Environmental Assessment Supplement

Proposed Army Reserve Military Construction Project-Operational Readiness Training Complex Fort Hunter Liggett

Monterey County, California

Prepared for:

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Environmental Assessment Supplement
Signature Sheet

Proposed ORTC

Fort Hunter Liggett, California

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COVER SHEET
ENVIRONMENTAL ASSESSMENT SUPPLEMENT
PROPOSED US ARMY RESERVE MILITARY CONSTRUCTION PROJECT
ORGANIZATIONAL READINESS TRAINING COMPLEX AT
FORT HUNTER LIGGETT, CALIFORNIA

Responsible Agencies: US Army Corps of Engineers, the US Army Garrison Fort Hunter Liggett Directorate of Public Works Environmental Division, and the Army Reserve Installation Management Directorate.

Affected Location: US Army Garrison Fort Hunter Liggett, California.

Proposed Action: The Proposed Action includes construction and operation of a 700-member Operational Readiness Training Complex (ORTC). The ORTC would include an approximately 11,240-square-foot battalion headquarters, an approximately 19,580-square-foot company headquarters, approximately 33,000 square-feet of covered hardstand, an approximately 11,850-square-foot vehicle maintenance shop (VMS), dining facility, approximately 122,235 square feet of enlisted personnel barracks, approximately 22,560 square feet of officers' quarters, and approximately 4,800 square feet of company storage sheds.

Report Designation: Final Environmental Assessment Supplement

Abstract: This Environmental Assessment (EA) Supplement has been prepared for the United States Army Corps of Engineers, the US Army Garrison Fort Hunter Liggett Directorate of Public Works Environmental Division, and the Army Reserve Installation Management Directorate. This EA Supplement provides additional information and is a modification to the *Final Environmental Assessment: Addressing Installation Development and Training at Fort Hunter Liggett, California, May 2010*. This EA supplement evaluates the effects of constructing and operating a 700-member ORTC located at Fort Hunter Liggett, Monterey County, California. This EA Supplement has been prepared to satisfy the National Environmental Policy Act of 1969 requirements for this project because the site layout and acreage required for the proposed ORTC was not defined in the 2010 Programmatic EA. Only resources not evaluated fully with respect to these changes in the original 2010 Programmatic EA are evaluated in detail in this EA Supplement.

This EA Supplement has been prepared to evaluate the Preferred Alternative, Alternative 2, Alternative 3, and the No Action Alternative. Areas that are considered in the effects analysis include airspace management and safety, noise, land use, air quality, geological resources, water resources, biological resources, threatened and endangered species, cultural resources, socioeconomics and environmental justice, traffic and transportation systems, infrastructure, hazardous materials and wastes, and health and safety. This EA Supplement will be made available to the public upon completion.

Contents

Figures

Acronyms and Abbreviations

ACP	access control point
APE	Area of Potential Effects
ASTM	American Society for Testing and Materials
BMPs	best management practices
CEQ	Council on Environmental Quality
EA	Environmental Assessment
ECP	Environmental Condition of Property report
EDR	Environmental Data Resources, Inc.
FHL	Fort Hunter Liggett
FNSI	Finding of No Significant Impact
IDG	Installation Design Guide
LEED	Leadership in Energy and Environmental Design
NEPA	National Environmental Policy Act of 1969
NRHP	National Register of Historic Places
ORTC	Operational Readiness Training Complex
USAR	US Army Reserve
VMS	vehicle maintenance shop

SECTION 1

Introduction

This Environmental Assessment (EA) Supplement has been prepared for the United States Army Corps of Engineers, the US Army Garrison Fort Hunter Liggett (FHL) Directorate of Public Works Environmental Division, and the Army Reserve Installation Management Directorate. This EA Supplement provides additional information and incorporates the *Final Environmental Assessment: Addressing Installation Development and Training at Fort Hunter Liggett, California, May 2010* by reference. This EA Supplement evaluates the effects of constructing and operating a 700-member Operational Readiness Training Complex (ORTC) located at Fort Hunter Liggett, Monterey County, California (Figure 1).

This EA Supplement has been prepared to satisfy the National Environmental Policy Act of 1969 (NEPA) requirements for this project because the site layout and acreage required for the proposed ORTC was not defined in the 2010 Programmatic EA. Only resources not evaluated fully with respect to these changes in the original 2010 Programmatic EA are evaluated in detail in this EA Supplement. The original EA is included as Appendix A of this supplement.

1.1 Purpose and Need

The purpose of the Proposed Action is to construct and operate a new 700-member ORTC to bring FHL to the standards of a premier Reserve Combat Support Training Center and to address the Grow the Army Force initiative. Adequate existing facilities are not available on FHL to support the requirements of an ORTC. All existing facilities suitable for use are fully utilized. This project provides essential living and working facilities at FHL to support training for the Global War on Terror. If the proposed project is not implemented, FHL would not be able to support the Commander of the Army Reserve's directive to function as a premiere Reserve Combat Support Training Center. Soldiers would have to live and work out of substandard temporary and/or re-locatable buildings which have limited operational capabilities and limited useful life expectancies.

1.2 Public Involvement

The EA Supplement and draft FNSI will be available to the public for comment for a period of 30 days from January 9, 2012 to February 7, 2012, and will be available at the San Antonio School Library, located at 67550 Lockwood Jolon Road, Lockwood, CA 93932; at the Fort Hunter Liggett Library, located at Building 291, 7th Division Road, Fort Hunter Liggett, Jolon, CA 93928; at the Monterey County Free Library-Buena Vista Branch, located at 18250 Tara Drive, Salinas, CA 93908; at the Monterey County Free Library-King City Branch, located at 402 Broadway, King City, CA 93930; and on the Internet at http://www.liggett.army.mil/sites/dpw/enviromental.asp. A copy of the public notice is provided in Appendix E.

SECTION 2

Description of Proposed Action and Alternatives

2.1 Proposed Action

The Proposed Action includes construction and operation of a 700-member ORTC. The ORTC would include the buildings listed in Table 1.

TABLE 1
Proposed Buildings in the Operational Readiness Training Complex Project Area

Building Name	Approximate Square Footage	Proposed Building Height (feet)
Barracks 1	30,560	36
Barracks 2	45,835	48
Barracks 3	45,835	48
Vehicle Maintenance Shop	11,855	36
Dining Facility (DFAC)	16,760	28
Officers' Quarters*	22,570	34
Battalion Headquarters*	11,235	24
Company Headquarters	19,580	22
Company Storage Sheds	4,800	26

*Under the Preferred Alternative, the Officers' Quarters and the Battalion Headquarters would be a three-story 48-foot tall building.

The ORTC buildings would be of permanent construction with reinforced concrete foundations and floor slabs, precast concrete panel or structural concrete masonry walls; metal roof deck over open-web steel joists; heating, ventilation, and air conditioning; plumbing and mechanical; security; and electrical systems. The company sheds would be pre-engineered metal buildings. The Proposed Action would include construction of stormwater management areas. The design effort will be compliant with the Leadership in Energy and Environmental Design (LEED) Silver standard, will feature low impact development, and will consider renewable energy initiatives. In addition, the US Army Reserve (USAR) would comply with requirements of Section 438 of the Energy Independence and Security Act of 2007.

Additional construction activities would include paving, fencing, general site improvements, and extending utilities to serve the new facilities. Accessibility for disabled individuals will be provided. Some grading and leveling of land would likely be required onsite. Disturbed areas that are not within the footprint of the proposed buildings or parking areas would be landscaped and used to meet security setback requirements. Physical security measures or antiterrorism/force protection measures would be incorporated into the design and would

include setbacks from roads, parking areas, and vehicle unloading areas. The final ground surface elevation would be roughly equivalent to the existing grade. The estimated start date of construction is 2013 with a construction completion date approximately 24 months following the start date. Operation of the facility is anticipated to commence after construction is completed. The new ORTC would support approximately 700 reservists.

2.2 Alternatives Considered But Dismissed

An alternative location for a facility similar to the ORTC was considered in the 2007 Fort Hunter Liggett Master Plan (Skinner, personal communication, 2012). The facility was located in the areas between Sulphur Springs Road, Intrepid Road, Bradley Road, and Route Tampa. This alternative was dismissed from further evaluation because placement of the facility in this location precluded any future ORTC from being constructed contiguous with the proposed ORTC which would eliminate the ability to share facilities (Skinner, personal communication, 2012).

2.3 Alternatives Considered in Detail

Each of the following alternatives would implement the Proposed Action on approximately 25 acres to the east of the existing access control point (ACP) (main gate) and between Route Tampa and Mission Road on FHL in Monterey County, California (Figures 1 and 2). The 25-acre site proposed for construction is hereafter called the "Property" and is illustrated in Figure 2. The Property is mostly cleared and is being used as temporary storage for military equipment while solar arrays are being installed at the Equipment Concentration Site at FHL. No structures or buildings are present on the Property. Approximately 30 large valley oak trees are present on the Property. Access to the Property would be from Route Tampa. Site photographs are provided in Appendix B. Alternate site layouts for the proposed ORTC were developed to balance site constraints and master planning requirements. Site constraints include existing and future roads, the 100-year floodplain, existing overhead electrical power lines, the existing cantonment boundary fence, and building heights (which were constrained to three stories because of installation fire suppression capabilities and potential viewshed impacts). Master planning requirements include reduced use of undeveloped land within the cantonment and leaving enough open space within the Property for construction of additional facilities at some point in the future if needed.

2.3.1 Preferred Alternative

The Preferred Alternative would include construction of ORTC buildings in the layout shown on Figure 2. This layout would combine the Officers' Quarters and the Battalion Headquarters in a three-story building north of the three barracks buildings located along Route Tampa. The DFAC and the Company Headquarters buildings would be constructed south of the barracks buildings, and the VMS and Company sheds would be constructed south of the DFAC and the Company Headquarters buildings.

As a part of this construction and development, some of the valley oak trees on the site would be removed. Where possible, the valley oak trees on the Property would be retained. Figure 2 illustrates which of the trees would remain. Throughout the preliminary design process, efforts have been made to reduce the visual effects on historic properties from the new buildings through siting, building design, color schemes, and retention of existing landscape features. The

exterior features of the buildings on the Property are to be designed to reflect the Spanish Revival style, in accordance with the FHL Installation Design Guide (IDG) and its supplements. The roofs of the ORTC buildings would be terra cotta in color, to reflect the color of traditional clay tile roofing of the Spanish Revival style. The exteriors of the buildings would be painted to mimic stucco in a beige earth tone in accordance with the FHL IDG guidelines. This is a design/build project, so the designs referenced in this report are preliminary and building designs have not been finalized.

This alternative was selected as the Preferred Alternative because the proposed layout is in accordance with the FHL Master Plan in that it provides a more-compact site layout by incorporating multi-story, vertical construction. In addition, this layout provides the desired design theme for FHL by placing the barracks along Route Tampa, which is a primary thoroughfare through FHL, and allows the most flexibility for future expansion of the ORTC. Figure 2 illustrates which of the valley oak trees would remain on the Property under the Preferred Alternative.

2.3.2 Alternative 2

Alternative 2 would include construction of the ORTC on the Property in the layout shown on Figure 3. This design would be very similar to the Preferred Alternative; however, the Officers' Quarters would be a two-story building north of the three barracks buildings, and the Battalion Headquarters would be a one-story building constructed north of the DFAC. Figure 3 illustrates which of the valley oak trees would remain on the Property under Alternative 2.

2.3.3 Alternative 3

Alternative 3 would include construction of the ORTC on the Property in the layout shown on Figure 4. This design would also be similar to the Preferred Alternative; however, the buildings would be laid out in a slightly different configuration. Buildings would be spread across a larger portion of the Property, whereas the layouts for the Preferred Alternative and Alternative 2 would be located on a smaller portion of the Property. Figure 4 illustrates which of the valley oak trees would remain on the Property under Alternative 3.

2.3.4 No Action Alternative

Under the No Action Alternative, the 700-member ORTC would not be constructed and operated at FHL. If the No Action Alternative were implemented, FHL would not be able to support the Commander of the Army Reserve's directive to function as a premiere Reserve Combat Support Training Center. Soldiers would have to live and work out of substandard temporary and/or re-locatable buildings which have limited operational capabilities and limited useful life expectancies. The lack of adequate facilities would negatively affect training and operations, resulting in a reduced ability to achieve the unit's mission, which could potentially compromise readiness and security. As such, the No Action Alternative does not fulfill the project's purpose and need, and is therefore not considered a feasible alternative. It is included in this analysis because it provides a baseline against which the benefits and negative impacts of the Proposed Action can be compared.

FIGURE 1
Site Location
US Army Reserve
Operational Readiness Training Complex Project
Fort Hunter Liggett, Jolon, CA

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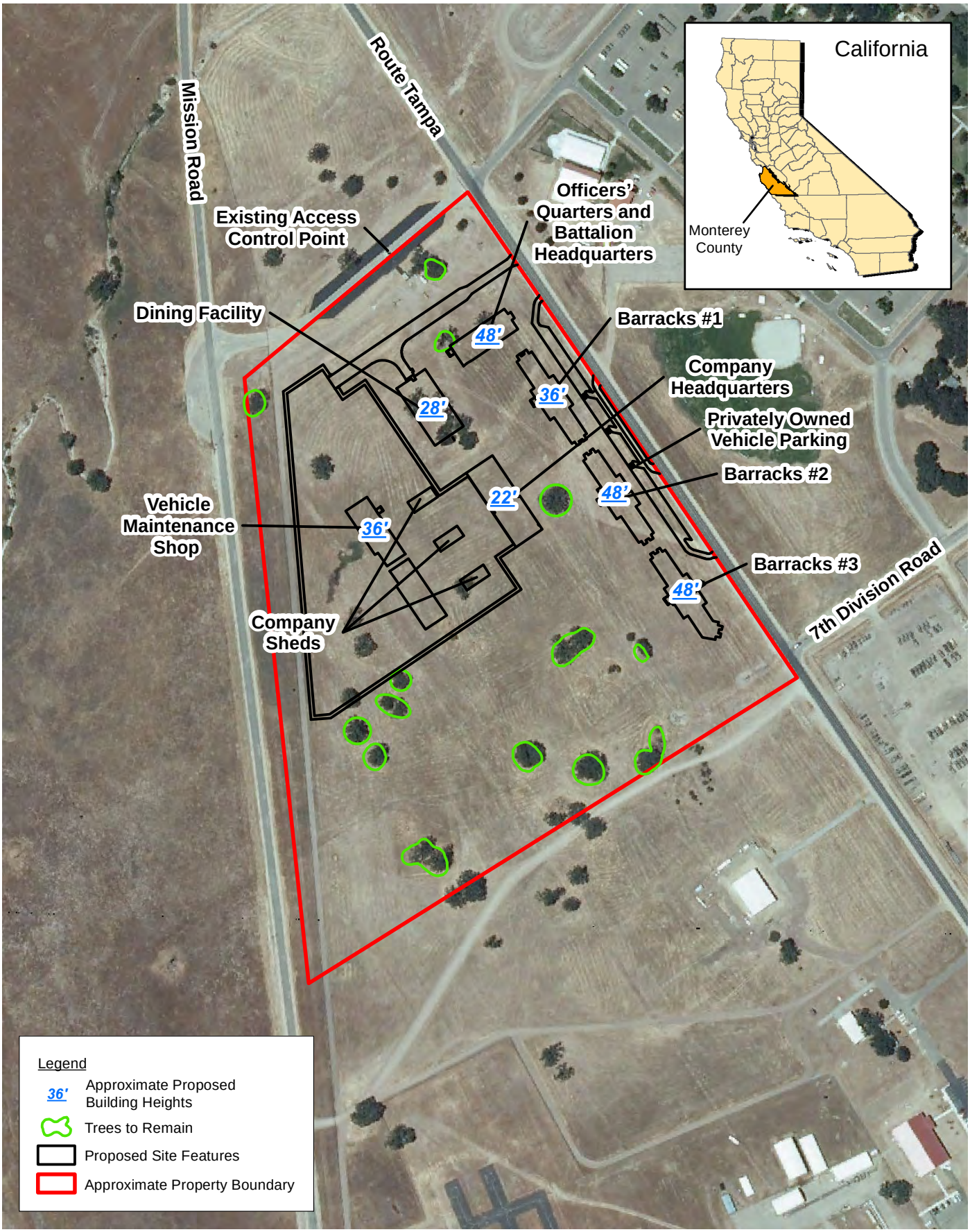

FIGURE 2
Preferred Site Layout
US Army Reserve
Operational Readiness Training Complex Project
Fort Hunter Liggett, Jolon, CA

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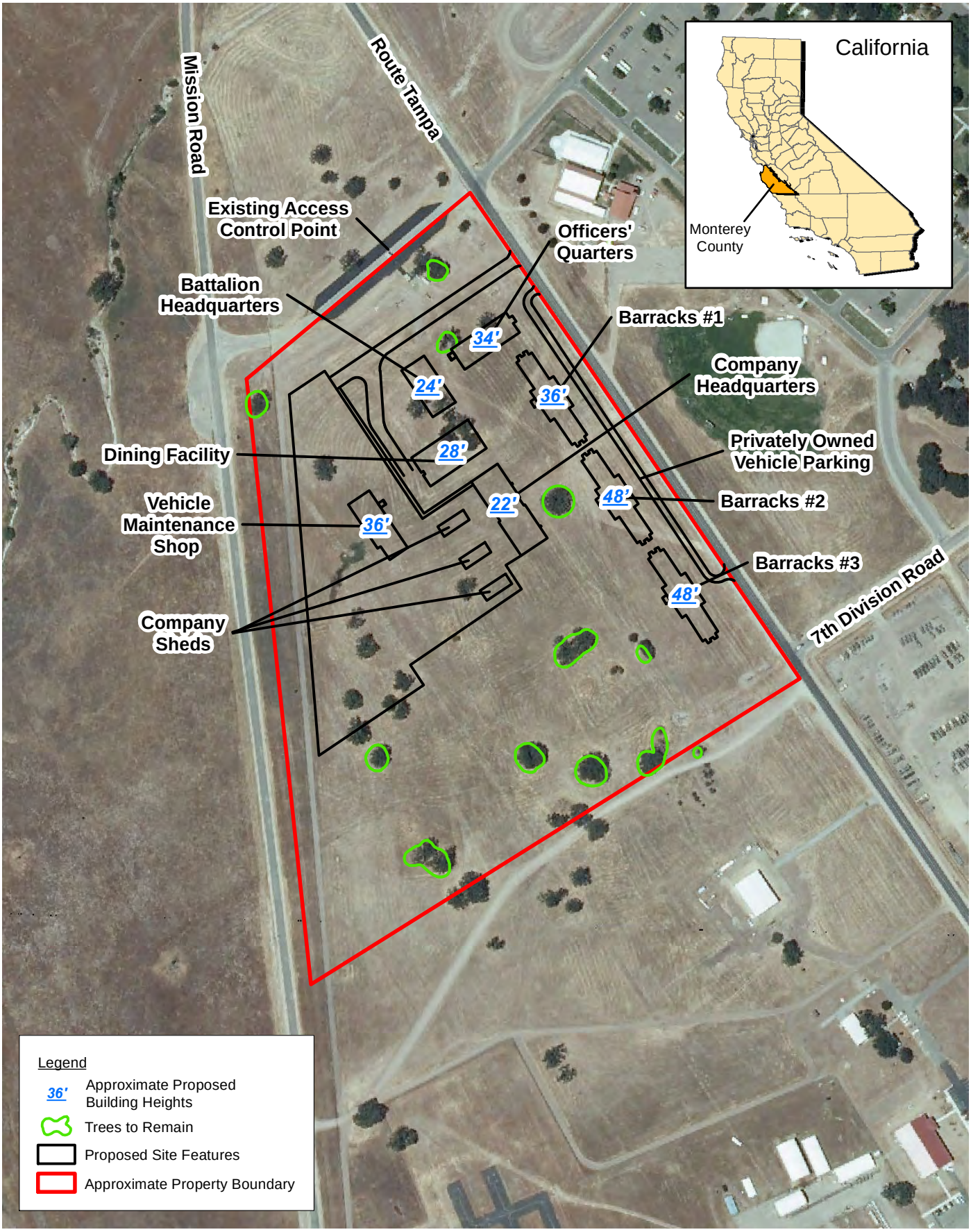

FIGURE 3
Alternative 2 – Site Layout
US Army Reserve
Operational Readiness Training Complex Project
Fort Hunter Liggett, Jolon, CA

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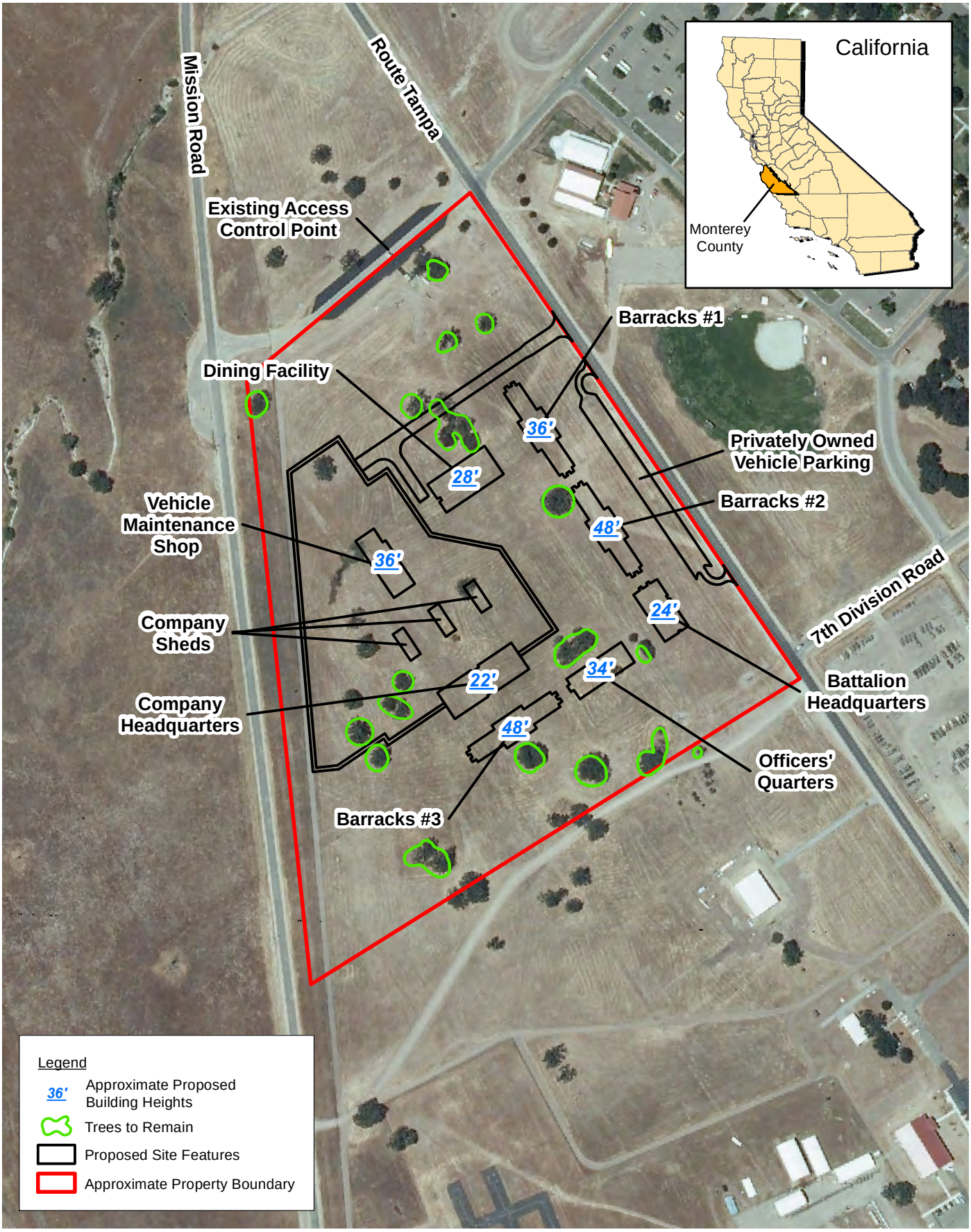

FIGURE 4
Alternative 3 – Site Layout
US Army Reserve
Operational Readiness Training Complex Project
Fort Hunter Liggett, Jolon, CA

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SECTION 3

Existing Environment, Environmental Consequences, and Mitigation

3.1 Resources Not Evaluated in Detail

Analyses of environmental impacts in an EA typically address numerous resource areas that may be impacted by implementing the Proposed Action. The following resources have been initially examined and determined not to warrant further consideration because they are not present within the Property, or because they were adequately evaluated in the 2010 Programmatic EA (Appendix A). Changes to the Proposed Action described in this EA Supplement would not affect the impact determination presented in the 2010 Programmatic EA; therefore, the following resources were not further evaluated in this document.

3.1.1 Airspace Management and Safety

The definition, existing conditions, and evaluation criteria used to determine significant effect on airspace management and safety are described in the 2010 Programmatic EA which is attached in Appendix A. Under each of the alternatives, existing airspace management and safety conditions would continue. No environmental effects would be expected on airspace management and safety.

3.1.2 Noise

The definition, existing conditions, and evaluation criteria used to determine significant effect on noise are described in the 2010 Programmatic EA which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the proposed alternatives would result in short-term, less than significant, adverse, localized impacts to noise during construction of the ORTC and long-term, less than significant, adverse impacts during operation of the ORTC.

3.1.3 Land Use

The definition, existing conditions, and evaluation criteria used to determine significant effect on land use are described in the 2010 Programmatic EA which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the proposed alternatives would result in long-term, less than significant, adverse impacts to land use from converting open field to developed area; however, these changes would be consistent with the military use of the installation and beneficial to the training mission at FHL.

3.1.4 Air Quality

The definition, existing conditions, and evaluation criteria used to determine significant effect on air quality are described in the 2010 Programmatic EA which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the proposed alternatives would result in short-term, less than significant, adverse impacts to air quality during construction of the ORTC and long-term, less than significant, adverse impacts during operation of the ORTC.

3.1.5 Geological Resources

The definition, existing conditions, and evaluation criteria used to determine significant effect on geological resources are described in the 2010 Programmatic EA which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the proposed alternatives would result in long-term, less than significant, adverse, localized impacts to topography and soils during construction of the ORTC. An erosion and sediment control plan would be prepared to minimize adverse impacts from soil disturbance during construction.

3.1.6 Socioeconomics and Environmental Justice

The definition, existing conditions, and evaluation criteria used to determine significant effect on socioeconomics and environmental justice are described in the 2010 Programmatic EA which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the proposed alternatives would result in short-term beneficial impacts to the local economy from construction spending. Long-term beneficial impacts to the local economy would occur with hiring of full-time employees and their need for housing in the area around FHL.

3.1.7 Infrastructure

The definition, existing conditions, and evaluation criteria used to determine significant effect on infrastructure are described in the 2010 Programmatic EA which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the proposed alternatives could result in short-term, adverse impacts to the electrical, water supply, sewer and waste water, and communication systems from service interruptions when the new facilities are connected to the utility systems. The proposed alternatives would include construction of new infrastructure to extend utilities to the Property. The proposed alternatives would result in long-term adverse impacts to utilities because of the increased usage of electricity, water, sewer, and natural gas resources. However, these impacts would be less than significant because the water and waste water systems are operating well below capacity (approximately 12 and 15 percent of their capacity, respectively), the electrical system at FHL is being upgraded, and the natural gas, diesel, and gasoline needed could be supplied by outside contractors (FHL, 2010).

3.1.8 Traffic and Transportation Systems

The definition, existing conditions, and evaluation criteria used to determine significant effect on traffic and transportation systems are described in the 2010 Programmatic EA which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the proposed alternatives could result in short-term, adverse impacts to traffic and transportation during construction and long-term adverse impacts during operation; however, there are no known congestion issues on FHL, therefore, these impacts would not be significant.

3.1.9 Health and Safety

The definition, existing conditions, and evaluation criteria used to determine significant effect on health and safety are described in the 2010 Programmatic EA which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the proposed alternatives could result in short-term, adverse impacts to construction workers during construction. In addition, there would be less than significant long-term adverse impacts associated with operations in the VMS within the ORTC. These impacts would be less than significant because personnel would

comply with US Army safety regulations and would be properly trained to use the equipment in the VMS.

3.2 Resources Evaluated in Detail

The following resources are evaluated in detail because they are site-specific and were not evaluated in detail in the 2010 Programmatic EA.

3.2.1 Water Resources

Preferred Alternative

The definition, existing conditions, and evaluation criteria used to determine significant effect on water resources are described in the 2010 Programmatic EA which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the Preferred Alternative would not result in direct impacts to surface water resources because none occur on the Property. Short-term, less than significant, adverse, indirect impacts to water resources could occur during construction of the ORTC. The Preferred Alternative would be compliant with Section 438 of the Energy Independence and Security Act of 2007, which states that projects "involving a federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow." These maintenance strategies may include green infrastructure and low impact development practices such as reducing impervious surfaces, using vegetative practices, porous pavements, cisterns, and green roofs. Use of these strategies is consistent with LEED design features. The USAR will implement appropriate construction best management practices and permits such as an erosion and sediment control plan, stormwater pollution prevention plan, and National Pollution Discharge Elimination System permits, where applicable.

Based upon analysis in the 2010 Programmatic EA, the Preferred Alternative could result in indirect impacts to groundwater through the potential for spills and releases of chemicals into the groundwater or through compaction of soils which could minimize recharge from infiltration of stormwater. These impacts would not be significant because a spill prevention plan would be prepared and implemented, and because groundwater would be recharged from stormwater catchment basins constructed on the Property. Areas within the Property that are not developed would be landscaped and would allow for some infiltration of stormwater to the groundwater.

Based upon analysis in the 2010 Programmatic EA (see Appendix A), the Preferred Alternative would not result in direct impacts to the 100-year floodplain because it is against USAR policy to construct new facilities within the 100-year floodplain unless there is no practicable alternative (FHL, 2010). No construction within the 100-year floodplain is planned under the Preferred Alternative.

Alternative 2

Impacts to water resources from Alternative 2 would be similar to those for the Preferred Alternative. However, there would be slightly more impervious surface created with Alternative 2 because the Officers' Quarters and the Battalion Headquarters would be two

separate buildings. This would result in an increase in stormwater runoff that would need to be managed at the Property. This increase would not be significant and indirect impacts to water resources from an increase in stormwater would be insignificant.

Alternative 3

Impacts to water resources from Alternative 3 would be similar to those for Alternative 2.

No Action Alternative

The No Action Alternative would not result in a change in current conditions; therefore, there would be no impacts to water resources.

3.2.2 Biological Resources

Preferred Alternative

The definition, existing conditions, and evaluation criteria used to determine significant effect on biological resources are described in the 2010 Programmatic EA, which is attached in Appendix A. Based upon analysis in the 2010 Programmatic EA, the Preferred Alternative would result in short-term and long-term adverse impacts to biological resources. There are approximately 30 large valley oak trees (*Quercus lobata*) on the Property. As a part of the Preferred Alternative, some of the valley oak trees on the site would be removed; however, where possible, valley oak trees on the Property would be retained (Figure 2). Several of the healthiest valley oaks could be relocated to areas northwest of the Property, if feasible. Removed trees would be replaced at a 3:1 ratio with replacement trees being of the same species and at least 2 feet tall. Trees would be planted in groups of three. Summer watering and care would be provided for 1 year following planting. Locations of the replacement trees would be north of the Property and would be coordinated with the FHL Environmental Division. Approximately 54 trees would be planted along Mission Road to the west and north of the Property. Approximate locations for replacement plantings are shown on Figure 5.

The remainder of the Property is disturbed and consists of mowed grass and compacted soils from the use of the Property as a temporary vehicle storage site. During the site reconnaissance in March 2012, wildlife, including California ground squirrel (*Spermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), acorn woodpecker (*Melanerpes formicivorus*), and several black birds were observed on the Property.

Migratory birds occur at FHL, with nesting populations present in late spring and summer, overwintering populations in the late fall and winter, and migrating populations transiting the region between those periods (FHL, 2011). If tree clearing occurs during the nesting season, a preconstruction survey for nesting birds would be conducted on the Property by FHL biologists. If nesting migratory birds are found during the preconstruction survey, those areas of the Property containing nesting birds would not be disturbed or cleared until the young have naturally vacated the nest.

The Preferred Alternative would have less than significant impacts on wildlife resources because unique habitat is not present on the Property and the Property does not provide suitable habitat for large populations of wildlife. In addition, habitat available to wildlife is limited because the Property is adjacent to other areas of development to the north and southeast and is within the fenced cantonment boundary.

FIGURE 5
Approximate Tree Removal Mitigation Locations
US Army Reserve
Operational Readiness Training Complex Project
Fort Hunter Liggett, Jolon, CA

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Alternative 2

Impacts to biological resources from Alternative 2 would be similar to those for the Preferred Alternative.

Alternative 3

Impacts to biological resources from Alternative 3 would be similar to those for Alternative 2. However, under Alternative 3, more valley oak trees would remain on the northern portion of the Property, but fewer would remain on the southern portion of the Property.

No Action Alternative

The No Action Alternative would not result in a change in current conditions; therefore, there would be no impacts to biological resources.

3.2.3 Threatened and Endangered Species

Preferred Alternative

The definition, existing conditions, and evaluation criteria used to determine significant effect on threatened and endangered species are described in the 2010 Programmatic EA which is attached in Appendix A.

The Property is within the San Joaquin kit fox (*Vulpes macrotis mutica*) habitat; however, the kit fox has not been observed on FHL since 2000. Kit fox habitat would be converted to developed area. Conversion of kit fox habitat to developed area is addressed in the *Programmatic Biological Opinion for Activities Conducted at FHL* (USFWS, 2010). Purple amole (*Chlorogalum purpureum* var. *purpureum*) habitat occurs approximately 1,700 feet north of the Property. Vernal pool fairy shrimp (*Branchinecta lynchi*) habitat occurs approximately 0.9 mile north of the Property. Neither species would be affected by the Preferred Alternative (Clark, 2012).

There is no breeding or upland sandy soil habitat for the federally endangered arroyo toad (*Bufo californicus*) within the Property. However, the Property is adjacent to upland habitat of the arroyo toad, which occurs west of the Property along Sulphur Springs Creek (Figure 1), and the breeding habitat for the arroyo toad which is downstream of Sulphur Springs Creek along the San Antonio River, south of the Property. There is no habitat for other federal or state threatened or endangered species on or adjacent to the Property.

Runoff from the Property could reach arroyo toad breeding habitat through Sulphur Springs Creek, which is north and west of the Property. A stormwater permit for construction would be prepared prior to construction and implemented to minimize the potential for indirect impacts to nearby surface waters from soil erosion. The Preferred Alternative would be compliant with Section 438 of the Energy Independence and Security Act of 2007, which states that projects

> *…involving a federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.*

These maintenance strategies may include green infrastructure and low impact development practices such as reducing impervious surfaces, using vegetative practices, porous pavements, cisterns, and green roofs. Use of these strategies is consistent with LEED design features

proposed in the Preferred Alternative. Maintaining the predevelopment hydrology of the Property and the use of stormwater management areas would minimize the potential for impacts to Sulphur Springs Creek and to arroyo toad breeding habitat from the proposed construction and operational activities. In addition, habitat available to wildlife is limited because the Property is adjacent to other areas of development to the north and southeast and is within the fenced cantonment boundary. Therefore, there would be no impact to threatened or endangered species from the Preferred Alternative.

Alternative 2

Development on the Property proposed under Alternative 2 would be similar to that for the Preferred Alternative; therefore, there would be no impact to threatened or endangered species from Alternative 2.

Alternative 3

Development on the Property proposed under Alternative 3 would be similar to that for the Preferred Alternative; therefore, there would be no impact to threatened or endangered species from Alternative 3.

No Action Alternative

The No Action Alternative would not result in a change in current conditions; therefore, there would be no impacts to threatened or endangered species.

3.2.4 Cultural Resources

There are no known archaeological resources located within the Property footprint (FHL, 2011). There are no historic structures within the Property but there are two historic structures within a mile of the Property. One National Register of Historic Places (NRHP)-listed cultural resource (CA-MNT-940H) is within the existing cantonment area and one NRHP-listed cultural resource (CA-MNT-100H) is a private in-holding that shares a common border with the existing cantonment area (FHL, 2003).

Site CA-MNT-100H is the Mission San Antonio de Padua (Mission). The Mission, founded in 1771, was the third Spanish mission established in California. The Mission is significant for architecture, agriculture, engineering, and exploration, and is of regional significance as one of the missions established by Franciscan Spanish friars in California. The period of significance is 1771, when the Mission was established by Father Junipero Serra, to 1899. It has been listed on the NRHP since 1976. It is also California Registered Historical Landmark No. 232 (Arthur, 1975).

Site CA-MNT-940H is the Milpitas Ranch House, referred to as the "Hacienda." The Hacienda was built in 1929–30 for publishing magnate William Randolph Hearst to serve as headquarters for his ranching operation. The structure was designed by renowned California architect Julia Morgan and is a notable example of Spanish Colonial Revival architecture. The Hacienda has been listed on the NRHP since 1977. It is significant for its architecture and agriculture and for its association with William Randolph Hearst and Julia Morgan (McNeill, 1976). The period of significance for the Hacienda is from 1929 to 1930.

The Area of Potential Effects (APE) for the project includes the Hacienda, the Mission, and the viewsheds of each (Figure 6).

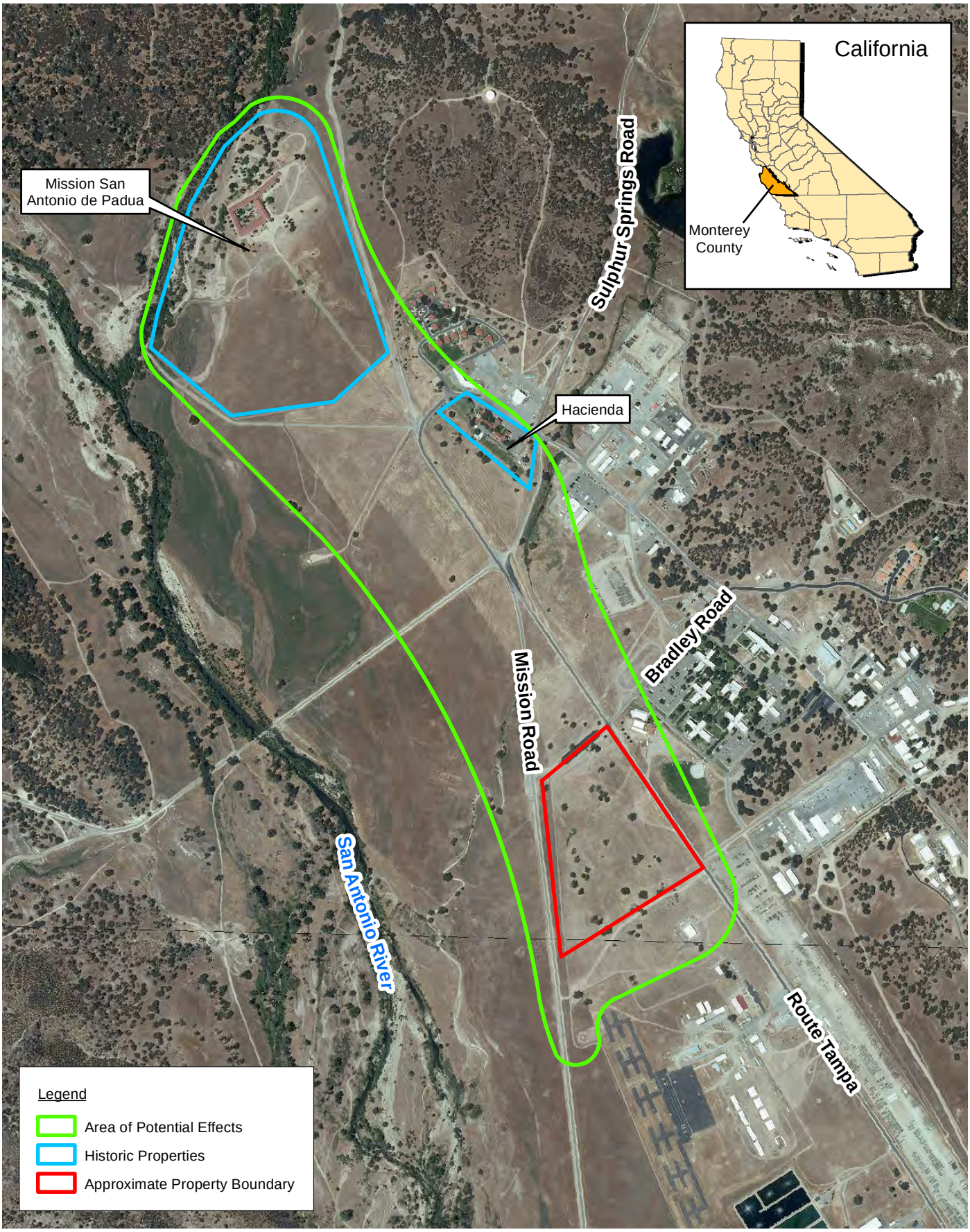

FIGURE 6
Cultural Resources Area of Potential Effects
US Army Reserve
Operational Readiness Training Complex Project
Fort Hunter Liggett, Jolon, CA

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Preferred Alternative

The buildings proposed under the Preferred Alternative would be visible from Mission Road to visitors to the Mission and Los Padres National Forest. Parts of the Preferred Alternative buildings would be visible from the Mission and from the Hacienda. The Preferred Alternative has been designed in accordance with the FHL IDG, so the new buildings would blend with the existing FHL buildings. The Preferred Alternative places the proposed ORTC complex within the existing developed area on FHL, as identified in the 2010 Programmatic EA, which is attached in Appendix A. Field surveys to investigate the historic built environment within the APE were conducted in March 2012.

No historic properties are within the Property; therefore, there would be no direct impacts to historic properties from the Preferred Alternative. Potential effects from the Preferred Alternative include indirect impacts to historic viewsheds. To assess potential impacts to the viewsheds of the historic properties, visual simulations of the Preferred Alternative were prepared to demonstrate the changes from the existing viewsheds. A Visual Simulation Technical Memorandum documenting the results is provided in Appendix C.

The Mission

The Preferred Alternative would include constructing the ORTC south of the ACP and east of Mission Road. Potential impacts to the Mission viewshed from the Preferred Alternative were examined from the southeast boundary of the Mission, the boundary closest to the Property, and from the steps of the Mission. The current viewshed from the Mission boundary facing southeast towards the Property, as shown in Figure 7, Photograph A, includes the cantonment perimeter fence, the Hacienda, the gymnasium, Route Tampa, the ACP, and vehicles parked on the Property, as well as the river valley and the mountain range. These existing structures are east of Mission Road and are partially obscured by trees in the foreground.

The existing viewshed to the south and west, west of Mission Road, contains occasional power and light poles and the road itself. The view of the San Antonio River, the valley, and background hills and mountains is otherwise unobstructed.

The southeast property boundary of the Mission sits at an elevation of about 1,070 feet and is approximately 0.75 mile from the northern edge of the Property. The proposed ORTC building closest to the Mission would be the 48-foot-tall, three-story Officers' Quarters and Battalion Headquarters building, with a ground elevation of approximately 1,032 feet. The rooftop elevation would be approximately 1,080 feet, the same as the rooftop elevation of the existing gymnasium across Route Tampa from the proposed ORTC.

The visual simulation of the Preferred Alternative, as seen from the southeastern boundary of the Mission, is shown in Figure 7, Photograph B. Portions of the ORTC buildings would be visible from the Mission boundary, including the Officers' Quarters and Battalion Headquarters building, the north sides of the three barracks buildings along Route Tampa, and a small portion of the VMS. The ORTC would be adjacent to a visible existing developed area east of Route Tampa and would be somewhat obscured by existing trees in the foreground. There would be visual impacts to this viewshed from the edge of the historic property, but the change in the viewshed would be minimal due to the existing visual intrusions.

The view from the steps of the Mission is from approximately 1 mile from the northern edge of the Property. Figure 8, Photograph A, shows the existing viewshed from the Mission steps,

A. Existing view toward the ORTC project area from the southeastern boundary of the Mission.

B. Simulated view toward the proposed ORTC facilities from the southeastern boundary of the Mission. Proposed ORTC project area is 0.75 mile to the southeast.

FIGURE 7
VIEW FROM THE MISSION BOUNDARY
Proposed Army Reserve Military Construction Project – Operational Readiness Training Complex
Fort Hunter Liggett
Jolon, California

A. Existing view toward the ORTC project area from the front steps of the Mission .

B. Simulated views toward the proposed ORTC facilities from the front steps of Mission. Proposed ORTC project area is 1 mile to the southeast.

FIGURE 8
VIEW FROM THE MISSION STEPS
Proposed Army Reserve Military Construction Project – Operational Readiness Training Complex
Fort Hunter Liggett
Jolon, California

southeast toward the Property. The Hacienda, built in 1929, outside the period of significance of the Mission, sits atop a small hill toward the southwest. The rooftop of the Hacienda is visible from the steps of the Mission. The current view from the steps of the Mission toward the Property includes the Hacienda, Mission Road, Route Tampa and the gymnasium in the far distance.

Figure 8, Photograph B, shows the visual simulation of the proposed ORTC as seen from the Mission steps. From this viewpoint, the top floor and the red roof of the 48-foot-tall Officers' Quarters and Battalion Headquarters building would be visible in the far distance. From the steps of the Mission, the remainder of the ORTC buildings would be obscured by a small rise in elevation and by existing vegetation. The existing relatively pristine views of the river, valley, and mountains would remain.

From both the Mission steps and the Mission boundary, visual impacts to the historic property from the ORTC development would be minimal. With the minor changes to the viewshed, the Mission would continue to convey its significance as one of the earliest Spanish missions in California, and it would retain its association with architecture, agriculture, engineering, and exploration. There could also be temporary effects on the Mission during construction of the Preferred Alternative including increased traffic along Route Tampa. There could be visual effects from construction equipment or dust from the earth moving activities. It is possible there would be equipment onsite that would be visible during the construction period. These construction effects would be temporary and would not be significant.

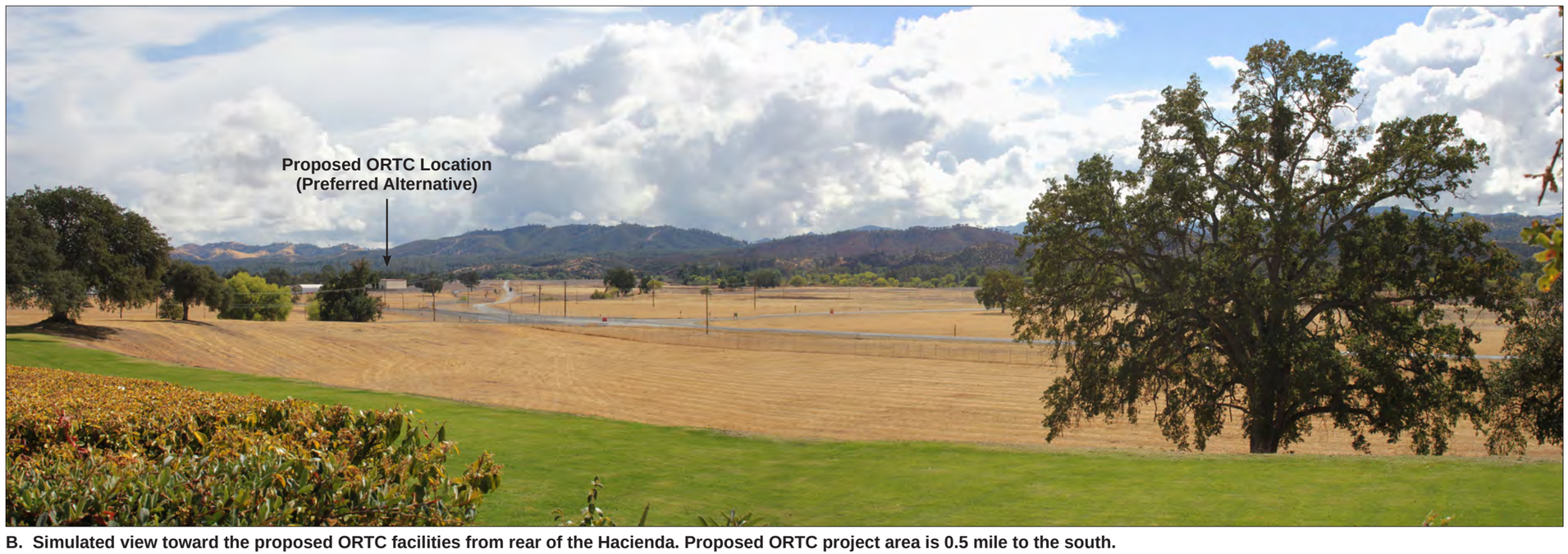
In summary, there would be indirect visual effects on the NRHP-listed Mission from the Preferred Alternative. There would be minor visual alterations to the Mission viewshed from the visibility of the top of the Officers' Quarters and Battalion Headquarters building. The visual alterations would not be major and would not alter the overall pastoral setting of the Mission. The viewshed has evolved over time with the changing uses of the land around the Mission. Under the proposed design, there would be no adverse effect on the Mission from the Preferred Alternative.

Hacienda

Potential impacts to the Hacienda from the Preferred Alternative include visual alterations from various vantage points on the Hacienda property. Figure 9, Photograph A, illustrates the existing viewshed from the rear elevation of the Hacienda, facing south-southwest toward the Property. There is a hedgerow on the edge of the pavement at the rear of the Hacienda building and the hill drops down toward Mission Road. The white structure with a rounded roof to the left in the distance is the existing ACP that sits on the northern edge of the Property.

The Preferred Alternative would be located behind the row of trees on the left in the photograph and behind the ACP. The visual simulation of the Preferred Alternative as seen from the rear elevation of the Hacienda is shown in Figure 9, Photograph B. The Officers' Quarters and Battalion Headquarters building and the barracks buildings would be located behind the trees to the left of the ACP structure. To the right of the ACP structure, the VMS is visible from this vantage point. Most of the proposed new structures would be shielded from view by the existing trees between the Hacienda and the Property and from the trees that would be retained in the northern portion of the Property between Bradley Road and the new

A. Existing view toward the ORTC project area from the rear of the Hacienda, looking south.



B. Simulated view toward the proposed ORTC facilities from rear of the Hacienda. Proposed ORTC project area is 0.5 mile to the south.

FIGURE 9
VIEW FROM THE HACIENDA
Proposed Army Reserve Military Construction Project – Operational Readiness Training Complex
Fort Hunter Liggett
Jolon, California

construction.

The Preferred Alternative would visually impact the Hacienda because parts of it would be visible from the rear of the building. The viewshed would be altered, but the ORTC buildings would be partially shielded from view by existing vegetation. The viewshed of the Hacienda already includes late twentieth century and early twenty-first century buildings not associated with the Hacienda. There would be minor permanent changes to the viewshed from the rear elevation of the Hacienda to the southwest as a result of the Preferred Alternative. Although there would be impacts to its viewshed, the Hacienda would continue to convey its association with William Randolph Hearst and architect Julia Morgan. Its architectural significance would not be diminished by the changes in the viewshed to the southwest.

In summary, there would be indirect visual impacts to the NRHP-listed Hacienda from the Preferred Alternative. There would be minor visual alterations to the Hacienda viewshed from the visibility of the ORTC. The visual alterations would be minor and would not alter the overall setting of the Hacienda. The viewshed has evolved over time with new developments and new structures surrounding the Hacienda since the mid-twentieth century. Under the proposed design, there would be no adverse effect on the Hacienda from the Preferred Alternative.

There would be no adverse effect on historic properties from the Preferred Alternative.

Alternative 2

Under Alternative 2, the Officers' Quarters and Battalion Headquarters would be two separate buildings, 34 feet and 24 feet tall, respectively (Figure 3). The tallest buildings would be Barracks #2 and Barracks #3, each 48 feet tall, and they would be located farther south on the Property and thus farther away from the Mission and the Hacienda. Impacts to the viewshed from the rear elevation of the Hacienda would be similar to those for the Preferred Alternative. The impacts to the viewshed from the Mission boundary and the Mission steps would be slightly less than the Preferred Alternative due to the lower elevations of the buildings closest to the Mission. Because the buildings closest to the Mission would be shorter, visual impacts would be less than those for the Preferred Alternative and similar to those for Alternative 3.

There would be no adverse effect on historic properties from Alternative 2.

Alternative 3

Under Alternative 3, the site layout would be similar to that for Alternative 2, but would be more spread out across the Property (Figure 4). Impacts to the viewshed from the rear elevation of the Hacienda would be similar to those for the Preferred Alternative and Alternative 2. Impacts to the viewsheds from the Mission boundary and Mission steps would be slightly less than the Preferred Alternative due to the lower elevations of the buildings closest to the Mission. Because the buildings closest to the Mission would be shorter, visual impacts would be less than those for the Preferred Alternative and similar to those for Alternative 2.

There would be no adverse effect on historic properties from the Alternative 3.

No Action Alternative

The No Action Alternative would not result in a change in current conditions; therefore, there would be no impacts to cultural resources.

As mentioned in Section 3.2.2, under the Preferred Alternative, as well as Alternatives 2 and 3, measures would be carried out to mitigate the removal of some of the trees from the Property as a part of this project. Some of the replacement trees would be planted between the Mission and the Property (as shown on Figure 5) and would further shield the ORTC buildings from view from the Mission. Other replacement trees would be placed between the Hacienda and the Project; these would also serve to further shield the ORTC from view from the Hacienda.

If previously unknown archaeological resources are discovered during project planning or construction, construction will cease and the State Historic Preservation Office will be notified in accordance with 36 Code of Federal Regulations 800.13.

3.2.5 Hazardous Materials and Waste

In 2012 CH2M HILL prepared an Environmental Condition of Property report (ECP), provided herein as Appendix D, in conjunction with this EA Supplement to assess the current environmental conditions at the Property. The findings of the ECP were based upon a visual reconnaissance, interviews with the current owner of the Property, local government employees, and a review of historical information. The ECP revealed no evidence of recognized environmental conditions in connection with the Property (CH2M HILL, 2012; Appendix D).

Recognized environmental conditions are defined by American Society for Testing and Materials (ASTM) E1527-05 as

> *...the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with applicable laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.*

No underground storage tanks or aboveground storage tanks, odors, pools of liquids, buried sumps, drums, hazardous substance or petroleum products containers, polychlorinated biphenyl-containing devices, pits, ponds, sewage treatment, solid waste, wells, or septic systems were observed on the Property (CH2M HILL, 2012; Appendix D). Environmental Data Resources, Inc. (EDR) conducted a search of available environmental records. The search identified no recognized environmental conditions within the ASTM minimum search distance from the Property specified by ASTM E1527-05 (EDR, 2012).

The Preferred Alternative would have less than significant impacts to human health and the environment from the use of hazardous materials. The Preferred Alternative would use construction materials consistent with existing local, state, and federal regulations. Small amounts of debris or solid waste may be generated during construction; however, no hazardous materials would be generated, stored, or disposed of as a result of proposed construction activities. Potential hazardous materials at the ORTC are expected to have less than significant impacts on the environment. During construction of the ORTC, no hazardous wastes are expected to be generated. The ECP concluded that no hazardous materials exist at the Property (CH2M HILL, 2012; Appendix D).

The No Action Alternative would not result in a change in current conditions; therefore, there would be no impacts to hazardous materials and waste.

3.2.6 Best Management Practices

The Preferred Alternative would not result in significant adverse effects on the land or the surrounding area. However, best management practices (BMPs) and other minimization measures would be implemented to eliminate or reduce the impacts of adverse effects. General BMPs that might be included as parts of the Preferred Alternative are summarized as follows (FHL, 2010):

- Clearing and grubbing would be timed with construction to minimize the exposure of cleared surfaces. Such activities would not be conducted during periods of wet weather. Construction activities would be staged to allow for the stabilization of disturbed soils. These BMPs would minimize adverse impacts associated with geological resources and water resources.
- Soil erosion-control measures, such as soil erosion-control mats, silt fences, straw bales, diversion ditches, would be used as appropriate. These BMPs would minimize adverse impacts associated with geological resources and water resources.
- Fugitive dust-control techniques such as watering and stockpiling would be used to minimize adverse effects. All such techniques would conform with applicable regulations. These BMPs would minimize adverse impacts associated with air quality, geological resources, and water resources.
- Minimize the disturbance of environmental resources and topography by integrating existing vegetation, trees, and topography into site design. These BMPs would minimize adverse impacts associated with geological resources and biological resources.
- Where feasible, minimize areas of impervious surface through shared parking, decked or structured parking, increased building height, or other measures as appropriate. These BMPs would minimize adverse impacts associated with geological resources and water resources.
- Provisions would be taken to prevent pollutants from reaching the soil, groundwater, or surface water. During project activities, contractors would be required to perform daily inspections of equipment, maintain appropriate spill-containment materials on site, and store all fuels and other materials in appropriate containers. Equipment maintenance activities would not be conducted on the construction site. These BMPs would minimize adverse impacts associated with geological resources, water resources, and hazardous materials and waste.
- Physical barriers and “no trespassing” signs would be placed around the construction sites to deter unauthorized personnel. Construction vehicles and equipment would be locked or otherwise secured when not in use. These BMPs would minimize adverse impacts associated with health and safety.
- Construction equipment would be used only as necessary during the daylight hours and would be maintained to the manufacturer’s specifications to minimize noise impacts. These BMPs would minimize adverse impacts associated with health and safety.

- If previously unknown archaeological resources are discovered during project planning or construction, construction will cease and the State Historic Preservation Office will be notified.

3.2.7 Cumulative Effects

This section presents the past, present, and foreseeable future projects that were considered during the assessment of cumulative effects of each alternative. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time. Principles of cumulative effects analysis in the Council on Environmental Quality (CEQ) guide "Considering Cumulative Effects under the National Environmental Policy Act" (CEQ, 1997) states: "for cumulative effects analysis to help the decision maker and inform interested parties, it must be limited through scoping to effects that can be evaluated meaningfully."

The past, ongoing, and reasonably foreseeable future projects identified with the potential for cumulative effects are discussed in the 2010 Programmatic EA which is incorporated by reference (Appendix A) and the Final Supplemental EA Addressing Installation Development and Training at FHL (FHL, 2012).

Future projects could also include the construction of additional ORTC facilities adjacent to the proposed ORTC site discussed in this EA Supplement, construction of the ACP at a location south of the proposed ORTC site, and construction of a traffic circle at the intersection of Route Tampa and the new access road associated with the ACP (Figure 10). NEPA documentation for these future projects will be completed if the US Army Reserve decides to move forward with them.

The area considered for cumulative effects includes the Property, adjacent areas, and downstream water resources and cultural resources within a mile of the Property. As described in this EA Supplement, implementation of the Proposed Action would not affect airspace management and safety, threatened and endangered species, and floodplains. Therefore, the Proposed Action would not contribute to cumulative effects to these resources. Those resources that could be impacted by the Proposed Action include noise, land use, air quality, geological resources, cultural resources, socioeconomics and environmental justice, infrastructure, traffic and transportation systems, health and safety, surface water and groundwater resources, biological resources, hazardous materials and waste, although effects to these resources are expected to be less than significant.

Although these resources would be impacted, the Proposed Action would not have significant cumulative effects to the quality of the human or natural environment. Best management practices would be employed on construction projects within the cantonment area to minimize impacts. There would also be no significant cumulative effects due to the small size and the scale of the past and future developments in the cantonment area surrounding the Property.

Implementation of the No Action Alternative would not result in a change in current conditions; therefore, the No Action Alternative would not result in cumulative effects to the quality of the human or natural environment.

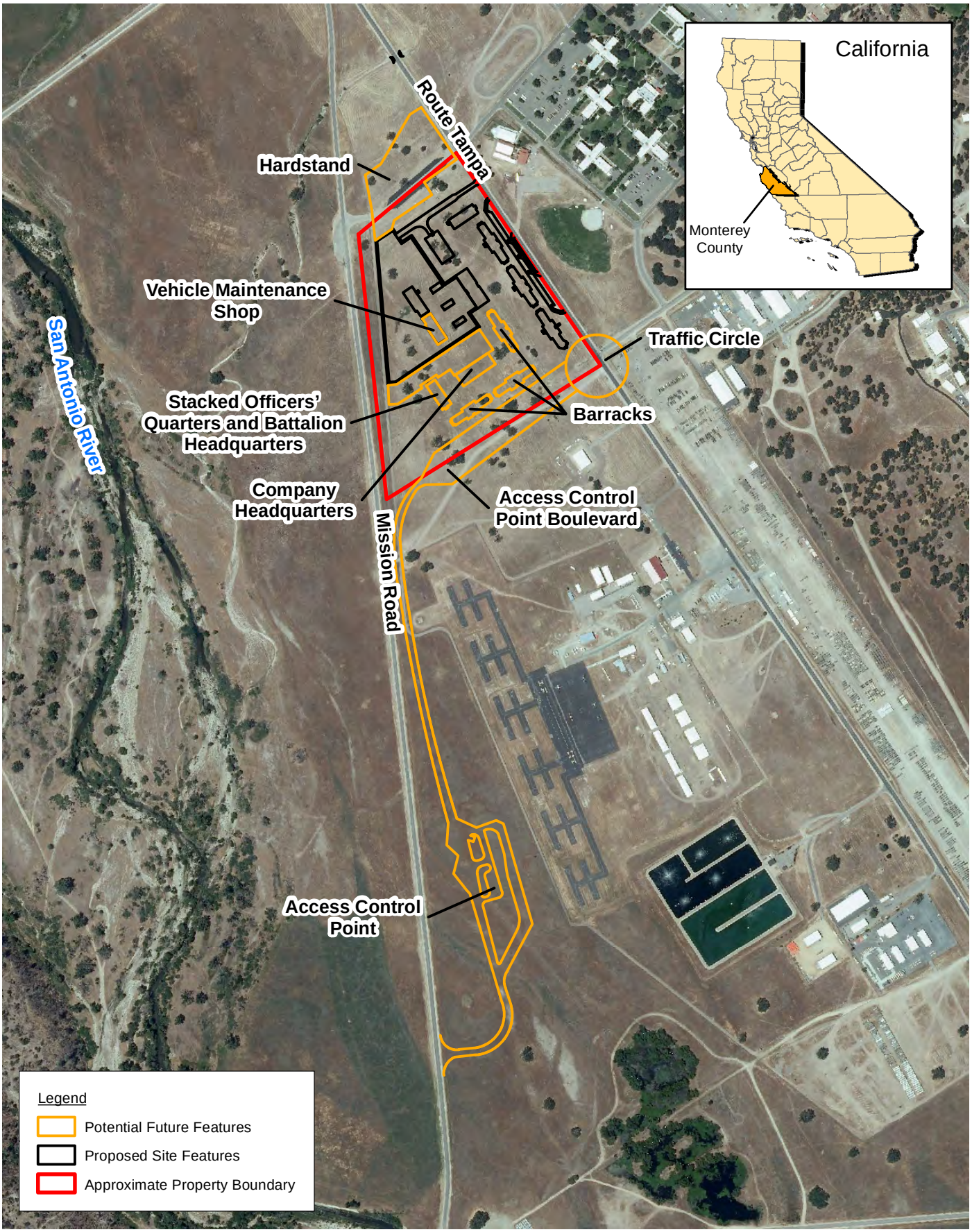


FIGURE 10
Potential Future Projects
US Army Reserve
Operational Readiness Training Complex Project
Fort Hunter Liggett, Jolon, CA

CH2MHILL

3.3 NEPA Determination

Based on the findings of this EA Supplement and incorporated by reference from the 2010 Programmatic EA, implementation of the Preferred Alternative, Alternative 2, or Alternative 3, the construction and operation of a 700-member ORTC at FHL in Monterey County, California, would not have significant adverse direct, indirect, or cumulative effects on the quality of the human or natural environment. The USAR has prepared a draft Finding of No Significant Impact (FNSI) to accompany this EA Supplement. The draft FNSI concludes that an Environmental Impact Statement, the next level of environmental impact investigation under the NEPA, is not required for this action.

SECTION 4

List of Preparers

Name	Education & Experience	Primary Responsibilities
Laura Haught	B.S., Biology, George Mason University, 1998. 14 years of experience in NEPA projects for the Department of Defense, federal and state agencies, and private clients.	Project Manager, NEPA Task Lead. Data collection, analysis and preparation of EA text.
Grant Koster	B.S., Geology, Grand Valley State University, 2007. 4 years of experience in environmental site assessments, NEPA documentation, site remediation, and site management.	Junior Scientist; completed ECP site visit and preparation of ECP report text, data collection, analysis, and preparation of EA text.
Andrea Naccarato	B.S., Biology (Minors in Chemistry and Geography-Environmental Studies), Radford University, 1993. 12 years of experience in NEPA project management.	Technical review and quality assurance of the EA.
Sara Orton	B.A. Political Science, Miami University, 1988. MPS, Masters of Preservation Studies, Tulane University, 2000. 12 years of experience with NHPA Section 106 compliance and NEPA, cultural resources.	Section 106 compliance, Cultural Resources.
MariaElena Conserva	Ph.D. 2003 and M.A. 2000 Geography, UC Berkeley. B.A. Geography UCLA, 1995. 6 years of experience visual resource analysis for federal, municipal, and private clients.	Visual Resource Specialist.
Michael Stephen	A.S. Engineering Drafting Technology. City College of San Francisco. 1981. 31 years experience in CAD/CAE technology, engineering applications, 3D modeling, rendering, animation, photo-simulation, and graphics editing.	Visualization Specialist, development of photo-simulation graphics for visual analysis and assessment.
Elizabeth Calvit	M.A. George Washington University, 1994. 20 years of experience in cultural resources for the Department of Defense, federal, state and local agencies and non-governmental organizations. 12 years of experience in NEPA documentation, including cultural resources and public involvement	Senior Technical Reviewer for the cultural resources sections of the EA
Steve Petron	Ph.D., Zoology, Washington State University, 1987; M.S. Natural and Environmental Resources, University of New Hampshire, 1981; B.S. Wildlife Management, University of Minnesota, 1978; 25+ years of experience.	Senior technical review and quality assurance of the EA.
Rich Reaves	Ph. D. B.S. Wildlife Ecology and Resource Management, University of Wyoming, 1986; Ph.D. Wetland and Wildlife Ecology, Purdue University, 1995; 21 years of experience in resource assessment and management and NEPA analysis.	Senior technical review and quality assurance of the EA.

SECTION 5

References

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Appendix A

2010 Programmatic Environmental Assessment

In order to reduce electronic file size of this Environmental Assessment, Appendix A and Appendix D are available as separate documents. You may download them from

http://www.liggett.army.mil/sites/dpw/environmental.asp

For Appendix A, choose “FHL Training and Development EA 2010”. Or Appendix A can be downloaded directly from http://www.liggett.army.mil/pdf/dpwPDF/Env/FHL_Training_Dev_EA_2010.pdf

For Appendix D, choose “FHL ORTC ECP (Appendix D)”

Appendix B
Site Photographs

PHOTO LOG

Project Name: US Army Reserve Center – Fort Hunter Liggett, California	
Task: Site Reconnaissance	Photographed by: Laura Haught – March 7, 2012

Photograph 1

Facing north along west side of the Property.

PHOTO LOG

Project Name: US Army Reserve Center – Fort Hunter Liggett, California	
Task: Site Reconnaissance	Photographed by: Laura Haught – March 7, 2012

Photograph 2

Facing north along east side of the Property .

PHOTO LOG

Project Name: US Army Reserve Center – Fort Hunter Liggett, California	
Task: Site Reconnaissance	Photographed by: Laura Haught – March 7, 2012

Photograph 3

Facing west along south side of the Property.

PHOTO LOG

Project Name: US Army Reserve Center – Fort Hunter Liggett, California	
Task: Site Reconnaissance	Photographed by: Grant Koster – March 7, 2012

Photograph 4

Facing south along the east border of the Property.

PHOTO LOG

Project Name: US Army Reserve Center – Fort Hunter Liggett, California	
Task: Reconnaissance	Taken by: Grant Koster– March 7, 2012

Photograph 5

Facing west toward interior of the Property.

PHOTO LOG

Project Name: US Army Reserve Center– Fort Hunter Liggett, California	
Task: Site Reconnaissance	Photographed by: Grant Koster – March 7, 2012

Photograph 6

Facing northwest toward Bradley Drive access control point.

PHOTO LOG

Project Name: US Army Reserve Center– Fort Hunter Liggett, California	
Task: Site Reconnaissance	Photographed by: Grant Koster – March 7, 2012

Photograph 7

Corner of Bradley Drive and Mission Road facing southeast toward interior of Property.

PHOTO LOG

Project Name: US Army Reserve Center– Fort Hunter Liggett, California	
Task: Site Reconnaissance	Photographed by: Grant Koster – March 7, 2012

Photograph 8

Facing west - trailers containing temporary lights and generators.

Appendix C

Visual Simulation Technical Memorandum

Visual Simulation of Proposed ORTC Project

PREPARED FOR: US Army Corps of Engineers, Louisville District, the US Army Garrison Fort Hunter Liggett, and the Army Reserve Installation Management Directorate

PREPARED BY: MariaElena Conserva and Tom Priestley,CH2M HILL

DATE: November 28, 2012

Introduction

CH2M HILL prepared visual simulations of three representative views looking toward the proposed Operational Training Readiness Complex (ORTC) to provide a basis for understanding of how the ORTC would affect views from Mission San Antonio de Padua (the Mission) and the Hacienda. This memorandum documents the methods CH2M HILL used taking the photographs and preparing the visual simulations. This memorandum also includes, as attachments:

- A map of the viewpoint locations.
- A figure for each viewpoint that includes a photo of the existing conditions and a simulation of the proposed ORTC.

Fieldwork

The photographs used to create the simulations were taken by CH2M HILL on October 10, 2012 using a high resolution 35 mm single lens reflex camera with the digital equivalent of a 50mm focal length. Lisa Cipolla, Fort Hunter Liggett Cultural Resource Program Manager, accompanied the CH2M HILL staff member who took the photos and provided guidance on selection of the views to be photographed.

Methodology

A combination of computer-aided drafting, GIS, and rendering programs was used to produce the images of the ORTC facilities that were superimposed on photographs. First, a digital site model was created using topographic and site data. Next, three-dimensional (3-D) models of project features were prepared using project plans, and these were superimposed on the digital site model. For each viewpoint, viewer location was digitized from topographic maps using 1.5 meters (5 feet) as the assumed eye level. Computer "wire frame" perspective plots were overlaid on the photographs of the KOPs from the simulation viewpoints to verify scale and viewpoint location. Digital visual simulation images were produced based on renderings of the 3-D model combined with the high-resolution digital base photographs.

List of Viewpoints

The locations of the following viewpoints are shown on Figure 1.

Figure 2 – View from the Mission steps.

Figure 3 – View from the Mission boundary.

Figure 4 – View from the Hacienda.

Figures

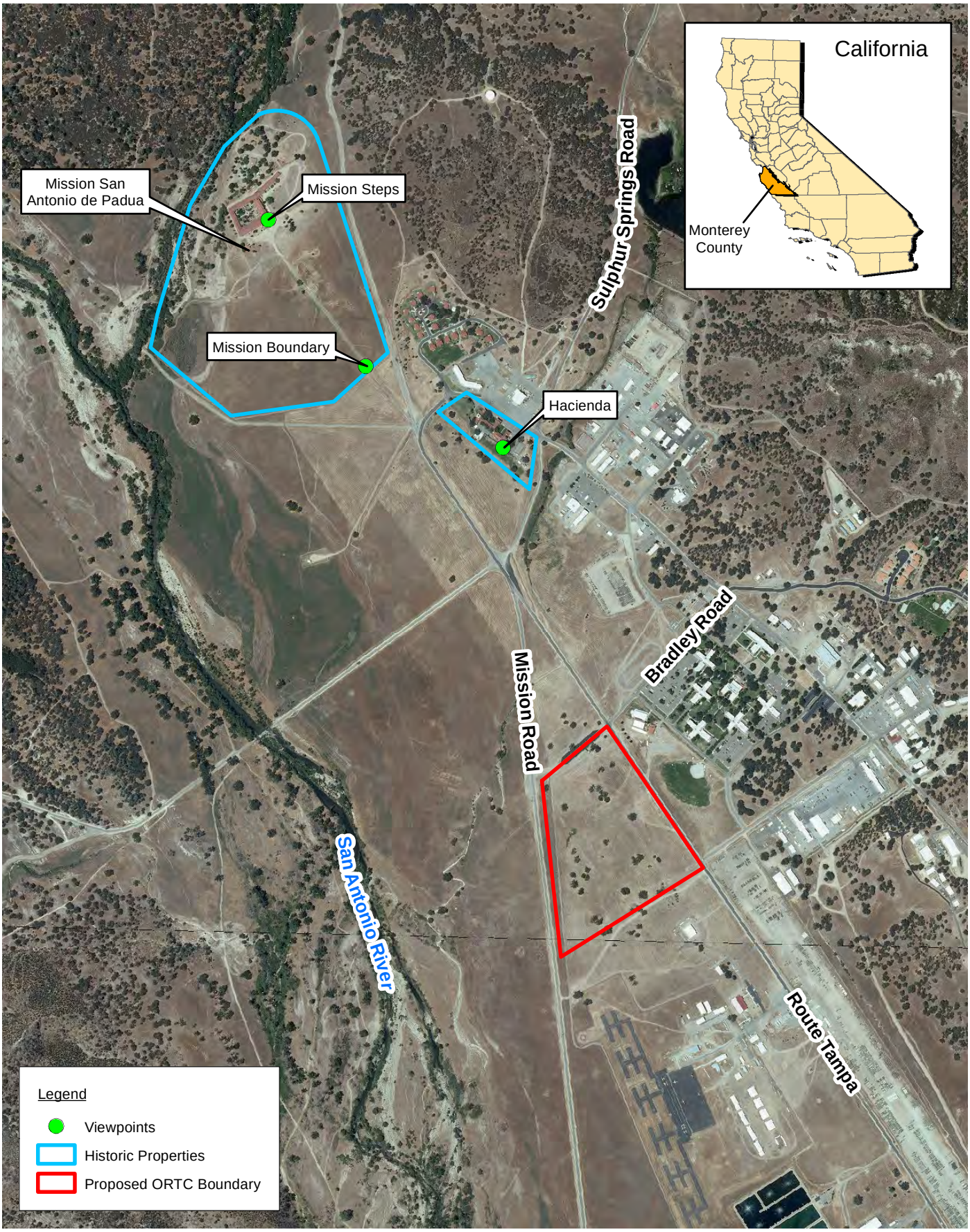


FIGURE 1
Proposed ORTC Project Simulation Viewpoints
US Army Reserve
Operational Readiness Training Complex Project
Fort Hunter Liggett, Jolon, CA

CH2MHILL

A. Existing view toward the ORTC project area from the southeastern boundary of the Mission.

B. Simulated view toward the proposed ORTC facilities from the southeastern boundary of the Mission. Proposed ORTC project area is 0.75 mile to the southeast.

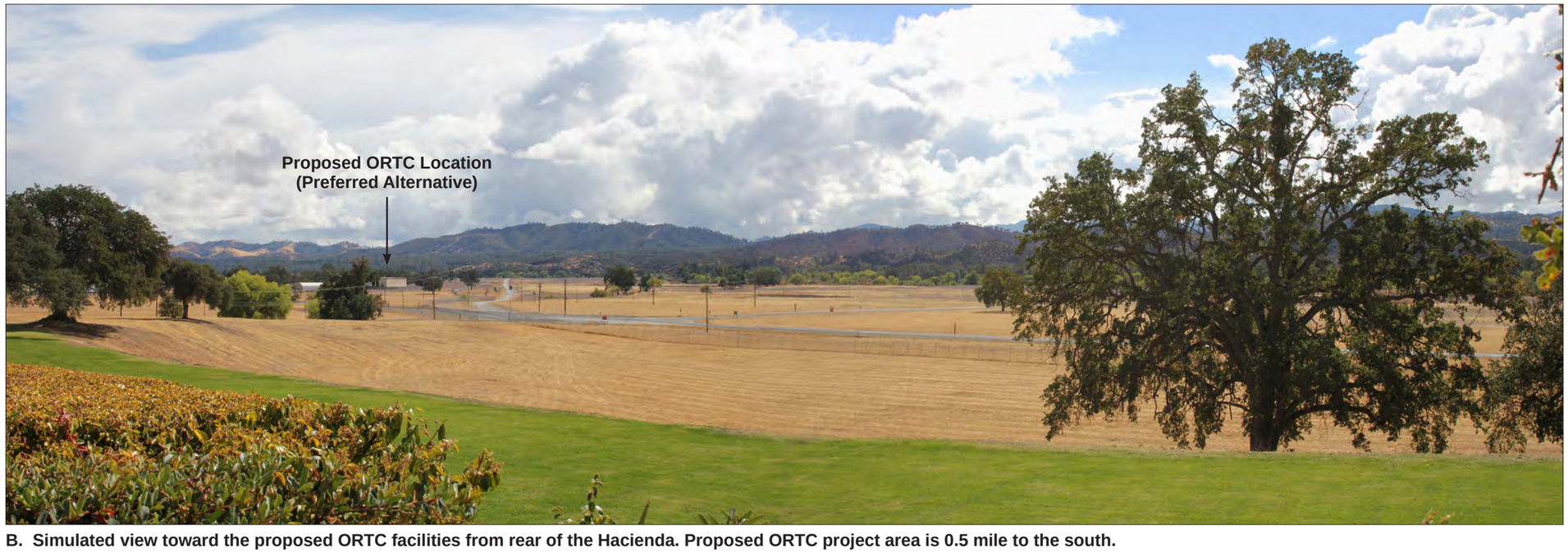
FIGURE 2
VIEW FROM THE MISSION BOUNDARY
Proposed Army Reserve Military Construction Project – Operational Readiness Training Complex
Fort Hunter Liggett
Jolon, California

A. Existing view toward the ORTC project area from the front steps of the Mission .

B. Simulated views toward the proposed ORTC facilities from the front steps of Mission. Proposed ORTC project area is 1 mile to the southeast.

FIGURE 3
VIEW FROM THE MISSION STEPS
Proposed Army Reserve Military Construction Project – Operational Readiness Training Complex
Fort Hunter Liggett
Jolon, California

A. Existing view toward the ORTC project area from the rear of the Hacienda, looking south.



B. Simulated view toward the proposed ORTC facilities from rear of the Hacienda. Proposed ORTC project area is 0.5 mile to the south.

FIGURE 4
VIEW FROM THE HACIENDA
Proposed Army Reserve Military Construction Project – Operational Readiness Training Complex
Fort Hunter Liggett
Jolon, California

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Appendix D

Environmental Condition of Property Report

In order to reduce electronic file size of this Environmental Assessment, Appendix A and Appendix D are available as separate documents. You may download them from

http://www.liggett.army.mil/sites/dpw/environmental.asp

For Appendix A, choose “FHL Training and Development EA 2010”. Or Appendix A can be downloaded directly from http://www.liggett.army.mil/pdf/dpwPDF/Env/FHL_Training_Dev_EA_2010.pdf

For Appendix D, choose “FHL ORTC ECP (Appendix D)”

Appendix E
Public Notice

NOTICE OF AVAILABILITY
FOR PUBLIC COMMENT

US Army Reserve Command

Environmental Assessment Supplement Addressing Construction and Operation of an Organizational Readiness Training Center at Fort Hunter Liggett, Monterey County, California

The Secretary of the Army proposes to construct and operate a new 700-member Organizational Readiness Training Center (ORTC) on Fort Hunter Liggett, Monterey County, California to bring Fort Hunter Liggett to the standards of a premier Reserve Combat Support Training Center and to address the Grow the Army Force initiative. In accordance with the National Environmental Policy Act, the US Army Reserve has prepared an Environmental Assessment (EA) and draft Finding of No Significant Impact (FNSI) for the proposed action. The EA and draft FNSI evaluate any potential environmental and human health effects associated with construction and operation of a new ORTC at the proposed location.

The analysis considered in detail potential environmental effects of the Proposed Action and the No Action Alternative. The results, as found in the EA, show that the Proposed Action would not have an adverse impact on the environment, indicating that a FNSI would be appropriate. An Environmental Impact Statement should not be necessary to implement the Proposed Action.

The EA and draft FNSI are being submitted to federal, state, and local agencies for review and are available for public review at the following libraries: San Antonio School Library, 67550 Lockwood Jolon Road, Lockwood, CA 93932; Monterey County Free Library-Buena Vista Branch, 18250 Tara Drive, Salinas, CA 93908; Monterey County Free Library-King City Branch, 402 Broadway, King City, CA 93930; and Fort Hunter Liggett Library, Building 291, 7th Division Road, Fort Hunter Liggett, Jolon, CA 93928. The document is also available at: http://www.liggett.army.mil/sites/dpw/environmental.asp.

Written comments on the EA are invited and will be received for 30 days from the publication of this notice. Comments for consideration by the United States Army Reserve Command on this document should be provided in writing to: Liz Clark, Fort Hunter Liggett Environmental Office, P.O. Box 7090, Fort Hunter Liggett, CA 93928-7090 or via email at Liz.r.clark@us.army.mil.