation and management program would result in larger area of invasive vegetation being cleared. The clearing would however be largely taking place on a

previously utilized pasture. It is therefore unlikely that this action would aid in the identification of previously unidentified archeological resources, resulting in a beneficial, site-specific, short-term, and negligible impact.

Overall the preferred alternative has a potential to result therefore result in adverse or beneficial, site-specific or local, short- and/or long-term, and minor to moderate impacts on archeological resources.

As with alternative 1, construction phase archeological monitoring would ensure that any archeological resources that are disturbed would be appropriately coordinated per the National Historic Preservation Act. As a result, should archeological resources be discovered, beneficial, local, short- and/or long-term minor to moderate impacts could result from potential contributions made to archeological record.

Cumulative Effects: Past, present, and reasonably foreseeable future actions would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the Floresville local projects. These actions all have the potential to disturb archeological resources. It is however anticipated that all of these actions would follow the correct reporting and mitigation protocols as required by the National Historic Preservation Act. Through this coordination process, adverse impacts resulting from disturbances could be mitigated through benefits derived from the resultant additions to the archeological record. The overall cumulative effect of other past, present, and foreseeable future actions on archeological resources could be adverse or beneficial, local, short- and/or long-term, and negligible to moderate.

The implementation of the preferred alternative could disturb archeological resources during construction activities but these disturbances could also contribute to the Spanish colonial archeological record and could therefore result in adverse or beneficial, site-specific or local, short- and/or long-term, and minor to moderate impacts on archeological resources. When considered with other past, present, and foreseeable future actions, the implementation of the preferred alternative would contribute an incremental adverse or beneficial, local, short- and/or long-term, minor to moderate cumulative effect on archeological resources.

Conclusion: The preferred alternative would result in adverse or beneficial, site-specific or local, short- and/or long-term, and minor to moderate impacts on archeological resources could result from the discovery of unknown archeological resources. When considered with other past, present, and foreseeable future actions, the implementation of the preferred alternative would contribute an incremental adverse or beneficial, local, short- and/or long-term, minor to moderate cumulative effect on archeological resources.

VISITOR USE AND EXPERIENCE

Affected Environment

As described in the *Background* chapter, Rancho de las Cabras currently has very basic visitor support infrastructure and operates without any permanent staff. As a result of these factors, visitors can only experience the site on ranger-led tours which are offered once per month. During these events, the ranger leads an interpretive walking tour through and around the ruins. Improving current visitor use and experience is a key objective of the proposed park improvements being analyzed in this EA.

Impact Analysis

The impact analysis was based on the knowledge and best professional judgment of planners and biologists, data from park records, and studies of similar actions and effects, when applicable. The methodology used for assessing impacts to visitor use and experience is based on how the development of visitor services and the associated landscape rehabilitation would affect the visitor, particularly with regards to the visitors' enjoyment of Rancho de las Cabras' resources.

Intensity Level Definitions

Negligible: Visitors would not be affected or changes in visitor use and/or experience would be below or at the level of detection. Any effects would be short-term. The visitor would not likely be aware of the effects associated with the alternative.

Minor: Changes in visitor use and/or experience would be detectable, although the changes would be slight and likely short-term. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.

Moderate: Changes in visitor use and/or experience would be readily apparent and likely long-term. The visitor would be aware of the effects associated with the alternative and would likely be able to express an opinion about the changes.

Major: Changes in visitor use and/or experience would be readily apparent and have substantial long-term consequences. The visitor would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

Impacts of No–Action Alternative

Under this alternative, no modifications would be made to park infrastructure. The park's ability to promote visitor use and provide an enriching visitor experience would continue to be severely limited due to the lack of support services. Adverse, direct and/or indirect, long-term, moderate impact to visitor use and experience would result.

Cumulative Effects: Past, present, and reasonably foreseeable future actions would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the local Floresville projects. Actions in around the primary area of SAAN would improve the visual and natural environment, and interpretive and entertainment opportunities, resulting in a beneficial, local, long-term, minor to moderate cumulative effect on SAAN visitor use and experience. The proposed project considering the long term preservation options for the Rancho ruins would have an important influence on visitor use and experience. It can be deduced that visitor use and experience would benefit from the maximum exposure of the ruins, but would also be

adversely affected should the ruins be damaged as a result of being exposed to the elements of Texas weather. The preservation of the ruins and the strategy employed to achieve this preservation would have a beneficial or adverse, local, long-term, moderate cumulative effect.

When considering other past, present, and foreseeable future actions, as visitor experience and experience would be adversely affected due to the lack of support services to accommodate the potential increased interest to visit Rancho de las Cabras, the no-action alternative would result in an incremental adverse, local, long-term, moderate effect to the overall beneficial, minor to moderate cumulative effect on visitor use and experience.

Conclusion: The no-action alternative would result in adverse, direct and/or indirect, long-term, moderate impact to visitor use and experience as the park's ability to provide an enriching visitor use and experience would continue to be severely limited due to the lack of support services. When considered with other past, present, and foreseeable future actions, the no-action alternative would result in an incremental adverse, local, long-term, moderate effect to the overall beneficial minor to moderate cumulative effect on visitor use and experience.

Impacts of Alternative 1 – Moderate Action Alternative

Park improvements included as part of alternative 1 with the potential to impact visitor use and experience include the realignment of the entrance road, the proposed gravel parking lot, the construction of the open air visitor contact station, the installation of utilities, the construction of pedestrian trails, and the implementation of a vegetation rehabilitation and management program.

The reconfigured entrance road and parking lot would promote visitor access and enhance visitor use and experience by providing a properly established roadway and facility and parking facilities. These facilities would promote safety, circulation and connectivity within the park.

The visitor contact station would provide support services in terms of restrooms, as well as a shelter during adverse weather including storms and hot temperatures and an office for administration. The visitor contact station would also serve as a vital tool for interpretation of the park. The contact station would provide a venue from which to educate park visitors regarding a variety of topics. These topics could include information regarding the significance of the missions systems, the Rancho itself as well as information regarding the Rancho landscape, cultural resources, land management, sustainability and environmental stewardship. These interpretative opportunities could be shared through permanent and temporary exhibits, publications, brochures, audio programs and lectures and presentations. The introduction of the visitor contact station would there have a beneficial effect on visitor use and experience. The installation of utilities would have a beneficial effect on visitor use and experience by ensuring that the visitor contact station can meet the basic needs of the visitor through the provision of electricity for HVAC and computer systems and water for consumption and sewage management.

The pedestrian trail would provide the park visitor would benefit visitor use and experience by providing an opportunity to enter and walk around the Rancho compound ruins and to be able to see and approach the ruins. This portion of the trail would be Americans with Disabilities Act (ADA) accessible, enabling more visitors to be able to experience the Rancho ruins.

The proposed vegetation rehabilitation and management program would also have important aesthetic considerations and would affect the visitor's impression of the site. The proposed selective clearing of successional vegetation would enhance views, protect resources, and provide a more variable habitat for wildlife, all of which would benefit visitor use and experience.

Alternative 1 would therefore have a beneficial, local, long-term, moderate impact on visitor use and experience.

All of the actions discussed above would impact visitor use and experience due to construction activities and the temporary presence of construction equipment, materials, and crews. Visitor access to the site is currently limited, it is therefore anticipated that the limitations on access to portions of project under construction and potential impacts from noise and dust during construction activities would be adverse, site-specific, short-term and negligible.

Cumulative Effects: Past, present, and reasonably foreseeable future actions would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the local Floresville projects. Actions in around the primary area of SAAN would improve the visual and natural environment, and interpretive and entertainment opportunities, resulting in a beneficial, local, long-term, minor to moderate cumulative effect on SAAN visitor use and experience. The proposed project considering the long term preservation options for the Rancho ruins would have an important influence on visitor use and experience. It can be deduced that visitor use and experience would benefit from the maximum exposure of the ruins, but would also be adversely affected should the ruins be damaged as a result of being exposed to the elements of Texas weather. The preservation of the ruins and the strategy employed to achieve this preservation would have a beneficial or adverse, local, long-term, moderate cumulative effect.

Alternative 1 would ultimately have a beneficial, local, moderate impact on visitor use and experience. Additional adverse, site-specific, short-term, negligible impacts could result from construction activities. When considered with other past, present, and reasonably foreseeable future actions, the implementation of alternative 1 would contribute an incremental beneficial, local, long-term, minor cumulative effect on visitor use and experience as the park would be better equipped to accommodate a potential increase in the number of visitors.

Conclusion: Alternative 1 would have a beneficial, local, moderate impact on visitor use and experience. These beneficial impacts to visitor use and experience would primarily result from the introduction of vegetation rehabilitation and management program, the development of a visitor contact station and improvements to parking, circulation and connectivity. When considered with other past, present, and reasonably foreseeable future actions, the implementation of alternative 1 would contribute an incremental beneficial, local, long-term, minor cumulative effect on visitor use and experience.

Impacts of Alternative 2 - Maximum Action Alternative (Preferred Alternative)

Potential impacts would be similar to those described under alternative 1. Additional elements of this alternative include enhancing the entrance road, parking area and visitor contact station. A larger-scale vegetation rehabilitation and management program would also be introduced as well as an extended pedestrian trail network. The entrance road would be refinished potentially using asphalt and the parking area would be modified and also potentially finished with asphalt. The refinishing of the road and parking lot would ensure the longevity of these elements. Visitor access would therefore be further enhanced and potential of damage to visitor transportation would be reduced.

The visitor contact station would be improved to include an indoor lobby, exhibit area, and auditorium. This would provide a more effective shelter from adverse weather conditions. The addition of an outdoor education area as well as an auditorium would also further enhance the educational and interpretation opportunities as discussed under alternative 1.

The alternative includes a more extensive vegetation rehabilitation and management program. The extended vegetation rehabilitation area would further enhance the integrity of feeling as a

larger portion of the landscape would be more representative of landscape during the Spanish colonial period of significance. In addition, the more extensive vegetation removal would further enhance the viewshed from the Rancho compound ruins, further enhancing integrity of association. This element would greatly enhance visitor use and experience at the park.

The extension of the trail network would result in additional benefits to visitor use and experience, while encouraging exercise and recreation, the trails would also provide an additional avenue to educate and disseminate information to park users through the use of wayside exhibits. A connection to the City of Floresville Hike and Bike trail would also be provided, promoting local connectivity and community involvement in the park.

Overall, the preferred alternative would have a beneficial, local, long-term, moderate impact on visitor use and experience.

Construction impacts would be similar to the impacts described under alternative 1. It is anticipated that these impacts would be adverse, site-specific, short-term, and negligible to minor.

Cumulative Effects: Past, present, and reasonably foreseeable future actions would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the local Floresville projects. Actions in around the primary area of SAAN would improve the visual and natural environment, and interpretive and entertainment opportunities, resulting in a beneficial, local, long-term, minor to moderate cumulative effect on SAAN visitor use and experience. The proposed project considering the long term preservation options for the Rancho ruins would have an important influence on visitor use and experience. It can be deduced that visitor use and experience would benefit from the maximum exposure of the ruins, but would also be adversely affected should the ruins be damaged as a result of being exposed to the elements of Texas weather. The preservation of the ruins and the strategy employed to achieve this preservation would have a beneficial or adverse, local, long-term, moderate cumulative effect.

Although the past, present, and reasonably foreseeable future actions within the City of Floresville would not have a direct effect on visitor use and experience, they are an indication that the city continues to grow and expand. The overall improvements to SAAN visitor use and experience, combined with the continued growth of the City of Floresville would therefore result in an increased public demand to visit Rancho de las Cabras.

The preferred alternative would ultimately have a beneficial, local, moderate impact on visitor use and experience. Additional adverse, site-specific, short-term, negligible to minor impacts could result from construction activities. When considered with other past, present, and reasonably foreseeable future actions, the implementation of the preferred alternative would contribute an incremental beneficial, local, long-term, minor cumulative effect on visitor use and experience as the park would be better equipped to accommodate a potential increase in the number of visitors.

Conclusion: The preferred alternative would have a beneficial, local, moderate impact on visitor use and experience. These beneficial impacts to visitor use and experience would primarily result from the extension of vegetation rehabilitation and management program and the enhanced educational and recreational opportunities offered by the extended pedestrian trail network. When considered with other past, present, and reasonably foreseeable future actions, the implementation of the preferred alternative would contribute an incremental beneficial, local, long-term, minor cumulative effect on visitor use and experience.

Park Operations and Management

Affected Environment

As previously discussed, Rancho de las Cabras does not currently have any permanent NPS staff on-site. In addition, visitor use is limited based on the lack of support services currently in place at the Rancho. Operations and management of the Rancho currently consists of managing and operating monthly visitor site tours and basic maintenance, such as mowing and repairing fences, as the need arises.

Impact Analysis

The impact analysis was based on the knowledge and best professional judgment of planners and biologists, data from park records, and studies of similar actions and effects, when applicable. The methodology used for assessing impacts to visitor use and experience is based on how the development of visitor services and landscape rehabilitation would affect the park, particularly with regards to park operations and management.

Intensity Level Definitions

The discussion of impacts on park operations and management focuses on the staff needed to ensure visitor and resident safety, and the ability of park staff to protect and preserve resources. Park staff knowledge was used to evaluate the impacts of each alternative, and the evaluation is based on the current description of park operations. The intensity thresholds of an impact for park management and operations are defined as follows:

Negligible: Park operations would not be affected, or effects would not be measurable or would be outside of normal variability. There would not be a noticeable effect on park operations.

Minor: Effects on park operations and facilities would be slightly detectable but would not be expected to have an overall effect on the ability of the park staff to provide services and facilities to the visiting public.

Moderate: Effects on park operations and facilities would be clearly detectable and could have a noticeable effect on the park's ability to provide adequate services and facilities to visitors and staff. Measures such as increased staffing and funding might be necessary to provide services and facilities to the visiting public.

Major: Effects would have a substantial influence on park operations and facilities and would include impacts that would change the park's ability to provide adequate services and facilities to visitors and staff. Increased staff and funding would be needed, or other park programs would have to be eliminated.

Impacts of No–Action Alternative

Under this alternative, no modifications would be made to park infrastructure and there would be no change in park operations. Operations and management of the Rancho would not be impacted and would continue to involve managing and operating monthly visitor site tours, basic maintenance and site security.

C*umulative Effects*: The past, present, and reasonably foreseeable future actions with the potential to affect vegetation, are related primarily to development around the park, and other park development initiatives not related to the Rancho de las Cabras project. These initiatives include the regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the Floresville local projects as described in the cumulative impact

section of this document. In addition, the population of the City of Floresville has increased approximately 25 percent between 2000 and 2007, with the total population of the city estimated in 2007 as 7387 people (Floresville 2011). Development initiatives, as described, are therefore expected to continue as the city grows.

Actions in around the primary area of SAAN are likely to result in the park experiencing increased traffic, visitation, and associated use of the parks historical resources which could affect overall park operations and management. Although the past, present, and reasonably foreseeable future actions within the City of Floresville would not have a direct effect on park operation and management, the actions are an indication that the city will continue to grow and expand, resulting in an increased public demand to visit Rancho de las Cabras.

When considered with other past, present, and foreseeable future actions, the no-action alternative would contribute an adverse, indirect, long-term, minor cumulative effect on park operations and management as the existing operations and management structures may not be sufficient to accommodate the anticipated increased demand to visit Rancho de las Cabras.

Conclusion: Operations and management of the Rancho would not be impacted and would continue to involve managing and operating monthly visitor site tours, basic maintenance and site security. When considered with other past, present, and foreseeable future actions, the no-action alternative would contribute an adverse, indirect, long-term, negligible cumulative effect on park operations and management as the existing operations and management structure may not be sufficient to accommodate the anticipated increase in park visitors.

Impacts of Alternative 1 – Moderate Action Alternative

Park improvements included as part of alternative 1 with the potential to park operations and management include the realignment of the entrance road, the proposed gravel parking lot, the construction of the open air visitor contact station, the installation of utilities, the construction of the pedestrian trails, and the implementation of a vegetation rehabilitation and management program.

Realigning and re-graveling the entrance road and creating the 25-car parking area would result in long-term reduction in park operations and management requirements as it is anticipated that the proposed graveling would reduce maintenance needs resulting in a beneficial, long-term, minor affect.

The open air visitor contact station and the installation of utilities would result in an increase in park operations and management activities. This increase would result from the need to staff the contact station, perform maintenance and enforce security. These short-term adverse effects would however be reduced through the benefits associated with the contact station in terms of providing a safe and secure facility from to manage park operations. The visitor contact station and associated utilities would therefore have a beneficial long-term moderate effect on park operations and management.

The pedestrian trail vegetation rehabilitation and management program would both require additional staffing for the operation and maintenance of the facilities resulting in an adverse, long and/or short-term, minor impact on park operations and maintenance.

It is anticipated that the installation of the proposed visitor services would all contribute to an increase public demand to visit the park. Human traffic would therefore be increased in the park including previously un-utilized areas of the park in which the natural setting contains hazardous features such as dramatic changes in topography and poisonous snakes. Alternative 1 would therefore require increased ranger presence, enforcement and management of the elements of the alternative, resulting in an increase in the operation and maintenance costs of the Rancho.

Current operational and management structures are designed to accommodate a small group of visitors once per month. The implementation of alternative 1 would create an immediate need for SAAN management to reconsider the parks current operating schedule, staffing and maintenance needs as the existing operation and management structures would not be sufficient to accommodate the proposed park improvements. The proposed improvements would also offer the park an opportunity to engage and involve the local community in park operations and management. The primary avenue for this would be through securing volunteers to assist with park interpretive tours and park maintenance and security.

Overall, under alternative 1, impacts to current park operations and management structure would be adverse, short-and/or long-term and moderate. It is however assumed that park operations and management structures would be appropriately enhanced over time in order to lessen the potential impact on park operations and management. Opportunities for support through the NPS system and local partnerships have been identified and efforts are currently underway to secure the resources necessary to address potential adverse impacts to the parks operations and management. As a result of these efforts it is anticipated that the potential adverse impacts would be sufficiently mitigated to result in in adverse, site-specific, short-and/or long-term, and minor impacts on park operations and management.

As the number of visitors increases, park staff would monitor the effects on the ruins, the visitors' experience and the operational and management structures that have been put in place. If it becomes apparent that there will be crowding, resource impairment problems or staffing issues, the park would conduct a visitor experience and resource protection study to determine the numerical limits or administrative controls that are needed (NPS 1998a).

Cumulative Effects: Past, present, and reasonably foreseeable future actions would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the Floresville local projects. Actions in around the primary area of SAAN are likely to result in the park experiencing increased traffic, visitation, and associated use of the parks historical resources which could affect overall park operations and management. Although the past, present, and reasonably foreseeable future actions within the City of Floresville would not have a direct effect on park operation and management, the actions are an indication that the city will continue to grow and expand, resulting in an increased public demand to visit Rancho de las Cabras.

Overall, under alternative 1, impacts to current park operations management structure would be adverse, short-and/or long-term and minor. It is however assumed that park operations and management structures would be appropriately enhanced, lessening the effect of these potential adverse impacts over time. When considered with other past, present, and reasonably foreseeable future actions, it is anticipated that alternative 1 could contribute an incremental adverse, site-specific, short-and/or long-term, minor to moderate cumulative effect.

Conclusion: Alternative 1 would result in an adverse, short- and/or long-term moderate impact on park operations and management. Opportunities for support through the NPS system and local partnerships have however been identified and efforts are currently underway to secure the resources necessary to address potential adverse impacts to the parks operations and management. As a result of these efforts it is anticipated that the potential adverse impacts would be sufficiently mitigated to result in in adverse, site-specific, short-and/or long-term, and minor impacts on park operations and management. When considered with other past, present, and reasonably foreseeable future actions, it is anticipated that the alternative could contribute an incremental adverse, site-specific, short-and/or long-term, minor to moderate cumulative effect as the existing operations and management structures may not be sufficient to accommodate the anticipated increase in demand to visit Rancho de las Cabras.

Impacts of Alternative 2 – Maximum Action Alternative (Preferred Alternative)

Potential impacts would be similar to those described under alternative 1. Additional elements of this alternative include enhancing the entrance road, visitor contact station and parking area. A larger-scale vegetation rehabilitation and management program would also be introduced as well as an extended pedestrian trail network.

The proposed additional improvements to the entrance road and parking area would result in negligible beneficial impacts to park operations and management due the reduced maintenance needs associated with the hard-surface improvements.

The proposed additional improvements to visitor contact station would result in negligible impacts to park operations and management through a potential increase in staffing and maintenance needs.

The development of additional pedestrian trails would promote local connectivity, but would likely increase human traffic in previously unutilized areas of the park. These areas would require increased ranger presence and enforcement. The extended vegetation rehabilitation and management area would also require addition labor to maintain. These elements would therefore result in additional operational equipment costs and staffing resulting in minor adverse impacts.

Overall, under the preferred alternative, impacts on the current park operation and management structure would be adverse, short-and/or long-term and moderate. It is however assumed that park operations and management structures would be appropriately enhanced in order to lessen the potential impact on park operations and management. Opportunities for support through the NPS system and local partnerships have been identified and efforts are currently underway to secure the resources necessary to address potential adverse impacts to the parks operations and management. As a result of these efforts it is anticipated that the potential adverse impacts would be sufficiently mitigated to result in in adverse, site-specific, short-and/or long-term, and minor impacts on park operations and management.

Cumulative Effects: Past, present, and reasonably foreseeable future actions would be the same as described under the no-action alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the Floresville local projects. Actions in around the primary area of SAAN are likely to result in the park experiencing increased traffic, visitation, and associated use of the parks historical resources which could affect overall park operations and management. Although the past, present, and reasonably foreseeable future actions within the City of Floresville would not have a direct effect on park operation and management, the actions are an indication that the city will continue to grow and expand, resulting in an increased public demand to visit Rancho de las Cabras.

Overall, under the preferred alternative, impacts to current park operations management structure would be adverse, short and/or long-term moderate. It is however assumed that park operations and management structures would be appropriately enhanced, lessening these potential adverse impacts over time. Opportunities for support through the NPS system and local partnerships have been identified and efforts are currently underway to secure the resources necessary to address potential adverse impacts to the parks operations and management. As a result of these efforts it is anticipated that the potential adverse impacts would be sufficiently mitigated to result in in adverse, site-specific, short-and/or long-term, and minor impacts on park operations and management. When considered with other past, present, and reasonably foreseeable future actions, it is anticipated that the preferred alternative could contribute an incremental adverse, site-specific, short-and/or long-term, minor to moderate cumulative effect.

Conclusion: The preferred alternative would result in adverse, short-and/or long-term and moderate impact on park operations and management. Opportunities for support through the NPS system and local partnerships have however been identified and efforts are currently underway to secure the resources necessary to address potential adverse impacts to the parks operations and management. As a result of these efforts it is anticipated that the potential adverse impacts would be sufficiently mitigated to result in in adverse, site-specific, short-and/or long-term, and minor impacts on park operations and management. When considered with other past, present, and reasonably foreseeable future actions, it is anticipated that the alternative could contribute an incremental adverse, site-specific, short-and/or long-term, minor to moderate cumulative effect as the existing operations and management structures may not be sufficient to accommodate the anticipated increase in demand to visit Rancho de las Cabras.

Socioeconomics

Affected Environment

SAAN plays an important part in driving the city's hospitality and tourism industry. In 2009, 1,765,548 people visited the park. Visitors spend money in the local area resulting in socioeconomic benefits for the area. Rancho de las Cabras is located within a U.S. Census block group (Block Group ID 484939802022) where 9.34 percent of the population lives below the poverty line and the per capita income is $15,552. The economic impact of these visitors was evaluated in a 2011 Economic Impact Study (Archie 2011). Using multipliers from IMPLAN the study assumed that the average non-local day trip visitors and non-local overnight visitors to SAAN spent an average of $91.33 and $263.32, respectively, translating to a weighted average of $139 per party per day. The study found that that the park alone, without the contributions of any partner organizations, and its visitors supported a total of 1,097 jobs in 2009, with a total economic impact of $96.6 million. In addition, the activities of its supporting organizations, Los Compadres and Western National Parks Association, plus operations and maintenance provided by the City of San Antonio and SARA supported 19 additional jobs and $2.2 million in expenditures. Therefor in 2009, park visitors, along with staffing, construction and maintenance activities, and other aspects of park operations, contributed nearly $98.8 million to the local economy and sustained 1,116 jobs in the region (Archie 2011).

Impact Analysis

The discussion of impacts on socioeconomics focuses on the impacts to the local economy including revenue and job creation. Park staff knowledge and an Economic Impact Study conducted in 2011 were used in order to evaluate the impacts of each of the proposed alternatives. The intensity thresholds of an impact for socioeconomics are defined as follows:

Intensity Level Definitions

Negligible: No effects occur or the effects on social and economic conditions would be unnoticeable. The action would not yield any noticeable or measureable changes to quality of life, the population demographic, and local economy.

Minor: The effects on social and economic conditions would be detectable, but only slight and limited to a small portion of the surrounding community and local economy. The action would minimally influence the quality of life, the population demographic, and/or local economy.

Moderate: The effects on social and economic conditions would be readily apparent and would influence multiple segments of the community or local economy. The

action would yield changes that are noteworthy or modest to the quality of life, the population demographic, and/or local economy.

Major: The effects on social and economic conditions would be very apparent, significant, and/or widespread throughout the community and local economy. The action would yield considerable changes to the quality of life, the population demographic, and/or local economy

Impacts of No–Action Alternative

Under this alternative, no modifications would be made to park infrastructure. Despite this, the 2011 Economic Impact study forecast that based on historic trends, by the year 2016, the number of visitors to SAAN would increase to approximately 2,240,942 people even without the addition of any new programs or facilities at the park (Archie 2011). It can be assumed that a small percentage of these visitors would also utilize Rancho de las Cabras. As park visitors spend money in the local area, the no-build alternative could still indirectly result in a beneficial, local, long-term negligible impact on socioeconomics.

Cumulative Effects: The past, present, and reasonably foreseeable future actions with the potential to impact park socioeconomics include the San José Cultural Landscape Restoration project, the San Juan Farm Project, the SARIP, the Mission Library, and the San Juan Acequia Trail. According to the Economic Impact Study, these park development projects along with various new programs, venues, and programming enhancements would result in an increase in park operations expenditures and park visitor spending. The report estimates that the number of people could increase by as much as 395,043 people, with a total estimated 2.6 million visitors in 2016. In addition, it is estimated that money spent on visiting, operating and maintaining the park, including contributions by partner organizations, would more than double the parks economic impact, contributing an estimated $214.5 million to the local economy, and supporting 2,335 local jobs (Archie 2011). In addition, local projects within the City of Floresville would contribute further to these initiatives. These actions could all have an overall beneficial, regional, long-term moderate impact on socioeconomics.

When considered with other past, present, and foreseeable future actions, the no-action alternative would contribute an indirect beneficial, local, long-term negligible impact to the beneficial, regional, long-term moderate impact on socioeconomics.

Conclusion: Based on this anticipated increase in the number of people visiting the park, as park visitors spend money in the local area, the no-build alternative could result in indirect, beneficial, local, long-term negligible impact on socioeconomics. When considered with other past, present, and foreseeable future actions, the no-action alternative would contribute an indirect beneficial, local, long-term negligible impact to the beneficial, regional, long-term moderate cumulative effect on socioeconomics.

Impacts of Alternative 1 – Moderate Action Alternative

Under alternative 1, visitor support services introduced include the construction of the Rancho ruins inner and outer loop pedestrian trails, the construction of the open air visitor contact station, the realignment of the entrance road, the proposed gravel parking lot and the vegetation rehabilitation and management program.

According to the Economic Impact Study, park staff expect visitation to be around 50,000 annually, similar to attendance at smaller archeological parks. Advertising and building cultural programming and links to nearby Floresville and San Antonio will further build visitation. Similar to previous cases, a 45 percent of the 50,000 projection by the Missions staff was used for the moderate scenario: 22,500 visitors (Archie 2011). The estimate, along with projected operating

expenditures, including wages and salaries associated with the project were used to estimate the economic impact of improving Rancho de las Cabras as presented in **Table 4** and **5**.

Table 4 – Rancho Employment Impacts

Operations	Direct Impact Jobs	Total Impact Jobs
Non-Local Visitor Spending	28	40
Operations and payroll *	12	16
Construction	33	57
Total	**73**	**113**

* Based on 7 permanent and 4 seasonal staff. Halaby et al. 2011

Table 5 – Rancho Spending Impacts

Operations	Direct Impact Spending	Total Impact Spending
Non-Local Visitor Spending	$2,105,657	$3,681,947
Operations and payroll *	$629,000	$1,147,265
Construction	$3,938,882	$6,836,622
Total	**$6,673,539**	**$11,692,834**

* Based on 7 permanent and 4 seasonal staff. Halaby et al. 2011

Rancho de las Cabras is located within a U.S. Census block group (Block Group ID 484939802022) where 9.34 percent of the population lives below the poverty line and the per capita income is $15,552 (US Census, 2011). Implementation of alternative 1 would therefore result in potential beneficial impacts to the local community and economies near Rancho. These benefits would primarily result from the alternative increasing the number of people visiting the park who in turn, contribute to the local economy. Benefits would also result from employment opportunities for the construction workforce and increased revenues for local businesses and the NPS. Overall, based on the potential contribution to the local economy, alternative 1 would have a beneficial, regional, long-term, and moderate impact on socioeconomics.

Cumulative Effects: The past, present, and reasonably foreseeable future actions with the potential to impact park socioeconomics are the same as described under the no-build alternative and include and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the local Floresville projects. These actions could all have an overall beneficial, regional, long-term moderate to major impact on socioeconomics.

When considered with other past, present, and foreseeable future actions, alternative 1 would contribute a beneficial, local, long-term moderate impact to the beneficial, regional, long-term moderate cumulative effect on socioeconomics.

Conclusion: Overall, alternative 1 would result in a beneficial, regional, long-term, and moderate impact on socioeconomics as the alternative would result in an increase in the number of people visiting the park who in turn, contribute to the local economy. When considered with other past, present, and foreseeable future actions, alternative 1 would

contribute a beneficial, local, long-term moderate impact to the beneficial, regional, long-term moderate cumulative effect on socioeconomics.

Impacts of Alternative 2 – Maximum Action Alternative (Preferred Alternative)

Potential impacts would be similar to those described under alternative 1. Additional elements of this alternative include enhancing the entrance road, parking area and visitor contact station. A larger-scale vegetation rehabilitation and management program would also be introduced as well as an extended pedestrian trail network.

The development of additional pedestrian trails would promote local connectivity, but would likely increase human traffic in previously unutilized areas of the park. These areas would require increased ranger presence and enforcement. Additional costs and staffing would be required for management of the vegetation rehabilitation areas as well as for the extended trail network.

The further extension of the trail network, visitor center and vegetation rehabilitation and management program would support and encourage the predicted increase in the number of park visitors, resulting in a beneficial, site-specific, long-term, and minor impact on socioeconomics.

Overall, impacts on socioeconomics as a result of alternative 2 would be beneficial, local, long-term, and moderate and primarily result from the inclusion of facilities and amenities that would attract more visitors to the park. Despite these benefits, the overall socioeconomic impact of this alternative is anticipated to be similar to those associated with alternative 1 as quantified in **Table 4** and **5**.

Cumulative Effects: The past, present, and reasonably foreseeable future actions with the potential to impact park socioeconomics are the same as described under the no-build alternative and include regional projects, projects within the park boundary but geographically removed from Rancho de las Cabras and the local Floresville projects. These actions could all have an overall beneficial, regional, long-term moderate impact on socioeconomics.

When considered with other past, present, and foreseeable future actions, the preferable alternative would contribute a beneficial, local, long-term moderate impact to the beneficial, regional, long-term moderate cumulative effect on socioeconomics.

Conclusion: Overall, impacts on socioeconomics as a result the preferable alternative be beneficial, local, long-term, and moderate and primarily result from the further economic opportunities offered by increased park visitors. When considered with other past, present, and foreseeable future actions, the preferable alternative would contribute a beneficial, local, long-term moderate impact to the beneficial, regional, long-term moderate cumulative effect on socioeconomics.

CONSULTATION AND COORDINATION

Internal Scoping

Internal scoping was conducted by the SAAN Interdisciplinary Compliance Team with consultation from the NPS Intermountain Region Planning & Environmental Quality Office. Interdisciplinary team members also met in March 2011 to discuss the scoping meeting comments, the purpose and need for the project, various alternatives, potential environmental impacts, and possible mitigation measures. The results of these meetings were reflected in a scoping and alternatives refinement report on file with SAAN administration.

External Scoping

A public scoping meeting was held on January 13, 2011 to allow for public comment and input on preliminary project alternatives. A mailing list of individuals and groups likely to be interested in the project was used to inform the public about the meeting. The mailing list has 262 names and includes federal, state, local agencies and local landowners.

A total of 18 people attended the meeting, which included an open house and formal presentation in which the preliminary project alternatives were described followed by a question and answer session. Meeting participants were provided with comment sheets to complete and return to NPS. In addition, participants were told both in the presentation and on the project fact sheet how to comment online by using the NPS PEPC website. A scoping meeting package including the meeting presentation, alternative drawings and project fact sheet were also posted on PEPC. The public comment period commenced on January 11, 2011 and was open until January 27, 2011.

Scoping Meeting Comments

In total 3 comments were received during the public comment period. Of the three comments, one of the comments was not relevant to the scope of the proposed park improvements. The two additional comments received (one via PEPC, one via written correspondence) One of these comments suggested that NPS should reconstruct the ruins in order to provide the visitor with a real physical experience in lieu of “story boards” which give no indication of what was there both were in strong support of the project. The final comment received expressed strong support for Alternative 2: Maximum Action stating that project would provide an enhanced venue for all visitors, affording the local community a great opportunity to further develop the Floresville area as a tourist destination.

Overall, no major concerns were raised regarding any of the proposed alternatives. Two comments were received that expressed support of alternative 2 – maximum action. Assuming that the reference in comment #3 to alternatives A and B refers to alternatives 1 and 2, then one comment was received in favor of either of the build alternatives. This comment also suggested that park should include an educational and historical program. Two comments suggested that canoe access be considered as part of the proposed action. One of these comments also suggested that hike and bike access should be considered. One comment suggested that a reconstruction of the ruins be considered as part of the build alternatives.

The comments received from representatives of the Carizo/Comecrudo Tribe of Texas generally expressed an interest in the historical perspective/setting of Rancho de las Cabras. Tribal representatives did not offer any comments regarding the proposed infrastructure.

A comment was received from TxDOT requesting that NPS coordinate park access with the TxDOT Area Engineer.

Overall there was a strong sense that the project will and must enhance the link to the community's culture, heritage, and history.

Federal Agencies

U.S. Department of the Interior – Fish and Wildlife Service (FWS)

The draft EA and a letter will be sent to the Austin Ecological Services Field Office for concurrence with our assessment that there are no federally listed species that may be affected by this project.

State Agencies

Texas Historical Commission

In accordance with Section 106 of the NHPA (36 CFR 800.3), coordination with the Texas Historical Commission (THC) was initiated by SAAN staff. As only conceptual renderings are currently available for the project, a request for concurrence on a determination of effects to historic properties will initiated following the development of detailed project design.

Texas Department of Transportation

A comment was received from TxDOT requesting that NPS coordinate park access with the TxDOT Area Engineer.

Local Government/Organizations

The Floresville City mayor submitted a comment in which he expressed his gratitude to NPS for working on bringing Rancho de las Cabras back to life, creating educational and heritage tourism opportunities. Strong support was expressed for Alternative 2: Maximum Action.

A representative of the San Antonio River Authority attended the scoping meeting and submitted a comment commending NPS's efforts to improve Rancho de las Cabras. The SARA representative referenced how the natural and cultural interpretation of the site is severely hampered by the current level of facilities and operational practices in place.

The Wilson County Historical Commission was represented at the scoping meeting. Suggested from the commission included creating a canoe portage along with a trail to the ruins, the use of red sandstone rock for the proposed pedestrian bridge over Picossa Creek and the inclusion of a meeting room within the visitor contact station.

Tribal Consultation

In accordance with the NHPA, letters requesting tribal consultation were mailed to the following tribes:

Absentee Shawnee Tribe

Absentee Shawnee Tribe of Oklahoma

Alabama-Coushatta Tribes

American Indians in Texas

Apache Tribe of Oklahoma

Caddo Indian Tribe

Caddo Nation
Carrizo/Comecrudo Nation of Texas
Cherokee Nation
Citizen Potawatomi Nation
Comanche Penateka Tribe
Comanche Tribe
Delaware Tribe of Indians
Delaware Tribe of West Oklahoma
Eastern Band of Cherokee Indians
Eastern Band of Cherokee Indians, Qualla Boundary Reservation
Eastern Shawnee Tribe
Fort Sill Apache Tribe
Jicarilla Apache
Jicarilla Apache Nation
Kickapoo of Kansas Tribe
Kickapoo Traditional Tribe of Texas
Kickapoo Tribe of Oklahoma
Kiowa Tribe
Lipan Apache Band of Texas
Muscogee (Creek) Nation
Pawnee Tribe of Oklahoma
Poarch Band of Creek Indians
Seminole Nation of Oklahoma
Tap Pilam-Coahuiltecan Nation
The People of LaJunta (Jumano/Mescalero)
Tonkawa Tribe
United Keetoowah Band of Cherokee
White Mountain Apache Tribal Council
White Mountain Apache Tribe
Wichita and Affiliated Tribes (including Waco, Keechi, Tawa-koni)
Ysleta del Sur Pueblo

Of the letters mailed, a response was received from the Pawnee Nation. The letter stated that the Pawnee Nation has no known historic properties that would be affected by the project as proposed. Additional input was also received during the scoping meeting. A representative of the Sons of the Republic of Texas submitted a statement in support of the project reiterating the importance to establish an educational historical program at the site.

Three additional comments were submitted by the Carrizo/Comecrudo Tribe of Texas. The comments outlined the importance of respecting the indigenous presence at Rancho de las Cabras. They also requested that all indigenous Native American questions be funneled through the Carrizo/Comecrudo Tribe of Texas, Inc.

Environmental Assessment Review and List of Recipients

The EA will be released for public review on November 22, 2013. To inform the public of the availability of the EA, the NPS will publish and distribute a letter or press release to various agencies, tribes, and members of the public on the SAAN mailing list, as well as place an ad in the local newspaper. Copies of the EA will be available for review at SAAN Headquarters. Copies of the document will also be available for review online at the NPS PEPC website (http://parkplanning.nps.gov/rancho_ea).

The EA is subject to a 30-day public comment period ending December 24, 2013. During this time, the public is encouraged to submit written comments online at the NPS PEPC website at http://parkplanning.nps.gov/rancho_ea. If you are not able to submit comments electronically through this website, then you may also mail comments to: SAAN, Attention: Susan Snow, 2202 Roosevelt Avenue, San Antonio, Texas 78210-4919. Following the close of the comment period, all public comments will be reviewed and analyzed, prior to the release of a decision document. The NPS will issue responses to substantive comments received during the public comment period and will make appropriate changes to the EA, as needed.

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