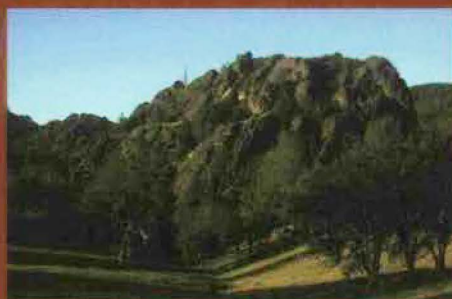
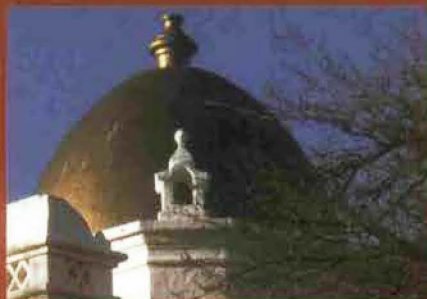




Fort Hunter Liggett

Final Special Resource Study





The Milpitas Hacienda, Richard Crusius photo

We are pleased to provide you with this copy of the final *Fort Hunter Liggett Special Resource Study*.

National Park Service
Park Planning and Environmental Compliance Program
1111 Jackson Street #700
Oakland, CA 94607
e-mail: PGSO_FHL@nps.gov

Additional copies of this report are available from the address above.

In addition, the report is posted on the Internet at:

www.nps.gov/pwro/fhl.

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Front cover: Milpitas Hacienda, Brenda Tharp; Milpitas Hacienda dome, Richard Crusius; Palisades, Brenda Tharp; and Milpitas Hacienda window, NPS

Back cover: Palisades, Brenda Tharp; Oak savanna, Brenda Tharp; Tule elk, NPS; Vernal pool, Brenda Tharp; Purple amole, Elizabeth C. Neese; and View from the Santa Lucia Mountains, NPS

963/D-19A



United States Department of the Interior



NATIONAL PARK SERVICE
Pacific West Region
1111 Jackson Street, Suite 700
Oakland, California 94607-4807

IN REPLY REFER TO:

L2623(PWR-PR)

March 30, 2007

Dear Friends of Fort Hunter Liggett:

The National Park Service (NPS) completed the Fort Hunter Liggett Special Resource Study process by transmitting a final report to Congress on September 19, 2006. Your copy of the final study report is enclosed.

The NPS initiated this special resource study in 2000 and published the *Draft Fort Hunter Liggett Special Resource Study and Environmental Assessment* in June 2004. Since that time, several policy changes have affected the special resource study. Most notably, on May 27, 2005, the Department of the Army sent the NPS a letter stating that the Fort Hunter Liggett BRAC property was no longer excess to the Army and was needed in order to support the Army mission. Therefore, the property formerly referred to as the "BRAC excess property" is no longer available for management by the National Park Service or for transfer to another agency. The Army will continue to manage these properties, and the management alternatives considered in the draft study report are no longer under consideration.

This final Fort Hunter Liggett Special Resource Study report was completed because the NPS is required to submit a report to Congress to complete the special resource study process. This final study report contains the resource analysis completed by the NPS regarding the area's significance, suitability, and the feasibility of management as a unit of the national park system. Through this analysis, the NPS determined that the area contains nationally significant natural and cultural resources suitable for inclusion in the national park system. These resources include the Milpitas Hacienda designed by architect Julia Morgan for William Randolph Hearst, the Juan Bautista de Anza National Historic Trail, a wide diversity of intact oak woodland and savanna communities, chaparral, vernal pool and riparian plant communities, and high numbers of rare plant and animal species. However, the NPS also determined that inclusion of the area in the national park system is not currently feasible because none of the land is excess to the Army's needs or available for management by the NPS. The final study report does not envision or recommend any new federal actions, and therefore the report no longer includes an environmental assessment.



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The final report presents resource protection measures that emerged during the study process that the U.S. Army could pursue to support and enhance protection of the cultural and natural resources at Fort Hunter Liggett. These resources remain nationally significant and worthy of management approaches that will maintain this significance.

If you would like additional copies of the report, you may download it from the internet at www.nps.gov/pwro/fhl. We also have a limited number of printed copies; please contact us at the above address or by e-mail at pgso_fhl@nps.gov, and we will send copies while supplies last. Thank you for your involvement in the Fort Hunter Liggett Special Resource Study.

Sincerely,

A handwritten signature in cursive script that reads "Martha Crusius".

Martha Crusius, Project Manager
Fort Hunter Liggett Special Resource Study

Enclosure



Final
Fort Hunter Liggett
Special Resource Study

January 2007

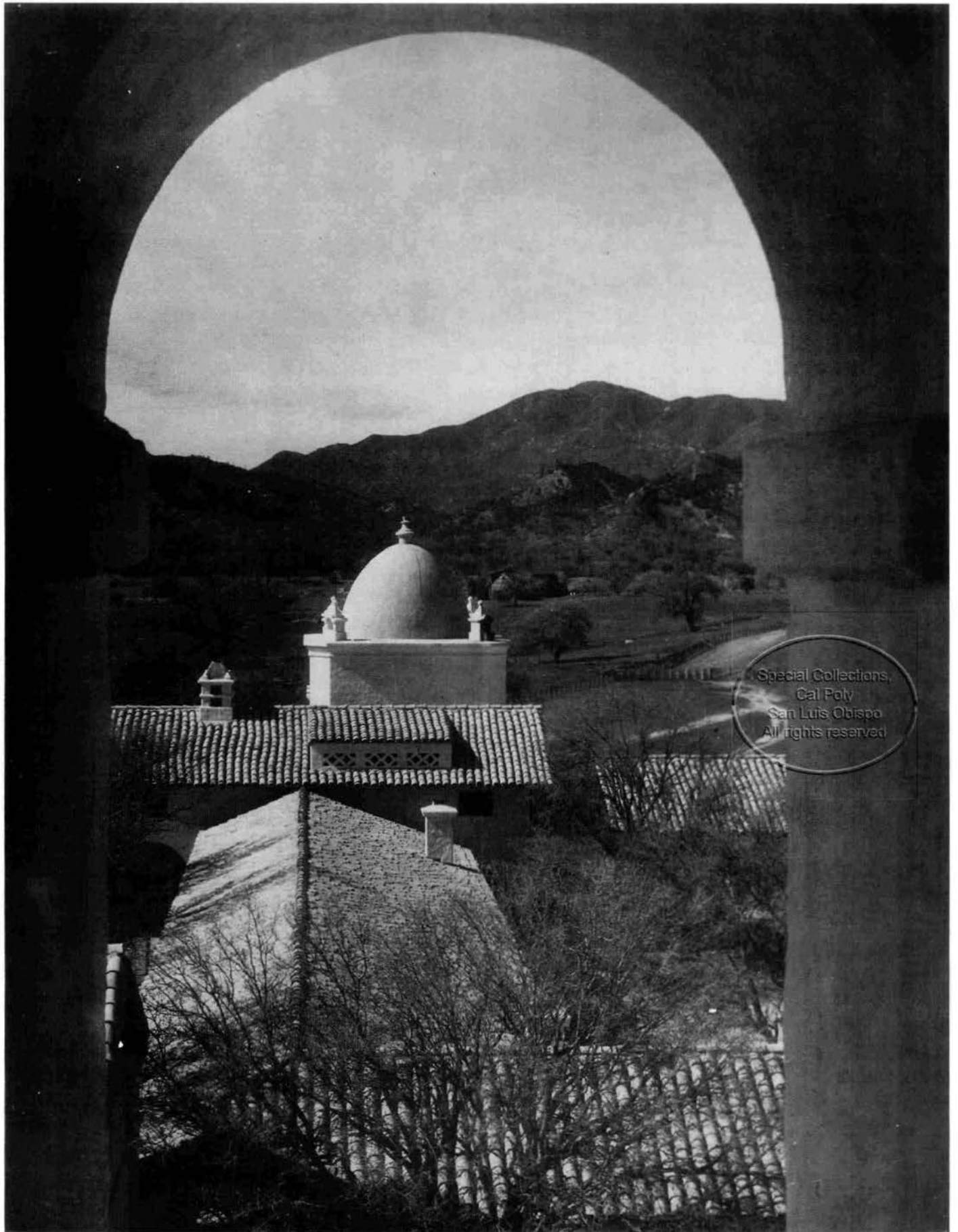
Monterey County, California

Produced by the Pacific West Regional Office
Park Planning and Environmental Compliance
National Park Service
Oakland, California

U.S. Department of the Interior
Washington, DC



Top, left to right: Milpitas Hacienda, NPS photo; Tule elk, NPS photo; Milpitas Hacienda, NPS photo; tidytips, Brenda Tharp photo
Below: Oak, Brenda Tharp photo



The Milpitas Hacienda in 1929. Julia Morgan Collection, Special Collections, California Polytechnic State University, San Luis Obispo

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Riparian area, NPS photo

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The Milpitas Hacienda, Richard Crusius photo

Executive Summary

Background and Study Process

The National Park Service (NPS) has prepared the Fort Hunter Liggett Special Resource Study to evaluate whether the resources of Fort Hunter Liggett are appropriate for inclusion in the national park system. The Fort Hunter Liggett study area includes 164,261 acres. It is located in Monterey County, California, in the San Antonio Valley and on the east side of the Santa Lucia Mountains. This study report was prepared with the recognition that Fort Hunter Liggett is an active Army Reserve training installation.

Congress authorized a study of Fort Hunter Liggett in November 1999, partly in response to the 1995 Defense Base Closure and Realignment Commission's (BRAC) recommendation that certain structures within the Fort Hunter Liggett cantonment area were excess to the Army's needs. The inventory of BRAC excess properties available to the NPS was analyzed in the *Draft*



The Milpitas Hacienda, Richard Crusius photo

Fort Hunter Liggett Special Resource Study and Environmental Assessment released in June 2004. This property included the Julia Morgan-designed Milpitas Hacienda and adjacent swimming pool, tennis court and outbuildings; five ranch bungalows; the Gil Adobe; and one acre of land under and adjacent to the Tidball Store. In addition, the Javelin Court area, including 41 housing units in twelve buildings, was also considered.

The *Draft Special Resource Study and Environmental Assessment* addressed the resources of the entire installation. However, the management alternatives considered and the Environmental Assessment focused only on the BRAC excess property as the remainder of the installation, an active Army Reserve training installation, could not feasibly become a national park system unit while in active use by the Army.

On May 27, 2005, the National Park Service received a letter from the Department of the Army stating that the BRAC property at Fort Hunter Liggett considered in the draft study report is no longer excess to the Army and is needed in order to support the Army mission. Therefore, the property formerly referred to as the BRAC excess property is no longer available for consideration of management by the National Park Service or transfer to another agency. The Army will continue to own and manage these properties. As a result, the management alternatives considered in the draft study report which proposed the transfer of properties to other agencies are no longer under consideration.

This final study report contains the resource analysis completed according to the NPS special resource study process. It also presents resource protection measures that emerged during the study process that the Army could pursue to support and enhance protection of nationally significant cultural and natural resources at Fort Hunter Liggett.

Study Process and Findings

In a special resource study, a proposed addition to the national park system will receive a favorable recommendation from the NPS only if it meets all of the following four criteria:

- (1) it possesses nationally significant natural or cultural resources;
- (2) it is a suitable addition to the system;
- (3) it is a feasible addition to the system; and
- (4) it requires direct NPS management, instead of alternative protection by other public agencies or the private sector.

In cases where a study area's resources meet criteria for national significance but do not meet other criteria for inclusion in the national park system, the National Park Service may recommend an alternative status, such as an "affiliated area" designation.

Significance

The National Park Service has adopted four basic criteria to evaluate national significance. A resource is considered nationally significant if it:

- (1) is an outstanding example of a particular type of resource;
- (2) possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage;
- (3) offers superlative opportunities for public enjoyment, or for scientific study; and,
- (4) retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.

The NPS has determined through this study process that Fort Hunter Liggett contains the following nationally significant natural and cultural resources:

CULTURAL RESOURCES

- The Milpitas Hacienda is nationally significant for its association with architect Julia Morgan and media magnate William Randolph Hearst. As the northernmost component of a 250,000-acre country estate that Hearst amassed in the 1920s and 1930s, the Hacienda provides an opportunity to expand and enhance the story of Hearst and his collaboration with Morgan. As such, the Milpitas Hacienda appears to be an excellent addition to the Hearst San Simeon Estate National Historic Landmark, also known as Hearst Castle® or La Cuesta Encantada.
- The national significance of the Juan Bautista de Anza National Historic Trail was established through its Congressional designation in 1990. The oak savanna landscape of Fort Hunter Liggett provides one of the few remaining historically evocative settings of the trail. The Mission San Antonio de Padua, an inholding within Fort Hunter Liggett, was an Anza expedition campsite. The land, oak trees, and rivers of Fort Hunter Liggett were noted in the expedition's diary entries during their stay at the Mission.
- Over 600 archeological sites related to Native Americans have been recorded at Fort Hunter Liggett. These sites comprise one of the most extensive complexes of Native American sites between the San Francisco Bay Area and the Santa Barbara Channel. Further scientific study is necessary to determine the significance and eligibility of Fort Hunter Liggett's prehistoric resources.

NATURAL RESOURCES

- The number of rare and sensitive plant species on Fort Hunter Liggett is among the highest for similar sized areas in California. This diversity of species can be attributed to the well preserved landscape and unique geologic resources that underlie Fort Hunter Liggett.
- Fort Hunter Liggett encompasses extensive oak woodland and savanna communities, including valley oak, blue oak, coast live oak and native

grassland understory vegetation. It offers the widest diversity of oak taxa of any area of its size in California. Oak woodlands and savanna on Fort Hunter Liggett include the largest known contiguous valley bottom stands of valley oak. The native oak savanna provides important habitat for many rare, threatened, and endangered species, including purple amole, tule elk and San Joaquin kit fox. Fort Hunter Liggett has the highest concentration of oak savanna- specializing birds of any location in the nation.

- Chaparral, vernal pools and riparian areas are additional rare habitat types on Fort Hunter Liggett that support nationally significant species. Chaparral communities harbor rare and sensitive plant populations typically found only in other regions of California, as well as unique endemic species associated with serpentine soils. A large ultramafic body with serpentine substrate at Burro Mountain contains a particularly high concentration of rare and unique plant species. Riparian areas and vernal pools support rare and sensitive species such as the arroyo toad, bald eagle, Santa Lucia mint, and vernal pool fairy shrimp.

STATE AND LOCAL SIGNIFICANCE

- The Gil Adobe and Tidball Store are locally significant historic structures listed on the National Register of Historic Places.



Oaks along Nacimiento-Fergusson Road, NPS photo

Suitability

An area is considered suitable for addition to the national park system if it represents a natural or cultural resource type that (1) is not already adequately represented in the national park system; or (2) is not comparably represented and protected for public enjoyment by another land managing entity, including other federal agencies; Tribal, state, or local governments; or the private sector.

The NPS has determined, based on resource quality, character, rarity and representation of cultural and natural history themes, that if the Fort Hunter Liggett study area were to become excess to the Army's needs, it would be suitable for inclusion in the national park system.

The Milpitas Hacienda represents the themes “expressing cultural values” and “developing the American economy” for its connection to William Randolph Hearst’s historic estate and media empire. Hearst’s estate, including La Cuesta Encantada (Hearst Castle®), stands out among American country houses and would provide the best example of this type of estate on the west coast. Inclusion of the Milpitas Hacienda in the national park system would provide an excellent opportunity to interpret the lives and work of William Randolph Hearst and Julia Morgan and could expand visitor experience and interpretation at Hearst San Simeon State Historical Monument.

The Fort Hunter Liggett study area represents the theme “peopling places” and the topic “encounters, conflicts, and colonization” through resources that represent Spanish settlement and encounters with the native Salinan people. The relatively unchanged landscape provides the historic context for the Juan Bautista de Anza National Historic Trail, the Mission San Antonio de Padua, and associated archeological sites.

The landscape at Fort Hunter Liggett provides representation of the natural history themes “dry coniferous forest and dry woodland,” “chaparral,” “riparian woodland” and “vernal pools.” Fort Hunter Liggett contains over 72,000 acres of oak woodlands and savanna. There is no equivalent



Rolling hills with the Santa Lucia Mountains in the distance, NPS photo

size area of California oak habitat protected, whether by federal, state, local or private managers, anywhere in the United States. The protected oak habitat at Fort Hunter Liggett is suitable for inclusion in the national park system; however it is not available to the NPS.

Intact riparian areas along the San Antonio and Nacimiento rivers, vernal pools and communities associated with serpentine substrates provide important habitat for Federally-listed and endemic species. The combination of rare plant communities on Fort Hunter Liggett is suitable for inclusion in the National Park System. However, the natural areas of Fort Hunter Liggett are not available to the NPS at this time because they are in use as an Army Reserve training facility and expected to be retained by the Army indefinitely.

Feasibility

To be feasible as a new unit of the national park system, an area must:

- (1) be of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and potential impacts from sources beyond proposed park boundaries); and
- (2) be capable of efficient administration by the NPS at a reasonable cost.

In evaluating feasibility, the National Park Service considers a variety of factors including boundary size and configuration, land use, ownership patterns, planning and zoning, access and public enjoyment potential, existing resource degradation and threats to the resources, public interest and support, social and economic impact, and costs associated with acquisition, development, restoration and operation.

The NPS has determined that it is not currently feasible to manage any part of Fort Hunter Liggett, including the Milpitas Hacienda and related historic structures, as a unit of the national park system because none of the land is currently excess to the Army's needs or available for management by the National Park Service. NPS feasibility criteria were used to analyze and document the feasibility of two possible long-term scenarios:

- A historic site centered around the Milpitas Hacienda.
- A larger park incorporating additional lands of Fort Hunter Liggett.

Based on this analysis, Hacienda Hill and Fort Hunter Liggett as a whole, if available for transfer to another agency or organization, would protect the primary resources, provide a suitable setting for these resources, and provide sufficient land for appropriate use and development. Management of the area as a park or historic site would be compatible with local zoning and surrounding land uses. The natural and cultural resources have a strong potential for public enjoyment, based on their quality and integrity. After remediation for unexploded ordnance and other environmental contaminants, the area could provide sufficient access and public use potential.

However, Fort Hunter Liggett remains an active Army Reserve training facility, and none of the installation is currently excess to the Army's needs or available for transfer to the NPS or other agencies. Therefore it is not currently feasible to manage any part of Fort Hunter Liggett as a unit of the national park system.

Management Options and Opportunities

The NPS considered a wide range of options for the management, protection, and public enjoyment of nationally significant cultural and natural resources at Fort Hunter Liggett. Because of the change in status and policy regarding excess property at Fort Hunter Liggett, the Army will continue to manage these resources and no management alternatives are being put forth by the NPS.

MANAGEMENT OPTIONS CONSIDERED IN THE DRAFT FORT HUNTER LIGGETT SPECIAL RESOURCE STUDY

In the Draft Fort Hunter Liggett Special Resource Study report, the NPS considered a no-action alternative, plus an alternative that recommended legislation to authorize the direct transfer of the Milpitas Hacienda complex and the ranch bungalows to California State Parks to be managed as an addition to Hearst San Simeon State Historical Monument (Hearst Castle®) and as an affiliated area of the national park system.

The Gil Adobe and land at Tidball Store were recommended for transfer to local or state agencies in cooperation with a local nonprofit organization.

Transfer to other agencies, as envisioned in Alternative B is not feasible because there is no longer any property available for transfer.

Because the areas that were the subject of these alternatives are no longer considered excess to the Army's needs, these alternatives are no longer viable.

OTHER MANAGEMENT OPTIONS PREVIOUSLY CONSIDERED

Unless direct NPS management of a studied area is identified as the superior alternative, the National Park Service will recommend that one or more other entities assume a lead management role, and that the area not receive national park system status. The National Park Service

developed and considered a number of options involving NPS management, before determining that such options were not feasible.

POTENTIAL RESOURCE MANAGEMENT OPPORTUNITIES FOR THE ARMY

The NPS encourages the Army to continue its protection and management of the natural and cultural resources in a manner that retains their national significance. Ideas that emerged during the study process include ways that the Army could supplement their efforts to care for the nationally significant natural and cultural resources of Fort Hunter Liggett, and to ensure that they maintain their condition and integrity. These ideas include opportunities for cultural resource management, natural resource management and opportunities for public enjoyment.



The Milpitas Hacienda, NPS photo

Cultural resource management opportunities include:

- Improvements to the Milpitas Hacienda which could be financed through an increase in room rates at the Hacienda
- Further management of the landscape surrounding the Milpitas Hacienda to preserve its cultural landscape.
- Developing partnerships with interested agencies and organizations such as:
 - California State Parks to assist in management of the Milpitas Hacienda given its historic connection to Hearst Castle.[®]
 - Local Salinan organizations to care for sacred sites, provide public education and raise awareness of the importance of protecting these sites.
 - Monterey County and local organizations: to restore and manage the locally significant historic sites related to the town of Jolon. This partnership could nonprofits and Salinan organizations.
 - National Park Service to evaluate the potential addition of the Milpitas Hacienda to the Hearst San Simeon Estate National Historic Landmark (Hearst Castle[®]).

Natural resource management opportunities include:

- Coordination with universities and non-profit organizations to inventory resources and to conduct scientific research such as botanical surveys.
- Request the NPS to evaluate the oak woodlands and savanna and the Burro Mountain area for potential designation as National Natural Landmarks. Designation would provide additional recognition and make the area eligible for NPS technical assistance.
- Collaboration between the Army and Los Padres National Forest to jointly manage

significant oak woodland savanna on Fort Hunter Liggett and at the adjacent Wagon Caves area in the national forest. Together, these areas represent some of the best remaining, relatively pristine valley oak habitat.

Public enjoyment opportunities include:

- The Army could explore additional visitor opportunities in areas that are publicly accessible and areas that are not used for training activities, while taking into account safety and security concerns.
- Collaboration with the Juan Bautista de Anza National Historic Trail, Mission San Antonio de Padua and local nonprofit groups to mark and interpret important sites along the trail.
- Collaboration with California State Parks to enhance visitor opportunities at the Milpitas Hacienda.



Nacimiento River, NPS photo

POSSIBLE FUTURE MANAGEMENT OPPORTUNITIES, IF LAND BECOMES AVAILABLE FOR TRANSFER

Management as a Historic Site. If the Milpitas Hacienda is declared excess to the Army’s needs, it could be transferred to another agency or organization and managed as a historic site.

Possible management organizations include the US Forest Service (which by recent legislation has right of first refusal on any future excess property at Fort Hunter Liggett), the National Park Service, California State Parks, Monterey County, Salinan organizations, or a non - profit organization. Partnerships among two or more of these organizations could spread the costs and responsibilities and allow each organization to contribute according to its strengths and areas of expertise.

Management as a Park or Forest Area. If a substantial portion of Fort Hunter Liggett’s natural landscape is declared excess to the Army’s needs, it could be transferred to another agency or organization and managed as a park or forest area.

Possible management organizations include the US Forest Service (which by recent legislation has right of first refusal on any future excess property at Fort Hunter Liggett), the National Park Service, California State Parks, Monterey County, Salinan organizations, or a non - profit organization.

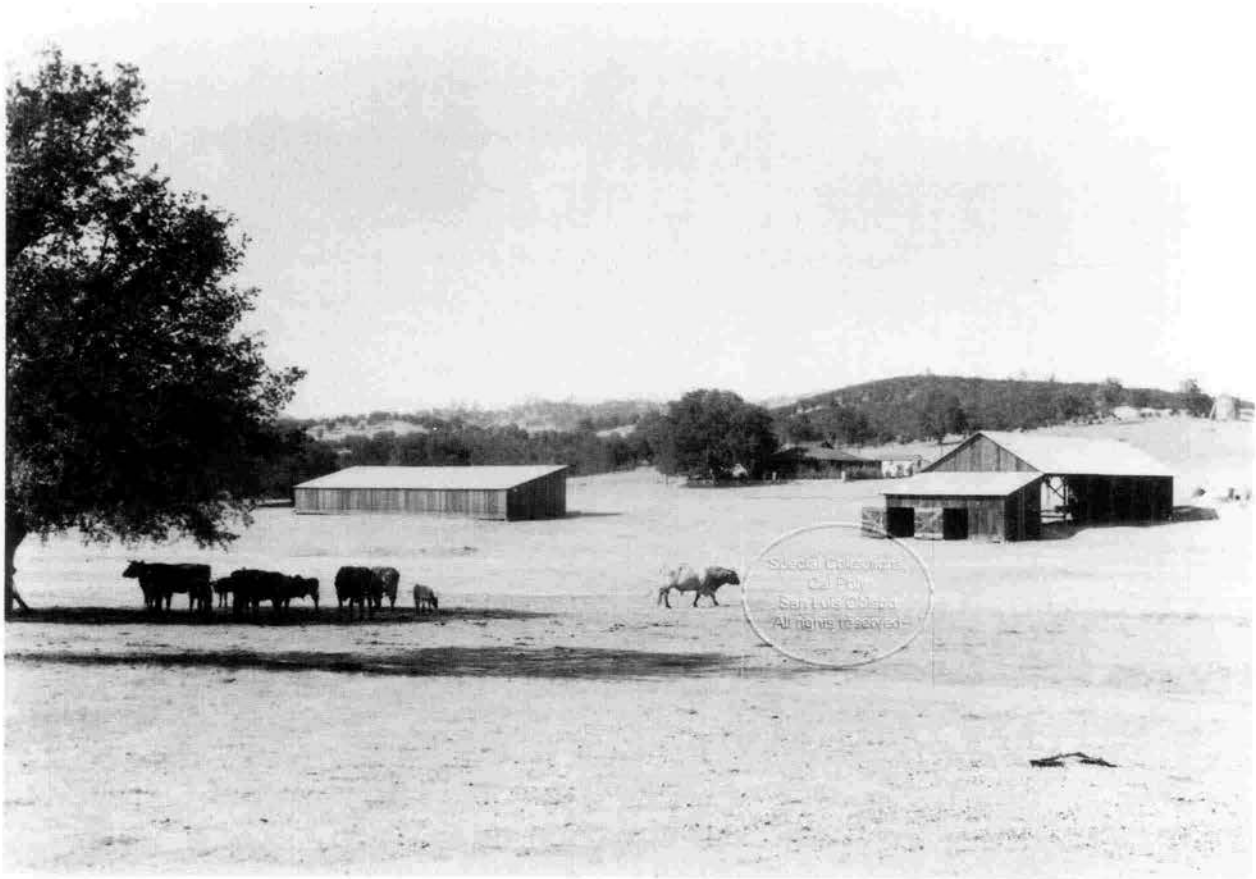
Further analysis will be necessary if the property becomes available in order to determine feasibility, the interests and capabilities of various potential management organizations, and appropriate roles.

Transmittal to Congress

The study legislation (P.L. 106-113 & H.R. 3194 Conference Report, 113 Stat. 1535, 1537) authorizes the Secretary of the Interior to submit the final report to Congress. Because the BRAC excess properties at Fort Hunter Liggett that were recommended for transfer to California State Parks in the draft study report are no longer available, there is no new federal action envisioned or recommended and no action is required by Congress.



Tule elk; Brenda Tharp photo



Milpitas Ranch, 1929; Julia Morgan Collection, Special Collections, California Polytechnic State University, San Luis Obispo

Special Resource Study



← Background & Study Process

Dos Bueyes Creek, Brenda Tharp photo

Background and Study Process

Background

STUDY AUTHORIZATION

In November 1999, Congress authorized the National Park Service (NPS) to prepare a Special Resource Study of Fort Hunter Liggett (P.L. 106-113 & H.R. 3194 Conference Report, 113 Stat. 1535, 1537 - Nov. 29, 1999). The purpose of this study report is to evaluate whether the resources of Fort Hunter Liggett are appropriate for inclusion in the national park system. This *Special Resource Study of Fort Hunter Liggett* provides information to Congress on the significance of the natural and cultural resources of Fort Hunter Liggett, evaluates the suitability and feasibility of designating the area or some portion of it as a unit of the national park system and provides recommendations for the preservation and public enjoyment of significant resources while recognizing that Fort Hunter Liggett is an active Army Reserve training installation.

STUDY AREA

Fort Hunter Liggett is the Western Training Center for the US Army Reserve. It is located in southwestern Monterey County, approximately 70 miles south of the city of Salinas, and 23 miles southwest of King City. The installation includes 164,261 acres in the San Antonio Valley and the east side of the Santa Lucia Range. It is bounded on the west and north by the Los Padres National Forest and on the east and south by private agricultural land. It is a landscape of rolling oak savannas, valley grasslands, and chaparral-covered ridges. The area is rich in natural resources, and has a 6,000-year history of human habitation. The U.S. Department of Defense acquired Fort Hunter Liggett in 1940 from William Randolph Hearst, other neighboring ranches, and the U.S. Forest Service, and has operated it as a training installation since that time. The area is located within California's 17th Congressional district (See Figure 1).



The Milpitas Hacienda, NPS photo

EXCESS PROPERTY AT FORT HUNTER LIGGETT Base Realignment and Closure (BRAC) Process Background. On July 1, 1995, under provisions of the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510, as amended), the BRAC Commission recommended a partial realignment for Fort Hunter Liggett. On September 28, 1995, these recommendations became law. The BRAC Commission's recommendations included elimination of the Army's active component mission at Fort Hunter Liggett, while retaining minimum essential facilities and training area to support the Army Reserve components. The recommendations also realigned Fort Hunter Liggett by relocating the US Army Test and Experimentation Center (TEC) missions and functions from Fort Hunter Liggett to Fort Bliss, Texas. As a result, 72 structures were found to be excess to the Army's needs.

National Park Service Involvement. The NPS first became involved with Fort Hunter Liggett in 1999 following the Army Corps of Engineers announcement of the availability of BRAC excess property at Fort Hunter Liggett in a notice dated January 5. The National Park Service Pacific West Regional Director responded to the Army Corps of Engineers on March 5, 1999, seeking to reserve the acquisition of the available property at Fort Hunter Liggett for possible designation as a

Timeline: Actions Related to Excess Property at Fort Hunter Liggett

September 1995	Defense Base Closure and Realignment Commission recommendations are signed into law by Congress. Approximately 72 structures comprising 325,900 square feet of Army facilities on approximately 110 acres of property are no longer needed to accomplish the installation's remaining missions and are determined excess to Army requirements.
January 1999	The Army Corps of Engineers announces the availability of excess property at Fort Hunter Liggett.
March 1999	The NPS Pacific West Regional Director responds to the Army Corps of Engineers, seeking to reserve the acquisition of the available property at Fort Hunter Liggett for possible designation as a national park unit.
April 1999	Congressman Sam Farr convenes the first of a series of meetings with the Army, Navy, NPS, U.S. Forest Service and California State Parks to develop a collaborative arrangement for the reuse of excess property at Fort Hunter Liggett.
November 1999	Congress authorizes the NPS to prepare a Special Resource Study of Fort Hunter Liggett to evaluate whether the resources of Fort Hunter Liggett are appropriate for inclusion in the national park system.
September 2000	Army completes the Environmental Assessment for the Disposal and Reuse of the BRAC Property at Fort Hunter Liggett, California, proposing the transfer of 63 buildings to the NPS and 9 buildings to the U.S. Navy. Property available to the NPS included the North Cantonment Geographic Area, the Milpitas Housing Area, the Barracks/Directorate of Personnel and Community Activities Area, several buildings in the South Cantonment Geographic Area; two buildings in the Miller Ranch Geographic Area and the Jolon Geographic Area.
July 2001	The list of excess properties proposed for transfer to the NPS is reduced. The Deputy Assistant Secretary of the Army, Installations and Housing, notifies the NPS that the BRAC excess property available to the National Park Service will include only the historic properties and ancillary structures: 1) the Hacienda Complex, which includes the Milpitas Hacienda and its associated structures; 2) 5 buildings referred to as the Ranch Bungalows some of which were associated with the former Milpitas Ranch, 3) the Gil Adobe, and 4) one acre of land under and adjacent to the Tidball Store (the building is already owned by Monterey County). See Figures 3-4.
March 2002	The Army requests that the NPS consider accepting the Javelin Court housing area, consisting of 41 housing units in 12 buildings in the Cantonment Area (See Figure 3).
June 2003	The Army transfers 9 structures and 11 acres of land to the Navy, as proposed in the 2000 Environmental Assessment.
June 2004	The NPS releases its <i>Fort Hunter Liggett Draft Special Resource Study and Environmental Assessment</i> with management alternatives that address the transfer and management of the BRAC excess properties available to the NPS as of March 2002. The preferred alternative was a recommendation for the transfer of the Hacienda Complex and the Ranch Bungalows to California State Parks as an addition to the Hearst San Simeon State Historical Monument and as an Affiliated Area of the National Park System.
October 2004	Congress grants the U.S. Forest Service the right of first refusal for any future excess lands at Fort Hunter Liggett through the 2004 military construction appropriations legislation (P.L. 108 - 324). The Army would be required to remove unexploded ordnance and perform environmental clean-up before transferring future excess property to the U.S. Forest Service.
May 2005	The Department of the Army sends a letter to the NPS stating that the BRAC excess property at Fort Hunter Liggett considered in the draft special study report is no longer excess to the Army and is needed in order to support the Army mission.

national park unit. A series of meetings with the Army, Navy, National Park Service, U.S. Forest Service, and California State Parks commenced in April 1999 to discuss reuse options for the excess property. Congressman Sam Farr convened the first of these meetings and challenged the participating agencies to develop a collaborative arrangement for the reuse of the excess property.

The status of BRAC excess property at Fort Hunter Liggett has undergone a number of changes since the NPS first announced interest in

these properties. The timeline above summarizes these changes and how they relate to the completion of this final study report.

On May 27, 2005, the National Park Service received a letter from the Department of the Army stating that the BRAC excess property at Fort Hunter Liggett considered in the draft study report is no longer excess to the Army's needs, and is needed in order to support the Army's mission (See Appendix F). Therefore the property referred to as the "BRAC excess property" in this

study is no longer available for consideration of management by the National Park Service or transfer to another agency. The Army will continue to own and manage these properties. As a result, the management alternatives considered in the draft study report which proposed the transfer of properties to other agencies are longer under consideration. This final study report contains the resource analysis completed according to the NPS special resource study process. It also presents ideas that emerged during the study process that the Army could pursue to support and enhance their efforts to protect nationally significant cultural and natural resources at Fort Hunter Liggett.

Study Process

LEGISLATIVE AND POLICY DIRECTION

The National Park Service is responsible for conducting professional studies of potential additions to the national park system when specifically authorized by an act of Congress, and for making recommendations through the Secretary of the Interior, to Congress.

Several laws and policies outline criteria for units of the national park system. Congress declared in the National Park System General Authorities Act of 1970 (16 U.S.C. Sec. 1a- 1) that areas comprising the national park system are cumulative expressions of a single national heritage. Potential additions to the national park system should therefore contribute in their own special way to a system that fully represents the broad spectrum of natural and cultural resources that characterize our nation. The National Park System New Area Studies Act of 1998 (P.L. 105-391, 16 U.S.C. Sec. 1a-5) establishes the basic process for NPS studies of potential new national park areas. NPS management policies comply with this law, and provide further guidance. According to NPS management policies, a proposed addition to the national park system will receive a favorable recommendation from the NPS only if it meets all of the following four criteria for inclusion:

- (1) it possesses nationally significant natural or cultural resources;
- (2) it is a suitable addition to the system;
- (3) it is a feasible addition to the system; and
- (4) it requires direct NPS management, instead of alternative protection by other public agencies or the private sector. (NPS *Management Policies*, Section 1.3, 2001)

These criteria are designed to ensure that the national park system includes only the most outstanding examples of the nation's natural and cultural resources. They also recognize that there are other management alternatives for preserving the nation's outstanding resources.

Alternatives for NPS management will not be developed for study areas that fail to meet any one of the four above criteria for inclusion. Further definition of each of these criteria is provided in the related sections of this report.

In cases where a study area's resources meet criteria for national significance but do not meet other criteria for inclusion in the national park system, the NPS may recommend "affiliated area" status or designation as a "heritage area." Affiliated areas are nationally significant areas not owned or administered by the NPS, but which draw on technical or financial assistance from the NPS (NPS, 2001b). To be eligible for "affiliated area" status, an area's resources must: (1) meet the same standards for national significance that apply to units of the national park system; (2) require some special recognition or technical assistance beyond what is available through existing NPS programs; (3) be managed in accordance with the policies and standards that apply to units of the national park system; and (4) be assured of sustained resource protection, as documented in a formal agreement between the NPS and the non -federal management entity (NPS *Management Policies*, 2001, Section 1.3.4).

PUBLIC INVOLVEMENT

The study process included public scoping meetings to gather input on issues to be addressed and information on the natural and cultural resources of the area. Meetings were held on August 2, 2000 at Fort Hunter Liggett headquarters, August 3, 2000 in King City, California and on August 5, 2000 in Salinas, California. Stakeholders, including potentially affected agencies and organizations, neighboring landowners, local historians and resource conservation interests, were involved in the study process through meetings and consultations that occurred periodically.

The NPS study team published four newsletters to keep community members and others informed about the study process. The mailing list included approximately 500 names. All information sent by mail has also been available on the web site for the study, www.nps.gov/pwro/fhl. The NPS study team has been open to comments and input from all parties throughout the study process. There has been periodic media coverage.

The *Draft Fort Hunter Liggett Special Resource Study and Environmental Assessment* was published and released for public comment in June 2004. The initial public comment period on the draft report closed on August 6, 2004 but was later extended to October 31, 2004. Public meetings about the draft study report were held on July 7, 2004 in King City, California and July 10, 2004 in Salinas, California. A meeting with Fort Hunter Liggett staff was held at

the installation on July 8, 2004. A newsletter was released on October 1, 2004 summarizing comments on the draft study report and announcing the extension of the public comment period. A summary of comments and responses on the draft study report has been prepared and included in Appendix H. Further details on the public involvement process can be found in the “Consultation and Coordination” chapter of this study report.

RESOURCE ANALYSIS

This report evaluates the significance and suitability of the resources of the entire installation. The study team used information gathered from the scoping process, public meetings, public databases, resource reports, environmental impact reports, library and historical society collections, land and resource management agencies, and other resource specialists to assess the national significance of the resources within Fort Hunter Liggett. A statement of significance was developed by evaluating Fort Hunter Liggett’s resources against the NPS criteria for national significance of cultural and natural resources. An assessment of suitability was developed by comparing Fort Hunter Liggett’s cultural and natural resources to other areas with similar themes and resources already represented in the national park system or comparably protected and managed by other organizations. Resources within Fort Hunter Liggett were found to be both nationally significant and suitable for inclusion in the national park system. Further details on these resource assessments can be found in the “Significance” and “Suitability” chapters of this study report.



Training activity, Fort Hunter Liggett Public Affairs Office photos



A feasibility assessment was prepared to determine whether the area was of appropriate configuration for sustainable resource protection and visitor enjoyment, whether the area could be efficiently administered at a reasonable cost, and whether there was an appropriate role for the National Park Service in the area's management. Given the change in status and policy regarding excess property at Fort Hunter Liggett, and the continuing use as an active Army Reserve training installation, no property at Fort Hunter Liggett is considered a feasible addition to the national park system at this time. Military use is expected to continue at Fort Hunter Liggett.

DEVELOPMENT OF ALTERNATIVES

In consultation with the Army, California State Parks, the US Forest Service and others, the National Park Service identified two possible alternatives in the draft study report that addressed only the former BRAC excess property:

A) no-action and B) transfer to state and local agencies, primarily California State Parks. These two alternatives and other management options that were once considered in the study process are described in the "Management Options and Opportunities" chapter of this report.

Because the BRAC property is no longer available for transfer to another agency, Alternative A (no action) is no longer an accurate depiction of current management. The Army will continue to manage the unique resources of Fort Hunter Liggett. Additionally, Alternative B is no longer a feasible alternative because there is no longer property available for transfer to California State Parks and other local agencies or organizations. Although no alternatives from the draft study report are being put forth as a recommendation to Congress, some of the actions formerly proposed under Alternative B in the draft study report could enhance the Army's efforts to protect and preserve resources at Fort Hunter Liggett.

Given the significance of resources at Fort Hunter Liggett, the NPS at the request of the Army, could provide technical assistance under its current authorities in areas of resource conservation,

historic preservation, interpretation or education. Additional management opportunities for the preservation and public enjoyment of significant resources at FHL that the Army could consider are included in the "Management Options and Opportunities" chapter of this report. This includes some of the actions formerly proposed in the draft study report.

ENVIRONMENTAL ASSESSMENT

The *Draft Fort Hunter Liggett Special Resource Study* was accompanied by an *Environmental Assessment* to evaluate the foreseeable environmental consequences of each alternative presented. Because neither alternative is applicable or feasible at this time and the NPS is no longer putting forth these alternatives for consideration, the environmental assessment will not be completed. The former alternatives and environmental assessment published in the draft study report are included in Appendix I.

TRANSMITTAL TO CONGRESS

The study legislation (P.L. 106-113 & H.R. 3194 Conference Report, 113 Stat. 1535, 1537) authorizes the Secretary of the Interior to submit the final report to Congress. Because the BRAC excess properties at Fort Hunter Liggett that were recommended for transfer to California State Parks in the draft study report are no longer available, there is no new Federal action envisioned or recommended and no action is required by Congress. Although, no Federal action is recommended, the NPS has provided a list of possible future management opportunities that could be pursued by the Army to further enhance and provide public enjoyment of the significant resources identified in this study report.



2 Resource Description

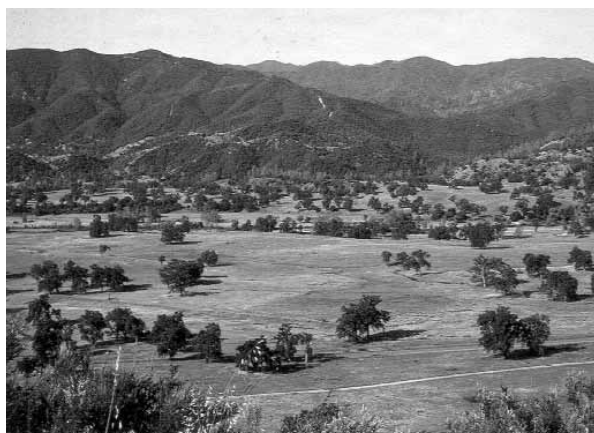
Above: The Milpitas Hacienda; Below: valley oak, photos by Brenda Tharp

Resource Description

Location and Setting

Fort Hunter Liggett is located approximately 3 miles inland on the central coast of California, approximately 70 miles south of Salinas and Monterey and 60 miles northwest of San Luis Obispo (see Figure 1: Regional Context). The installation encompasses 164,261 acres in southwestern Monterey County, lying within the outer coast mountain range system of Central California. It is bounded on the north and west by Los Padres National Forest, on the east by privately-owned agricultural and residential land, and to the south by the Hearst Corporation which owns 82,000 acres of primarily agricultural land. Primary access from the east is via Jolon Road (County Road G14) connecting with Highway 101 near King City. Secondary access from the west is via Nacimiento-Fergusson Road, which originates on the Pacific Coast at Highway 1 near the town of Lucia. Fort Hunter Liggett is approximately 23 miles southwest of King City and 45 miles northwest of Paso Robles.

Fort Hunter Liggett is notable for its well preserved natural setting of oaks, grasslands and the Santa Lucia Range. Approximately 99 percent of the installation is undeveloped (US Army Reserve Training Center, Fort Hunter Liggett, 2003). Developed areas include the Army's administrative buildings, supply yards, military housing, recreation facilities, and support facilities. These facilities and developments are generally restricted to four small areas in the



Stony Valley area, Elizabeth Painter photo

Northern San Antonio Valley, located in the east-central portion of Fort Hunter Liggett. Most development is concentrated in the cantonment area (see Figure 2: Study Area).

In the southern portion of the cantonment area, the remnants of the small townsite of Jolon are located within an approximate 0.5-square-mile area just north of the main gated entrance on Jolon Road. To the east of Jolon are several buildings within a fenced yard comprising the Ammunition Supply Point. Further south along the west side of the Jolon Road are several support structures for the Multi-Purpose Range Complex. Combined live-fire exercises are conducted and a variety of moving and stationary armor and personnel targets have been developed within an approximate 1-mile long by 0.5-mile wide area of the San Antonio Valley floor. Several small airfields are situated in Milpitas, San Antonio Valley, and El Piojo. Numerous unimproved roads, tank trails and vehicle tracks are found at Fort Hunter Liggett, as well as a network of regularly maintained gravel and paved roads accessing the major portions of the installation (US Army Corps of Engineers 2000b).

Ownership and Current Uses

Fort Hunter Liggett is owned by the United States government and managed by the U.S. Army as the Western Training Center for the U.S. Army Reserves. The installation is divided into 29 designated training areas and a cantonment area. The cantonment area supports urban and administrative functions. The remainder of the installation is used for training and testing functions. There are several smaller, developed areas on the property, including military training and testing infrastructure at the Multipurpose Range Complex (MPRC), support functions in the Miller Ranch Geographic Area, and non-military inholdings at the town of Jolon and the Mission San Antonio de Padua.

The cantonment area covers approximately 6,470 acres between the San Antonio River and Mission Creek valleys. Almost all buildings associated with

the installation are within the cantonment area. Major facilities within the cantonment area include the Milpitas Hacienda¹, the fire station, the post exchange, theater, commissary, service station, water storage, housing, the Directorate of Public Works (DPW) yard and shops, the DPW refueling area, pesticide storage, the autocraft shop, and the central hazardous waste accumulation facility.

Military operations at Fort Hunter Liggett include field maneuvers, fixed-range and other weapons firing, aviation training (fixed-wing and helicopter), testing activities, school house training, and other training support activities. Training exercises occur year round, although a majority of activities take place in the summer months. Training activities can vary from small-scale training and proficiency exercises to large-scale training episodes during which most training areas are in use for a week or more. Large-scale training exercises typically occur three times per year and involve 1,500 personnel, 100 tracked vehicles, and 100 wheeled vehicles. Mechanized infantry and armor units also train at Fort Hunter Liggett and typically involve a greater number of tracked vehicles (i.e., tanks and personnel carriers). Additional training activities make use of the 17-mile tank trail that connects Fort Hunter Liggett with Camp Roberts. Training exercises are usually supported by field hospitals, refueling units, personnel support and supply units, communications, engineering and air support (US Army Corps of Engineers 2000b).



Training at Fort Hunter Liggett, NPS photo

NON-MILITARY INHOLDINGS

There are several non-military inholdings within the installation: property within the old town of Jolon and the Mission San Antonio de Padua. Inholdings at Jolon include the Tidball Store structure, Saint Luke's Episcopal Church, and Saint Luke's Cemetery. The Tidball Store structure is owned by Monterey County Parks Department, but approximately 1-acre of land under and adjacent to the store is presently owned by the Army, and was part of the former excess BRAC property.

Mission San Antonio de Padua is on the north side of the cantonment area. The site occupies approximately 85 acres and includes the Mission, residences for clergy, a cemetery, and outbuildings. The Mission is owned by the Monterey Diocese of the Catholic Church.

NON-MILITARY USES

Non-military uses include hunting and fishing, non-military housing rentals, and visitation to the Milpitas Hacienda and non-military inholdings such as the Mission San Antonio de Padua. Hunting and fishing programs are regulated by the installation on a permit basis when areas are not being used for training activities. Hunting and fishing is permitted on weekends and federal holidays; fishing in the cantonment area is permitted 7 days a week. Permit holders are required to obtain authorization from Range Control for safe access to training areas that are not in use for training and are open to hunting and fishing.

Estimates for hunting and fishing visitors include 9,500 visits in 2001 and 5,500 visits for 2002. Use dropped significantly from previous years due to changes in security measures at the installation. The busiest hunting weekends typically are opening weekends of deer, quail, and dove seasons, and some holiday weekends.

¹ The Milpitas Hacienda is commonly referred to as "the Hacienda" by the U.S. Army. The term Milpitas refers to Rancho Milpitas, the original Mexican land grant which is now part of Fort Hunter Liggett. Milpitas means "little fields."

Although grazing has occurred on much of the Fort Hunter Liggett lands for over 200 years, it is not currently allowed on the installation. In 1991, the Army discontinued grazing under the lease program it had started in the 1940s because of concerns about the condition of the installation's rangeland vegetation. The Army is currently investigating grazing management strategies that may promote biological diversity (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

NATIVE AMERICAN INTERESTS

Before European occupation in 1769, Fort Hunter Liggett was occupied by native people now referred to as Salinans. Many sites and artifacts associated with the Salinans are located on Fort Hunter Liggett. Salinan families continue to live in the area and have formed several organizations that are working to protect their heritage as well as sacred sites located on Fort Hunter Liggett. These organizations include the Xolon Salinan Tribe, the Salinan Tribe of Monterey and San Luis Obispo Counties, and the Salinan Nation Cultural Preservation Association. Members of these organizations are invited by the Army to consult on cultural resource management issues at Fort Hunter Liggett including archeological site preservation. Each of the Salinan organizations is actively seeking status as a federally recognized tribe.



The Milpitas Hacienda, Richard Crusius photo

Cultural Resources

The land area of Fort Hunter Liggett contains prehistoric and historic cultural resources that illustrate the broad sweep of history in California. Fort Hunter Liggett cultural resources include prehistoric archeological sites with constituents ranging from sparse to dense lithic flake scatters, milling equipment, bedrock mortar complexes, midden containing dietary debris, housepits, rock shelters, rock art, and human remains. Historic sites include buildings, adobe ruins, historic landscape elements such as stone alignments, and other structural ruins (See Figure 5: Cultural Resources in the “Figures” section and Table 1: Documented Cultural Resources Within the Northern Cantonment and Jolon Areas).

This section provides an overview of the study area's cultural resources within their cultural and historical context. The cultural and historical context as described in the 1994 “Fort Hunter Liggett Preservation Plan” is divided into the following periods:

- Prehistoric Period (before A.D. 1769)
- Hispanic Period (A.D. 1769–1850)
- Settlement Period (A.D. 1850–1880)
- Consolidation (A.D. 1880–1940)
- Hunter Liggett (A.D. 1940–present)

PREHISTORIC PERIOD (BEFORE A.D. 1769)

Prior to historic contact in 1769, the San Antonio Valley was occupied by hunter-gatherers now referred to as Salinans. Salinans occupied areas on both sides of the Santa Lucia mountain range. Anthropologists describe three divisions of Salinans, the Antoniano, the Migeleno and the Playaños based on geographic and linguistic differences. The Antoniano inhabited what is currently Fort Hunter Liggett.

The Salinans were hunter-gatherers who would occupy several semi-permanent camps and villages as they traveled seasonally for subsistence. Subsistence for the Salinans involved collecting acorns and other vegetal foods, hunting mammals and collecting shellfish.

The earliest human presence at Fort Hunter Liggett is estimated at 10,000 years before present (B.P.). Prior to 5,000 B.P. the hunter-gatherer populations were likely small, mobile groups that foraged across the landscape, often traveling extensively. From 5,000 B.P. to 2,000 B.P. Salinans incorporated marine resources in their diet, made greater use of acorns, and increasingly occupied coastal areas. Trade and exchange with other regions declined and social and political organizations were more focused on the local region. Important technological innovations and population growth characterize the period from 2,000 B.P. to present. Formal trade systems and villages with larger populations developed. At least 20 villages are known to have been located throughout the Salinan territory at the time of historic contact. Smaller temporary sites were found along the coast and inland waterways (Army Corps of Engineers 2000b).

More than 600 sites, including ceremonial paintings, burial sites, other sacred sites, pre-European village sites and historic villages, relating to this period have been documented on Fort Hunter Liggett (Eidsness and Jackson 1994b). One of the most well-known Native American sites is La Cueva Pintada (The Painted Cave). Listed on the National Register of Historic Places, La Cueva Pintada is a cave located at 3,000 feet above sea level on Fort Hunter Liggett. The cave is significant for the white, red, black and ochre colored pictograph painted on the cave walls. It was likely used by Salinans for the celebration of special events such as the winter solstice.

HISPANIC PERIOD (A.D. 1769–1850)

The Hispanic Period begins in 1769 when a Spanish expedition led by Captain Gaspar de Portola passed through the area and made contact with the native population (Eidsness and Jackson 1994b). The route that Portola took from the coast up San Carporo Canyon to San Antonio Valley was originally established by Native Americans to connect the coast and valley for trading. During Portola's journey, the location for the San Antonio de Padua was noted. Based on this recommendation, Father Junipero Serra established the Mission San Antonio



Mission San Antonio de Padua in 1906, San Antonio Valley Historical Society

de Padua on July 14, 1771. Father Serra is famous for suspending bells from the oaks and making the exclamation, “Oh ye gentiles! Come, come to the holy Church” shortly after arriving in the area (Older 1938). This was the third of twenty-one missions established in California.

In 1771, Serra raised a small shelter and cross at the original Mission site 3 miles south of its current location. The Mission was moved shortly after initial settlement to its current site to take advantage of Mission Creek's perennial flow of water. The original Mission structure was an adobe building with tile roofs.

Shortly after the Mission became established, Juan Bautista de Anza began an expedition leading nearly 200 settlers and their escorts from Sonora, Mexico to found a settlement at San Francisco Bay. This expedition established an overland settlement trail from Mexico to California. In 1776, the Anza expedition camped at the Mission San Antonio de Padua. Journal entries from the expedition describe the striking oak landscape and life at the Mission.

By 1781, San Antonio de Padua had become the largest mission community in California. Salinans were baptized (neophytes) and married by the Mission padres. The neophytes were taught agriculture and stock raising and provided the primary labor force for the Mission.

In the early 19th century, land associated with the Mission stretched from Junipero Serra Peak, just north of the current Fort Hunter Liggett Boundary, south to Bradley (approximately 25

miles south of King City). From west to east, the Mission land swept from the Pacific Coast to just east of the Salinas River. There were at least ten outlying Mission ranches or grazing areas that were occupied by Mission Indians. Of the ten ranches, San Miguelito de Trinidad, El Piojo, Los Ojitos and Pleito were the largest agricultural operations associated with the Mission and included the only recorded permanent dwellings. The ruins of San Miguelito and Los Ojitos are the only known remains of the four rancho sites on Fort Hunter Liggett.

The number of neophytes that lived and worked at the Mission reached its peak of 1,300 in 1805. The Mission complex experienced much growth during this time period. In 1813, a new church was completed and the Mission continued to thrive until Mexico received its independence from Spain in 1821.

Despite the growth of the Mission in the early 19th century, the Salinan population suffered. Although the Salinans were documented as having adapted easily to mission life, their population declined drastically. Contagious diseases from Europe caused an abnormally high death rate. Missionaries had legal rights over the Salinans who were punished if they were not obedient. Stress and occasional upheavals against the Mission also impacted the Salinans (Margolin 1997).

With the secularization of the missions in the 1830s, most of the vast holdings of the Mission San Antonio de Padua were claimed by civil authorities and divided into at least eleven Mexican land grants. The land grants were awarded to soldiers, administrators, and other individuals in favor of the Mexican government. Four of the land grants, Rancho Milpitas (Little Fields), Rancho El Piojo (The Louse), Rancho San Miguelito de Trinidad, and Rancho Los Ojitos (Little Springs), were located within the boundaries of what is now Fort Hunter Liggett (Margolin 1997). In 1846, the United States went to war with Mexico. The Treaty of Guadalupe Hidalgo ended the war in 1848 and established

that the property rights established under the Mexican land grant system would be respected.

After Mexican independence from Spain, the new Mexican government began a program to remove the missions and their landholdings from church control. Salinans were released from the control of the Mission although a number of families remained in residence at the Mission through the 1880s. Mission San Antonio priests assigned several Salinan families parcels of land. Many Mission Indians that were not assigned land by the Mission built small settlements in their former tribal lands. (Eidsness and Jackson 1994a).

Cultural resources related to the Hispanic period at Fort Hunter Liggett include the Mission San Antonio de Padua and associated archeological sites and features, ruins of buildings associated with the ranchos and small settlements, the historic locations of the Juan Bautista de Anza National Historic Trail and camp site, and the Portola Trail and camp site.

SETTLEMENT PERIOD (A.D. 1850–1880)

The Settlement Period begins shortly after the treaty of Guadalupe Hidalgo was signed in 1848. The U.S. Land Claims Commission was established in 1851 to investigate land claims and ownership under the Mexican land grant system. The Commission demanded excessive proof and documentation. This proved to be difficult and costly as the Mexican land grant system was sometimes casual in its documentation. Appeals were expensive and required lawyers to represent clients in court hearings. Because it was so difficult to prove Mexican land grant ownership; many of the land grants were eventually acquired by Americans. By 1875, all of the land grants on what is now Fort Hunter Liggett were claimed by American speculators.

Many landowners lost their land to American settlers while the Land Commission was sorting out the Mexican land grants. Ownership battles at the Rancho Milpitas exemplify these discrepancies. Faxon Atherton purchased the Milpitas Rancho from Ygnacio Pastor. Somehow

during the conversion of land, records under the Land Commission were changed and Ygnacio's small ranch that was comprised of 8,000 acres under the Mexican land grant system became listed as a 42,000-acre landholding. Owners of the land at Rancho Milpitas that had not originally been owned by Pastor included Salinans, Mexicans and Spaniards that had small plots dating back to the Hispanic Period. George Atherton, and his wife Gertrude, who later became a well-known novelist, dispossessed fifty-three families from the Rancho Milpitas in 1878. The Athertons arrived with sheriffs and guns and burned houses and possessions of the residents who were considered to be squatters (Fisher 1945). This included the Encinales family, a Salinan family from Mission San Antonio de Padua that built a home on Mission Creek. The Encinales family was forced to move to an area known as "The Indians (Eidsness and Jackson 1994a)." Their settlement at The Indians served as a center for Salinan culture and survival for many generations (Margolin 1997).

Following the 1849 Gold Rush, mining and farming homesteaders began settling in the San Antonio Valley. Gold deposits were found on the Rancho Milpitas. Several hundred mines were located in other parts of the Santa Lucia Range including many areas along Los Burros Creek (Margolin 1997). The Homestead Act of 1862 created incentives for settling by offering inexpensive or free land. One of the first settlers to the area during this time was Jose Maria Gil who



Jolon Valley, 1911, San Antonio Valley Historical Society photo

migrated from Madrid, Spain to mine for gold in the Sierra Nevada. He built an adobe in the area, the remains of which are still standing (Eidsness and Jackson 1994). Settlers from Mexico, Germany, the northeastern United States, and other parts of California also settled on small farms during this period (Margolin 1997).

With hundreds of settlers migrating into the area to mine in the hills or ranch in the valleys, a number of small towns were established. The town of Jolon was founded in the late 1890s on the route of the El Camino Real, the road that connected the Missions along the California coast. Jolon was a Salinan word that translated to "Place of the Dead Oaks." Settlers included both Mexicans and Chinese. Two "China towns" formed for the Chinese that came to pan gold. George Dutton and Captain Thomas T. Tidball purchased and expanded an existing adobe inn which came to be known as the Dutton Hotel. They later added the Tidball Store. In addition to the Dutton Hotel and the Tidball Store, saloons, blacksmith shops, a dance hall, a jail and a post office were also built. Most of the land surrounding Jolon remained in cattle ranching (Margolin 1997).



Top: Tidball Store (Ganoung Hotel) area, 1910
Bottom: Dutton Hotel, 1923
San Antonio Valley Historical Society photos

Jolon's boom period ended in 1886 when the Southern Pacific Railroad extended through King City, 23 miles east of Jolon (Margolin 1997). Remaining structures related to this era include the ruins of two ranchos (San Miguelito and Los Ojitos), the Gil Adobe, the Tidball Store and the Dutton Hotel. The land grants in the study area have remained unusually intact when compared to other ranching areas in California (Eidsness and Jackson 1994b).

The United States returned title of 33 acres of land and the Mission San Antonio de Padua to the Catholic Church in 1862. After the death of Father Ambris in 1882, the Mission had fallen to ruin. During this time rancheros and Native American families continued to visit the crumbling Mission to say prayers. Restoration of the Mission was initiated in 1903 by the California Landmarks League. Despite a setback from the 1906 earthquake, the restoration of the main chapel was completed in 1907. A complete reconstruction of the Mission later took place around 1948 with the assistance of the William Randolph Hearst Foundation and the Franciscans of California.

Today the Mission exists in the most intact original setting of any California mission. In addition to the Mission church and convent, which are listed on the National Register of Historic Places, portions of the extensive water system, a cemetery, ruins of a military barracks (built for Spanish soldiers), out-buildings, structures, and substantial and significant archeological deposits remain. Archeological deposits associated with the first contact period between Native Americans and Euro-Americans have been found and documented in the vicinity of the Mission. Archeologists have conducted annual investigations at the Mission since 1976, and continue to uncover and document additional deposits.

Structures and archeological sites related to the Jolon townsite also remain. Sites on Fort Hunter Liggett include structures such as the Tidball Store, the Gil Adobe and ruins of the Dutton Hotel. The Gil Adobe was listed on the National Register of Historic Places in 1974 and is the only intact remaining adobe structure within Fort Hunter Liggett that has the potential for rehabilitation.

CONSOLIDATION (A.D. 1880–1940)

During the Settlement Period the four ranchos at Fort Hunter Liggett went through a succession of owners as the Land Commission attempted to sort out the area and ownership of the Mexican land grants. By 1880, much of the ranchos had been consolidated along the lines of the original land grants. The James Brown Cattle Company owned and operated the Milpitas and Los Ojitos Ranchos and the Newhall Land and Farming Company operated the San Miguelito and the El Piojo ranchos. These ranching operations were not very profitable and were run by absentee landowners (Eidsness and Jackson 1994a).

The most significant change during this period occurred during the mid-1920s when William Randolph Hearst began buying property in San Antonio Valley. Hearst began development of his newly inherited landholdings in 1919 when he commissioned architect Julia Morgan to design

“William Randolph Hearst has developed not only buildings at San Simeon, but he has vastly increased the acreage. He owns nearly 240,000 acres in Monterey and San Luis Obispo Counties, a ranch about half the size of the State of Rhode Island. One agent is said to have bought for him twenty-three ranches in one day.”

– Mrs. Fremont Older, *William Hearst, American*, p. 542



La Cuesta Encantada, NPS photo

La Cuesta Encantada, his country house complex at San Simeon. In the 1920s and 1930s, Hearst gradually expanded his 60,000-acre inheritance in San Luis Obispo County to approximately 250,000 acres. The northernmost portions of his vast landholdings in the area of Jolon were acquired in 1925 (Gillett 1990). This included the town of Jolon and the Milpitas Ranch that surrounded Mission San Antonio de Padua.

By 1937, the estate stretched south and west of Mission San Antonio de Padua, covering miles of coast. Hearst's rapid acquisition of land drastically changed life in the San Antonio Valley, as Anne Fisher writes in her history of the Salinas River:

"While Salinas folk swelled with pride over their own who had gained recognition, a man famed in another way was dreaming of his empire to come, and quietly buying up land in San Antonio Valley near Jolon, which was to be the nucleus of that empire. This man had great power and influence. He could do much to bring on war or to affect the peace of nations, through his daily columns in black and white. One day he would control whole communities in the Salinas and her tributaries and build a castle. William Randolph Hearst now owned land where padres and Indians had built ditches and labored in fields and chanted their Canticles to the dawn" (Fisher 1945, p.283.)

The most well-known landmark associated with Hearst's historic estate is the complex that he developed in San Simeon, located in coastal San Luis Obispo County, the southernmost portion of the estate. Hearst built La Cuesta Encantada (Spanish for "the enchanted hill") on a prominent hilltop just east of the San Simeon Bay. La Cuesta Encantada, commonly known today as Hearst Castle®, included Hearst's country home (Casa Grande), guesthouses, esplanades, pools, a zoo and other amenities. All of these structures were furnished and decorated with art, antiques and building materials from time periods ranging from ancient Egypt to the Italian Renaissance.

The development of San Simeon provides an important context for understanding Hearst's

intent for the Milpitas Hacienda as it relates to his larger estate. In addition to La Cuesta Encantada, Hearst had Morgan design what she called a "little Spanish Village" at San Simeon Bay in 1928 and 1930. San Simeon Village included five houses for some of Hearst's employees and an ornate mission warehouse to store acquisitions that Hearst had shipped to San Simeon (Morgan 1931). These supporting structures were built in what Hearst described as "the early California style," a vernacular architectural style associated with the Hispanic Period.

Morgan also designed supporting facilities for the ranch operations at San Simeon (east of San Simeon Village) in the early California style. These structures included a poultry facility, known as the Chicken Ranch, and a bunkhouse. The early California style buildings were handled differently than La Cuesta Encantada where Morgan's office acted as de facto contractor. While Morgan's office designed all of the early California style structures, most were built under a separate contract by W.J. Smith (Coffman 2003; Coffman 2004).

The early California style structures were components of what Morgan and Hearst describe in their correspondence as a "model farm." Sustainable model farms were often an important component in great 18th century European estates. Hearst's model farm included a state-of-the-art poultry ranch, horse ranch, orchards, dairy farm, dog kennel, and cattle ranches. (Horn 2004).

Hearst commissioned various agricultural studies in considering his model farm. Two ranch headquarters, one in San Simeon and the other at Milpitas, managed Hearst's massive cattle ranching operations. The Piedmont Land & Cattle Company, Hearst's subsidiary that managed the ranches, hired San Francisco engineer Thomas H. Means to assess the possibilities of the two ranches. Means recommended that San Simeon should be run as a stock ranch where limited farming to support grazing would bring the greatest return. It was also stated that the foothills of San Simeon would probably have great value as residential property someday (Means 1930). Mean's



Clockwise from top left: San Simeon Village employee houses; The Milpitas Hacienda, Hearst's suite; Casa Grande, San Simeon Village stucco warehouse, NPS photos

assessment of the Milpitas Ranch recommended that 10,000 acres along the Nacimiento and San Antonio Rivers could be used for farming dry crops such as oats, wheat, and barley.

In 1929, a large fire burned most of the town of Jolon and the original Milpitas Ranch house (Gillett 1990). Hearst asked Morgan to design a new ranch headquarters building, the Milpitas Hacienda. The structure was to include lodging for ranch employees and rooms for Hearst and visiting guests.

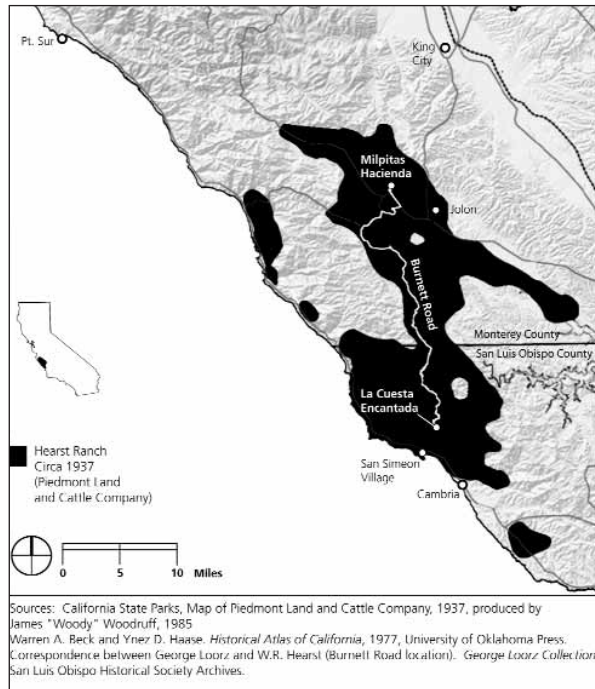
The Milpitas Hacienda has both one -and two -story sections, with the second story areas situated over the wings. Towers at the Hacienda reach as high as three stories (see Figures 6 and 7 in the "Figures" section). The design included a suite of rooms intended for use by Hearst, a community dining room, a ranch superintendent's suite, and rooms designed for ranch personnel (Horn 2001). Ten of the forty cowboys who worked at the Milpitas Ranch stayed in quarters at the Milpitas Hacienda (California State Parks 1974). Henry Taylor, the ranch's manager, lived in one wing of

the building and Hearst's rooms and visitor accommodations were located in its distinctive northwestern tower facing Mission San Antonio de Padua (Gillett 1990).

Interior and exterior walls of the Milpitas Hacienda are reinforced concrete. The ceiling beams of the porches and major interior beams are likewise formed concrete, stained to resemble wood. Ceilings utilize wooden joists and wood decking that was recycled from the original concrete formwork used for the pouring of the Hacienda walls. The roof is pitched and tiled with clay barrel tiles and has no gutters. Windows, doors, and screens are custom designed wood. The exterior walls are coated with Portland cement plaster (stucco).

Hearst's use of the Milpitas Hacienda was much greater than that of the other utilitarian buildings at his estate. The primary use of the Milpitas Hacienda was to be the ranching headquarters. However, providing a destination for rides and picnics was also an important use for the new

W.R. Hearst Central California Estate, Circa 1937



building (Kastner 2000). Hearst is described as having brought guests to the Hacienda for picnics and parties to capture the flavor of 19th century California. One party was known to include Spanish music and barbecues of beef, salsa, beans, tortillas and enchiladas with waitresses wearing “billowy white dresses and lace mantillas (California State Parks 1974).” Such a lavish party is known to have occurred only once at Milpitas; however, correspondence from that era indicates that Hearst took guests there at times (Coffman 2003).

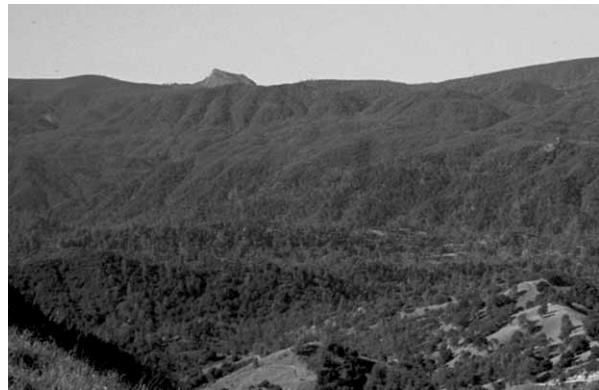


Left: View of Burnett Peak looking north from La Cuesta Encantada; Right: View of Burnett Peak looking south from Bald Mountain, Fort Hunter Liggett; NPS photos

Shortly after the Milpitas Hacienda was built, Hearst ordered the construction of a 20-mile road² that would connect San Simeon to the Milpitas Ranch. Before the construction of what was referred to as the Burnett Road, the route from San Simeon to the Milpitas Ranch was a more than 100-mile journey, requiring travel south to San Luis Obispo and then 100 miles north to Jolon. Despite this distance, Hearst had taken guests to the Milpitas Ranch at times via this route (Coffman 2003). The Burnett Road traversed from La Cuesta Encantada along Burnett Creek, connecting to Salmon Creek in Monterey County, where it followed along the scenic palisades area and then crossed over the Nacimiento River, tying into existing trails past the San Miguelito Ranch (Loorz 1932; Loorz 1933).

F.W. Slattery, who oversaw the Hearst ranch operation at San Simeon, and George Loorz, Hearst’s building superintendent from 1932 to 1937, were responsible for the Burnett Road job. Slattery built the first eight miles with work crews at San Simeon, and Loorz completed the remainder of the road construction between 1932 and 1934 with the assistance of a contractor, the Tieslau Brothers. Hearst and Loorz described the road as both a “pleasure road” and a utilitarian road in their correspondence (Coffman 2003).

Construction of the Burnett Road was a priority for Hearst from 1932 to 1934. Correspondence



² George Loorz, Building Superintendent for Hearst Castle from 1932-1938, referred to Burnett as a “pleasure road” in a letter to his business partner, Fred Stolte. A letter from W.R. Hearst to Loorz emphasizes that the road also had to serve the important utilitarian function “to get from one ranch to another quickly” (letter from Hearst to Loorz, May 29, 1932).

between Hearst and Loorz regarding the Burnett Road demonstrate that Hearst was heavily involved in decisions regarding its location and construction. Loorz reported to Hearst every twist and turn and Hearst often weighed in on engineering considerations. Although the road was completed in late 1934, Hearst demanded improvements when he wanted to use the road in December and Loorz had to inform him that it was not passable during the winter season. Orders immediately followed requesting Loorz to make Burnett an all-weather road (Willicombe 1934). Loorz would continue to improve and maintain sections of the Burnett Road during his time at San Simeon through 1938.

Hearst had airstrips built at both San Simeon and Jolon. While the Jolon airstrip was primarily for ranch operations at Milpitas, Hearst is known to have flown guests back to La Cuesta Encantada from Jolon on occasion after riding to Milpitas for picnics. One time, Hearst flew to Jolon during the renovations of the San Simeon airstrip in the early 1930s, and took the Burnett Road to La Cuesta Encantada (Coffman 2003).

Improvements to the Milpitas Hacienda were made in the 1930s despite the fact that Hearst was \$125 million in debt (Horn 2004). In 1937, a bunkhouse, similar to one Hearst recently had built at San Simeon's ranch, and a greenhouse, were planned for the Milpitas Ranch (Coffman 2003). When the depression finally caught up to Hearst that same year, he was forced to stop the rapid pace of construction that had occurred for almost 20 years. In 1940, Hearst sold 153,830 acres of his northern ranch, including the Milpitas Hacienda, to the U.S. Army. Although Hearst was forced to consolidate his holdings to pay off his debts, during World War II he was able to rebuild his fortune. Structures at San Simeon were maintained and renovated until Hearst passed away in 1951 (Horn 2004).

The Milpitas Hacienda is listed on the National Register of Historic Places (NRHP) as the Milpitas Ranch House. Its significance lies in its connection to both Hearst and Morgan. The

NRHP nomination classifies the Hacienda as "Mission architectural style." This style is more commonly referred to as Mission Revival. Interest in Mission Revival evolved from the increasing public interest in restoring California missions that took place in the 1880s. Mission Revival was officially recognized during the 1893 Columbian Exposition in Chicago with architect A. Page Brown's design for the California State Pavilion. The style is characterized by simplicity of form, and features large expanses of stucco walls, red-tiled roof surfaces, curvilinear gables, bell towers, round arches supported by piers, and arcades. Concrete walls with the pattern of wood boards forming the finished surface later became closely associated with Mission Revival (Gebhard 1968). Mission Revival grew in popularity over the next twenty years and it was applied to the design of many public, commercial, and residential buildings throughout California (Eidsness and Jackson 1994a). Julia Morgan designed several structures in this style including the Mills College Bell Tower in Oakland, California and additions to Phoebe Hearst's Hacienda near Pleasanton, California (Gebhard 1968)

Some architectural historians contend that the Milpitas Hacienda is more closely associated with the Spanish Colonial Revival style since Mission Revival architecture had faded in use by 1919. At this time architects were in favor of the more ornate Spanish Colonial Revival style that was featured at the 1915-1916 Panama-California Exposition in San Diego by architect Bertram Goodhue. Spanish Colonial Revival incorporates a range of Hispanic- Moorish architectural features not present in Mission Revival (Eidsness and Jackson 1994a). In early correspondence to Morgan when architectural styles for La Cuesta Encantada were being considered, Hearst expressed interest in the architecture displayed at the Panama-California Exposition. Morgan replied that Spanish Colonial Revival might be too elaborate for the scale of buildings that they would build at San Simeon. They both agreed, however, that the California Mission style [Mission Revival] was "too primitive" to use at that time (Coffman 1989).

Although Morgan and Hearst were adamant about not going back to Mission Revival for Hearst's personal estate, there was a deliberate intent to keep the supporting buildings in the vernacular that Hearst described as the early California style. In correspondence discussing architecture for his model farm, Hearst writes to Morgan, "I want the farm buildings very simple, and I imagine the simplest thing we can do is adobe construction in the early California style, with wooden railings . . . tiled roofs – and our effects with the vines and the trees against the white walls and red roofs. (Hearst 1922)."

Assigning one architectural style to structures designed by Morgan and Hearst is difficult because they often borrowed from many styles during their collaborative efforts. Elements of both Mission Revival and Spanish Colonial

Revival architecture can be seen in the early California style structures. In addition to the Milpitas Hacienda, several of the farm and ranch buildings at San Simeon were much more elaborate in execution than the "very simple" buildings that Hearst describes to Morgan in his 1922 letter. This study describes the architectural styles in the terms used by Hearst and Morgan.

Today, the Milpitas Hacienda and several supporting ranch structures remain in the Fort Hunter Liggett cantonment area. Portions of the Burnett Road are also still apparent and in use at Fort Hunter Liggett. At San Simeon, La Cuesta Encantada is open to the public at the Hearst San Simeon State Historical Monument, a national historic landmark. Structures at San Simeon Village and the San Simeon ranch are still owned and maintained for private use by the Hearst Corporation.



Architectural features of the Milpitas Hacienda: arcades, towers, windows, tiled roof, and formed concrete beams, all NPS photos except bottom right: Richard Crusius



HUNTER LIGGETT (A.D. 1940–PRESENT)



In 1940, in preparation for involvement in World War II, the U.S. War Department purchased land from William Randolph Hearst, other neighboring ranches, and the Los Padres National Forest to create a troop training facility known as the Hunter Liggett

Military Reservation. The facility was named for Lieutenant General Hunter Liggett (1857–1935), commander of the 41st National Guard Division, and during World War I, commander of the Corps of the Expeditionary Forces, and Chief of Staff under General Pershing.

Under the command of Camp Roberts, Hunter Liggett Military Reservation was transformed into a semi-permanent training facility. U.S. Forest Service personnel built fire roads and provided fire protection, and the Civilian Conservation Corps built roads to supplement the existing county network. The rolling hills, level valleys, and rugged peaks of Hunter Liggett Military Reservation were similar to the landscapes of World War II European combat theaters. During this time, it served as training grounds for thousands of infantry who marched up from Camp Roberts.

In 1953, the Hunter Liggett Military Reservation command was transferred to Fort Ord. In 1957, the Combat Development Experimentation Command began experimentation with new



Armored reconnaissance vehicle, U.S. Army photo.

defense technologies at Hunter Liggett, a program that was to last for over forty years. The post was upgraded to Fort Hunter Liggett in 1974.

No historic buildings relating to the early WWII period are evident. The recently restored murals added to the main dining rooms of the Hacienda in the early 1950s clearly relate to the military use period. The Gil Adobe was adaptively used as a barracks but this use is not apparent. Most of the existing buildings that are now associated with the military, including administrative buildings, barracks, chapel, theater, post exchange, sports complex, and residences, do not meet the 50-year eligibility criterion for the National Register of Historic Places, and therefore, are not considered to be historic at this time. The military activity, however, is a historic use representing a rich 60-year history of military training use employing different warfare weapons, systems, and tactics.

CULTURAL LANDSCAPE

A cultural landscape is a geographic area including both cultural and natural resources and wildlife or domestic animals therein associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values (NPS 1994).

Portions of Fort Hunter Liggett retain the cultural landscape character dating back to the Prehistoric and Hispanic Periods. Most Salinans lived on the Nacimiento and San Antonio rivers both within and around Fort Hunter Liggett. Four native village sites existing at the time of initial European contact have been identified along these two rivers, within the installation's boundaries. Because these archeological sites have not been disturbed by modern development, they retain exceptional potential for studying an ancient culture and its relationship to the natural environment.

While all of the historic resources form part of a cultural landscape, the historic uses that affected the natural landscape features are not always apparent. As already noted, the mission complex retains many historic features; however, the spatial relationships are not readily evident. The water system is located away from the Mission

buildings and its features and setting are obscured by vegetative growth. Portions of the aqueduct are still intact and visible.

Although much of Fort Hunter Liggett remains undeveloped, the ranching landscape that would have surrounded the Milpitas Hacienda is not readily apparent. The former wood barn located to the north of the Hacienda has been sided with sheet metal and foam and is used as the Fort Hunter Liggett fire station. The area between these buildings has been paved and all natural landscape elements removed. The ranch bungalows located along a road to the east of the former barn are associated with this period, but the relationships have been compromised through

relocation. Landscape features usually associated with ranching operations, such as fences, corrals, pens, trails, and grazing areas, have been removed. Landscape elements that might be associated with the Gil Adobe, such as outbuildings, fences, or trails are also no longer apparent.

The present landscape more readily reflects the military use. Sections of concrete roads, dams, and bridges crossing some of the streams were constructed by the Civilian Conservation Corps after the property was acquired by the military. The roads and paving system, siting of buildings, cleared fields, access roads, fitness and training equipment, and hillside scarring all attest to the various activities that are carried out at this training facility.

Table 1: Documented Cultural Resources Within the Northern Cantonment and Jolon Areas

Site Number/	Description	NRHP Status/Level of Significance	BRAC
Northern Cantonment Area			
CA-MNT-891/H	Modern landfill	Low Potential	No
CA-MNT-940H	Hacienda*	Listed in 1977/National Significance	Yes
CA-MNT-1566H	San Antonio Mission System	Eligible/High	No
CA-MNT-1569H	Sanchez Adobe	Eligible/High	No
CA-MNT-1563H	Camino Real/Caretta Trail	Low Potential	No
N/A	Building T-111, Housing*	Ineligible	No
N/A	Storage Building, T-119* (Blacksmith Shop)	Ineligible	No
N/A	Fire Station, T-120* (Tin Barn)	Ineligible	No
N/A	Building, T-124*	Ineligible	Yes
N/A	Building T-131* (Chicken Coop)	Ineligible	Yes
N/A	Building T-149*	Ineligible	Yes
Jolon Area			
CA-MNT-693H	Jolon Townsite	Eligible/High	No
CA-MNT-794H	Tidball Store Site*	Listed in 1976/Local Significance	Yes
CA-MNT-1081H/1561H	Saint Luke's Episcopal Church*	Listed in 1971/Local Significance	No
CA-MNT-1088H	Saint Luke's Cemetery*	Listed in 1971/Local Significance	No
CA-MNT-1562H	Jolon Stage Route	Low Potential	No
CA-MNT-0693H%	Dutton Hotel*	Listed 1971/Local Significance	No
CA-MNT-793H	Portola Expedition Camp	Not Determined	No
CA-MNT-963H	Gil Adobe*	Listed in 1974/Local Significance	Yes
CA-MNT-1089H	Gil Family Cemetery	Eligible/High	No
CA-MNT-1563H	Camino Real/Caretta Trail	Low Potential	No
Source: Eidsness and Jackson 1994.			
* = Pre-1945 Structures			

Natural Resources

Fort Hunter Liggett's 164,261 acres contain exceptional natural resources and biological communities of a relatively undisturbed and expansive nature. The cantonment area on Fort Hunter Liggett has been intensively developed, but the surrounding hills and the mountainous western part of the installation have changed little despite periods of Army training and weapons testing.

The abundance and diversity of plant and animal species within Fort Hunter Liggett relate to several factors: the underlying diversity of geologic substrate, soils, water features, and topography; the relative lack of development and disturbance of the area; and the connectivity with larger surrounding ecosystems, primarily within Los Padres National Forest.

TOPOGRAPHY AND DRAINAGE

Fort Hunter Liggett is situated between two northwest-trending mountain ranges, the Santa Lucia Range on the southwest and the Gabilan Range on the northeast. The southwestern boundary of Fort Hunter Liggett follows the crest of the Santa Lucia Range, along which elevations range from approximately 2,500 feet to 3,740 feet at Atlas Peak, the highest point in the installation. Junipero Serra Peak and Cone Peak, located 3 to 4 miles outside the installation along its north and northwest margins, respectively, are the highest points in the vicinity of Fort Hunter Liggett; both peaks have elevations in excess of 5,750 feet. These ranges are part of the Coast Ranges, the largest geomorphic province in California. (See Figure 8a. Topography and Drainage in the "Figures" section).

The major water courses of Fort Hunter Liggett are the San Antonio and the Nacimiento Rivers. These distinctly linear drainages are subparallel, about 5 miles apart, and flow southeast. The drainage divide separating the watersheds of these rivers extends from Bald Mountain (2,132 ft elev.) at the southeast boundary of Fort Hunter Liggett to the northwest corner of the installation. The San Antonio River has its headwaters in the

vicinity of Cone and Junipero Serra Peaks and runs some 25 miles through the installation from its northwest to southeast corners. The Nacimiento River, located about 5 miles southwest of the San Antonio River, has its headwaters in the Santa Lucia Range south of Cone Peak, flows along or just outside of the installation's western boundary for about 5 miles, and continues southeast through the installation for about 15 miles. Both rivers are dammed about 15 to 20 miles southeast of the Fort Hunter Liggett boundary. The uppermost 2.5 miles of the 17-mile long San Antonio Reservoir is included within the southeast corner of the installation. This area has the lowest elevation in Fort Hunter Liggett, about 800 feet. The upper reaches of the Nacimiento Reservoir are located several miles outside and south of the installation. Below the reservoirs, both rivers drain into the Salinas River which flows northwest, in the opposite direction of the main rivers in Fort Hunter Liggett, and eventually empties into Monterey Bay.

Flow regimes of surface water on Fort Hunter Liggett are seasonal. The San Antonio and Nacimiento Rivers have perennial flow. There are a number of intermittent streams that feed these rivers. Spring-fed water flows through the upper portion of the San Antonio River throughout the year while lower reaches have intermittent flow. Much of the Nacimiento River surface remains dry during the summer. However, year round water can be found in various pools along portions of the river. In addition to the two rivers, there are numerous creeks, the Lake San Antonio shoreline, and 14 impoundments that provide aquatic and riparian habitats. The 14 impoundments are located throughout the installation in both watersheds. The impoundments were constructed to provide water sources for cattle, wildlife, fire fighting needs and flood control (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

The western part of the installation, corresponding to the east slope of the Santa Lucia Range, is dominated by steep hillsides covered with chaparral, scrub, and live oak forest. The

area from vicinity of the Nacimiento River to the east, comprising about three-fourths of Fort Hunter Liggett, is mostly low hills intersected by flat to rolling river valleys of grassland, oak savanna, and oak woodland.

CLIMATE

The climate is Mediterranean and generally semiarid. Hot periods (frequently 90–100° F and higher) of low humidity (20%) typically begin in mid-May and occur with increasing frequency into mid-October. Lows of 32° F and less usually occur by mid-November, although freezes can occur earlier. Most rain falls December through March. The beginning of winter season is marked by the arrival of the first cool storm system originating in the northern Pacific, typically in November or December. Rain concludes in April or May and is followed by a dry period lasting 6 to 7 months. Fort Hunter Liggett lies in the rain shadow of the Santa Lucia Range. Precipitation can be several times greater on the seaward slope and crest than in the eastern valleys. While the western slope of the Santa Lucia Range receives about 59 inches average annual precipitation (at Alder Creek), the cantonment area averages only about 19 inches annually.

GEOLOGY

This section describes the geologic setting and soils of Fort Hunter Liggett and adjacent contiguous land, the underlying geologic formations, and regional faults. Geological resources are described according to the geologic time scale (see illustration). Fort Hunter Liggett is part of the northwest-trending Coast Ranges geological province that stretches from Humboldt County in northern California 400 miles south to Santa Barbara County, where they meet the Transverse Ranges.

Fort Hunter Liggett is underlain by three distinctly different groups of pre-Quaternary rocks reflecting different origins and geologic history: The Salinian block, also known as the Salinian terrane or Sur series; the Franciscan complex, and late Cretaceous through late Tertiary sedimentary strata deposited in marine

and non-marine basins along the Pacific margin of North America (See Figure 8b. Geology in the “Figures” section).

The Salinian block underlies the northern part of Fort Hunter Liggett and includes Mesozoic crystalline intrusive rocks (granitoid plutons) and metamorphic rocks whose protoliths (original rocks prior to metamorphism) range in age from Precambrian to Mesozoic.

The Franciscan complex (the “Franciscan”) underlies the southwestern part of Fort Hunter Liggett in the Santa Lucia Range. The Franciscan rocks are dominated by graywacke (a type of sandstone) and span a range of ages from Jurassic through Cretaceous. Chert and greenstone (altered basaltic lava) commonly are found in association with graywacke. The Franciscan rocks formed during the Mesozoic era along a subduction zone, an area where oceanic crust was being subducted, or thrust beneath, continental crust along the edge of the North American continent.

The Franciscan rocks have been tectonically dismembered by faulting associated with subduction. Sediments deposited in basins along the subduction zone have been severely disrupted by faulting, with such displacement occurring concurrent with deposition. The faulting also interleaved fragments of oceanic crust with these sediments. As a result, these rocks are pervasively faulted, and also multiply folded, such that there exists minimal or no lateral continuity or vertical sequence.

Ultramafic rocks are widely distributed throughout the Franciscan complex. Strategic minerals such as nickel and chromium are associated with these rocks. The largest mass of ultramafic rocks on Fort Hunter Liggett is located at Burro Mountain in Training Area 23. This formation is uniquely exposed by Los Burros Creek which forms a deep gorge through its center. Narrow masses of ultramafic rocks, elongate to the northwest, also are found in the southern end of Fort Hunter Liggett. The ultramafic rocks, shown in Figure 8b: Geology

contain silicate minerals rich in magnesium (magnesian olivine and orthopyroxene), and are known by the general term peridotite (or olivine-rich rock — named after peridot, the gem form of olivine).

To varying degrees, the ultramafic masses have been replaced by serpentine, resulting in serpentinized peridotite, or “ultramafic serpentine” in the jargon of biologists. These rocks differ from rocks composed of nearly pure serpentine in that the texture and parts of the original minerals in serpentinized peridotite (with orthopyroxene preferentially retained over olivine) are often preserved. Small masses of serpentine are locally found along shear zones.

Serpentinic rocks, including those rocks that retain their original texture and even original mineralogy (serpentinized peridotite) as well as small areas of serpentine lacking any vestige of the original parent rock, play an important role in the endemism of the California floristic province. More than 20 percent of California’s endemic plant species are associated with serpentinic soils. Such plants have adapted to the combination of high toxicity (high chrome and nickel contents), as well as the low mineral nutrients (extremely low K₂O), of serpentinic soils. Within Fort Hunter Liggett, plant communities mapped as associated with serpentinic soils show a broader distribution than do outcrops of serpentinized peridotite. The toxicity and nutrient deficiency of serpentinic rocks are translated down slope as colluvium or as alluvium within drainages. The upper Burro Creek watershed harbors an exceptionally high diversity of rare and endangered plants.

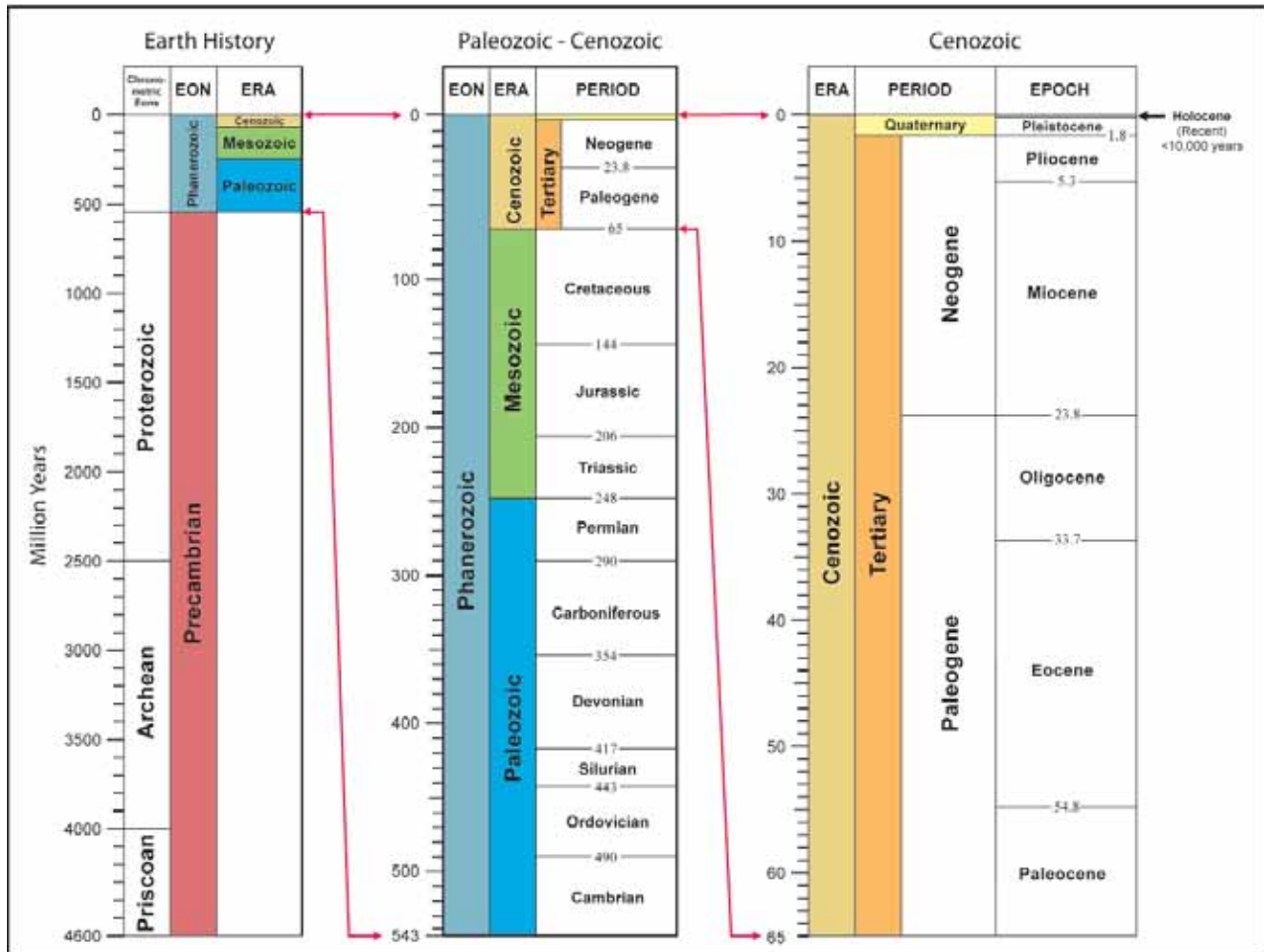
Late Cretaceous and younger sedimentary strata underlie the eastern two-thirds of the installation. Upper Cretaceous and Paleocene deposits of sandstone, shale, and conglomerate, and the Miocene Monterey Formation form subparallel northwest-trending belts. These groups of rocks are likely tilted to the northeast or southwest in order to form this linear map pattern, and possibly they are truncated by major

faults. The Upper Cretaceous and Paleocene deposits underlie much of the watershed of the Nacimiento River. An unnamed formation of the Paleocene era consists of massive and medium-to-coarse grained sandstone, conglomerate, mudstone and siltstone of marine origin up to 3,500 feet thick. Fossils in sandstone beds, *Turritella pacheoensis*, date this formation to the Paleocene age (Durham 1965).

Miocene deposits of the Vaqueros Formation and the Monterey Shale form the divide between the watersheds of the Nacimiento and San Antonio Rivers. The Vaqueros Formation of the early Miocene age consists primarily of marine sandstone, siltstone and mudstone about 850 feet thick. Overlaying the Vaqueros formation is Monterey Shale which consists of marine porcelaneous rocks, mudstone, chert dolomitic carbonate beds, concretions, shale, siltstone and sandstone. This formation is dominated by porcelanite and porcelaneous mudstone which comprises three-fourths of the Monterey Shale. The dominant calcareous beds in the lower part of the Monterey Shale constitute the Sandholdt Member which is comprised mostly of calcareous mudstone and shale deposits up to 480 feet thick. The Monterey Shale ranges in thickness up to 6,600 feet (Durham 1965).

Pliocene and Pleistocene marine sediment underlies much of the eastern third of Fort Hunter Liggett, except where covered by alluvial deposits associated with the San Antonio River. An unnamed formation of the Pliocene era overlies the Monterey Shale consisting mostly of very fine-grained sandstone and diatomaceous mudstone. Mollusk shells are abundant throughout this formation indicating Pliocene age and marine origin. The Paso Robles Formation that overlies the Monterey Shale and the unnamed Pliocene formation are exposed south of the San Antonio River. The thickness of the Paso Robles Formation in the San Antonio River Valley varies from a few feet to more than 150 feet. This formation is comprised mostly of non-marine, conglomerate, pebble conglomerate, conglomerate sandstone, and sandstone. (Durham 1965).

Geologic Time Scale



Geologic Time Scale. Younger time intervals are successively expanded to the right; arrows point to correlative ages in adjacent columns. Scale and boundary ages are in million years (boundary "pick ages" are from compilation by A. R. Palmer and John Geissman, Geological Society of America, 1999; layout adapted from A. MacRae, Univ. Calgary, 1996).



San Antonio River delta, NPS photo



Santa Lucia Range, NPS photo

The southern reaches of the San Antonio River on Fort Hunter Liggett are underlain by alluvium. The irregular map pattern of the Pliocene and younger units suggest that these units are sub-horizontal and have not undergone significant structural deformation except locally in close proximity to major faults. Pleistocene and Holocene formations that underlie the San Antonio River are characterized by unconsolidated alluvial deposits to 40 feet thick, consisting of sand gravel with variable amounts of sand and clay (Durham 1965).

Fort Hunter Liggett is situated west of the San Andreas Fault and has been translated northwestward since motion on the San Andreas Fault began, probably between 10 and 6 million years ago. The 320 km of displacement of the volcanic rocks of the Pinnacles National Monument (dated at approximately 21 million years ago and located about 30 miles north of Fort Hunter Liggett) from correlative rocks in the western Mojave known as the Neenach volcanics applies to all pre-middle Miocene rocks in the installation, and possibly to all rocks of Miocene age and older. Thus, except for the Pliocene and younger rocks along the eastern side of the installation, Fort Hunter Liggett was located in the western Mojave Desert not earlier than 10 million years ago and possibly as recently as 6 million years ago. The granitic and metamorphic terrane of the Salinian block / Sur series likely has been translated even further. It perhaps represents a segment of the southern Sierra Nevada that was translated westward prior to formation of the San Andreas Fault not earlier than 10 millions years ago.

Faults. The Jolon, Nacimiento, and several other small faults underlie Fort Hunter Liggett. Epicenters of historic earthquakes are located close to the main traces of both the Rinconada and Nacimiento Faults (see Figure 8b). These faults trend subparallel to the San Andreas Fault.

The Rinconada and Nacimiento faults control the fundamental geomorphology and hydrology of the installation, namely, the linear northwest -

trending valleys of the San Antonio and Nacimiento Rivers. The Nacimiento Fault separates marine sediments in the eastern third of Fort Hunter Liggett from Franciscan greenstone in the western portion of the installation. The Rinconada Fault, which traverses the southern end of the San Antonio Reservoir, has experienced Quaternary movement (i.e. within the last 11,000 years). Small faults on Fort Hunter Liggett generally trend northwest paralleling the San Andreas Fault.

In 1991, a seismic study by the U.S. Army Corps of Engineers predicted the Rinconada Fault could generate an earthquake with a potential 7.5 magnitude on the Richter scale, with rock (ground) accelerations ranging from 0.5 to 1.0 gravity (g) near the eastern boundary of Fort Hunter Liggett to 0.3 g along the western boundary. Given its proximity to the San Andreas and Rinconada faults and the overall geologic activity in the region, Fort Hunter Liggett is in Seismic Risk Zone II, defined by the California Division of Mines and Geology as an earthquake zone of moderate risk to people and structures (US Army Corps of Engineers 2000b).

Mineral Resources. Mining played an important role in the settlement of areas around the Santa Lucia Range and Fort Hunter Liggett. Much of the area is underlain by rocks of the Franciscan Formation that contain dark sandstone that is the chief host rock of gold-bearing deposits. In addition to gold, silver and copper deposits were also found in this region (Clark 1998).

Documented history of gold in the Santa Lucia Range dates back to the 1850s when small amounts of placer gold were recovered from streams in the Jolon area. Chinese miners played a key role in placer mining during this time. These industrious miners were known to have sold several thousand dollars worth of gold to the local store in Jolon. Placer prospecting in the Jolon area ended around 1914. This form of mining only occurred in small alluvial deposits and had less economic importance in the region (Reinstedt 1977; Eidsness and Jackson 1994a).

Mining continued in the western portion of Fort Hunter Liggett following the establishment of the Los Burros Mining district in 1875. The Los Burros Mining District was located in the southwest corner of Monterey County stretching from the Pacific Coast east to the Nacimiento River. A portion of the mining district is located on Fort Hunter Liggett. In 1887, lode gold was discovered by W.D. Cruikshank just west of Fort Hunter Liggett's current boundary at the Buclimo Mine near the head of Alder Creek. Most placer gold in the Los Burros Mining District came from Willow Creek with small amounts found in Alder, Plaskett, and Salmon Creeks. Ore from the Los Burros Mining district was transported from the mines to Jolon and into King City. Most mining activity related to gold was conducted between 1887 and 1892 (Reinstedt 1977; Clark 1998)

Serpentine outcroppings in Fort Hunter Liggett have been successfully mined for asbestos and chromite (Eidsness, 1994a). Asbestos is a nonmetallic mineral that was used heavily by construction and transportation industries in the manufacture of asbestos-cement products such as pipe, shingles, wallboard, corrugated sheets, floor tiles and brakes. Chromite is the only economic source of chromium, an essential component for steel alloys (California Division of Mines and Geology 1966).

Small scale mining for cinnabar, serpentine and lime deposits continued into the 1950s (Eidsness and Jackson 1994a). Cinnabar is the principal mercury ore mineral. Mercury's mineral qualities are valuable for industrial production and were in heavy demand during World War I, World War II and the Korean War (California Division of Mines and Geology 1966).

SOILS

The diversity of soils at Fort Hunter Liggett reflects the geologic and topographic variety of the region. Fort Hunter Liggett contains more than 130 soil types in 57 soil series (US Army Reserve Training Center, Fort Hunter Liggett, 2003). Steep highlands in the west consist of rock outcrops and shallow soils derived from the

underlying parent material. The rolling hills that make up most of the central and eastern portions of Fort Hunter Liggett consist primarily of alluvial terraces or soils associated with marine sedimentary rocks.

Soil erosion at Fort Hunter Liggett is primarily the result of natural processes, existing training and testing activities, prescribed burns on the steep-sloped chaparral and woodland areas, past grazing practices, and borrow pit excavations. Except for portions of the cantonment area, the Natural Resource Conservation Service classifies most of Fort Hunter Liggett as having high or moderate erosion hazard. The erosion hazard on the San Antonio River Valley floor, which includes the cantonment area, is minimal because of its relatively gentle topography. The surrounding hills, however, are much more susceptible to erosion. The steep uplands have a very severe erosion potential.

BIOLOGICAL RESOURCES

Fort Hunter Liggett includes a diversity of rare species and habitats. The following section describes the habitat and species that can be found at Fort Hunter Liggett.

Vegetation

Fort Hunter Liggett contains a variety of plant communities containing more than 1,000 vascular species, many of which are rare and sensitive (see Table 2: Vegetation Communities on Fort Hunter Liggett and Table 3: Federally and State Listed Threatened and Endangered Species that May Occur on Fort Hunter Liggett). The high species diversity is a result of the soil diversity, geology, and Fort Hunter Liggett's primarily undeveloped state.

Interspersed valley oaks and grasslands are the predominant vegetation on the valley floors while chaparral dominates the western mountainous areas. Major watercourses support riparian vegetation comprised mainly of sycamore, cottonwood, willow, and alder. Rolling hills and the more gentle slopes are predominantly covered with blue oak woodland. The steeper slopes, such as those rising from the Nacimiento River Valley

to the crest of the Santa Lucia Range, typically support dense chaparral composed mainly of deer brush and chamise (See Figures 9a. Habitat Types and 9B. Habitat Relationships to Underlying Geology in the “Figures” section). Plant communities on Fort Hunter Liggett provide suitable habitat for 9 state and Federally-listed threatened and endangered wildlife species and 1 species that is a candidate for federal listing (see Table 3: Federally and State Listed Threatened and Endangered Species that May Occur on Fort Hunter Liggett).

Wetlands. Wetlands support a prevalence of hydrophytic vegetation, hydric soils, and wetland hydrology. Fort Hunter Liggett has several types of wetland communities, both natural and human-made. These wetlands support a variety of plants. They are also vital for supporting animal resources at Fort Hunter Liggett including a high diversity of migratory waterfowl. Wetland types on Fort Hunter Liggett include vernal pool, vernal swale, ephemeral, drainage, wet meadow, freshwater marsh, stock pond, creek, and river.

Vernal pools are considered rare and endangered habitat. Approximately ninety percent or more of California’s vernal pools have been lost (Ferren, et al., 1996). These losses are continuing as ranches and other undeveloped lands are plowed or developed (CEMML 1999). Vernal pools are found throughout Fort Hunter Liggett. They provide the sole habitat for a number of plant taxa and the Federally-listed endangered, vernal pool fairy shrimp (*branchinecti lynchi*). Santa Lucia mint (*Pogogyne clareana*) is a state-listed endangered species found only along stream banks and at the edges of vernal pools on Fort Hunter Liggett.

Riparian Communities. Riparian communities can be found along the rivers and streams at Fort Hunter Liggett. Fort Hunter Liggett’s riparian communities include sycamore alluvial woodlands, cottonwood, and willow. Sycamore alluvial woodlands have been determined to be a “special-status community” of limited distribution by the California Department of Fish and Game (CDFG) because they provide important habitat for rare or

unusual plant and wildlife species (US Army Reserve Training Center, Fort Hunter Liggett, 2003). Riparian communities typically support high species diversity. California’s riparian communities have been reduced to less than 10% of their former range, due to development and irrigation practices.

Grassland. Grassland on Fort Hunter Liggett includes annual, valley needlegrass, and ruderal (disturbance tolerated, introduced grasses). In much of California, native grasses have been replaced by exotic annual grasses (Hamilton, 1997; Stevens, et al., 1998). On Fort Hunter Liggett, the native grasses are often extensive, and are significant components of a number of rare community types. For example, “barrens” and grasslands associated with serpentine soils have been documented on the installation.

Native grasses include three species of *Nassella*, five species of *Melica*, two species of *Muhlenbergia*, as well as other native bunchgrasses and annual grasses. Fort Hunter Liggett natural resource managers consider valley needlegrass (*Nassella*) grassland to be an important rare natural community on Fort Hunter Liggett (CEMML 1999). These native bunchgrasses have survived despite the area’s history of grazing (Hoover 2001).

Chlorogalum purpureum var. *purpureum* (purple amole) is a Federally-listed threatened species associated with grassland and oak communities. It is known only from Fort Hunter Liggett and nearby Camp Roberts. The U.S. Fish and Wildlife Service proposed a critical habitat area of 15,000 acres at Camp Roberts and Fort Hunter Liggett in November 2001. It was later found that direct and indirect costs to the Army would exceed the benefits of critical habitat designation on Department of Army land. On October 24, 2002, the U.S. Fish and Wildlife Service designated 1,532 acres of critical habitat for the purple amole on private land near Jolon Road (67 Federal Register No. 206, October 24, 2002). Fort Hunter Liggett has conducted long-term studies on purple amole. These studies have shown a low level of disturbance over time to plots of purple amole.

Recovery from some level of disturbance is considered likely as purple amole occurs in both undisturbed and highly disturbed areas (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

Coastal scrub. Westman (1987) and O’Leary (1990) identified coastal scrub as a rare plant community type in need of conservation. On Fort Hunter Liggett, coastal scrub exists only in small patches (CEMML 1999). At least one rare plant species (*Malacothamnus davidsonii*) is frequently associated with coastal scrub on Fort Hunter Liggett. Fort Hunter Liggett contains a rare instance of coast rock cress (*Arabis belfarophylla*). This species is typically found in northern areas from Santa Cruz to Sonoma Counties.

Chaparral. Chaparral communities consist of drought - resistant evergreen shrubs that grow on California slopes and coastal mesas. Chamise and mixed chaparral are the dominant types on Fort Hunter Liggett, found on 39% of the installation. On Fort Hunter Liggett, chaparral is typically found on ridgetops, south facing slopes and the western mountain range (US Army Reserve Training Center, Fort Hunter Liggett, 2003). Cooper and Perlman (1997) pointed out that Fort Hunter Liggett has “endemic- rich serpentine chaparral.” Fort Hunter Liggett’s serpentine chaparral is generally dominated by *Arctostaphylos obispoensis*, *Adenostoma fasciculatum*, *Quercus durata*, and/or *Ceanothus* spp.

Rare chaparral communities are associated with serpentine areas found along the Coast Ridge Road (at the southwestern boundary with Los Padres National Forest) in training areas 23, 26 and 28 and along the Nacimiento River in Training Area 19. These include both wetland and upland communities. Burro Mountain in training area 23 contains the largest serpentine bed on Fort Hunter Liggett. Wetland communities can be found at Los Burros and Salmon Creeks. Unique endemic plant communities are associated with these formations. The California Native Plant Society lists 285 endemic taxa found mostly or only on serpentine. These taxa make up a major component of California’s endemic species (Skinner & Pavlik 1994, Faber 1997).

Oak Woodlands and Savanna. The oak woodland and oak savanna areas are visually dominant features of the Fort Hunter Liggett landscape, and provide valuable habitat for many species of wildlife. Oak woodlands can be found along the hillsides, protected ravines and canyons and cover 46% of the installation (US Army Reserve Training Center, Fort Hunter Liggett, 2003). Oak savanna is found on flat and alluvial terraces. Fort Hunter Liggett may contain the widest diversity of oak taxa of any area of its size in California. The 12 oak taxa found on Fort Hunter Liggett include valley oak (*Quercus lobata*), blue oak (*Q. douglasii*), coast live oak (*Q. agrifolia* var. *agrifolia*), canyon live oak (*Q. chrysolepis*), interior live oak (*Q. wislizeni* var. *wislizeni*), shrub interior live oak (*Q. wislizeni* var. *frutescens*), scrub oak (*Q. berberidifolia*), leather oak (*Q. durata* var. *durata*), Tucker’s oak (*Q. john-tukeri*), Shreve oak (*Q. parvula* var. *shrevei*), Alvord oak (*Q. × alvordiana*), and Jolon oak (*Q. × jolonensis*) (Painter 2000).

Blue oak woodlands and savanna are the most prevalent oak communities on Fort Hunter Liggett. The installation contains approximately 52,000 acres of blue oak communities, almost one - third of the total land area. While many blue oaks are part of foothill woodlands, pure stands can be found throughout training areas 25 and 29 in the southwestern portion of Fort Hunter Liggett (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

The Valley oak (*Quercus lobata*) plant community, which occurs only in California, is considered by the California Department of Fish and Game to be a rare community type. Less than 100 high quality stands and less than 10,000 acres of high quality habitat remain in California, a significant portion of which is located on Fort Hunter Liggett (California Department of Fish and Game 1999). The valley oak series is also included in the rare California series listed by Sawyer and Keeler- Wolf (1995).

Fort Hunter Liggett has outstanding examples of valley oak savanna and woodland (Pavlik et al.,

1991). Over 17,000 acres of valley oak communities straddle the boundary between Fort Hunter Liggett and Los Padres National Forest (see Figure 9a: Habitat Types in the “Figures” section). In an effort to control valley oak loss, the Army implemented a Valley Oak Replacement Program in 1997, with the objective of planting and irrigating at least 50 oak seedlings per year. The two-year survival rate is 80% (Clark 2000).

Live oak communities comprise 1,800 acres (or 3%) of Fort Hunter Liggett, occurring frequently in foothill woodlands. Shrub varieties of live oak occur most commonly in the higher elevations. Dominant species include coast live oak, canyon oak and interior live oak (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

California oaks are currently threatened by the disease known as sudden oak death. First identified in 1995, sudden oak death is caused by the pathogenic fungus, *Phytophthora ramorum*. This pathogen has caused widespread dieback of tanoak and several oak species in the central and northern coastal counties of California, and has to date been associated with 26 different plant species. Infections occur on trunks, branches and leaves. Cankers, brown spots on leaves, and dieback of the tree crown are symptoms of the disease.

Sudden oak death is present in northern Monterey County; however there are no confirmed reports on Fort Hunter Liggett. The California Oak Mortality Task force has documented sudden oak death in portions of northern Monterey County including Pfeiffer Big Sur State Park, Prunedale, and Torrey Canyon (California Oak Mortality Task Force 2003).

Mixed- evergreen forest. Mixed- evergreen forest is found at higher elevations on Fort Hunter Liggett on northfacing slopes. It is dominated by coast live oak (*Quercus agrifolia*), black oak (*Quercus kelloggii*), canyon live oak (*Quercus chrysolepsis*), bay (*Umbellularia californica*), madrone (*Arbutus menziesii*), tanoak (*Lithocarpus densiflora*), and maple (*Acer macrophyllum*).

Coniferous forest. Coniferous forest on Fort Hunter Liggett includes closed- cone pine - cypress forest and yellow pine forest. Closed- cone pine- cypress includes Sargent cypress (*Cupressus sargentii*), generally found on serpentine (Kruckeberg 1984). Sargent cypress is included in the rare California series listed by Sawyer and Keeler- Wolf. Yellow pine forest is dominated by ponderosa pine (*Pinus ponderosa*) and Coulter pine (*Pinus coulteri*). A single stand of Santa Lucia fir (*Abies bracteata*) located on Fort Hunter Liggett appears to have been first discovered here in the 19th century. Santa Lucia fir is included in the rare California series listed by Sawyer and Keeler- Wolf.

Rock Outcrops. Rock outcrops on Fort Hunter Liggett are common in the Nacimiento watershed where two larger formations known as the Palisades and the Piedras Atlas are known to occur. Rock outcrops provide unique substrates for plant communities and serve as roosting and nesting sites for raptor species (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

Table 2: Vegetation Communities on Fort Hunter Liggett

TYPE	AREA	LOCATION	ASSOCIATED PLANTS	ASSOCIATED WILDLIFE
Grassland: annual, valley needlegrass, and ruderal	10%	Cantonment, main gate, Stony Valley, Gabilan Valley, along San Antonio River	Miscellaneous forbs and grasses	California vole, California ground squirrel, black-tailed hare, western meadowlark, horned lark, savanna sparrow, American pipit, western kingbird (forage)
Chaparral: chamise and mixed	39%	Hillsides and ridges	Chamise, yerba santa, backbrush, manzanita, holly leaf cherry, mountain mahogany, poison oak	Orange-crowned warbler, wrentit, California thrasher, brush rabbit, Merriam's chipmunk, California mouse, west spotted skunk, grayfox, small carnivores, western fence lizard, southern alligator lizard
Oak Communities	46%	Hillsides and protected ravines and canyons	Overstory - Valley oak, blue oak, coastal live oak Understory - miscellaneous forbs and grasses	Deer, western gray squirrel, dusky footed woodrat, grayfox, striped skunk, wild turkey, acorn woodpecker, western bluebird, American kestrel, bushtits
Riparian: mixed; willow-cottonwood; willow, valley oak; sycamore alluvial	3%	San Antonio River, Nacimiento River, and many intermittent streams	Cottonwood, California sycamore, alder, valley oak, willow, muletat, California wild rose, Pacific blackberry, elderberries, and giant creek nettle	Wood duck, wild turkey, California quail, red-shouldered hawk, Nattal's and downy woodpecker, northern oriole, Bewick's wren, rufous-sided towhee, deer, western gray squirrel, opossum, raccoon, long-tailed weasel, shrew, mountain lion, Pacific tree frog, California newt
Wetlands: vernal pool; vernal swale, ephemeral drainage; wet meadow; freshwater marsh; stockpond; creek; and river.	< 1%	Areas that are permanently or seasonally inundated or saturated by surface water or ground water in low-lying areas and open water areas	Hydrophytic vegetation	Vernal pool fairy shrimp, California tiger salamander
Rock outcrop	< 1%	Stony Valley and Training Areas 3, 90 and 23	Patches of sedimentary, granite or ultramafic rocks (serpentine) lichens and mosses and unique vegetation	American kestrels, red-tailed hawk, turkey vulture, western fence lizard, striped racer, various bat species
Sources: US Army Reserve Training Center, Fort Hunter Liggett, 2003; CEMML, 1999				



Clockwise from top left: (1) Chaparral, Burro Mountain, (2) Cook's tritelia, serpentine chaparral sp., (3) Santa Lucia Bush Mallow, endemic chaparral sp., (4) Vernal Pool (5) Salinas Valley Goldfields, grassland sp., (6) Riparian habitat, Mission Creek; (1-5) Elizabeth Painter photos, (6) Brenda Tharp photo

Wildlife

Scientists have recorded over 300 animal species inhabiting Fort Hunter Liggett, including at least 223 breeding and migrant birds, 17 fishes, 19 amphibians, and 11 snakes. This includes essential habitat for 9 Federally/State-listed and candidate animal species, 8 special status (protected or of special concern) mammal species, 18 special status bird species, and 6 special status reptile, amphibian and fish species (see Table 3: Federally and State Listed Threatened and Endangered Species that May Occur on Fort Hunter Liggett and Table 5: Other Special Status Wildlife Species that Occur on Fort Hunter Liggett).

FEDERALLY-LISTED CANDIDATE, THREATENED, AND ENDANGERED SPECIES

San Joaquin Kit Fox (endangered). The kit fox is the smallest member of the dog family in North America. The San Joaquin kit fox (*Vulpes macrotis mutica*) inhabits grasslands, scrublands, oak woodlands, and vernal pool areas in the California Central Valley floor and the interior coastal ranges. On Fort Hunter Liggett, valley bottom areas of the San Antonio and Nacimiento rivers provide potential habitat for the kit fox. Kit fox were present and breeding at Fort Hunter Liggett in 1990; pupping dens were identified in the southeast portion of Fort Hunter Liggett along the San Antonio River (training areas 22 and 25) (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

Decline of the kit fox can be attributed to loss, fragmentation and degradation of habitat due to agricultural, industrial and urban development (Brown, et al. 2002). Loss of habitat is not a threat to kit fox on Fort Hunter Liggett. Fort Hunter Liggett practices protection measures such as pre-activity surveys to limit the potential impacts of military activity on the kit fox (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

Bald Eagle (threatened). Bald eagles (*Haliaeetus leucocephalus*) at Fort Hunter Liggett are most commonly found wintering along the San Antonio River. An active nesting site has also been located in Training Area 22, between Jolon Road

and the San Antonio River (US Army Reserve Training Center, Fort Hunter Liggett, 2003). Nest sites are typically in large trees along shorelines in remote areas. The major threats to the bald eagle for the present and foreseeable future include destruction and degradation of habitat and environmental contaminants.

The bald eagle was Federally-listed as an endangered species in 1971. In 1995, the bald eagle was removed from the endangered list and upgraded to threatened status as its population grew. Delisting of the bald eagle under the Endangered Species Act was proposed by the U.S. Fish and Wildlife Service in 1999. While this rule would remove the bald eagle from protection status under the Endangered Species Act, it would still be protected by the Bald and Golden Eagle Protection Act (60 Federal Register 133, July 12, 1995; 64 Federal Register 128, July 6, 1999).

California Condor (endangered). Suitable habitat for condors (*Gymnogyps californicus*) includes foothill rangeland and forest in remote areas where the birds can roost and nest in tall trees and on cliffs. Rock outcrops in the Nacimiento River Valley provide suitable habitat for condors. Recently a condor was sighted feeding in training area 20 (US Army Reserve Training Center, Fort Hunter Liggett, 2003). The California condor is considered the largest land bird in North America. Although critical habitat was designated in 1976, the condor's vulnerability to extinction required a captive breeding and release program. Captive breeding release sites are located nearby at Pinnacles National Monument and in the Ventana Wilderness Area in Los Padres National Forest.

Least Bell's Vireo (endangered). The Least Bell's vireo (*Vireo belii pusillus*) inhabits riparian woodlands with tall trees and shorter thick shrubs. Loss of riparian habitat, military disturbance, non-native species invasion and predation, and long-term camping threaten the Least Bell's vireo. In 1986, the US Fish and Wildlife Service listed the Least Bell's vireo as endangered. Fort Hunter Liggett contains suitable



Clockwise from top left: (1) Bald Eagle, (2) Tule Elk, (3) Badger, (4) Mountain Lion (5) Western Pond Turtle, (6) Burrowing Owl; (1) California Department of Fish and Game photo, (2) NPS photo, (3, 4 and 6) John Sorenson photos, (5) U.S. Fish and Wildlife Service photo

habitat for the Least Bell's vireo, although the only documented sighting was a single male sited near the Palisades area in 1988 (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

Arroyo Toad (endangered). Arroyo toads (*Bufo microscaphus californicus*) are found in seasonal pools and streams where natural disturbance is common (US Army Reserve Training Center, Fort Hunter Liggett, 2003). A highly sensitive species, arroyo toads are known to have one of the most specialized habitat requirements of any amphibian found in California. Shallow breeding pools with a minimum of silt and free of predatory fish are necessary for successful juvenile development. Breeding pools must be located adjacent to adult habitat that includes inflow channels of 3rd- to greater- order streams with sandy channels and terraces (CDFG 2000). The arroyo toad is threatened by urban development, agriculture and water diversions and was listed as endangered in 1994. Critical habitat designation is pending. Suitable habitat for arroyo toads can be found along stretches of the San Antonio River (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

Red-legged Frog (threatened). California red-legged frogs (*Rana aurora draytonii*) inhabit shrubby riparian areas and deep, slow moving water. Threats to the California red-legged frog include habitat degradation, off-road vehicles, reservoir construction, grazing, non-native aquatic predators, and water quality. Critical habitat for the red-legged frog was designated on March 13, 2001. However, as a result of recent litigation, the red-legged frog critical habitat designation has been vacated, and a revised critical habitat designation will be promulgated following further consideration of the economic impacts of the designation (CDFG 2000; 66 Federal Register 49, March 13, 2001). Although Fort Hunter Liggett contains suitable habitat for the red-legged frog, no frogs have been found during recent surveys. The only known specimens documented were found in the Nacimiento River in 1948 (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

California Tiger Salamander (candidate). The California tiger salamander (*Ambystoma californiense*) can be found in grasslands and low foothill regions in Central and Northern California. Vernal pools and seasonal ponds are required for breeding (CDFG 2000). California tiger salamanders found on Fort Hunter Liggett are hybrids of California tiger salamander and the non-native eastern tiger salamander (*Ambystoma tigrinum*). Biologists have identified sixteen known breeding sites in both the San Antonio and Nacimiento river valleys (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

Vernal Pool Fairy Shrimp (threatened). Vernal pool fairy shrimp (*Branchinecta lynchi*) are small crustaceans that inhabit vernal pools found in grasslands or mud bottomed swales. Threats to the species include destruction of vernal pools from urban development, flood control, agricultural development, highway and utility projects. Vernal pool fairy shrimp were listed as threatened in 1994 (59 Federal Register 180, September 19, 1994).

Recent surveys at Fort Hunter Liggett have identified 59 vernal pools that would provide high quality habitat for the vernal pool fairy shrimp. Of the 59 pools identified, 47 were found to contain vernal pool fairy shrimp. Fort Hunter Liggett limits land use and application of herbicides and pesticides in areas with highly sensitive habitat for vernal pool fairy shrimp (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

Smith's Blue Butterfly (endangered). Smith's blue butterfly (*Euphilotes enoptes smithi*) inhabits coastal sand dunes, serpentine grasslands, and chaparral in Monterey County. Threatened by development, highway projects, foot and vehicular traffic, Smith's blue butterfly was listed as endangered in 1976 (41 Federal Register 106, June 1, 1976). Although Smith's blue butterfly does not inhabit Fort Hunter Liggett, it is known to occur in adjacent coastal areas (US Army Corps of Engineers 2000b).

Other Protected Species. Fort Hunter Liggett provides important habitat for mountain lion, tule elk, and the ring-tailed cat, state-protected large mammals that require extensive ranges to survive. The installation is part of a major mountain lion stronghold, and hosts 16–20 of these large felines. Tule elk, endemic to California, were once abundant, but declined in the late 19th century. During the Gold Rush era they served as an important source of meat and were hunted to near extinction. By 1874, the herd had declined from an estimated 500,000 head to less than 15 (Deck, et. al., n.d.; Ventana Wildlands Project 2000). They were reintroduced into Fort Hunter Liggett in 1978 and 1981 as part of a federal and state-legislated effort to establish new herds and prevent extinction. Fort Hunter Liggett's oak woodlands and grasslands are now home to a herd of approximately 400–450 tule elk (Fischer 2001). This herd comprises 15%–25% of the total population of tule elk, and is one of only two populations that meet the conditions necessary to sustain long -

term genetic diversity (Ventana Wildlands Project 2000). Tule elk travel large distances, make extensive seasonal movements within their range, and therefore require large interconnected tracts of land that preserve a combination of grassland, oak savanna and chaparral. Recovery efforts, including protective legislation, have increased the current population of tule elk in California to more than 2,500. Hunting is allowed to maintain the herd within population objectives established in Fort Hunter Liggett's tule elk management plan (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

FISHERIES

Warmwater fish are the primary seasonal inhabitants of the San Antonio and Nacimiento rivers. Native minnows such as California roach, hitch, Sacramento squawfish, and speckled dace, as well as several gamefish species, may be present throughout most of the river systems when adequate flows are present (winter periods).



Vernal pools, Brenda Tharp photo

Fish populations at Fort Hunter Liggett vary seasonally. As the river flows diminish during summer, some fish become stranded and die. Other fish seek permanent shelter in small isolated pools, such as those found in the Palisades area on the Nacimiento River, where they remain throughout the dry summer and fall (US Army Corps of Engineers 1995). Fishing is prohibited in Fort Hunter Liggett's rivers and streams to protect cultural resources, sensitive species, and to protect the safety of anglers (US Army Reserve Training Center, Fort Hunter Liggett, 2003).

Recreational fishing is permitted in eleven ponds throughout Fort Hunter Liggett. Bass, sunfish, and bluegill natural reproduction is good; however, Fort Hunter Liggett continues to restock to maintain fishable populations. Each year, rainbow trout and other species (bass, catfish, and mosquito fish) are stocked in various ponds and reservoirs for sport fishing.

Visual Resources

While much of the original vegetation within the cantonment area has been replaced by military and residential land uses, the remainder of the installation retains highly scenic qualities associated with the oak woodlands, oak savannas, and riparian zones on the eastern side, and the chaparral covered peaks of the Santa Lucia Range on the west side. Rock outcrops known as the Palisades and Piedras Atlas are exceptionally scenic as they overlook the Nacimiento River.

The rolling oak landscape combined with historic resources such as the Mission San Antonio de Padua still hold the romantic image of the picturesque Spanish California landscape embodied in Helen Hunt Jackson's famous 1884 novel, *Ramona*. The release of this novel coincided with the arrival of Southern Pacific Railroad. This brought thousands of settlers and tourists to California inspired by this image of the California landscape and spurred the popularity of Mission Revival architecture. Although partially

compromised by development in the cantonment area, some views from the Milpitas Hacienda are similar to what they were 70 years ago.

Views from Mission San Antonio de Padua are considered sensitive, and training exercises and vehicle movement are restricted near the Mission. Military convoys avoid use of Tank, Mission Creek, and Del Venturi roads on Sundays, and helicopters or other aircraft are prohibited over the Mission unless approved by Range Control. All military field training in that portion of the cantonment area west of Silo and Sulphur Springs roads is prohibited except for light infantry, which is restricted to the west side of the San Antonio River, south of Grid Line 86 (US Army Corps of Engineers, 2000b).

The Army permits public travel on Mission Creek, Del Venturi, Sam Jones (partial), and Nacimiento - Fergusson roads as long as it does not interfere with training or testing activities. Training activities sometimes disturb ground forms and vegetation in areas visible from these roads. Other areas are disturbed in some locations by burning and fire control measures such as firebreaks, as well as by maintenance of roads and training facilities.

Table 3: Federally and State Listed Threatened and Endangered Species that May Occur on Fort Hunter Liggett

SPECIES	STATUS* Federal/State	NOTES
Mammals		
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E/T	Kit fox has been seen at FHL in training areas 10, 12, 13, 15, 22, 24, 25, the cantonment area and the ASP.
Birds		
Bald Eagle <i>Haliaeetus leucocephalus</i>	T/E	Sightings have occurred in training areas 2, 7, 12, 22, 23, 24, 25, the ASP, and the cantonment area. Training Area 22 contains an active nesting site.
California condor <i>Gymnogyps californianus</i>	E/E	In May 2002, a condor was sited foraging in Training Area 20.
Least Bell's vireo <i>Vireo bellii pusillus</i>	E/E	FHL provides suitable habitat in training areas 7, 22, 25, and 29.
Peregrine falcon <i>Falco peregrinus</i>	Delisted/E	No breeding birds are known to occur at the Palisades or other rock outcrops which provide suitable nesting habitat; wintering birds are known to forage at FHL.
Amphibians		
Arroyo toad <i>Bufo microscaphus</i>	E/-	A 17-mile stretch of the San Antonio River harbors breeding populations of the northern-most occurrence of arroyo toad. This site (on FHL) has been determined to be essential to the recovery of this species.
California red-legged frog <i>Rana aurora draytoni</i>	T/-	Historic sightings are known for FHL; however, there are currently no known occurrences of this species.
California tiger salamander <i>Ambystoma californiense</i>	Candidate/-	There are 16 confirmed breeding pools for California tiger salamander in training areas 10, 12B, 15, 20, 22, and 27.
Invertebrates		
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T/-	In 2003, 59 high priority vernal pools were found at FHL in training areas 12, 14, 20, 22, 24, 25, 27, the ASP and the cantonment area. Of these 59 pools, 47 contained vernal pool fairy shrimp.
Smith's blue butterfly <i>Euphilotes enoptes smithi</i>	E/-	Potentially occurs at FHL.
Plants		
Santa Lucia Mint <i>Pogogyne clareana</i>	-/E	Occurs only at FHL in training areas 17, 18, 19, and 23, 26; Los Bueyes Creek; Los Burros Creek; North Fork Creek; Italian Flat.
Dwarf calycadenia <i>Calycadenia villosa</i>	SOC/-	Occurs in training areas 1, 2, 3, 5, 6, 7, 9, 12, 13, 15, 18, 19, 20, 22, 23, 24, 25, 26, 27, and 28, 29; northwest of San Antonio Mission; south of Burro Mountain; Oak Flat; the Jolon area; ASP; cantonment area.
Purple amole <i>Chlorogalum purpureum</i> var. <i>purpureum</i>	T/-	This variety of purple amole occurs only at FHL. Occurs in training areas 13, 22, 23, 24, 25; grasslands; ; oak woodlands; , the cantonment area, ; ASP, ; the Jolon area; Milpitas Ranch; near Argyle Road;and training areas, 13, 22, 23, 24, and 25.
Late-flowering mariposa lily <i>Calochortus weedii</i> var. <i>vestus</i>	SOC/-	Occurs in training areas 14, 17, 18, 23, 26, and 28.
Cone Peak bedstraw <i>Galium californicum</i> ssp. <i>luciense</i>	SOC/-	Occurs at the border of training areas 2 and 5 near the west boundary; and Training training Area areas 4, 5, 8, 17, 23.

SPECIES	STATUS*	
	Federal/State	NOTES
Davidson's bush mallow <i>Malacothamnus palmeri</i> var. <i>involutus</i>	SOC/-	Occurs in training areas 2, 3, 7, 24, and 27.
Carmel Valley bush mallow <i>Malacothamnus palmeri</i> var. <i>involutus</i>	SOC/-	Occurs in training areas 7 and, 10; Cosio Knob; Sulphur Springs Road; Jolon; northeast of San Antonio Mission.
Morrison's jewel flower <i>Streptanthus morrisonii</i>	SOC/-	Occurs in Training areas 18., 23; Los Burros Creek; ridge between Salmon and Los Burros creeks.
Caper-fruited tropidocarpum <i>Tropidocarpum Capperideum</i>	SOC/-	Occurs in training areas 15 and 24.
Hardham's evening-primrose <i>Camissonia hardhamiae</i>	SOC/-	Cantonment area; training areas 2, 3, 6.
Prostrate navarretia <i>Navarretia prostrata</i>	SOC/-	ASP; around Jolon.
Davidson's bush mallow <i>Malacothamnus davidsonii</i>	SOC/-	Training areas 2, 3, 7, 10, 24, 27; Sulphur Springs Road; NW of San Antonio Mission; Sam Jones Road; Bald Mountain.
Pale-yellow layia <i>Layia heterotricha</i>	SOC/-	Cantonment area; Training Area 27; San Antonio Mission Road; Sam Jones Road.
Hooked popcorn-flower <i>Plagiobothrys uncinatus</i>	SOC/-	Training Area 23; Los Bueyes Creek; Los Burros Creek.
Most beautiful jewel-flower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	SOC/-	Occurs in training areas 17, 23, 28, Jolon; Stony Valley; San Miguelito Ranch; Los Bueyes Road; Los Bueyes Creek; south of Burro Mountain; Los Burros Creek.
South Coast Range morning-glory <i>Calystegia collina</i> Brummitt ssp. <i>venusta</i>	SOC/-	
San Benito thorn-mint <i>Acanthomintha obovata</i> ssp. <i>obovata</i>	SOC/-	Training areas 3, 7, 10' northeast of San Antonio Mission.
One-awned spineflower <i>Chorizanthe rectispina</i>	SOC/-	In or near ASP, training areas 1, 7, 10, 13, 25, 29; near Jolon; NE, SE of Jolon; Jolon Valley.

Sources: US Army Reserve Training Center, Fort Hunter Liggett, 2003; Painter 2004; USFWS 2001; USFWS 2004

ASP= Ammunition Supply Point

FHL= Fort Hunter Liggett

* Status explanations

Federal

E= listed as endangered under the federal Endangered Species Act.

T = listed as threatened under the federal Endangered Species Act.

PE = Proposed for listing as endangered under the federal Endangered Species Act.

Candidate = Former Category 1 candidate. Includes species for which USFWS has on file enough substantial information on biological vulnerability and threat to support proposals to list them.

SOC (Plant Species of Concern) = Former Category 2. Biological information may warrant listing as threatened or endangered, but more information is needed. Species of concern receive no legal protection.

State

E = listed as endangered under the California Endangered Species Act.

T = listed as threatened under the California Endangered Species Act.

****Fort Hunter Liggett has documented species by training area location. See Figure 9a. Habitat Types for the location of training areas.**

Table 4: Other Special Interest Plant Species Documented on Fort Hunter Liggett

Species	Status:	State	CNPS
<i>Abies bracteata</i> Bristle cone fir		CEQA	1B
<i>Aristocapsa insignis</i> Indian Valley spineflower		CEQA	1B
<i>Baccharis plumerae</i> ssp. <i>glabrata</i> San Simeon baccharis		CEQA	1B
<i>Calycadenia truncata</i> ssp. <i>microcephala</i> Snow Mountain calycadenia		CEQA	1B
<i>Castilleja densiflora</i> ssp. <i>obispoensis</i> Obispo Indian paintbrush		CEQA	1B
<i>Caulanthus coulteri</i> var. <i>lemmonii</i> Lemmon's jewelflower		CEQA	1B
<i>Chorizanthe rectispina</i> Straight-awned spineflower		CEQA	1B
<i>Clarkia jolonensis</i> Jolon clarkia		CEQA	1B
<i>Collinsia antonina</i> San Antonio collinsia		CEQA	1B
<i>Delphinium umbraculorum</i> [on or very near FHL] Umbrella larkspur		CEQA	1B
<i>Eriastrum luteum</i> Yellow-flowered eriastrum		CEQA	1B
<i>Fritillaria viridea</i> San Benito fritillary		CEQA	1B
<i>Galium hardhamiae</i> Hardham's bedstraw		CEQA	1B
<i>Monardella palmeri</i> Palmer's monardella		CEQA	1B
<i>Navarretia nigelliformis</i> ssp. <i>radians</i> Shining navarretia		CEQA	1B
<i>Pentachaeta exilis</i> ssp. <i>aeolica</i> Slender pentachaeta		CEQA	1B
<i>Sidalcea hickmanii</i> ssp. <i>hickmanii</i> Hickman's checkerbloom		CEQA	1B
<i>Streptanthus albidus</i> ssp. <i>paramoenus</i> Metcalf Canyon jewelflower		CEQA	1B
<i>Triteleia ixioides</i> ssp. <i>cookii</i> Cook's triteleia		CEQA	1B
<i>Senecio aphanactis</i> Rayless ragwort		sp	2
<i>Calyptridium parryi</i> var. <i>hesseae</i> Santa Cruz Mountains pussypaws		sp	3
<i>Lupinus albifrons</i> var. <i>abramsii</i> Abram's lupine		sp	3

Species	Status:	State	CNPS
<i>Micropus amphibolus</i> Mt. Diablo cottonweed		sp	3
<i>Monardella antonina</i> ssp. <i>antonina</i> San Antonio Hills monardella		sp	3
<i>Acanthomintha obovata</i> ssp. <i>obovata</i> San Benito thorn-mint		sp	4
<i>Arabis blepharophylla</i> Coast rock cress		sp	4
<i>Arctostaphylos hooveri</i> Hoover's manzanita		sp	4
<i>Arctostaphylos obispoensis</i> Bishop manzanita		sp	4
<i>Aspidotis carlotta-halliae</i> Carlotta Hall's lace fern		sp	4
<i>Astragalus macrodon</i> Salinas milk-vetch		sp	4
<i>Calandrinia breweri</i> Brewer's calandrinia		sp	4
<i>Chorizanthe douglasii</i> Douglas's spineflower		sp	4
<i>Chorizanthe palmeri</i> Palmer's spineflower		sp	4
<i>Clarkia lewisii</i> Lewis's clarkia		sp	4
<i>Cryptantha rattanii</i> Rattan's cryptantha		sp	4
<i>Delphinium gypsophyllum</i> ssp. <i>parviflorum</i> Small-flowered gypsum-loving larkspur		sp	4
<i>Eriogonum nudum</i> var. <i>indictum</i> Protruding buckwheat		sp	4
<i>Eschscholzia hypocoides</i> San Benito poppy		sp	4
<i>Fritillaria agrestis</i> Stinkbells		sp	4
<i>Galium andrewsii</i> ssp. <i>gatense</i> Serpentine bedstraw		sp	4
<i>Gilia tenuiflora</i> ssp. <i>amplifaucalis</i> Trumpet-throated gilia		sp	4
<i>Horkelia yadonii</i> Santa Lucia horkelia		sp	4
<i>Lasthenia leptalea</i> Salinas Valley goldfields		sp	4
<i>Lessingia tenuis</i> Spring lessingia		sp	4

Species	Status:	State	CNPS
<i>Lomatium parvifolium</i> Small-leaved lomatium	sp		4
<i>Lupinus cervinus</i> Santa Lucia lupine	sp		4
<i>Malacothamnus jonesii</i> Slender bush mallow	sp		4
<i>Mimulus subsecundus</i> One-sided monkeyflower	sp		4
<i>Mucronea californica</i> California spineflower	sp		4
<i>Navarretia jaredii</i> Paso Robles navaretia	sp		4
<i>Perideridia pringlei</i> Adobe yampah	sp		4
<i>Piperia michaelii</i> Michael's rein orchid	sp		4
<i>Syntrichopappus lemmonii</i> Lemmon's syntrichopappus	sp		4
<i>Systemotheca vortriedei</i> Straight-awned spineflower	sp		4
<i>Zigadenus micranthus</i> var. <i>fontanus</i> Marsh zigadenus	sp		4

Sources: CEMML 1999; Painter 2001; Painter 2004; CDFG 2000b; CDFG 2004.

State

sp = Special plants: plants included in California Department of Fish and Game Natural Diversity Database Special Vascular Plant, Bryophytes, and Lichens List (July 2001; April 2004)

CEQA = Species which meet the criteria for listing, even if not included on any list, as described in Section 15380 of the California Environmental Quality Act (CEQA) Guidelines

CNPS

1A = Presumed Extinct in California

1B = Rare or Endangered in California and Elsewhere

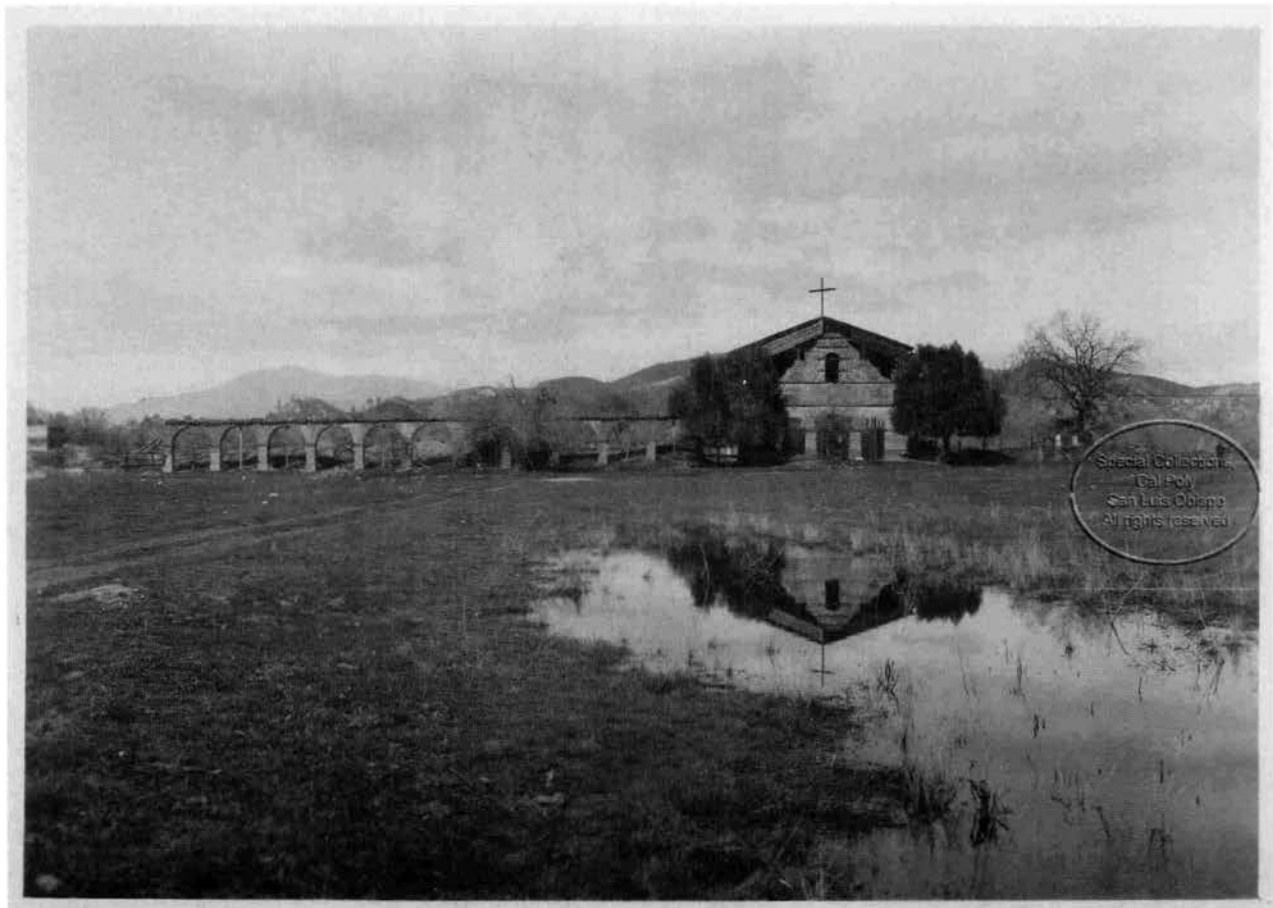
2 = Rare or Endangered in California More Common Elsewhere

3 = Need More Information

4 = Plants of Limited Distribution

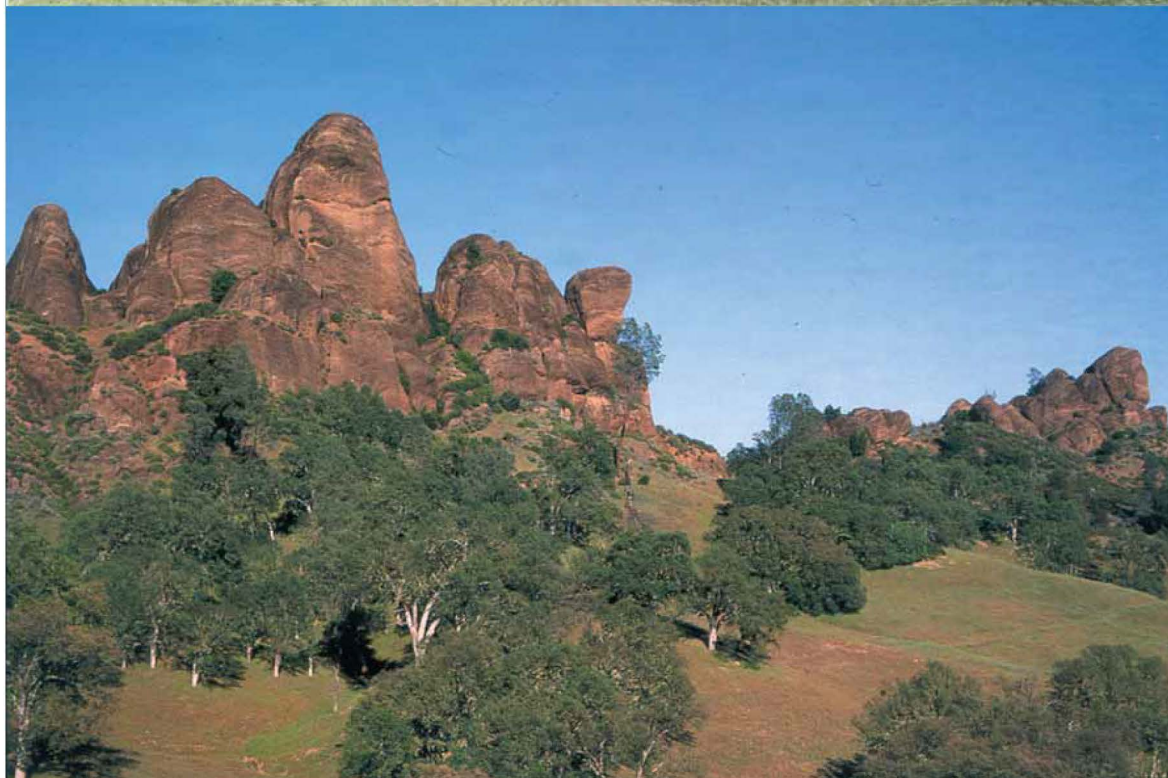
Table 5: Other Special Status Wildlife Species that Occur on Fort Hunter Liggett

SPECIES	CA STATUS
Mammals	
American badger, <i>Taxidea taxus</i>	Special Concern
Monterey dusky-footed woodrat, <i>Neotoma fuscipes luciana</i>	Special Concern
Mountain lion, <i>Felix concolor</i>	Protected
Pale big-eared bat, <i>Plecotus townsendii palescens</i>	Special Concern
Pallid bat, <i>Antrozus pallidus</i>	Candidate - needs confirmation
Ring-tailed cat, <i>Bassariscus astutus</i>	Protected
Salinas pocket mouse, <i>Perognathus inornatus psammophilus</i>	Special Concern
Tule elk, <i>Cervus elaphus nannodes</i>	Protected
Birds * = breeding species; others are winterers or migrants	
American white pelican, <i>Pelecanus erythrorhynchos</i>	Special Concern
Black swift, <i>Cypseloides niger</i>	Special Concern
Burrowing owl, <i>Athene cunicularia</i>	Special Concern
California gull, <i>Larus californicus</i>	Special Concern
Double-crested cormorant, <i>Phalacrocorax auritus</i>	Special Concern
Ferruginous hawk, <i>Buteo regalis</i>	Special Concern
Golden eagle*, <i>Aquila cyrysaetos</i>	Special Concern
Long-eared owl*, <i>Asio otus</i>	Special Concern
Northern harrier*, <i>Circus cyaneus</i>	Special Concern
Osprey, <i>Pandion halietus</i>	Special Concern
Prairie falcon*, <i>Falco mexicanus</i>	Special Concern
Purple martin*, <i>Progne subis</i>	Special Concern
Sharp-shinned hawk*, <i>Accipiter striatus</i>	Special Concern
Short-eared owl, <i>Asio flammeus</i>	Special Concern
Tricolored blackbird*, <i>Agelaius tricolor</i>	Special Concern
Western grebe*, <i>Aechmophorus occidentalis</i>	Candidate
Yellow-breasted chat*, <i>Icteria virens</i>	Special Concern
Yellow warbler*, <i>Dendroica petechia brewsteri</i>	Special Concern
Reptiles	
Coast horned lizard, <i>Phrynomosa coronatum frontale</i>	Special Concern
Western pond turtle, <i>Clemmys marmorata pallida</i>	Special Concern
Amphibians	
Foothill yellow-legged frog, <i>Rana boylei</i>	Special Concern
Western spadefoot toad, <i>Scaphiophus hammondii</i>	Special Concern
Fish	
Hardhed, <i>Mylopharadon conocephalus</i>	Special Concern
San Joaquin Roach, <i>Lavinia symmetricus ssp.</i>	Special Concern - needs confirmation



Mission San Antonio de Padua, circa 1927. Julia Morgan Collection, Special Collections, California Polytechnic State University, San Luis Obispo

3 Significance



Below: Palisades, Brenda Tharp photo

Significance

Introduction

The National Park Service (NPS) has adopted four basic criteria to evaluate the national significance of proposed areas. These criteria, listed in the NPS *Management Policies*, state that a resource is nationally significant if it meets all of the following conditions:

1. It is an outstanding example of a particular type of resource.
2. It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage.
3. It offers superlative opportunities for public enjoyment, or for scientific study.
4. It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource (NPS *Management Policies*, 2001).

National significance for cultural resources is determined by applying the National Historic Landmark (NHL) evaluation process contained in 36 CFR Part 65. The quality of national significance for NHLs is ascribed to districts, sites, buildings, structures and objects that possess exceptional value or quality in illustrating

or interpreting the heritage of the United States in history, architecture, archeology, engineering and culture and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling and association (for the full list of NHL criteria, see Appendix D). Before resources can be designated as NHLs, they must be evaluated by the National Park Service's National Historic Landmark Survey, reviewed by the National Park System Advisory Board, and recommended to the Secretary of the Interior.

National Park Service professionals, in consultation with subject matter experts, scholars, and scientists determine whether a study area is nationally significant. Natural and cultural resource experts and scholars, locally, and within the NPS, have contributed research and technical review for the study area's statement of significance (see "Consultation and Coordination" chapter). Letters of endorsement from resource experts are included in Appendix E. Nationally significant natural and cultural resource attributes are summarized on the following page. The following sections include an analysis of resources based on the criteria for determining national significance required by NPS *Management Policies*.



Oak savanna, NPS photo



Dos Bueyes Creek, NPS photo

Summary Of Nationally Significant Cultural Resources Within Fort Hunter Liggett

“Meant to serve as a bunkhouse for the upper reaches of the Hearst ranch as well as a destination to ride on horseback, the Hacienda comes close to a fantasized perfection of the Mexican period. . . The Hacienda’s effectiveness is derived from its vast setting, acres of unspoiled land which recalled California in the early nineteenth century.”

— Victoria Kastner, *“Hearst Castle: The Biography of a Country House”*

- The Milpitas Hacienda is nationally significant for its association with architect Julia Morgan and media magnate William Randolph Hearst. As the northernmost component of a 250,000-acre country estate that Hearst amassed in the 1920s and 1930s, the Hacienda provides an opportunity to expand and enhance the story of Hearst and his collaboration with Morgan. As such, the Milpitas Hacienda appears to be an excellent addition to the Hearst San Simeon Estate National Historic Landmark, also known as Hearst Castle® or La Cuesta Encantada.
- The national significance of the Juan Bautista de Anza National Historic Trail has been established through its Congressional designation in 1990. The oak savanna landscape of Fort Hunter Liggett provides one of the few remaining historically evocative settings of the trail. Mission San Antonio de Padua, an inholding within Fort Hunter Liggett, was an Anza expedition campsite. The land, oak trees, and rivers of Fort Hunter Liggett were noted in the expedition's diary entries during their stay at the Mission.

Construction at the Milpitas Hacienda, 1930, Julia Morgan Collection, Special Collections, California Polytechnic State University, San Luis Obispo.

*photo available in printed report



Below: Same view of the Milpitas Hacienda, 2004, Richard Crusius photo

Summary Of Nationally Significant Natural Resources Within Fort Hunter Liggett

“Few plants figure more prominently in California’s natural and cultural history than oaks. Over millennia oaks have provided food and shelter for a rich diversity of wildlife. For countless generations, acorns were a dietary staple of Native Americans. During two hundred years of exploration and colonization, European people marveled at the vast oak groves and savannas they encountered along the Pacific shore. In the 19th century, resourceful pioneers quickly learned the value of oaks for fuel, tools, and livestock feed. Even today, no scene is more characteristic of California than rolling, grassy hills studded with oak trees.”

— Janet Santos Cobb, President, California Oak Foundation, in “Oaks of California,” Pavlik, et al. (1991).

- The number of rare and sensitive plant species on Fort Hunter Liggett is among the highest for similar sized areas in California.
- Fort Hunter Liggett encompasses extensive oak woodland and savanna communities, including valley oak, blue oak, coast live oak and native grassland understory vegetation. It offers the widest diversity of oak taxa of any area of its size in California and includes the largest known contiguous valley bottom stands of valley oak.
- The rare quality of the native oak savanna provides important habitat for many rare, threatened, and endangered species. The purple amole (*Chlorogalum purpureum* var. *purpureum*) is a Federally-listed threatened, endemic plant species located on Fort Hunter Liggett. Rare and endangered wildlife dependent on oaks include the tule elk and the Federally-listed endangered San Joaquin kit fox. In addition, Fort Hunter Liggett has the highest concentration of oak savanna-specializing birds of any location in the nation.
- Chaparral, vernal pools, and riparian areas are additional rare habitat types on Fort Hunter Liggett that support nationally significant species.
 - The chaparral communities on Fort Hunter Liggett harbor rare and sensitive plant populations typically found only in other regions of California.
 - A large ultramafic body with serpentine substrate at Burro Mountain contains a high concentration of rare and unique plant species. Los Burros Creek forms a deep gorge that transects Burro Mountain creating magnificent exposures that afford unusual views of its internal structure. The Burro Mountain ultramafic body may have potential as a national natural landmark.
 - Intact riparian areas along the San Antonio and Nacimiento rivers provide important habitat for the Federally-listed endangered arroyo toad (*Bufo microscaphus*) and the Federally-listed threatened bald eagle (*Haliaeetus leucocephalus*).
 - The Santa Lucia mint (*Pogogyne clareana*) is an endemic species found only in reaches of the Nacimiento River on Fort Hunter Liggett.
 - Vernal pools at Fort Hunter Liggett provide habitat for the Federally-listed threatened vernal pool fairy shrimp (*Branchinecta lynchi*) and the Federally-listed endangered San Joaquin kit fox.



From above: oak savanna, Brenda Tharp; purple amole, Elizabeth C. Neese; and oak savanna at Palisades, Brenda Tharp.

National Park Service Themes

The National Park Service uses a series of natural and cultural themes to evaluate potential areas for inclusion in the national park system. The themes are evaluated by two criteria: 1) significance and 2) adequacy of representation within the national park system. Study area natural and cultural resources possess exceptional value in illustrating the themes represented in the tables below. The section on suitability includes an evaluation of themes represented by resources in the study area in terms of their adequacy of representation within the national park system. Nationally significant resources in the study area represent the following NPS themes:

Cultural themes: The archeological and cultural resources at Fort Hunter Liggett include nationally significant examples of architecture and archeological sites. National Park Service Cultural Resource Themes represented include:

Expressing Cultural Values

- architecture, landscape architecture, and urban design (Milpitas Hacienda)
- mass media (Milpitas Hacienda)

Developing the American Economy

- transportation and communication (Milpitas Hacienda)

Peopling Places

- encounters, conflicts, and colonization (Juan Bautista de Anza National Historic Trail and Mission San Antonio de Padua)

Natural themes: Fort Hunter Liggett contains nationally significant habitat and species that represent NPS themes and regional themes such as:

- **Dry Coniferous Forest and Dry Woodland**
 - regional theme: foothill woodland
- **Chaparral**
- **Riparian Woodland**
- **Vernal Pools**

Nationally Significant Cultural Resources

Determination of the national significance of cultural resources is based on criteria established for the National Register of Historic Places (NRHP) and National Historic Landmarks. The NRHP is the nation's official list of cultural resources worthy of preservation. It lists resources that have been documented and evaluated according to uniform standards, and are significant to the nation, to a state, or to a community. Nationally significant resources that possess the highest level of integrity may be designated as national historic landmarks.

Nationally significant cultural resources at Fort Hunter Liggett include the Milpitas Hacienda, currently listed on the National Register of Historic Places at the national level of significance, and the Juan Bautista de Anza National Historic Trail that traverses Fort Hunter Liggett. Mission San Antonio de Padua, an inholding with separate ownership, also has been listed on the NRHP at the national level of significance. Analysis of the Mission's significance is included in this section since contributing elements are located on Fort Hunter Liggett.

MILPITAS HACIENDA

The national significance of the Milpitas Hacienda lies in its association with architect Julia Morgan and media magnate William Randolph Hearst. The Milpitas Hacienda is an important component of Hearst's 250,000-acre estate which was designed by Hearst and Morgan as a collaborative effort.

Both Morgan and Hearst are nationally significant individuals in the history of the United States. As an extremely prolific and successful female architect, Morgan was the first woman admitted to the architectural program at the Ecole des Beaux-Arts in Paris, long regarded as one of the world's foremost architectural schools. Morgan spent a large portion of her career working on projects for the Hearst family.

Hearst amassed his fortune after turning around his father's (Senator George Hearst) failing newspaper, the San Francisco Examiner, beginning in 1887. Hearst later went on to create a media empire comprised of 37 newspapers circulating to over 6 million people, 15 magazines, 6 radio stations, 2 wire services, a newsreel company, and a movie company. Through his media empire, Hearst played an important role in many events of national importance. Hearst wielded enormous power through communication and could influence masses of people in events of international and national importance (Adams and Christian 1972).

"The warehouses and residences he built in the town of San Simeon, the improvements he made on Rancho Piedra Blanca, the acreage he added to his inherited holdings, with which additions he extended his boundaries up to Pacific Valley and inland to encompass the old land grants surrounding Jolon and Mission San Antonio — all were manifestations of his kingly nature, his instinct for grandeur, his quest for empire."

— Taylor Coffman, *Hearst's Dream*, p. 73

Throughout their 38-year relationship, described by Julia Morgan as "fellow architects," Morgan and Hearst designed and built structures at Hearst's Central California country estate (including La Cuesta Encantada and the Milpitas Hacienda); his estate in Wynton near Mount Shasta in northern California; his ranch³ in Chihuahua, Mexico; the proposed "Hopi" residence at the Grand Canyon; and the Los Angeles Examiner Building. Julia Morgan also remodeled other buildings owned by Hearst including several Beverly Hills residences and the Marion Davies' Beach House in Santa Monica. Of these structures, La Cuesta Encantada is the most representative of the close collaboration between Hearst and Morgan and is the most closely associated with the life of William Randolph Hearst. La Cuesta Encantada was designated as a national historic landmark in 1976 (San Simeon Estate National Historic Landmark). The

³ Hearst owned a 900,000 acre ranch in Chihuahua, Mexico that was purchased by his father. Hearst had Julia Morgan design a hacienda for this ranch, Babicora, in the 1940s; however this project was never built.

Wyntoon estate, built in McCloud from 1924–1941, comes the closest in complexity to the work Morgan completed for Hearst at San Simeon. The Wyntoon estate included an elaborate Bavarian Village.

Hearst’s vision for a country estate. While La Cuesta Encantada is the most distinctive feature of Hearst’s estate and his collaboration with Julia Morgan, the landscape and its many supporting structures complete his romantic vision of a country estate that included his home, guest houses, gardens, pools, a private zoo, a model farm, and many other amenities and supporting structures. Agricultural use of the land, siting of structures, and amenities in the landscape, use of architectural styles and execution of construction were all carefully planned by Hearst and Morgan. No idea was too expensive or too complex to contemplate. Built structures often went through a series of design changes and additions to accommodate new ideas. For example, the Neptune pool at La Cuesta Encantada was built and rebuilt three times over ten years before Hearst was satisfied.

Hearst’s building of his country estate mirrored the empire building of his massive media conglomeration. In 1919, Hearst inherited 60,000 acres of land at San Simeon. Senator George Hearst began purchasing land in the area in 1865. As a child William Randolph Hearst visited San Simeon with his family on a regular basis. Hearst later brought his own family to San Simeon. During visits with his family, Hearst is known to



La Cuesta Encantada from San Simeon Beach State Park, NPS photo

have camped at Camp Hill, the future site of La Cuesta Encantada. Visits to San Simeon as a child and as an adult had a profound impact on Hearst, who had a strong love for the land and lifestyle in this area of California (Kastner 2000). In correspondence to his mother Phoebe Apperson Hearst, Hearst described San Simeon as one of the greatest landscapes in the world. Between 1919 and the late 1930s, Hearst invested heavily in the expansion of his estate, the development of La Cuesta Encantada, and the supporting buildings and infrastructure that were part of his model farm.

The Milpitas Hacienda as part of Hearst’s vision. The Milpitas Hacienda was one of the many supporting structures designed by Hearst and Morgan in the vernacular style that borrows from styles used during the Hispanic Period. Of these early California style structures, the Milpitas Hacienda is the most elaborate in terms of its scale, setting, and craftsmanship. The Hacienda, with a 225-foot frontage, arcades, and two ornate towers, is both grander in scale and more detailed in ornamentation than the Chicken Ranch and related buildings at San Simeon (Boutelle 1995).

In addition to its setting and execution of the early California style, the construction of the Milpitas Hacienda is distinctive from the other similar structures on Hearst’s historic estate. The Milpitas Hacienda is constructed of reinforced concrete. This formwork was used not just in the frame of the building but in its ornamentation. Most of the interior ceiling beams are formed



Neptune Pool at La Cuesta Encantada, NPS photo

concrete (Eidsness and Jackson 1994b). Much smaller in scale, the houses at San Simeon Village were made of wood-frame construction. Although larger structures such as the Chicken Ranch, the mission warehouse, and the San Simeon Ranch Bunkhouse incorporate reinforced concrete construction, it is less emphasized as part of the ornamentation than it is at the Milpitas Hacienda (Coffman 2004).

The Milpitas Hacienda was the only supporting structure used personally by Hearst and his guests. Although Hearst did not occupy the Milpitas Hacienda with any regular frequency, he is known to have ridden there by horse and brought guests for parties and picnics (Horn 2001 and 2004). A road and an airstrip were developed specifically to connect La Cuesta Encantada to the Milpitas Hacienda (Coffman 2003).

Correspondence between Hearst and Morgan indicates that Hearst was involved in decisions regarding the tower. Morgan wrote to Hearst in August 1930, *“The Jolon work is progressing well, I will hold back the tower toward the Mission until you come, as it can be cut off . . . Many tourists are mistaking the new building for the Mission — it was really quite amusing this last visit”* (Morgan, August 12, 1930). Hearst later ordered a renovation of the tower for visitors and his own personal use in 1936 (Eidsness and Jackson 1994a). Around this same time, Hearst made very specific requests regarding the furnishing and decoration of the Hacienda suggesting locations for Indian rugs and blankets (Coffman 2003).

Integrity of Hearst’s country estate. With the exception of La Cuesta Encantada and nearby visitor facilities, all of which are owned and managed by California State Parks, the vast majority of Hearst’s historic country estate is owned by the Hearst Corporation and the U.S. Army (see “W.R. Hearst’s Country Estate, Current Ownership” graphic on page 63). Because the land use and ownership patterns have remained constant over the past 60 years, the landscape remains intact. If one were to travel from La Cuesta Encantada to the Milpitas Hacienda on

the Burnett Road, much of the landscape would appear the same as it did in 1935.

After Hearst’s death in 1951, the Hearst family and the Hearst Corporation decided to deed 159 acres of land including La Cuesta Encantada to the California Division of State Parks and Beaches⁴ in 1956. This was designated as the Hearst San Simeon State Historical Monument. The State Historical Monument includes 137 acres at La Cuesta Encantada incorporating Casa Grande, the three guesthouses, the Neptune Pool, the Roman Pool, construction crew housing, workshops and garages. An additional 22 acres at the bottom of the hill (formerly one of three airstrips at San Simeon) was given to the State for visitor-serving facilities (California State Parks 1978). The state historical monument was designated a national historic landmark in 1976.

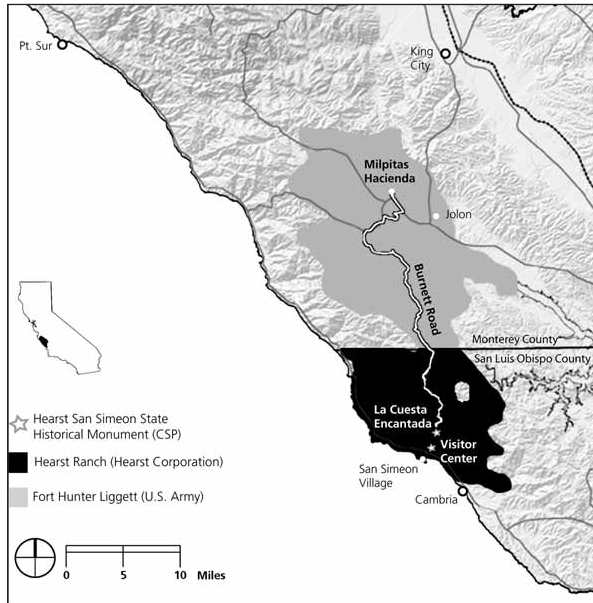
California State Parks has managed Hearst San Simeon State Historical Monument since 1958. It



Above: Hearst Ranch from La Cuesta Encantada, Below: San Simeon village; NPS photos

⁴ Now known as California Department of Parks and Recreation or California State Parks (CSP).

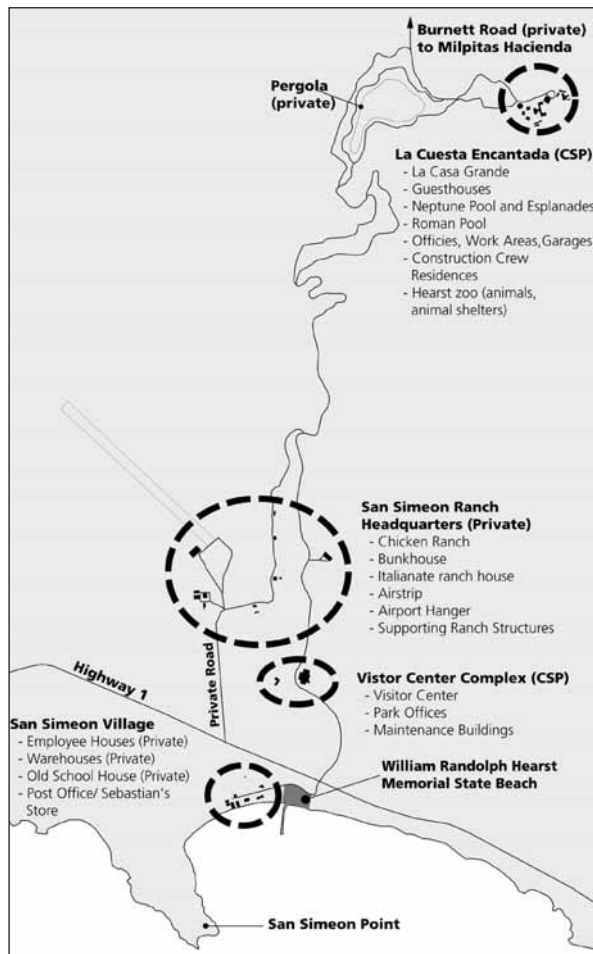
W.R. Hearst's Country Estate, Current Ownership



is one of California State Park's largest tourist destinations in California; over 33 million people have visited since it opened to the public. A visitor center and parking lot complex have been constructed on the 22 acres at the bottom of the hill. California State Parks has an easement to run bus tours from the visitor center up to La Cuesta Encantada. The hilltop complex remains preserved as it was when Hearst left in 1947, a condition of its gift to the State.

The Hearst Corporation continues to own and manage approximately 82,000 acres of the original country estate that stretches from San Simeon to the southern boundary of Fort Hunter Liggett. This land is now referred to as Hearst Ranch. The Hearst Ranch is the largest private landholding on the central coast of California. The Hearst Corporation has preserved the components that are associated with William Randolph Hearst. Remaining historic structures include the San Simeon ranch and farm facilities, the zoo, and San Simeon Village. At San Simeon Village several structures from the time of Senator George Hearst, who invested heavily in San Simeon when it operated as a regional shipping port in the 1870s, remain. These structures include a school house, a mission warehouse, and a building that serves as the post office and a general store (see "Existing Structures at San Simeon related to W.R. Hearst" graphic).

Existing Structures at San Simeon Related to W.R. Hearst



The Hearst Ranch has primarily remained in ranching and farming operations. As a commitment to preserve the character of the Hearst Ranch, the Hearst Corporation recently sold a conservation easement to the state of California for permanent conservation on most of the 82,000 acres of Hearst Ranch. As part of the easement, the Hearst Corporation made available to the public 13 miles of coast for an extension of the California Coastal Trail.

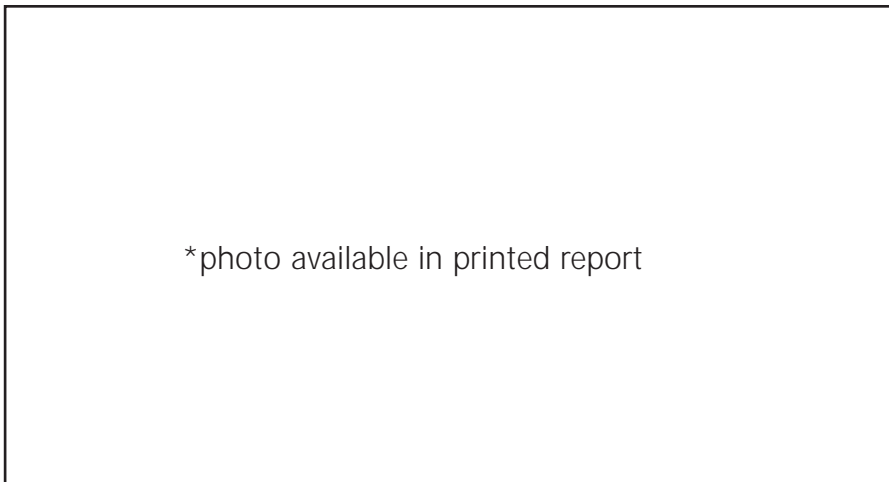
The land that comprised Hearst's estate in Monterey County has been managed by the U.S. Army since 1940 and is now part of Fort Hunter Liggett. Fort Hunter Liggett remains largely undeveloped with the exception of the

cantonment area that contains the supporting facilities for the base. The Milpitas Hacienda is located on the northwestern end of the cantonment area. Operated by a concessioner as a hotel and restaurant, the Milpitas Hacienda is open to the general public.

Integrity of the Milpitas Hacienda. The Milpitas Hacienda was listed on the National Register of Historic Places at the national level of significance in 1977 for its association with William Randolph Hearst and Julia Morgan. The Milpitas Hacienda has been minimally altered since 1936–1937 when Hearst ordered several changes to make the building more comfortable. The integrity of the Milpitas Hacienda is described as excellent in the National Register nomination. A more detailed assessment was conducted by Fort Hunter Liggett in developing a historic preservation plan in 1994. The 1994

assessment reported only minimal alteration since 1977 and described the Milpitas Hacienda’s condition as good to excellent condition despite several modifications made by the U.S. Army. These included changes to accommodate mechanical ducts, vents and pipes, remodeling of toilet rooms on the first floor for public use, construction of an additional kitchen, and closure of one of the arcades. Its high integrity can be attributed to the fact that use by the U.S. Army and the current concessioner has been compatible with its original intended functions.

Development in the cantonment area is located primarily to the north and east of the Milpitas Hacienda altering the historic setting in that direction. Despite these changes, views of the Milpitas Hacienda in several locations are comparable to views in the 1930s when Hearst used it (Eidsness and Jackson 1994b).



The Milpitas Hacienda, 1936, Julia Morgan Collection, Special Collections, California Polytechnic State University, San Luis Obispo



The Milpitas Hacienda, 2004, Richard Crusius photo

The barn and blacksmith shop that had been located across from the Milpitas Hacienda during Hearst's era still remain. They have both been extensively altered for use by the Army. While these structures maintain the same physical relationship to Milpitas Hacienda that they did in 1939, the construction of a parking lot and road have impacted the historical associations. With the exception of the swimming pool and the tennis courts, the landscaping at the Hacienda has changed little from Morgan's original design. It continues to feature mature oak trees and a succulent garden on the southwest terrace (Eidsness and Jackson 1994b).

Interpretive potential of the Milpitas Hacienda. The interpretation of Hearst San Simeon Estate National Historic Landmark would be greatly expanded by the addition of the Milpitas Hacienda. Although some of the resources located on Hearst Ranch such as ranching structures and residences are visible from Hearst San Simeon State Historical Monument or from public roads, almost all are privately held and inaccessible to the public (see "Existing Structures at San Simeon related to W.R. Hearst" graphic).

Aside from the state historical monument, the only areas open to the public at San Simeon are the nine -acre William Randolph Hearst Memorial State Beach and the building that includes the Post Office and Sebastian's Store. The Hearst Corporation recently uncovered Morgan drawings for the Spanish Village at San Simeon that included plans for a small inn and village square and is considering plans to develop an inn at San Simeon Village in keeping with Morgan's vision. The 13-mile Hearst Ranch coastline recently transferred to the state of California will provide additional opportunities to interpret the Hearst story.

The Milpitas Hacienda is the only extant structure outside the state historical monument directly associated with Hearst that could be made available for public use. Operated as a restaurant and hotel, it is the only possibility for experiential interpretation of the architecture

created by the Morgan/Hearst collaboration. Located at the northern extent of Hearst's former landholdings, the Milpitas Hacienda also provides the opportunity to interpret the larger vision of the vast estate that Hearst amassed between 1919 and 1939. Although Hearst's ranch at Milpitas functioned as a satellite operation, Hearst intentionally had Morgan design the Milpitas Hacienda in the same style as the other farm and ranch buildings at San Simeon.

The Milpitas Hacienda's proximity to Mission San Antonio de Padua provides an opportunity to interpret how the "old California" landscape and lifestyle influenced Hearst and Morgan in their execution of Hearst's magnificent country estate (Horn 2004). The setting adjacent to the Mission San Antonio de Padua did much to bring to life Hearst's vision (Kastner 2000). Julia Morgan's appreciation for the landscape is apparent in her correspondence to Hearst. In 1937, Morgan wrote, "You will find the new quarters at Jolon in proper shape . . . Every time I go over there the beauty of the fields and of the bordering mountains thrills anew" (Morgan 1937).

The remote location of the Milpitas Hacienda on Fort Hunter Liggett has meant that it has often been left out of the Hearst story. The Milpitas Hacienda is one of the least known and least studied of the existing features associated with La Cuesta Encantada. Recently uncovered and archived documents associated with Hearst, Morgan and George Looz have provided historians with new information on Hearst's vision for his larger country estate as well as his use of the Milpitas Hacienda.

Based on an initial assessment of these newly available historical resources describing Hearst's estate, and the fact that it is the only Hearst/Morgan building available to the public for overnight accommodation, the Milpitas Hacienda appears to be an excellent addition to Hearst San Simeon Estate National Historic Landmark. The National Park Service recommends an assessment of the Milpitas Hacienda as a potential component of the national historic landmark.

JUAN BAUTISTA DE ANZA NATIONAL HISTORIC TRAIL

A portion of the 1,200-mile Juan Bautista de Anza National Historic Trail traverses Fort Hunter Liggett. The national significance of the trail has been established through its designation as a National Historic Trail. The trail represents the route taken by Juan Bautista de Anza in 1775–1776 when he led a group of colonists from Mexico to establish a mission and presidio at San Francisco.

The Mission San Antonio de Padua served as a campsite for the Anza expedition and provides excellent opportunities for interpretation. The surrounding landscape of oak savanna provides one of the few remaining historically evocative settings of the trail. The land, oak trees, and rivers of Fort Hunter Liggett were noted in the expedition's diary entries. During the expedition, Father Pedro Font wrote in his diary on March 6, 1776, "The mission is in a rather wide valley some ten leagues long and full of large oaks, for which reason they call the mission San Antonio de la Canada de los Robles [Valley of the Oaks]."

MISSION SAN ANTONIO DE PADUA

The Mission buildings and 85 acres of land immediately surrounding it are owned by the Monterey Diocese of the Catholic Church, and are not part of the study area. Portions of the historic water system, industrial sites such as quarries, and the natural setting are resources on Fort Hunter Liggett that are directly connected to the significance of the Mission. The characteristic oak savanna landscape (Canada de los Robles) surrounding the Mission remains one of the most historically intact landscape settings of all the California missions. Because of the important connection of the Mission to the resources within the study area, a discussion of its national significance is included in this section.

Mission San Antonio de Padua is listed on the National Register of Historic Places at the national level of significance. The significance lies in its association with architecture, settlement, and Hispanic and Native American cultures. Portions of the original adobe building remain incorporated



Above: Mission San Antonio de Padua; Below: grist mill; Brenda Tharp photos

into later restorations, a common practice with many of the California missions. Archeological remains exist for all of the Mission Period structures. A cemetery, ruins of a military barracks, outbuildings, and structures are also extant at the Mission site (Eidsness and Jackson 1994b).

Portions of the water system and industrial sites such as quarries are located in the study area. Several irrigation ditches constructed by the Mission to capture water from Mission Creek have been documented. The San Antonio River Branch (CA-MNT-961H) is considered a particularly well-preserved portion of the water system. The integrity and setting are described as singularly unique for Spanish colonial sites in the United States (Eidsness and Jackson 1994b). Limestone

was quarried to provide building materials for the Mission, and clay, used for pottery, was extracted from Mission Creek. The limestone kiln and quarry have been documented (CA-MNT-961H); sites used for the extraction of clay and other minerals still exist but are often difficult to recognize (Eidsness and Jackson 1994b).

Shortly after its establishment, the Mission served as a campsite for the Juan Bautista de Anza Expedition. Father Pedro Font of the expedition wrote in his diary of the importance of the landscape to the Mission, “The site is very good, with fine lands, and plentiful water from the river which runs through this valley . . . In the range there is a great abundance of oaks, live oaks, and pines and consequently plenty of pine nuts and acorns, for which reason the Mission raises large numbers of hogs (Father Pedro Font, March 6, 1776).” While other California missions may be better known or more architecturally significant, no other mission retains such integrity of setting and “sense of place” (National Trust for Historic Preservation 2001).

Six of the twenty-one California missions are national historic landmarks, either individually or as part of a district. Mission San Antonio de Padua has not yet been considered, although there has been renewed interest in recent years in reevaluating all of the California missions for potential designation as national historic landmarks. The National Historic Landmark Survey has recommended the development of a California Missions National Historic Landmark Theme Study but the study has not been undertaken. Designation of the Mission San Antonio de Padua would be dependent on the interest and approval of the Monterey Diocese. Mission San Antonio de Padua, because of its architecture, setting, and associated cultural resources, appears eligible for such a designation.

POSSIBLE FURTHER CULTURAL RESOURCE SIGNIFICANCE

Native American Resources

Further scientific study is necessary to determine the significance and eligibility of Fort Hunter Liggett’s prehistoric resources. To date, over 600 recorded archeological sites in the study area provide evidence that Fort Hunter Liggett was the home of the Salinan people (Swernoff 1982). The sites on Fort Hunter Liggett comprise one of the most extensive complexes of resources between the San Francisco Bay Area and the Santa Barbara Channel (Hoover 2001). Sites documented include: Painted Cave, ceremonial rock formations, burial sites, pre-European village sites and named historic native villages. Painted Cave is one of the most impressive examples of polychrome pictographic art outside the Santa Barbara region. Stony Valley has a particularly dense concentration of sites including an important natural rocky arch that served as an important ceremonial site (Hoover 2001).

Sites associated with the first contact period between Salinans and Euro-Americans are located in the area of the Mission. These resources possess exceptional value for scientific study and illustrate the cultural themes of our nation’s heritage. Ongoing archeological studies have been conducted on the Mission grounds for over twenty years (Hoover 2003).

One area of particular archeological interest is the original site of the Mission San Antonio de Padua located south of the present site on Fort Hunter Liggett (Hoover 2001).

Nationally Significant Natural Resources

Fort Hunter Liggett's 164,261 acres contain biological communities of a relatively undisturbed and expansive nature. The abundance and diversity of plant and animal species within Fort Hunter Liggett relate to several factors: the underlying diversity of geologic substrate, soils, water features, and topography; the relative lack of development and disturbance of the area; and the connectivity with larger surrounding ecosystems.

Substrates and rock outcrops at Fort Hunter Liggett harbor unusual plant communities that contain a diverse assemblage of species uncommon in California. Such substrates include serpentine, sandstone, conglomerate rock, marble, diatomaceous mudstone, and granite (CEMML 1999). Taxa found at serpentine areas comprise a major component of the list of California endemics (Skinner and Pavlik 1994).

The number of rare and sensitive plant species on Fort Hunter Liggett is among the highest for similar sized areas in California (Painter 2001; CDFG 2000). Of the 1,000 vascular plant species found within Fort Hunter Liggett, at least 73 are sensitive species identified in Federal, State, and/or California Native Plant Society (CNPS) lists. Of the 168 CNPS-listed taxa recorded for Monterey County (Tibor 2001), nearly 35% are found on Fort Hunter Liggett (Tibor 2001, pp. 334-335). Thirty-eight taxa are considered "rare or endangered" (CNPS 1A, 1B, or 2 lists, Tibor 2001) (See Table 3 and 4 in the "Resource Description" section). Four plant taxa are on the CNPS "review" list (CNPS list 3). Thirty-one additional plant taxa are on the CNPS "watch" list (CNPS list 4) of plants of limited distribution in need of continued attention. Many of the sensitive plant taxa at Fort Hunter Liggett exist only in the Santa Lucia Range (CEMML 1999).

OAK WOODLANDS AND SAVANNA

Among the most significant of these biological communities are the extensive oak woodland and savanna communities. These include valley oak,

blue oak, coast live oak, and native understory vegetation. The communities are large and diverse, experiencing successful regeneration, and they exist within a broader system of native shrubs, grasses, and forbs that provide habitat for a diverse array of plant and wildlife species. Fort Hunter Liggett has the highest concentration of oak savanna- specializing birds of any location in the nation (Stevens, et al., 1998).

Oak woodlands and savanna on Fort Hunter Liggett provide habitat for twelve oak species, the widest diversity of oak taxa of any area of its size in California. This high quality remnant contains all of the key species, well preserved, in healthy stands, and covering a large area (Keeler- Wolf 2001). Fort Hunter Liggett has six oak tree taxa (*Quercus agrifolia* var. *agrifolia*, *Q. chrysolepis*, *Q. douglasii*, *Q. lobata*, *Q. parvula* var. *shrevei*, *Q. wislizeni* var. *wislizeni*), and four oak shrub taxa (*Quercus berberidifolia*, *Q. durata* var. *durata*, *Q. john-tukeri*, *Q. wislizeni* var. *frutescens*), and at least two named hybrids (*Q.* × *alvordiana* and *Q.* × *jolonensis*) (Pavlik, et al., 1991). In addition to species diversity, oak communities on Fort Hunter Liggett have a diversity of age classes. This includes trees in both the 300-400 year range and the 80-90 year range (Keeler- Wolfe 2001).

Fort Hunter Liggett contains the largest known contiguous valley bottom stands of the endemic valley oak in California. Valley oaks are thought to be the largest oak tree species native to North America (Pavlik, et al., 1991). Fort Hunter Liggett's valley oak communities exhibit rare natural topographic transitions from oak woodland and savanna to riparian oak communities. Most valley oak communities have lost their topographic diversity (Pavlik, et al., 1991).

The Shreve's oak is also considered very uncommon. This oak is rarest in California. It is the rarest of oaks found at Fort Hunter Liggett. The only known populations east of the coastal slopes of the Santa Lucia Range have been documented from San Miguel Creek in Training Area II (Painter, 2004).



Clockwise from top left: (1) *Quercus lobata*, (2) serpentine soil, (3) rock outcrop, (4) oak savanna, (5) *Quercus* mixed age, and (6) *Quercus* saplings;
 (1 & 6) Elizabeth C. Neese photos; (2 & 3) NPS photos; (4) Brenda Tharp photo; (5) Elizabeth L. Painter photo

In much of California, native grasses have been replaced by exotic annual grasses (Hamilton, 1997; Stevens, et al., 1998). Exotic annual grasslands are detrimental to the regeneration of valley oaks because they aggressively take soil moisture and form dense stands that shade out seedlings. Native grasses, on the other hand, are perennial, long-lived, and develop deep root systems which are resistant to drought thereby creating more favorable conditions for the oak seedlings (Pavlik, et al., 1991).

Fort Hunter Liggett's oak savanna is the only extensive valley oak savanna with an unplowed understory (Pavlik, et al., 1991). The absence of plowing has allowed native bunchgrasses and forbs to survive, contributing to a rare degree of integrity for a valley oak savanna community. Most valley oak savannas elsewhere "resemble the savannas of a past era only superficially" (Pavlik, et al., 1991). Native bunchgrasses, having survived despite the area's history of grazing (Hoover 2001) contribute to the successful regeneration of the oak trees.

Based on the size of stands and extent of their coverage, the diversity of age classes, the integrity of the overall community, Fort Hunter Liggett is one of relatively few areas where good oak regeneration is occurring (Keeler-Wolf 2001). In his 1981 report on resources at Fort Hunter Liggett, Dr. John Menke pointed out that "restrictions on land use have resulted in greater conservation of resources [of grassland, oak savanna & woodland and chaparral] than any other contiguous parcel in California."

Several rare plant and animal species are dependent on the oak/grassland communities on Fort Hunter Liggett. Purple amole (*Chlorogalum purpureum* var. *purpureum*) is a Federally-listed threatened oak savanna species. *Chlorogalum purpureum* var. *purpureum* occurs in the Santa Lucia Range of southern Monterey County at Fort Hunter Liggett and in northern San Luis Obispo at Camp Roberts. Recent surveys along the boundary of Training Area 13 at Fort Hunter Liggett suggest that the species may be found on

privately-owned property adjacent to Fort Hunter Liggett. At Fort Hunter Liggett, the known populations primarily exist within an open grassland community, with a smaller number of individuals found within scattered oak woodland communities and open areas within shrubland communities between 300–620 meters in elevation. At Camp Roberts, purple amole occupies microhabitat sites found within open grasslands or surrounded by scattered oak woodlands between 244 and 256 meters. (67 Federal Register 206, Oct. 24, 2002).

The only known extant populations of the California endemic, caper-fruited tropidocarpum (*Tropidocarpum capparideum*), occur on Fort Hunter Liggett in oak/grassland communities. All other previously documented populations elsewhere in California are believed to be extirpated (Painter, 2004).

Significant threatened and endangered wildlife species dependent on the oak woodlands and savanna include the rare tule elk and the Federally-listed endangered San Joaquin kit fox. Tule elk travel large distances, make extensive seasonal movements within their range, and therefore require large interconnected tracts of land that preserve a combination of grassland, oak savanna and chaparral. Endemic to California, the tule elk were once abundant, but declined from an estimated 500,000 head to less than 15 by 1874. Fort Hunter Liggett's oak woodlands and grasslands are now home to approximately 15% to 25% of the total population of tule elk, and is one of only 2 populations that meet the conditions necessary to sustain long-term genetic diversity (Ventana Wildlands Project 2000). Tule elk particularly favor grazing in riparian and bordering oak woodland areas (Stevens, et al., 1998).

The Federally-listed endangered and state listed-threatened San Joaquin kit fox inhabits grasslands, shrublands, oak woodlands and vernal pools. They can be found in low lying areas on Fort Hunter Liggett. San Joaquin kit foxes are severely declining throughout their range due to

loss of habitat. Fort Hunter Liggett contains more than 30,000 acres of potential habitat. Jolon Valley is considered suitable habitat for this species (Stevens, et al., 1998).

In addition to their natural resources values, oak woodlands and savanna at Fort Hunter Liggett have important cultural values. They are considered a remnant microcosm of the oak / hardwood woodland that previously encircled the California Central Valley. This represents to many people the quintessential California landscape. The oak landscape embodies a centuries-old popular image of a “golden California” that provides a pastoral counterpoint to the dramatic landscapes of Yosemite Valley and Death Valley (National Trust for Historic Preservation, 2001).

The extent and integrity of oaks on Fort Hunter Liggett provide excellent educational, interpretive and research potential for expanding the understanding of the ecological differences among California oak species, the role of these oak communities in the ecosystem, and their contributions to human history.

CHAPARRAL

The chaparral communities on Fort Hunter Liggett harbor rare and sensitive plant populations. Many of these rare and unusual plant species are associated with extensive outcrops of ultramafic substrates on Burro Mountain and the Los Burros Creek and Little Los Burros Creek drainages. Several of these species are known only to Fort Hunter Liggett.

Nearly all of the known populations of Santa Lucia mint (*Pogogyne clareana*) and Santa Lucia horkelia (*Horkelia yadonii*) occur in the Burro Mountain area. This area also contains the only known populations of Cooks triteleia (*Triteleia ixioides* ssp. *cookii*) and San Simeon baccharis (*Baccharis plummerae* ssp. *glabrata*) known to exist on public land. The only other known populations of San Simeon baccharis in the world are restricted to a small area on private, grazed land in Monterey County. (Painter 2004).

San Antonio collinsia (*Collinsia antonina*) and yellow-flowered eriastrum (*Eriastrum luteum*) are additional annual herbs endemic to California that are of significant conservation concern.

Three of only four verified populations of these species occur on Fort Hunter Liggett. Attempts have been made to relocate populations of San Antonio collinsia to the Lockwood area. However, these attempts have been unsuccessful, making the populations on Fort Hunter Liggett very significant (Painter, 2004).

Along Los Burros Creek, specimens of Santa Cruz Mountains pussypaws (*Calyptridium parryi* var. *hesseae*), a plant of northern distribution found in the Santa Cruz Mountains and south of the San Francisco Bay Area, were collected. The single occurrence of this species is one of only two known occurrences in the Santa Lucia Range. The only known population of slender Pentachaeta (*Pentachaeta exilis* ssp. *aeolica*), an annual herb endemic to California is known to the Los Bueyes and Los Burros Creek drainages.

Fort Hunter Liggett’s chaparral communities also contain species that are typically found in other areas of California. Lemmon’s syntrichopappus (*Syntrichopappus lemmonii*) is typically restricted to the southwestern border of the Mojave Desert and the adjoining slopes of the San Gabriel and San Bernardino Mountains. On Fort Hunter Liggett, a small community of this plant can be found near Burro Mountain. The population on Fort Hunter Liggett is the only one documented in the California Coast Ranges.

Another unusual community is an almost exclusively Tucker Oak (*Quercus john-tuckeri*) canopy that covers a chaparral in training area 29 near San Antonio Lake. The Tucker Oak is a plant of southern distribution native to the western edge of the Mohave Desert north and west to San Benito County (Painter 2004; CEMML, 1999).

RIPARIAN HABITAT AND VERNAL POOLS

Fort Hunter Liggett contains intact communities of riparian habitat and vernal pools. These are significant communities as they have been severely reduced from their former range (Noss, et al., 1997) and provide habitat for Federally-listed threatened and endangered species. Intact riparian areas can be found along the Nacimiento River, the San Antonio River delta and upper Lake San Antonio area, and El Piojo Creek.

Riparian habitat on Fort Hunter Liggett includes sycamore (*Plantanus racemosa*) alluvial woodland and cottonwood-dominated (*Populus fremontii*) and willow-dominated (*Salix* spp.) riparian woodlands. Federally-listed threatened and endangered species associated with riparian areas include the Federally-listed endangered arroyo toad (*Bufo microscaphus*) and nesting and visiting bald eagles (*Haliaeetus leucocephalus*). Riparian areas also provide potential habitat for the Federally-listed endangered species such as Least Bell's vireo (*Vireo bellii pusillus*) and the California red-legged frog (*Rana aurora draytoni*) (Stevens, et al., 1998).

Numerous natural and impounded vernal pools (seasonal wetlands that develop in shallow depressions with underlying hardpan) can be found throughout Fort Hunter Liggett. Ninety percent or more of California's vernal pools have been lost (Ferren, et al. 1996), and the losses are continuing as ranches and other undeveloped lands are plowed or developed (CEMML 1999).

Vernal pools are the sole habitat for a number of rare and threatened species including the Federally-listed threatened vernal pool fairy shrimp, found in 47 pools on Fort Hunter Liggett (Stevens, et al., 1998). Santa Lucia mint (*Pogogyne clareana*), a state-listed endangered species, is found only along stream banks and at the edges of vernal pools on Fort Hunter Liggett (CDFG 2000). Populations of *navarretia prostrate*, an annual herb, have been documented in vernal pool complexes in the ammunition supply point and around Jolon. This species is endemic to California and considered seriously endangered by the California

Native Plant Society. Together with those at Camp Roberts, the specimens of *navarretia prostrate* found on Fort Hunter Liggett may be the most viable populations left of this taxon (Painter 2004).

POSSIBLE FURTHER NATURAL RESOURCE SIGNIFICANCE

Burro Mountain

The Burro Mountain ultramafic body of alpine type peridotite, rocks from the earth's mantle that consist of minerals rich in magnesium and iron, was found to have the potential for national natural landmark designation in a 1974 National Park Service study of geological resources in the South Pacific Border Region. Burro Mountain is of special interest to geologists because of its contribution to our understanding of plate tectonics. Its shape and size, structural condition, and unusual freshness are unique among ultramafic rocks of the area. Burro Mountain also preserves a variety of rock types including peridotite, dunite and pseudopyroxenite. These rocks are comprised of minerals such as olivine, pyroxene and chromian spinels (Burch 1968).

In California, serpentine outcrops are common in isolated patches where intrusions of molten material have forced their way into the Earth's crust. The Burro Mountain ultramafic body was detached from the earth's mantle and thrust upward into the Franciscan formation (Lipps, et al, 1974). While most ultramafic rocks of the area are smaller, thoroughly serpentized, subsidiary bodies, Burro Mountain is a 1 x 1.5 mile plug-like mass of ultramafic rock. Occurrences of this size exist in other areas of California, but are rare. Even less common are masses that are only partially serpentized or "fresh." At Burro Mountain, only the outer 700 to 1000 feet of the peridotite and dunite (parent rocks) have been serpentized. The variations of serpentization within Burro Mountain are well-exposed in the deep gorge formed by Los Burros Creek that transects the formation and affords unusual views of its internal structure (Burch 1968). Exposures reveal extensive layering, dunite bands, and dikes which demonstrate the structural history of the upper mantle (see Burro Mountain graphic).

Numerous geologic and biological surveys have been conducted at Burro Mountain, demonstrating its opportunities for scientific study. Burro Mountain is of special interest to geologists because of its contribution to our understanding of plate tectonics. Its unique size and shape, structure, composition of minerals and magnificent exposures have been well documented.

Burro Mountain is also of special interest to botanists that have discovered numerous rare and endemic species associated with this unique formation. In areas with serpentine substrate, these reddish or greenish rocks usually weather into infertile soils that are high in magnesium and poor in phosphates, potassium, and calcium and are often too thin to hold moisture. Only the hardiest plants can live on these serpentine soils, where they benefit from the absence of competing plants and the absence of many harmful soil organisms. Unlike other serpentine areas in the region, the Los Burros area contains both wetland and upland serpentine communities.

Additional analysis is necessary to confirm previous conclusions on Burro Mountain's eligibility as a national natural landmark.

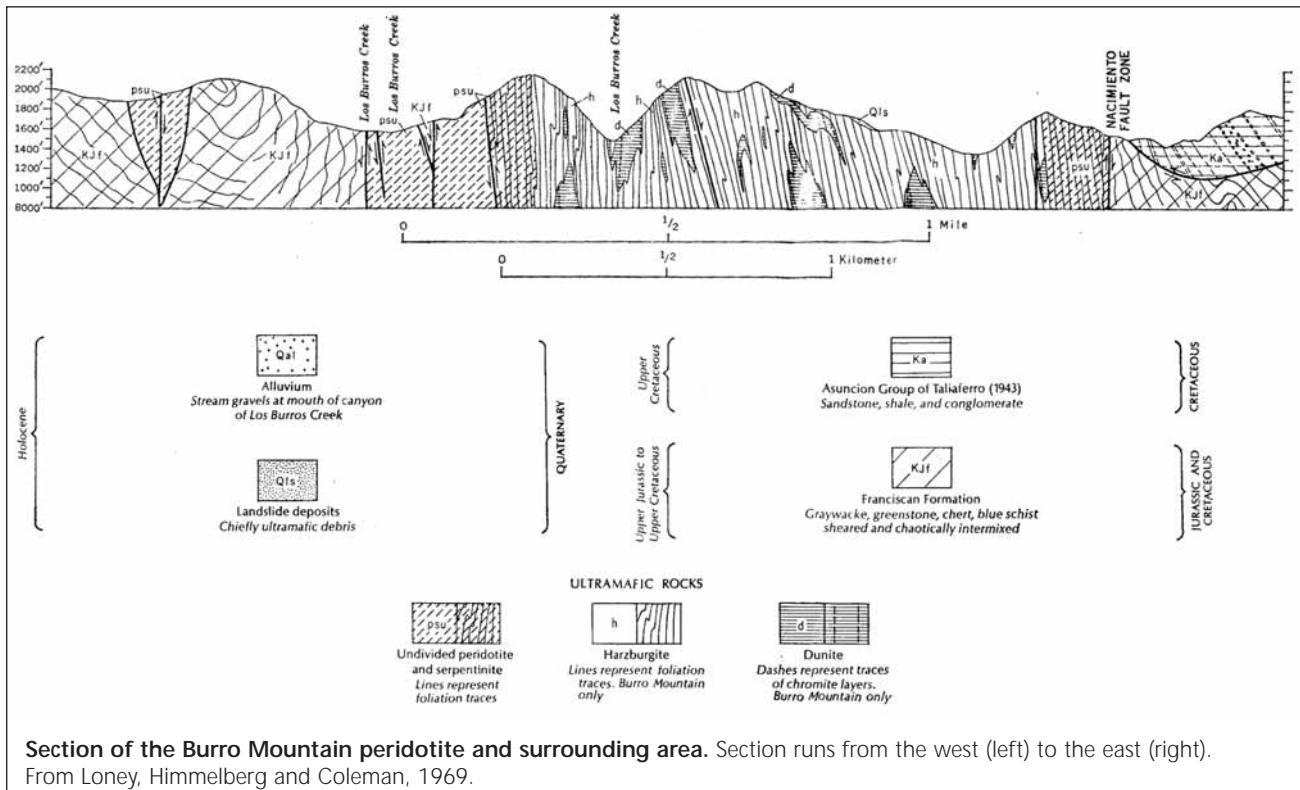
State and Local Resource Significance

Fort Hunter Liggett contains resources listed on the National Register of Historic Places at the state or local level of significance.

CULTURAL RESOURCES

There are many cultural resources of local significance associated with the Jolon area of Fort Hunter Liggett. The town of Jolon was established in the 1870s as way station for travelers on the El Camino Real. As the mining industry began to grow in the Gold Rush Era, the town of Jolon experienced a temporary boom becoming the center of commercial and social activity in southern Monterey County. John Steinbeck used the town of Jolon as a setting for his book *To a God Unknown*.

The Jolon boom period ended shortly after the Southern Pacific Railroad extended its rail line through King City, 23 miles east of Jolon in 1886. The town came under ownership by William Randolph Hearst in the 1920s, and in 1940, Hearst sold the property to the U.S. Army. Devastating



fires and early military training activities reduced the number of remaining buildings. Today, the Tidball Store, built in 1890, the Episcopal Church, built circa 1890, and the ruins of the Dutton Hotel, built circa 1878, are all that remain of what was once a larger settlement. The store and church still retain integrity but the Dutton Hotel, an adobe building, is now a protected ruin. The structures are all listed on the National Register of Historic Places at the local level of significance.

The Gil Adobe is the home built by Jose Maria Gil, a native of Spain, who emigrated first to Mexico, and then to California during the Gold Rush of 1849. When mining did not prove successful, he settled in the area of Jolon and turned to ranching and farming. He built his home of adobe in 1865 on his 260 acre -ranch. The ranch was sold in 1900. During World War II, under Army ownership, the Gil Adobe was used as a barracks. The adobe has been altered over time, and has suffered significant deterioration. It is listed on the National Register of Historic Places as a structure with local significance.

Features which contribute to the significance of the Gil Adobe site are the cobblestone masonry wall to the north and south of the building, poured concrete gate pillars, the rammed-earth storage building, and the small family cemetery west of the residence. The site features and outbuildings contribute essential information about the residence's historical use and context within a past way of life (Eidsness and Jackson 1994b).

Summary

Nationally significant cultural resources on Fort Hunter Liggett include the Milpitas Hacienda, resources associated with the Mission San Antonio de Padua, and the Juan Bautista de Anza National Historic Trail. Sites associated with Salinan pre-history possess exceptional value for scientific study and illustrate the cultural themes of our nation's heritage. Further scientific study is necessary to determine the significance and eligibility of these resources.

Nationally significant natural resources include diverse plant communities such as the oak woodlands and savanna and critical habitat for rare, threatened, and endangered species. These exceptional resources retain a high degree of integrity as true, accurate, and relatively unspoiled examples, and provide exceptional opportunities for scientific study. Geological features at Burro Mountain foster rare and unique plant communities. This area may have potential for designation as a national natural landmark. However, more analysis is required to make such a determination.

4 Suitability



The Milpitas Hacienda, Richard Crusius photo; oak savanna, Brenda Tharp photo

Suitability

Introduction

An area is considered suitable for addition to the national park system if it represents a natural or cultural resource type that is not already adequately represented in the system, or is not comparably represented and protected for public enjoyment by another land managing entity, including the private sector, other federal agencies, Tribal, state, or local governments.

Adequacy of representation is determined on a case-by-case basis by comparing the potential addition to other comparably managed areas representing the same resource type, while considering differences or similarities in the character, quality, quantity, or combination of resource values. The comparative analysis also addresses rarity of the resources, interpretive and educational potential, and similar resources already protected in the national park system or by another land managing entity. The comparison results in a determination of whether the proposed new area would expand, enhance, or duplicate resource protection or visitor use opportunities found in other comparably managed areas.

Adequacy of Representation of Themes

The National Park Service has developed a thematic framework for evaluating potential and existing units within the national park system. The basic thematic framework includes a series of natural and cultural themes. This section (1) describes how the resources fit into the thematic framework and (2) evaluates the suitability of including the resources in the national park system by examining existing park units and other sites in public ownership throughout the country to determine the extent to which the story and themes of resources considered by this study are told elsewhere.

CULTURAL THEMES

The NPS thematic framework provides guidance on:

1. evaluating the significance of resources for listing on the National Register of Historic Places, for designation as national historic landmarks, or for potential addition to the national park system
2. assessing how well the themes are currently represented in existing units of the national park system and in other recognized areas; and,
3. expanding and enhancing the interpretive programs at existing units of the national park system to provide a fuller understanding of our nation's past. (NPS 2000)

Cultural Themes and Topics Represented in Fort Hunter Liggett:

- **Expressing Cultural Values**
 - architecture, landscape architecture, and urban design
 - mass media
- **Developing the American Economy**
 - transportation and communication
- **Peopling Places**
 - encounters, conflicts, and colonization

Expressing Cultural Values

The theme “expressing cultural values” covers expressions of culture – people's beliefs about themselves and the world they inhabit. This theme also encompasses the ways that people communicate their moral and aesthetic values (NPS 2000). The Milpitas Hacienda at Fort Hunter Liggett represents cultural values through the topics “architecture” and “mass media.” As described in the “Significance” chapter of this report, the national significance of the Milpitas Hacienda lies in its association with architect Julia Morgan and media magnate William Randolph Hearst.

Architecture. The Milpitas Hacienda represents the theme “expressing cultural values” as part of an American country house complex owned and commissioned by a powerful media magnate of the early 20th century. Country houses were built in locations away from cities, closer to nature. These estates provided an expansive approach to architecture, entertainment, and landscape (Kastner 2000).

The Central California estate that includes La Cuesta Encantada (Hearst Castle®) and the Milpitas Hacienda was the most expansive and elaborate of Hearst’s country estates. While La Cuesta Encantada is the most distinctive feature of the estate and the Hearst/Morgan collaboration, the landscape and its many supporting structures complete Hearst’s romantic vision of country estate that included many other amenities and supporting structures. Agricultural use of the land, siting of structures and amenities in the landscape, architectural styles and execution of construction were all carefully planned by Hearst and Morgan.

As supporting structures on Hearst’s estate, the Milpitas Hacienda, the San Simeon Village houses, the concrete mission warehouse, and the poultry ranch were all designed by Morgan and Hearst in an architectural style that Hearst referred to as “the early California style.” The Milpitas Hacienda is the most elaborate among these supporting structures because of its scale, masterful design, ornamentation, skilled use of reinforced concrete, and integrity.



William Randolph Hearst, DN-0052955, *Chicago Daily News negatives collection*, Chicago Historical Society.

The integrity of the cultural landscape of Hearst’s 250,000-acre historic estate has largely been preserved through the ownership and management of the Hearst Corporation and the US Army. Continued protection is expected through US Army management of Fort Hunter Liggett lands and a conservation easement on the Hearst Corporation lands.

Mass Media. The Milpitas Hacienda represents the topic “mass media” through its relationship to the media empire of William Randolph Hearst. Through his media empire, Hearst played an important role in many events of national importance. He popularized “yellow journalism,” aiming for mass appeal, emphasizing sensation, sex, scandals, crusades, crime, and human interest. Hearst used his newspapers to voice his views and played a highly influential role in the national and international events of his era. He played a part in bringing about the Spanish - American War by taking up the cause of Cuban independence and he opposed American entrance into World Wars I and II. Hearst also used his newspapers to gain public acceptance of reforms such as regulation of big business and the graduated income tax (NPS 1972).

Hearst’s building of his country estate mirrored the empire building of his massive media conglomerate. He amassed land, buildings, and artwork in the same way that he acquired and controlled newspapers. The Milpitas Hacienda, as the northern ranching headquarters for his estate and a distant recreational destination for Hearst and his guests, illustrates the vast scale of his holdings. The prominent siting of La Cuesta Encantada on a hill 1,600 feet above the Pacific Ocean illustrates Hearst’s quest for power and control.

Developing the American Economy

The theme “developing the American economy” reflects the ways Americans have worked, including slavery, servitude, and non-wage as well as paid labor. It also reflects the ways they have materially sustained themselves by the processes of extraction, agriculture, production, distribution, and consumption of goods and

services. In examining the diverse working experiences of the American people, this theme encompasses the activities of farmers, workers, entrepreneurs, and managers, as well as the technology around them (NPS 2000). The Milpitas Hacienda represents the theme “developing the American economy” and the topic “transportation and communication” through Hearst’s media businesses and his massive California landholdings, described above under “mass media.”

Peopling Places

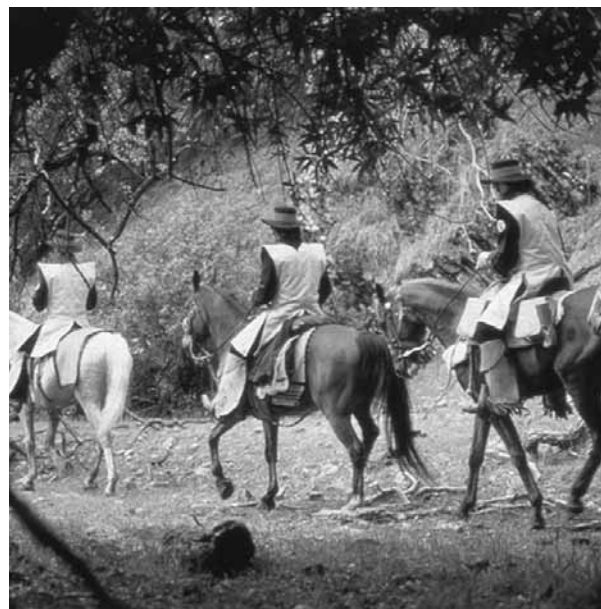
The theme “peopling places” examines human population movement and change through prehistoric and historic times. Life in America began with migrations many thousands of years ago. Centuries of migrations and encounters have resulted in diverse forms of individual and group interaction, from peaceful accommodation to warfare and extermination through exposure to new diseases. Communities, too, have evolved according to cultural norms, historical circumstances, and environmental contingencies. The nature of communities is varied, dynamic, and complex (NPS 2000). The Fort Hunter Liggett study area has cultural resources including remains of Spanish settlement that represent the theme “peopling places” and the topic “encounters, conflicts, and colonization.”

Encounters, Conflicts, and Colonization. The topic “encounters, conflicts, and colonization,” in relation to Spanish exploration and settlement, refers to “all activities by Spain within the present continental and overseas territory of the United States from Columbus’ landing on it (NPS 2000).” The story of Mission life, the Salinans, and the Anza expedition can be told through the study area’s oak savanna landscape and the archeological resources associated with the Mission and the Salinans.

Mission San Antonio de Padua, an inholding within Fort Hunter Liggett is evaluated because of the important connections of the Mission to the resources that are on Fort Hunter Liggett land. It was the third of the 21 missions established in California. A working community was established

at the Mission, including hundreds of Salinans living at the site, raising cattle, corn, wheat, quarrying building materials, in addition to the religious activities of the church. Unlike most of the other missions, no larger community grew surrounding the Mission. The characteristic oak savanna landscape surrounding the Mission remains one of the most historically intact landscape settings of all the California Missions.

The Juan Bautista de Anza National Historic Trail commemorates the route followed by Anza, a Spanish commander, in 1775–76 when he led a contingent of 30 soldiers and their families to found a presidio and mission near the San Francisco Bay. The historic route of the Anza Trail follows the San Antonio River upstream to the Mission San Antonio de Padua. The soldiers and families that Anza escorted brought with them their language, traditions, and diverse New World Hispanic culture. Almost all the expedition members were born on this continent and had mixed European, African or Indian parentage. These influences changed the lives of the indigenous peoples and shaped the development of Arizona and California.



Reenactment of the Anza Trail expedition, NPS photo

Comparisons to Similar Resources Managed by the National Park Service and by Other Entities

Expressing Cultural Values

There are no National Park Service units that represent the combination of themes of the Milpitas Hacienda and La Cuesta Encantada (Hearst Castle®) — “expressing cultural values” through architecture and mass media and “developing the American economy” through communications businesses. There are no properties associated with William Randolph Hearst or Julia Morgan represented in the national park system. The National Park Service includes units that represent the theme “expressing cultural values” through architecture in the form of mansions and country estates, but few are located on the west coast.

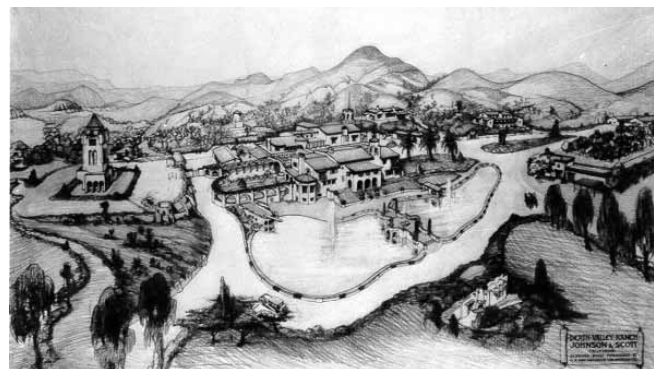
The following discussion compares character, quality, quantity, or combination of resources and opportunities for public enjoyment of the

Milpitas Hacienda and Hearst San Simeon Estate NHL to these other sites. These sites serve to illustrate distinctions between Hearst’s Milpitas Hacienda as part of his larger estate to other similar country estates.

National Park Service Sites

- **The Vanderbilt Mansion National Historic Site (NHS)** at Hyde Park, New York is a palatial estate built in the Italian Renaissance style in the 1890s by tycoon Frederick William Vanderbilt. The Vanderbilt family amassed an immense fortune in the newly developing railroad industry. The Vanderbilt Mansion represents the types of country estates constructed by wealthy industrialists. Beaux-Arts architects, including the firm of McKim, Mead, and White and Richard Morris Hunt were hired by the Vanderbilt family to design the mansion.

The Vanderbilt Estate at Hyde Park was built on a grand scale using limestone facing and



Vanderbilt Mansion National Historic Site, NPS photos

Scotty's Castle, NPS photo and illustration

modern steel and concrete supports. It has detailed ornamentation including carved wood ceilings. Other buildings and amenities at the estate include guest houses, gardens, a pergola, and ranch lands. The Vanderbilts used their mansion for entertaining the elite. The Vanderbilt Estate is perhaps the best, most intact example of this type of estate on the east coast. Except for some of the family's belongings, the mansion and its contents remain unchanged from the time the Vanderbilts lived here.

Visitor opportunities provided at the Vanderbilt Mansion NHS include ranger-guided tours, theme-based programs that include the lifestyle of the Vanderbilts and their contemporaries, and a visitor center with exhibits and a bookstore. The grounds feature breathtaking views of the Hudson River and Catskill Mountains. The formal gardens, once abandoned, have been restored. No lodging or camping is available in the park (NPS 2004a).

- **Scotty's Castle in Death Valley National Park** was built by gold prospector and teller-of-tall-tales Walter Scott (Death Valley Scotty) and Chicago insurance magnate Albert Johnson during the same period as the Milpitas Hacienda. Scotty's Castle showcases technological innovation and unequaled craftsmanship in a remote desert location. The resulting structure is a beautiful example of Spanish-Mediterranean styling filled with unique hand-wrought iron and tile, custom-made furniture, hand-selected tapestries and many European antiques.

Scotty's Castle was part of a 1,500-acre estate with very little landscaping because of its desert location. Construction of Scotty's Castle was halted in 1931 due to a land dispute, and even today the Castle remains unfinished.

Visitor opportunities are provided at Scotty's Castle as part of Death Valley National Park. More than 100,000 visitors come to Scotty's Castle each year. Park rangers conduct tours

on a daily basis for hundreds of visitors using living history interpretation, house tours, and technology tours (focused on the technology that Johnson used in building and living in his castle). Scotty's Castle is a day-use area only. Lodging and camping are available at other locations within the park (NPS 2004b).

Sites Managed by Other Entities

There are other examples of estates and country houses that represent the theme expressing cultural values through architecture that are owned by other agencies and private organizations.

- The most notable of these estates is George Washington Vanderbilt's **Biltmore Estate** in Asheville, North Carolina. The Biltmore, inspired by the country houses of the French Renaissance, is the largest private residence in the United States and is a national historic landmark. The 250-room late Gothic French chateau and surrounding structures were designed by Beaux-Arts architect Richard Morris Hunt. Vanderbilt and Hunt traveled throughout Europe to collect furniture, artwork, and architectural pieces for the property. The house has been preserved and is filled with thousands of original furnishings. "From the opulent living quarters enjoyed by family and friends to the downstairs domain of the domestic staff, Biltmore House presents a detailed portrait of life on a great 19th-century country estate (The Biltmore Company 2003)." The gardens were designed by America's premier landscape architect, Frederick Olmsted. His plans and many of the original plants have been preserved. The estate was originally comprised of 125,000 acres. Today it comprises 8,000 acres.

The estate is owned and managed today by descendants of George Vanderbilt under the Biltmore Company. It remains a self-sufficient, working estate, with preservation and maintenance of the estate funded by ticket sales to 900,000 visitors annually, retail,

and restaurant purchases. Visitor opportunities include a school program, self-guided tour of Biltmore House, specialty guided tours, gardens, and a winery. Outdoor activities include biking, horseback riding, rafting, and more. The estate includes an equestrian center and extensive trail system.

- International Harvester vice president James Deering's **Villa Vizcaya** in Coral Gables, Florida, was designed by architect F. Burrall Hoffman and designer Paul Chalfin, and completed in 1916. It is a national historic landmark that preserves in its historical context a romantic Italian villa on Biscayne Bay. The designers used various styles of architecture to have the villa appear as if it had stood for 400 years and had been occupied by several generations of a family. Vizcaya is constructed of reinforced concrete with the exterior walls stuccoed and painted to appear weathered. Originally comprising 180 acres, Vizcaya was designed to resemble a typical Italian villa, self-sufficient, with a dairy, poultry house, mule stable, greenhouse, and staff residences. All decorative elements of Vizcaya including furniture, lighting fixtures, doors, wall panels, ceilings, paintings, and fireplaces were purchased by Deering and Chalfin on expeditions throughout Europe.

Miami-Dade County opened Vizcaya as a museum in 1952 and extensive restoration has brought the house and the remaining 50 acres back to the way they appeared during Deering's day. Nearly 200,000 people visit Vizcaya each year. The museum offers general guided tours, specialized tours, and school group tours. Vizcaya's inner courtyard, outside terraces and formal Italian gardens are also available for rent for special events (Vizcaya Museum and Gardens 2004).

- **Olana** is a 250-acre estate in Hudson, New York. Designed by Hudson River School artist Frederic Edwin Church, the estate includes a cottage designed by Richard Morris Hunt and a Persian style mansion designed by Calvert

Vaux. Church chose the Persian style architecture after he and his family visited Europe and the Middle East. The Olana estate is a national historic landmark and a New York State Historic Site. The State of New York and the Olana Preservation partnership work cooperatively in the operation of the Olana estate. While scenic vistas are threatened by nearby development, and outbuildings and landscape features are threatened by deterioration, the estate still looks much the same as when Church had lived there. State and non-profit efforts are underway to address the threats. The Olana State Historic Site offers educational programs, guided tours of the house and grounds (The Olana Partnership 2004).

Comparisons Analysis: Expressing Cultural Values

Hearst's historic 250,000-acre estate is unique compared to these other sites representing country estates. Although they share some similarities such as their extravagance, ornamentation, use of concrete, and European and Middle Eastern art and furnishings, these other sites do not compare in scale and character.

Hearst's historic estate stands out among country estates in its representation of different styles and interpretation of architecture. The "early California" style architecture at the Milpitas Hacienda differs from the architectural styles used at the other country estates, including Italian Renaissance and late Gothic French chateaux. Julia Morgan, while trained in the same schools as other architects of the day, and Hearst created unique architectural interpretations drawing upon their California environment as well as indulging Hearst's passionate interests. The dramatic siting of La Cuesta Encantada high on a ridge overlooking Hearst's landholdings and the Pacific Coast, and likewise, the siting of the Milpitas Hacienda on a hill in connection with Hearst's ranching operation add to their character.

The 250,000-acre historic Hearst estate was much larger than the Biltmore estate's 125,000 acres, the 600-acre historic Vanderbilt estate or

the 1,500-acre-estate that encompassed Scotty's Castle. The landscape surrounding La Cuesta Encantada, including the elaborate gardens, lush grasslands, and miles of Central California mountain and coastline set it apart from other estates. To this day, the scenic qualities of the original 250,000-acre Hearst estate have largely been protected. The Hearst estate is also a rare example of such an estate on the west coast of the United States. The Milpitas Hacienda and San Simeon estate together are perhaps the finest example on the west coast of a wealthy industrialist's country estate.

The Milpitas Hacienda provides an important opportunity to expand the interpretation of Hearst's and Morgan's lives and careers. The Hearst San Simeon State Historical Monument and the Milpitas Hacienda offer the visitor the opportunity to experience two very different aspects of Hearst's extensive estate, and two examples of the collaborative architectural relationship between Hearst and Morgan. The Milpitas Hacienda currently provides the only possibility for experiential interpretation of the architecture created by the Morgan/Hearst collaboration, including the opportunity for overnight lodging. Few country house estates offer this type of experience.

Interpretive and Educational Potential

California State Parks has been operating Hearst San Simeon State Historical Monument since 1958. It has been visited by 33 million people since that time. The Milpitas Hacienda would expand and enhance California State Parks operation of Hearst San Simeon State Historical Monument in interpreting the full story of Hearst's vision of a country estate. Among the other support buildings associated with the estate, the Milpitas Hacienda is the only building available for public use. The addition of the Milpitas Hacienda would provide additional context for interpreting the history of Hearst's estate and Julia Morgan's work. Morgan designed upwards of 700 buildings, including schools, clubs, conference centers, churches, hospitals, and residences) over

the course of her long career (Boutelle 1995). No building once owned by Hearst and no work of Julia Morgan is currently represented in the national park system.

At Hearst San Simeon State Historical Monument, visitor interpretation and education include tours of the main house, guest houses, pools, and gardens, as well as an IMAX film. Visitors have access to Hearst Castle only on tightly timed guided tours, and have access to Hearst's lands only on the bus ride from the visitor center up the hill to La Cuesta Encantada. The addition of the Milpitas Hacienda would provide opportunities to expand the visitor experience at the Hearst San Simeon State Historical Monument. The Hacienda, as the northern extent of Hearst's former estate and a recreational destination for Hearst and his guests conveys the grandness of Hearst's vision and the vastness of his estate as it existed in the peak of his influence.

Peopling Places

While the national park system includes many park units that address European settlement and colonization, as well as contact and conflict with Native Americans, these broad themes are uniquely represented at Fort Hunter Liggett. The Fort Hunter Liggett study area provides unique representation of the theme "peopling places" and the topic "encounters, conflicts, and colonization" through the Juan Bautista de Anza National Historic Trail, the Mission San Antonio de Padua and its associated cultural resources, and archeological sites.

The discussion below compares character, quality, quantity, or combination of resources and opportunities for public enjoyment of the cultural resources within the Fort Hunter Liggett study area that represent Spanish settlement and their encounter with the native Salinan people to other similar sites.

National Park Service Sites

- San Antonio Missions National Historical Park in San Antonio, Texas tells the story of Spanish settlement in Texas through four Spanish missions (San José, San Juan, Espada, and Concepcion) that were part of a colonization system that stretched across the Spanish Southwest in the 17th through 19th centuries. The San Antonio missions are among the few relatively intact examples of the colonial missions in the Southwest. The San Antonio missions today represent a connection with the past and they remain active parishes. In addition to the missions, the park also protects habitats including riparian areas along the river and acequias and scrubland. San Antonio Missions National Historical Park is within the city limits of the city of San Antonio. In this urban location, the Missions are impacted by environmental factors such as degraded air quality, modern intrusions to scenic vistas, noise, disturbed lands, and non-native species.



San Antonio Missions National Historical Park, NPS photo

Visitor facilities and opportunities include museums at the park visitor center and Mission San Juan, interpretive films, self-guided walks, guided tours to see an active acequia (aqueduct or irrigation ditch) and ranch (NPS 2004c).

- The Presidio of San Francisco in California was founded in 1776 when Juan Bautista de Anza led Spanish soldiers and missionaries to establish this northernmost outpost of the Spanish empire in western North America on the San Francisco Bay. The Presidio was in continuous military use from 1776 until 1994. Over two centuries the Army transformed the Presidio grounds from the mostly empty windswept dunes and scrub that had greeted the Anza expedition to a verdant, preeminent military post. Because of this major transformation, there is little fabric left of the original Spanish settlement.

The Presidio is now part of the Golden Gate National Recreation Area, and is a national historic landmark district. The Presidio is rich in archeological resources, spanning from Native American sites through the Spanish and Mexican periods and United States Army use. An archeological management strategy is being prepared, which will identify methods for studying, preserving, and interpreting the archeological resources including the original 1776 Spanish settlement.

Visitors have the opportunity to enjoy the history and beauty of the Presidio including its historic architecture. The Presidio contains 11 miles of hiking trails, including part of the Juan Bautista de Anza National Historic Trail. The Presidio provides extensive educational programs (NPS 2004d).

- Tumacácori National Historical Park in the upper Santa Cruz River Valley of southern Arizona is comprised of the abandoned ruins of three Spanish colonial missions (San José de Tumacácori, Los Santos Ángeles de Guevavi, and San Cayetano de Calabazas). Established in 1908, the park tells the story of

Spanish missionaries encountering the native people of southern Arizona. The park was established in 1908; stabilization of the church ruins began in 1919. The Sonoran riparian landscape has been preserved and protected by the park. The landscape setting of Tumacácori National Historical Park is little changed from Anza's visit.

The park offers living history programs which includes the story of Juan Bautista de Anza, "captain" of the Tubac Presidio and of the Anza expedition, which traveled through Tumacácori. There are tours of the grounds, river walks, and school programs (NPS 2004).



Tumacacori National Historical Park, NPS photo.

Sites Managed by Other Entities

■ California Missions: There are 21 missions along the California Coast, established between 1769 to 1823. While each has its own unique story, all were established by Father Junipero Serra as part of Spain's colonization of the Americas. After Mexico gained independence from Spain, Mexico determined that it could no longer afford to keep the missions running, and in 1834 decided to end the mission system and sell all of the lands. Most of the missions suffered serious deterioration during this period. In 1863 legislation returned the 21 missions to the Catholic Church.

All 21 California missions are open to the public to varying extents. Two are owned and managed by California State Parks as state historical parks. The other 19 are owned and managed by the Catholic Church, which has interests both in preserving their history and in maintaining active, evolving parish

churches. Fourteen of the missions are home to active parishes and offer regular services. Many offer museums and gardens as well as the church building. Most of the missions are now surrounded by urban or otherwise modern settings. Thirteen missions are on the National Register of Historic Places; 6 are national historic landmarks. The only other mission that comes close to Mission San Antonio de Padua for its protected landscape is La Purisima Mission State Historic Park in Lompoc, California.

Comparisons Analysis: Peopling Places

The cultural resources at Fort Hunter Liggett that represent "Peopling Places" are unique compared to sites in California and the Southwest. Missions in Arizona and Texas present a different aspect of the Spanish settlement story compared to the resources at Fort Hunter Liggett. Mission San Antonio de Padua and the surrounding landscape on Fort Hunter Liggett retain greater integrity than other California Missions and Presidios. The landscape of Fort Hunter Liggett provides a setting similar to that of when Juan Bautista de Anza camped at the area. The Mission San Antonio de Padua still retains its integrity and is located on the site where the church was built in 1813. The church was restored since that time. The resources at Fort Hunter Liggett provide an important opportunity to expand the interpretation of Salinan culture, Spanish exploration and settlement in California.

Interpretive and Educational Potential

Resources at Fort Hunter Liggett enable the Anza Trail to tell a universal story of migrants crossing great distances and enduring tremendous hardships in the hope of a better way of life. The eventual expansion of the Spanish settlements that resulted from the Anza Trail came at the expense of indigenous peoples and their cultures. Along the trail route, the visitor can experience the varied landscapes; learn the stories of the expedition, its members, and descendants; better understand the American Indian role in the expedition and the diversity of their cultures; and

appreciate the extent of the effects of Spanish colonial settlement of Arizona and California (NPS 2003). The largely unchanged landscape at Fort Hunter Liggett provides context for the visitor to better understand this rich story.

The National Park Service or California State Parks could collaborate with the Monterey Diocese to interpret stories of early California exploration and settlement at the Mission San Antonio de Padua or the Milpitas Hacienda. Such collaboration could include the development of interpretive materials, such as brochures and wayside signs, walking tours to interpret early Mission life, assistance with artifact curation and display, or assistance with preservation, restoration, or interpretation of outlying features such as the gardens, aqueduct, mill, orchards, vineyards, cemetery, washing facilities, Indian quarters, and other features. Staff of the Juan Bautista de Anza National Historic Trail could work with the Mission and Fort Hunter Liggett to interpret this portion of the Juan Bautista de Anza National Historic Trail. Salinan organizations have also expressed an interest in developing partnerships to protect sensitive sites from potential visitor impacts and to interpret their heritage.

Suitability of Cultural Resources

The inclusion of the Milpitas Hacienda in the national park system would provide representation of the themes “expressing cultural values” and “developing the American economy” for its connection to Hearst’s estate and as representation of Hearst’s life. Hearst’s historic estate stands out among the American country houses for its scale and character and would provide the best example of this type of estate on the west coast. The siting and architectural design distinguishes Hearst’s country estate from the other estates in the country. Inclusion of the Milpitas Hacienda in the national park system would provide an excellent opportunity to interpret the lives of both William Randolph Hearst and Julia Morgan. The addition of the Milpitas Hacienda would expand and enhance California State Parks operation of the Hearst San

Simeon State Historical Monument in interpreting the full story of Hearst’s country estate.

The Fort Hunter Liggett study area represents the theme “peopling places” and the topic “encounters, conflicts, and colonization” through resources that represent Spanish settlement and encounters with the native Salinan people. The relatively unchanged landscape provides the historic context for the Juan Bautista de Anza National Historic Trail, the Mission San Antonio de Padua, and associated archeological sites. The Milpitas Hacienda and Fort Hunter Liggett cultural landscape would be suitable for inclusion in the national park system. However, these resources are not available to the NPS because they are in use as an Army Reserve training facility.



Mural at the Milpitas Hacienda, Richard Crusius photo

NATURAL HISTORY THEMES

The natural history thematic framework provides a basis for comparing new additions to the national park system with other candidates and similar areas currently in the system. Natural history themes are a series of categories encompassing the natural phenomena of the country.

Natural Regions (Biophysigraphic Provinces)

The physiographic and biologic features of the country tend to be regionally oriented, thereby providing an opportunity to divide the country into relatively natural regions. These regions give primary consideration to the geologic histories, structures, and landforms, which in turn influence considerably the climates, soils, vegetation, and animal life associated with the regions (NPS 1972).

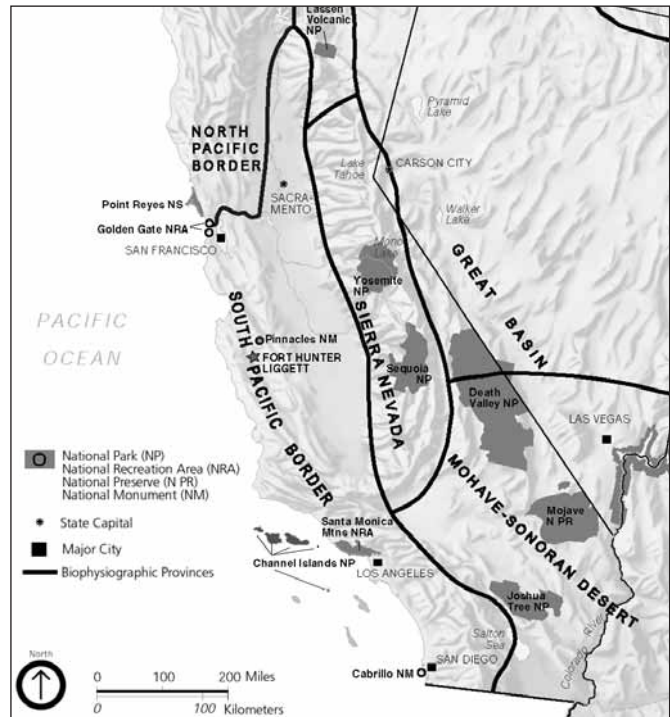
Fort Hunter Liggett is located in the southern Coast Ranges of the South Pacific Border Region, as described in “Natural History in the National Park System” (NPS 1990). This region includes the southern Coast Ranges, the Transverse Ranges, and the Peninsular Ranges of California and the Central Valley. These ranges have extensive forest composed of a mixture of coastal, Sierran, and inland species.

NATURAL HISTORY THEMES REPRESENTED IN FORT HUNTER LIGGETT:

- **Dry Coniferous Forest and Dry Woodland**
– regional theme: foothill woodland
- **Chaparral**
- **Riparian Woodland**
- **Vernal Pools**

Dry Coniferous Forest and Dry Woodland

This natural history theme is characterized by coniferous forest and woodland. The climate is warmer but drier than that of boreal (subalpine) forest, with drought setting the lower limits of elevation where these dry forests give way to steppe or chaparral (NPS 1990a).



Adapted from the Physiographic Provinces Map, NNL Program, Pacific West Region, Oakland, CA, 29Jan04, M.G. Sawlan.

Foothill woodland. The foothill woodland community is dominated by several species of oaks endemic to California. Blue oak, valley oak, gold-cup oak, interior live oak, and California Black oak can all occur together in a single stand. Digger pine and coulter pine are mostly restricted to the foothill woodland areas of California. Madrone, California Bay, and California buckeye are occasional members. (NPS 1973).

The oak woodlands and savannas of Fort Hunter Liggett represent the “foothill woodland” regional theme and have no parallel in other parts of the country. The oak woodlands and savanna habitats of Fort Hunter Liggett are unique in their combination of size and resource integrity. These habitats cover 72,000 acres and include 10 oak taxa and at least 2 named hybrids on Fort Hunter Liggett, the widest diversity of oak taxa of any area of its size in California (see “Oak Woodlands and Savanna” in the “Resource Description” chapter). These oaks include valley oak, blue oak, and coast live oak. The native understory vegetation is also an important part of the oak savanna community. The absence of plowing has allowed native grasses and forbs to survive,

contributing to a rare degree of integrity for a valley oak savanna community. Fort Hunter Liggett's oak woodlands and savanna provide habitat for many threatened and endangered species and endemics including birds, tule elk, and the purple amole. In addition, the natural setting at Fort Hunter Liggett provides a historic context for the cultural resources.

Most valley oak woodlands and savannas occur on private land. Fort Hunter Liggett has the largest valley oak habitat (over 17,000 acres) in the state that is protected through public ownership, private conservancies or land trusts.⁵ The California Department of Fish and Game estimates that there are only about 100 high quality valley oak stands, and less than 10,000 acres of high quality habitat. A significant portion of this habitat is located on Fort Hunter Liggett. Only 9% of California's valley oak woodland and savanna occur on public, tribal, or conservancy lands. Of this figure, 20% are within the

boundaries of Fort Hunter Liggett. Valley oak woodlands in the northwestern corner of Fort Hunter Liggett are contiguous with another 3,200 acres of valley oak woodland in the Wagon Caves area, part of Los Padres National Forest (Keeler-Wolf and Barbour, 1997). (See Table 6: Largest Public Land Areas Containing Valley Oak Habitat in California and Table 7: Valley Oak Habitat in Private or Public Ownership or Conservation).

Fort Hunter Liggett encompasses approximately 45,000 acres of blue oak woodland (U.S. Army Reserve Command, Fort Hunter Liggett, 2003). Blue oak is found on more than 10,000 square miles of land in California and is not considered to be endangered. However, the absence of regeneration in blue oak savannas and woodlands, combined with the effects of increasing development in habitat areas, raises concern for the long term viability of this species and the landscapes it creates (Pavlik, et al., 1991). Fort Hunter Liggett also encompasses 1,800 acres

Table 6: Largest Public Land Areas Containing Valley Oak Habitat in California

	Valley oak woodland (acres)	Valley oak savanna (acres)	Total (acres)
1. Fort Hunter Liggett	3,367	13,793	17,160
2. Los Padres National Forest	5,300	5,700	11,000
3. Sunol Regional Park and Ohlone Regional Wilderness Area	6,000	2,400	8,400
4. Henry W. Coe S.P.	7,300	-	7,300

Table 7: Valley Oak Habitat in California

	Valley oak woodland (acres)	Valley oak savanna (acres)	Total (acres)
Private ownership:	575,000	243,000	818,000
Public ownership or conservation:	58,000	27,000	85,000
Total in state:	633,000	270,000	903,000

⁵ Analysis based on land cover data from the California Gap Analysis Project, 1998. Public owners include CA Department of Fish & Game, CA Department of Parks and Recreation, CA Department of Water Resources, county/city/regional parks and preserves, Native American lands, State Lands Commission, National Oceanic and Atmospheric Administration, Bureau of Land Management, US Department of Defense, US Fish and Wildlife Service, US Forest Service, National Park Service, and various water and open space districts. Conservancies include, but are not limited to, the Audubon Society, The Nature Conservancy, land trusts, and private universities.

of coast live oak woodland, and 680 acres of sycamore alluvial wetland (U.S. Army Reserve Command, Fort Hunter Liggett, 2003). This area is considered to possess the most ecologically complete sycamore woodlands in California.

Expansive oak woodlands and savannas were once a dominant feature of the landscape during the California Mission Era. Now these landscapes are becoming increasingly fragmented or converted to agriculture, ranchettes, and urban sprawl. All sizeable locations of valley oak woodland and savanna habitat other than at Fort Hunter Liggett and Los Padres National Forest are in unprotected private ownership. Valley oak habitats are especially at risk because their locations in valley bottoms and on low foothills are also considered prime land by both farmers and developers (Pavlik, et al., 1991). The California Gap Analysis Project has recommended that valley oak woodlands, mixed serpentine chaparral, and sycamore alluvial woodland have the highest conservation priority.

Chaparral

As described in the Significance chapter, Fort Hunter Liggett contains unique chaparral communities that harbor rare endemic species and disjunct plant species, species typically found only in other regions of California. Serpentine beds harbor the largest concentrations of endemic plant species in California. Several rare and endemic species have been identified at Salmon Creek and Burro Mountain, the largest serpentine block in Monterey County. Burro Mountain features both wetland and upland endemic species associated with serpentine.

Riparian Woodland

The study area contains significant riparian areas. Riparian communities are rare and have been severely reduced from their former range in California (Noss, et al., 1997). Intact riparian areas along the San Antonio and Nacimiento rivers provide important habitat for the Federally-listed endangered arroyo toad; the Federally-listed threatened bald eagle; and the Santa Lucia mint,

an endemic species found only in reaches of the Nacimiento River on Fort Hunter Liggett. The rare tule elk particularly favor grazing in riparian and bordering oak woodland areas (Stevens, et al., 1998).

Vernal Pools

The study area contains 26 acres of vernal pools. Vernal pools were at one time common in the entire state of California and southern Oregon. Ninety percent or more of California's vernal pools have been lost (Ferren, et al., 1996), and the losses are continuing as ranches and other undeveloped lands are plowed or developed (CEMML 1999). Vernal pools at Fort Hunter Liggett provide habitat for the Federally-listed threatened vernal pool fairy shrimp and the Federally-listed endangered San Joaquin kit fox.

Comparisons to Sites Managed by the National Park Service and by Other Entities

While oak woodlands and savannas exist in several national park units, the broad array and vast expanse of oak habitat found at Fort Hunter Liggett are not currently represented in the national park system and in other publicly protected areas. Valley oak woodlands and savannas are represented at several National Park units including Santa Monica National Recreation Area, Point Reyes National Seashore, Golden Gate National Recreation Area and Pinnacles National Monument. American River Bluffs in Sacramento County, California, comprising less than 1,000 acres, was designated as a national natural landmark as an exceptional example of blue oak woodland. The nearly 20,000-acre Mount Diablo State Park was designated as a national natural landmark for natural history themes, including foothill woodland, chaparral, and blue oak woodland (NPS 1973). The Los Padres National Forest includes extensive oak woodland and savanna, but is less extensive than at Fort Hunter Liggett. The habitats at these units are not nearly as widespread or diverse as those found at Fort Hunter Liggett, and have only a fraction of the amount of rare valley oak plant communities. (See Table 8: Comparison of Oak Woodland and

Savanna at Fort Hunter Liggett with Representation in the National Park System and Table 6: Largest Public Land Areas Containing Valley Oak Habitat in California).

With the exception of the valley oak savanna at Cheeseboro Canyon, most valley oak habitats at Santa Monica Mountains National Recreation Area are disturbed and do not retain the natural understory plant associations of those at Fort Hunter Liggett (NPS 2001c). The blue oak woodland at Pinnacles National Monument comprises less than 1,200 acres and is mixed with coast live oak and other species. Because of its location at a higher altitude, its character and understory are not comparable to the rolling lowland habitat found at Fort Hunter Liggett. Point Reyes National Seashore and Golden Gate National Recreation Area have fairly extensive coast live oak habitat ranges, but very little valley or blue oak habitat. Golden Gate National Recreation Area has 3,900 acres of annual grassland habitat that also supports sparser distributions of coast live oak.

High quality riparian, chaparral and vernal pool habitats exist in other foothill areas of California. However, very few publicly owned areas of this size harbor the quantity of rare species seen at Fort Hunter Liggett.

Large areas of valley foothill riparian woodland are found on other sites throughout California. Valley foothill riparian areas of varying character and quality are located in the Sacramento and San

Joaquin Valleys, the Salinas River Valley and various coastal areas. Fort Hunter Liggett is unique in that it contains the largest extent of high quality sycamore alluvial wetlands.

The majority of vernal pool habitat in California is located in the California Central Valley which supports slightly less than 1 million acres of vernal pool habitat. Fort Hunter Liggett is part of the Central Coast Vernal Pool region. Many pools in this region have been degraded or destroyed. Small acreages of protected vernal pools are located on Fort Ord, Clear Creek Management Area (managed by the Bureau of Land Management), and San Simeon State Park.

The Cuesta Ridge Botanical Area at Los Padres National Forest land in San Luis Obispo County contains a comparable size area rich in endemic serpentine chaparral. Serpentine outcrops on Cuesta Ridge are most well-known for having one of the largest areas of Sargent Cypress (*Cupressus sargentii*) forest. Fort Hunter Liggett's Burro Mountain area differs from this 1300-acre site because it includes both wetland and upland endemic serpentine communities. The variety of species at Burro Mountain also differs greatly from Cuesta Ridge. This may be attributed to a difference in serpentine soil types. There are two general groups of serpentine soils, those derived from serpentine ophiolites and those derived from serpentinized peridotites. Soils derived from serpentinized ophiolites often consist of an iron - rich mineral, montmorillonite, and contain less

Table 8: Comparison of Oak Woodland and Savanna at Fort Hunter Liggett with Representation in the National Park System

Park Unit	Types of Oaks	Area (acres)
Santa Monica Mountains National Recreation Area	Coast live and valley oak woodlands and savannas	6,900
Golden Gate National Recreation Area	Coast live oak woodland and savanna	5,700
Point Reyes National Seashore	Coast live oak woodland	1,600
Pinnacles National Monument	Blue oak woodland	1,200
Fort Hunter Liggett	Valley, blue, and coast live oak woodlands and savannas	72,000

magnesium than serpentinized peridotite (CEMML 1999). As described in the Significance chapter, Burro Mountain is comprised of serpentinized peridotite while Cuesta Ridge is associated with the Cuesta Ridge ophiolite.

Interpretive and Educational Potential

The combination of rare plant communities at Fort Hunter Liggett provides unique opportunities for interpretation and education. While other areas in California protect similar habitats, Fort Hunter Liggett is the only location where this variety and quantity of species and habitats could be interpreted in one location.

Although much of the installation is restricted for military activities, the public may currently see the oak woodlands and savannas and chaparral communities while traveling on public roads through Fort Hunter Liggett. The natural landscape could be interpreted at the Milpitas Hacienda as part of the historic setting for the Hearst era, and for its relevance to prehistoric settlement, the Hispanic period and the settlement period. Controlled visitor access to natural features could be arranged through guided tours.

There is great potential for scientific study at Fort Hunter Liggett. The installation harbors many species that no longer exist in other areas of California. Several training areas that may harbor rare and usual plant species have yet to be inventoried. Professional botanists familiar with Fort Hunter Liggett anticipate that future surveys and monitoring will show that additional rare species listed in Table 4 may be best represented by viable populations on Fort Hunter Liggett. Additionally, Burro Mountain has been the subject of several geological studies. A 1974 NPS study suggested that this area could be eligible for national natural landmark status for its contribution to our understanding of plate tectonics.

Valley oak habitat on the Los Padres National Forest adjacent Fort Hunter Liggett to the northwest has been proposed as a Research Natural Area because it includes some of the best remaining pristine habitat of this type. This pristine valley oak habitat extends into Fort Hunter Liggett providing opportunities for a larger research area.

Suitability of Natural Resources

The combination of intact plant communities and rare species at Fort Hunter Liggett provides outstanding opportunities for interpretation, education and scientific study of natural resource types. Fort Hunter Liggett contains excellent examples of foothill woodland, chaparral, riparian woodland, and vernal pool resources. The serpentine substrate at Burro Mountain harbors, chaparral, riparian and wetland species that are only known to this location. Fort Hunter Liggett contains over 72,000 acres of oak woodlands and savanna, ten times larger than that of Santa Monica Mountains National Recreation Area. There is no equivalent size area of California oak habitat protected, whether by federal, state, local or private managers, anywhere in the United States (NPS analysis of 1998 California Gap Analysis data, Land- cover for California). Because of the threats to the oak woodlands and savannas and their increasing rarity, it would be suitable to include the protected oak habitat at Fort Hunter Liggett in the national park system. However, these resources are not available to the NPS because they are in use as an Army Reserve training facility.

Summary

The NPS has determined, based on resource quality, character, rarity and representation of cultural and natural history themes, that if the Fort Hunter Liggett study area were to become excess to the Army's needs, it would be suitable for inclusion in the national park system. The Milpitas Hacienda represents the themes "expressing cultural values" and "developing the American economy" for its connection to William Randolph Hearst's historic estate and media empire. Hearst's estate, including La Cuesta Encantada (Hearst Castle®), stands out among American country houses and would provide the best example of this type of estate on the west coast. Inclusion of the Milpitas Hacienda in the national park system would provide an excellent opportunity to interpret the lives and work of William Randolph Hearst and Julia Morgan and could expand visitor experience and interpretation at Hearst San Simeon State Historical Monument. Visitors could be provided with the

opportunity to stay overnight at the Milpitas Hacienda. As visitors tour both Hearst San Simeon State Historical Monument and the Milpitas Hacienda, they can experience the vastness of the Hearst estate that appears largely as it did at the peak of Hearst’s power.

The Fort Hunter Liggett study area represents the theme “peopling places” and the topic “encounters, conflicts, and colonization” through resources that represent Spanish settlement and encounters with the native Salinan people. The relatively unchanged landscape provides the historic context for the Juan Bautista de Anza National Historic Trail, the Mission San Antonio de Padua, and associated archeological sites.

The landscape at Fort Hunter Liggett provides representation of the natural history themes “dry coniferous forest and dry woodland,” “chaparral,” “riparian woodland” and “vernal pools.” Fort Hunter Liggett contains over 72,000 acres of oak woodlands and savanna, ten times larger than that

of Santa Monica Mountains National Recreation Area. There is no equivalent size area of California oak habitat protected, whether by federal, state, local or private managers, anywhere in the United States. Because of the threats to the oak woodlands and savannas and their increasing rarity, it would be suitable to include the protected oak habitat at Fort Hunter Liggett in the national park system.

Intact riparian areas along the San Antonio and Nacimiento rivers, vernal pools and plant communities associated with serpentine substrate provide important habitat for Federally-listed and endemic species. The combination of rare plant communities on Fort Hunter Liggett provides outstanding opportunities for interpretation, education and scientific study and is suitable for inclusion in the National Park System. However, Fort Hunter Liggett is not available to the NPS at this time because it is in use as an Army Reserve training facility and is expected to be retained by the Army indefinitely.

The following table summarizes the analysis of how resources of Fort Hunter Liggett are suitable for inclusion in the national park system.

Table 9: Suitability Analysis

THEME	SUITABILITY ANALYSIS FOR THE FORT HUNTER LIGGETT STUDY AREA
Cultural Themes	
<i>Expressing Cultural Values</i>	
Architecture, Landscape Architecture, and Urban Design	<ul style="list-style-type: none"> ▪ Quality, quantity, character: The Milpitas Hacienda is the best representation of the architectural style that Julia Morgan and Hearst used in many of the supporting structures on the historic Hearst ranch. It is the most elaborate among these structures because of its scale, masterful design, ornamentation, skilled use of reinforced concrete, and integrity. ▪ Rarity: Among the other buildings associated with San Simeon not in public ownership that exist today, the Milpitas Hacienda is the only building available for public use. ▪ Interpretive and educational potential: Addition of the Milpitas Hacienda would expand and enhance California State Parks operation of Hearst San Simeon State Historical Monument in interpreting the full story of Hearst’s vision of a country estate. ▪ Similar resources protected: NPS units that represent architecture in the form of large estates in the 19th and early 20th centuries include the Vanderbilt Mansion NHS and Death Valley NP’s Scotty’s Castle. Other estates managed by other entities include the Biltmore Estate, Vizcaya, and Olana. These sites do not compare in scale and character. The surrounding landscape, including the elaborate gardens, lush grasslands, and mountains of Central California adds to the uniqueness of the Milpitas Hacienda and San Simeon estate.
mass media	<ul style="list-style-type: none"> ▪ Quality, quantity, and character: Hearst often ran his media conglomerate that included newspapers, radio stations, wire services, newsreels, and a movie company from La Cuesta Encantada. ▪ Interpretive and educational potential: Opportunity to interpret how Hearst used his newspapers to voice his views and played a highly influential role in the national and international events of his era. ▪ Similar resources protected: There are no units in the national park system that represent mass media.

THEME	SUITABILITY ANALYSIS FOR THE FORT HUNTER LIGGETT STUDY AREA
Cultural Themes	
<i>Developing the American Economy</i>	
Transportation and Communication	See "mass media" above
<i>Peopling Places</i>	
Encounters, Conflicts, and Colonization	<ul style="list-style-type: none"> ▪ Quality, quantity, character: The integrity of both the landscape and cultural and archeological resources associated with Fort Hunter Liggett and the Mission San Antonio de Padua significantly contribute to the story of the Juan Bautista de Anza National Historic Trail. The landscape setting of the mission is little changed from Anza's visit. ▪ Rarity: The Mission San Antonio de Padua is one of only five California Missions that existed during the 1776 Anza expedition and is one of the locations that are historically significant to the trail. ▪ Interpretive and educational potential: There may be opportunity to work with the Mission San Antonio de Padua in interpreting the stories of mission life, the native Salinan people, and the historic trail. Interpretation and educational programs could be located at the Milpitas Hacienda and at the Mission. The stories can be told through the archeological resources associated with the Mission. ▪ Similar resources protected: The Mission is owned and protected by the Monterey Diocese. Comparable sites differ from the study area in that most are located in urban areas. Other NPS units similar to this resource that represent this theme include: San Antonio Missions National Historical Park, the Presidio of San Francisco, and Tumacácori National Historical Park. The 20 other California Missions, owned by either the Catholic Church or CA State Parks also represent this theme.
Natural History Themes	
<i>Dry Coniferous Forest and Dry Woodland</i>	
foothill woodland	<ul style="list-style-type: none"> ▪ Quality, quantity, character: The oak woodlands and savanna habitats of Fort Hunter Liggett are unique in their combination of size and resource integrity. These habitats cover 72,000 acres and include 10 oak taxa and at least 2 named hybrids on Fort Hunter Liggett, the widest diversity of oak taxa of any area of its size in California. The absence of plowing has allowed native grasses and forbs to survive, contributing to a rare degree of integrity for a valley oak savanna community. The Fort Hunter Liggett area is considered to possess the most ecologically complete sycamore woodlands in California. ▪ Rarity: The California Department of Fish and Game estimates that there are only about 100 high quality valley oak stands, and less than 10,000 acres of high quality habitat. A significant portion of this habitat is located on Fort Hunter Liggett. ▪ Interpretive and educational potential: The National Park Service and California State Parks would interpret the landscape, including the oak woodlands and savannas, as part of the historic setting for the cultural resources. ▪ Similar resources protected: Despite the fact that California's oak landscapes are a powerful emblem of wild California, comprising a rich assemblage of plant and animal life unlike anywhere else on the planet, such a broad array and vast expanse of oak habitat is not currently represented in the national park system.
<i>Chaparral, Riparian Woodland, Vernal Pools</i>	
	<ul style="list-style-type: none"> ▪ Quality, quantity, character: The total number of sensitive plant species on Fort Hunter Liggett is among the highest for similar sized areas of California. Intact riparian areas along the San Antonio and Nacimiento rivers and vernal pools provide important habitat for the Federally-listed species. The Fort Hunter Liggett area is considered to possess the most ecologically complete sycamore woodlands in California. Chaparral communities associated with serpentine substrate harbor a high number of endemic species. ▪ Rarity: The unique geological substrate of Fort Hunter Liggett harbors several plant communities typically found in other areas of California. Several rare chaparral species are known only to Fort Hunter Liggett. ▪ Interpretive and educational potential: The National Park Service and California State Parks would interpret high diversity of rare and endemic species. ▪ Similar resources protected: High quality riparian, chaparral and vernal pool habitats exist in other areas of California. Very few publicly owned areas of this size harbor the quantity of rare species seen at Fort Hunter Liggett. Many plant species are known only to the Santa Lucia Mountains. While some of these rare species can be found on the adjacent Los Padres National Forest, the geology and plant communities on Fort Hunter Liggett are more diverse.

LS Feasibility



Above: San Antonio River, Brenda Tharp; Below: The Milpitas Hacienda, NPS photo

Feasibility

Introduction

To be feasible as a new unit of the national park system, an area must: (1) be of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and potential impacts from sources beyond proposed park boundaries); and (2) be capable of efficient administration by the National Park Service at a reasonable cost (NPS *Management Policies*, 2001, Section 1.3.3).

In evaluating feasibility, the NPS considers a variety of factors, such as:

- Size and boundary configurations;
- Land ownership patterns; current and potential uses of the study area and surrounding lands; local planning and zoning for the study area;
- Access and public enjoyment potential;
- Costs associated with acquisition, development, restoration, and operation;
- Current and potential threats to the resources; existing degradation of resources;
- Level of local and general public support; and
- Economic/socioeconomic impacts of designation as a unit of the national park system.

An overall evaluation of feasibility is made after taking into account all of the above factors. However, evaluations may sometimes identify concerns or conditions, rather than simply reach a “yes” or “no” conclusion. For example, some new areas may be feasible additions to the national park system only if landowners are willing to sell; or the boundary encompasses specific areas necessary for visitor access; or state or local governments will provide appropriate assurances that adjacent land uses will remain compatible with the study area’s resources and values. (NPS *Management Policies*, 2001, Section 1.3.3).

The draft study report evaluated the feasibility of NPS management of a) property that was excess to the Army and made available to the NPS through the BRAC process, and b) Fort Hunter Liggett as a whole. Because the Fort Hunter Liggett excess property has been removed from the BRAC list and is no longer excess to the Army, this final study report does not make a distinction between excess property and other parts of Fort Hunter Liggett.

The feasibility analysis recognizes that Fort Hunter Liggett remains an active Army Reserve training facility, and none of the installation is currently available for transfer to the NPS or other agencies. Therefore it is not currently feasible to manage any part of Fort Hunter Liggett as a unit of the national park system.

This section uses the NPS feasibility criteria to analyze and document the feasibility of two possible long-term scenarios: a) a historic site centered around the Milpitas Hacienda, and b) Fort Hunter Liggett as a park.

The following factors were considered:

Boundary Size and Configuration

An acceptable boundary for an envisioned unit of the national park system should provide for the inclusion and protection of the primary resource; sufficient surrounding area to provide a proper setting for the resource or to interrelate a group of resources; and sufficient land for appropriate use and development.

HISTORIC SITE

The Milpitas Hacienda and related buildings are situated on a 21-acre site known as “Hacienda Hill.” The Milpitas Hacienda is the only nationally significant resource in this area. Other historic structures such as the tin barn (fire station) and ranch bungalows have been found to be ineligible for listing on the National Register of Historic Places (Eidsness and Jackson, 1994). The Hacienda Hill area, if made available for management as a historic site, would include and protect the primary resource of significance.

The setting of the Milpitas Hacienda has been compromised by the development of the cantonment area to the north and east, including addition of new buildings, paved roads and parking lots. However, views of the Milpitas Hacienda in several locations are comparable to views of the Milpitas Hacienda in the 1930s when Hearst used it. Further description of the setting and the cultural landscape of the Milpitas Hacienda can be found in the “Significance” chapter of this report. The area that provides the landscape setting for the Milpitas Hacienda is managed by the Army and is expected to retain its current appearance for the foreseeable future. Mission San Antonio de Padua is within view of the Milpitas Hacienda, to the northwest. The Army considers views from the Mission to be sensitive, and restricts training exercises and vehicle movement near the Mission (Army Corps of Engineers 2000). Protection of the Mission viewshed would contribute substantially to the protection of the setting of the Milpitas Hacienda.

The Hacienda Hill area, if made available for management as a historic site, appears to provide sufficient land for appropriate use and development. Several of the nearby ranch bungalows and the tin barn are part of the historic setting of the Milpitas Hacienda, and could be appropriate for park administration, visitor services or staff housing use. At the Jolon townsite, the Gil Adobe and land under and adjacent to the Tidball Store are locally significant and would be suitable for local and non-profit management and/or ownership.

FORT HUNTER LIGGETT

The 164,261 acre study area, encompassing all of Fort Hunter Liggett, contains exceptional natural resources, biological communities of a relatively undisturbed and expansive nature, historic resources listed on the National Register of Historic Places, at least 600 archeological sites, and a cultural landscape illustrating the broad sweep of California history.

Fort Hunter Liggett as a whole, if made available for management as a park, would be sufficient to protect these resources and provide a suitable setting for them, and would provide sufficient land for appropriate use and development. If a smaller area were made available for park management, the boundary would need to be evaluated to determine whether it would include and protect these nationally significant resources, provide a suitable setting for them, and provide sufficient land for appropriate use and development.

Land Use, Ownership Patterns, Planning and Zoning

Fort Hunter Liggett is currently under federal ownership, managed as part of the Western Training Center for the US Army Reserve. Military bases are included in the Public/Quasi - Public land use category in the Monterey County General Plan (Monterey County, 1995 and 2004). As federal land, Fort Hunter Liggett is not subject to local zoning. Jolon Road, which the Tidball Store land abuts, is proposed in the January 2004 draft Monterey County General Plan to be designated as a Winery Corridor. This designation would likely be compatible with visitor-serving uses or cultural resource conservation activities at this site. The Milpitas Hacienda is currently managed by a concessioner and provides visitor lodging and food service. These uses would likely be compatible with a historic site or park.

All lands and facilities at Fort Hunter Liggett have been determined by the Army to be necessary to support the training mission, and are expected to be retained by Fort Hunter Liggett for the indefinite future. These lands are therefore not available for transfer to the NPS or any other organization at this time, and NPS management is not currently feasible. However, recent legislation gives the Department of Agriculture (U.S. Forest Service) the right of first refusal on any properties that are determined to be excess to the Army’s needs at any time in the future. Thus management for public use and recreation could occur in the future, if the land is not needed for military use.

Other park agencies or organizations could also be involved in management of the area in partnership with the U.S. Forest Service. Collaboration with California State Parks could further enhance the potential for public use and enjoyment.

Local government and private inholdings within Fort Hunter Liggett include the Mission San Antonio de Padua, Saint Luke's Episcopal Church and cemetery, and the Tidball Store structure. These lands are not the subject of this study. However, current uses would be compatible with park management.

Access and Public Enjoyment Potential

Fort Hunter Liggett is located in southern Monterey County, approximately 20 miles from Highway 101 and 25 miles from the coastal Highway 1. It is within half a day's drive for over 10 million people in northern and central California.

While no comprehensive visitation numbers exist, discussions with managers of the Mission and the Milpitas Hacienda indicate that at least 22,000 people have visited these sites annually, including military and civilian staff and their guests, military trainees, visitors and parishioners of the Mission San Antonio de Padua, and diners and overnight guests at the Milpitas Hacienda. In addition, approximately 6000 anglers and hunters are estimated to visit Fort Hunter Liggett, for a minimum of 28,000 annual visitors. Visitation numbers presumably declined in 2001 and 2002, based on restricted access after September 11, 2001.

HISTORIC SITE

The Milpitas Hacienda has strong potential for continued and increased public enjoyment. It is the only extant structure directly associated with William Randolph Hearst and Julia Morgan, outside the Hearst San Simeon State Historical Monument, that could be made available for public use; other structures are privately owned. Operated as a restaurant and hotel, the Milpitas Hacienda provides the only possibility for

experiential interpretation of the architecture created by the Morgan/Hearst collaboration. There are opportunities for a range of activities, including touring the historic structure, eating in the dining room, staying overnight, and interpretive programs and materials regarding the Hearst years, architect Julia Morgan, early California settlement, and military history.

Access to the Milpitas Hacienda is dependent upon access through other portions of Fort Hunter Liggett. Fort Hunter Liggett policies have generally allowed public access to the cantonment area, Mission San Antonio de Padua and other inholdings, and on through roads. However, during periods of heightened security concern, access to the installation has sometimes been restricted. While occasional closures for safety or security purposes can be expected, regular and relatively open access to the Milpitas Hacienda is the norm and would be necessary for this area to function as a historic site. Prolonged closure could impact visitor experiences and jeopardize park budgets, concessioner contracts and economic viability, and other funding sources for resource protection.

Unexploded ordnance (UXO) can be found in other portions of Fort Hunter Liggett, but is not known to exist in the cantonment area or paved and unpaved roads used to reach this area.

The Milpitas Hacienda area provides sufficient potential for public enjoyment. Sufficient public access can be provided to this area, except during the relatively rare times when security or safety issues limit public access.

FORT HUNTER LIGGETT

In the long term, the natural and cultural resources of Fort Hunter Liggett have strong potential for public enjoyment, based on their quality and integrity. The oak woodland and savanna ecosystems and the Juan Bautista de Anza National Historic Trail are of particular interest. Fort Hunter Liggett currently draws a steady stream of visitors who drive through to



The Gil Adobe with protective tarps, NPS photo

enjoy the scenery, or who visit the Milpitas Hacienda or Mission in part because of the installation's pastoral setting. Public access is limited to Jolon, Mission Creek, Nacimiento - Fergusson, Infantry and Del Venturi roads. These roads provide access to the cantonment area and the various inholdings, and offering a route through the Santa Lucia Mountains to the Pacific Coast. Certain roads are closed to the public under high security alert conditions or when training activities require temporary closure.

Fort Hunter Liggett currently provides recreational access to the general public under the direction of the Sikes Act (16 U.S.C. 670a), which provides for "(A) the conservation and rehabilitation of natural resources on military installations; (B) the sustainable multi-purpose use of the resources, which shall include hunting, fishing, trapping, and nonconsumptive uses; and (C) subject to safety requirements and military security, public access to military installations to facilitate the use." Fort Hunter Liggett's public access program currently focuses on hunting and fishing opportunities. Hunters and anglers are allowed access to the installation through day - use permits, as provided for by the Sikes Act, as described above. Access is permitted only when it does not conflict with training needs and safety requirements. An extensive network of unpaved roads and trails exists and is currently used for hunting/fishing access.



Palisades area, NPS photo

If portions of Fort Hunter Liggett are made available for park management and public use, access and public enjoyment opportunities could be greatly expanded. There is an extensive road network which could be converted to trails, providing access to the oak woodlands and savannas, geologic features such as the Palisades, streams and riparian areas, and scenic viewpoints. Interpretive themes could include the oak savanna, oak woodland and riparian ecosystems, Salinan culture and the 6000-year Native American presence in the area, European and Mexican exploration and settlement, the Hearst Ranch years, architect Julia Morgan, and military training use of the area. There would also be widespread educational and scientific study opportunities.

Unexploded ordnance (UXO) is known to exist in some of the undeveloped areas of Fort Hunter Liggett, limiting the potential for public access to these areas in the near term. Ordnance has been used throughout Fort Hunter Liggett since its establishment as a military reservation during World War II. Since the 1970s training units have been required to police the area for UXO upon the completion of their training. Despite the policy, ordnance has been found in virtually every training area (US Army Corps of Engineers 1999). While impact areas such as the Gabilan and Stony Valleys have a higher concentration of UXO than areas with less use, few areas outside the

cantonment area have been fully tested or cleared of UXO. Remediation for unexploded ordnance and other environmental contaminants would be required before land could be transferred to other agencies. If this remediation were completed, the area would provide sufficient access and public enjoyment potential. Public access to remediated areas could be allowed while other areas remain un-remediated and closed to public access.

Existing Resource Degradation and Threats

Fort Hunter Liggett contains natural and cultural resources of high quality and integrity. The installation has a resource management staff dedicated to protecting these resources, but military activities may pose threats to the resources.

HISTORIC SITE

The Milpitas Hacienda structure is in good to excellent condition with the exception of water damage that has stained and loosened plaster at areas near the open corner towers. There are no immediate threats to this building.

FORT HUNTER LIGGETT

Military training on Fort Hunter Liggett that may affect significant natural resources includes activities such as live-fire exercises, field maneuvers, fixed-range firing, aviation, or weapons testing (Clark 2000). Military operations and wildfires have increased soil erosion. Wheeled and tracked traffic has also impacted archeological sites: 81% of surveyed sites showed evidence of such disturbance (Eidsness and Jackson 1994b). There are also reports of unauthorized access to Salinan sacred sites, resulting in damage, destruction or removal.

Fires at Fort Hunter Liggett are caused by natural occurrence, training or other human activity, and controlled burns. Fort Hunter Liggett has adopted a plan for controlled burns in order to reduce the fuel load in areas used for live fire exercises, for chaparral management, to reduce star-thistle, break up even-aged stands of

chaparral to improve wildlife habitat, reduce cattail stands at reservoirs, and to protect against fires escaping off-post onto private land. Military training occurring during the hot, dry summer has the greatest potential to ignite wildfires.

The oak woodlands and savannas of Fort Hunter Liggett may be threatened by Sudden Oak Death (*Phytophthora ramorum*), which has been found in Monterey County.

Public Interest and Support

Public interest in the Fort Hunter Liggett Special Resource Study process has been moderate. There has been support for NPS involvement in the area, as well as concern about possible NPS restrictions on the mission of Fort Hunter Liggett and concerns about the impacts of increased visitation to the area. There appears to be widespread appreciation of the value of the natural and cultural resources on Fort Hunter Liggett, recognition of Fort Hunter Liggett's protection of those resources to date, and desire for continued public access to the Milpitas Hacienda. A summary of public comments received during the scoping period can be found in Appendix G. Public comments received on the draft study report can be found in Appendix H.

Major stakeholders in the future of Fort Hunter Liggett include: Fort Hunter Liggett staff and residents; military units using Fort Hunter Liggett for training (particularly nearby Camp Roberts); Salinan groups, whose ancestors once inhabited this area; the adjacent Los Padres National Forest; California State Parks, which manages Hearst Castle® (Hearst San Simeon State Historical Monument); the Monterey Diocese of the Catholic Church, which owns the Mission San Antonio de Padua and surrounding lands; Monterey County Parks Department, which owns the Dutton Hotel and the Tidball Store structure; and the Milpitas Hacienda concessioner. Other interest groups include the California Native Plant Society, the Friends of Historic San Antonio Mission, the San Antonio Valley Historical Association, the Ventana Wilderness Alliance, the

Ventana Conservation and Land Trust, the Big Sur Sanctuary Coalition, the Pelican Network, and hunting interests.

Social and Economic Impact

HISTORIC SITE

A historic site at Fort Hunter Liggett could be expected to increase the number of recreational visitors by approximately 10,000 visitor days per year in the short term. Based on analysis of visitation at nearby parks, longer term annual visitation could be substantially higher, from 50,000-75,000, depending on how the area is managed and marketed. These visitors would contribute to the local economy by purchasing various goods and services, including food, gasoline, and lodging. However, these visitation numbers are still small, relative to regional visitation in the Monterey Bay area, Hearst San Simeon State Historical Monument, and Big Sur.

Socioeconomic impacts of historic site designation could be expected to be beneficial and minor to moderate, and would likely support the feasibility of historic site designation.

FORT HUNTER LIGGETT

A park involving the broader Fort Hunter Liggett installation could have substantial socioeconomic impacts, primarily from increased visitation and public and private investments in visitor services. Impacts would depend on the scale of the park and the level of continuing military use.

Costs Associated with Acquisition, Development, Restoration and Operation

HISTORIC SITE

Acquisition and Development: It is assumed that direct costs for acquisition of the Milpitas Hacienda and related historic areas would be waived and the property transferred as a “No Cost Transfer” to the receiving agency. However, all indirect costs would be paid by the receiving agency. Costs for site surveys, initial research and



Hacienda restaurant, NPS photo

planning, renovation and development of visitor facilities would be moderate.

Park Operations, Maintenance, Restoration and Capital Costs:

The NPS has estimated park operations costs at approximately \$400,000–600,000 annually, assuming a concessioner offers lodging and food services in the Milpitas Hacienda and funds the structure’s routine maintenance and certain operational aspects. Annual operating budgets for several comparable National Historic Sites are presented in Table 10: National Historic Site Annual Operating Budgets, for comparison.

Major capital investment in the Milpitas Hacienda would at some point be necessary. A study of the hospitality potential at the Milpitas Hacienda suggests that necessary capital investment and cyclic maintenance for the Milpitas Hacienda can feasibly be financed by a concessioner (Bay Area Economics, 2001). “As is” renovation of the Milpitas Hacienda could cost \$300,000 and would include new finishes in rooms, upgrades to fixtures and furnishings, and

upgrading of mechanical systems. This renovation cost would be incurred by the concessioner and could be financed through increased room rates. Full rehabilitation of the Milpitas Hacienda to a high quality, full-service hospitality operation could cost \$3–6 million (Bay Area Economics, 2001). Renovation of Building 124 for administrative offices and/or visitor center could cost \$400,000. Full renovation of the other ranch bungalows could cost \$1 million (NPS - PWRO Facility Management Program).

Gil Adobe and Tidball Store: The costs of management of the Gil Adobe and land under and adjacent to the Tidball Store were not assessed, because these areas are not nationally significant and not suitable for management in a national park unit. However, these areas are locally significant and would be suitable for local and non-profit management and/or ownership. These areas could be managed by Monterey County Parks Department, California State Parks or a non-profit. Costs for basic stabilization to maintain current conditions would likely be minimal. Costs for full rehabilitation of the Gil Adobe could be substantial.

FORT HUNTER LIGGETT

The costs of establishing a park in the broader Fort Hunter Liggett installation have not been determined. If any such transfer were to occur, land acquisition costs would presumably be minimal. The managing organization would likely accept transfer of such property only after appropriate cleanup of unexploded ordnance and other hazardous materials. Park development and operations costs could be substantial. Table 11: National Park Unit Annual Operating Budgets provides park operating budgets for a selection of existing national park units. Based on these costs, management of a larger park at Fort Hunter Liggett could be estimated at \$1-5 million annually. Capital investment could be required for facilities such as a visitor center, restroom facilities, parking areas, campgrounds, etc.

Table 10: National Historic Site Annual Operating Budgets

Historic Site	Historic Structure/ Feature	Annual Operating Budget	Annual Visitation
Carl Sandburg NHS, NC	Residence, dairy goat barn, farmland	\$ 932,000	38,000
Eisenhower NHS, PA	Residence, farmland, barns, cattle operation	\$1,036,000	76,000
Eugene O'Neill NHS, CA	Residence, courtyard, orchards	\$ 360,000	3,700
John Muir NHS, CA	14 room Muir house, Martinez Adobe, orchard, oak woodlands	\$ 639,000	27,000
Ulysses S Grant NHS, MO	Main house, barn, outbuildings	\$ 561,000	25,000
Vanderbilt Mansion NHS, NY	54 room mansion, gardens	\$1,111,000	389,000

Source: National Park Service, 2002

Affiliated Area Designation

In cases where a study area’s resources meet criteria for national significance but do not meet other criteria for inclusion in the national park system, the NPS may instead recommend an alternative status, such as “affiliated area” (NPS 2001a). Affiliated areas are nationally significant areas not owned or administered by the NPS, but which draw on technical or financial assistance from the NPS (NPS 2001b). To be eligible for “affiliated area” status, an area’s resources must: (1) meet the same standards for national significance that apply to units of the national park system; (2) require some special recognition or technical assistance beyond what is available through existing NPS programs; (3) be managed in accordance with the policies and standards that apply to units of the national park system; and (4) be assured of sustained resource protection, as documented in a formal agreement between the NPS and the other management entity (NPS *Management Policies*, 2001, Section 1.3.4). The draft study report evaluated the potential for “affiliated area” designation for the Milpitas Hacienda, assuming it would be managed by

California State Parks, and concluded that the area met the criteria for an affiliated area of the national park system.

Under continued Army management, the Milpitas Hacienda and other parts of Fort Hunter Liggett still meet the standards of national significance that apply to the national park system. However “affiliated area” status would only be feasible if the Army, as landowner and manager, is supportive of this designation. If the Army seeks this designation in the future, an evaluation would need to be completed addressing the criteria listed above.

Table 11: National Park Unit Annual Operating Budgets

Park	Annual Operating Budget	Acreage	Annual Visitation
Big Thicket National Preserve, TX	\$2,300,000	97,000	103,000
Great Basin National Park, NV	\$1,900,000	77,000	87,000
Lassen Volcanic National Park, CA	\$3,700,000	106,000	387,000
Lava Beds National Monument, CA	\$1,200,000	46,500	114,000
North Cascades National Park WA	\$5,500,000	684,000	390,000
Pinnacles National Monument, CA	\$2,200,000	17,600	165,000
Santa Monica Mountains National Recreation Area, CA	\$5,200,000	153,700	469,000
Tallgrass Prairie National Preserve, KS	\$900,000	11,000	17,000

Source: National Park Service, 2002

Summary

Hacienda Hill and Fort Hunter Liggett as a whole, if available for transfer to another agency or organization, would protect the primary resources, provide a suitable setting for these resources, and provide sufficient land for appropriate use and development. Management of the area as a park or historic site would be compatible with local zoning and surrounding land uses. The natural and cultural resources have a strong potential for public enjoyment, based on their quality and integrity. After remediation for unexploded ordnance and other environmental contaminants, the area could provide sufficient access and public use potential.

However, Fort Hunter Liggett remains an active Army Reserve training facility, and none of the installation is currently excess to the Army's needs or available for transfer to the NPS or other agencies. Therefore it is not currently feasible to manage any part of Fort Hunter Liggett as a unit of the national park system.



9 Management Options & Opportunities

Vernal pool reflection, Elizabeth Painter photo

Management Options and Opportunities

Introduction

The following section describes:

- management options considered in the draft study report,
- other management options previously considered,
- resource protection measures that emerged during the study process that the Army could pursue to support and enhance protection of the nationally significant cultural and natural resources at Fort Hunter Liggett, and
- possible future management opportunities, if land becomes available for transfer.

NPS *Management Policies* specify that alternatives for management by the NPS will only be developed for study areas that are found to be nationally significant, suitable, and feasible for addition to the national park system, and when direct NPS management of the study area is identified as “clearly superior” to management by other public agencies, private conservation organizations, or individuals (NPS *Management Policies*, 2001, Section I.3.4).

The NPS recognizes that many other organizations successfully manage important natural and cultural resources. The NPS applauds these accomplishments, and actively encourages the expansion of conservation activities by state, local and private entities, and by other federal agencies. Areas managed by these diverse conservation interests constitute a “nationwide system of parks,” not just a “national park system.”

Because of the recent change in status and policy regarding excess property at Fort Hunter Liggett, no property is currently considered excess to the Army’s needs, and the Army will continue to manage the unique resources of Fort Hunter Liggett.

Management Options Considered in the Draft Study Report

In the *Draft Fort Hunter Liggett Special Resource Study* report, the NPS considered a no-action alternative, plus one other management option that addressed the areas determined through the BRAC realignment process to be excess to the Army’s needs. These alternatives were presented in greater detail in the “Alternatives” chapter of the draft study report, and their environmental and socioeconomic consequences were analyzed in the draft *Environmental Assessment*.

Because the properties at Fort Hunter Liggett that were the subject of these alternatives are no longer considered excess to the Army’s needs, these alternatives are no longer viable. A “No Action” scenario would now include continued Army management, with the authority to invest funds in the maintenance and operation of these areas. Transfer to other agencies, as envisioned in Alternative B is not feasible because there is no longer any property available for transfer. Therefore these Alternatives are no longer included in this study report.

FORMER DRAFT ALTERNATIVE A: NO ACTION

This alternative was based on an assumption that the Army needed to dispose of the BRAC excess property, and could no longer spend Army funds on the maintenance or operations of these areas.

Under this alternative, the Army would have retained the excess property in interim use status for an indefinite period, during which minimal or no maintenance activities would be conducted. No change in use was expected for any of the excess property during this interim period. The Army would continue to manage the remainder of the Fort Hunter Liggett installation. The NPS would have no involvement in the ownership or management of any Fort Hunter Liggett structures or properties. At some future time, it was assumed that the Army would pursue one of the options outlined in the Army’s *Environmental Assessment for the Disposal and Reuse of the BRAC Property at Fort Hunter Liggett* or would take other action, at their discretion.

FORMER DRAFT ALTERNATIVE B: ADDITION TO HEARST SAN SIMEON STATE HISTORICAL MONUMENT AND DESIGNATION AS AN AFFILIATED AREA OF THE NATIONAL PARK SYSTEM

This alternative was based on an assumption that several historic and other properties were available for transfer to the NPS or other agencies through the BRAC excess property process.

Under this alternative, legislation would have authorized direct transfer of the Milpitas Hacienda complex and the ranch bungalows to California State Parks to be managed as an addition to Hearst San Simeon State Historical Monument (Hearst Castle®) and as an affiliated area of the national park system.

Legislation would have authorized direct transfer of the Gil Adobe and the one acre of land under and adjacent to the Tidball Store to California State Parks or Monterey County Parks Department. An agreement with a nonprofit organization was suggested in order to provide for management of these sites at little or no cost to the public agency.

This alternative included an option for the Javelin Court area, including 41 housing units, to be transferred to California State Parks to be operated as rental housing. The revenue from managing the housing area would have been available to partially offset operating costs of the Milpitas Hacienda complex and the ranch bungalows.



The Milpitas Hacienda, NPS photo

Other Management Options Previously Considered

The National Park Service developed and considered a number of options involving various approaches to NPS management, before determining that such options were not feasible. The following management options were considered, and then rejected when it was determined that they were not feasible.

NATIONAL PARK SERVICE OWNERSHIP OF BRAC PROPERTY

The National Park Service considered taking title to all BRAC excess property proposed for NPS reuse, including the Milpitas Hacienda and related grounds and outbuildings, the five ranch bungalows, the Gil Adobe, the one acre of land under and adjacent to the Tidball Store, and the Javelin Court housing area. The National Park Service considered direct management of these areas, as well as management in cooperation with California State Parks or other agencies. This option was rejected when it was determined that establishment of a new national park unit involving NPS ownership and management was not financially feasible in the near term, and that many of the BRAC excess properties were not nationally significant.

VISITOR PROGRAMS ON FORT HUNTER LIGGETT LANDS

The National Park Service considered proposing a partnership program with Fort Hunter Liggett to allow for controlled public recreational and educational use of the extensive resources of Fort Hunter Liggett, without diverting Army resources or impacting the training mission and activities. Under this option, the NPS would have provided additional visitor services, including guided tours and other educational and interpretive services, as compatible with Army training activities, security requirements and resource protection. This option was rejected due to concerns about safety (including unexploded ordnance), security, and potential impacts on training activities.

DIRECT TRANSFER AUTHORITY FOR FUTURE EXCESS LAND

The National Park Service considered seeking legislation to authorize Fort Hunter Liggett lands to be directly transferred to the NPS or the US Forest Service, if Fort Hunter Liggett were ever declared excess to military needs. The purpose of this legislation would have been to ensure long-term resource protection and public access and use of the rich and diverse lands that today make up Fort Hunter Liggett, in the event that the Department of Defense no longer had need for the area. This option was rejected because these areas are in active use and are expected to be retained by Fort Hunter Liggett for the indefinite future, and because of the need for clean-up of unexploded ordnance and other hazardous materials. In October 2004, a law was passed offering to the US Forest Service the right of first refusal on any future excess lands at Fort Hunter Liggett. This law also requires the Army to remove unexploded ordnance and perform environmental cleanup before transferring any future excess property to the US Forest Service.

Potential Resource Management Opportunities for the Army

Fort Hunter Liggett contains nationally significant cultural and natural resources that warrant special protection, and areas that are of interest to scientists, historians, and the American people. The NPS encourages the Army to continue to protect these areas, and to manage the natural and cultural resources in a manner that retains their national significance.

Numerous federal laws currently guide Fort Hunter Liggett's management of natural and cultural resources, including the National Environmental Policy Act, the Endangered Species Act, the Sikes Improvement Act, the National Historic Preservation Act, the Antiquities Act, the National Historic Sites Act, the Archeological Resources Protection Act, the American Indian Religious Freedom Act, the Native American Graves Protection and Repatriation Act, and others.

The lands and structures of Fort Hunter Liggett have been under the management of the US Army since 1940. The Army has developed plans that include specific management actions for these areas, including the Integrated Natural Resources Management Plan and Historic Preservation Plan. These plans include guidelines and prescriptions for resource management, as well as opportunities for partnerships with other agencies and organizations.

The following section describes resource protection measures that emerged during the study process as ways that the Army could pursue to support and enhance protection of nationally significant natural and cultural resources of Fort Hunter Liggett. In addition, there may be ways to enhance and expand visitor opportunities at the Milpitas Hacienda and beyond the cantonment area under existing Army programs and authorities. Many of these initiatives could be assisted or supported through partnerships with federal, state and local agencies and organizations.

CULTURAL RESOURCE MANAGEMENT OPPORTUNITIES

- An analysis of the feasibility of continued use of the Hacienda suggested that renovations or additional restoration of the Hacienda could be financed by an increase in room rates.
- The Army could pursue an agreement with California State Parks to manage the Milpitas Hacienda in connection with Hearst Castle®. This collaboration could make the expertise of historians and architects at Hearst Castle available to help protect the architectural integrity of the Milpitas Hacienda. It could also allow California State Parks to provide visitor services and educational opportunities focused on the Hearst / Morgan collaboration on the Milpitas Hacienda.
- The Army could request the NPS to evaluate the potential addition of the Milpitas Hacienda to the Hearst San Simeon Estate National Historic Landmark (Hearst Castle®). Designation as part of a National Historic

Landmark would provide additional recognition, and make the Milpitas Hacienda eligible for NPS technical assistance in historic preservation and management.

- The Army could maintain or enhance the quality of the cultural landscape surrounding the Milpitas Hacienda. For example, the fencing around Hacienda Hill could be modified to blend more with the landscape; surrounding structures such as the tin barn that were modified from their historic appearance could be restored. This effort would enhance the visitor experience of the Hearst ranch story at Fort Hunter Liggett.
- Local Salinan organizations have expressed interest in forming partnerships to care for their sacred sites at Fort Hunter Liggett. Fort Hunter Liggett could establish a program to work in partnership with Salinan organizations to allow access to and stewardship of sacred sites and to provide public education and awareness on the importance of protecting such sites. Vandenberg AFB cultural resources management programs provide an example of a successful partnership program between the military and Native Americans. This program allows members of the Santa Ynez Band of Chumash access for plant gathering and hunting and allows the Chumash to rebury Native American human remains in designated areas.
- The Army could partner with Monterey County, local nonprofit groups, or Salinan groups to find economically viable uses for the Tidball Store and the Gil Adobe (listed on the National Register of Historic Places at the local level of significance) and other structures related to the town of Jolon. These structures have remained boarded up and unused for years. Such a partnership could provide an opportunity to interpret the gold rush-era homesteading and mining boom in Jolon and the Salinan culture. The Ventana Conservation and Land Trust and Monterey County Parks Department have discussed the potential for collaborative management of these sites to interpret the

history of the town of Jolon. Salinan groups have also expressed interest in management of these sites. Army funding for restoration or maintenance in conjunction with other public or private investments and stewardship efforts would help to prevent further deterioration.

- Fort Hunter Liggett could support additional cultural resources and Native American/ archeological resources preservation efforts through the Department of Defense Legacy Resource Management Program. The program funds projects that enhance the department's ability to access, evaluate, and use existing inventory data; use research and development to support resource management on military installations; develop new historic context studies and improve management of cultural resources; and use new approaches and creative partnerships to promote cultural resource management.

NATURAL RESOURCE MANAGEMENT OPPORTUNITIES

- The Army could coordinate with scientists from universities and non-profit organizations to inventory natural resources and to conduct scientific research, including botanical surveys. This coordination could help to reinforce the Army's ongoing resource protection efforts. There is interest within the scientific community in conducting research and inventory work at Fort Hunter Liggett.
- The Army could request NPS assistance to evaluate the oak woodlands and savanna and Burro Mountain area for possible designation as National Natural Landmarks. Designation would provide additional recognition, and make the area eligible for NPS technical assistance.
- The Wagon Caves area in Los Padres National Forest, adjacent to the northwest corner of the installation, contains high quality valley oak habitat similar to that found on Fort Hunter Liggett. This area was selected and nominated as a research natural area by the Los Padres

National Forest in 1986. Research Natural Areas are selected to preserve a spectrum of pristine areas that represent important natural ecosystems with scientific importance and to provide opportunities for onsite and extension educational activities. An agreement between Fort Hunter Liggett and the Los Padres National Forest could establish a joint Research Natural Area or some other collaborative effort to protect the high quality oak habitat that occurs on both Fort Hunter Liggett and Los Padres National Forest. Together, these areas represent some of the best remaining, relatively pristine habitat of this type.

- Fort Hunter Liggett could support additional natural resources preservation efforts through the Department of Defense Legacy Resource Management Program. The program funds natural resource projects such as those that implement integrated natural resources management, regional ecosystem management initiatives, invasive species control, and use new approaches and creative partnerships to promote natural resource management.



Mature oak trees, NPS photo

OPPORTUNITIES FOR PUBLIC ENJOYMENT

- The Army could expand and enhance current recreation opportunities, while taking into account safety and security concerns. Section 103 of the Sikes Act allows for a program for public outdoor recreation in accordance with an integrated natural resources management

plan. These opportunities include “fishing, hunting, trapping, wildlife viewing, boating, and camping.” Currently, the Army manages hunting and fishing activities under a permit system, but does not allow additional “non - consumptive” uses. The Army could explore ways to provide additional visitor opportunities such as bird- watching and other wildlife viewing opportunities and possibly allow for the use of the existing developed campground in the cantonment area. The NPS could provide assistance in the development of a recreation plan for the installation.

- The Army could collaborate with staff of the Juan Bautista de Anza National Historic Trail, Mission San Antonio de Padua and local nonprofit groups to mark the route of this historic trail, mark important sites along the trail, provide opportunities for limited, guided visitor access to the trail, and/or interpret the trail and campsites through living history programs. Fort Hunter Liggett’s oak savanna landscape surrounding the Mission San Antonio de Padua remains one of the most historically intact landscape settings of the Juan Bautista de Anza National Historic Trail. The landscape provides a setting similar to that experienced by Juan Bautista de Anza when he camped in the area in 1776.
- The Army could collaborate with California State Parks to enhance visitor opportunities at the Milpitas Hacienda. Currently, visitor services are limited to those provided by the Milpitas Hacienda concessioner – a restaurant and overnight accommodations. California State Parks offers a wide range of visitor services and programs including tours at Hearst Castle® and could offer similar visitor services at the Milpitas Hacienda in connection with Hearst Castle.® The Milpitas Hacienda provides an opportunity for experiential interpretation of Hearst’s estate. This would be a unique and rare opportunity to offer the visitor a more comprehensive view of Hearst’s extensive estate and would expand the public’s

awareness of the historical significance of the historic properties that have been protected at Fort Hunter Liggett.

- Renovations to the Hacienda, financed by overnight accommodation rate increases, would contribute to improved concession - based lodging and food service.

Possible Future Management Opportunities, if Land Becomes Available for Transfer

The Army expects to retain Fort Hunter Liggett as a training facility for the indefinite future. However, if any substantial portion of the installation is determined to be excess to the Army's needs at some point in the future, the nationally significant resources warrant continued protection and management by an organization with a commitment to conservation. Two possible scenarios are:

MANAGEMENT AS A HISTORIC SITE

If the Milpitas Hacienda is declared excess to the Army's needs, it could be transferred to another agency or organization and managed as a historic site. Possible management organizations include the US Forest Service (which by recent legislation has right of first refusal on any future excess property at Fort Hunter Liggett), the National Park Service, California State Parks, Monterey County, Salinan organizations, or a non-profit organization. Partnerships among two or more of these organizations could spread the costs and responsibilities and allow each organization to contribute according to its strengths and areas of expertise. Addition of the Milpitas Hacienda to Hearst San Simeon State Historical Monument and designation as an affiliated area of the national park system are among the options that could be considered. Lodging and restaurant facilities could continue to be operated by a concessioner or other public/private arrangement. Further analysis will be necessary if the property becomes available in order to determine feasibility, interest, and appropriate roles.

MANAGEMENT AS A PARK OR FOREST AREA

If a substantial portion of Fort Hunter Liggett's natural landscape is declared excess to the Army's needs, it could be transferred to another agency or organization and managed as a park or forest area. Possible management organizations include the US Forest Service (which by recent legislation has right of first refusal on any future excess property at Fort Hunter Liggett), the National Park Service, California State Parks, Monterey County, Salinan organizations, or a non-profit organization. Partnerships among two or more of these organizations could spread the costs and responsibilities and allow each organization to contribute according to its strengths and areas of expertise. Further analysis will be necessary if the property becomes available in order to determine the feasibility of park management, the interests and capabilities of various potential management organizations, and whether unexploded ordnance and other hazardous materials have been removed or otherwise remediated.

Summary

The NPS considered a wide range of options for the management, protection, and public enjoyment of nationally significant cultural and natural resources at Fort Hunter Liggett. Because of the change in status and policy regarding excess property at Fort Hunter Liggett, the Army will continue to manage these resources. The protection measures presented in this section would enhance the Army's efforts to maintain the condition and integrity of the natural and cultural resources of Fort Hunter Liggett, and to ensure that they retain their national significance.



Mission San Antonio de Padua, Richard Crusius photo



The Milpitas Hacienda, Richard Crusius photo



7 Consultation and Coordination

The Milpitas Hacienda, Richard Crusius photo

Consultation and Coordination

Public Involvement

Throughout the study process, the study team gathered public input on issues, possible actions and alternatives. The scoping process included meetings with agencies and organizations, public meetings and workshops, newsletters, a web page, and written public comments. These sources were used to identify the issues, alternatives, and impact topics to be considered for the special resource study and environmental analysis, and to keep the public informed and involved throughout the study process.

PUBLIC SCOPING AND WORKSHOPS

The initial scoping process extended from July through September 2000. A notice announcing the public meetings was mailed out on July 14, 2000. Meeting notices were available in Spanish and a Spanish translator was available at public meetings. Meetings were held on August 3, 2000 at Fort Hunter Liggett Headquarters and at King City, California and on August 5, 2000 at Salinas, California. Approximately 100 people attended these public meetings. The National Park Service met with neighboring landowners, local historians, and resource conservationists. A total of 200 comments were received throughout the scoping process. A summary of the comments received can be found in “Appendix G: Summary of Scoping Public Comments.” The scoping process ended on September 30, 2000. Throughout the planning process, the planning team has been accepting public input.

NEWSLETTERS AND WEB PAGE

The National Park Service study team published four separate newsletters, in September 2000, December 2000, August 2001, and October 2004 to keep community members and others informed about the study process. The mailing list included approximately 500 names. All information sent by mail has also been available on the web site for the study, www.nps.gov/pwro/fhl. There has been periodic media coverage. Some of the written materials were available in Spanish, including newsletters and information on the web site.

DRAFT SPECIAL RESOURCE STUDY AND ENVIRONMENTAL ASSESSMENT

The *Draft Fort Hunter Liggett Special Resource Study and Environmental Assessment* was published and released for public comment in June 2004. Approximately 500 copies were distributed for review. The study report was also posted on the study web site. The initial 60-day public comment period on the draft report closed on August 6, 2004 but was later extended to October 31, 2004 to address concerns that key stakeholders did not have adequate input into the study process. Public meetings were held on July 7, 2004 in King City, California and July 10, 2004 in Salinas, California. A meeting with Fort Hunter Liggett staff was held at the installation on July 8, 2004. A newsletter was released on October 1, 2004 summarizing comments on the draft study report and announcing the extension of the public comment period. A total of 44 comments were received during the comment period. A summary of comments and responses on the draft study report has been prepared and included in Appendix H.

Agency Consultation

The National Park Service study team has consulted with federal, state, and local agency representatives in conducting this study. In October 2000, the National Park Service sent out a letter notifying federal and state agencies about the study and requesting agency input. Throughout the study process, joint meetings were held with the U.S. Army, California State Parks, the U.S. Forest Service, and other agencies. The following is a brief description of various consultations with agencies.

FEDERAL

Coordination meetings were held in 2000 through 2003 with US Army Forces Command, BRAC Command, U.S. Army Reserve Command, Fort Hunter Liggett Command, US Army Satellite Control (SATCON), and Army and Air Force Exchange Service (AAFES). Several roundtable meetings were held to review sections of the draft study report. The planning team consulted with

Fort Hunter Liggett Cultural and Natural Resource Management staff throughout the planning process. Site inspection of BRAC excess buildings occurred in 2001.

The team consulted with the Los Padres National Forest staff and other U.S. Forest Service officials on alternatives and resource information. The team consulted with the Fish and Wildlife Service officials on federally-listed species.

The team briefed the offices of U.S. Senator Barbara Boxer, U.S. Senator Dianne Feinstein, Congressman Sam Farr, and Congresswoman Nancy Pelosi on the study process.

STATE

The team coordinated with Hearst San Simeon State Historical Monument and California State Parks managers on sections of the draft study report including significance, feasibility, management alternatives, and environmental impacts.

The team consulted with California Department of Fish and Game on state-listed species. The team consulted with the California State Historic Preservation Officer (SHPO) on cultural resources.

Native American Consultation

The planning team first met with the Salinan Tribal Council in Jolon, CA in 2001 to provide an update of the study process and to hear the council's ideas and concerns. In 2003, the team provided an update on the planning process for Gregg Castro, Tribal Council Chair and learned about current Salinan activities and concerns. Since NPS initiated the study in 2000, there have been changes to organizations representing Salinans, which now include the Xolon Salinan Tribe, Salinan Tribe of Monterey and San Luis Obispo Counties; and the Salinan Nation Cultural Preservation Association. Members of the three Salinan organizations participated in public meetings regarding the study process. On request, the NPS met with the Salinan Tribe of Monterey

and San Luis Obispo Counties to discuss the draft study in October 2004.

Other Consultation

Other agencies and organizations consulted with include:

Catholic Diocese of Monterey

Franciscan Order

King City Manager and Economic Development Director

Monterey County

Monterey County Parks Department

Monterey County Planning and Building Inspection

Hacienda Restaurant and Guest Lodge

National Parks and Conservation Association

Big Sur Sanctuary Coalition

Friends of Historic San Antonio Mission

San Antonio Valley Historical Association

Ventana Conservation and Land Trust

Ventana Wilderness Alliance

List of Agencies and Organizations to Whom Copies of the Draft Study Report Were Sent

FEDERAL AGENCIES AND ELECTED OFFICIALS

Department of the Army

U.S. Army Forces Command (FORSCOM)
U.S. Army Base Realignment and Closure
Division (BRACD)
U.S. Army Reserve Command
Fort Hunter Liggett Headquarters

Department of the Interior

Bureau of Land Management, California State
Office, Sacramento and Hollister Field
Offices
Fish and Wildlife Service, Field Office, Ventura
National Park Service, Pacific West Region and
Washington, D.C. offices

Department of Agriculture

U.S. Forest Service, Los Padres National Forest

Environmental Protection Agency, Region IX

U. S. Senate and Congressional Representatives

U.S. Senator Barbara Boxer
U.S. Senator Dianne Feinstein
U.S. Congressman Sam Farr, 17th District
U.S. Congressman Bill Thomas, 22nd District

STATE AGENCIES AND ELECTED OFFICIALS

Department of Conservation, Office of Land Conservation

Department of Fish and Game

California State Parks, Sacramento Headquarters,
San Simeon District

State Historic Preservation Office

LOCAL AGENCIES AND ELECTED OFFICIALS

City of Cambria

City of Carmel

King City

City of Monterey

City of Salinas

City of San Luis Obispo

City of San Simeon

City of Paso Robles

Monterey County

Monterey County Parks Department

Monterey County Planning and Building Inspection

ORGANIZATIONS

Big Sur Sanctuary Coalition

California Native Plant Society

Catholic Diocese of Monterey

Friends of Historic San Antonio Mission

National Trust for Historic Preservation

San Antonio Valley Historical Association

Ventana Conservation and Land Trust

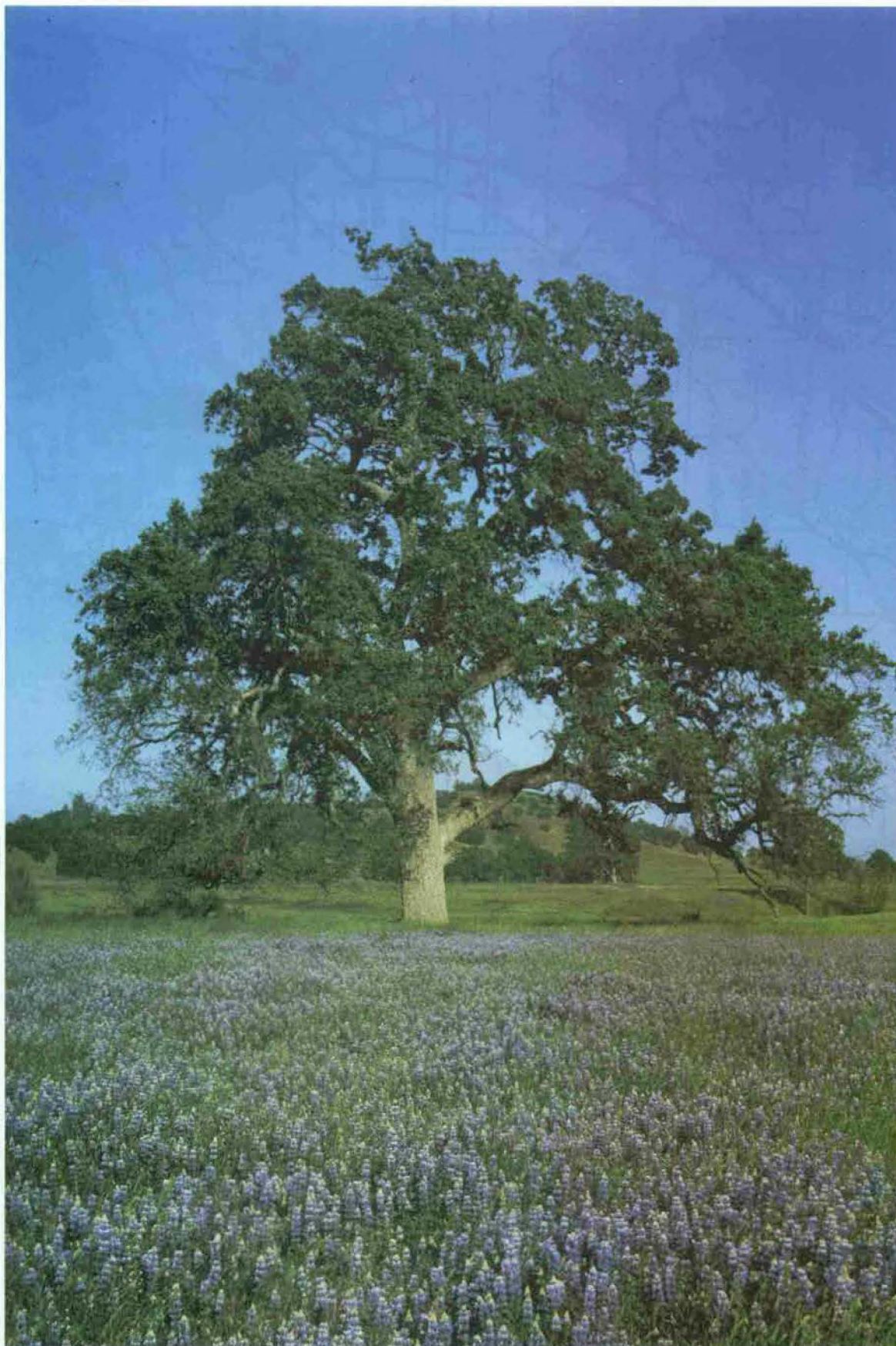
TRIBAL GOVERNMENTS AND ORGANIZATIONS

Xolon Salinan Tribe

Salinan Tribe of Monterey and San Luis Obispo Counties

Salinan Nation Cultural Preservation Association

FIGURES



Oak and lupine, Brenda Tharp photo

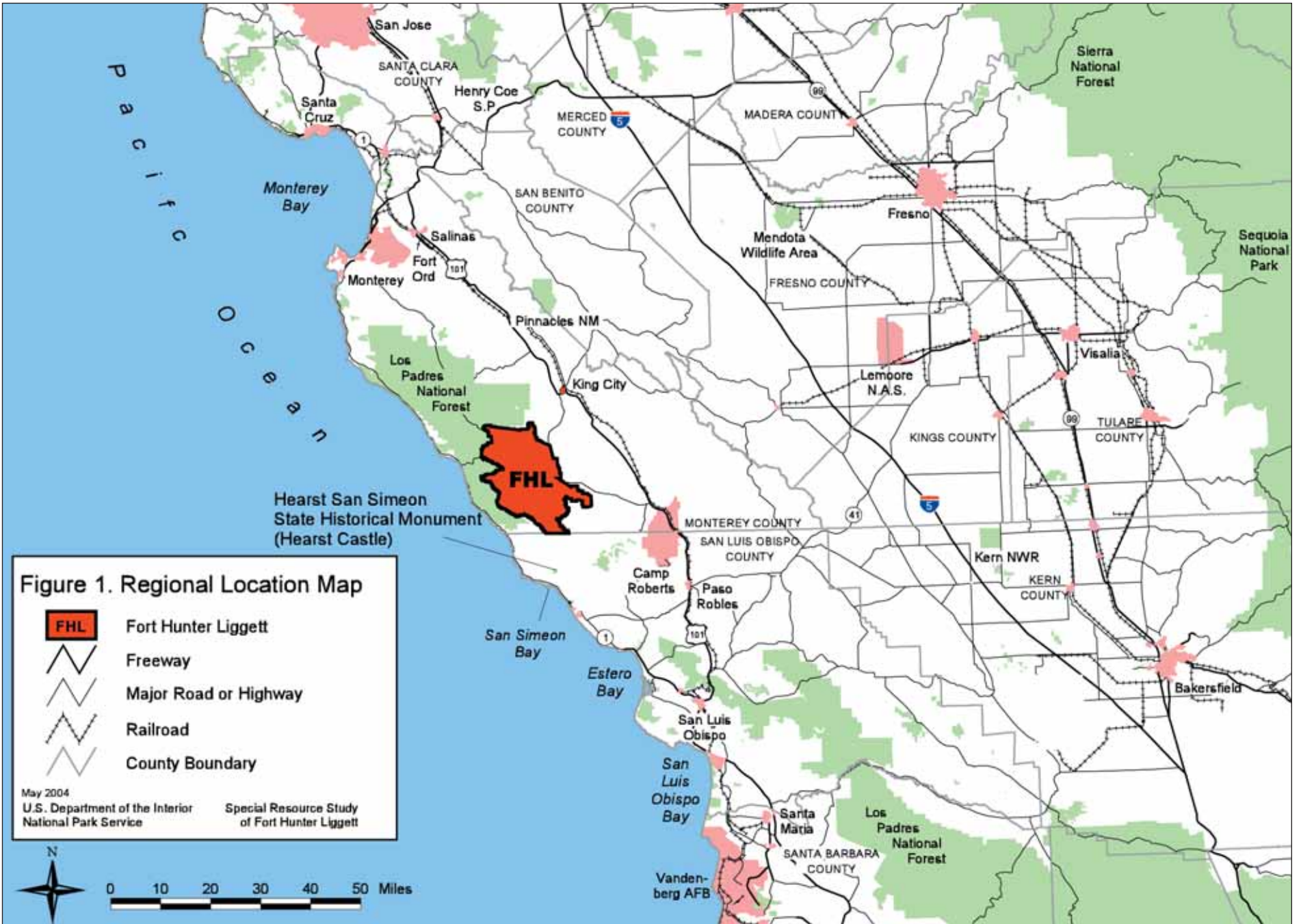
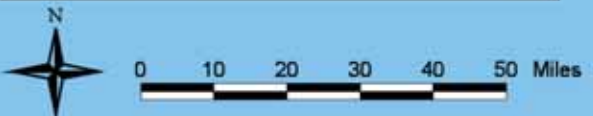
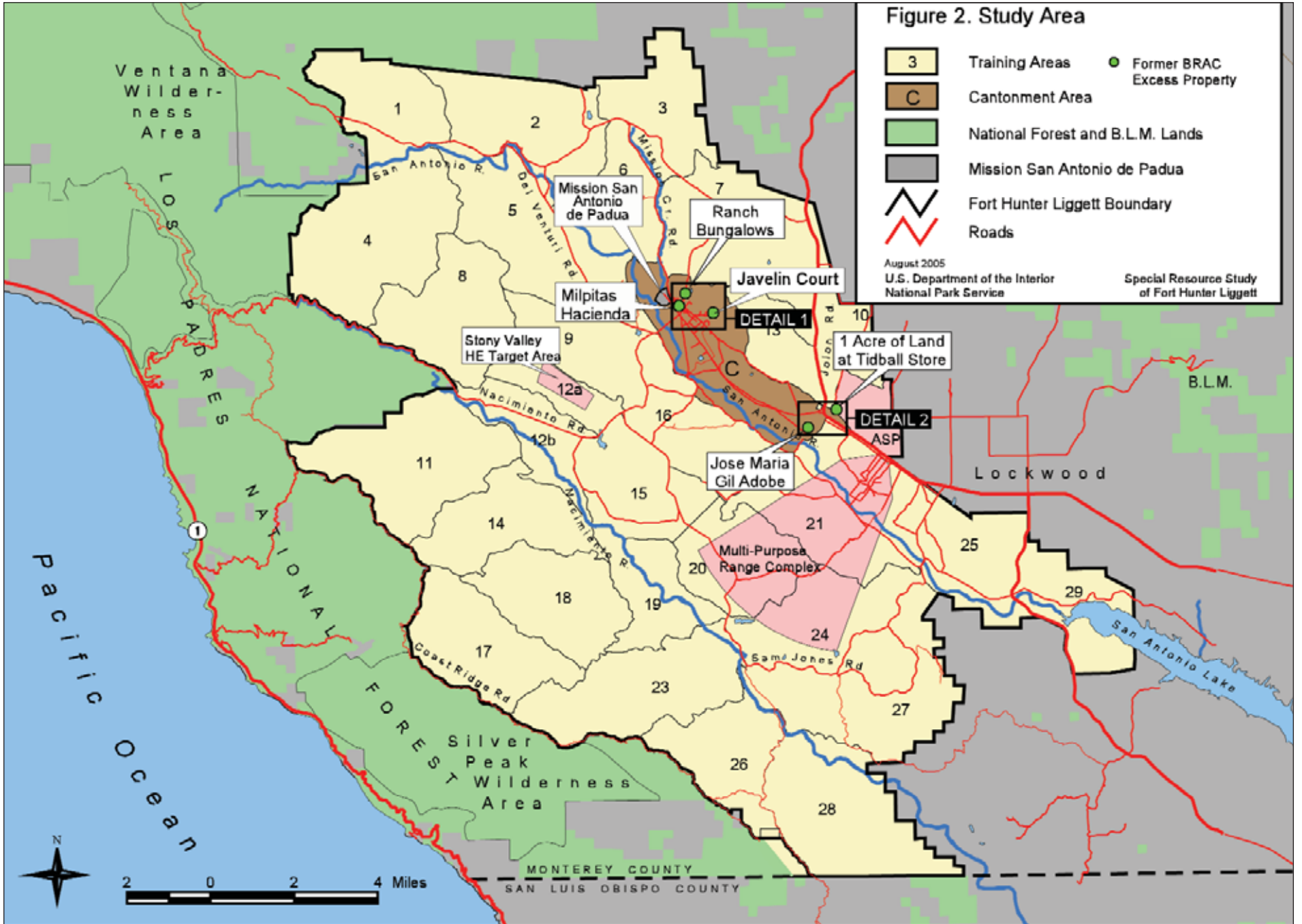


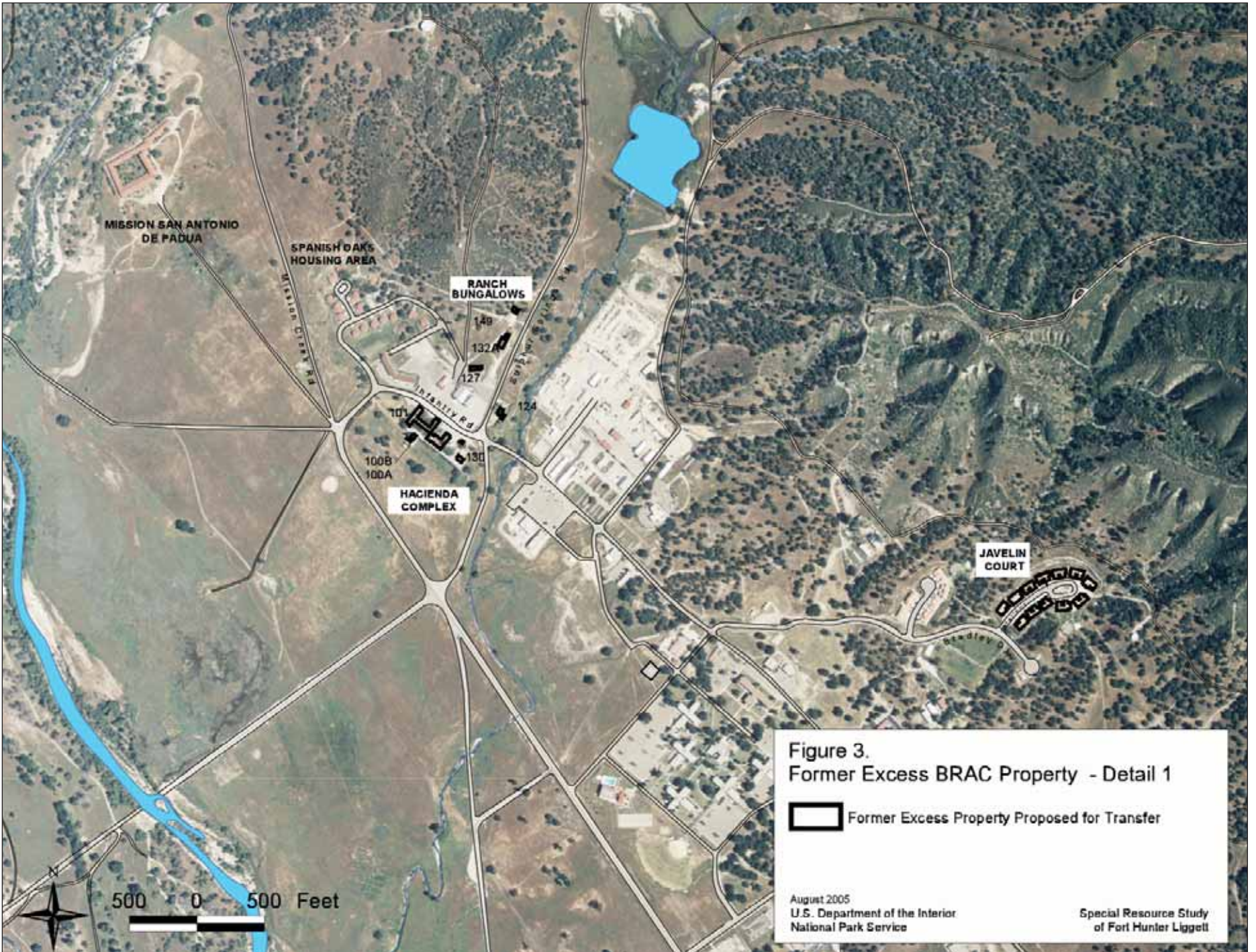
Figure 1. Regional Location Map

- FHL Fort Hunter Liggett
- Freeway
- Major Road or Highway
- Railroad
- County Boundary

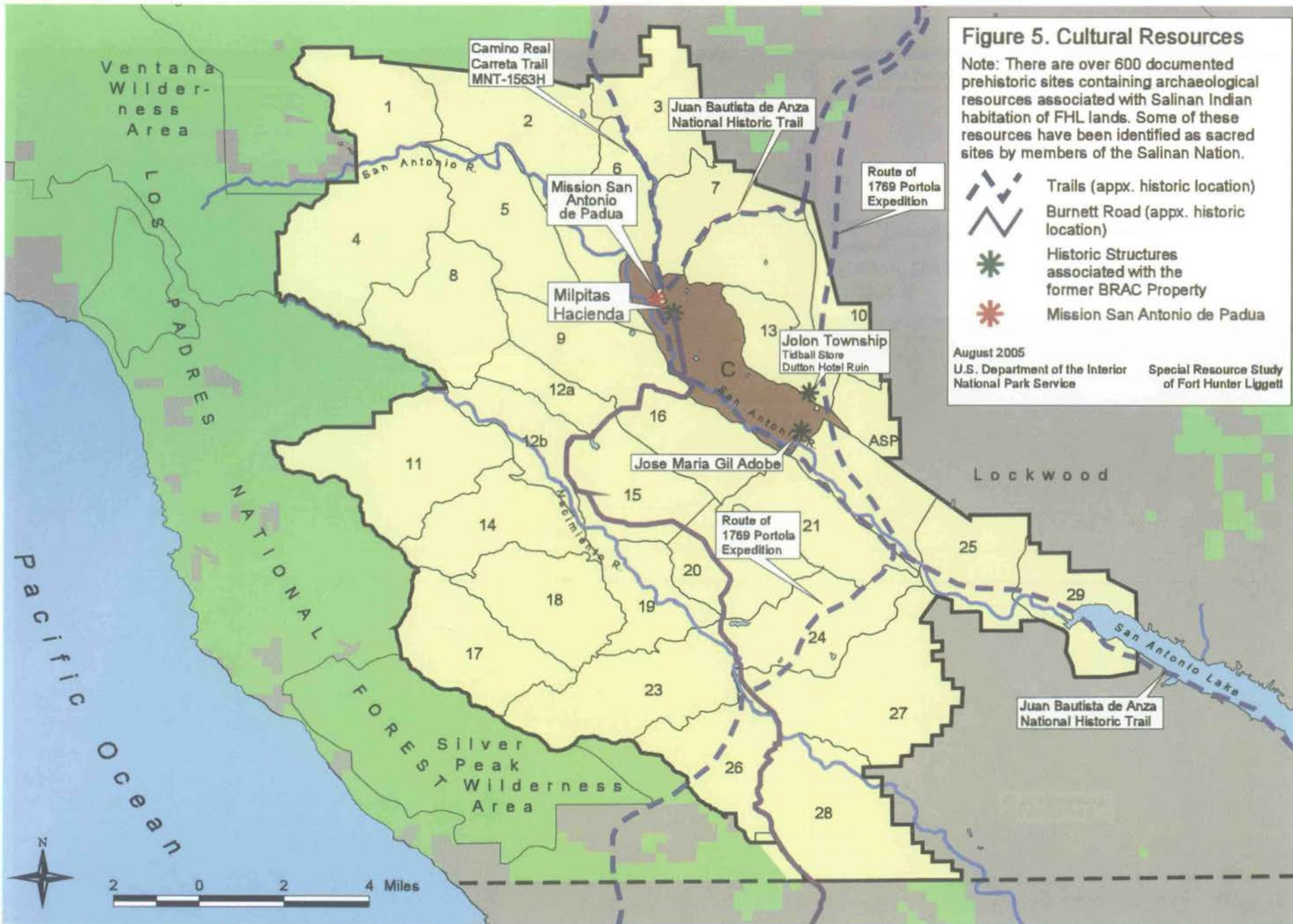
May 2004
 U.S. Department of the Interior
 National Park Service
 Special Resource Study
 of Fort Hunter Liggett











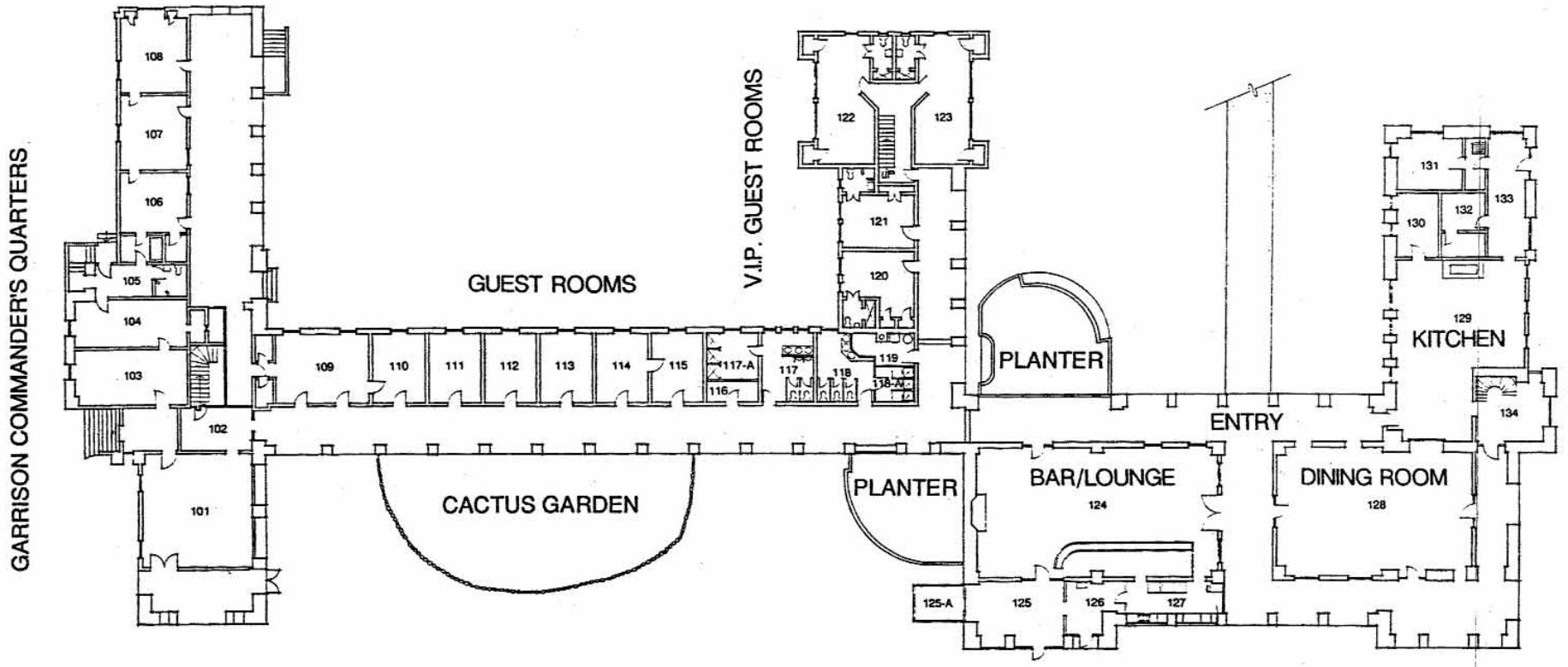
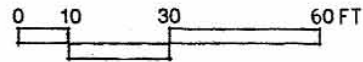


Figure 6
 Special Resource Study
 of Fort Hunter Liggett
 August 2005

THE HACIENDA

FIRST FLOOR



Eidsness, Janet P., and Thomas L. Jackson, 1994
 Historic Preservation Plan
 Fort Hunter Liggett, California
 Appendix 1

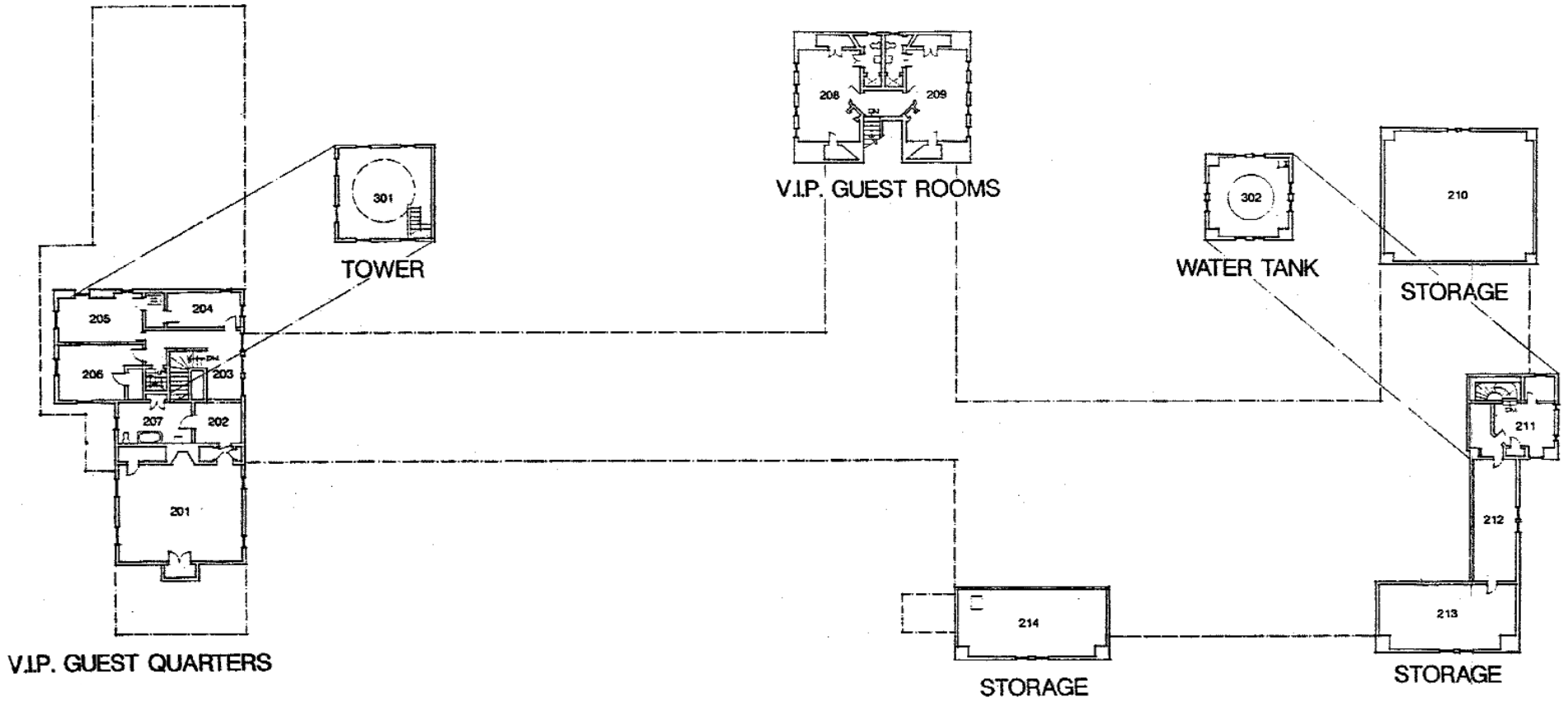
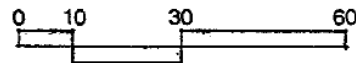


Figure 7
 Special Resource Study
 of Fort Hunter Liggett
 August 2005

THE HACIENDA

SECOND AND THIRD FLOOR



Eidsness, Janet P., and Thomas L. Jackson, 1994
 Historic Preservation Plan
 Fort Hunter Liggett, California
 Appendix 1

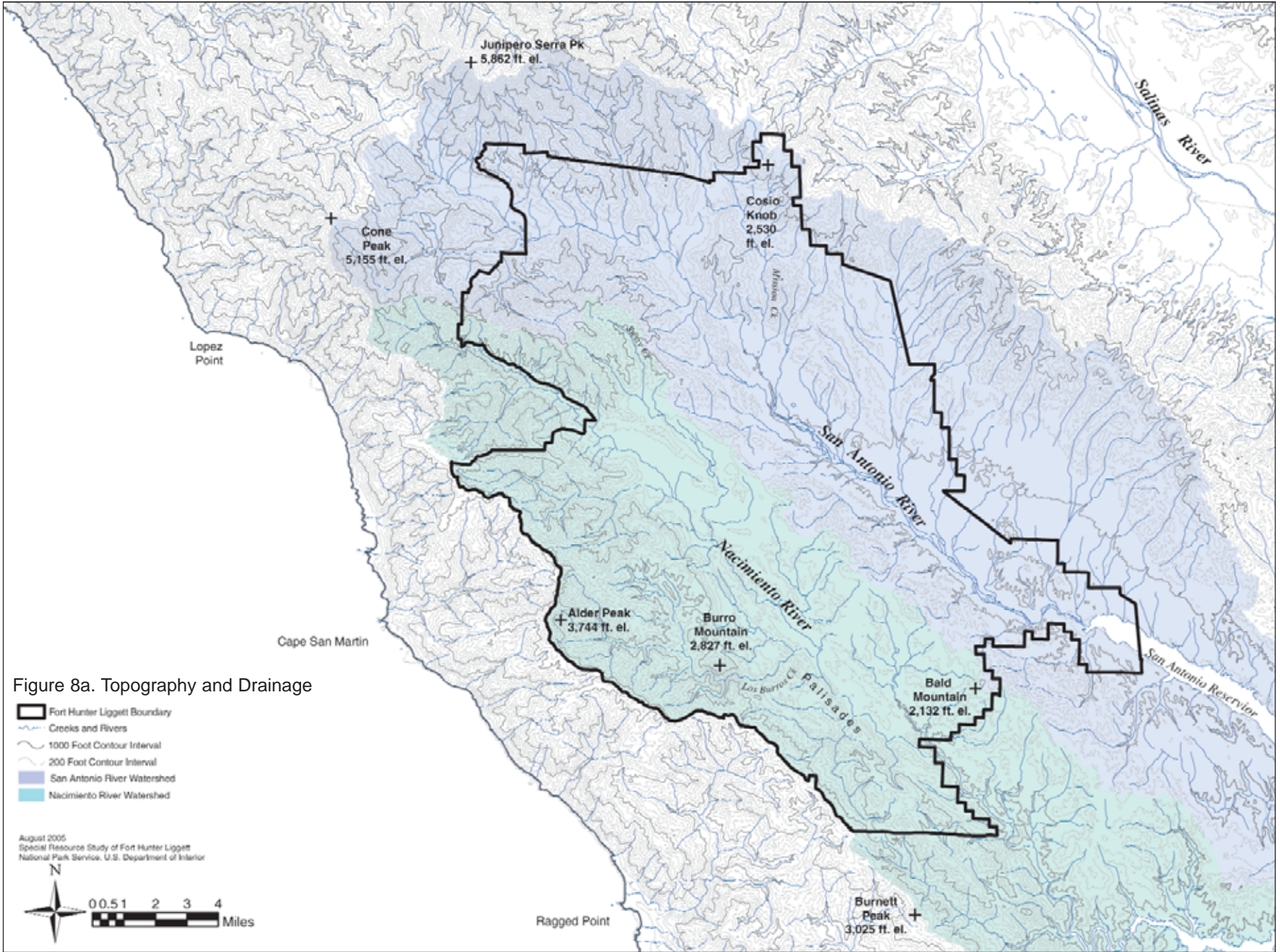
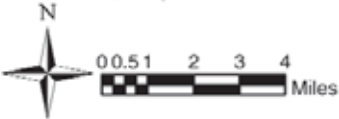


Figure 8a. Topography and Drainage

- Fort Hunter Liggett Boundary
- Creeks and Rivers
- 1000 Foot Contour Interval
- 200 Foot Contour Interval
- San Antonio River Watershed
- Nacimiento River Watershed

August 2005
Special Resource Study of Fort Hunter Liggett
National Park Service, U.S. Department of Interior



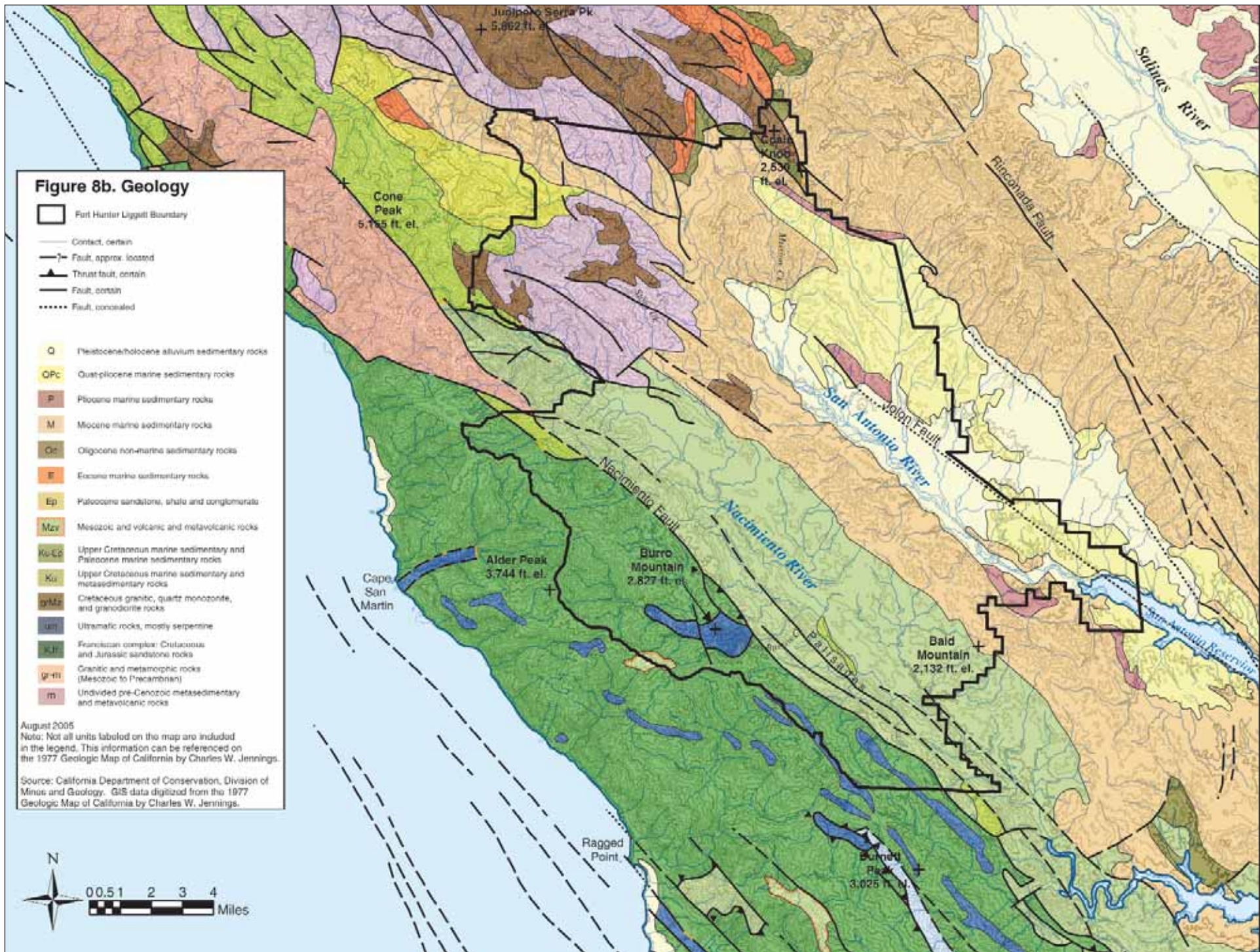
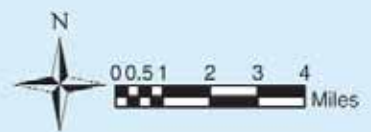


Figure 8b. Geology

- Fort Hunter Liggett Boundary
- Contact, certain
- Fault, approx. located
- Thrust fault, certain
- Fault, certain
- Fault, concealed

- Q Pleistocene/holocene alluvium sedimentary rocks
- QPc Quaternary marine sedimentary rocks
- P Pliocene marine sedimentary rocks
- M Miocene marine sedimentary rocks
- Oc Oligocene non-marine sedimentary rocks
- E Eocene marine sedimentary rocks
- Ep Paleocene sandstone, shale and conglomerate
- Mz Mesozoic and volcanic and metavolcanic rocks
- Ku-Ca Upper Cretaceous marine sedimentary and Paleocene marine sedimentary rocks
- Ku Upper Cretaceous marine sedimentary and metasedimentary rocks
- CrMa Cretaceous granitic, quartz monzonite, and granodiorite rocks
- U Ultramafic rocks, mostly serpentine
- Fr Franciscan complex: Cretaceous and Jurassic sandstone rocks
- G-M Granitic and metamorphic rocks (Mesozoic to Precambrian)
- m Undivided pre-Cenozoic metasedimentary and metavolcanic rocks

August 2005
 Note: Not all units labeled on the map are included in the legend. This information can be referenced on the 1977 Geologic Map of California by Charles W. Jennings.
 Source: California Department of Conservation, Division of Mines and Geology. GIS data digitized from the 1977 Geologic Map of California by Charles W. Jennings.



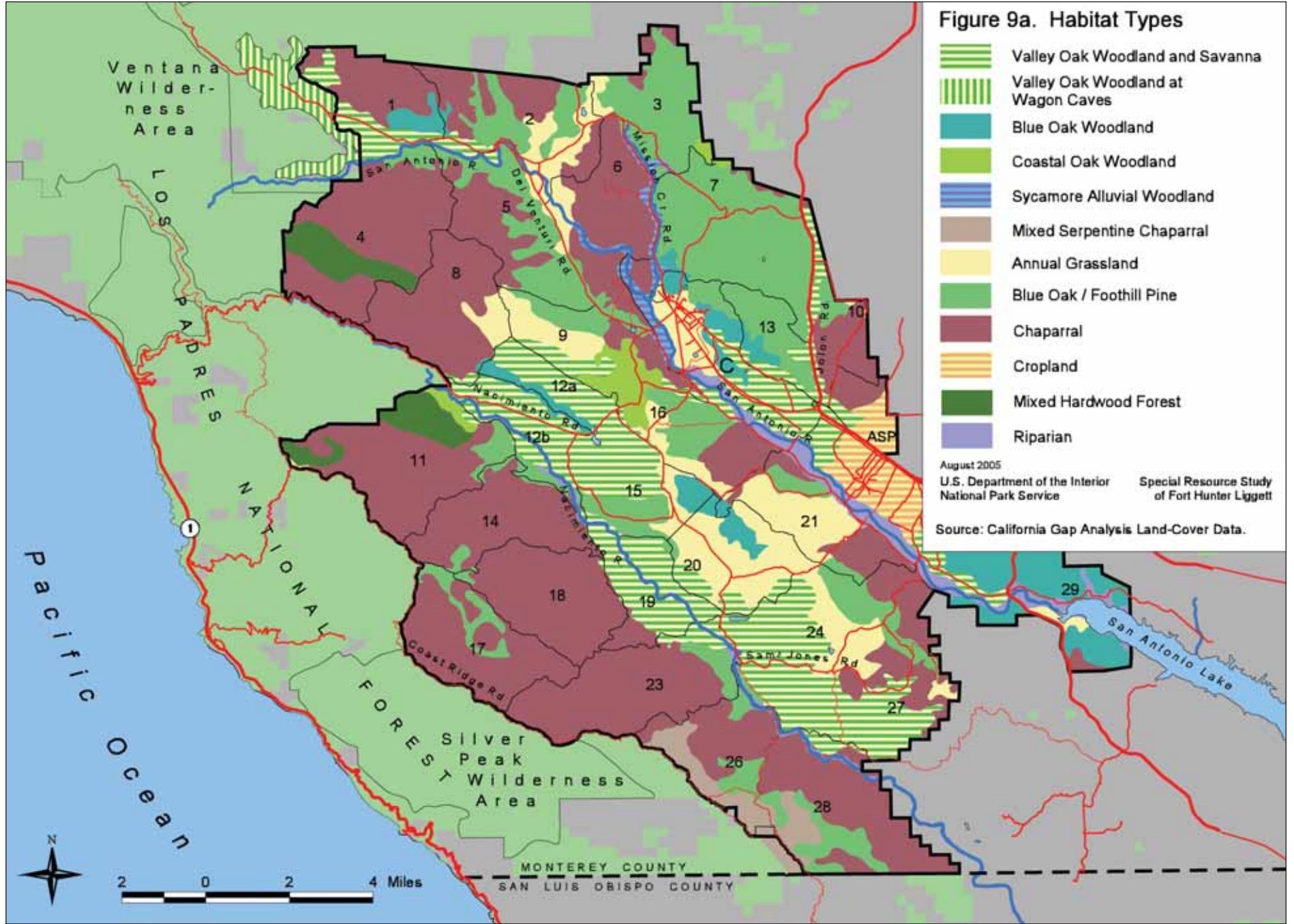


Figure 9B: Habitat Relationships to Underlying Geology

Fort Hunter Liggett Boundary

Geology

- Contact, certain
- - - Fault, approx. located
- ▲ Thrust fault, certain
- Fault, certain
- Fault, concealed

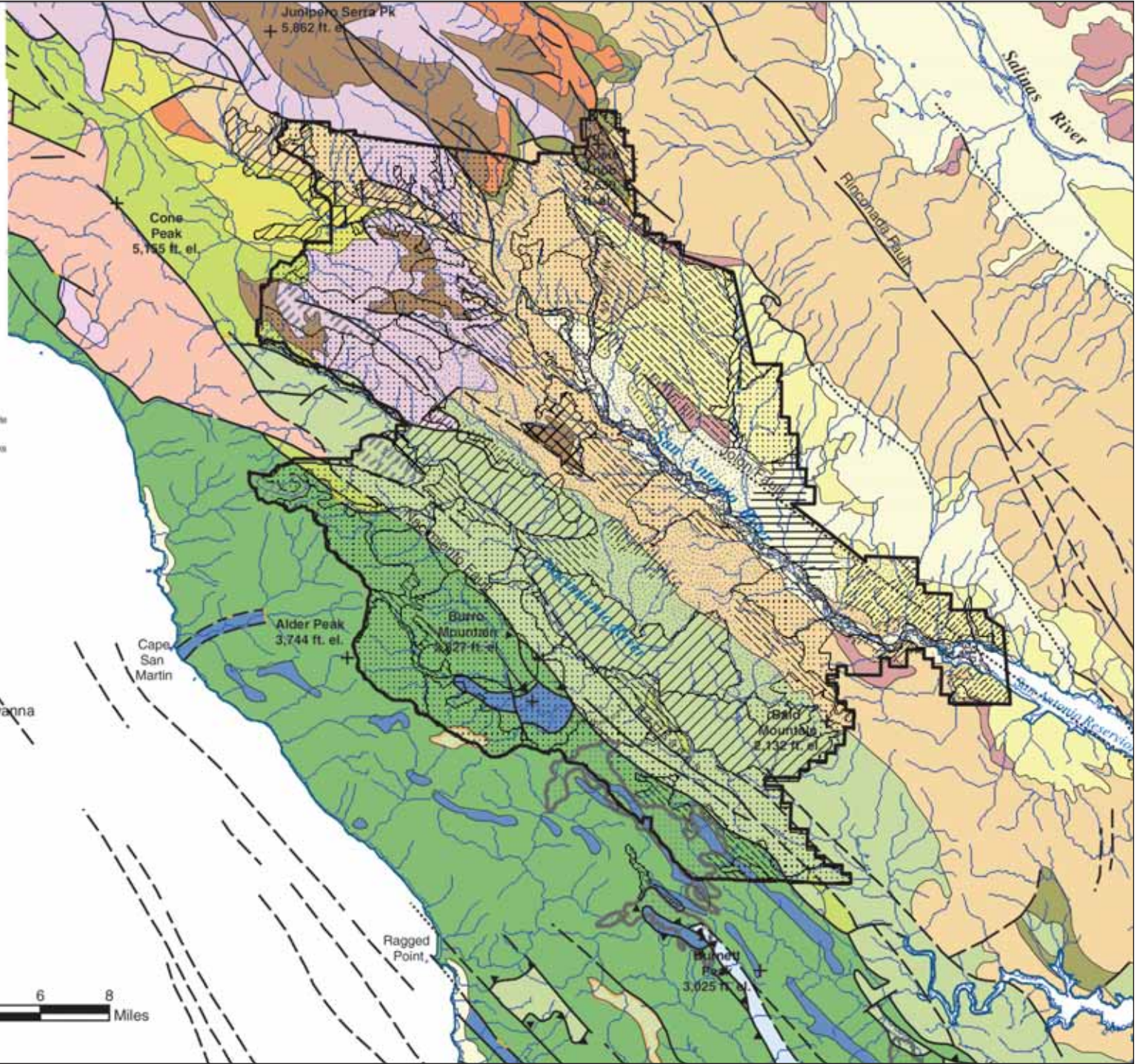
Q	Pleistocene/holocene alluvium sedimentary rocks
QpC	Quat-pliocene marine sedimentary rocks
P	Pliocene marine sedimentary rocks
M	Miocene marine sedimentary rocks
Oc	Oligocene non-marine sedimentary rocks
E	Eocene marine sedimentary rocks
Ep	Paleocene sandstone, shale and conglomerate
Mzv	Mesozoic and volcanic and metavolcanic rocks
Ku-Ep	Upper Cretaceous marine sedimentary and Paleocene marine sedimentary rocks
Ku	Upper Cretaceous marine sedimentary and metasedimentary rocks
gMa	Cretaceous granitic, quartz monzonite, and granodiorite rocks
sm	Ultramafic rocks, mostly serpentine
KuJ	Franciscan complex: Cretaceous and Jurassic sandstone rocks
gr-m	Granitic and metamorphic rocks (Mesozoic to Precambrian)
m	Undivided pre-Cenozoic metasedimentary and metavolcanic rocks

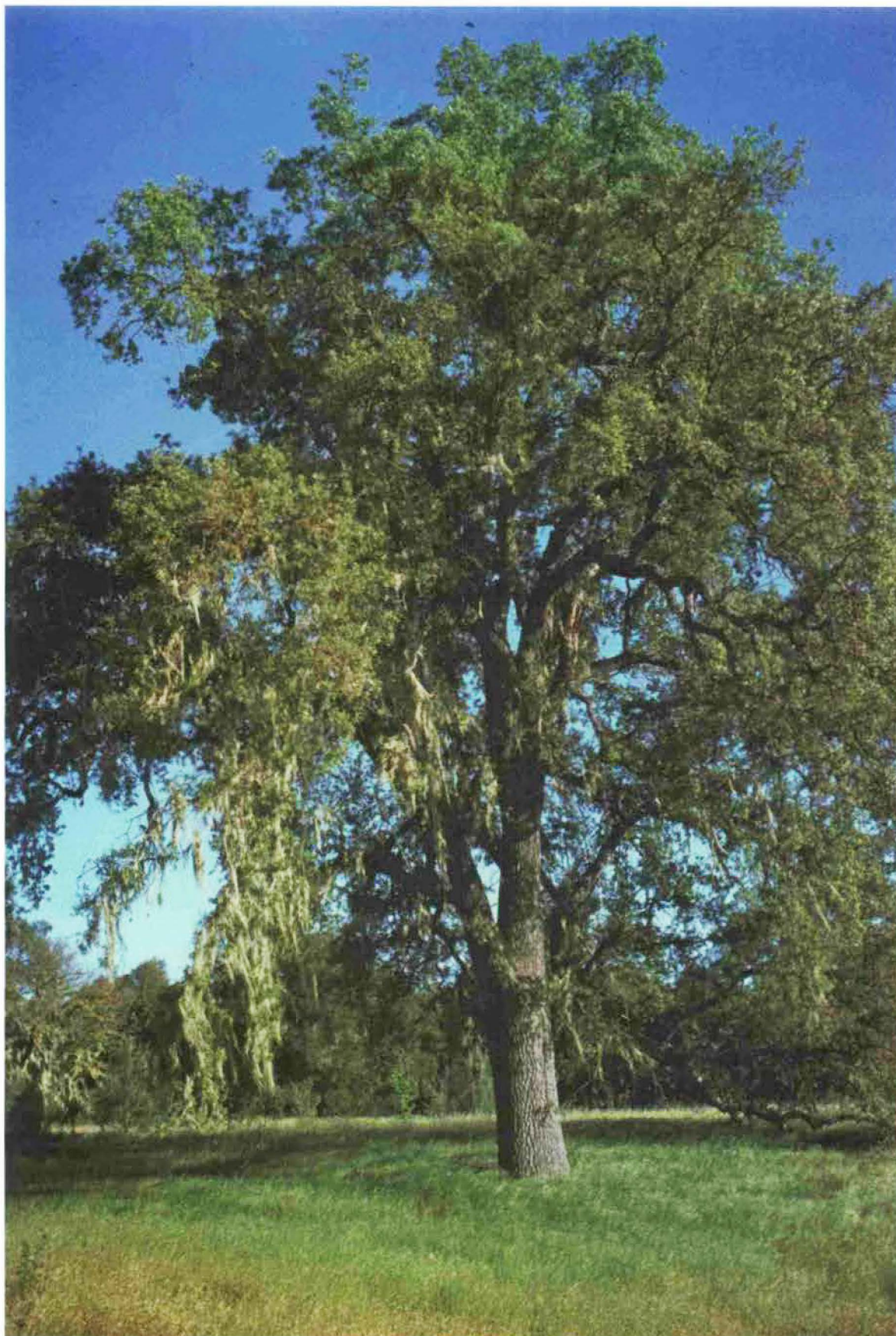
Habitat Types

- ▨ Valley Oak Woodland and Savanna
- ▧ Blue Oak Woodland
- ▩ Coastal Oak Woodland
- Sycamore Alluvial Woodland
- Mixed Serpentine Chaparral
- ▬ Annual Grassland
- ▮ Blue Oak - Foothill Pine
- ▯ Chaparral
- ▰ Cropland
- ▱ Mixed Hardwood Forest

0 1 2 4 6 8 Miles

August 2005





Blue oak, NPS photo

Appendix A. Study Authorization

(113 STAT. 1501A PUBLIC LAW 106-113-APPENDIX C)

SEC. 326. (a) SHORT TITLE.—This section may be cited as the “National Park Service Studies Act of 1999”.

(b) AUTHORIZATION OF STUDIES.—

(1) IN GENERAL.—The Secretary of the Interior (“the Secretary”) shall conduct studies of the geographical areas and historic and cultural themes described in subsection (b)(3) to determine the appropriateness of including such areas or themes in the National Park System.

(2) CRITERIA.—In conducting the studies authorized by this Act, the Secretary shall use the criteria for the study of areas for potential inclusion in the National Park System in accordance with section 8 of Public Law 91-383, as amended by section 303 of the National Parks Omnibus Management Act (Public Law 105-391; 112 Stat. 3501).

(3) STUDY AREAS.—The Secretary shall conduct studies of the following:

- (A) Anderson Cottage, Washington, District of Columbia.
- (B) Bioluminescent Bay, Puerto Rico.
- (C) Civil Rights Sites, multi-State.
- (D) Crossroads of the American Revolution, Central New Jersey.
- (E) Fort Hunter Liggett, California.
- (F) Fort King, Florida.
- (G) Gaviota Coast Seashore, California.
- (H) Kate Mullany House, New York.
- (I) Loess Hills, Iowa.
- (J) Low Country Gullah Culture, multi-State.
- (K) Nan Madol, State of Ponape, Federated States of Micronesia (upon the request of the Government of the Federated States of Micronesia).
- (L) Walden Pond and Woods, Massachusetts.
- (M) World War II Sites, Commonwealth of the Northern Marianas.
- (N) World War II Sites, Republic of Palau (upon the request of the Government of the Republic of Palau).

(c) REPORTS.—The Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives a report on the findings, conclusions, and recommendations of each study under subsection (b) within three fiscal years following the date on which funds are first made available for each study.

Appendix B. New Area Studies Act

(112 STAT. 3501 PUBLIC LAW 105-391-NOV. 13, 1998)

TITLE III—STUDY REGARDING ADDITION OF NEW NATIONAL PARK SYSTEM AREAS

SEC. 301. SHORT TITLE.

This title may be cited as the “National Park System New Areas Studies Act”.

SEC. 302. PURPOSE.

It is the purpose of this title to reform the process by which areas are considered for addition to the National Park System.

SEC. 303. STUDY OF ADDITION OF NEW NATIONAL PARK SYSTEM AREAS.

Section 8 of Public Law 91-383 (commonly known as the National Park System General Authorities Act; 16 U.S.C. 1a-5) is amended as follows:

(1) By inserting “GENERAL AUTHORITY.—” after “(a)”.

(2) By striking the second through the sixth sentences of subsection (a).

(3) By redesignating the last two sentences of subsection (a) as subsection (f) and inserting in the first of such sentences before the words “For the purposes of carrying” the following: “(f) AUTHORIZATION OF APPROPRIATIONS.—”.

(4) By inserting the following after subsection (a):

“(b) STUDIES OF AREAS FOR POTENTIAL ADDITION.—(1) At the beginning of each calendar year, along with the annual budget submission, the Secretary shall submit to the Committee on Resources of the House of Representatives and to the Committee on Energy and Natural Resources of the United States Senate a list of areas recommended for study for potential inclusion in the National Park System.

“(2) In developing the list to be submitted under this subsection, the Secretary shall consider—

“(A) those areas that have the greatest potential to meet the established criteria of national significance, suitability, and feasibility;

“(B) themes, sites, and resources not already adequately represented in the National Park System; and

“(C) public petition and Congressional resolutions.

“(3) No study of the potential of an area for inclusion in the National Park System may be initiated after the date of enactment of this subsection, except as provided by specific authorization of an Act of Congress.

“(4) Nothing in this Act shall limit the authority of the National Park Service to conduct preliminary resource assessments, gather data on potential study areas, provide technical and planning assistance, prepare or process nominations for administrative designations, update previous studies, or complete reconnaissance surveys of individual areas requiring a total expenditure of less than \$25,000.

“(5) Nothing in this section shall be construed to apply to or to affect or alter the study of any river segment for potential addition to the national wild and scenic rivers system or to apply to or to affect or alter the study of any trail for potential addition

to the national trails system.

“(c) REPORT.—(1) The Secretary shall complete the study for each area for potential inclusion in the National Park System within 3 complete fiscal years following the date on which funds are first made available for such purposes. Each study under this section shall be prepared with appropriate opportunity for public involvement, including at least one public meeting in the vicinity of the area under study, and after reasonable efforts to notify potentially affected landowners and State and local governments.

“(2) In conducting the study, the Secretary shall consider whether the area under study—

“(A) possesses nationally significant natural or cultural resources and represents one of the most important examples of a particular resource type in the country; and

“(B) is a suitable and feasible addition to the system.

“(3) Each study—

“(A) shall consider the following factors with regard to the area being studied—

“(i) the rarity and integrity of the resources;

“(ii) the threats to those resources;

“(iii) similar resources are already protected in the National Park System or in other public or private ownership;

“(iv) the public use potential;

“(v) the interpretive and educational potential;

“(vi) costs associated with acquisition, development and operation;

“(vii) the socioeconomic impacts of any designation;

“(viii) the level of local and general public support;

and

“(ix) whether the area is of appropriate configuration to ensure long-term resource protection and visitor use;

“(B) shall consider whether direct National Park Service management or alternative protection by other public agencies or the private sector is appropriate for the area;

“(C) shall identify what alternative or combination of alternatives would in the professional judgment of the Director of the National Park Service be most effective and efficient in protecting significant resources and providing for public enjoyment; and

“(D) may include any other information which the Secretary deems to be relevant.

“(4) Each study shall be completed in compliance with the National Environmental Policy Act of 1969.

“(5) The letter transmitting each completed study to Congress shall contain a recommendation regarding the Secretary’s preferred management option for the area.

“(d) NEW AREA STUDY OFFICE.—The Secretary shall designate a single office to be assigned to prepare all new area studies and to implement other functions of this section.

“(e) LIST OF AREAS.—At the beginning of each calendar year, along with the annual budget submission, the Secretary shall submit to the Committee on Resources of the House of Representatives and to the Committee on Energy and Natural Resources of the Senate a list of areas which have been previously studied which contain primarily historical resources, and a list of areas which

have been previously studied which contain primarily natural resources, in numerical order of priority for addition to the National Park System. In developing the lists, the Secretary should consider threats to resource values, cost escalation factors, and other factors listed in subsection (c) of this section. The Secretary should only include on the lists areas for which the supporting data is current and accurate.”

(5) By adding at the end of subsection (f) (as designated by paragraph (3) of this section) the following: “For carrying out subsections (b) through (d) there are authorized to be appropriated \$2,000,000 for each fiscal year.”

Appendix C. NPS Management Policies, 2001 (Sections 1.2 and 1.3)

1.2 The National Park System

The number and diversity of parks within the national park system grew as a result of a government reorganization in 1933, another following World War II, and yet another during the 1960s. Today there are more than 375 units in the national park system. These units are variously designated as national parks, monuments, preserves, lakeshores, seashores, wild and scenic rivers, trails, historic sites, military parks, battlefields, historical parks, recreation areas, memorials, and parkways. Regardless of the many names and official designations of the park lands that make up the national park system, all represent some nationally significant aspect of our natural or cultural heritage. As the physical remnants of our past, and great scenic and natural places that continue to evolve— repositories of outstanding recreation opportunities— class rooms of our heritage— and the legacy we leave to future generations— they warrant the highest standard of protection.

1.3 Criteria for Inclusion

Congress has declared in the NPS General Authorities Act of 1970 that areas comprising the national park system are cumulative expressions of a single national heritage. Potential additions to the national park system should therefore contribute in their own special way to a system that fully represents the broad spectrum of natural and cultural resources that characterize our nation. The National Park Service is responsible for conducting professional studies of potential additions to the national park system when specifically authorized by an Act of Congress, and for making recommendations to the Secretary of the Interior, the President, and Congress. Several laws outline criteria for units of the national park system, and for additions to the national wild and scenic rivers system and the national trails system. To receive a favorable recommendation from the Service, a proposed addition to the national park system must (1) possess nationally significant natural or cultural resources; (2) be a suitable addition to the system; (3) be a feasible addition to the system; and (4) require direct NPS management, instead of alternative protection by other public agencies or the private sector. These criteria are designed to ensure that the national park system includes only the most outstanding examples of the nation's natural and cultural resources. They also recognize that there are other management alternatives for preserving the nation's outstanding resources.

1.3.1 National Significance

NPS professionals, in consultation with subject matter experts, scholars, and scientists, will determine whether a resource is nationally significant. An area will be considered nationally significant if it

- * is an outstanding example of a particular type of resource;
- * possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage;
- * offers superlative opportunities for public enjoyment, or for scientific study;
- * and retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.

National significance for cultural resources will be evaluated by applying the National Historic Landmarks process contained in 36 CFR Part 65.

1.3.2 Suitability

An area is considered suitable for addition to the national park system if it represents a natural or cultural resource type that is not already adequately represented in the national park system, or is not comparably represented and protected for public enjoyment by other federal agencies; tribal, state, or local governments; or the private sector.

Adequacy of representation is determined on a case-by-case basis by comparing the potential addition to other comparably managed areas representing the same resource type, while considering differences or similarities in the character, quality, quantity, or combination of resource values. The comparative analysis also addresses rarity of the resources; interpretive and educational potential; and similar resources already protected in the national park system or in other public or private ownership. The comparison results in a determination of whether the proposed new area would expand, enhance, or duplicate resource- protection or visitor- use opportunities found in other comparably managed areas.

1.3.3 Feasibility

To be feasible as a new unit of the national park system, an area must (1) be of sufficient size and appropriate

configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and potential impacts from sources beyond proposed park boundaries); and (2) be capable of efficient administration by the NPS at a reasonable cost.

In evaluating feasibility, the Service considers a variety of factors, such as: size; boundary configurations; current and potential uses of the study area and surrounding lands; land ownership patterns; public enjoyment potential; costs associated with acquisition, development, restoration, and operation; access; current and potential threats to the resources; existing degradation of resources; staffing requirements; local planning and zoning for the study area; the level of local and general public support; and the economic/ socioeconomic impacts of designation as a unit of the national park system.

The feasibility evaluation also considers the ability of the National Park Service to undertake new management responsibilities in light of current and projected constraints on funding and personnel.

An overall evaluation of feasibility will be made after taking into account all of the above factors. However, evaluations may sometimes identify concerns or conditions, rather than simply reach a “yes” or “no” conclusion. For example, some new areas may be feasible additions to the national park system only if landowners are willing to sell; or the boundary encompasses specific areas necessary for visitor access; or state or local governments will provide appropriate assurances that adjacent land uses will remain compatible with the study area’s resources and values.

1.3.4 Direct NPS Management

There are many excellent examples of the successful management of important natural and cultural resources by other public agencies, private conservation organizations, and individuals. The National Park Service applauds these accomplishments, and actively encourages the expansion of conservation activities by state, local, and private entities, and by other federal agencies. Unless direct National Park Service management of a studied area is identified as the clearly superior alternative, the Service will recommend that one or more of these other entities assume a lead management role, and that the area not receive national park system status.

Studies will evaluate an appropriate range of management alternatives and will identify which alternative or combination of alternatives would, in the

professional judgment of the Director, be most effective and efficient in protecting significant resources and providing opportunities for appropriate public enjoyment. Alternatives for NPS management will not be developed for study areas that fail to meet any one of the four criteria for inclusion listed in section 1.3.1.

In cases where a study area’s resources meet criteria for national significance but do not meet other criteria for inclusion in the national park system, the Service may instead recommend an alternative status, such as “affiliated” area. To be eligible for “affiliated area” status, the area’s resources must: (1) meet the same section 1.3.1 standards for national significance that apply to units of the national park system; (2) require some special recognition or technical assistance beyond what is available through existing NPS programs; (3) be managed in accordance with the policies and standards that apply to units of the national park system; and (4) be assured of sustained resource protection, as documented in a formal agreement between the NPS and the non- federal management entity. Designation as a “heritage area” is another option that may be recommended. Heritage areas are distinctive landscapes that do not necessarily meet the same standards of national significance as national park areas. Either of these two alternatives would recognize an area’s importance to the nation without requiring or implying management by the National Park Service.

Appendix D. National Historic Landmark Criteria

(36 CFR, Sec. 65.4)

The criteria applied to evaluate properties for possible designation as National Historic Landmarks or possible determination of eligibility for National Historic Landmark designation are listed below. These criteria shall be used by NPS in the preparation, review and evaluation of National Historic Landmark studies. They shall be used by the Advisory Board in reviewing National Historic Landmark studies and preparing recommendations to the Secretary. Properties shall be designated National Historic Landmarks only if they are nationally significant. Although assessments of national significance should reflect both public perceptions and professional judgments, the evaluations of properties being considered for landmark designation are undertaken by professionals, including historians, architectural historians, archeologists and anthropologists familiar with the broad range of the nation's resources and historical themes. The criteria applied by these specialists to potential landmarks do not define significance nor set a rigid standard for quality. Rather, the criteria establish the qualitative framework in which a comparative professional analysis of national significance can occur. The final decision on whether a property possesses national significance is made by the Secretary on the basis of documentation including the comments and recommendations of the public who participate in the designation process.

- (a) Specific Criteria of National Significance: The quality of national significance is ascribed to districts, sites, buildings, structures and objects that possess exceptional value or quality in illustrating or interpreting the heritage of the United States in history, architecture, archeology, engineering and culture and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling and association, and:
- (1) That are associated with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained; or
 - (2) That are associated importantly with the lives of persons nationally significant in the history of the United States; or
 - (3) That represent some great idea or ideal of the

American people; or

- (4) That embody the distinguishing characteristics of an architectural type specimen exceptionally valuable for a study of a period, style or method of construction, or that represent a significant, distinctive and exceptional entity whose components may lack individual distinction; or
 - (5) That are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively compose an entity of exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture; or
 - (6) That have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States. Such sites are those which have yielded, or which may reasonably be expected to yield, data affecting theories, concepts and ideas to a major degree.
- (b) Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings and properties that have achieved significance within the past 50 years are not eligible for designation. Such properties, however, will qualify if they fall within the following categories:
- (1) A religious property deriving its primary national significance from architectural or artistic distinction or historical importance; or
 - (2) A building or structure removed from its original location but which is nationally significant primarily for its architectural merit, or for association with persons or events of transcendent importance in the nation's history and the association consequential; or
 - (3) A site of a building or structure no longer standing but the person or event associated

with it is of transcendent importance in the nation's history and the association consequential; or

- (4) A birthplace, grave or burial if it is of a historical figure of transcendent national significance and no other appropriate site, building or structure directly associated with the productive life of that person exists; or
- (5) A cemetery that derives its primary national significance from graves of persons of transcendent importance, or from an exceptionally distinctive design or from an exceptionally significant event; or
- (6) A reconstructed building or ensemble of buildings of extraordinary national significance when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other buildings or structures with the same association have survived; or
- (7) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own national historical significance; or
- (8) A property achieving national significance within the past 50 years if it is of extraordinary national importance.

Appendix E: Letters of Support from Resource Experts

WESTERN OFFICE



NATIONAL TRUST
for HISTORIC PRESERVATION

May 8, 2001

John J. Reynolds
Superintendent
National Park Service
Pacific West Region
600 Harrison St., Suite 600
San Francisco, CA 94107-1372

RE: Fort Hunter Liggett Special Resource Study

Dear Superintendent Reynolds:

I am writing to offer the National Trust for Historic Preservation's endorsement of the National Park Service's assessment of the cultural and natural resources at Fort Hunter Liggett. We have reviewed the draft statement of significance and believe that the National Park Service has accurately described and assessed the fort's cultural and natural resources. We strongly support the tentative determination that these resources are nationally significant.

Fort Hunter Liggett is not well known by the public, and yet we know of few other places in California (or indeed the West) that incorporate cultural and natural resources in such a compelling landscape. We feel it is important to emphasize that the natural landscape at Fort Hunter Liggett provides the historic context for the area's nationally significant cultural resources. While the study notes that the fort's oak woodland and oak savanna and other plant communities have great *natural* significance, we believe that these landscapes also carry enormous *cultural* significance.

This landscape embodies a centuries-old popular image of a "golden California" that provides a pastoral counterpoint to the drama of Yosemite Valley and Death Valley. Given the scarcity of such unspoiled oak landscapes and the current threats posed by suburban sprawl, insensitive agricultural practices, and sudden oak death syndrome, we believe it becomes all the more critical to protect Fort Hunter Liggett's intact landscape.

Protecting the Irreplaceable



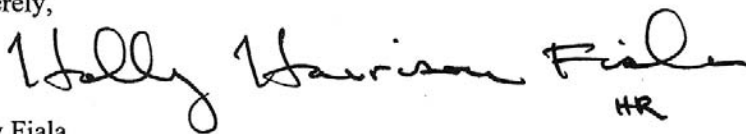
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We recognize that the Mission San Antonio de Padua church and surrounding lands are not subject to the study, but we believe that it is essential that the National Park Service and the mission work cooperatively to reach common goals of preserving a unique and living heritage. While other California missions may be better known or more architecturally significant, we believe that no other mission offers a sense of place that can compare to that of San Antonio de Padua.

The National Trust believes that there is a vital role for the National Park Service in the future stewardship of Fort Hunter Liggett. We are eager to support efforts to assure the ongoing protection of this unique national treasure. Please contact me or Anthony Veerkamp on my staff if we can be of assistance.

Sincerely,

A handwritten signature in black ink that reads "Holly Harrison Fiala". Below the signature, the initials "HR" are written in a smaller, simpler font.

Holly Fiala
Director

Cc: Martha Crusius, NPS Planning and Partnerships
David Look, NPS Cultural Resources Team Leader
Courtney Cuff, Director, NPCA Pacific Region
Susan Brandt-Hawley, National Trust Advisor
Timothy Whalen, National Trust Advisor

Mills College
5000 MacArthur Boulevard
Oakland, California 94613

MILLS

16 November 2001

John Reynolds, Regional Director
National Park Service, Pacific West Region
1111 Jackson Street, Suite 700
Oakland, CA 94607

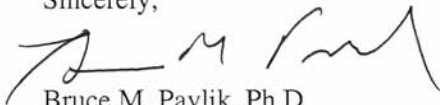
Dear Mr. Reynolds:

The biological resources of Fort Hunter Liggett are national treasures of global significance. They constitute an intact assemblage of species and natural communities arranged in a mission-era landscape that has persisted into the 21st century. Many of the species are truly rare and will require special conservation measures regardless of the final disposition of the land. The natural communities are diverse, expansive, and beautiful, icons of Alta California and the only proven context for preservation of the rare species. It would be nothing short of tragedy to dissect these elements apart in order to accommodate land use patterns that have put species at risk throughout the state and diminished the resource birthright of our citizens.

At Fort Hunter Liggett, at this time in history, we have a singular opportunity to do the right thing – to preserve a whole, fully functional, piece of our American heritage, without compromise and for the benefit of all. It is piece that can inform and inspire, as well as demonstrate to the rest of the world that swords should not always be hammered into plowshares. Swords can be fashioned into resource stewardship and common good.

Thank you for the opportunity to comment.

Sincerely,



Bruce M. Pavlik, Ph.D
Department of Biology
Mills College
Oakland, CA 94613

**Verna Jigour
Associates**

Conservation Ecology Services
3318 Granada Avenue, Santa Clara, CA 95051
email: VJigour@aol.com

(408) 246-4425
Fax: (408) 985-2770

November 10, 2001

John Reynolds, Regional Director
National Park Service
1111 Jackson Street, Suite 700
Oakland, CA 94607

**Subject: Letter of endorsement for the NPS Statement of Resource Significance:
Draft Special Resources Study of Fort Hunter Liggett**

Dear Mr. Reynolds,

I have read the Section 4. Resource Significance of the document cited above (draft dated 10/30/01) and wish to offer my endorsement and corroboration of the accuracy of the statements made and to add a few additional comments. I appreciate that the case is quite well stated in the National Park Service report, though no words can completely convey the full impact these lands have upon the senses in first-hand experience, which is often described as a sensation of being transported to an earlier time. The lands encompassed by Fort Hunter Liggett possess stellar qualities demonstrating a uniquely Californian example of our natural and cultural heritage.

Among the outstanding features of the study area is its landscape context in relationship to adjacent lands conserved for public benefit. The natural communities represented in the FHL study area contrast with and complement those represented in the adjacent Ventana and Silver Peak Wilderness areas, other parts of the Monterey Ranger District (LPNF) and other conserved lands. Only with inclusion of the oak woodlands and savannas, varied riparian habitats, vernal pools, rare plant populations and unique rock formations encompassed by Fort Hunter Liggett is a complete regional ecosystem represented among these conserved lands. The wild food web encompassing these lands depends on flows of material and energy, including food webs and wildlife movement patterns, among the entire assemblage of federal jurisdictions and other conserved lands. This ecological context amplifies the exceptional nature of the FHL lands, which are outstanding in themselves. Including the FHL lands, the entire complex of conserved lands, extending coastward to the Big Sur coast, is the outstanding example of a relatively intact California Central Coast Range ecosystem. Its integrity must remain intact for posterity as an outstanding example of our natural heritage.

Representing Ventana Wildlands Project, I want to note another distinction related to this context that may be considered of national significance with respect to the high degree of integrity and relatively unspoiled nature of these lands. My

colleagues in the Central Coast Wildlands planning effort include representatives of California Wilderness Coalition; the Information Center for the Environment, University of California, Davis; GreenInfo Network; and University of California, Santa Cruz Environmental Studies Department and Geographic Information Systems Lab. Together we have conducted an ecoregional geographic information system (GIS) analysis [Thorne et al. 2001 (in press)] to identify extensive core biodiversity conservation areas within the context of an integrated network, connected by wildlife movement linkages. The lands of Fort Hunter Liggett constitute a key part of one of the core conservation areas identified through this systematic process. Our regional analysis is one of several being conducted throughout the state, coordinated through California Wilderness Coalition. In turn, the California Wildlands Project, is part of a continental effort being coordinated by The Wildlands Project. Thus, identification of these lands as part of a key regional conservation area gives it a significant position in what is hoped will become a dedicated nationwide network of biodiversity conservation areas. This important relationship to the nationwide network conveys a national significance.

The NPS report covers the significance of the oak woodlands and savannas, exemplary riparian habitats and the ecological functions of these lands in supporting numerous rare and listed animal and plant species. To the list of supporting documentation included in the report may be added the identification of the San Antonio Valley & vicinity by National Audubon Society among their national list of Important Bird Areas (Cooper 2001) which is currently in preparation. Furthermore, the U.S. Fish and Wildlife Service has just proposed designation of Critical Habitat for the Threatened purple amole (*Chlorogalum purpureum* var. *purpureum*) within the boundaries of FHL (USFWS 2001).

An issue related to the outstanding character of these lands, as well as to its value for scientific study and interpretation is the fact that vast areas of FHL remain unsurveyed for rare animal and plant species (Heidi Crowell, USFWS, pers. com. 2001). Thus, the outstanding biodiversity of the land has likely been underreported to date. Expansive opportunities exist for future scientific study and eventual interpretation of these truly wild lands.

Among the opportunities for research and interpretation presented by the lands of FHL is the enticing potential for rediscovering Native American traditional cultural relationships with their ecosystems. Whereas much of the adjacent designated Wilderness encompasses steep and rugged lands largely suitable for only temporary human visitation, the lower elevation rolling oak woodland/savannas of FHL were home to the Salinan people for around 10,000 years. Restoration ecologists have only relatively recently begun to acknowledge and seek to understand the ecological influences of traditional land management techniques practiced by Native Americans to support their economies on the land.

Understanding such a "Native American partnership with nature that left the resource base intact" (Anderson 1993) holds promise for illuminating approaches to

restoring native biodiversity. For example, certain native plant species now considered rare were the subjects of traditional gathering and replacement practices by Native Californians. "There may be a causal relationship between former indigenous gathering and management practices and the rare status of these and other plant species that are disappearing" (ibid.). The vast acreage of relatively intact lands encompassed by FHL, converging with the historic and prehistoric presence of the Salinan people, whose descendents today share a deep concern for these lands (Gregg Castro and Joe Freeman, Salinan Nation, pers. com. 2001), suggests profound opportunities to explore the relationships among traditional land management practices, cultural arts and biodiversity conservation. Indeed, Kat Anderson, University of California, Davis, (cited in the foregoing) has expressed interest in researching these relationships at FHL (pers. com. 2001), as has Joe Freeman (pers. com 2001) and we have begun preliminary discussions regarding a potential research approach. The results of such research will likely bear rich fruit for interpreting our natural heritage to future generations.

In summary, the national significance of the lands of FHL cannot be overstated. These truly outstanding lands must be conserved in perpetuity.

Sincerely,



Verna Jigour

Citations

Anderson, Kat. 1993. Native Californians as ancient and contemporary cultivators. Pages 151-174 in Blackburn, Thomas C. and Kat Anderson. *Before the Wilderness: Environmental Management by Native Californians*. Ballena Press, Menlo Park, CA.

Cooper, Daniel S. 2001. Preliminary list of Important Bird Areas for the Central West Ecoregion. National Audubon Society, unpublished data.

Thorne, Jim, Dick Cameron, Chris Erichsen and Verna Jigour. 2001 (in press). *A regional guide to wildlands conservation for California's central coast*. California Wilderness Coalition, Davis, CA.

U.S. Fish and Wildlife Service (USFWS). 2001. Proposed designation of critical habitat for *Chorogalum purpureum*, a plant from the South Coast Ranges of California. Federal Register 66 (217): 56508-56531. Thursday, November 8, 2001.



VERN YADON

November 13, 2001

Mr. John Reynolds, Regional Director
National Park Service, Western Region
1111 Jackson Street, Suite 700
Oakland, CA 94607

Dear Mr. Reynolds:

Regarding the national significance of Fort Hunter Liggett, I have visited and collected the botany of the fort for a total of forty years. The repositories of those collections are the Pacific Grove Museum of Natural History, the California Academy of Sciences and the Jepson Herbarium at the University of California. My collections have helped determine the distribution and variety of certain species and the habitats where they occur.

California is known for its diversity, which has been at least partly protected by the size and uses of such places as Fort Hunter Liggett. Among the statutorily protected species are Purple Amole, Chlorogalum p. var. purpureum and Santa Lucia mint, Pogogyne clareana. But the fort harbors many other rarities that deserve protection but have not attained the designation partly because their distributions are not well known and they have not yet gone through the process. Baccharis plummerae ssp. glabrata and Tropidocarpum capparideum are examples.

The fort has a number of wetlands with appropriate vernal species such as the area at Jolon and vicinity, Los Bueyes and Los Burros Creeks as well as Stony Valley. It has intact assemblages of Valley Oak Savanna and other oak combinations in the area along Milpitas and Del Venturi Roads. There are significant grasslands that have not been studied as well as historical, archaeological and geological features.

The significance of the natural assets of Fort Hunter Liggett cannot properly be described in a brief statement such as this, but the area continues to hold my interest even after forty years of collection and study.

Sincerely yours,

A handwritten signature in cursive script that reads "Vern Yadon".

Vern Yadon
Director and Curator Emeritus
Pacific Grove Museum of Natural History

Cc: Justin DeSantis



CAREY & CO. INC.
ARCHITECTURE

November 27, 2001

Mr. John Reynolds
Regional Director
National Park Service
Western Region
1111 Jackson Street
Oakland, CA 94607

Dear Mr. Reynolds

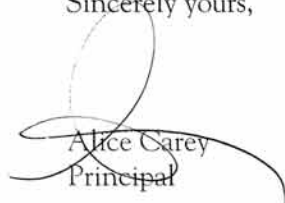
I am writing in support of the National Park Service's proposal to designate the Hearst Hacienda and its related grounds and outbuildings at Fort Hunter Liggett as a National Historic Site. I have reviewed the draft recommendation prepared by the Park Service. I agree that their proposal to restore and interpret these historic properties and the areas natural resources will be an extraordinary resource for the visiting public. I also support the management approach they have developed for the historic site.

The Julia Morgan-designed Hearst Hacienda is listed on the National Register of Historic Places. The structures and its site are extremely important resources of our State's history for the stories it tells of early California settlement, the Hearst Ranch Years, architect Julia Morgan and military training. Hearst

As an historic preservation architecture firm, we support the preservation of cultural resources for future generations. The National Park Service proposal includes completing historic structures reports and cultural landscape studies for the Hearst Hacienda, the five ranch bungalows and land associated with the Tidball Store. These reports would be a guide to adaptive use, historic landscape restoration and management practices. We wholeheartedly support this proposal and future preservation work.

I look forward to this proposed National Historic Site becoming a significant contribution to the Park Service's continuing program of preservation.

Sincerely yours,



Alice Carey
Principal

Old Engine Co. N^o 2 460 Bush Street San Francisco, CA 94108
415.773.0773 f. 415.773.1773



Mr. Ray Murray
United States Department of the Interior
National Park Service
1111 Jackson Street, Suite 700
Oakland, CA 94607

DEPARTMENT OF GEOGRAPHY
507 McCone Hall # 4740
BERKELEY, CALIFORNIA 94720-4740
(510) 642-3903
FAX (510) 642-3370

January 31, 2002

Re. L2623 (PGSO-PP)

To whom it may concern:

I understand that the National Park Service is evaluating the cultural significance of the San Antonio Valley and the Milpitas Ranch House (aka "The Hacienda"). I have no doubt that both possess outstanding national value. To my knowledge, the Mission San Antonio de Padua is the only remaining California mission which remains in a pastoral setting close to that in which it flourished. The Milpitas Ranch has historic associations with the Atherton, Newhall, and Hearst families before becoming Fort Hunter Liggett.

My chief concern, however, is for the Hacienda which is an outstanding product of the long and unusual association between architect Julia Morgan and the Hearst family. Morgan is now recognized as an architect of national significance both for the quality of her output and for her pioneering role as a woman architect. As a media baron, William Randolph Hearst shaped world events throughout the first half of the twentieth century. The complex of buildings which he and Morgan concocted on La Cuesta Encantada and in the coastal town of San Simeon constitute a remarkably cohesive vision carried out by a patron of seemingly limitless means. The Hacienda, executed in Mission Revival style in deference to its neighboring San Antonio mission, is an important part of that megalomaniacal vision, its fine interior craftsmanship characteristic of other Hearst-Morgan collaborations. Like La Cuesta Encantada, its guest list during Hearst's ownership of the San Simeon Ranch at its greatest extent is certain to be illustrious.

Hearst Castle has become one of California's premier tourist attractions and the most visited unit of the California state park system. The Hacienda deserves a full study and recognition as a lesser-known but important element of Hearst's San Simeon Ranch and as an outstanding example of Julia Morgan's work.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gray Brechin".

Gray Brechin, Ph.D.

Visiting scholar and author *Imperial San Francisco: Urban Power, Earthly Ruin* and *Farewell, Promised Land: Waking from the California Dream*

Appendix F: Army Modifications to BRAC Excess Property Listing at Fort Hunter Liggett



DEPARTMENT OF THE ARMY
 ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
 600 ARMY PENTAGON
 WASHINGTON, DC 20310-0600

Base Realignment and
 Closure Division

27 MAY 2005

Mr. Jonathan Jarvis
 Regional Director
 Pacific West Region
 National Park Service
 1111 Jackson Street, Suite 700
 Oakland, California 94607

Dear Mr. Jarvis:

This is to notify you that the Army has determined that it is necessary to modify the excess property listing at Fort Hunter Liggett in order to support the Army mission and in the best interests of our Soldiers.

Therefore, effective immediately, there is no excess Base Realignment and Closure property at Fort Hunter Liggett. Specifically, the following property is no longer available:

- Unaccompanied Personnel Housing (Buildings 124, 127, 132A, and 149)
- Javelin Court Family Housing Area (Buildings P-18 through P-29, 41 units)
- Hacienda Complex (Buildings 100, 100A, 100B, 101, 103, 130, and 131)
- Jose Maria Gil Adobe (Building 640)
- 1 acre under and adjacent to the Tidball Store

The Army point of contact for this action is Mr. Mohsin Bharmal, (404) 464-2221.

Sincerely,

Robert R. Derrick
 Colonel, U.S. Army
 Chief, Base Realignment
 and Closure Division

cc:
 Mr. Ryan, Atlanta, GA BRAC Field Office

Appendix G: Summary of Public Scoping Comments, 2000

The Fort Hunter Liggett Special Resource Study process included a public comment period in August and September, 2000. The following section summarizes the issues and ideas that were contributed at public meetings and through letters and e-mail during that time.

Study area boundary

- The NPS study should be limited to the buildings and associated land declared excess by the Army
- The NPS study should examine the resources of the entire 165,000 acres of Fort Hunter Liggett

Army training mission

- There must be no negative effects on training operations
- What impacts would there be on National Guard training from Camp Roberts, or future expansion of training activities?

Visitor access

- Protect cultural resources from impacts associated with increased visitor access. There should be no access to sensitive cultural resources unless protection is guaranteed
- Provide access for elderly visitors
- Consider extending the same access privileges as those currently enjoyed by hunters and fishermen to other groups such as wildlife photographers, botanists, artists, and naturalists
- Increased access would necessitate safety measures for existing housing areas
- Cleanup up of hazardous materials and unexploded ordnance would be required
- Determine visitor carrying capacity
- Current access is limited by the Army
- Consider restoration of access through Fort Hunter Liggett along Sulfur Springs Road

Hunting and fishing interests

- Army already has partnerships with various hunting/fishing agencies and organizations
- Hunting interests wish to retain access through Los Padres National Forest
- The Army will continue to manage the hunting and fishing permits

Protection of resource values

- Much of the area between Mission San Antonio and the National Forest is oak savanna habitat, a valuable and diminishing California wildlife resource
- Long-term preservation of resources is important
- Fort Hunter Liggett is a valuable resource for researchers and scientists
- NPS should manage buildings on Jolon Road - Tidball Store, Dutton Hotel, etc.
- Jolon is a true ghost town; there is potential for re-creation of Dutton Hotel, the Dance Hall, the school, and Garcia's saloon
- The upper San Antonio River area, specifically the area of the Mission aqueduct, should be a focus of the study. The condition of the Mission aqueduct system should be assessed and interpreted
- Continued protection of archaeological sites and other cultural resources is critical - they are not a "renewable resource"
- Cultural sites are currently protected by limited access
- Information about cultural site locations must be kept secure
- The Fort Hunter Liggett Historic Preservation Plan is working - sacred sites must not be open to the public
- Concessioners should maintain scenic and cultural integrity of Hacienda and other properties
- Need to educate public about traditional uses of Fort Hunter Liggett (hunting, etc.)
- Overlapping eras of history; preservation of "Old California" versus commercialization
- The Salinan Nation will exhibit artifacts at the Tidball Store
- The whole of cultural sites is greater than the sum of the parts

Desired future conditions

- Another retail facility like the Jolon General Store is needed
- The Fire Academy can continue to use facilities
- There is high demand for Hacienda rooms, food, and souvenirs - should advertise their availability
- Housing opportunities for USFS employees are needed
- Lease excess facilities back to the Army
- Hacienda could be a stop on regional wine tour
- There is interpretive potential with the Hacienda connection to Hearst Castle

- Opportunities for schools to study history
- Roadside turnouts or wayside interpretation
- Removal of visually intrusive buildings, such as the tin barn fire station and some of the motel-style housing units; no additional buildings should be built
- Continue opportunity for hunting and fishing
- Hiking trails to connect to Los Padres National Forest
- Rehabilitate damaged lands
- Concern about drug rehabilitation and homeless shelter use of excess facilities if NPS does not take them

Mechanisms for protection

- A new model of public use of military land is needed
- Involve local people in decision making
- Partnerships with California Department of Fish and Game and US Fish and Wildlife Service are in place
- USFS has interest in former USFS lands that were transferred to Fort Hunter Liggett, if determined excess in future by the Army
- Potential for California State Parks and Recreation operation of Hacienda
- Coordination with Monterey County's proposed San Antonio Historic District Plan
- Continuation of Salinan Nation lease on the Tidball Store
- National Historic Landmark nomination of additional sites/district should be re-addressed

Management issues

- The Army has done a good job protecting resources at Fort Hunter Liggett
- What types of management possibilities will be considered in the study?
- What would "cooperative management" mean?
- What potential value would be added by a NPS presence on the base?
- Will there be any changes to the Hacienda or limitations on use? Will there be a "tie-in" with San Simeon Hearst Castle?
- Future use and management of Hacienda will require financial backing for restoration and repairs
- There are access limitations to Hacienda under the current concessionaire operation
- Future concessionaires
- Infrastructure investment is needed at Tidball Store

- Continued maintenance of excess housing
- Safety: law enforcement staff needed to support increased visitor use
- Firearms control vs. hunting activities
- Investment requirements for excess property - is this a "turn-key" operation?
- There is unexploded ordnance on the post, and there may be other hazardous materials. What are the potential clean-up costs, and who would be responsible for this?
- Will NPS operate the excess facilities?
- Who would use the excess housing and who would determine who stays there?
- Prescribed burns are effective for fire management
- Eradication program is needed for yellow starthistle
- Website for training, visitor, hunting and fishing coordination

Potential impacts

- Impacts on the local economy
- Does the NPS study include road networks and the associated pollution and congestion?
- Impacts of park designation on regional infrastructure, such as increased costs of road maintenance associated with increased visitor use
- Impacts of increased visitation on Mission San Antonio de Padua

Similarities to management of other areas

- Avoid boarding up excess buildings as at Fort Ord
- Comparison to Presidio closure: do not evict existing occupants
- Compare to other parks with historic structures and lodging
- Removal of unneeded buildings

Issues expressed but not within the scope of this study

- Access to The Indians via Arroyo Seco Road
- Monterey County has special use permits for Arroyo Seco access route
- Reconstruction of San Lucas/Lockwood Road
- Road access from Bryson to connect with road to San Simeon estate
- Road to Jolon is too steep

Appendix H: Summary of Comments on Draft Study Report and NPS Responses

The study team reviewed all e-mails, letters, faxes, and other comments submitted during the public comment period for the draft Fort Hunter Liggett Special Resource Study and Environmental Assessment. All comments were treated equally. The analytical process made no attempt to treat comments as votes, nor did it attempt to sway decision-makers towards the will of any majority. Emphasis was on the content of the comment rather than the number of people who agreed with it. This type of content analysis ensures that every comment is considered in the decision process. Similar comments were grouped for response.

The comment analysis and response section of this report is divided into topics that primarily relate to sections in the draft study. This includes study process, resource description, significance, suitability, feasibility, alternatives and environmental assessment. Subtopics on more specific concerns represent common themes identified from the comments.

STUDY PROCESS

Comment: Salinan groups were not involved in the plans proposed in the draft document.

Comments included:

- The Salinan Tribe was not notified or consulted on the plan to turn over any tribal historical land to any entity besides them.
- The Salinan Tribe of Monterey and San Luis Obispo Counties has not been contacted in the last three years.
- The Salinan Tribe of Monterey and San Luis Obispo Counties attempted to rectify this problem by contacting and meeting with representatives of Fort Hunter Liggett. They find the data in the report to be inadequate; they should be part of any decision concerning their ancestral homeland.
- The Xolon Salinan Tribe has petitioned for federal recognition. List the Xolon Salinan group among Native American participants regarding their aboriginal territory.

Response: Since NPS initiated the study in 2000, there have been changes to organizations representing Salinans. The NPS was in contact with the Salinan Nation and was unaware of the newly formed Salinan Tribe of Monterey and San Luis Obispo Counties. On request, the NPS met with the Salinan Tribe of Monterey and San Luis Obispo Counties during the public comment period for the draft study. The NPS has revised the draft study to acknowledge that there are three organizations that represent Salinan interests: Xolon Salinan Tribe, Salinan Tribe of Monterey and San Luis Obispo Counties; and the Salinan Nation Cultural Preservation Association.

RESOURCE DESCRIPTION, SIGNIFICANCE, AND SUITABILITY

Natural Resources

Comment: *Delphinium gypsophyllum* subsp. *parviflorum* and *Calystegia collina* subsp. *venusta* (South Coast Range morning glory) are two taxa on Tables 4 and 5 that have now been verified as belonging to other taxa. All specimens previously referred and *Calystegia collina* subsp. *venusta* (South Coast Range morning glory) from Fort Hunter Liggett have been verified as belonging to *Calystegia collina* subsp. *collina*. These are the first known collections of *Calystegia collina* subsp. *collina* from anywhere south of the Bay Area.

Response: These plant taxa have been removed from the respective tables in the draft study report.

Comment: The single occurrence of *Calyptridium parryi* var. *hesseae* (Santa Cruz Mountains pussypaws) is one of only two known occurrences in the Santa Lucia Mountains.

Response: This information has been included in the description of natural resource significance.

Comment: The draft report is missing an assessment of population size and number for plant species that are of conservation concern and are globally rarer than listed species such as purple amole and Santa Lucia mint.

San Simeon baccharis (*Baccharis plummerae* subsp. *glabrata*) – the population in Los Burros gorge is the only known population on “public” lands; the only other populations in the world are restricted to a small area on private, grazed land in Monterey County.

San Antonio collinsia (*Collinsia antonina*) – Three of only four verified populations of San Antonio collinsia occur on Fort Hunter Liggett. This taxon has recently been added to CNPS list 1B.

Yellow-flowered eriastrum (*Eriastrum luteum*) – Three of the only known extant populations in San Luis Obispo and Monterey counties occur on the installation. This rare species has not been reported recently from other historic localities.

Caper-fruited tropidocarpum (*Tropidocarpum capparideum*) – *Tropidocarpum capparideum*, which had been thought to be extirpated, was discovered on FHL in 2000. The only known extant populations occur on the installation; all other, previously documented populations elsewhere in California are believed to be extirpated. The FHL populations remain the only extant populations known.

Response: NPS has included these species in the description of natural resource significance.

Comment: Although several species occur more widely elsewhere, it is important to note that the population of *Syntrichopappus lemmonii* (Lemmon's syntrichopappus) is the only one documented in the California Coast Ranges.

Response: NPS has included this information in the description of natural resource significance.

Comment: Future surveys and monitoring will show that additional species listed in Table 5 may be best represented by viable populations on Fort Hunter Liggett, including for example, *Navarretia prostrata* (prostrate navarretia) and *Calycadenia villosa* (dwarf calcydonia). Most of the known (>80%), extant (and largest) populations of the latter species have been documented from the installation.

Response: NPS has revised the natural resource significance and suitability sections of the report to acknowledge the need for surveys and monitoring.

Comment: Several species of concern documented at FHL are not mentioned in the draft document, including:

- *Navarretia nigelliformis* subsp. *Radicans* (shining Navarretia)
- *Pentachaeta exilis* subsp. *Aeolica* (slender Pentachaeta). This species is notable in that one of only four known populations has been documented from Fort Hunter Liggett.
- *Quercus parvula* var. *shrevei* (Shreve's oak). The only known population east of the coastal slopes of the Santa Lucia Mountains has been documented from San Miguel Creek in Training Area 11 on Fort Hunter Liggett. Shreve's oak is much less common than many other listed oak species.

Response: Information on the rarity of these species has been added to the description of natural resource significance and the table "Other Special Interest Plant Species Documented on Fort Hunter Liggett."

Comment: Many of the rare taxa are concentrated in several areas of the installation. Among them are the extensive outcrops of ultramafic substrates, especially on Burro Mountain, and the Los Burro Creek and Little Los Burros Creek drainages. At least 16 species listed in Tables 4-5 occur there. The Los Bueyes and Los Burro Creek drainages are also significant, because nearly all of the known populations of *Pogogyne clareana* (Santa Lucia mint) and *Horkelia yadonii* (Santa Lucia horkelia) occur there, in addition to the only known

populations of *Calyptridium parryi* var. *hesseae* (Santa Cruz Mountains pussypaws) and *Pentachaeta exilis* subsp. *Aeolica* (slender Pentachaeta).

Response: Information on the rarity of these species has been added to the description of natural resource significance.

Comment: Few systematic searches of the installation have been conducted at FHL specifically dedicated to finding unrecorded populations of special interest taxa known to occur there or to search of taxa not yet documented.

- Three sensitive plant taxa were surveyed in 2000. This leaves a need for intensive surveys of over 65 other special interest taxa known to occur on the installation.
- Areas that have not been extensively surveyed include the drainages of San Miguel, Anthony, and North Fork creeks. These areas may harbor populations of interest. These areas have not experienced intensive use for military training.
- In recent years the California Native Plant Society has had increasing difficulty in getting into the back country areas which have seen little or no military activity to check on the status of many of the plants that we first identified.

Response: The suitability analysis has been revised to include the potential for scientific study of these areas, and a recommendation has been added in the "Management Options and Opportunities" section to encourage the Army to coordinate with scientists from universities and non-profit organizations to continue to inventory natural resources and conduct scientific research, including botanical surveys.

Comment: The Monterey Chapter of the California Native Plant Society has been trying for 17 years to get the USFS to designate a Research Natural Area (RNA) for valley oak savanna at Wagon Caves (approved in the Forest Plan in 1987) in the area adjoining FHL on the north. There is a potential here for a larger RNA protecting the best remaining relatively pristine habitat of this type.

Response: The suitability analysis has been revised to include the potential for scientific study of these areas, and a recommendation has been added in the "Management Options and Opportunities" section to encourage the Army to manage the valley oak savanna in collaboration with the USFS.

Comment: Figure 11 indicates that much of the Ammunition Supply Point (ASP) was cultivated but does not document this claim. The supposedly cultivated part of the ASP includes vernal pools

and upland areas with documented populations of sensitive taxa. There needs to be documentation provided as to the sources used to construct the map.

Response: Comment noted. At the landscape scale of mapping land-cover, it is not possible to include all vegetation and habitat features. This information is meant to give a large overview of habitat types at Fort Hunter Liggett. The source for the vegetation coverage used in Figure 11: Habitat Types is the California Gap Analysis Land-Cover/Vegetation Layer. This GIS layer was derived from photo interpretation of 1990 Landsat Thematic Mapper digital images, supplemented by aerial photography, large scale vegetation maps, survey maps, and field visits. The minimum mapping unit is 100 hectares for upland community types and 40 hectares for wetland communities. Vegetation classification was based on dominant overstory species.

The presence of vernal pools and upland areas with sensitive species in the ASP area has been added to the table "Vegetation Communities on Fort Hunter Liggett" and source information for the vegetation coverage map has been added to Figure 11.

Comment: The various sedimentary rocks on Fort Hunter Liggett likely contain fossils. The draft study does not document these or discuss whether some areas might be significant.

Response: Comment noted. Further study is needed to determine whether significant resources are present.

Comment: There is no source for the assertion that much of the Nacimiento River dries up during most summers. In the years I worked on the floristic survey, flow was reduced during the summers but the river pools near the Palisades were not the only areas that retained flow. The pool near the old bridge in Training Area 26 remained quite deep during the summer, much deeper than pools near the Palisades.

Response: The description of the Nacimiento River summer flow regime was taken from the Fort Hunter Liggett Integrated Natural Resources Management Plan FY2004-2008. The resource description in the draft study has been revised to acknowledge summer flow along other portions of the Nacimiento River.

Comment: The Jolon area also includes populations of several special interest plant taxa (e.g., *Chlorogalum purpureum* var. *purpureum*, *Calycadenia villosa*, *Eriastrum luteum*).

Response: The table "Federally and State Listed Threatened and Endangered Species that May Occur on Fort Hunter Liggett" has been revised to include the

Jolon populations of *Chlorogalum purpureum* var. *purpureum*, *Calycadenia villosa*.

Comment: In Table 4 (p. 49) the authors incorrectly state that *Chlorogalum purpureum* var. *purpureum* only occurs at FHL.

Response: This table has been revised to acknowledge populations of *Chlorogalum purpureum* var. *purpureum* at Camp Roberts.

Comment: The populations of *Navarretia prostrata* in the vernal pool complexes in the ASP and around Jolon, together with those at Camp Roberts, may be the most viable populations left of this taxon.

Response: The information has been included in the description of natural resource significance.

Comment: Although *Malacothamnus palmeri* var. *involucratum* and *Malacothamnus davidsonii* are both generally considered to be shrubland taxa (i.e., chaparral, coastal sage scrub), both taxa are also found in ephemeral riparian areas on FHL.

Response: Comment noted.

Comment: The location of listed species for plants in Table 4 is incomplete. Comment letter provides additional location for plant species listed in this table.

Response: This table has been revised to include the additional plant locations.

Comment: Intact understory of native grasses is an extremely rare natural community and the lack of natural reproduction in valley oak woodlands is a critical feature in the California landscape. The upper San Antonio valley is one of the best sites of naturally reproducing oak in the region.

Response: Comment noted.

Public Concern: A significant resource that should be added to the draft study is Burro Mountain. It was highly recommended as a potential National Natural Landmark in the National Natural Landmark identification study of geologic resources of the South Pacific Border region. It was the subject of several detailed and thorough publications by USGS geologists. Burro Creek has cut down into the ophiolite creating beautiful exposures through the sequence. Burro Mountain and Point Sal, are probably the two best examples of ophiolites in the South Pacific Border region.

Response: NPS will revise the resource description and include information on the significance of Burro Mountain in the description of natural resource significance and suitability.

Comment: The description of natural resources does not match the detail and depth in the description of cultural features, and likewise for the geology compared to biology. As a result the resource assessment comes across as being a bit out of balance. Additional analysis and description of geologic resources at Fort Hunter Liggett should be included in the final study including:

- A description of the origins of prominent geologic features; and
- An analysis of the relationships between geology and plant communities. There are clear associations between serpentinitic substrate and unique vegetation at FHL.

Response: NPS will revise the resource description and include additional information where necessary.

Cultural Resources

Comment: The history of the Salinans was not adequately recognized in the draft study.

Comments included:

- Salinans are described as if they only existed in the past. Many Salinan families still live in the region.
- p. 24 mentions only 2 groups of Salinans. The study should have also acknowledged the third group, the Playanos or Coastal People.
- p. 26 (removal of squatters): Salinan families (including Mora and Encinales families) were allowed to keep a 100-acre parcel.
- Salinans were an important part of the town of Jolon's history.
- Salinan Tribe founding of the Portola Trail: the trail from the coast up San Carpoforo Canyon to San Antonio Valley was used by the Salinans for millennia to connect the coast and valley people and to allow trading of resources from the different life zones.
- The Hacienda Hill was sacred to Salinans.
- Salinans occupied land at Fort Hunter Liggett for 10,000 years v. Hearst's 20 years.

Response: The NPS will revise text accordingly to accurately portray the history and significance of the Salinans.

Comment: The cultural resources in Jolon Area (Table 2 of the draft) did not include the old cemetery in the Ammunition Supply Point (ASP) (ca. 4 air km due N of San Antonio River, ca. 5.5 air km due E of San Antonio River, approximate UTM's: zone 10S, 667000 E, 3981600 N).

Response: NPS will add this site to the table " Documented Cultural Resources Within the Northern Cantonment and Jolon Areas."

Comment: The draft study should examine the mineral resources and mining history of FHL. The mining history will relate closely to cultural history over the past century if not back to the mid- or late-1800s, particularly during the Gold Rush era and during wartimes when major national efforts were made to search for certain metals essential for military hardware. There may be gold and mercury prospects in the area, mainly related to ancient hot springs.

During WWII, the sources and transport of critical metals were in jeopardy. Particularly with the ties of the FHL to the military since 1940, this topic seems appropriate.

Response: NPS will include the mining history and mineral resources of Fort Hunter Liggett in the " Resource Description" section.

Comment: The draft study should have included photographs of the painted caves on FHL to highlight the fragile and precious nature of the art there and the need for extreme sensitivity to their preservation.

Response: Comment noted.

Comment: There are precious few places in California – indeed, the United States – that have the significance in cultural sites that FHL has. Any plans that impact those sites or potentially increase access to them are scrutinized by the Salinan Nation Cultural Preservation Association (SNCPA) as to the measures that will prevent negative impacts from occurring. SNCPA considers the protection of unique and rich resources to be of primary responsibility for the managers of FHL.

Response: Comment noted.

Comment: There are various technical corrections to the descriptions and analysis of resources related to William Randolph Hearst that should be made to the draft study.

Response: The NPS will make the editorial corrections suggested in the comment.

Comment: Was the bridge near the Palisades in Training Area 26 constructed as part of Burnett Road, or was it built by the Army?

Response: This bridge was built by the Army after Burnett Road was constructed.

Public Enjoyment of FHL Resources

Comment: The NPS could have mentioned the outstanding potential to provide for a wide array of resource-based recreation opportunities on the entire installation. It would be an outstanding addition to the National Park System, as it would to the California State Park System.

Response: Comment noted. The NPS has added a "Management Options and Opportunities" section to the final report which identifies ways in which the Army, on its own or in collaboration with other organizations, could provide further visitor opportunities on Fort Hunter Liggett. This section also describes the potential for management as a historic site, park or forest area, if any substantial part of the installation is determined to be excess to the Army's needs in the future.

Comment: Opposed to any references to a hunting and fishing program in the report. The hunting and fishing programs at FHL occur in that portion of the facility which is quite separate from the historic structures.

Response: Although the study recommendations only address the BRAC excess property, the draft study assesses resources and the potential for public enjoyment of the entire installation.

FEASIBILITY

Comment: The National Park Service should have recommended that any future excess lands at Fort Hunter Liggett should become an NPS unit.

Comments included:

- Continuance of FHL training mission and NPS budget constraints are limitations that may change over time.
- The study should recommend that NPS will seek Direct Transfer Authority legislation in the event the Fort is ever declared surplus to military needs.
- It does not make sense that the NPS cannot recommend transfer of any future excess lands at Fort Hunter Liggett, but the USFS has supported legislation that would transfer Fort Hunter Liggett to the Forest Service should it not be needed for national defense.
- Costs of UXO clean-up should not be a rationale for finding NPS management infeasible, as the Defense Department will be required to clean up the UXO prior to transfer of any lands.
- Entire installation should be jointly operated by the NPS and California State Parks if determined excess to the Army's needs.

Response: Based on the Army's recent determination that no land at Fort Hunter Liggett is excess to their needs, the feasibility section has been modified to state that it is not currently feasible to manage any part of Fort Hunter Liggett as a unit of the national park system, including the Milpitas Hacienda and related historic structures, because none of the land is available for management by the NPS. However, in the long term, if any of these areas are determined to be excess to the Army's needs, management by the NPS could potentially be feasible, including management of a historic site centered around the Milpitas Hacienda, or management of a larger park incorporating additional lands of Fort Hunter Liggett. In both cases, further analysis would need to be completed when/if a park area is proposed. Considerations would include the U.S. Forest Service right of first refusal on Fort Hunter Liggett excess properties, the status of clean-up of hazardous materials, public interest and support, social and economic impact, and financial capabilities.

Comment: National Park Service should issue a supplemental draft environmental assessment analyzing the future public benefit of National Forest versus National Park Service management, or a combination of the two. Any Congressional action should await such an analysis.

Response: Congress has already taken action, and provided the USFS with the right of first refusal for any future excess land at Fort Hunter Liggett (MILCON legislation, October 13, 2004).

Comment: Congress has failed to authorize adequate budgets for NPS to manage properly the parks it already has, much less to take on new obligations.

Response: Comment noted.

ALTERNATIVES

Note: The following comments were based on the former alternatives presented in the draft study report. These alternatives are no longer being considered since the Army has determined that the property is no longer excess to their needs or available for transfer. The former draft alternatives are included for reference in an appendix of the final report.

Management/Ownership of former BRAC Property

Comments:

- California State Parks does not wish to take on the BRAC properties without the possibility of a future partnership arrangement with the

- National Park Service for managing more of the Fort Hunter Liggett land.
- A non-profit organization should be created to manage the holdings at Jolon, with a memorandum of understanding between the non-profit and the state or other agencies involved.
 - Funding from BRAC property rentals could offset costs of acquisition and management of the property.
 - The BRAC areas could offset costs of NPS acquisition of properties and provide rentals for those who hunt and fish at FHL as well as long-term visitors at the San Antonio Mission.
 - Funding sources are needed for the Gil Adobe, Tidball Store and Dutton Hotel to ensure that management and protection are affordable. Some portion of the rents collected from the Javelin Court Housing area would be a stable source of income, which could be transferred to a non-profit caring for and maintaining these sites.
 - California State Parks Department is significantly underfunded; however, the department has recently worked with a wide array of State agencies and nonprofit organizations to protect 82,000 acres of adjacent Hearst Ranch lands. California State Parks does not have funding, operational ability, or staffing to effectively provide stewardship for Fort Hunter Liggett lands.
 - In the event that a transfer to State Parks does not occur, Monterey County is interested in obtaining the Hacienda complex.
 - Various suggestions for transfer of the Tidball Store land:
 - The Tidball Store and the corresponding 1-acre of land should be transferred to the Salinan Nation.
 - The one acre on which the Tidball Store sits should be transferred to the Monterey County Parks Department since they already own the building.
 - Friends of the Historic San Antonio Mission is willing to explore the possibility of serving in an advisory capacity to any nonprofit or other organization that wished to step forward and assume management of the Tidball Store and Gil Adobe.
 - NPS administration of the historic structures at FHL would be a positive step in the direction of providing improved preservation of the built environment on the installation. Buildings that have been largely ignored (i.e. Gil Adobe) may be stabilized and interpreted for interested public.
 - Transferring the Milpitas Hacienda and ranch bungalows to California State Parks would help preserve and interpret these important cultural resources to a wider / more diverse audience. The National Park Service and California State Parks should jointly ensure protection for the Hacienda and the Tidball Store before serious deterioration takes place.
 - Fort Hunter Liggett can be owned and managed by the National Park Service in partnership with California State Parks, under the existing cooperative agreement. Start by combining Hearst San Simeon State Historical Monument with the Milpitas Hacienda into the National Park System.
 - NPS should ensure that adequate funding is transferred to CSP for ongoing upkeep, maintenance, and proper curation of these facilities.
 - Consider use of properties listed for use by Monterey County as a youth camp for individuals needing temporary confinement.
- Response:** Based on the Army's recent change in policy regarding the BRAC excess property at Fort Hunter Liggett, there is currently no land available for transfer or management by any other agency or organization. The NPS has added a "Management Options and Opportunities" section to the final special resource study report which identifies partnership and collaborative opportunities that the Army could pursue, in order to enhance preservation or visitor opportunities at the Milpitas Hacienda, Tidball Store, Gil Adobe, Salinan cultural sites, or other areas. California State Parks, Monterey County, local nonprofit groups, and Salinan groups are referenced as potential partners. The Management Options and Opportunities section of the report also describes the potential for management of a historic site, park, or forest area if additional property at Fort Hunter Liggett is determined to excess to the Army's needs in the future.

Resource Protection

Comments:

- Alternatives should have included options for protection of nationally significant resources on the entire FHL installation.

- There is no alternative that recognizes the importance of these resources on the entire FHL installation for preservation for the benefit of future generations as a unit of the National Park System.
- The disposition of federal military lands no longer needed for national defense that contain nationally significant resources that meet the qualifications for recognition as units of the National Park System should be decided in public with all alternatives made available for the public to scrutinize and comment on.
- **The final report should recommend future protection of the resources if and when land becomes available.**
 - include steps to ensure that the land stays in federal ownership (NPS or USFS) to protect resource values.
 - protect the Mission's cultural landscape in perpetuity.
 - include measures to limit presence of unexploded ordnance.
- **All Fort Hunter Liggett land located in the Nacimiento and San Antonio watershed should be conveyed to Monterey County Water Resources Agency, as they own and operate the Nacimiento and San Antonio Dams and are responsible for the water quality and quantity in their respective reservoirs.**

Response: The resource analysis in the draft report recognized the national significance of resources throughout Fort Hunter Liggett, and found the area suitable to be a national park unit. However, in a special resource study, the NPS is required by policy to evaluate only alternatives that are considered feasible. Management by NPS of Fort Hunter Liggett as a whole was found to be not feasible at the current time, therefore, the NPS did not develop alternatives for management of the entire installation.

Two recent policy changes have altered the management options considered in this study:

- legislation providing the US Forest Service with the right of first refusal on any land determined excess to the military's needs; and
- an Army decision that the former BRAC excess property at Fort Hunter Liggett is essential to their mission, and therefore there is currently no land available for transfer or management by any other agency or organization.

The NPS has added a "Management Options and Opportunities" section to the final special resource study report which describes ways in which the Army could supplement their efforts to care for the nationally significant natural and cultural resources of Fort Hunter

Liggett, and help to ensure that they maintain their condition and integrity. It also describes the potential for management of a historic site, park, or forest area if additional property at Fort Hunter Liggett is determined to be excess to the Army's needs in the future. Appropriate agencies for management of these areas would need to be determined if they become available.

Comment: NPS should have an advisory role to FHL while it is an active military installation assisting in conserving both the many cultural and many natural resources at FHL.

Response: Natural, cultural, and historical resources of Army-managed property will continue to be managed under existing Army programs and in compliance with NEPA and other federal laws. A "Management Options and Opportunities" section has been added to the report, listing several ways in which the Army could work with the National Park Service and other agencies and organizations to protect the resources of Fort Hunter Liggett. It will be up to the Army to pursue any of these opportunities.

Collaboration / Management of Salinan Cultural Sites

Comments:

- **Alternatives that consider joint stewardship with Salinan groups should be considered:**
 - The Salinan history precedes other historic periods represented in the area and continues today.
 - There are NPS units that have joint agreements with tribes.
 - Consider collaboration with the Salinans at the Mission especially since the Salinans created most of the artifacts there.
- **The BRAC property / other installation property should be returned to the Salinan people:**
 - If NPS does not have operational ability to take jurisdiction of the BRAC property, then the NPS should deed the land to the Salinan Tribal Council. The Salinans have sincere concern for natural and cultural resources and has ability to administer the property for benefit of the people.
 - Military should retain ownership and control of the BRAC property until it can be arranged to turn them over to the stewardship of the Salinan Tribe.
 - Indigenous groups have the right of first refusal on surplus federal lands if they can demonstrate a tie to said lands.
- **The alternatives should address ways to prevent impacts on Salinan cultural sites.**

Response: Based on a recent Army decision, the former BRAC properties are no longer available for transfer and will remain under ownership and management of the US Army. Therefore there are no alternatives presented in this report. However, the NPS has added a "Management Options and Opportunities" section to the report, which describes several ways in which the Army, National Park Service and California State Parks, and other organizations could collaborate with Salinan groups. The Mission is managed by the Diocese of Monterey, which could also collaborate with Salinan groups.

Federally recognized tribes interested in acquiring future BRAC property could work through the Bureau of Indian Affairs to obtain available land. The Bureau of Indian Affairs, as a federal agency, can request excess federal property on behalf of a federally recognized tribe.

ENVIRONMENTAL CONSEQUENCES

Note: *The following comments and responses address the "Environmental Consequences" section of the environmental assessment that was included in the draft study report. Because no actions or alternatives are being considered, the environmental assessment will not be completed. The former alternatives and environmental assessment from the draft study report are included in Appendix I. The following responses acknowledge data corrections and other concerns that are still applicable.*

Roads / Traffic

Comment: Traffic counts referenced are from 1995. The Jolon Road/ Pine Canyon Road area has experienced significant growth in recent years and traffic counts should be updated to accurately reflect current conditions.

Response: The fifth paragraph of the traffic and circulation information in the "Affected Environment" section should be revised to read "Highest volume was recorded at the section of Jolon Road between ~~San Lucas Road~~ and US 101, at 6,900 Pine Canyon Road and US 101, at an average of 7,900 vehicles per day."

Comment: To support conclusions on the significance of impacts, the document should provide level of service calculations for all impact County roads based on the latest edition of the Highway Capacity Manual.

Response: Comment noted. Because the environmental assessment will not be completed, such analysis will not be undertaken.

Comment: The document inaccurately identifies the level of service (LOS) standard for Monterey

County as D. Monterey County considers LOS C or better to be acceptable roadway operating conditions.

Response: The fifth paragraph of the traffic and circulation information in the "Affected Environment" section should be revised to read "Monterey County considers LOS ~~"D"~~ "C" or better to be acceptable roadway operating conditions."

Comment: The cumulative impact analysis does not sufficiently discuss the cumulative impacts of project alternatives to County roads.

Response: Comment noted. Because the environmental assessment will not be completed, further analysis will not be undertaken.

Native American Resources

Comments:

- **Alternative A fails to address current impacts on Salinan cultural sites.**
- **The study fails to discuss how Native American resources could be adequately preserved if higher levels of access and popularity occur. Alternative B: Transfer to CSP and management of some of the properties for increased visitation will lead to significant additional public access to the base overall. The properties that would be the focus for visitation are concentrated in the cantonment area but roads to these sites easily allow access to unintended and unprotected areas.**
- **Although FHL does not authorize open access to the base, illicit visits to our cultural sites have occurred in the past, due to the lack of sufficient patrol staff. The size of the base and budget restraints preclude true protection from illegal access. Having attractions on the base that are managed by CSP will only exacerbate this problem without steps to address it. This report should look into this issue more closely and suggest adequate measures to counter these negative effects.**

Response: Based on the Army's recent change in policy regarding the BRAC excess property at Fort Hunter Liggett, there is currently no land available for transfer or management by any other agency or organization. All resources will continue to be managed by the Army. The Army will continue to manage and patrol roads and other areas. Army resource management staff will continue to work with Salinan groups. The NPS has added a "Management Options and Opportunities" section to the final study report which suggests that the Army could explore additional opportunities to allow for Salinan use of important cultural sites and to interpret the history and culture of the Salinan people.

The Army's resource management plans for Fort Hunter Liggett acknowledge that site damage due to facility operations, military training activities, and vandalism does occur. The Army's site preservation efforts include archeological site marking and monitoring programs, site clearance processes, training and education of installation personnel regarding cultural resource conservation. Federal agencies are required to withhold sensitive information regarding its location that could put a site at risk for being damaged. However the Army has found that the benefits of site marking for avoidance outweigh the potential risks from vandalism.

Visitation to Fort Hunter Liggett may increase even under continued Army management, as the Milpitas Hacienda and the Mission have been featured in travel publications and generally have become better known. Education about the importance of protecting cultural resources, combined with patrols and enforcement efforts to discourage destructive behavior may help to counter negative effects.

Comment: It is ludicrous to plan a tourist attraction in an isolated area for only 1 building – it can be assumed that the Mission and Salinan cultural sites were an unspoken part of the plan.

Response: The study evaluated the significance and suitability of the resources of the entire Fort Hunter Liggett installation, but only evaluated management alternatives for land available for transfer, i.e. the Milpitas Hacienda and related historic structures. Management was planned not in isolation, but in conjunction with CSP management of Hearst Castle®. Opportunities for collaboration with the Monterey Diocese in their management of visitor use of the Mission San Antonio de Padua were identified (p.115 of draft report); these actions would be at the discretion of the Monterey Diocese.

ADDITIONAL COMMENTS

Comments:

- The NPS and Army Corps of Engineers should construct a 25 mile highway "Pleasure Road" between the Hacienda and Hearst Castle. It will add to the economy of the region and would enhance the significance of the national park concept. It would be an opportunity to exploit the Portola trail.
- NPS could be a partner in the use of campgrounds on the Nacimiento-Fergusson road and in the National Forest area.
- The Mission could be a major factor in public use of the area if the Diocese no longer staffs the Mission in the future.

- Granting federal recognition to the Salinans and returning the fort's 165,000 acres to them is the best solution: reservations boost local economies; tribes welcome respectful visitors to their lands; everyone benefits.

Response: These comments cover areas and issues that are beyond the scope of this study.

Comment: The federal and state resource agencies have a clear need for emergency training such as fire suppression and fuel management.

Response: Comment noted.

Comment: While the major mission of NPS of preservation for future generations is closer to CSP than is the multiple-use mission of the Forest Service, we recognize the logic of favoring an agency that already borders it on the north and west.

Response: Comment noted.

Comment: The reconstruction of the San Lucas/Lockwood Road referred to in Appendix H: Summary of Public Comments, p. 201 (in the draft study report) was completed in the period between 2001 and 2003.

Response: Comment noted.

Appendix I: Former Alternatives and Environmental Assessment sections Included in Draft Fort Hunter Liggett Special Resource Study and Environmental Assessment

The former “Alternatives” and “Environmental Assessment” sections from the draft study report are reprinted here for reference. They are no longer under consideration.

Alternatives

Introduction

Two management options for the Base Realignment and Closure (BRAC) excess property at Fort Hunter Liggett are presented as alternatives in this chapter. No alternatives involving National Park Service (NPS) ownership or management are presented, since NPS ownership and management have been found to be not feasible (See “Feasibility” chapter).

Alternative A: No Action. Under this alternative, the Army would retain the excess property in interim use status for an indefinite period, during which minimal or no maintenance activities would be conducted. No change in use is expected for any of the excess property during this interim period. The Army would continue to manage the remainder of the Fort Hunter Liggett installation. The NPS would have no involvement in the ownership or management of any Fort Hunter Liggett structures or properties. At some future time, it is assumed that the Army would pursue one of the options outlined in the Army’s *Environmental Assessment for the Disposal and Reuse of the BRAC Property at Fort Hunter Liggett* or would take other action, at their discretion.

Alternative B: Addition to Hearst San Simeon State Historical Monument and Designation as an Affiliated Area of the National Park System. Under this alternative, legislation would authorize direct transfer of the Milpitas Hacienda complex and the ranch bungalows to California State Parks to be managed as an addition to Hearst San Simeon State Historical Monument (Hearst Castle®) and as an affiliated area of the national park system.

Legislation would authorize direct transfer of the Gil Adobe and the one acre of land under and adjacent to the Tidball Store to California State Parks or Monterey County Parks Department. An agreement with a nonprofit organization could be developed in order to provide for management of these sites at little or no cost to the public agency.

This alternative includes an option for the Javelin Court area, including 41 housing units, to be transferred to California State Parks to be operated as rental housing. The revenue from managing the housing area could be used to partially offset operating costs of the Milpitas Hacienda complex and the ranch bungalows.

Alternative A: No Action

(see Figures 12 & 13, Alternative A, in the “Figures” section [of the draft study report])

OVERVIEW

Under Alternative A, the Army would retain the excess property in interim use status for an indefinite period, during which the Army would conduct minimal or no maintenance. No change in use is expected for any of the excess property during this interim period. The Milpitas Hacienda would be operated by a concessioner for lodging and food service. The Army and California State Parks have negotiated an interim lease for the Milpitas Hacienda to provide for ongoing management until longer-term disposal or transfer is implemented. The ranch bungalows would be used for housing, storage, and other non-public uses. The Gil Adobe and the Tidball Store would continue to be unused. The Army would continue to manage the remainder of the Fort Hunter Liggett installation. The National Park Service would have no involvement in the ownership or management of any Fort Hunter Liggett structures or properties. At some future time, it is assumed that the Army would pursue one of the options outlined in the Army’s *Environmental Assessment for the Disposal and Reuse of the BRAC Property at Fort Hunter Liggett* or would take other action, at their discretion.

LANDOWNERSHIP AND MANAGEMENT

The Army environmental assessment includes two options that do not involve the NPS: a no-action option and an encumbered disposal option. The Army’s no-action option would place the excess property into non-use status for an indefinite period, during which minimal or no maintenance activities would be conducted. The Army’s encumbered disposal option would involve transferring ownership of the property to others, while retaining certain Army rights, such as for utility easements or remediation of hazardous materials. Transfer to California State Parks, Monterey County Parks Department, or another public agency could eventually be accomplished through this encumbered disposal option, either through establishment of a local reuse authority or by declaring the property surplus to the federal government and transferring it under the Federal Lands to Parks Program. However, the timing and outcome of this approach are uncertain.

Currently, the Milpitas Hacienda is open to the public, with lodging and food service provided by a concessioner under a month-to-month lease. The Army has negotiated an interim lease with California State Parks, under which public use and services are expected to remain as they are now. Several ranch bungalows are rented for residential use. The Tidball Store and the Gil Adobe are not in use, and receive minimal maintenance. No change in use is expected for any of the excess property in the immediate future. It is anticipated that no investments in repair or rehabilitation of any of the excess property would be made during this interim period, other than routine maintenance activities.

California State Parks currently conducts law enforcement / firearms training at Fort Hunter Liggett, and is also discussing a possible longer term lease for a law enforcement training center at Fort Hunter Liggett. These activities are not related to the excess property at Fort Hunter Liggett, but may affect California State Parks's use of the excess property.

VISITOR USE AND INTERPRETATION

The Milpitas Hacienda would likely continue to be accessible to visitors, pending eventual transfer to a state or local agency or other entity. No additional visitor services, programs, or facilities would be developed. The Gil Adobe and Tidball Store would remain closed to public use. Mission San Antonio de Padua would continue to be accessible to the visiting public and to parishioners, as determined by the Monterey Diocese. The cantonment area, Jolon and Nacimiento-Fergusson roads, and other public roads, would continue to remain open to the public, with certain security constraints. Visitors to the Milpitas Hacienda and the Mission San Antonio de Padua would arrive at Fort Hunter Liggett primarily via Jolon Road, from Highway 101 and the Salinas Valley, near King City, or via Nacimiento-Fergusson Road, from Highway 1 and the Pacific Coast. The Army would continue to manage hunting and fishing activities using their permit system.

RESOURCE PROTECTION

Natural, cultural, and historical resources of Army-managed property would continue to be managed under existing Army programs. The Army would continue to prepare environmental compliance documents as needed for training and other operations, in accordance with the provisions of the National Environmental Policy Act of 1969 and Section 106 of the National Historic Preservation Act of 1966. Little or no funding would be available for management of the resource values of the excess property during the interim management period. Natural resource values of the excess properties are minimal; no natural resource protection activities related to the excess property are anticipated.

OPERATIONS AND MAINTENANCE

Under Alternative A, the Army would continue its current operation at Fort Hunter Liggett. The Army would continue to be responsible for the maintenance and operation of the BRAC excess property during the interim use period. While the Milpitas Hacienda is leased out, routine maintenance would be the responsibility of the lessee (the current concessioner or California State Parks). Long term maintenance or rehabilitation would be deferred.

IMPLEMENTATION COSTS

Under Alternative A, California State Parks would incur some level of administrative costs associated with the interim lease and concessioner contract for the Milpitas Hacienda. These costs are expected to be carried by the Hearst San Simeon State Historical Monument. The eventual costs to the Army to transfer the excess properties to other parties through a local reuse authority or Federal Lands to Parks program are expected to be

higher than for direct transfer to California State Parks; however, the magnitude of these costs is not known. There would be no costs to the NPS.

Alternative B: Addition to Hearst San Simeon State Historical Monument and Designation as an Affiliated Area of the National Park System.

(See Figures 14 & 15, Alternative B in the "Figures" section)

OVERVIEW

Under this alternative, legislation would authorize direct transfer of the Milpitas Hacienda complex and the ranch bungalows to California State Parks to be managed as an addition to Hearst San Simeon State Historical Monument (Hearst Castle®) and as an affiliated area of the national park system. A separate study would be prepared by the NPS to consider the addition of the Milpitas Hacienda and the ranch bungalows to the Hearst San Simeon Estate National Historic Landmark (NHL).

The Gil Adobe and the Tidball Store are listed on the National Register of Historic Places at the local level of significance. Legislation would authorize direct transfer of these sites to California State Parks or Monterey County Parks Department. An agreement with a nonprofit organization could be developed in order to provide for management of these sites at little or no cost to the public agency.

This alternative includes an option for transfer of the Javelin Court area, including 41 housing units to California State Parks to be operated as rental housing. The revenue from managing the housing area could be used to partially offset operating costs of the Milpitas Hacienda complex and the ranch bungalows.

LANDOWNERSHIP AND MANAGEMENT

Under Alternative B, Congressional legislation would authorize direct transfer of the following areas to California State Parks to be operated as an addition to Hearst San Simeon State Historical Monument and as an affiliated area of the national park system:

■ The Milpitas Hacienda complex:

- ❖ The Milpitas Hacienda (Building 101)
- ❖ Additional support structures: swimming pool (Building 100), toilet/shower facility (Building 100A), pool service building (Building 100B), storage building (Building 130), and tennis court (Building 103)
- ❖ approximately 21 acres of land on which the Milpitas Hacienda is situated, known as "Hacienda Hill".

- **Five ranch bungalows** (Buildings 124, 127, 131, 132A, and 149), including appropriate land around each.

California State Parks would manage the Milpitas Hacienda and nearby ranch bungalows as part of its Hearst San Simeon State Historical Monument (Hearst Castle) operation, as an element of William Randolph Hearst's extensive estate. It is assumed that the Milpitas Hacienda lodging and restaurant facilities would continue to be operated by a concessioner or other public/private arrangement.

The ranch bungalows (buildings 124, 131, 132A and 149), some of which are part of the historic ranching landscape, would be available for uses such as office space, concessions, visitor center, staff housing, or as additional operational space needed for the Milpitas Hacienda operation.

Legislation would authorize the direct transfer of the Gil Adobe (Building 640) and one acre of land under and adjacent to the Tidball Store to either California State Parks or Monterey County Parks Department. These properties in the Jolon area are both listed on the National Register of Historic Places at the local level of significance. An agreement with a nonprofit organization could be developed in order to provide for management of these sites at little or no cost to the public agency that accepts ownership. The Ventana Conservation and Land Trust and Monterey County Parks Department have discussed the potential for collaborative management of these sites to interpret the history of the town of Jolon. Further analysis is needed to determine the viability of such an arrangement. The Monterey County Parks Department owns the Tidball Store structure, and would therefore be a logical agency to assume ownership of the land it sits upon.

As in Alternative A, California State Parks may continue to conduct law enforcement / firearms training or enter into a longer term lease for a law enforcement training center at Fort Hunter Liggett. These activities are not related to the excess property at Fort Hunter Liggett, but may provide for operational efficiencies.

Fort Hunter Liggett, other than the transferred BRAC excess property, would continue to be owned and managed by the U.S. Army.

Designation as an affiliated area of the national park system. Affiliated areas are nationally significant areas not owned or administered by the NPS, but which draw on technical or financial assistance from the NPS (NPS 2001b). As discussed in the feasibility chapter of this draft study report, the Milpitas Hacienda meets the criteria for designation as an affiliated area of the national park system. The ranch bungalows would be included in the affiliated area as they were part of the historic landscape setting when the Milpitas Hacienda functioned as the northern ranching headquarters for the larger estate, and they contribute to its interpretation.

Initial discussions with California State Parks identified several areas of NPS assistance and expertise that could contribute to effective management of the resources, including:

- Assistance in developing a management plan for the Milpitas Hacienda;
- Assistance in documenting the history and significance of the Milpitas Hacienda as part of Hearst's historic estate, assessing the condition of the building, and developing historic preservation treatment plans;
- Assistance in analysis and planning for the cultural landscape;
- Assistance in developing a long range interpretive plan;
- Assistance in developing funding sources for rehabilitation or restoration.

Congressional legislation would be required for designation of an affiliated area of the national park system. Further discussion with California State Parks would be necessary prior to designation to ensure that state management standards and procedures for park management are acceptable to the NPS.

VISITOR USE AND INTERPRETATION

Milpitas Hacienda. California State Parks would interpret the Milpitas Hacienda and associated structures as an element of Hearst's vast Central California estate and an example of the design and construction collaboration between Hearst and Julia Morgan. The Milpitas Hacienda provides an opportunity for experiential interpretation of the Hearst's estate. In contrast to the tightly controlled tours at Hearst Castle, visitors to the Milpitas Hacienda can linger, explore on their own, dine in the rooms where Hearst entertained his guests, and stay overnight in the rooms where Hearst housed his guests and employees.

In the short term, visitor services would be limited to those provided by the Milpitas Hacienda concessioner. This would include a restaurant and overnight accommodations at the Milpitas Hacienda. Over time, California State Parks would develop signage, displays, brochures, tours, and educational programs to interpret the Hearst and Morgan stories. California State Parks would integrate their interpretation and visitor services at the Milpitas Hacienda with those at Hearst Castle, and offer the visitor a more comprehensive view of Hearst's extensive estate.

Mission San Antonio de Padua. The Mission San Antonio de Padua is an active parish and an inholding, owned by the Monterey Diocese, within the Fort Hunter Liggett boundary. It is not the subject of this study. Nevertheless, there may be opportunities for collaboration to enhance services for visitors to both the Mission and the Milpitas Hacienda. The National Park Service or California State Parks could collaborate with the Monterey Diocese on the development of interpretive materials, such as brochures and wayside signs. Mission San Antonio de Padua represents important aspects of California and U.S. history, as well as a key chapter in the story of the Catholic Church. The NPS or California State Parks could collaborate with the Mission to tell stories of early California exploration and settlement, including the 1769 arrival of Spanish Captain Gaspar de Portola, the 1771 founding of the Mission San Antonio de Padua by

Father Junipero Serra, and the 1775 expedition of Juan Bautista de Anza. California State Parks staff or docents could offer walking tours to interpret early Mission life, based on remnants of the aqueduct, mill, orchards, vineyards, cemetery, washing facilities, Indian quarters and other features. The NPS could work with the Mission and Fort Hunter Liggett to interpret this portion of the Juan Bautista de Anza National Historic Trail.

California State Parks and the National Park Service could offer assistance to the Monterey Diocese in areas such as interpretation and visitor education, historic preservation, building condition assessment, museum curation, artifact conservation, conservation of the historic landscape surrounding the Mission, docent training, and management / operation of the gift shop. The NPS, California State Parks, and the Monterey Diocese have discussed drafting a memorandum of understanding to establish the basis for possible future collaboration.

Gil Adobe and the Tidball Store. These structures could potentially be rehabilitated for visitor use and to interpret the gold rush-era homesteading and mining boom in Jolon. Substantial investment would be involved, and further analysis is needed to identify viable uses and funding strategies. According to the Gil Adobe Preservation Plan, the Gil Adobe could be rehabilitated to support interpretive functions for visitors (Allen and Sanchez 1993), but it would require substantial financial investment. Seismic retrofitting, repair of the adobe walls and roof, electrical and mechanical systems and plumbing would likely be needed to accommodate visitors. Monterey County and the Salinan Tribe previously pursued a lease arrangement to make the Tidball Store available to the Salinan Tribe. Lease arrangements were never completed, however, and to date, Monterey County has been unable to find appropriate and viable uses for the building.

Access. As in Alternative A, visitors to the Milpitas Hacienda and the Mission San Antonio de Padua would arrive at Fort Hunter Liggett primarily via Jolon Road, from Highway 101 and the Salinas Valley, near King City. Some visitors would arrive via the more scenic but circuitous Nacimiento-Fergusson Road, from Highway 1 and the Pacific Coast. The cantonment area and the public roads on the installation would be open to the public, with certain security constraints. Visitors wishing to combine a visit to the Milpitas Hacienda with a visit to Hearst Castle could either travel 1.5 hours via Jolon Road and Highways 101, 46 and 1; or travel a 2.5 hour scenic route via Nacimiento-Fergusson Road and Highway 1.

Hunting and fishing access would continue under Army permit as in Alternative A. Hunters and anglers could take advantage of visitor services at the Milpitas Hacienda.

RESOURCE PROTECTION

Preservation covenants and protective easements are required to be included in the real estate transfer documents for property listed on the National Register of Historic Places to ensure long-

term preservation of the property's historic significance (36 CFR 800.5 [a] [2] [vii]). This would apply to the Milpitas Hacienda and the Gil Adobe, and possibly to the land around the Tidball Store.

California State Parks would manage the historically significant structures in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties, California Environmental Quality Act (CEQA), and Public Resources Code 5024.5 (inventory and management plan for cultural resources). Building condition assessments would be undertaken to determine more specific preservation, rehabilitation and restoration needs. California State Parks would seek to maintain or enhance the quality of the cultural landscape surrounding the Milpitas Hacienda. California State Parks could request technical assistance in resource protection from the NPS in areas such as cultural landscape conservation, historic preservation, and architectural history. A separate study would be prepared by the NPS to consider the addition of the Milpitas Hacienda to the Hearst San Simeon Estate National Historic Landmark. The Army would not conduct or contribute to the cost of the study.

Protection of the cultural resource values of the Gil Adobe and Tidball Store may depend upon finding economically viable uses for these structures. Ideally, the owner or manager of these sites would develop plans to protect and use the structures and to address the archeological resources of the sites.

Natural resource values of the excess properties are minimal: most of the area is paved, built-upon or landscaped. Therefore no particular natural resource protection activities are anticipated. Natural, cultural, and historical resources of Army-managed property would continue to be managed under existing Army programs as described in Alternative A.

OPERATIONS AND MAINTENANCE

Under Alternative B, California State Parks would be responsible for maintenance of the Milpitas Hacienda complex and the ranch bungalows. It is assumed that the Milpitas Hacienda would continue to be managed by a concessioner to provide lodging and food service. Appropriate maintenance standards would be specified in a concession contract, and routine maintenance would likely be the responsibility of the concessioner. Capital investments and improvements could occur in the long term and would need to be negotiated between California State Parks and the concessioner.

In the near term, several ranch bungalows would continue to be leased to the U.S. Forest Service (USFS) on an interim basis as residences for USFS fire crew members, until needed by California State Parks. In the long-term, California State Parks could use the ranch bungalows for visitor services, office space, or staff housing.

California State Parks would negotiate with Fort Hunter Liggett to provide certain services, such as law enforcement, emergency medical services, water supply and wastewater, electricity, and telecommunications. In the near term, the Army could provide law

enforcement and emergency services on a per call basis. In the longer term, California State Parks could have a law enforcement presence in the area in coordination with the Army. California State Parks and the US Army could enter into a concurrent jurisdiction agreement to address law enforcement issues.

The local or state agency accepting transfer of the Gil Adobe and land under the Tidball Store would be responsible for maintenance and operation of these areas, possibly through a management agreement with a nonprofit organization.

Roads providing access to the Milpitas Hacienda, ranch bungalows and other BRAC excess property would be retained and maintained by the US Army. California State Parks would need appropriate authorizations and agreements for the use of roadways retained by the Army for access to acquired structures and properties. Any additional driveways or parking areas created to directly support visitors to the historic site would be maintained by California State Parks. The county would continue to maintain the county roads.

IMPLEMENTATION COSTS

Table 14: Alternative B Implementation Costs includes a summary of costs for the addition of the Milpitas Hacienda complex and ranch bungalows to the Hearst San Simeon State Historical Monument. Costs associated with the Gil Adobe and Tidball Store were not estimated as no specific management proposals are presented as part of this draft study report. Financial analysis would be needed as part of any re-use proposal.

Initial one-time costs would include environmental site assessments and surveys, and various planning reports related to the protection and interpretation of the historic structures and resources. It is assumed that the real property would be transferred without reimbursement to the Army of the real property's value. Transfer to California State Parks would only be feasible if reimbursement of the real property costs is waived. The Army would not be responsible for any implementation costs, other than their own costs for property transfer.

Capital costs for the development of the Milpitas Hacienda complex and ranch bungalows would include the renovation of one of the ranch bungalows for use as a visitor center and administrative offices for park staff, and the development of interpretive panels and signage. It is assumed that lodging and food service at the Hacienda would continue to be run by a concessioner. An analysis of the feasibility of continued use of the Hacienda for hospitality suggests that renovations would be necessary to continue successful concession-based lodging and food service operation. Such renovations would be made by the concessioner. The costs of renovation could be financed by an increase in room rates (Bay Area Economics 2001). It is also likely that a more stable concession contract (vs. the current month-to-month arrangement) and marketing in conjunction with Hearst Castle® could substantially increase occupancy rates.

Routine maintenance and day-to-day operation of the Milpitas Hacienda would be the responsibility of the concessioner, as specified in a contract between California State Parks and the concessioner. Ongoing maintenance on the ranch bungalows would be the responsibility of California State Parks.

Park operational costs for the Milpitas Hacienda and other excess property would include portions of staff positions based at Hearst Castle.® Law enforcement and fire services could be contracted with the Army or the USFS.

As an affiliated area of the national park system, the Milpitas Hacienda would be eligible for technical and financial assistance from the National Park Service. The NPS has the authority to enter into agreements to share costs or services in carrying out authorized functions and responsibilities in affiliated areas (16 U.S.C. Sec. 1f). Given existing financial constraints within the NPS, it is expected that financial and technical assistance will be limited. The cost of this technical assistance is estimated at up to \$50,000 per year for central office staff time or contracted projects. These costs may be incurred on an irregular basis, depending on need and availability of funding.

JAVELIN COURT OPTION

Under this option, the Javelin Court housing area in the Milpitas Housing Complex would be transferred to California State Parks for continued management as rental housing. The Javelin Court area consists of the following:

- 41 housing units, 2–4 bedrooms each. Arranged in 12 multi-unit buildings (Buildings P18 through P29) of 2–4 units each.
- Playground and shade structure (Buildings P32, P37)
- Approximately 3.5 acres of land.

California State Parks could manage the housing units at the Javelin Court area through a concessioner, contract, or nonprofit organization. Costs and revenues are described in Table 15, Javelin Court Area – Costs and Revenues. Over the first 25 years of operation by California State Parks, these housing units are projected to provide surplus revenue which could be used to partially offset the costs of operation of the Milpitas Hacienda area. California State Parks could contract with Fort Hunter Liggett to provide structural and grounds maintenance of the housing complex, if such services are available. Emergency / law enforcement response could be handled on a percall basis under contract with the Army.

Affected Environment

This environmental assessment analyzes the potential effects of each alternative proposed in the Draft Fort Hunter Liggett Special Resource Study. This "Affected Environment" chapter describes the baseline environmental conditions at Fort Hunter Liggett which may be affected by the alternatives. Alternatives address the transfer of historic and non-historic structures and their immediately surrounding grounds. Because actions in the alternatives are not expected to affect natural resources, this chapter does not describe natural resources (see "Environmental Consequences" chapter for further analysis, and "Resource Description" chapter for a detailed description of natural resources).

Portions of the following section were adapted from the *Final Environmental Assessment for the Disposal and Reuse of the BRAC Property at Fort Hunter Liggett*, September 2000, U.S. Army Corps of Engineers.

Cultural Resources

For purposes of this analysis, archeological resources and historic structures have been assessed by geographic location. The northern cantonment area includes the vicinity surrounding the Hacienda complex and the ranch bungalows, and the Jolon area includes the vicinity surrounding the Tidball Store land and the Gil Adobe. There do not appear to be cultural resources associated with the Javelin Court housing area. A detailed account of the study area's historical context can be found in the "Resource Description" chapter of the *Special Resource Study*.

NORTH CANTONMENT AREA

Archeological Resources. Four archeological surveys have been conducted in the northern cantonment area and four archeological sites have been identified (see Table 2 in the "Resource Description" chapter). These sites include CA-MNT-891H, a multi-component site with prehistoric datable materials; CA-MNT-1566H, the San Antonio Mission Water System; CA-MNT-1569H, the Sanchez Adobe (Ditch Tender's Adobe); and portions of CA-MNT-1563H, the Camino Real / Caretta Trail. In addition, there are other archeological sites associated with the Mission San Antonio de Padua area, which is an inholding within Fort Hunter Liggett. Some of these sites have been documented, while other sites are continuing to be uncovered and studied. Also located in the vicinity of this area is a portion of the Juan Bautista de Anza National Historic Trail. None of these sites are located within the BRAC excess property. The landscape elements of the Milpitas Ranch House (Milpitas Hacienda) property were assigned a site number, CA-MNT-940H, by the State of California. The Milpitas Hacienda is described in more detail in the Historic Structures section below (US Army Corps of Engineers 2000b).

Historic Structures. Table 1 in the "Resource Description" chapter provides a complete list of buildings constructed prior to 1945 located on or near the BRAC property. Seven of these

structures are within the northern cantonment area, the most prominent of which is the Milpitas Hacienda (Building 101). The Milpitas Hacienda is the only nationally significant, National Register of Historic Places (NRHP)-listed building within this area. The Milpitas Hacienda was listed on the NRHP in 1977. Its condition is described in the "Resource Description" and "Significance" chapters of this draft study report.

Of the other pre-1945 buildings that are BRAC property, only buildings 124, 131 (the chicken coop), and 149 (El Piojo Ranch House) are BRAC property. These structures, dating from the Consolidation Period, were determined ineligible for listing on the National Register of Historic Places. While it has some historic interest related to Hearst operations, Building 124 has been heavily altered and has lost its historical integrity. Both the original one-story residence and the 1930s-1940s addition are in fair to good condition, although the rear lacks a perimeter foundation. Building 131 has been well maintained and is in good condition despite its age. Building 149 is well maintained and appears to be in good condition. Although it has lost its historical integrity through alteration and relocation, Building 149 is the least altered and best structure of its type on Fort Hunter Liggett (US Army Corps of Engineers 2000b).

Additional historic structures in the vicinity of the ranch bungalows and Milpitas Hacienda include Building 111 (housing), Building 119 (blacksmith shop) and Building 120 (Tin Barn or Fire Station). These structures are not part of the BRAC excess property. Building 111 was built prior to 1945 and is most likely associated with the Hearst Ranch and the James Brown Cattle Company. This building was used by Fort Hunter Liggett for installation housing until 1990 when it was abandoned and boarded up. The exact date of construction of this building is unknown, but it was most likely built as a ranch house for either the Brown or Hearst cattle operations. Building 119 was originally a blacksmith shop that was part of the Hearst's Milpitas Ranch complex. Its exact construction date is unknown and it may have been built by the James Brown Cattle Company. Building 120, the Tin Barn, was built by the James Brown Cattle Company, reportedly using roof trusses salvaged from the 1915 Panama Pacific Exposition in San Francisco. This building was also a part of Hearst's ranching operations. Fort Hunter Liggett reused this barn at different times as a Post Exchange, theater, library, and gymnasium, before it was converted for use by the Fire Department in 1988. All three structures were determined ineligible for listing on the National Register of Historic Places (U.S. Army Corps of Engineers 2000b).

JOLON AREA

Archeological Resources. Five archeological sites have been identified in the vicinity of the Jolon town site. However, only one archeological site is located on the Tidball Store site, CA-MNT-794H. The other sites in the vicinity of this area include CA-MNT-693H, the historic Jolon Town site; CA-MNT-1081H/1561H, Saint Luke's Episcopal Church; CA-MNT-1088H, Saint Luke's

Cemetery; and CA-MNT-1562H, the Jolon Stage Route (US Army Corps of Engineers 2000b).

Five surveys have been conducted in the vicinity of the Gil Adobe. These surveys identified one archeological site, CA-MNT-963H, the Jose Maria Gil Adobe, which contains both archeological and architectural components. Three other sites have been recorded in the vicinity. These include CA-MNT-793H, the Portola Camp; CA-MNT-1089H, the Gil Family Cemetery; and portions of CA-MNT-1563H, the Camino Real/Caretta Trail. As of September 2000, an investigation was in progress to record a large, complex multi-component site between the Gil Adobe and the Gil Family Cemetery. The site includes prehistoric materials, historic fencing, and barn remains and is believed to have a high likelihood for human remains. This site is outside the BRAC property.

Historic Structures. Historic structures within the Jolon area include the Tidball Store, Saint Luke's Church and Cemetery, and the Dutton Hotel. All of these structures were built prior to 1940. The Dutton Hotel was constructed before Hearst purchased the land in 1920. All of these structures are listed on the National Register of Historic Places (NRHP) as locally significant. The Tidball Store is the only historic building in this area on BRAC property. Saint Luke's Church and Cemetery and the Dutton Hotel do not belong to Fort Hunter Liggett. No other historic structures are located within this area (Eidsness and Jackson 1994b).

There are no other historic structures in the vicinity of the Jose Maria Gil Adobe (Building 640). The Gil Adobe was listed on the NRHP in 1974 as an individual property. Built in 1865, the structure was modified through the years. The Miller family that purchased the Gil land in 1909 modified the area to accommodate dairy operations. Additional modifications were made for military use between 1941 and the mid-1970s when the adobe served as Bachelor Officers Quarters (Eidsness and Jackson 1994b).

Visual Resources

The quality of visual resources surrounding the historic properties and the larger landscape setting are important to preserving their cultural resource values. Areas where the setting and surrounding landscape have remained intact from the pre-military era provide an opportunity to interpret the cultural resources in their historic context. While much of the vegetation within the cantonment area was replaced by military and residential land uses, the remainder of the installation retains highly scenic qualities associated with the rolling oak woodlands, oak savannas and riparian zones on the eastern side, and the chaparral covered peaks of the Santa Lucia Range on the west side.

Scenic landscapes on the installation can be experienced from travel on public roads. The Army permits public travel on Mission Creek, Del Venturi, Sam Jones, and Nacimiento-Fergusson roads as long as it does not interfere with training or

testing activities. Training activities sometimes disturb ground forms and vegetation in areas visible from these roads. Other areas are disturbed in some locations by burning and fire control measures such as firebreaks, as well as by maintenance of roads and training facilities.

Views from Mission San Antonio de Padua are considered sensitive, and training exercises and vehicle movement are restricted near the Mission. Military convoys avoid use of Tank, Mission Creek, and Del Venturi roads on Sundays, and helicopters or other aircraft are prohibited over the Mission unless approved by Range Control. All military field training in that portion of the cantonment area, west of Silo and Sulphur Springs roads, is prohibited except for light infantry, which is restricted to the west side of the San Antonio River, south of Grid Line 86 (US Army Corps of Engineers 2000b).

Public Use and Enjoyment

Under current management practices, visitor use at Fort Hunter Liggett is narrowly limited. Public access is usually permitted in the cantonment area and along Jolon and Nacimiento-Fergusson roads (including access to the Tidball Store). The Mission San Antonio de Padua is open to visitation and offers religious services. Visitors have the opportunity to explore the buildings, gardens, and cemetery. A museum fills a string of rooms behind an arched arcade that forms one side of the garden.

The Hacienda provides overnight accommodations and includes a main suite, mini-suite, four tower rooms (suites with queen-size beds), 2 garden rooms, and 3 cowboy rooms with shared baths. Guests can relax in the Milpitas Hacienda bar, which showcases a restored hunting mural and fireplace. Patrons include Milpitas Hacienda serves casual lunches and dinners and is open daily. The restaurant is visited by Milpitas Hacienda guests, employees at Fort Hunter Liggett, military personnel, and visitors to the Mission. While no comprehensive visitation numbers exist, it is estimated that at least 22,000 people visit the Mission and Milpitas Hacienda area annually for a variety of purposes, and approximately 6,000 hunters and anglers for a minimum of 28,000 annual visitors. Most overnight visitors to the Milpitas Hacienda are Army personnel and their dependents. Another 15% of the overnight visitors are indirectly related to military (retirees and Department of Defense).

Hunting is the primary outdoor recreation use at Fort Hunter Liggett. Public access to training areas is limited to people with permits for hunting or fishing. Estimates of hunting and fishing use include 9,500 visitors in 2001 and 5,500 visitors in 2002. Use dropped significantly from previous years due to changes in the security measures as a result of terrorist attacks on September 11, 2001. It is estimated that use will remain at current levels for several years.

Fort Hunter Liggett has one campground located in the cantonment area west of Mission Road. The campground consists of an improved section with 24 camping sites and two

toilets. It is primarily used by hunters. The campground store is currently non-operational (US Army Reserve Training Center, Fort Hunter Liggett, 2003). One- and two- bedroom rental units and recreational vehicle and tent camping with full hook-ups are available at nearby Lake San Antonio.

Visitors can drive through the installation and over the ridge to Big Sur via Nacimiento-Fergusson Road. Leaving the valley, Nacimiento-Fergusson Road meanders west over the Santa Lucia Mountains and through the Los Padres National Forest toward California Highway 1 and the Big Sur coast. Its winding route passes through live oak forests and meadows, and it takes more than an hour to navigate seventeen miles. As the road passes its 4,000-foot crest and descends toward the Pacific Ocean, the coast appears below.

The Milpitas Hacienda may interest some Hearst Castle® visitors. Between 1999 and 2001 the number of annual visitors at Hearst Castle® varied from 767,818 to 839,858.

The growing wine industry may bring more visitors to the area if Jolon Road is developed as a wine corridor, a proposal included in the 2004 Draft Monterey County General Plan. Under this proposal the Jolon Road corridor would be allowed a certain number of commercial wine facilities that would be open to the public. Such visitors may be interested in the Milpitas Hacienda, Mission San Antonio de Padua, or the Jolon town site as these resources could be featured as visitor sites along the wine corridor.

Traffic and Circulation

REGIONAL ACCESS

Fort Hunter Liggett is situated approximately halfway between the Pacific Coast Highway (Highway 1) to the west and US Highway 101 to the east. Major regional north-south circulation in the vicinity of Fort Hunter Liggett is via Highway 101. Primary access is via Jolon Road (County Road G14), connecting with Highway 101 near King City, and secondarily via Nacimiento-Fergusson Road originating at Highway 1 near the town of Lucia. Access from the south is via Lockwood Road (County Road G18), connecting with Highway 101 near Bradley. Milpitas Road has provided access to the northwestern portion, connecting with Arroyo Seco Road/Carmel Valley Road (County Road G16) but this route is no longer passable.

Jolon Road is a two-lane road that extends north east to Highway 101 near King City and southeast from the town of Jolon to Lockwood and US Highway 101. The speed limit on Jolon Road is 55 mph. The two-lane Nacimiento-Fergusson Road extends from Mission Creek Road west through the installation, then over the mountain to Highway 1. There is no posted speed limit for most of the road, and travel speeds are generally limited by road conditions (US Army Corps of Engineers, 2000b).

LOCAL ROADS

The primary road network associated with the BRAC excess property includes Mission Creek Road, Infantry Road, and Alamo

Road. Mission Creek Road and Infantry Road connect the cantonment area with more remote portions of Fort Hunter Liggett. With few exceptions, Fort Hunter Liggett roads outside the cantonment area are limited to public access and require a permit for entry (US Army Corps of Engineers, 2000b).

LEVEL OF SERVICE

Level of service (LOS) is a widely used system of describing traffic and driving characteristics at different intensities of traffic flow and congestion. LOS A indicates light traffic, and average travel speed of about 90% of free flow speed. LOS B indicates moderate traffic. Average travel speeds drop due to intersection delay and inter-vehicle conflicts, but remain at 70% of free flow speed. LOS C signifies substantial traffic, longer queues at signals result in average travel speeds of about 50% of free flow speeds. LOS D is heavy traffic. Average travel slows down to 40% of free flow speed. Delays at intersections may become extensive. LOS E indicates very heavy traffic and unstable traffic flows. LOS F signifies saturated flow conditions, forced flow, and low operating speed.

Monterey County considers LOS "D" or better to be acceptable roadway operating conditions. Based on daily volumes and capacities, Mission Creek Road and Infantry Road operated at LOS "A" in 1991; 2,720 vehicles per day were counted in 1995. Jolon Road operated at LOS "A" and "B" in 1995. Highest volume was recorded at the section of Jolon Road between San Lucas Road and US 101, at 6,900 per day, equal to .575 volume-to-capacity, with an LOS "B" rating (US Army Corps of Engineers, 2000b). The Monterey County General Plan Update (2004 Draft) reports the LOS of Jolon Road between Pine Canyon Road (Lockwood) and US 101 to be a "C" rating.

The growth of the wine industry in Monterey County in recent years has led to a county proposal to establish winery corridors. The 2004 Monterey County General Plan (Draft) proposed three winery corridors for the County, one of which is Jolon Road. This designation, if implemented, could result in increased traffic on Jolon Road.

Air Quality

The portion of Monterey County in which Fort Hunter Liggett is located is in attainment with all federal ambient air quality standards. However, this area has been designated as being in non-attainment for the state 1-hour ozone standard and the state 24-hour inhalable particulate matter standard. For more details on air quality standards, see section 4-3 of *Environmental Assessment for the Disposal and Reuse of the BRAC Property at Fort Hunter Liggett*, US Army Corps of Engineers, September 2000.

Existing air emission sources on Fort Hunter Liggett are generated by various testing and training activities. Tracked and wheeled vehicles within the training areas generate localized inhalable particulate matter, and are the primary sources of airborne dust at Fort Hunter Liggett. Fuel combustion during training and testing activities is a source of carbon monoxide,

ozone precursors, and some inhalable particulate matter. Aircraft operations also create a minor source of emissions at Fort Hunter Liggett. Other air emission sources include controlled burning activities and emissions associated with obscurant uses such as smoke screens (US Army Corps of Engineers 2000b).

Noise

Major noise sources at Fort Hunter Liggett include on-station training activities and traffic on local roadways. Off site noise sources include vehicular traffic and recreational activities associated with the San Antonio Reservoir. Areas with high noise levels and major noise sources on Fort Hunter Liggett include: Schoonover airstrip and other landing zones; Tusi Army Heliport; Multi-Purpose Range Complex (MPRC); and the B-9 Gunnery Range. The Milpitas Hacienda and the Mission San Antonio de Padua are considered noise-sensitive land uses. Sensitive noise receptors have been installed to monitor the impacts of noise on sensitive land uses (US Army Corps of Engineers 2000b).

Blast noise from the MPRC creates the greatest noise impacts associated with current activities at Fort Hunter Liggett. Military vehicles operating on paved and unpaved roadways are a minor source of noise in the area, with impacts confined mostly to areas adjacent to paved roads and tank trails. Individual vehicles will typically produce short-term noise levels to 65 to 70 decibels (dB) at a distance of 50 feet from the roadway. Average noise exposure over a 24-hour period can be represented as a day-night average noise level (Ldn). Day-night sound levels in different areas vary over a range of 50 dB, and every 10 dB represents a doubling of perceived sound level. Levels occur as low as Ldn= 30 to 40 dB in wilderness areas and as high as Ldn= 85 to 90 dB in urban areas. Monterey County has set an Ldn range of 50 to 55 dB as the desirable noise limit for low density residential land uses, with an Ldn of 50 dB as the desirable limit for passively used open space areas.

Short-term monitoring was conducted at several locations at Fort Hunter Liggett on February 26, 1988. Daytime background noise levels were 40 dBA at most locations, with background noise levels of 42 dBA in the cantonment area. Day-night average noise ratings measure perception of sound over longer periods of time than typically spent by a visitor to a park. Depending on training activities occurring at the time of visit, significantly louder noise levels could potentially be encountered at Fort Hunter Liggett (US Army Corps of Engineers, 2000b).

Hazardous and Toxic Materials

CERCLA-RELATED SUBSTANCES

An Installation Restoration Program (IRP) was initiated at Fort Hunter Liggett in 1983. An IRP provides for the inventory of hazardous material sites and necessary remedial actions on federal facilities as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Since the initiation of an IRP, the Office of Environmental Compliance within the Fort Hunter Liggett Public

Works Directorate has coordinated investigations and remediation activities on 34 sites throughout the installation. The sites include former underground storage tank locations, former hazardous waste accumulation areas, spill areas, former waste treatment plants, former fire training burn areas, a battery acid neutralization pit, the former base landfill, and firing ranges. Through fiscal year 2000, the Army completed remedial actions on 30 of 34 inventoried sites. The remaining four sites are the Fort Hunter Liggett Landfill #1, the former pesticide storage building, the motor pool facility, and the fuel depot. None of the 34 sites investigated, are located within the BRAC property.

ASBESTOS AND LEAD PAINT

The only hazardous materials known to be associated with the BRAC excess properties are asbestos and lead paint. A survey conducted in 1991 confirmed asbestos containing materials in the Milpitas Hacienda (pipe insulation, floor tile mastic), the Gil Adobe (transite sewer pipe), and Building 127 (HVAC system, floor tile mastic, roofing materials/ mastic). Although not confirmed, the Army inventory has assumed that there is asbestos-containing material in Building 131 based on its estimated construction dates (1910-1929).

No comprehensive lead-based paint surveys have been conducted at Fort Hunter Liggett although lead-based paint tests have been conducted for buildings 124, 127, and 149. Results indicated that buildings 124 and 127 contain lead-based paint. Other buildings that were built prior to 1978 may contain lead paint. This would include the Gil Adobe, the Milpitas Hacienda, the chicken coop (131) and Building 127.

Unexploded Ordnance (UXO)

In the course of implementing the 1995 BRAC decision for Fort Hunter Liggett, a preliminary investigation of unexploded ordnance was undertaken by the U.S. Army Corps of Engineers. Historic research and interviews with individuals associated with Fort Hunter Liggett regarding Ordnance and Explosive and Chemical Warfare Materials in use at the installation and on potential BRAC property were conducted by the US Army Corps of Engineers, St. Louis District. The research and interviews were compiled in *Archives Search Report Findings, BRAC Parcels, Fort Hunter Liggett* (September 1999). There is no UXO associated with the BRAC excess property.

Public Health and Safety

PUBLIC HEALTH AND SAFETY

This section describes the baseline conditions of existing public utilities infrastructure systems at Fort Hunter Liggett including the potable water, sanitary wastewater, solid waste, electricity, telecommunications, and propane.

Fort Hunter Liggett obtains all cantonment area domestic water from two local groundwater basins, the San Antonio Basin and the Jolon-Lockwood Basin. Because groundwater is most abundant in deposits of alluvial materials or porous rock, the eastern portion of

Fort Hunter Liggett has larger supplies of groundwater than the mountainous Monterey Formation in the west.

The Jolon fault runs parallel to the east of the San Antonio River. This fault separates the Lockwood Groundwater Basin to the east from the San Antonio Basin to the west, and prevents mixing of the waters of the two basins. The San Antonio Basin is estimated to have usable groundwater storage of 35,000 acre-feet, whereas the Lockwood Basin could contain 250,000 acre-feet of usable water (US Army Corps of Engineers 1995).

A hydrologic assessment of the availability of groundwater in the Fort Hunter Liggett area was conducted for the Army in 1984. The groundwater assessment tentatively determined that the Mission San Antonio Basin has an annual safe yield of 10,000 acre-feet (U.S. Army Corps of Engineers 1989). Total Fort Hunter Liggett well water consumption averages between 300 and 350 acre-feet per year. The Mission San Antonio Basin consists of approximately 6,000 acres and is nearly totally contained within the Fort Hunter Liggett boundaries. The Jolon-Lockwood Basin consists of over 12,000 acres. Most of this basin is outside Fort Hunter Liggett boundaries. The total non-Army use of this basin is estimated between 50 and 100 acre-feet per year (US Army Corps of Engineers 1995).

Groundwater quality at Fort Hunter Liggett is considered generally good, although supporting data are limited. Groundwater quality varies according to location and depth. A 1980 study indicated that Fort Hunter Liggett groundwater had low levels of chlorides, nitrates, iron, and magnesium, but that it was slightly alkaline (average pH of 7.6) and prone to hardness, particularly near Sulphur Springs. A water quality analysis by the Fort Hunter Liggett Department of Public Works in 1988 indicates that groundwater hardness, alkalinity, and mineral content have changed very little, if at all, since the earlier study (US Army Corps of Engineers 2000b).

Fort Hunter Liggett's cantonment area is supplied with domestic water by three supply wells drawing from the Mission-San Antonio Basin and the Jolon-Lockwood Basin. The wells are located outside the BRAC excess property. Two are located south of the Jolon town site and one is located one mile south of the North Cantonment Geographic area. The water supply is chlorinated prior to distribution and is tested quarterly (US Army Corps of Engineers 1989). The Jolon area, containing the Gil Adobe and other outlying structures are served by individual wells of unknown condition.

The water system improvements installed in the late 1980s and early 1990s included a fire flow capability with hydrants throughout the cantonment area. The storage and distribution system was designed for an installation population of 4,900 persons and 81,000 gallons per day for irrigation.

The main cantonment area is served by a gravity sewer system, consisting of over 16,000 linear feet of sanitary sewer line ranging from 4 to 18 inches, and an oxidation lagoon sewer

treatment plant. The sewer lines range in age and condition from the vitrified clay lines constructed in the 1930s for the Hacienda to new lines installed during the construction of the Spanish Oaks and Milpitas family housing areas. The oxidation lagoons were constructed in 1972, and are located in the southeast portion of the cantonment area, outside the BRAC excess property, between Mission Road and the San Antonio River. The lagoons have a design capacity of 1 million gallons per day. As recently as 1995, sewage flows averaged less than 10% of the design capacity. During the wet season, sewer infiltration and storm drain connections significantly increase flows. Secondary treatment effluent is disinfected and pumped from the oxidation ponds to a spray irrigation site approximately two-thirds of a mile east of the sewer treatment plant. The irrigation site is fenced to impede public contact.

The Jolon area, containing the Gil Adobe, and other outlying areas, including the Tidball Store have previously been serviced by on-site sewerage disposal systems. The condition or characteristics of the systems serving the referenced excess property is unknown, but presumed to not meet current standards, requiring either connection to the existing system or possible installation of a new onsite disposal system. Future use of the excess property is expected to influence viable sewerage disposal options.

Solid waste at Fort Hunter Liggett is collected by the Pacific Valley Disposal Company, a private contractor. Prior to collection, non-hazardous solid wastes are accumulated at the Fort Hunter Liggett Transfer Facility on Nacimiento-Fergusson Road. The transfer station is not on, or immediately adjacent to, BRAC property.

The Army owns the electrical system within Fort Hunter Liggett boundaries. Fort Hunter Liggett contains 182,634 linear feet of overhead service line, 181,838 linear feet of underground lines, and 120 transformers. Gasoline generators provide backup power. In 1994, approximately 90 percent of the power transmission lines at Fort Hunter Liggett were upgraded. Electrical demand at Fort Hunter Liggett in 1990 was 12,463,512 kilowatt hours (kWh). In 1998, electrical demand was 8,465,467 kWh (US Army Corps of Engineers, 2000b).

The telecommunications system at Fort Hunter Liggett is owned and operated by the Army. Recent upgrades include the installation of fiber optic network connections in 2000. The system includes a three-position, 1,000-line, all-dial switchboard on retained Army property. A combination of above and below ground lines connects individual buildings and some remote training area stations with the switch. Pay telephones are connected to the Fort Hunter Liggett signal frame and then to the Pacific Bell commercial system at King City (US Army Corps of Engineers, 2000b).

Heating equipment at Fort Hunter Liggett uses propane gas provided by an area distributor. A propane tank typically serves each building, however a single tank serves all 57 units within the Milpitas housing area including Javelin Court.

FIRE, LAW ENFORCEMENT AND EMERGENCY MEDICAL SERVICES

Fires at Fort Hunter Liggett are caused by natural occurrence, training or other human activity, and controlled burns. Fort Hunter Liggett operates its own fire department, a full structural fire rescue and natural resources firefighting unit. As of April 1999, the Fort Hunter Liggett fire station employed 25 full-time firefighters, of whom 24 were trained as emergency medical technicians (EMTs) and 10 were certified in hazardous material and waste safety training.

The Fort Hunter Liggett Fire Department also operates under the Natural Resources Fire Prevention Program. The program includes methods to reduce fuel loads at Fort Hunter Liggett through controlled burning and prescribed burning. Controlled burning of ranges and firing sites helps reduce the overall fuel load of areas commonly used for live-fire exercises. Prescribed burning for chaparral management occurs regularly at Fort Hunter Liggett. The Fort Hunter Liggett Fire Department has adopted a controlled burn plan to detail how often and how much is burned at Fort Hunter Liggett. Because military training occurring in the summer has the potential to ignite summer wildfires, Fort Hunter Liggett conducts annual control burns each spring/summer, when fires can be kept cooler and more controlled than wildfires. These controlled burns are primarily in grasslands and savannas within an area of nearly 30,000 acres where military units use pyrotechnic devices as part of training (Clark 2000). Fires are also used to reduce star thistle, break up even-aged stands of chaparral to improve wildlife habitat, and reduce cattail stands at reservoirs. Firebreaks have been established along portions of the installation boundary and within the installation to help keep fires ignited on Fort Hunter Liggett from escaping onto adjacent land and to impede the spread of wildfire and provide access for firefighting equipment. Existing firebreaks are routinely maintained, and new firebreaks are occasionally cleared in emergencies for suppression of wildfire.

Fort Hunter Liggett has mutual aid agreements with Los Padres National Forest and California Department of Forestry and Fire Protection to outline responsibilities and procedures for fire emergencies at Fort Hunter Liggett. Agencies that have automatic aid agreements with Fort Hunter Liggett are Camp Roberts Military Installation in San Luis Obispo and the South Monterey County Fire Protection District. Air quality permits for controlled burns are coordinated with the air resources control board (US Army Corps of Engineers 1995). The Los Padres National Forest has located a fire-fighting unit at Fort Hunter Liggett, and is using installation housing for their expanded wildland fire suppression crews.

Fort Hunter Liggett has a civilian federal police force of 23 officers. The federal police station is located in the cantonment area. Three officers are EMTs and are also certified in hazardous material and waste safety. At least three officers must be on duty during each 12-hour shift.

The installation's Health Clinic has been closed since 1998. Fort Hunter Liggett relies on its fire department for EMT services. The closest 24-hour emergency care facility is the George L. Mee Memorial Hospital 22 miles away in King City.

Regional Economy**SURROUNDING LAND USES**

The installation is abutted to the west and north by the Los Padres National Forest and on the east and south by private agricultural land. The U.S. Forest Service (USFS) manages Los Padres National Forest lands according to the Los Padres Land and Resource Management Plan (USFS 1988). Also managed by the USFS is the Ventana Wilderness Area, an area of ruggedly beautiful coastal mountains, which straddles the Santa Lucia Mountains south of the Monterey Peninsula. Non-federal land uses surrounding Fort Hunter Liggett are regulated by the Monterey County General Plan and the San Luis Obispo County General Plan. Agricultural zoning (or other low-density uses) is the major land use designation for these areas. The nearby Lake San Antonio recreational area is managed for public use by Monterey County Parks Department.

The nearest population area is Lockwood (population less than 1,000), approximately 6 miles east of the main gate. King City (population of 11,000) is the nearest incorporated city, approximately 23 miles to the northeast. Salinas is the largest nearby population center with 143,776 persons, 36% of the County population (Monterey County 2004). Camp Roberts, the closest neighboring military installation, is 29 miles to the southeast. Camp Roberts is connected to Fort Hunter Liggett by a tank trail maintained by Fort Hunter Liggett.

LOCAL ECONOMY

Between 1990 and 2002, Monterey County's population increased from 364,000 to 409,600. A projected population increase to 591,000 by 2020 would represent an increase of 44% over the current population (California Employment Development Department 2002). The civilian labor force for Monterey County in 2001 was 195,800, with an unemployment rate of 9.3%. The state's unemployment rate for the same year was 5.3%. Approximately 40% of county jobs are in the agriculture and tourism sectors. Wages in these two sectors are significantly lower than in other industries. Over 90% of these employees are in the lowest income bracket (\$14,000 to \$30,000) (Monterey County 2004).

Agriculture accounts for 22.9% of total employment countywide. In 1999, agriculture was a \$2.5 billion industry in Monterey County. The services division accounts for 22% of employment, and government makes up over 18% of total employment. Projections for Monterey County's future nonfarm wage and salary employment estimate most growth will occur in services, retail trade, and government. The service industry is expected to add 7,000 jobs by 2006. Retail trade is expected to add 2,900 jobs. Since 1995, Monterey County has recorded continuous growth in total nonfarm employment. Cumulative growth from 1995 to 1999 was 16.4%. In 1999, Monterey County showed 4.9% growth in the non-farm sector, compared to the statewide average of 2.8% (California Employment Development Department 2002).

The largest employers in nearby King City are associated with the agricultural industry – vegetable dehydration, vegetable growing and shipping, wine grape production, and grain and bean processing. Additionally, there are a growing number of local wineries and vineyards.

The budgets of the local government jurisdictions of the cities of King City, Jolon, Paso Robles, Soledad, and Salinas, as well as Monterey and San Luis Obispo counties, are affected by the presence of Fort Hunter Liggett. Costs to these jurisdictions are incurred by the use of educational and other services by Fort Hunter Liggett residents. Federal aid is provided to local schools to offset property taxes that would have been paid by residents living on federal property. Fort Hunter Liggett provides an economic stimulus to the local economy by contracting for construction projects and maintenance at the installation, by providing housing to installation personnel, and through military and civilian personnel and their dependents patronizing local businesses. Fort Hunter Liggett's total operating budget for fiscal year 2001 was \$24,559,400 (Department of the Army 2001).

Environmental Justice

Presidential Executive Order 12898 requires federal actions to address environmental justice in minority and low-income populations. The intent of the executive order is to avoid any disproportionate adverse environmental, human health or economic impacts from federal policies and actions on minority and low-income populations.

According to 2000 US Census Data, 47% of Monterey County's population is Hispanic or Latino, 40% is White, 6% is Asian, 4% is African American, and the remaining 3% are Native Hawaiian or Pacific Islander, multi-race or other non-specified race (California Department of Finance 2004). In King City, 66.7% of the population is Hispanic or Latino, 31.1% is White, 0.9% is Asian, 0.6% is African American and 0.7% is other non-specified race (King City 2003).

The 1999 median family income in Monterey County is \$48,305. In King City the median family income is lower because a large percentage of jobs are in the agricultural, manufacturing, and retail sectors. In 2000, the median family income in King City is \$34,398. Monterey County defines very low income as 50% of the median household income. Based on this standard, approximately 45% of King City's population is very low income when compared to the county-wide median income. When compared to the King City median income, over 20% of the households have very low income. In 2000, low income households in King County could not afford to buy a single-family home, but could afford the majority of apartment rentals in King City (King City Housing Element 2003; Monterey County 2004).

Environmental Consequences

Environmental Consequences of Alternative A: No-Action

Under this alternative, the Army would retain the BRAC excess property until transfer to another agency occurs. During this interim period the Army is not authorized to expend funds on the BRAC excess property. The interim use period has been in effect for the BRAC excess property since July 2001, when the Army's authority to spend funds on these areas expired. Because the day to day costs of operating the Milpitas Hacienda and the ranch bungalows are covered by leasing arrangements, these structures have remained in use during this interim period. Structures without interim funding sources are not in use (e.g. Gil Adobe). It is not known how long the interim period will continue before the properties are transferred to another agency.

For future property disposal, the Army would eventually pursue one of the options outlined in the Army's *Environmental Assessment for the Disposal and Reuse of the BRAC Property at Fort Hunter Liggett* or would take other action, at their discretion. The Army environmental assessment includes two options that do not involve the National Park Service: a no-action option and an encumbered disposal option. Because it is unknown when future transfer would take place or which agency or organization the properties would be transferred to, the following analysis of the no-action alternative assesses the impacts of continued Army management during the interim period. The analysis assumes that under the No-Action Alternative, with the exception of the Milpitas Hacienda, management of the historic properties for public use would not occur due to constraints in financing for maintenance and operation. The impacts of transfer and management of the BRAC property for public use are analyzed under Alternative B.

CULTURAL RESOURCES

Historic structures. During the interim use period, the Milpitas Hacienda would continue to be under lease and concession arrangements for lodging and food service. The ability of the Army to maintain the Milpitas Hacienda would be limited by policies which prohibit expenditures of funds on excess property. The concessioner would be responsible for maintenance that is essential to the current use and operation of the Milpitas Hacienda. Recommendations made in the Historic Preservation Plan to lessen the visual intrusions on the historic fabric and to protect the architectural integrity through enhancement would not be implemented. The Army would continue to lease out the ranch bungalows for housing. The Gil Adobe would continue to remain boarded up. No major investment would be made towards its stabilization or restoration.

If the interim period continues for an extended length of time, there would be no funding available for major repair or rehabilitation of the structures. This would result in indirect minor to major adverse impacts on the historic structures. Intensity of

the impacts would depend on the nature of the damage (e.g. damage from natural disasters or fire versus day-to-day wear).

No direct impacts on the structures are anticipated assuming that there would be no modification or demolition of historic properties. However, deterioration of historic properties from lessened maintenance-levels during interim use could result in long-term indirect adverse effects to the integrity of the structures. Limited protection of the historic setting could result in minor to moderate adverse impacts on the Milpitas Hacienda and the ranch bungalows. Adverse indirect impacts on the Gil Adobe from continued deterioration could be minor to major depending on the length of time that the structure remains boarded up. Given the controlled access at Fort Hunter Liggett it is unlikely that vandalism or overuse would have an impact on resources. Public education and interpretation of cultural resources would continue to be minimal resulting in an inability to expand the public's awareness of the historical significance of the historic properties.

Archeological resources. No direct environmental effects on archeological resources at the Tidball Store land, the Gil Adobe and Milpitas Hacienda would be expected under interim use period because there would be no ground-disturbing activities on the properties. Fort Hunter Liggett would continue to consult with their cultural resource management staff to avoid or mitigate impacts during training activities.

VISUAL RESOURCES

Declining maintenance during the interim use period could have adverse impacts on the appearance of buildings and grounds. For example, fencing was recently installed along Hacienda Hill for security purposes. Minor to moderate adverse effects on the visual quality of the immediate setting of the historic properties could be expected during the interim use period.

During the interim use period, the Gil Adobe would remain boarded and draped with tarps. Further deterioration could result in additional adverse impacts on the surrounding visual resources. Such impacts could be minor to moderate depending on the length of time the structure remains unstabilized and in interim status. No impacts are expected for the Tidball Store land, although if the county-owned structure continues to be unused, impacts on the appearance may result from the lack of maintenance. Continued use of Javelin Court for housing would not impact visual resources at Fort Hunter Liggett.

PUBLIC USE AND ENJOYMENT

Under interim use status, public use and enjoyment of the excess properties would be limited to the Milpitas Hacienda. Without additional visitor programs or services, visitation would remain at levels similar to current use. If interim use continues for an extended period of time, minor to moderate adverse impacts on public use and enjoyment would be expected due to lack of funding for repair or rehabilitation.

TRAFFIC AND CIRCULATION

Changes in traffic and circulation on Fort Hunter Liggett are not expected under interim use. No direct or indirect effects on traffic and circulation are anticipated.

AIR QUALITY

Air emissions associated with the BRAC excess property are expected to remain the same during interim use. No direct or indirect impacts on air quality are anticipated.

NOISE

Noise levels at the BRAC excess property are not expected to change during interim use. No direct or indirect effects on noise are anticipated.

HAZARDOUS AND TOXIC MATERIALS

Removal and remediation of asbestos and lead-based paint found in the Milpitas Hacienda, the historic ranch buildings, and the Gil Adobe would not take place. No direct or indirect impacts would be expected (US Army Corps of Engineers, Sacramento District 2000b).

PUBLIC HEALTH AND SAFETY

Public Utilities. Access to public utilities would remain the same under interim use status.

Fire, Law Enforcement and Emergency Medical Services.

Interim use status would have no direct effects on public services. The Fort Hunter Liggett fire station and police station would continue to respond to emergencies at the BRAC excess property (US Army Corps of Engineers, Sacramento District 2000b).

REGIONAL ECONOMY

The number of employees at Fort Hunter Liggett not be affected by the interim use status. Services provided at the Milpitas Hacienda (restaurant, bar, overnight lodging) would continue during this time. The Javelin Court housing area would continue to house Fort Hunter Liggett employees at 95% occupancy. No direct effects on the regional economy are expected during interim use.

CUMULATIVE IMPACTS

Adverse cumulative impacts on the historic structures may occur over time. Impacts from the vibrations of tank maneuvers and low-flying aircrafts could over time have a minor to major adverse impact on the physical integrity of the historic structures. Deferred maintenance due to lack of funding for major repairs and rehabilitation would result in further deterioration of the historic structures over time.

Environmental Consequences of Alternative B: An Addition to Hearst San Simeon State Historical Monument and Designation as an Affiliated Area of the National Park System

CULTURAL RESOURCES

Historic Structures: The transfer, lease, or sale of historic property out of Federal ownership without adequate and legally enforceable restrictions or conditions is generally considered to

have an adverse effect on that property (36 CFR 800.5 [a] [2] [vii]). Under this alternative, preservation covenants and protective easements would be included in the real estate documents to mitigate such adverse effects.

As a new component of Hearst San Simeon State Historical Monument and an affiliated area of the National Park Service, new resources would be available to protect the architectural integrity of the Milpitas Hacienda and to address the visual intrusions on the historic ranch fabric. California State Park professionals with historic preservation expertise would be charged with ensuring the long-term protection of the resource. Interpretation and education of the Milpitas Hacienda and the ranch bungalows in the context of the historic ranch and the San Simeon estate would be a significant part of California State Parks management and operations, creating greater public awareness of the historical importance of these resources.

Under Alternative B, the Milpitas Hacienda would also be considered for addition to the San Simeon Estate National Historic Landmark. As a contributing component to the national historic landmark, the Milpitas Hacienda would receive additional recognition and would be managed under the Secretary of the Interior's Standards for Historic Preservation. Management of the Milpitas Hacienda and the ranch bungalows by California State Parks, national recognition of the Milpitas Hacienda and technical assistance from the National Park Service would create major direct beneficial impacts on the Milpitas Hacienda and the ranch bungalows in the long term.

Alternative B includes the potential for collaboration with the Monterey Diocese to assist in the curation of artifacts and the management of visitors to the Mission San Antonio de Padua. Such collaboration would have minor to major long term beneficial impacts on structures and artifacts at the Mission San Antonio de Padua.

Transfer of the Gil Adobe to a local agency and management through a non-profit entity for historic preservation would have direct beneficial long term impacts. Coordinated management and interpretation of the Jolon town site would greatly increase public awareness of Jolon's role in Monterey County history and would have a long-term beneficial impact on historic properties not included in this study such as the Tidball Store structure, the Dutton Hotel ruin, and St. Luke's Episcopal Church.

Increased visitor contact with historic structures could potentially result in damage through normal wear-and-tear and through vandalism. Impacts could be mitigated through visitor management programs, and regular maintenance by park personnel. Increased education and interpretation could reduce damage and vandalism through increasing appreciation and awareness of the resources.

Archeological Resources. Modifications to the landscape surrounding the structures to accommodate increased public access could result in direct adverse impacts on archeological

resources. The level of impacts would depend on the location and siting of facilities for public access or new building uses. As with the historic structures, the potential for vandalism might increase. However, these impacts would likely be mitigated through visitor management. Additional research and documentation of archeological resources at the BRAC excess properties would have a long term indirect beneficial impact.

VISUAL RESOURCES

Under this alternative, minor disturbance in the vicinity of the transferred structures may occur to accommodate facilities for better public access. It is assumed that such modifications would be designed to avoid impacts on the historic setting. The structures' exteriors would be adequately preserved.

Management of the Milpitas Hacienda and ranch bungalows by California State Parks would emphasize preservation of the historic setting and surrounding visual quality. California State Parks, with technical assistance from the National Park Service, could work to remove current impacts on the visual quality of historic setting. Because this could only apply to the BRAC excess properties that are transferred, this action would have a minor to moderate beneficial impact.

Under this alternative, the Gil Adobe could be stabilized or restored by a non-profit organization and managed as part of a larger effort to interpret and preserve the Jolon town site including the Tidball Store and the one-acre of land that will be transferred. This would have a minor to moderate long-term beneficial impact on visual resources of the Jolon area.

PUBLIC USE AND ENJOYMENT

Addition to Hearst San Simeon State Historical Monument and designation as an affiliated area of the national park system would provide greater opportunities for public use and enjoyment at Fort Hunter Liggett. California State Parks, with technical assistance from the National Park Service, would create additional opportunities to interpret the history of the Milpitas Hacienda in association with William Randolph Hearst's historic estate and architect Julia Morgan. Public use and enjoyment would be increased by exhibits, displays, and personal communication.

The Mission San Antonio de Padua has expressed interest in working with California State Parks and the National Park Service to manage visitors to the Mission and to assist in artifact curation. Interpretation of the Mission San Antonio de Padua could enhance the experience of visitors to the Milpitas Hacienda. California State Parks may also find it possible to undertake some interpretation of other aspects of Fort Hunter Liggett, including both its military history and its significant natural history.

With a California State Park presence and National Park Service affiliated area designation, annual visitation could increase by 10,000 visitors per year to the cantonment area per year. This projection is derived from baseline figures on overnight lodging and food service and beverages at the Milpitas Hacienda, visits to the Mission, and analysis of visitation of similarly situated NPS

units. In ten or more years, once visitor programs in connection with Hearst San Simeon State Historical Monument (Hearst Castle) are established, visitation could reach 50,000–75,000 as the Milpitas Hacienda provides an interpretive experience not currently available at the Hearst Castle. Visitors at the Milpitas Hacienda can spend the night and dine in a building used by William Randolph Hearst and designed by Julia Morgan.

Currently, only visitors who can afford to stay overnight at the Milpitas Hacienda have an opportunity to enjoy the building interiors aside from the lounge and the restaurant. With additional interpretive programs provided by California State Parks, there may be lower cost day use opportunities for lower-income populations to learn about the history of the Milpitas Hacienda and other history aspects of Fort Hunter Liggett.

Under this alternative, it is assumed that the historic properties at Jolon would be managed by a local agency or non-profit entity. Visitor interpretation, which is currently limited to two plaques, would be improved and if feasible, the Gil Adobe could be restored for public use and interpretation. Public amenities located off of Jolon Road at the Tidball Store could attract visitors from the Milpitas Hacienda, and visitors from the rapidly growing Salinas Valley wine industry. In addition, the recent opening of the National Steinbeck Center in Salinas may attract visitors to Jolon. Jolon in the Gold Rush era was featured as the setting in one of Steinbeck's novels. Overall, Alternative B would provide for moderate direct beneficial impacts on public use and enjoyment opportunities in Monterey County.

TRAFFIC AND CIRCULATION

Approximately 10,000 additional visitors (an estimated 3,500 vehicles, based on 2.8 persons per vehicle) would be expected to be attracted to the installation annually in the near term. With future development of the Jolon Road "wine corridor" and increased marketing and visitor programs by California State Parks, vehicle numbers would increase. Because a portion of future visitors would be expected to arrive in buses, vehicle numbers may be considerably lower than the 2.8 persons per vehicle estimate for 50,000 to 75,000 visitors (8,000-26,000 vehicles annually). Additional cars and buses have the potential to contribute to traffic and circulation on the installation and on local roads. However, when this annual volume of recreational traffic is compared to the daily volume of 2,720 vehicles on Mission Creek Road (nearly 1 million vehicles annually) it becomes apparent that visitors will constitute a minor increment to the overall daily traffic volume (US Army Corps of Engineers 2000b).

To a large extent, recreational visitation associated with this alternative would be expected to occur more on weekend days, at a time when traffic associated with installation operations would be at a relatively low level. Consequently, even if operations and related traffic at Fort Hunter Liggett were to increase, direct adverse impacts on traffic and circulation would be minor.

It is assumed that Javelin Court will continue to function as

housing and operate at the current occupancy rate of 95%. Rental units on the open market could attract residents who work outside the installation. Given that there is a demand for housing by employees at Fort Hunter Liggett, this change in tenancy would provide for negligible to minor impacts on traffic and circulation.

AIR QUALITY

Air quality concerns in the area include both inhalable particulates and pollutants associated with combustion, including ozone. The additional visitation expected at the site should not affect inhalable particulates, since access roads to the areas of historical interest are paved and visitors would not be expected to generate dust. However, air quality could be affected by vehicle emissions from the additional visitors attracted to the historic structures. Initially, the estimated increase of an additional 3,500 vehicles annually would constitute a minor increment to the base's operational traffic, contributing negligible increments of hydrocarbon pollutants. Increased visitation over time could cause additional adverse effects on air quality. It is noted that much of the visitor traffic would occur on weekends, at a time when commuter traffic is light and there is less likelihood of approaching or exceeding threshold pollution levels. Visitors may also arrive via buses which would reduce the amount of air pollution associated with additional vehicles.

Public transportation is currently not available to Fort Hunter Liggett. The remote location of Fort Hunter Liggett would require most visitors to travel long distances via automobile (over twenty-five miles) to access the historic structures. This could have a minor adverse effect on regional air quality. Overall, Alternative B would have minor adverse impacts on air quality.

It is assumed that Javelin Court will continue to function as housing and operate at the current occupancy rate of 95%. Rental units on the open market could attract residents who work outside the installation. Given that there is a demand for housing by employees at Fort Hunter Liggett, this change in tenancy would likely contribute to negligible to minor impacts on air quality.

NOISE

Management of the historic properties for visitor use would generate additional noise as more cars and buses would be traversing through Fort Hunter Liggett. This increase in noise would cause direct effects on ambient noise. Such impacts would be negligible to minor relative to the noise levels currently generated by training activities.

HAZARDOUS AND TOXIC MATERIALS

As in Alternative A, no direct or indirect impacts on public health and safety would be expected. The results of any previous asbestos investigations and surveys would be provided to California State Parks. Army regulations do not require that asbestos-containing material be remediated in buildings prior to transfer. However, the Army is required to abate any asbestos-containing material that does not comply with applicable laws, regulations or standards or that poses a threat to human health.

According to the Army's *Environmental Assessment for the Disposal and Reuse of the BRAC Property at Fort Hunter Liggett*, lead in soils would be investigated with other potentially contaminated sites. Some residential units have been inspected for lead-based paint and lead-based paint hazards. Inspection and survey results and descriptions of abatement measures taken would be provided by the Army to California State Parks. Consistent with the Residential Lead-based Paint Hazard Reduction Act of 1992 (P.L. 102-550), the Army would provide notice in transfer documents that buildings containing lead-based paint would be restricted from residential use unless the recipient of the property abates any hazards.

Lead paint removal or remediation has the potential to slow development of the property for public use. This could have a moderate impact on future reuse of the property. In the long term, funding may be available for lead paint or asbestos abatement, particularly if restoration work were to commence. Such abatement action would have a minor to moderate beneficial impact.

PUBLIC HEALTH AND SAFETY

Public Utilities. Increased visitation to the historic properties would create increased demand on public utilities. The initial increase in visitors could be up to 10,000 annually and could possibly reach up to 50,000 to 75,000 in the long term as California State Parks incorporates the Milpitas Hacienda and the ranch bungalows into its operation at Hearst San Simeon State Historical Monument. Assuming that annual visitation eventually reaches 75,000 (primarily day-use), consumptive demands on the water system would amount to less than an acre-foot per year, constituting a minor increment to water use on the installation, which is generally between 300 and 350 acre-feet per year. This minor increment of water demand would not result in overdraft of the aquifer which supplies water for the installation.

There are no new development projects or new land uses associated with this alternative that would result in an increase in discharge of either sediment or chemical/biological pollutants to either surface water bodies or to groundwater. According to design capacities documented in the Army's *Environmental Assessment for the Disposal and Reuse of the BRAC Property at Fort Hunter Liggett*, wastewater would be adequately treated by the existing plant, which operates with a substantial surplus capacity. Electrical and propane systems would similarly have more than enough surplus capacity to accommodate short and long-term increases in visitation. As in Alternative A, the occupancy rates at Javelin Court would likely stay the same (95%) and would not impact existing utility systems. Overall, adverse impacts on public utilities would be negligible.

Fire, Law Enforcement and Emergency Medical Services.

Increased visitation and use of the historic properties may result in impacts on public services. Transfer to a state agency could result in increased response times if public services are provided by

agencies and hospitals in King City. These impacts would be mitigated by the establishment of a mutual assistance agreement between the receiving agencies and the Army. California State Parks would enter into an agreement with the Fort Hunter Liggett fire station and police station to respond emergencies at the excess properties (US Army Corps of Engineers, 2000b). This service would be on per call basis for initial response. California State Parks could contract with the Monterey County Sheriff's office to conduct follow-up investigations to police incidents. In the long term, California State Parks may have its own law enforcement presence at Fort Hunter Liggett as the potential to develop a training facility for California State Parks law enforcement facilities at Fort Hunter Liggett is under discussion. Local agencies or non-profit entities managing the Jolon area properties would likely enter into a mutual assistance agreement to provide emergency services for visitors. If arrangements are made with Fort Hunter Liggett to provide initial emergency response services, impacts to response times at the Milpitas Hacienda and the Jolon area would be negligible.

REGIONAL ECONOMY

This alternative would increase the number of recreational visitors to Fort Hunter Liggett by approximately 10,000 visitors per year, with the potential to reach 50,000 to 75,000 in the long term. These visitors would contribute to the local economy by purchasing various goods and services, including food, gasoline, and lodging. To the extent that such expenditures are recycled in the local economy, a multiplier effect would occur. The Javelin Court housing area would continue to function as housing and operate at the current occupancy rate of 95%. Contributions to the local economy by residents at the Javelin Court housing area would not change under this alternative. Overall, minor to moderate, direct and indirect beneficial impacts on the local economy would be expected.

CUMULATIVE IMPACTS SUMMARY

As discussed above, the additional recreational traffic stimulated by creation of a unit of the California State Park System would contribute to air pollution in the area, although it is expected to be a minor contributor. The remote location of Fort Hunter Liggett would require most visitors to travel long distances via automobile (over twenty-five miles) to access the historic structures. Over time, increased visitation by automobile may contribute minor cumulative impacts on the regional air quality.

Alternative B would result in long term enhanced resource protection and preservation of the historic properties. Cumulative impacts from increased visitation over time could result in some amount of deterioration of historic structures or disturbance to archeological resources. Management of the properties with historic preservation and cultural resource protection as a main objective would ensure that these impacts are prevented to the greatest degree possible. Additional resources for cultural resource management would contribute towards the maintenance and upkeep of the historic structures and would mitigate against visitor impacts.

Abbreviations and Acronyms

ASP – Ammunition Supply Point

BRAC – Defense Base Closure and Realignment Commission

CDFG – California Department of Fish and Game

CSP – California State Parks/California Department of Parks and Recreation

DPW – Department of Public Works, Fort Hunter Liggett

DOI – Department of the Interior

EA – Environmental Assessment

ESA – Endangered Species Act of 1973

FHL – Fort Hunter Liggett

HVAC – Heating, ventilation and air conditioning

MPRC – Multipurpose Range Complex

NEPA – National Environmental Policy Act

NHL – National Historic Landmark

NNL – National Natural Landmark

NPS – National Park Service

NRHP – National Register of Historic Places

PWRO – Pacific West Regional Office, National Park Service

SHPO – State Historic Preservation Officer/Office

SRS – Special Resource Study

USFS – US Forest Service

UXO – Unexploded Ordnance

Glossary

adobe – a brick or building material of sun-dried earth and straw.

alternatives – a collection of actions assembled to provide reasonable options for solutions to problems.

alluvial plain – plain resulting from deposition of sediment by water.

alluvium – detrital deposits resulting from the operations of rivers, thus including the sediments laid down in river beds, floodplains, lakes, fans at the foot of mountain slopes, and estuaries.

arcades – a series of arches with their columns or piers.

barrens – an extent of usually level land having an inferior growth of trees or little vegetation.

biophysigraphic provinces – large natural regions of defined by physiographic and biologic characteristics.

borrow pit – an excavated area where material has been dug for use as fill at another location.

cantonment area – the cantonment area on Fort Hunter Liggett covers 6,470 acres between the San Antonio River and Mission Creek valley. This area includes almost all buildings associated with the installation including housing, administration, general purpose facilities, open storage, motor pool, hazardous waste facilities, medical facilities and recreational facilities.

colluvium – rock detritus and soil accumulated at the foot of a slope.

community – a collection of organisms characterized by a distinctive combination of two or more ecologically related species; an example is a deciduous forest. Also known as an ecological community.

coniferous – any tree that has thin leaves (needles) and produces cones. Many types are evergreen. Pines, firs, junipers, larches, spruces, and yews are conifers.

conglomerate – cemented rock containing

rounded fragments corresponding in grain sizes to gravel or pebbles.

critical habitat – habitat designated as critical for a particular species under the Endangered Species Act, including areas on which are found those physical or biological features essential to the conservation of the species.

cultural landscape – a geographic area, including both the cultural and natural resources, associated with a historic event, activity, or person, or exhibiting cultural or aesthetic values. A way of seeing landscapes that emphasizes the interaction between human beings and nature over time. A traditional ranching area might be part of a cultural landscape.

cumulative impacts – The incremental effects of an individual project reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects in order to ascertain the overall effect on the environment. A cumulative impact assessment is a requirement of NEPA.

direct impacts (or effects) – Primary environmental effects that are caused by a project and occur at the same time and place.

easement – instrument of property ownership in which specified rights to property development are separated from landownership, usually to preclude any substantial change in the current use of the land. A conservation easement allows a landowner to continue to own and use his or her land and to sell it. However, the allowable uses of the land are permanently limited in order to protect its conservation values.

endangered species – A species of animal or plant is considered to be endangered when its prospect for survival and production are in immediate jeopardy from one or more causes. The U.S. Fish and Wildlife Service and/or the California Department of Fish and Game make this designation.

endemic – restricted to or native to a particular area or region.

environmental assessment (EA) – A concise public document that provides evidence and analysis of the potential environmental and

socioeconomic impacts of a proposed federal action. An EA provides sufficient information for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). An EA includes brief discussions of the need for the proposal, of alternatives, of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted. Required by the National Environmental Policy Act (NEPA).

fault – a planar or gently curved fracture in the Earth's crust across which there has been relative displacement.

finding of no significant impact (FONSI) – a document prepared by a Federal agency briefly presenting the reasons why a proposed action will not have a significant effect on the human environment and why an environmental impact statement therefore will not be prepared.

floodplain – Land on either side of a stream or river that is submerged during floods.

gable – the vertical triangular end of a building from cornice or eaves to ridge

general plan – document which controls land uses within its jurisdiction by establishing use categories and implementing plans through the county zoning ordinances.

groundwater – all subsurface water, especially that part that is in the zone of saturation.

habitat – The physical location or type of environment in which an organism or biological population lives or occurs; often characterized by a dominant plant form or physical characteristics (i.e., the oak-savanna, wetland, or a coastal habitat).

impoundment – water collected in a dam or reservoir

indirect impacts (or effects) – Also referred to as secondary effects, indirect impacts are caused by a project and occur later in time or at some distance from the project; however, they are still reasonably foreseeable.

infrastructure – A general term describing public

and quasi-public utilities and facilities such as roads, bridges, sewers and sewer plants, water lines, storm drainage, power lines, parks and recreation, public libraries, fire stations, sidewalks and streetlights. Can also be considered a permanent installation such as lighting, sidewalks, buildings and water systems.

inholding – private land located within publicly owned land areas.

intermittent flow – flow regimes occur irregularly or seasonally

irreversible impacts – effects that cannot be changed over the long term or are permanent.

irretrievable impacts – effects to resources that, once gone, cannot be replaced.

level of service (LOS) – is a qualitative measure of traffic intensity describing operational conditions within traffic stream, and their perception by motorists and/or passengers. An LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

mitigation – Mitigation includes: (a) Avoiding an impact altogether by not taking a certain action or parts of an action; (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; (e) compensating for the impact by replacing or providing substitute resources or environments.

niche – a recess in a wall especially for a statue

ophiolites – Rock formations consisting of pieces of oceanic plate that have been thrust onto the edge of continental plates; thought to be the result of sea-floor rifting or crustal plate collisions.

ordnance – explosives, chemicals, pyrotechnics, and similar stores, e.g., bombs, guns and ammunition, flares, smoke, or napalm.

polychrome – relating to, made with, or decorated in several colors

potable water – water suitable for drinking.

rain shadow – An area of diminished precipitation on the lee side of mountains or other topographic obstacles.

riparian (land, area or habitat) – The land and vegetation bordering a natural watercourse such as a river or stream. Riparian habitat provides food, nesting habitat, cover, migration corridors, riverbank protection, erosion control and improved water quality, and numerous recreational and esthetic values.

ruderal – vegetation that thrives in disturbed areas.

savanna – natural community with an open tree layer of less than 80% coverage and a continuous ground layer dominated by grasses and sedges.

seismic – a general term for the number of earthquakes in a unit of time.

serpentine – a group of green, greenish-yellow, or greenish-gray ferromagnesian hydrous silicate rock-forming minerals having greasy or silky luster and a slightly soapy feel; translucent varieties are used for gemstones as substitutes for jade.

socioeconomic analysis – the task of assessing the impact of a plan or project on a community's or region's social structure, on a community's fiscal health, on a region's economic basis, and similar socioeconomic considerations.

special resource study – a study conducted by the National Park Service to determine whether an area is appropriate to be managed as a unit of the National Park System. It considers whether: (1) the resources in the area are nationally significant, (2) there are other means of protecting the area's resources, (3) the area's resources are already represented in the National Park System, and (4) if it is feasible for the NPS to protect and manage the resources. Also known as a feasibility study.

special status natural community – communities that are regionally diverse, are uncommon, or have

been identified as a sensitive resource issue by state or federal agencies.

stucco – a material usually made of Portland cement, sand, and a small percentage of lime and applied in a plastic state to form a hard covering for exterior walls

subduction – to be carried under the edge of an adjoining continental or oceanic plate, causing tensions in the Earth's crust that can produce earthquakes or volcanic eruptions.

taxon – a taxonomic category or unit, as a species or family.

tectonic or tectonism – relating to the forces that produce movement and deformation of the Earth's crust.

training areas – Fort Hunter Liggett is divided into 29 training areas used for military operations related to the installation's training mission.

ultramafic – igneous rock with very low silica content, and very rich in iron and magnesium

vernacular – of, relating to, or characteristic of a period, place, or group; *especially*: of, relating to, or being the common building style of a period or place.

vernal pool – seasonal bodies of water that form in depressions located in soils with impenetrable substances such as clay. They typically hold water during rainy seasons and completely dry up in dry seasons. Because of these unique characteristics and their rarity, vernal pools generally support rare species.

watershed – the total area above a given point on a waterway that contributes water to its flow; the entire region drained by a waterway or watercourse; the geographical area drained by a river and its connecting tributaries into a common drainage. Usually bounded peripherally by a natural divide of some kind such as a hill, ridge, or mountain.

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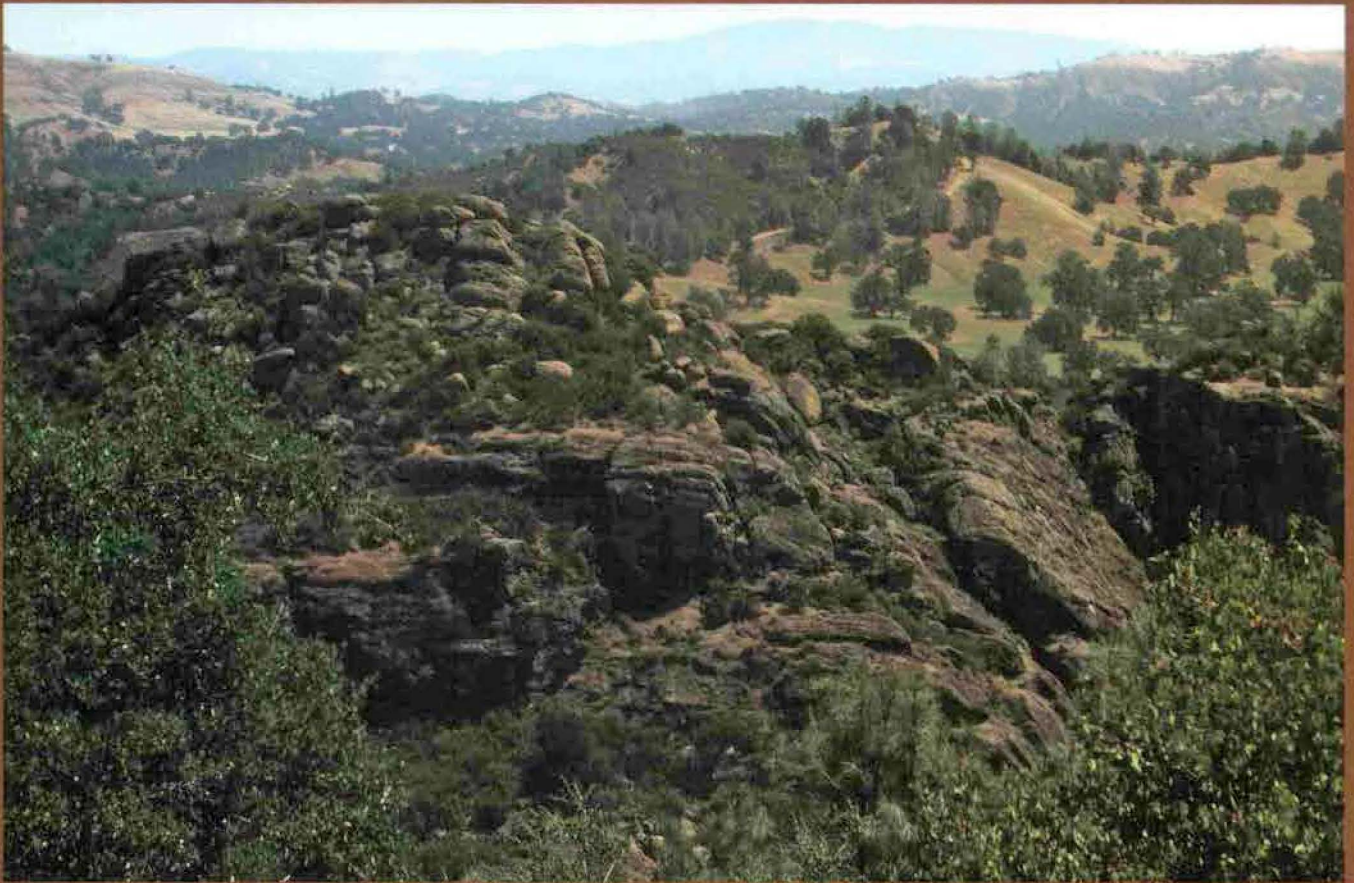
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Looking east over Fort Hunter Liggett from the Santa Lucia Mountains, NPS photo



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