
***Draft Environmental Assessment
for the
Master Plan and Development of 11.9 Acres
of the Santa Fe National Cemetery
Santa Fe, Santa Fe County, New Mexico***

Prepared for:
Department of Veterans Affairs
National Cemetery Administration
425 I Street NW
Washington, DC 20001



Prepared by:
Sanderson Stewart
106 East Babcock
Bozeman, Montana 59715
Phone: (406) 522-9876

September 2014

EXECUTIVE SUMMARY

The Department of Veterans Affairs (VA) is creating a Master Plan and expanding the Santa Fe National Cemetery (SFNC) on an 11.9-acre parcel adjacent to the previously developed portion of the cemetery. This Environmental Assessment (EA) evaluates the potential impacts of the Proposed Action on the environment, including natural and historical resources, social and economic aspects and environmental justice. The information presented in this EA along with the input from the public, will assist VA in its decision-making process prior to committing resources to the Proposed Action.

This document has been prepared in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code 4321 *et seq.*), the President's Council on Environmental Quality Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations (CFR) 1500-1508), and Environmental Effects of the Department of Veterans Affairs Actions (38 CFR Part 26).

The purpose of the Proposed Action is to enable VA to provide eligible veterans and their families in New Mexico with National Cemetery capacity. Burial at a National Cemetery is an earned benefit provided to Veterans through the VA. In 2014, the cemetery conducted approximately 1731 burials and was ranked the 25th busiest National Cemetery within the VA system, based on burial workload.

The Proposed Action is needed to meet the VA's National Cemetery Administration's goal of increasing burial options in areas with an unserved or underserved Veteran population, as specified by Congress. The increased capacity of the Santa Fe National Cemetery would help the VA comply with the Servicemembers Civil Relief Act (SCRA). The Proposed Action will address the need for interment capacity within the next decade. Currently, inventories of in-ground cremain and columbaria burial options are in short supply and are expected to be at capacity within the next two years.

In this EA the following resource areas are evaluated: aesthetics; air quality; cultural resources; geology and soils; hydrology and water quality; wildlife and habitat; noise; land use; floodplains and wetlands; socioeconomics; community services; solid and hazardous waste; transportation and parking; utilities; environmental justice; and other environmental concerns. Cumulative effects and potential for generating substantial controversy are also discussed. A summary of the *Preferred Action Alternative's* environmental impacts for each resource area is presented in Table ES-1 below.

Table ES-1. Summary of Impacts of the Preferred Alternative: Master Plan and Development of 11.9 Acres

Resource	Impacts
Aesthetics	Minor, less than significant adverse short-term impacts.
Air Quality	Minor, less than significant adverse short-term impacts.
Cultural Resources	Negligible or no impacts.
Geology and Soils	Minor, less than significant adverse short-term impacts; minor, less than significant adverse long-term direct and cumulative impacts. Topography would be altered by excavation and grading, and soils would be disrupted.
Hydrology and Water Quality	Minor, less than significant adverse short-term impacts; minor, less than significant adverse long-term direct impacts. Reduction in surface water runoff from landscaped area, but landscaping will require irrigation.
Wildlife and Habitat	Minor, less than significant adverse short-term impacts; minor, less than significant adverse long-term direct impacts.
Noise	Minor, less than significant adverse short-term impacts; minor, less than significant adverse long-term direct impacts. Construction, operations, maintenance and gun salute noise may be mitigated by schedules and appropriate maintenance of machinery.
Land Use	Negligible or no impacts.
Floodplain and Wetlands	Negligible or no impacts.
Socioeconomic	Minor, less than significant beneficial short-term impacts; minor, less than significant beneficial long-term direct, indirect and cumulative impacts.
Community Services	Negligible or no impacts.
Solid Waste and Hazardous Materials	Minor, less than significant beneficial short-term impacts.
Transportation and Parking	Minor, less than significant beneficial short-term impacts.
Utilities	Minor, less than significant adverse short-term impacts; minor, less than significant adverse long-term direct impacts.
Environmental Justice	Negligible or no impacts.
Other Environmental Concerns	Minor, less than significant adverse short-term impacts; minor, less than significant adverse long-term direct impacts.

Based on the analysis presented in this EA and preliminary coordination with public agencies and public participation, it is expected that the Proposed Action would not have a significant impact on the environment. Any potential impact would be avoided or mitigated through the

implementation of BMPs and compliance with statutory and regulatory process already in place in the State of New Mexico. Therefore, a Finding of No Significant Impact (FONSI) is appropriate and an Environmental Impact Statement (EIS) is not required.

TABLE OF CONTENTS

EXECUTIVE SUMMARY..... 1

1.0 INTRODUCTION..... 1

 1.1 Project Background 3

 1.2 Purpose and Need 6

2.0 ALTERNATIVES 7

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES 9

 3.1 Aesthetics 11

 3.1.1 Effects of the *No-Action Alternative* 12

 3.1.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* 12

 3.2 Air Quality..... 13

 3.2.1 Effects of the *No-Action Alternative* 13

 3.2.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* 13

 3.3 Cultural Resources..... 13

 3.3.1 Effects of the *No-Action Alternative* 14

 3.3.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* 14

 3.4 Geology and Soils 14

 3.4.1 Effects of the *No-Action Alternative* 15

 3.4.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* 15

 3.5 Hydrology and Water Quality 15

 3.5.1 Effects of the *No-Action Alternative* 15

 3.5.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* 15

 3.6 Wildlife and Habitat 16

 3.7 Noise 18

 3.8 Land Use..... 18

 3.8.1 Effects of the *No-Action Alternative* 18

 3.8.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* 19

 3.9 Floodplains and Wetlands..... 19

 3.10 Socioeconomics 19

 3.10.1 Effects of the *No-Action Alternative* 20

3.10.2	Effects of the <i>Preferred Alternative: Master Plan and Development of 11.9 Acres</i>	21
3.11	Community Services	21
3.11.1	Effects of the <i>No-Action Alternative</i>	21
3.11.2	Effects of the <i>Preferred Alternative: Master Plan and Development of 11.9 Acres</i>	21
3.12	Solid and Hazardous Materials	21
3.12.1	Effects of the <i>No-Action Alternative</i>	22
3.12.2	Effects of the <i>Preferred Alternative: Master Plan and Development of 11.9 Acres</i>	22
3.13	Transportation and Parking	22
3.13.1	Effects of the <i>No-Action Alternative</i>	22
3.13.2	Effects of the <i>Preferred Alternative: Master Plan and Development of 11.9 Acres</i>	23
3.14	Utilities	23
3.14.1	Effects of the <i>No-Action Alternative</i>	23
3.14.2	Effects of the <i>Preferred Alternative: Master Plan and Development of 11.9 Acres</i>	23
3.15	Environmental Justice	23
3.15.1	Effects of the <i>No-Action Alternative</i>	24
3.15.2	Effects of the <i>Preferred Alternative: Master Plan and Development of 11.9 Acres</i>	24
3.16	Other Environmental Concerns	24
3.16.1	Effects of the <i>No-Action Alternative</i>	24
3.16.2	Effects of the <i>Preferred Alternative: Master Plan and Development of 11.9 Acres</i>	24
3.17	Potential for Generating Substantial Controversy	25
4.0	PUBLIC INVOLVEMENT	26
5.0	MITIGATION	27
6.0	ENVIRONMENTAL PERMITS REQUIRED	30
7.0	CONCLUSIONS	31
8.0	LIST OF PREPARERS	32
9.0	REFERENCES CITED	33
10.0	LIST OF ACRONYMS AND ABBREVIATIONS	36

List of Figures

- Figure 1. General Location of the Proposed Action
- Figure 2. Location of the Proposed Project Site and Santa Fe National Cemetery
- Figure 3. Proposed Project Site
- Figure 4. Preliminary Design Concept 1
- Figure 5. Preliminary Design Concept 2
- Figure 6. Preliminary Site Analysis Plan
- Figure 7. View of the Parcel from the West
- Figure 8. View of the Parcel from the North
- Figure 9. View of the Parcel from the East
- Figure 10. View of the Parcel from the South

List of Tables

- Table ES-1. Summary of Impacts of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*
- Table 1. Environmental Effects
- Table 2. Endangered Species Potentially in the Vicinity of the Proposed Project Site
- Table 3. Demographic Data for City of Santa Fe Compared to County, State and National
- Table 4. Economic Data for City of Santa Fe Compared to County, State and National
- Table 5. Best Management Practices / Environmental Protection Measures Incorporated into the Proposed Action

List of Appendices

- Appendix A: Summary of Section 106 Consultation and Native American Tribes Correspondence
- Appendix B: Agency Correspondence
- Appendix C: Selected Maps of Facility Characteristic

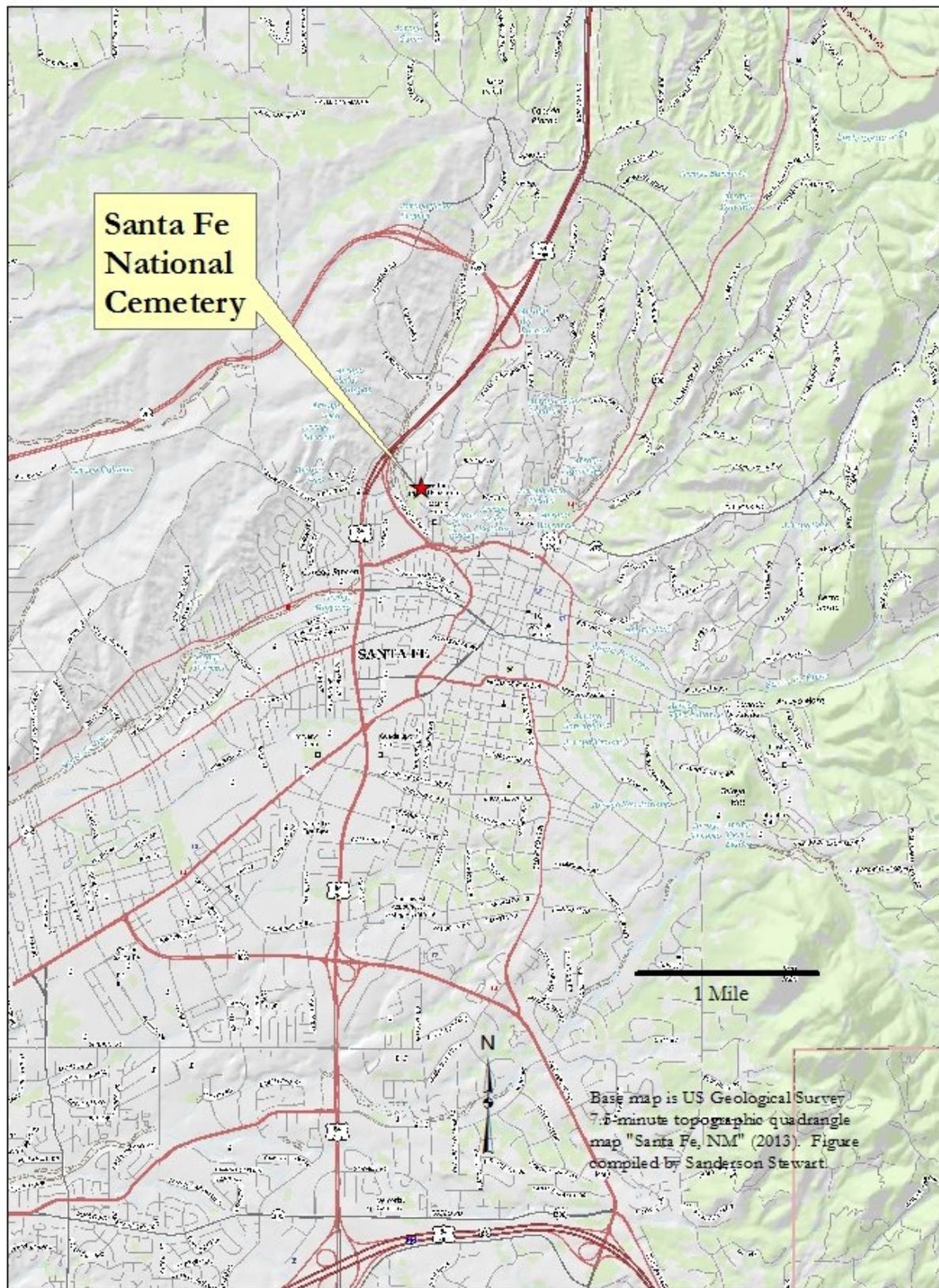
1.0 INTRODUCTION

This Environmental Assessment (EA) has been prepared in response to the Department of Veterans Affairs' (VA's) Proposed Action: the preparation of a Master Plan and subsequent development of cemetery facilities on 11.9 acres of the Santa Fe National Cemetery (SFNC). The EA will identify, analyze, and document the potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action and has been prepared in compliance with the directives of the National Environmental Policy Act (NEPA) of 1969 (42 United States Code (USC) 4321 et seq.); the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations (CFR) 1500-1508); and 38 CFR Part 26 (Environmental Effects of the Department of Veterans Affairs (VA) Actions). It follows the VA *"NEPA Interim Guidance for Projects"* (2010a).

This analysis is a "tiered" EA, building on the environmental analysis that was performed in 2007 when the VA acquired a 5.7-acre portion of the 11.9 acres being considered for development. The 2007 EA *"Environmental Assessment for Land Acquisition at the Santa Fe National Cemetery, Santa Fe, New Mexico"* (VA, 2007) specifically states: "Detailed plans for the layout, design and specifications of the potential expansion area will not be completed for at least 10-12 years and following the preparation of a subsequent EA for cemetery development" (VA, 2007, p. 3-1). This EA will satisfy those previous commitments to identify and evaluate potential impacts and potential mitigation of any impacts of the construction and operation of the proposed development.

The use of tiered documents, as described in 43 CFR 46.140, is intended to reduce redundancy. This EA will extensively use and cite the descriptions of the potentially affected environment in the 2007 EA, with only updates of that description, as required, for the 5.7 acres of that EA, and expand upon those descriptions for the additional area covered by this EA. The 2007 EA is available from the VA National Cemetery Administration (NCA) and the SFNC.

Figure 1. General Location of the Proposed Action



1.1 Project Background

The SFNC is located in Santa Fe County, New Mexico, approximately one mile northwest of the historic main plaza in Santa Fe, as shown on Figures 1 and 2. The cemetery currently covers 95.59 acres, and includes burial sites, columbarium, memorials, committal shelters, administration and maintenance facilities. The developed area is irrigated and landscaped, with buffer zones and ridges of native vegetation. Growth of the City of Santa Fe has surrounded the National Cemetery lands, with residential development to the east and mixed residential and commercial development on other sides of the cemetery across US Highway 84/285 and Guadalupe Street.

The cemetery was established as a National Cemetery at the close of the Civil War to hold the remains of Union troops who died in the battles over Santa Fe. Land was donated for that purpose by the Roman Catholic Diocese of Santa Fe in 1870, and was officially dedicated as a National Cemetery in 1874. In order to save expenses, the status of the cemetery was downgraded to that of a post cemetery from 1876 until it was fully re-established as a National Cemetery in 1885. There were several subsequent expansions of the cemetery to reach its current extent. The most recent acquisition of land for the cemetery was the donation of a 5.7-acre parcel from the City of Santa Fe and purchase of an additional 6.2-acre parcel, which together comprise the 11.9 acres of the Proposed Project site, shown on Figures 2 and 3.

In 2013, the cemetery conducted a total of 1731 burials. SFNC was ranked the 25th busiest National Cemetery within the VA system, based on burial workload

The Proposed Action is the design of a Master Plan and subsequent phased development on 11.9 acres adjacent to the currently developed portions of the SFNC. A close-up aerial photo of the proposed project site area is shown in Figure 3.

Figure 2. Location of the Proposed Project Site and Santa Fe National Cemetery

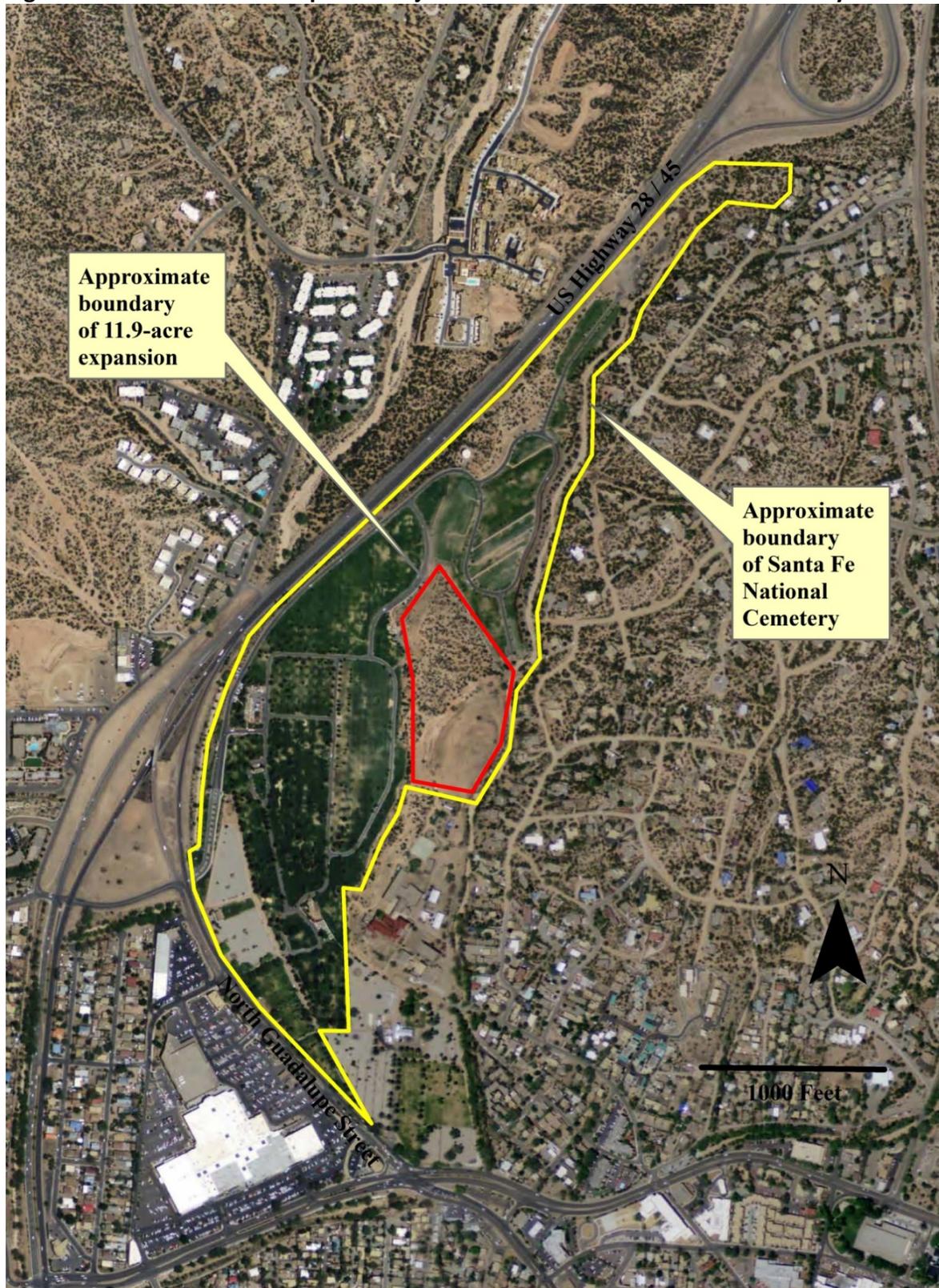
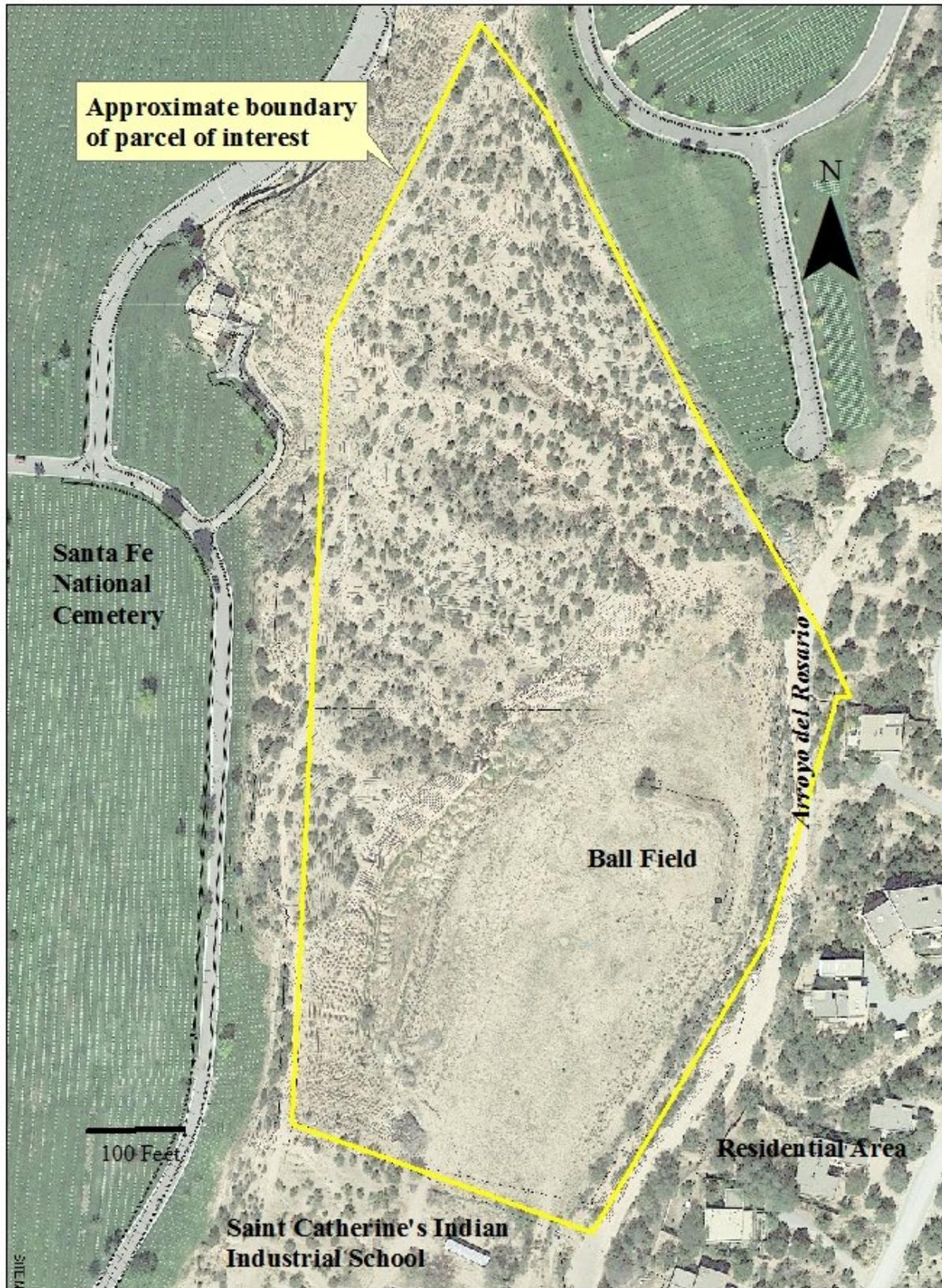


Figure 3. Proposed Project Site



1.2 Purpose and Need

The purpose of the Proposed Action is to enable VA to provide eligible veterans and their families in New Mexico with National Cemetery capacity. Burial at a National Cemetery is an earned benefit provided to veterans through the VA.

The Proposed Action is needed to meet the VA NCA's goal of increasing burial options in areas with an unserved or underserved veteran population, as specified by Congress. The increased capacity of the SFNC would help the VA comply with the Servicemembers Civil Relief Act (SCRA).

One of the main objectives for VA burial programs is to ensure that burial needs of Veterans and eligible family members are met. NCA further defines this objective on the assumption that the burial needs of a Veteran are met if they have reasonable access to burial option, where reasonable access to a burial option is defined as "...a first interment option (whether for casketed remains or cremated remains, either in-ground or in columbaria) in a National or State Veterans Cemetery available within 75 miles of the Veteran's place of residence."

The SFNC has an average annual interment rate of 578 cremains and 385 full casket burials. At this rate, capacity for burials will be depleted by 2015 for cremains and 2023 for full casket burials. Rates in recent years have significantly exceeded the average annual rates, with 612 cremains and 683 full casket burials in 2013, and 665 cremains and 698 full casket burials in 2014.

Additional capacity for cremains is being immediately addressed with a project in the northwest portion of the cemetery, which will extend capacity to 2020 (in-ground) or 2025 (columbaria) for cremains interments. The Proposed Action will address the need for interment capacity within the next decade. Without increased capacity at the SFNC, the nearest open National or State Veterans Cemetery in New Mexico will be Fort Bayard National Cemetery or Forty Lyon National Cemetery, approximately 300 miles from Santa Fe. Without expansion of capacity at SFNC, there will not be a nearby existing veterans' cemetery that can accommodate the burial needs of veterans residing in northern New Mexico.

2.0 ALTERNATIVES

Two alternatives have been developed for the EA analysis: the “null” or *No-Action Alternative*, and the *Preferred Alternative: Master Plan and Development of 11.9 Acres*.

Each of the two alternatives would address the 11.9-acre parcel. Currently, the 11.9-acre parcel is characterized by a ridge on the west, sloping down to a developed portion of the SFNC in the northeast and an arroyo on the southeast. The ridge is steep on the west side, more gradual and dissected by gullies on the east, and is characterized by arid native vegetation. In the southeastern portion of the parcel, there has been excavation and removal of the natural topography and vegetation to create a ball field for the Saint (St.) Catherine’s Industrial Indian School, now abandoned. The southeastern side of the parcel is bound by Arroyo del Rosario, with a narrow zone of native vegetation on the short slope between the ball field area and the floor of the arroyo.

The *No-Action Alternative* would be ongoing operation of the SFNC without planning and development of the 11.9-acre parcel. The 11.9-acre parcel would remain vacant in its current state: partially natural, with informal walking trails and the abandoned ball field. The VA would maintain possession of the land to provide a buffer to the cemetery. This alternative will not meet the purpose and need for the proposed project.

The *Preferred Alternative: Master Plan and Development of 11.9 Acres*, includes planning for and implementing phased development of the 11.9 acres adjacent to the developed portion of the cemetery to provide additional interment capacity. Development of the cemetery expansion would include the construction of burial facilities and required supporting infrastructure for cemetery operations and maintenance, such as roadways, retaining walls, utility systems, irrigation, site furnishings, signage and landscaping. There are two design concepts being created for that development: Preliminary Design Concept 1 and Preliminary Design Concept 2, shown in Figures 4 and 5. There are fine-scale differences between the two design concepts, such as exact areas of irrigated landscaping, exact areas of native un-irrigated vegetation, and exact interment capacity. There are some significant cost differences as well (Design Concept 2 is approximately half the estimated cost of Design Concept 1), but for the scale of NEPA analysis, these two concepts will be considered to be the same *Preferred Alternative: Master Plan and Development of 11.9 Acres*. Both concepts require excavation and grading, construction of cemetery facilities and supporting infrastructure, and landscaping. This alternative will meet the purpose and need for the proposed project.

Figure 4. Preliminary Design Concept 1



Figure from FourFront Design, Inc.

Figure 5. Preliminary Design Concept 2



Figure from FourFront Design, Inc

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

This section analyzes the potential environmental effects of the two alternatives. First, the existing environmental resource is succinctly described, relying heavily on the resource descriptions in the 2007 EA (VA, 2007). Second, the potential consequences of implementation of the two alternatives are analyzed.

The terms “effect” and “impact” are synonymous as used in this EA and can be considered either beneficial or adverse. Table 1 provides a summary of potential environmental effects of the proposed alternatives to the environment. The terms direct, indirect, and cumulative are used in the table to describe the environmental effects. The following definitions as defined in NEPA (40 CFR 1508) are:

- **Direct effects** – those effects which are caused by the action and occur at the same time and place as the action.
- **Indirect effects** – those effects which are caused by the action and occur later in time or further removed in distance, but are still reasonably foreseeable and causally linked to the action.
- **Cumulative effects** – impacts to the environment which result from incremental impact of the action when added to the other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions.

The effects / impacts are further characterized by their relative magnitude and for this EA are separated into three categories:

- Areas of No or Negligible Impacts
- Areas of Minor, Less Than Significant Impact
- Areas of Potentially Significant Impact

The term “significant” has specific meaning as defined in NEPA (40 CFR 1508.27) that includes both context and intensity. Table 1 lists the relative magnitude of potential impacts for each aspect of the affected environment. Effects are also expressed in terms of duration. Definitions for short-term and long-term are:

- **Short-term** – used here to indicate the time interval during which construction is ongoing, until the proposed facility improvements have been implemented.
- **Long-term** – time interval after action has been implemented, following active construction, during which there are only normal operations and maintenance.

Table 1. Environmental Effects

Effects	Alternatives							
	No Action			Master Plan and Development of 11.9 Acres				
	Short Term	Direct	Long-Term Indirect	Cumulative	Short Term	Direct	Long-Term Indirect	Cumulative
Aesthetics	N	N	N	N	I	N	N	N
Air Quality	N	N	N	N	I	N	N	N
Cultural Resources	N	N	N	N	N	N	N	N
Geology and Soils	N	N	N	N	I	I	N	I
Hydrology and Water Quality	N	N	N	N	I	I	N	N
Wildlife and Habitat	N	N	N	N	I	I	N	N
Noise	N	N	N	N	I	I	N	N
Land Use	N	N	N	N	N	N	N	N
Floodplains and Wetlands	N	N	N	N	N	N	N	N
Socioeconomic	N	N	N	N	I+	I+	I+	I+
Community Services	N	N	N	N	N	N	N	N
Solid Waste and Hazardous Materials	N	N	N	N	I	N	N	N
Transportation and Parking	N	N	N	N	I	N	N	N
Utilities	N	N	N	N	I	I	N	N
Environmental Justice	N	N	N	N	N	N	N	N
Other Environmental Concerns ⁽²⁾	N	N	N	N	I	I	N	N

Notes:

(1) For this table, the direct, indirect and cumulative short-term impacts are combined in a single "short term" category. This time period is approximately equivalent to duration of construction. Long-term impacts are divided into direct, indirect and cumulative. Long-term impacts occur after the project is implemented (post-construction).

(2) In this analysis, Other Environmental Concerns include irretrievable commitment of natural resources, unavoidable adverse impacts, relationship between short-term uses of the environment and maintenance and enhancement of long-term productivity, climate change and greenhouse gases.

Explanation:

N
Areas of negligible or no impact

I
Areas of minor, less than significant impact, primarily adverse

S
Areas of potentially significant impact, primarily adverse

I+
Areas of minor, less than significant impact, primarily beneficial

3.1 Aesthetics

The parcel to be considered for development is primarily visible from the developed portions of the SFNC on the west, north and northeast sides of the parcel of interest. The parcel is also visible from several residences on the northeast and southeast, and from currently vacant properties to the south. However, the topography and vegetation of the residential development restrict that view to a few publicly accessible points on the road, and from the adjoining properties themselves. There is no lighting on the 11.9-acre parcel so that the parcel currently supports night darkness.

Figure 6 is the Preliminary Site Analysis, illustrating many of the aesthetic aspects and issues at the site. Figures 7 through 9 are photos of the parcel from the developed portions of the cemetery on the west and northeast, and from the residential subdivision on the east. From the abandoned school to the south there is a view into the ball field area and to the southern aspects of the ridge and gullied areas.

Figure 6. Preliminary Site Analysis Plan

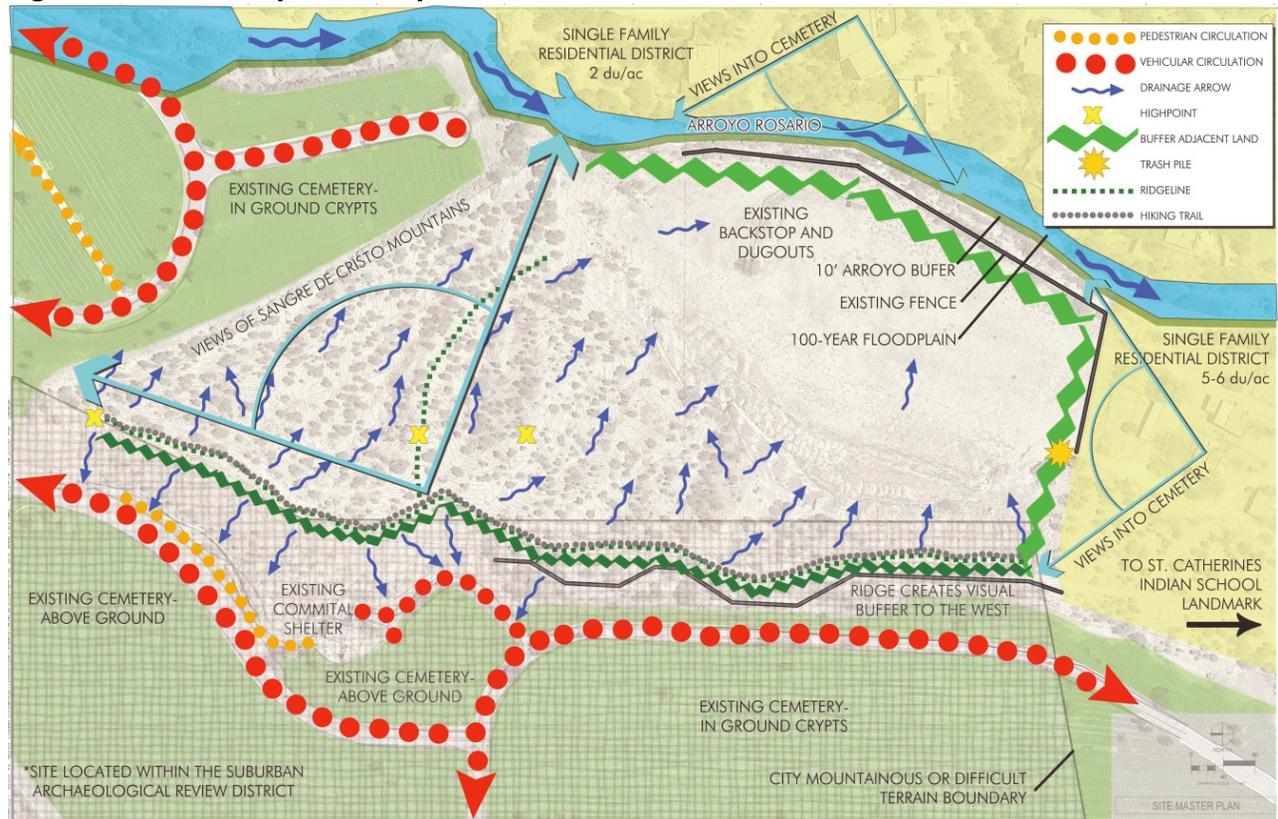


Figure from FourFront Design, Inc.

Figure 7. View of the Parcel from the West



Figure 8. View of the Parcel from the North



Figure 9. View of the Parcel from the East



Figure 10. View of the Parcel from the South



3.1.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to the visual setting. The impact of the *No-Action Alternative* would be negligible.

3.1.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*

The *Preferred Alternative: Master Plan and Development of 11.9 Acres*, as visualized by the conceptual designs in Figures 4 and 5, would include a change from the natural gullied ridge topography to a greater area of relatively flat turf grass and retaining walls adjacent to the remaining ridge topography. During short-term construction there would be excavation and construction equipment, which will be a minor, less than significant impact. Longer term development would include views of irrigated landscaping, interment sites, and access roads, a negligible impact.

3.2 Air Quality

The proposed project is not in a non-attainment area for any National Ambient Air Quality Standards (NMED, 2014; EPA, 2014a). There are no air emission sources or permits associated with the proposed project site. The site is located 18 miles from the nearest Class I air quality region, at Bandelier National Monument.

3.2.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to air quality. The impact of the *No-Action Alternative* would be negligible.

3.2.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*

The *Preferred Alternative: Master Plan and Development of 11.9 Acres*, would have short-term minor, less than significant adverse impacts to air quality during construction, primarily fugitive dust issues. Also, the operation of construction equipment could result in a less than significant short-term increase in emissions of hydrocarbons and carbon monoxide. In order to minimize dust, hydrocarbon and carbon monoxide emissions, Best Management Practices (BMPs) and equipment operation and maintenance procedures would be adopted and all construction activities would be performed in accordance with Federal and State air quality requirements. The operation of the site would result in a net minor long-term increase in emission from visitor's vehicles; however, these emissions would not have a significant adverse effect on the air quality of the area. The *Preferred Alternative: Master Plan and Development of 11.9 Acres* would have negligible long-term impacts to air quality.

3.3 Cultural Resources

A summary of Section 106 Consultation for the proposed project is included in Appendix A. A cultural resources investigation of the northern 5.7-acre portion of the parcel was conducted previously (Huntley, 2007). The southern 6.2-acre portion of the parcel has been addressed during cultural resources assessment of the St. Catherine's Industrial Indian School. The St. Catherine's Industrial Indian School has been named to the New Mexico State Register of Cultural Properties in 2001 and is eligible for the National Register of Historic Places (NRHP). However, the ball field portion of the school, which is located on the southern 6.2-acre portion of the 11.9-acre parcel of interest, has been specifically excluded from the identification of the portions of the St. Catherine's Industrial Indian School that are eligible for the NRHP. The full 11.9-acre parcel of interest is outside of any City of Santa Fe historic districts. Although the portion of the SFNC that is adjacent to the undeveloped area is eligible for NRHP listing as a Congress-designated primary memorial to the military history of the United States, the undeveloped 11.9-acre portion is not.

As part of this EA process, VA consulted with the federally recognized Native American Tribes in the region that may attach religious or cultural significance to the property affected by the proposed action. In accordance with NEPA, the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act and Executive Order 13175, VA sent a coordination and

consultation letter to the relevant Native American Tribes. Responses received are included in Appendix A.

3.3.1 Effects of the *No-Action Alternative*

3.3.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*

Since there are no archeological sites or historical properties on the proposed project site, the *Preferred Alternative: Master Plan and Development of 11.9 Acres*, would have “no adverse effect to historic properties” (New Mexico State Historic Preservation Office (SHPO), 2014). This is considered to be negligible impact. In the unlikely event that cultural resources or human remains are encountered during construction, all ground-disturbing activities would cease and there would be further evaluation and coordination with SHPO and affected parties.

3.4 Geology and Soils

Santa Fe lies in the down-dropped fault valley of the north-south running Rio Grande Rift Valley, between the Jemez Volcanic Mountains to the west and the southern extent of the Sangre de Cristo Mountains and the Rocky Mountains to the east. The bedrock geology is the Tertiary Tesuque Formation (Appendix C). The Tesuque Formation is a pink, tan, buff-colored silty to conglomeratic sand and sandstone typically interbedded with clay and siltstone beds, deposited as alluvial fan, fluvial and isolated lacustrine deposits (Read and others, 2005). Tesuque strata locally dip from 10 to 24 degrees to the west. In the subsurface, the Tesuque Formation is identified as red, orange-brown or red-brown semi-consolidated sandstone (Lazarus and Drakos, 1995).

Within Arroyo del Rosario are Quaternary alluvial-fan valley-fill deposits (Read and others, 2003). Sediment generally consists of light yellowish brown to light brown sandy gravel and gravelly sand plus minor mud, and is loose and 3 to 40 feet thick.

Soils of the parcel of interest are *Encantado very cobbly sandy loam, 25 to 45 percent slopes*, in the western portion of the site (USDA, 2014) (Appendix C). The eastern portion of the site is primarily *Tanoan-Encantado-Urban land complex, 5 to 25 percent slopes*, and a small portion of *Junebee gravelly sandy loam, 5 to 15 percent slopes*, along the course and slopes of Arroyo del Rosario. None of the soils found on the site are prime farmland or unique soils. Site observations in 2007 noted a thin veneer of gravel and cobbles overlying reddish-brown silty sands and clayey sand on the higher elevations and silty sands and sand in the arroyo channel (VA, 2007).

Site geotechnical surveys in 2014 (Terracon, 2014) found that site soils generally consisted of silty to clayey sand with varying amounts of gravel and poorly to well-graded sand with varying amounts of silt and gravel. Shear wave velocity profile tests performed by Terracon were consistent with the literature descriptions of soils and shallow semi-consolidated bedrock.

3.4.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to the site. The impact of the *No-Action Alternative* would be negligible.

3.4.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*

The conceptual designs shown on Figures 4 and 5 both include excavation of soils and potentially minor excavation of the underlying semi-consolidated bedrock. Excavation depths range to as much as 35 feet in the Encantado very cobbly sandy loam unit on the west of the site and fill ranges to thicknesses up to as much as 20 feet on the eastern side of the site, in the Tanoan-Encantando-Urban land complex. Soil profiles and soil-forming process would be disturbed by development of the site. Neither the soil units and bedrock formations nor topography of the site are rare or unique in the Santa Fe vicinity. BMPs will be employed to minimize soil erosion during construction and final vegetation of the development will limit the potential for long-term soil erosion. The *Preferred Alternative: Master Plan and Development of 11.9 Acres*, would have minor, less than significant impacts short-term impacts during construction, and continued minor, less than significant direct and cumulative long-term impacts to soils and topography.

3.5 Hydrology and Water Quality

The site is located within the Rio Grande Watershed, in a portion of New Mexico that receives approximately 13.68 inches of precipitation annually (Western Regional Climate Center, 2014). There are no surface water bodies on the parcel of interest. There are numerous gullies and drainage swales, and Arroyo del Rosario, a dry wash on the eastern boundary of the southern portion of the site. The US Army Corps of Engineers made a site visit to review drainage features on the site and concluded that, with the exception of Arroyo del Rosario, none of these features were regulated or jurisdictional Waters of the United States, (Appendix B).

Environmental Data Resources found information for a single domestic well within one-eighth mile of the parcel of interest (EDR, 2014a), which had no data concerning the depth to groundwater. There are two domestic wells within one-eighth to one-quarter mile of the parcel of interest with groundwater depths 150 and 189 feet below the ground surface. Although there is a possibility of perched water tables due to the variable stratigraphy of the Tesqueque Formation (an alluvial fan deposit), literature reports that the anticipated depths to ground water in the Santa Fe valley are 150 to 200 feet (Wilson and Jenkins, 1979).

3.5.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to the site. The impact of the *No-Action Alternative* would be negligible.

3.5.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*

During construction, BMPs will be employed to minimize erosion and sediment in surface water runoff. Any activity that may impact Waters of the United States within the site would require the issuance of permits under Section 404 of the Clean Water Act. Current conceptual designs have no impacts to Arroyo del Rosario. Control of storm water and erosion runoff effects on water quality would require a National Pollutant Discharge Elimination System (NPDES) permit. A subsurface drainage system would be incorporated into the design, as required, to isolate the burial grounds from the groundwater in compliance with the National Cemetery Administration Facilities Design Guide (VA, 2010b).

Grading and landscaping may reduce surface water runoff within the developed areas of the project, increasing infiltration to groundwater, and decreasing erosion. Therefore, the *Preferred Alternative: Master Plan and Development of 11.9 Acres*, would have minor, less than significant positive impacts to groundwater and surface water quality and quantity. On the other hand, the irrigated landscaping would increase consumption and evapotranspiration of limited groundwater resources, producing a minor, less than significant negligible short-term and long-term direct impacts to the regional aquifer and ground water supplies.

The City of Santa Fe requires that any actions (grading, walls, structures) be set back 25 feet plus the depth of the arroyo channel from arroyos. The *Preferred Alternative: Master Plan and Development of 11.9 Acres*, will meet those requirements.

3.6 Wildlife and Habitat

The site is mapped by the New Mexico Department of Game and Fish (NMDGF) as Juniper Savanna, within the Arizona-New Mexico Mountain Ecoregion (NMDGF, 2014). Investigations of vegetation (FourFront, 2014) (Appendix C) confirmed and added detail to the descriptions of vegetation from the 2007 EA (VA, 2007). The site is characterized primarily by oneseeded juniper (*Juniperus monosperma*) and twoneedle pinyon (*Pinus edulis*) trees. Birch-leafed mahogany (*Cercocarpus montanus*) and rabbitbrush (*Chrysothamnus viscidiflorus*) complement the evergreens as an understory of deciduous woody shrubs. Several elm (likely naturalized *Ulmus pumila* or *americana*) are found along drainages and the arroyo, and a scattering of scrub oak (*Quercus turbinella*) is found along ridgelines. The herbaceous understory is made up of yucca (*Yucca flimantosa*), prickly pear cactus (*Opuntia spp.*) and sideoats gramagrass (*Bouteloua curtipendula*), but is scarce and sporadic. The 2007 EA also noted the occurrence of blue curls (*Phacelia integrifolia*), sage (*Artemisia spp.*) and cane cholla (*Cylindropuntia imbricata*). The soil units in the parcel of interest are typically characterized by oneseeded juniper/twoneedle pinyon overstory and Apache plume (*Fallugia paradoxa*) / hairy grama (*B. hirsuta*) / blue grama (*B. gracilis*) herbaceous layer.

There are no critical habitats within the area of the proposed project (Appendix C). There is potential for four endangered species to use habitat within the vicinity of the proposed project site (Appendix C). The endangered species are listed in Table 2.

Table 2. Endangered Species Potentially in the Vicinity of the Proposed Project Site

Species	Status	Habitat Requirements	Is habitat found on site?
Mexican Spotted Owl (<i>Strix occidentalis lucida</i>)	Threatened	High canopy, high tree density	No
Southwestern Willow flycatcher (<i>Empidonax traillii extimus</i>)	Endangered	Dense riparian nesting habitat, with water	Possible foraging habitat
Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>)	Proposed Threatened	Tall cottonwood, willow and riparian woodland	No
Rio Grande Cutthroat trout (<i>Oncorhynchus clarkia virginalis</i>)	Candidate	Streams	No

The United States Fish and Wildlife Service (USFWS) and the NMDGF were solicited for information and concerns about the proposed project (Appendix B). Neither agency had concerns or issues about the proposed project.

There are 12 New Mexico State Threatened and State Endangered species that may occur in Santa Fe County (Biota Information System of New Mexico, 2014) (Appendix C). Investigation of habitat requirements and reported occurrences (USGS, 2014) show that none of these species likely occur in the Juniper Savanna in an urban/suburban setting such as that at the site. The Baird’s sparrow (*Ammodramus bairdii*) and spotted bat (*Euderma maculatum*) use the area surrounding Santa Fe, but avoid the urban/suburban setting of the town.

The suburban character of the area surrounding the site includes residential development, a major highway and secondary roads, and the existing cemetery. This suburban setting is conducive to supporting opportunistic wildlife such as various species of songbirds, small mammals, reptiles, or other animals adapted to suburban environments.

Executive Order 11986, Exotic Organisms, addresses requirements related to the control of exotic species. Exotic and invasive species are those plants or animals which are not native to New Mexico, but were introduced as a result of human-related activities. The only exotic/non-native species observed during site investigations was the Siberian elm. This species was represented by only a few individuals and does not present a significant invasive threat (VA, 2007).

3.6.1 Effects of the No-Action Alternative

Under the *No-Action Alternative* there would be no changes to the site. The impact of the *No-Action Alternative* would be negligible.

3.6.2 Effects of the Preferred Alternative: Master Plan and Development of 11.9 Acres

Since the site does not contain any listed vegetative species and does not provide critical habitat for listed species, potential impacts to protected wildlife and habitat are not expected, and any

impact to biological resources are expected to be temporary and less than significant. The existing vegetation would be changed to a managed landscape, with non-native turf grass, roads and sidewalks on a large portion of the parcel of interest. In both Design Concept 1 and Design Concept 2 (Figures 4 and 5), there is native vegetation left as visual buffers, primarily on the ridge and adjacent to the arroyo. Vegetation management during and after construction would preclude colonization by invasive species. Some buffer areas would in fact be restored to a mixed palette of indigenous and adaptive plant materials. The *Preferred Alternative: Master Plan and Development of 11.9 Acres*, would have minor, less than significant direct adverse impacts to wildlife and habitat.

3.7 Noise

The site is relatively suburban, with residential development, a major highway and secondary roads, commercial development and the existing National Cemetery in the near vicinity. Normal operations at the cemetery include gun salutes associated with most interments. There are also periodic ground maintenance activities that produce noise, such as lawnmowers, leaf-blowers, etc.

Noise-sensitive receptors are defined as properties where frequent human use occurs and where a lowered noise level would be of benefit. There are two noise sensitive receptors in the vicinity of the site: the cemetery itself, and the residential development east of the cemetery.

3.7.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to the site. The impact of the *No-Action Alternative* would be negligible.

3.7.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*

The 11.9-acre parcel of interest is currently vacant, with minor recreational trail use. Construction and development of the parcel would provide short-term construction noise. Long-term impacts would include increased noise of visitors, gun salutes at interments, and ground maintenance operations. Therefore, the *Preferred Alternative: Master Plan and Development of 11.9 Acres*, would have minor, less than significant adverse impacts to noise levels.

3.8 Land Use

The parcel of interest is located within the City of Santa Fe (City of Santa Fe, 2014). The northern portion of the parcel is undeveloped and consists of native vegetation and informal walking trails. The southern portion of the land is a ball field of the St. Catherine's Industrial Indian School, now abandoned.

3.8.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to land use. The impact of the *No-Action Alternative* would be negligible.

3.8.2 Effects of the Preferred Alternative: Master Plan and Development of 11.9 Acres

The *Preferred Alternative: Master Plan and Development of 11.9 Acres*, as visualized by the conceptual designs in Figures 4 and 5, would include a change of the currently vacant / abandoned land status to an active cemetery facility. This is a land use considered to be compatible with the adjacent cemetery and residential areas, and therefore the impact of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* is considered to be negligible.

3.9 Floodplains and Wetlands

Investigation of the site found no wetlands within the parcel of interest, confirming the analysis by the National Wetlands Inventory (USFWS, 2014) (Appendix C). However, there is an 100-year floodplain associated with the Arroyo del Rosario, shown on Federal Emergency Management Agency (FEMA) flood plain panel 35049C0404E (FEMA, 2012) (Appendix C).

3.9.1 Effects of the No-Action Alternative

Under the *No-Action Alternative* there would be no changes to floodplains, and there are no wetlands in the parcel of interest.

3.9.2 Effects of the Preferred Alternative: Master Plan and Development of 11.9 Acres

The *Preferred Alternative: Master Plan and Development of 11.9 Acres*, as visualized by the conceptual designs in Figures 4 and 5, makes no impacts to the floodplain of Arroyo del Rosario and there are no wetlands at the site. Therefore, the impacts of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* would be negligible.

3.10 Socioeconomics

The socioeconomic setting for the proposed project site is described in the Tables 3 and 4. The proposed project site is located within the city limits of Santa Fe, in Santa Fe County, New Mexico.

Table 3. Demographic Data for City of Santa Fe Compared to County, State and National

Location	Total Population (2013)	Population 65 years and older	Population under age 18 years	Minority Population	High School Graduates	Veterans 2008-2012
Census Tract ⁽¹⁾				50%		
City of Santa Fe	69,976	17.6%	18.9%	21.1%	87.4%	5,180
Santa Fe County	147,423	19.9%	19.9%	8.8%	86.7%	11,529
New Mexico	2,085,287	14.7%	24.3%	17.1%	83.4%	175,832
United States	316,128,839	14.1%	23.3%	22.3%	85.7%	21,853,912

(1) Refers to the Census Tract in which the proposed project is located, 35049001.01. Only minority and poverty data are available at Census Tract data through readily available sources.

(2) Statistics for City of Santa Fe are from 2010; all others are 2013

(3) (US Department of Commerce Census Bureau, 2014a and 2014b)

Table 4. Economic Data for City of Santa Fe Compared to County, State and National

Location	Number of Households 2008-2012	Median Household Income 2008-2012	Population Below Poverty Level	Unemployment Rate (June 2014)
Census Tract ⁽¹⁾			6.6%	
City of Santa Fe	31,246	\$50,446	17.3%	5.8%
Santa Fe County	60,954	\$53,642	16.0%	5.8%
New Mexico	763,844	\$44,886	19.5%	6.5%
United States	115,226,802	\$53,046	14.9%	6.1%

(1) Refers to the Census Tract in which the proposed project is located, 35049001.01. Only minority and poverty data are available at Census Tract data through readily available sources.

(2) (US Department of Labor Bureau of Labor Statistics, 2014; US Department of Commerce Census Bureau, 2014b)

3.10.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to socioeconomic variables in the vicinity of the proposed project site. At some future time, the capacity for interment at the SFNC would be exhausted, and veterans and their families would encounter a potential economic hardship without local burial benefits.

3.10.2 Effects of the Preferred Alternative: Master Plan and Development of 11.9 Acres

The *Preferred Alternative: Master Plan and Development of 11.9 Acres* would have a short-term minor, less than significant positive economic benefit through construction work. There would be a long-term minor, less than significant positive direct, indirect and cumulative economic benefit for veterans and their families through the availability of local burial benefits, and to the community related to the draw of visitors to the cemetery.

3.11 Community Services

The City of Santa Fe provides the site vicinity with fire, rescue and police services. Other community services are not particularly relevant to the operation of a cemetery or vacant land. The closest fire station is the City of Santa Fe Fire Station #1, at 200 Murales Road, 1.4 miles from the entrance to SFNC. There is only a single central police station in Santa Fe, at 2515 Camino Entrada, approximately 6.4 miles from the entrance to SFNC. The SFNC is within the area of Police Patrol District 8. The parcel of interest is already owned by the Federal government, so there will be no change in tax revenues.

3.11.1 Effects of the No-Action Alternative

Under the *No-Action Alternative* there would be no changes to requirements for community services in the vicinity of the proposed project site.

3.11.2 Effects of the Preferred Alternative: Master Plan and Development of 11.9 Acres

The *Preferred Alternative: Master Plan and Development of 11.9 Acres* would have negligible impacts on the local community services.

3.12 Solid and Hazardous Materials

There are no significant asbestos, lead paint or hazardous materials issues related to the parcel of interest. The only structures on the parcel are the small concrete block baseball dugouts at the ball field on the southern portion of the 11.9-acre parcel, the backstop and miscellaneous fencing. There is minor solid waste accumulated on the vacant parcels.

A full Phase I Environmental Site Assessment to fulfill the “all appropriate inquiries” rule of the US Environmental Protection Agency (EPA, 2014b) was not performed for this NEPA analysis, since there is no transfer of land associated with the proposed actions. However, regulatory records were searched to identify any potential hazardous materials issues (EDR, 2014a). Historic aerial photos and Sanborn Fire Insurance maps were reviewed to identify any potentially problematic past uses of the 11.9-acre parcel (EDR, 2014b and 2014c).

A search of the data records indicated that there were at least two historic confirmed releases from an underground storage tank located on the SFNC property. Each of the releases was subsequently remediated to the point where the regulatory agency classified the status as “No Further Action

Required.” The records further indicate that the three historic underground storage tanks previously located at the SFNC have been removed. The 2007 EA cites the remediated/removed leaking underground storage tank location at the maintenance building approximately 850 feet west and downhill (assumed down-gradient) of the boundary of the parcel of interest.

There is a record of an underground storage tank at the St. Catherine’s Industrial Indian School, which was removed and appropriately closed. There has also been an air quality permit related to construction/demolition/renovation at the St. Catherine’s Industrial Indian School.

There are no regulatory records that would indicate the presence or likely presence of any hazardous substances or petroleum products in, on, or at the parcel of interest: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

3.12.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to solid or hazardous materials issues on the parcel of interest.

3.12.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*

There will be short-term minor, less than significant impacts related to solid waste due to construction of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* due to clear and grub operations and short-term minor, less than significant impacts related to hazardous materials due to the operation of construction equipment on the site. The hazardous materials issues would be minimized and mitigated by appropriate standard operating procedures, maintenance of equipment and BMPs. There will be long-term direct impacts related to hazardous materials due to the operations and maintenance of the cemetery once the 11.9-acre parcel is developed, which can likewise be minimized and mitigated.

3.13 Transportation and Parking

There is currently no direct vehicular access to the parcel of interest. Potential access from the south is blocked by gates and fencing at the St. Catherine’s Industrial Indian School. There are no access roads to the parcel of interest from the SFNC. There are informal walking paths through the parcel, and it may be that a few persons using those paths park in SFNC parking areas.

3.13.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to transportation or parking issues related to the parcel of interest.

3.13.2 Effects of the Preferred Alternative: Master Plan and Development of 11.9 Acres

Due to construction of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* there will be short-term minor, less than significant adverse impacts to transportation and parking. Long-term, there will be new internal access roads and parking constructed to serve development of the 11.9 acres. The expansion will be served by the existing external accesses to the SFNC. There will be negligible long-term additional traffic or parking since there is no anticipated increase in interment rates.

3.14 Utilities

The 11.9-acre parcel is currently undeveloped and has no power, water, wastewater or phone services. The following utility providers service the site and surrounding areas:

Utility Type:	Company
Electricity:	PNM
Natural Gas:	PNM
Water:	City of Santa Fe
Wastewater:	City of Santa Fe
Telephone:	CenturyLink

Solid waste and recycling services are provided by the City of Santa Fe, and were addressed previously under the section concerning solid and hazardous waste.

3.14.1 Effects of the No-Action Alternative

Under the *No-Action Alternative* there would be no changes to utilities related to the parcel of interest.

3.14.2 Effects of the Preferred Alternative: Master Plan and Development of 11.9 Acres

The *Preferred Alternative: Master Plan and Development of 11.9 Acres* will cause short- and long-term, minor, less than significant direct and cumulative impacts to utility services and utility consumption, primarily related to increased demand for irrigation water and power to distribute that irrigation water. New connections to utilities service providers will be required.

3.15 Environmental Justice

Executive Order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” was enacted in 1995 to focus Federal agencies’ attention on the environmental and human health conditions in minority communities and low-income communities with the goal of achieving environmental justice. Under this Executive Order, Federal agencies must identify and address the human health or environmental effects of its actions on minority and low-income populations.

For this analysis, data on minority and low income populations within the community (census tract) was compared to data available for the City, County, State and Nation. This data is displayed in Tables 3 and 4. According to that data, the vicinity of the proposed project has a relative minority population much larger than that of the City, County, State or Nation. However, it has a relative low-income population that is a much smaller than that of the City, County, State or Nation.

3.15.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no changes to environmental justice issues related to the parcel of interest.

3.15.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*

The *Preferred Alternative: Master Plan and Development of 11.9 Acres* will have no or negligible environmental justice impacts. Though there is a relatively high concentration of minorities in the vicinity of the site, there is an exceptionally low rate of poverty. The expansion of the cemetery would not change the current level of environmental or human health conditions within the communities near the proposed project.

3.16 Other Environmental Concerns

NEPA requires additional consideration of:

- Irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented (42 USC Ch. 55 Subchap. I Sec. 4332 C(v));
- Relationship between short-term uses of the environment and maintenance and enhancement of long-term productivity (42 USC Ch. 55 Subchap. I Sec. 4332 C(iv));
- Unavoidable adverse impacts (42 USC Ch. 55 Subchap. I Sec. 4332 C(ii));
- Climate change and green-house gases (CEQ, 2010).

3.16.1 Effects of the *No-Action Alternative*

Under the *No-Action Alternative* there would be no irreversible and irretrievable commitments of resources; no short-term use of the environment or enhancement of long-term productivity. However, there would be the unavoidable adverse impact of failure of VA's mission to provide burial benefits to veterans and their families in northern New Mexico.

The potential impact of climate change to the *No-Action Alternative* would be the gradual natural changes in native flora and fauna. A change in average precipitation amounts could affect the rate of erosion in the gullies and dry washes on the site. The *No-Action Alternative* would have no impact on concentrations of green-house gases.

3.16.2 Effects of the *Preferred Alternative: Master Plan and Development of 11.9 Acres*

Under the *Preferred Alternative: Master Plan and Development of 11.9 Acres* there will be minor, less than significant irreversible and irretrievable commitments of resources in the resources and energy consumed by construction, operations and maintenance of the expansion of the SFNC. The NCA commits to perpetual maintenance of the facility, so that development of the parcel as National Cemetery will perpetually remove the parcel from any other potential uses. The primary unavoidable adverse impact of the *Preferred Alternative: Master Plan and Development of 11.9 Acres* is the commitment of ongoing energy and water for operations and maintenance of the facility.

The potential impact of climate change to the *Preferred Alternative: Master Plan and Development of 11.9 Acres* would be the gradual natural changes in the native flora and fauna. Changes in climate may increase or decrease efforts required for maintenance of landscaping, or require a modification of landscaping. There will be minor, less than significant emissions of greenhouse gases from equipment during construction, and ongoing lower levels of emissions from operations and maintenance equipment and visitor vehicles. Alternatively, the vegetation that will be maintained by landscaping will provide net increase in biomass of vegetation, providing a minor, less than significant increase in carbon sequestration. None of the actions considered under this NEPA analysis would generate sufficient greenhouse gas emissions to require a quantitative study.

3.17 Potential for Generating Substantial Controversy

The SFNC expansion would be incorporated into the SFNC Master Plan, which is consistent with local land use and is perceived as a positive addition to the community. There are no major issues that would generate negative public perception and reaction to the Proposed Action. The agencies that have responded to a request for input regarding the Proposed Action have not raised any issue that would be considered to be contentious. Considering these factors, significant public controversy is not anticipated for the Proposed Action. This Draft EA will be published and available for a 30-day public comment period. A response will be made to any substantive comments.

4.0 PUBLIC INVOLVEMENT

Appendix B includes correspondence with Federal, State and Local Agencies. Appendix A contains records of Native American and Section 106 National Historic Protection Act Consultation.

The VA will publish and distribute this draft EA for at least a 30-day public comment period on the Draft EA. A Notice of Availability (NOA) will be published in a local newspaper. A hardcopy of the Draft EA will be available at the SFNC Administration Building for review. The document will be available for review online through the VA's website at www.cem.va.gov/cem/EA . VA will also submit a Draft EA to interested agencies for comment concurrent with the public comment period. If no substantive comments are received and no additional analyses are requested, the comment period will be considered complete and a Notice of Finding of No Significant Impact (FONSI) will be issued.

5.0 MITIGATION

A summary of example BMPs and mitigation measures to avoid and reduce to less than significant levels the potential adverse impacts identified for the Proposed Action are presented in this following table. These BMPs will be implemented throughout construction of the cemetery expansion and later operations and management of the cemetery. This list presents examples – there are many more BMPs and mitigation measures that may be employed.

Table 5. Best Management Practices / Environmental Protection Measures Incorporated into the Proposed Action

(Note: This list is an example, not an exhaustive list of all possibilities.)

Resource Area	Best Management Practice / Environmental Protection Measure
Aesthetics	Design of the cemetery expansion will be consistent with surrounding landscape, the SFNC Master Plan, and local regulations
	Incorporate existing large trees into the cemetery design wherever possible.
	Use the ridge and vegetative buffers to enhance viewsapes.
	Use lighting that will minimize light pollution.
Air Resources	Use appropriate dust suppression methods during construction activities. Some common methods available include application of water, dust palliative, or soil stabilizers; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-moving activities during high wind conditions.
	Maintain an appropriate speed to minimize dust generated by vehicles and equipment on unpaved surfaces.
	Cover haul trucks with tarps.
	Stabilize previously disturbed areas through re-vegetation or mulching if the area would be inactive for several weeks or longer.
	Visually monitor all construction activities regularly, particularly during extended periods of dry weather, and implement dust control measure when appropriate.
	Ensure that equipment is appropriately used and maintained to minimize emissions.
Cultural Resources	Should human remains or other potentially historic or culturally significant items be discovered during project construction, the construction contractor would immediately cease work until VA, and qualified experts, as applicable, have been contacted and evaluated the find.
Earth Resources	Create and maintain a tree-lined border to minimize visual impacts of topographic changes.
	Design paved areas to drain to storm water management systems to reduce soil erosion.
	Install and monitor erosion-prevention measures (BMPs), in accordance with the Erosion Control Plan. Re-spread stockpiled topsoil and seed / re-vegetate areas temporarily cleared of vegetation.

Resource Area	Best Management Practice / Environmental Protection Measure
	Retain on-site vegetation to the maximum extent possible.
	Maintain <i>in situ</i> soil profiles to the maximum extent possible.
	Use native vegetation to re-vegetate disturbed soils to the maximum extent possible.
	The construction contractor would obtain all required permits before any proposed construction activities commence and would adhere to permit conditions during all on-site construction activities.
Water Resources	Avoid Waters of the US (Arroyo del Rosario) and maintain a vegetated buffer for the arroyo.
	Design and implement 100-year storm volume storm water retention basins
	Maintain and properly use equipment, herbicides, pesticides and fertilizers to avoid spills or releases of petroleum products or other hazardous substances.
	Create and implement a design that will protect groundwater resources.
	Use design, best available technologies, BMPs, and operation controls, as possible, to minimize irrigation water use.
	Implement erosion and sedimentation controls to comply with Federal, State and Local permitting and programs.
Biological Resources	Construction should be timed, to the maximum extent possible, to avoid wildlife impacts.
	Use landscape materials that will minimize the need for herbicides or pesticides, and consider potential forage issues.
	Protect vegetative buffers and maintain natural vegetation if possible
	Maintain site to reduce invasive species.
Noise	Coordinate proposed construction activities in advance with adjacent sensitive receptors (residences and the operating portions of the National Cemetery). This should include public outreach and communications through signage, local media and the cemetery administration.
	Locate stationary equipment and select material transportation routes as far away from sensitive noise receptors as is possible.
	Shut down noise-generating heavy equipment when it is not needed.
	Maintain and properly use equipment to reduce noise.
	Create Standard Operating Procedures to operate equipment in the quietest manner possible.
	Limit gun salute noise impacts from ceremonial rifle salutes by conducting salutes during daytime hours between 7:00AM and 4:00PM. Limit the number of salutes to 3 to 5 rifles during an individual committal ceremony.
	Maintain a tree-lined site perimeter to further reduce noise impacts beyond the site.
Solid and Hazardous Materials	Comply with existing VA Standard Operating Procedures and applicable Federal and state laws governing the use, generation, storage, or transportation of solid or hazardous materials.

Resource Area	Best Management Practice / Environmental Protection Measure
	If hazardous substances are released to the site during construction or operation, these applicable Federal and State requirements must be followed in response and cleanup.
	Avoid or limit the use of hazardous materials, including building material products, during construction and operation of the National Cemetery
	Establish re-use / re-purpose / recycle protocols to the maximum extent possible.
Transportation and Parking	Use Traffic Impact Analysis to identify the level of transportation conditions and recommended improvements.
	Coordinate with the State, County, and City road departments to ensure construction and operational traffic are considered in the planning of future transportation improvement in the vicinity of the site.
	Ensure that debris and/or soil is not deposited on local roadways during construction.
	Ensure construction activities do not adversely affect traffic flow on local roadways; construction traffic should be timed to avoid peak travel hours.
Utilities	Submit design plans to each utility provider to determine specific connections requirements and implement the necessary connection requirements.
	Employ low energy consumption and low water consumption methods, to the maximum extent possible.

6.0 ENVIRONMENTAL PERMITS REQUIRED

For the *No-Action Alternative* no environmental permits will be required. The *Preferred Alternative: Master Plan and Development of 11.9 Acres* will require a Storm Water Pollution Prevention Plan (SWPPP). There will be no environmental permits required concerning the Arroyo del Rosario because there will be no impacts to the arroyo and the appropriate vegetated buffer will be preserved surrounding the arroyo. Non-environmental permits, such as construction permits from the City of Santa Fe, may be required.

7.0 CONCLUSIONS

This EA has been prepared pursuant to NEPA to evaluate the environmental impacts associated with the *Preferred Alternative: Master Plan and Development of 11.9 Acres* adjacent to the previously developed and operating SFNC, at 501 North Guadalupe, Santa Fe, New Mexico. The purpose of the Proposed Action is to enable VA to provide eligible veterans and their families in New Mexico with National Cemetery capacity to serve the projected needs of the area.

The Proposed Action is needed to meet the VA's National Cemetery Administration's goal of increasing burial options in areas with an unserved or underserved Veteran population, as specified by Congress. Burial at a National Cemetery is an earned benefit provided to Veterans through the VA.

The resources evaluated in this EA include: aesthetics; air quality; cultural resources; geology and soils; hydrology and water quality; wildlife and habitat; noise; land use; floodplains and wetlands; socioeconomics; community services; solid and hazardous waste; transportation and parking; utilities; environmental justice; and additional issues identified by NEPA.

Based on the analysis presented in this EA and preliminary coordination with public agencies, it is expected that the Proposed Action would not have a significant impact on these resources. Any potential impact would be avoided or mitigated through the implementation of BMPs and compliance with statutory and regulatory processes already in place in the State of New Mexico. Therefore, if after the 30-day public comment period on this draft EA, no substantive comments are received or no additional analyses are requested, a notice of Finding of No Significant Impact (FONSI) will be issued and an Environmental Impact Statement will not be required.

8.0 LIST OF PREPARERS

Department of Veterans Affairs Staff

Rodney Duich
Glenn Madderom
James P. Sanders
Louis Sinclair
Lu Richards
Jill Schattel

FourFront Design, Inc.

Eirik Heikes, PLA, LEED AP

Sanderson Stewart

Carol Lee-Roark, PhD, PG
Christina Thelen, PE

9.0 REFERENCES CITED

Biota Information System of New Mexico, 2014, *Database Query*:

www.bison-m.org/databasequery

CEQ – see Council on Environmental Quality

City of Santa Fe, 2014, *Information Technology and Telecommunications--GIS*:

www.santafenm.gov/gis

Council on Environmental Quality, 2010, *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions, Memorandum for Heads of Federal Departments and Agencies*: February 18, 2010.

EDR – see Environmental Data Resources, Inc.

Environmental Data Resources, Inc., 2014a, *EDR Radius Map Report with GeoCheck, Santa Fe National Cemetery Expansion*: September 10, 2014.

Environmental Data Resources, Inc., 2014b, *EDR Aerial Photo Decade Package*: September 10, 2014.

Environmental Data Resources, Inc., 2014c, *EDR Certified Sanborn Map Report*: September 10, 2014.

Environmental Data Resources, Inc., 2014d, *EDR NEPA Check*: September 10, 2014

EPA – see United States Environmental Protection Agency

Federal Emergency Management Agency, 2012, *Flood Insurance Rate Map, Santa Fe County, New Mexico and Incorporated Areas*: Panel 404 Of 1100, Map Number 35049C0404E, revised December 4, 2012.

FEMA – see Federal Emergency Management Agency

FourFront Design, Inc., 2014, *Vegetative Analysis*: prepared for Santa Fe National Cemetery.

Huntley, Deborah L., 2007, *Negative Cultural Resources Survey of 5.7 Acres for the Santa Fe National Cemetery*: Southwest Archeological Consultants, Inc., prepared for MACTEC Engineering and Consultants, Inc., June.

Lazarus, Jay, and Paul Drakos, 1995, *Geohydrologic Characteristics and Hydrocarbon Contamination of the Shallow Alluvial/Tesuque Formation Aquifer, Santa Fe, New Mexico*, in Pauer W. Bauer, Barry S. Kuew, Nelia W. Dunbar, Karl E. Karlstrom and Bruce Harrison, eds., *New Mexico Geological Society Fall Field Conference Guidebook 46*, pp. 307-311.

NMDGF – see New Mexico Department of Game and Fish

New Mexico Department of Game and Fish, 2014, *Biota Information System of New Mexico*:
www.bison-m.org

New Mexico Environment Department, 2014, *Air Quality Bureau Non-Attainment Areas in New Mexico*: www.nmenv.state.nm.us/aqb/modeling/na_map

New Mexico State Historic Preservation Officer, 2014, Concurrence of determination of No Adverse Effect, letter included in Appendix A.

NMED – see New Mexico Environment Department

NM SHPO – see New Mexico State Historic Preservation Officer

Read, Adam S., Daniel J. Koning and Peggy S. Johnson, 2004, Preliminary Geologic Map of the Southern Espanola Basin: NM Bureau of Geology and Mineral Resources Open-File Report 481, www.Geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=481.

Read, Adam S., Daniel J. Koning, Gary A. Smith, Steven Ralser, John B. Rodgers, Paul A. Bauer, 2005, Geologic Map of the Santa Fe Quadrangle, Santa Fe County, New Mexico: NM Bureau of Geology and Mineral Resources Open-file Geologic Map OF-GM 032, www.geoinfo.nmt.edu/publications/maps/geologic/ofgm/details.cfm?Volume=32

Terracon, 2014, Geotechnical Engineering Report, 1000 Traditional Casket Burial Site, 501 N. Guadalupe Street, Santa Fe, NM: prepared for FourFront Design, Inc., Albuquerque, NM.

United States Department of Labor Bureau of Labor Statistics, 2014, Economy at a Glance: retrieved September 2014 from www.bls.gov/eag.

United States Department of Agriculture, 2014, Web Soil Survey, Natural Resources Conservation Service, retrieved from www.websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

United States Department of Commerce Census Bureau, 2014a, Quickfacts: retrieved September 2014 from www.quickfacts.census.gov

United States Department of Commerce Census Bureau, 2014b, American Fact Finder Advanced Search for Census Tract 35049001.01: retrieved September 2014 from www.factfinder2.census.gov

United States Department of Veterans Affairs, 2014, *National Cemetery Development Fact Sheet*: www.cem.va.gov/cem/docs/factsheets/newcemdev.pdf

United States Department of Veterans Affairs, 2010a, *NEPA Interim Guidance for Projects*: Office of Construction and Facilities Management, Washington, DC, Program Guide 18-17(rev.).

United States Department of Veterans Affairs, 2010b, National Cemetery Administration Facilities Design Guide.

United States Department of Veterans Affairs, 2007, *Final Environmental Assessment for Land Acquisition at the Santa Fe National Cemetery, Santa Fe, New Mexico*: Prepared for the National Cemetery Administration by MACTEC, Columbia, SC.

United States Environmental Protection Agency, 2014a, The Green Book Nonattainment Areas for Criteria Pollutants as of July 2, 2014: www.epa.gov/oagps001/greenbk/ancl.html

United States Environmental Protection Agency, 2014b, All Appropriate Inquiries, www.epa.gov/brownfields/aai

United States Geological Survey, 2014, National Gap Analysis Program Species Data Portal: www.gapanalysis.usgs.gov/species/viewer

USDA – see United States Department of Agriculture

USGS – see United States Geological Survey

VA – see United States Department of Veterans Affairs

Western Regional Climate Center, 2014, Santa Fe 2, New Mexico (298085), www.wrcc.dri.edu

Wilson, Lee, and David N. Jenkins, 1979, Ground-water resources of Santa Fe country *in* R.V. Ingersoll, L.A. Woodward, and H.L. James (eds.), *New Mexico Geological Society Guidebook, 30th Field Conference*, pp. 293-298

10.0 LIST OF ACRONYMS AND ABBREVIATIONS

Abbreviation	Acronym
BMP	Best Management Practice
CEQ	President's Council on Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
NCA	National Cemetery Administration
NEPA	National Environmental Policy Act of 1969
NMDGF	New Mexico Department of Game and Fish
NMED	New Mexico Environmental Department
NOA	Notice of Availability
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
SCRA	Servicemembers Civil Relief Act
SFNC	Santa Fe National Cemetery
SHPO	State Historic Preservation Office
SWPPP	Surface Water Pollution Prevention Plan
USC	United States Code
USDA	United States Department of Agriculture

List of Acronyms and Abbreviations

Abbreviation	Acronym
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VA	Department of Veterans' Affairs