

**FINDING OF NO SIGNIFICANT IMPACT
AND
FINDING OF NO PRACTICABLE ALTERNATIVE**

1.0 NAME OF THE PROPOSED ACTION

Construct Distributed Ground Station 2 (DGS-2) Facility addition, renovation and parking lot construction at Beale AFB, California.

The purpose is to accommodate the major upgrade of the DGS-2 system by moving DGS-2 equipment into a permanent facility, and by housing the estimated 350 additional personnel.

2.0 DESCRIPTION OF PROPOSED ACTION AND NO ACTION ALTERNATIVES

Proposed Action. Construct a 90,000 square foot addition to Building 23260 on the east side, in an area currently paved and used as a parking lot. Convert existing warehouse space in Building 23260 into office space. Construct two large parking lots and a tech pad. A manpower increase of 350 workers would occur. The proposed action would provide appropriate operating space that will improve the 48th Intelligence Squadron's (IS) ability to provide timely and accurate intelligence support.

No Action Alternative. Under the No Action Alternative, the present facility configuration and environment would remain unchanged. The increase in personnel would be housed in other facilities on base. This alternative would not meet the mission requirements of the 48th IS, and operational commanders would receive a lower level of intelligence support in terms of vital, real time intelligence data.

3.0 SUMMARY OF ENVIRONMENTAL EFFECTS

Biological Resources. Approximately 0.08 acres of potential vernal pool fairy shrimp and vernal pool tadpole shrimp habitat will be directly impacted by the Proposed Action (parking lots 1 & 2). A Biological Opinion has been approved by the United States Fish and Wildlife Service (USFWS) for parking lot 2 of the Proposed Action. According to the USFWS Biological Opinion Terms and Conditions, approximately 0.16 acres of suitable habitat will be preserved and 0.08 acres of suitable vernal pool shrimp habitat will be restored on Beale AFB or at another ecosystem preservation bank approved by the USFWS. An additional biological opinion will be obtained prior to construction of parking lot 2.

Water Resources. Other than as stated in biological resources above, there would be no significant impact to surface waters or groundwater as a result of implementation of the Proposed Action. The effects from minor increases in storm water runoff could lead to erosion, transfer of pollutants, or flooding; however, these effects would not be substantial.

The Proposed Action will directly impact jurisdictional waters of the U.S. Section 401 and 404 permit applications have been submitted to the U.S. Army Corps of Engineers (USACE), Sacramento District and the California Regional Water Quality Control Board, Central Valley Region for their review and approval. Approval of the Section 401 and 404 permit applications would be obtained prior to commencement of construction activities.

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE JAN 2006		2. REPORT TYPE		3. DATES COVERED 00-00-2006 to 00-00-2006	
4. TITLE AND SUBTITLE Environmental Assessment for DCGS Facility Expansion And Parking Lot Construction At Beale Air Force Base, California				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 9th Civil Engineer Squadron (CES/CEVA),Environmental Flight,6601 B Street,Beale AFB,CA,95903				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 35	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Geological Resources. There would be no significant impacts on geological resources as a result of implementation of the Proposed Action. The effects on soil erosion and sedimentation from construction activities are considered minor because erosion and sediment controls would be in place during construction to reduce and control siltation or erosion impacts to areas outside of the construction site.

Air Quality. There would be no significant impacts on regional or local air quality from the Proposed Action. The effects on air quality would be a temporary increase in construction-related emissions during project construction. The Proposed Action would generate emissions well below conformity *de minimis* limits as specified in 40 Code of Federal Regulations Part (CFR) 93.153. Because the emissions generated would be below *de minimis* levels, it is reasonable to assume that the temporary construction emissions caused by the Proposed Action would not cause a violation of the National Ambient Air Quality Standards (NAAQS), and a full Conformity Determination would not be required.

Hazardous Materials and Wastes Management. There would be no significant impacts on hazardous materials and wastes management due to implementation of the Proposed Action. Minor hazardous materials and wastes would be generated during project construction. In addition, the Proposed Action is within an Environmental Restoration Program (ERP) site: SS-39, Photographic Lab, Building 2145. The ERP Program Manager has consulted with the HQ Restoration Program Manager and has received a waiver to the restrictions on disturbing an ERP site. One monitoring well located within the project site will also be abandoned and replaced at a location approved by 9 CES/CEVR. Because of the potential threat of contamination from ERP sites during construction, it is recommended that a health and safety plan be prepared in accordance with Occupational Safety and Health Administration (OSHA) requirements prior to commencement of construction activities. In addition, should contamination be encountered, handling, storage, transportation, and disposal activities would be conducted in accordance with applicable Federal, state, and local regulations, Air Force Instructions, and Beale AFB programs and procedures.

Transportation. The new parking lot will improve transportation to and from the DCGS facility, while meeting AT/FP standoff requirements. There would be no significant impacts on transportation due to implementation of the Proposed Action.

Safety. There would be no significant impacts on structure or personnel safety due to implementation of the Proposed Action. Implementation of the Proposed Action would slightly increase the short-term risk associated with construction contractors performing work at Beale AFB during the normal workday because the level of such activity would increase.

The proposed action is also located within a potential area of former unexploded ordnance sites. All work shall be cleared with the Military Munitions Response Program Manager at Beale prior to initiation of construction.

4.0 CONCLUSION

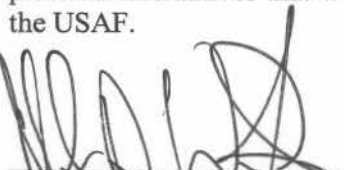
Based on the provisions set forth in the Proposed Action, all activities were found to comply with the criteria or standards of environmental quality and coordinated with the appropriate Federal, state, and local agencies. The attached Environmental Assessment (EA) and a draft of this Finding of No Significant Impact/Finding of No Practicable Alternative (FONSI/FONPA) were

made available to the public on 21 October 2006 for a 15-day review period. No comments were received.

5.0 FINDINGS

Finding of No Practicable Alternative. Reasonable alternatives were considered, but no other alternative to the Proposed Action meets the safety or operational requirements of the 9th Reconnaissance Wing (9 RW). Pursuant to Executive Orders 11988 and 11990 and the authority delegated by Secretary of the Air Force Order 791.1, and taking the above information into account, I find that there is no practicable alternative to this action and that the Proposed Action includes all practicable measures to minimize harm to the environment. This decision has been made after taking into account all submitted information, and considering a full range of practical alternatives that would meet project requirements and are within the legal authority of the USAF.

Finding of No Significant Impact. After review of the EA prepared in accordance with the requirements of the National Environmental Quality Act (NEPA), the Council on Environmental Quality (CEQ) regulations, and the Environmental Impact Analysis Process (EIAP), 32 CFR Part 989, as amended, and which is hereby incorporated by reference, I have determined that the Proposed Action would not have a significant impact on the quality of the human or natural environment. An Environmental Impact Statement (EIS) will not be prepared. This decision has been made after taking into account all submitted information, and considering a full range of practical alternatives that would meet project requirements and are within the legal authority of the USAF.



MARK D. WRIGHT
Colonel, USAF
Deputy Director of Installations (A7)

23 Jun 2007

Date

1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

1.2 LOCATION OF THE PROPOSED ACTION

Beale Air Force Base (AFB) is located in Yuba County approximately 40 miles north of the City of Sacramento, California and 12 miles east of the City of Marysville (Figure 1-1). The location of the proposed facility addition/renovation work, parking lots and tech pad are located in the southern portion of the main base (Figure 1-2).

The Air Force (AF) Distributed Common Ground System (DCGS) is part of a world wide intelligence mission that provides support to the Department of Defense (DOD) intelligence programs. In 2004 Beale AFB acquired the DCGS intelligence mission that will bring additional manpower and equipment to Beale AFB in 2006. This workload will enhance current intelligence capabilities at Beale and expedite the process of providing timely intelligence data to worldwide combat operatives. Locating this mission at Beale AFB will involve installing new equipment and bringing 350 additional personnel to Beale.

1.4 PURPOSE AND NEED FOR THE PROPOSED ACTION

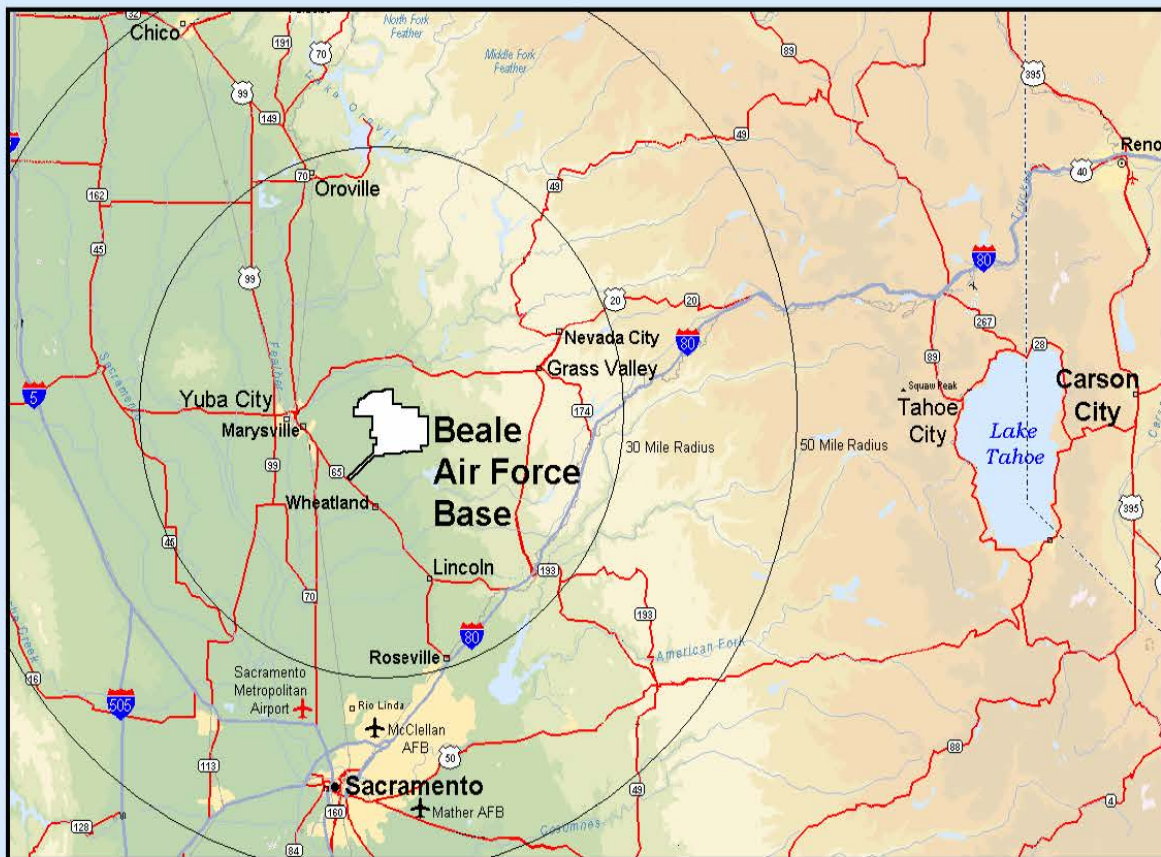
The proposed action will provide space to permanently bed down the Deployable Ground System 2 (DGS-2) mission now housed in shelters on a Technical Pad (Tech Pad) south of B/23260. Currently the existing facility (B/23260) cannot support the 350 additional personnel and equipment that will come with the mission. There is a need for additional equipment storage space, and workspace for the additional employees as well as parking. The current workload also involves frequent exchange of information with an adjacent facility, B/2145. Due to the frequent exchange of sensitive information between the facilities it is crucial that the new DCGS workload also be housed in the same general area with similar intelligence workload. Without the project the base would not be able to support the worldwide intelligence operations that come with the new DCGS mission.

1.4.1 SITE SELECTION CRITERIA

The site for the proposed DCGS facility must meet several selection criteria for consideration:

- a) Must be located in close proximity to the existing intelligence facility (B/2145) and equipment. This would ensure efficient, effective coordination of the unit's efforts and minimize travel time between B/2145 and B/23260.
- b) Should be located consistent with future land use shown in base general plan and within existing development zones.
- c) Should be located in an area that has similar security levels requirements.

- d) Should be located where impacts to vernal pools, wetlands or other sensitive biological resources are minimized.
- e) Should try to avoid being located on an Environmental Restoration Program (ERP) site.



VICINITY MAP



REGIONAL MAP

**Figure 1-1
Vicinity Map, Beale**



BEALE AIR FORCE BASE

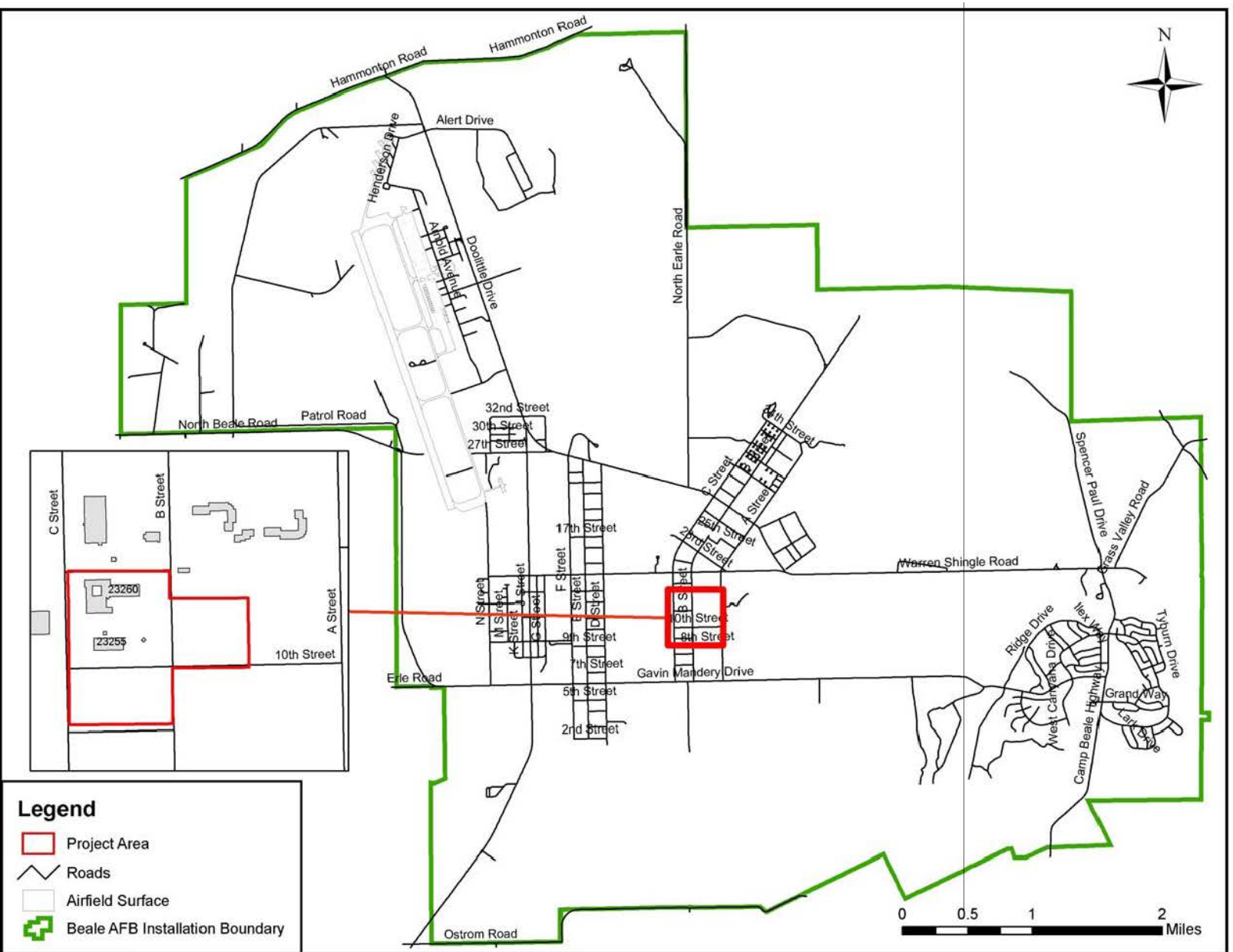


Figure 1-2 Project Location

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The new addition to B/23260 will co-located most DCGS operations and administrative functions in a single, expanded building and provide space to accommodate increased staffing and technology upgrades assigned by the Air Force.

The proposed action will consolidate the intelligence functions currently being conducted in B/2145 and B/23260 into a single campus. The proposed action is to construct a 90,000 square foot addition to B/23260 to house 350 additional DCGS personnel and equipment. In addition 2 large parking lots will be constructed and an equipment tech pad. The south end of the facility will also conduct interior renovations to convert warehouse area into office space. See figure 2-1.

The following is a listing of other minor aspects of the proposed action that will take place within the area of the existing B/23260 and B/23255:

- Install a landscaping berms adjacent to B/ 23260
- Construct a small parking lot adjacent to the B/23260 addition
- upgrade to the electrical system at B/ 23260
- Extension of utilities and communication lines to serve the B/ 23260 addition
- Construct a new loading dock

This area proposed for the addition/renovation is currently used as a parking lot. The two parking lots and tech pad will be constructed on adjacent parcels that are currently undeveloped grassland.

2.2 ALTERNATIVE ACTIONS

2.2.1 NO ACTION

Under the no-action alternative, the present facility configuration and environment would remain unchanged. The parking lot would also not be constructed. This alternative would not meet the mission requirements and operational commanders would be denied vital, real-time data. Additional staff and equipment would have to be located in other areas of the base and would make information difficult to access and transfer.

2.3 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

2.3.1 NEW FACILITY CONSTRUCTION

A new, stand-alone DCGS facility located on adjacent land would be constrained by the existing B/2145 to the north, new dormitories to the east and ERP investigations to the west. There would also not be enough room to construct a new facility and meet security clearzones around the facility. Additional constraints include vernal pools on adjacent property. This is not the best alternative because the DCGS work in B/23260 works hand

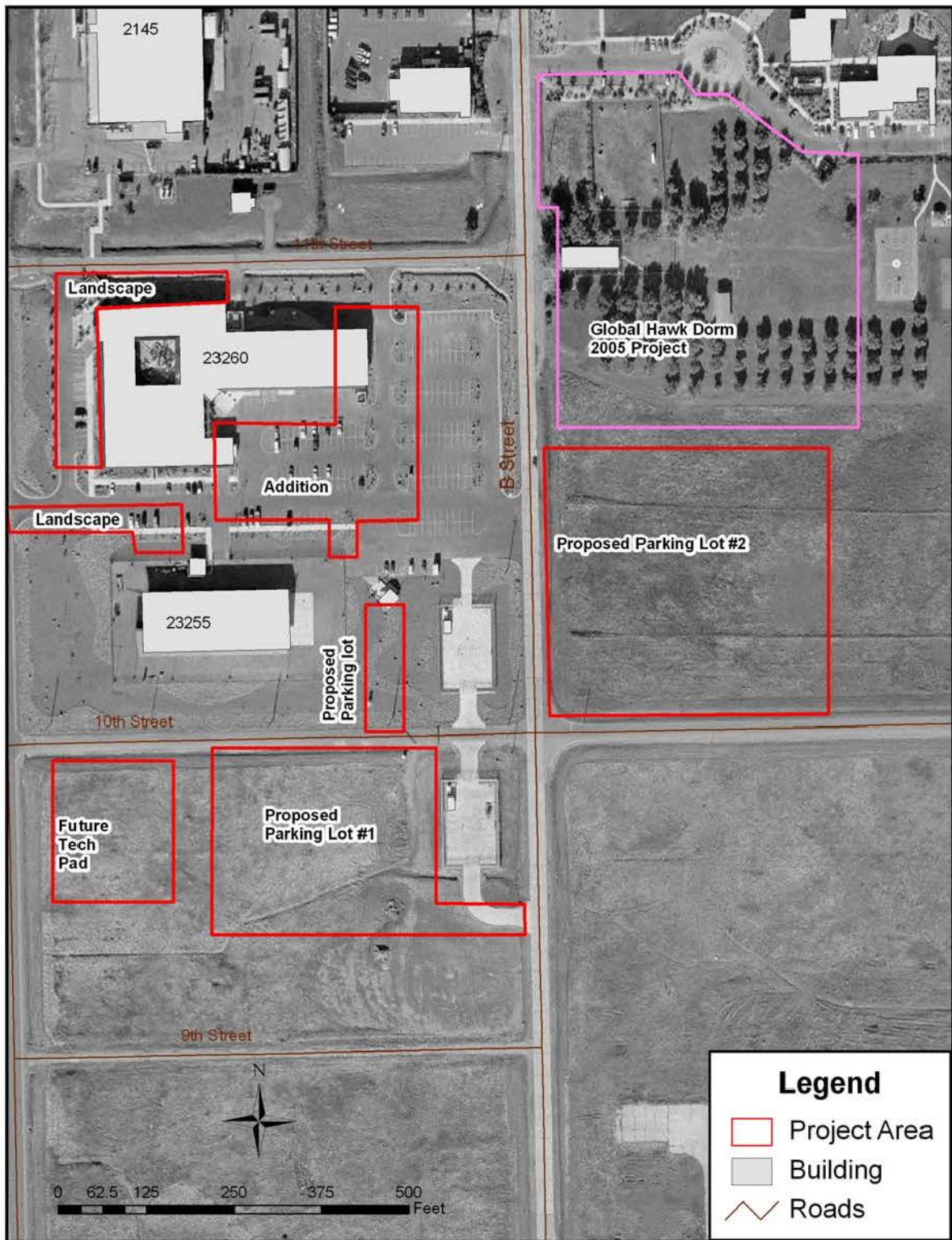


Figure 2-1 Proposed Project

in hand with adjacent facilities who also conduct intelligence work. In addition the existing facility (B/23260) was only constructed in the recent years so that the work could be co-located with other intelligence work done in adjacent facilities. Keeping secure workloads in the same area is key from a security standpoint as well as enhances productivity by making information exchange more efficient. If a new facility was constructed it would have to be done at another location and would not meet the selection criteria, therefore was eliminated from further analysis.

3.0 AFFECTED ENVIRONMENT

In compliance with The National Environmental Policy Act (NEPA), CEQ guidelines, and 32 CFR Part 989, as amended, the description of the affected environment focuses on those resources and conditions potentially subject to impacts. This EA has considered all environmental resources however detailed analysis of some environmental resource categories has been limited in this EA because they are not likely to be affected by the proposed action.

3.1. RESOURCES ELIMINATED FROM FURTHER DETAILED ANALYSIS

Environmental Justice

Environmental justice concerns the disproportionate effect of a federal action on low-income or minority populations. Because the proposed action is situated within the boundaries of Beale AFB, impacts to low-income and minority populations are not expected and have been eliminated from further analysis.

Transportation

Implementation of the proposed action is not expected to affect transportation resources. No major roads would be constructed or modified due to the proposed action, no major influx of people would occur, and no effects to transportation networks are expected. Movement of construction equipment both inside and outside the project area would be of short duration and would have minimal effect to existing on and off base road systems. Because of the lack of expected impacts, transportation resources have been eliminated from further analysis.

Land Use and Aesthetics

Land use of the project area and surrounding environment would not change from its current state. In addition the base General Plan identifies the area as multi-use and industrial. The proposed action would be compatible with the planned use. The facility project area is currently a paved parking lot. The proposed parking lot site is currently disturbed annual grassland, surrounded by streets, covered primarily by invasive weeds. This change in land use is minor once the project is complete. Visually the area would have minimal changes from the current visual sensitivity. Therefore, the proposed action is not expected to significantly impact the land use and aesthetics of the base or its surrounding area, and has been eliminated from further analysis.

Noise

Aircraft and surface traffic noise are the major sources of noise within the base boundaries as well as adjacent property off base. Short-term noise generated from construction activities at the proposed project would be isolated. Additionally, construction activities would occur only during daytime hours. Because construction noise would be temporary and there are few nearby noise-sensitive land uses, and all

noise ordinances would be in compliance, effects are expected to be less than significant, and have been eliminated from further analysis.

Cultural Resources

A cultural resources survey has been conducted and no archeological sites have been identified within the boundaries of the proposed action (CRMP, BAFB 2005). Therefore the effects to cultural resources are insignificant and have been eliminated from further analysis.

Socioeconomics

Current estimates of the manpower increase for the DCGS workload is 350 personnel, or a 3% increase to the existing base population. The base has operated at a much higher population in the past years so this additional population is considered to be insignificant; therefore socioeconomics have been eliminated from further analysis.

3.2 BIOLOGICAL RESOURCES

This section is an assessment of biological communities to include wildlife, vegetation and wetland resources in the study area. It is based on field surveys and information contained in the following documents:

Integrated Natural Resources Management Plan (EDAW, 2005)

Wetland Delineation for Vernal Pool/Seasonal Wetland Restoration Design at Beale Air Force Base (Jones and Stokes June 2000)

Draft Habitat Conservation and Management Plan for Beale Air Force Base (Jones and Stokes 1999)

WINDO (Wing Infrastructure Development Outlook) Wetland Delineation (E2M 2005)

This section describes the following aspects of the biological community within the affected environment:

- Annual grasslands
- Wetland resources
- Special-status species

3.2.1 Annual Grasslands

Annual grassland is an upland plant community (habitat) dominated by nonnative grasses, but containing a diverse assemblage of native and nonnative forbs. Nonnative annual grasses and weedy annual and perennial forbs dominate this habitat type. Vegetation in the annual grassland is dominated by species that are rarely found in wetlands.

A majority of the Proposed Action occurs in annual grasslands. Most of the annual grasslands affected by the Proposed Action are previously disturbed and dominated by ruderal vegetation. The lower species diversity common in ruderal habitat generally provides less value to wildlife than the higher species diversity found in native annual grassland habitat. Annual grasslands at Beale AFB provide foraging habitat and cover to numerous locally and regionally common wildlife species. The majority of annual grasslands that would be affected by the Proposed Action have been subject to disturbances from human activity. The area proposed for the parking lots and tech pad are disturbed annual grassland with scattered wetlands.

The annual grassland in this area provides suitable habitat for local burrowing owl populations. An area adjacent to the proposed action at parking lot 1 has a large rubble pile that currently provides habitat for burrowing owls.

3.2.2 Wetland Resources

Vernal pools and depressional seasonal wetlands occurring on Beale AFB are found predominantly in the western, central, and southern portions of the base.

Vernal pools are small, shallow, seasonal bodies of water formed by precipitation accumulating in depressions over an impervious claypan or bedrock bottom. They provide unique habitat for plants which germinate as aquatic or semi-aquatic plants, but which must adapt to terrestrial life and a dryland environment as the pool dries. The dominant species in typical vernal pools at Beale AFB are coyote thistle (*Eryngium yaseyi*), Fremont goldfields (*Lasthenia fremontii*), white-flowered navarretia (*Navarretia leucocephala*), annual hairgrass (*Deschampsia danthonioides*), field owl's-clover (*Castilleja campestris*), and ornate downingia (*Downingia ornatissima*).

Vegetation in the vernal pools is dominated by species that are usually found in wetlands. Disturbed seasonal wetlands are wet areas that have been degraded by human or livestock activities, such as clearing, grading, trampling, or grazing. Because these are recently formed features, the vegetation is similar to that of vernal pools. Seasonal wetlands, including vernal pools, at Beale AFB provide important foraging and breeding habitat and cover for wetland wildlife and invertebrates. The high densities of terrestrial and aquatic invertebrates (e.g., ostracods, copepods, flatworms, and mosquito larvae) in wetland habitats provide an abundance of food for wildlife. Many wildlife species feed on the aquatic invertebrates found in seasonal wetlands or in areas adjacent to these wetlands.

Vernal pools and seasonal wetlands occur within and adjacent to the Proposed Action (Fig 3-1). There are .072 vernal pool/seasonal wetlands within the proposed action site and .05 vernal pool/seasonal wetlands within 100 feet of the proposed action site.

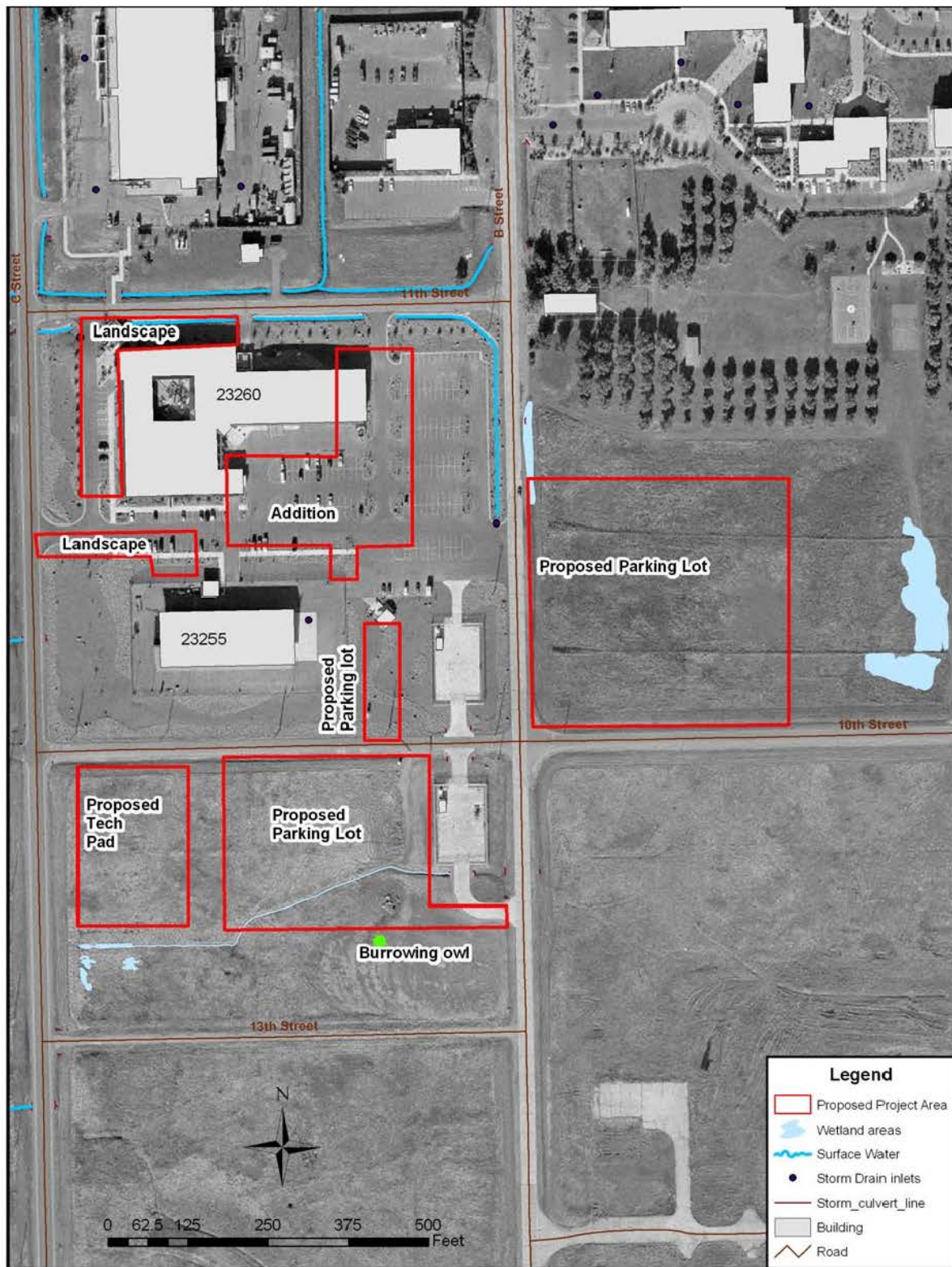


Figure 3-1 Wetlands Within and Adjacent to the Proposed Project Site

3.2.3 Special Status Species

Plants

There are four plant species formally protected under Federal or state law that are found in Yuba County: Hartweg's golden sunburst (*Pseudobahia bahiifolia*), hairy Orcutt grass (*Orcuttia pilosa*), Hoover's spurge (*Chamaesyce hooveri*), and slender Orcutt grass (*Orcuttia tenuis*). None of these have been observed on Beale AFB. A fifth species, Greene's tuctoria (*Tuctoria greene*), is proposed for Federal listing but has not been observed on Beale AFB.

Animals

There are 13 animal species formally protected under Federal or state law that are found in Yuba County. Two of those species occur in the vicinity of the Proposed Action.

The federally protected vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardi*) habitat occurs within the boundaries of the proposed action.

The federally-protected bald eagle is an irregular migrant to the area, and cannot be considered to be using the base for more than occasional foraging.

The state-protected white-tailed kite – present on the base year-round - cannot be considered to use the project site for more than occasional foraging.

The state-protected golden eagle – a year-round visitor to the base - cannot be considered to use the project site for more than occasional foraging.

The state-protected American peregrine falcon - an irregular visitor to the base - cannot be considered to use the project site for more than occasional foraging.

The federally-protected valley elderberry longhorn beetle and giant garter snake have not been observed on the project site, and the habitat is not suitable for their presence.

The state-protected black rail has not been observed on the project site.

The state-protected Swainson's hawk and greater sandhill crane have not been observed on the project site.

The federally-protected Central Valley steelhead and Chinook salmon have not been observed on the project site.

3.3 SOILS

The Yuba County soil survey indicates the soil map unit found at the project site contains Pardee Gravelly Loam.

Pardee Gravelly Loam is found in many portions of Beale AFB. Pardee soils are shallow, well-drained soils and are formed in gravelly and cobbly alluvial traces above unrelated igneous bedrock. Elevations range from 120 to 250 feet above mean sea level. Infiltration rates are moderately slow to moderate. The primary limitations to development on this soil are its shallow depth to bedrock and potential to perch water.

3.4 WATER RESOURCES

Surface Water

Beale AFB has three main creeks that serve as the principal drainage system for the area: 1) Reeds Creek along the northwest border of the base, 2) Hutchinson Creek in the central portion and 3) Dry Creek in the southeast. Runoff in all three creeks ultimately flows south and west into either the Bear River or the Feather River. Hutchinson Creek serves as the principal surface drainage system for the project area (Figure 3-2).

Jurisdictional Waters of the U.S.

The USACE recognizes three distinct types of drainage features: ephemeral drainages, intermittent drainages, and perennial drainages. Ephemeral drainages are fed primarily by storm water. They convey flows during and immediately after storm events, but they might stop flowing or begin to dry if the interval between storms is long enough. Intermittent drainages are fed primarily by groundwater and supplemented by storm water. After the onset of rains they should have persistent flows through and past the end of the rainy season. Eventually, depending on the availability of groundwater, these features become dry. Perennial drainages are fed predominantly by groundwater and supplemented by storm water. Flows in these systems persist throughout the year (Foothill 2004).

The proposed project site where parking lot 1 is planned has a small jurisdictional seasonal drainage that runs east to west. It receives water from the Bst roadside drainage however this drainage does not have an outlet at Cst. Because this area has poor drainage a seasonal wetland has been created at the Cst end of the drainage. This drain that crosses the project site also overflows in heavy rain events and feeds water to seasonal wetlands adjacent to the drainage. Construction of the parking lot and tech pad in this area shall incorporate proper displacement of the water from the parking and tech pad area.

Groundwater

Yuba County lies over the north-central portion of the Central Valley groundwater basin, which is an extensive aquifer extending approximately 400 miles from Red Bluff to Bakersfield and averaging 40 miles wide. This aquifer is a complex system of different groundwater basins composed of stratified sand, silt, and clay layers many thousands of feet thick. Groundwater at Beale AFB is found 300 to 500 feet below ground surface and is presumed to originate in unconfined aquifer materials with local clay/silt lenses

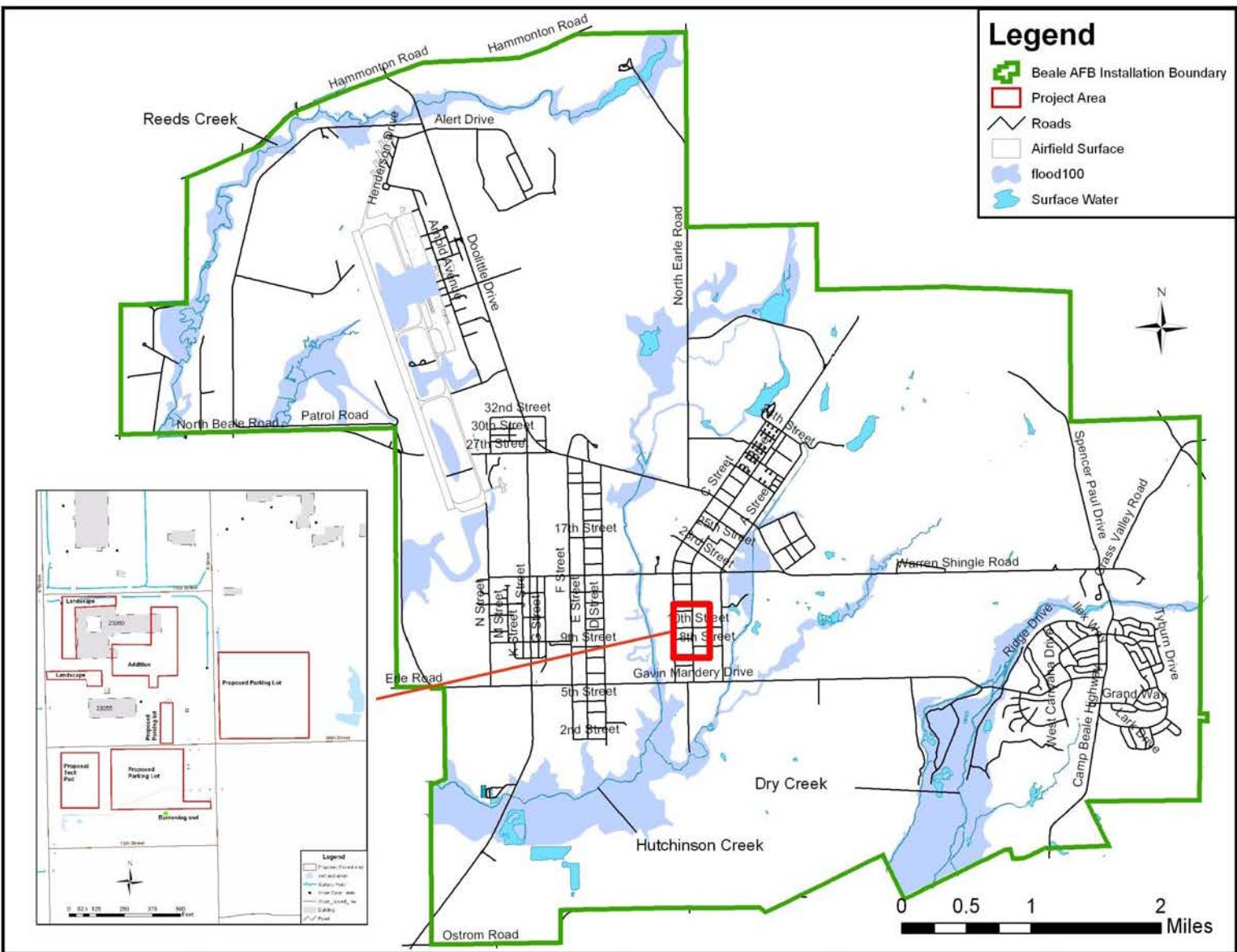


Figure 3-2 Drainages and Floodplains

overlying the Central Valley groundwater basin. Groundwater in the northern portion of the base receives recharge from the Yuba River drainage basin and generally has the highest quality at the base, with low levels of total dissolved solids, nitrates, and sulfates; groundwater in the central portion of the base has higher levels of total dissolved solids; and groundwater at the south end of the base receives recharge from Dry Creek and Bear River and has quality between that of the north and central regions. Water for domestic use at Beale AFB is provided from nine wells on the base.

Total water use at the base varies from 2.5 to 6.0 million gallons per day. The wells have a total combined pumping capacity of 5.0 million gallons per day. Water quality meets primary drinking standards, but not secondary water quality standards for iron and manganese, for which the only treatment is chlorination and fluoridation (BAFB 1999).

Floodplains

Creeks at Beale AFB are surrounded by wide floodplain areas created by the occasional heavy rainfall that occurs in the region, impervious soil conditions, and lack of topographic relief. The location of the 100-year floodplain at Beale AFB is shown in Figure 3-2. Various areas along major drainages at Beale AFB (Dry, Reeds, and Hutchinson creeks; and Best Slough) are within the 100-year floodplain. These floodplains flood periodically to varying degrees. Portions of the flightline, cantonment, military family housing, and riparian areas are within these floodplains (BAFB 1999).

AIR QUALITY

Beale AFB is located in Yuba County within the Feather River Air Quality Management District (FRAQMD). The FRAQMD is classified as a non-attainment area for ozone (Federal and State) and PM₁₀ (Particulate Matter, State). Principal emission sources on the base include aircraft flight operations, base support activities (painting operations, corrosion control, and construction, etc.) and on-base boiler and space heating units. Vehicle traffic and commuting by off-base residents also constitute pollutant sources.

Ozone is a secondary pollutant since it is formed in the air when sunlight triggers chemical reactions between naturally occurring atmospheric gases and pollutants such as nitrogen oxides and Volatile Organic Compounds (VOCs). The sources of ozone precursors (nitrogen oxides and VOCs) are mobile sources, solvent use and fuel combustion.

PM₁₀ is a primary pollutant and is produced either by human activity or naturally. The sources of particulate matter emissions are agricultural practices (rice burning and working the fields), construction activities, mineral processes and entrained road dust.

Air quality in a given location is determined by the concentration of various pollutants in the atmosphere. National Ambient Air Quality Standards (NAAQS) are established by the U.S. Environmental Protection Agency (USEPA) for “criteria pollutants,” including ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter equal to or less than 10 microns in diameter (PM₁₀), particulate matter equal to or less than 2.5 microns in diameter (PM_{2.5}), and lead (Pb). NAAQS represent maximum levels of background pollution in the ambient air that are considered safe, with an adequate margin of safety to protect public health and welfare (see Table 3-2).

The California Environmental Protection Agency (Cal-EPA), California Air Resources Board (CARB) has delegated responsibility for implementation of the Federal Clean Air Act (CAA) and California CAA to local air pollution control agencies. The Proposed Action is in the Feather River Air Quality Management District (FRAQMD) and is subject to rules and regulations developed by the FRAQMD.

The State of California adopted the NAAQS and promulgated additional State Ambient Air Quality Standards (SAAQS) for criteria pollutants. The California standards are more stringent than the Federal primary standards. Table 3-2 presents the primary and secondary NAAQS and SAAQS that apply to air quality in California.

Under the General Conformity Rule, the CAA prohibits Federal agencies from performing projects that do not conform to a USEPA-approved State Implementation Plan (SIP). In 1993, USEPA developed final rules for how Federal agencies must determine air quality conformity prior to implementing a proposed Federal action. Under these rules, certain actions are exempt from conformity determinations, while others are assumed to be in conformity if total project emissions are below *de minimis* levels established under 40 CFR 93.153. Total project emissions include both direct and indirect emissions caused by the Federal action.

USEPA classifies the air quality in an air quality control region (AQCR) or in sub-areas of an AQCR according to whether the concentration of criteria pollutants in ambient air exceeds the primary or secondary NAAQS. All areas within each AQCR are therefore designated as either “attainment,” “non-attainment,” or “unclassified” for each of the six criteria pollutants. Attainment means that the air quality within an AQCR is better than the NAAQS, nonattainment indicates that air quality exceeds NAAQS, and an unclassifiable air quality designation by USEPA means that there is not enough information to appropriately classify an AQCR, so the area is considered attainment.

Table 3-2. National and State Ambient Air Quality Standards

Pollutant	Standard Value		Standard Type
Carbon Monoxide (CO)			
8-hour Average	9 ppm ^a	(10 mg/m ³) ^{b, c}	Primary and Secondary
1-hour Average	35 ppm	(40 mg/m ³) ^{b, c}	Primary
8-hour Average	9 ppm ^a	(10 mg/m ³) ^{b, c}	Primaryand Secondary
1-hour Average	20 ppm	(23 mg/m ³) ^{b, c}	State Only Primary
Nitrogen Dioxide (NO ₂)			
Annual Arithmetic Mean	0.053 ppm	(100 µg/m ³) ^{b, d}	Primary and Secondary
1-hour Average	0.25 ppm	(472 µg/m ³) ^{b, d}	State Only Primary
Ozone (O ₃)			
1-hour Average	0.12 ppm	(235 µg/m ³) ^d	Primary and Secondary
8-hour Average	0.08 ppm	(157 µg/m ³) ^d	Primary and Secondary
1-hour Average	0.09 ppm	(180 µg/m ³) ^d	State Only Primary
Lead (Pb)			
Quarterly Average		(1.5 µg/m ³) ^d	Primary and Secondary
Monthly Average		(1.5 µg/m ³) ^d	State Only Primary
Particulate ≤ 10 microns (PM ₁₀)			
Annual Arithmetic Mean		(50 µg/m ³) ^d	Primary and Secondary
24-hour Average		(150 µg/m ³) ^d	Primary and Secondary
Annual Arithmetic Mean		(20 µg/m ³) ^d	State Only Primary
24-hour Average		(50 µg/m ³) ^d	State Only Primary
Sulfur Dioxide (SO ₂)			
Annual Arithmetic Mean	0.030 ppm	(80 µg/m ³) ^{d, e}	Primary
24-hour Average	0.14 ppm	(365 µg/m ³) ^d	Primary
3-hour Average	0.50 ppm	(1300 µg/m ³) ^d	Secondary
1-hour Average	0.25 ppm	(655 µg/m ³) ^d	State Only Primary

Notes:

^a ppm – parts per million

^b Parenthetical value is an approximately equivalent concentration

^c mg/m³ – milligrams per cubic meter

^d µg/m³ – micrograms per cubic meter

The General Conformity Rule requires that any Federal action meet the requirements of a SIP or Federal Implementation Plan (FIP). More specifically, CAA Conformity is assured when a Federal action *does not* cause a new violation of an NAAQS; contribute to an increase in the frequency or severity of violations of NAAQS; or delay the timely attainment of any NAAQS, interim progress milestones, or other milestones toward achieving compliance with the NAAQS.

The conformity rule applies only to actions in nonattainment or maintenance areas and considers both direct and indirect emissions. The rule applies only to Federal actions that are considered “regionally significant” or where the total emissions from the action meet or exceed the *de minimis* thresholds. An action is regionally significant when the total nonattainment pollutant emissions exceed 10 percent of the AQCR’s total emissions inventory for that nonattainment pollutant. If a Federal action meets the *de minimis* threshold requirements and is not considered regionally significant, then a full Conformity Determination is not required.

Beale AFB is in Yuba County which is within the Sacramento Valley Intrastate AQCR. FRAQMD is responsible for implementing and enforcing state and Federal air quality regulations in Yuba County, Sutter County, and portions of Northern Sacramento Valley Air Basin (NSVAB). The air quality in the FRAQMD has been characterized by USEPA as a *moderate* transitional nonattainment area for O₃ and unclassifiable/attainment for all other criteria pollutants.

3.6 HAZARDOUS MATERIALS AND WASTE MANAGEMENT

Hazardous Materials and Waste The 9 CES/CEV is responsible for the hazardous material and waste plans for the installation. In conformance with the policies established by Air Force Policy Directive (AFPD) 32-70, 9 CES/CEV has developed plans to manage hazardous materials, hazardous wastes, and special hazards on the base. Base and contractor personnel collect hazardous wastes at initial accumulation points. From the initial accumulation points, wastes are taken to the centralized accumulation site on the base and shipped to off-base disposal facilities. In accordance with the Beale AFB Hazardous Waste Management Program, hazardous wastes are stored on base for a maximum of 75 days.

Asbestos-Containing Material (ACM). A survey was performed on B/s at Beale AFB to locate, identify, and evaluate any materials containing asbestos. Materials that might contain asbestos include thermal-system insulation and floor tiles.

B/ 23260 was constructed in 1996, therefore use of asbestos in this facility is highly unlikely.

Lead-Based Paint (LBP). Beale AFB has conducted a survey of B/s for the presence of LBP. The survey mainly focused on child-occupied facilities. The results of the survey are maintained in an LBP database at Beale AFB.

B/ 23260 was constructed in 1996, therefore is not expected to have used any lead based paint used on the this facility.

Environmental Restoration Program (ERP). The ERP at Beale AFB began in 1984 with a base-wide records search that identified 16 ERP sites for further investigation (see Figure 3-2). Primary contaminants in the soil and water include fuels, oils, pesticides, herbicides, waste solvents, and inorganic compounds. Progress under ERP is closely coordinated with various regulatory agencies, including the Cal-EPA Department of Toxic Substance Control (DTSC) and the California Regional Water Quality Control Board (CRWCB).

The Proposed project site is located within ERP site 39. Possible soil contaminants include PCB's (Polychlorinated biphenyls), dioxins and lead. Groundwater and soil vapors beneath this site may include solvents [Trichloroethylene (TCE) and Tetrachloroethene (PCE)]. This site currently has ongoing remediation for removal of solvents from both the soil and groundwater. Investigations also continue on the property west of B/2145 to further define the extent of contamination.

4.0 ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION AND ALTERNATIVES

BIOLOGICAL RESOURCES

4.1.2 Proposed Action

Impact: Disturbance of Sensitive Habitat

Construction activities for the facility expansion would result in direct permanent disturbance of 0.04 acres seasonal wetlands. The following measures would be implemented to mitigate for this effect.

Avoidance Measure 1: Monitor Construction Activities. A qualified biologist would monitor all construction activities to ensure compliance with avoidance, minimization and compensation components of the proposed action. The biological monitor would assist construction personnel in compliance with all conservation measures and guidelines. The monitor would be responsible for directing the placement of all stakes, flags, and barriers protecting sensitive resources.

Avoidance Measure 2: Conduct a Biological Resources Education Program for Construction Crews and Enforce Construction Restrictions. The biological monitor would conduct environmental awareness training for construction crews before and during project implementation. The education program would briefly cover vernal pools and their associated endangered species and wetlands that might be encountered during the project. Awareness training would cover all restrictions and guidelines that must be followed to avoid or minimize impacts on vernal pools, sensitive species and wetlands.

Restrictions and guidelines that would be observed by construction crews include:

- Orange construction barrier fencing would designate exclusion zones where construction activities cannot take place. Fencing or other barriers would remain in place until all construction activities involving heavy equipment are completed.
- All materials, vehicle parking, and staging areas should be located at least 50 feet away from wetlands and drainages and shall be in compliance with the existing base spill control plan to prevent contamination of surface waters.
- All construction would take place during the dry season (May-Nov).
- Motor vehicles and equipment would be serviced in designated service areas.

Avoidance Measure 3: Fence Boundaries of Adjacent Vernal Pools and Seasonal Wetlands. Wetlands adjacent to the construction site would be protected by placing orange barrier fence. The fencing would be done before construction commences to ensure that construction vehicles, equipment and personnel would not enter areas that have potential to be occupied by vernal pool shrimp. The location of these fences would be marked on construction plans and their placement monitored by the biological monitor. The project proponent would remove all stakes and flagging within 60 days of construction completion.

Avoidance Measure 4: Compensation for Direct and Indirect Impacts on Special-Status Species. The project proponent should avoid, minimize or compensate for project-related impacts on federally listed species. According to the USFWS Programmatic Biological Opinion, projects must compensate for adverse effects on the habitat of listed vernal pool invertebrates by preserving unaffected habitat and restoring new habitat that is eliminated as a result of the Proposed Action.

- For every acre of habitat directly affected by the Proposed Action, 2 acres of branchiopod habitat (vernal pools and depressional seasonal wetlands) would be preserved and 1 acre would be restored on Beale AFB or at another ecosystem preservation bank approved by the USFWS.
- For every acre of branchiopod habitat indirectly affected by the Proposed Action, 2 acres of similar branchiopod habitat would be preserved on Beale AFB or at another ecosystem preservation bank approved by the USFWS.
- To compensate for potential impacts (0.072 acres) from the proposed action, 0.144 acres of similar habitat would be preserved, and 0.072 acre would be restored at the approved mitigation site on Beale AFB (Figure 4-1).

Avoidance Measure 5: Survey and Relocate Burrowing Owls Prior to February 2007. On-site passive relocation shall be implemented to encourage owls to move from the occupied burrows within the project boundaries to an alternate burrow created on adjacent property.

Spring 2006: Survey. A breeding season survey shall be conducted in between February 2006 and August 2006 to determine the current population of owls using the existing rubble pile on the proposed project site. This information will help to determine size requirements for the burrowing owl habitat that will be created to relocate the existing owl population.

Summer 2006. Create new burrows on adjacent property.

Fall 2006. Exclude owls from existing burrows. Once breeding season is complete (August 2006), the current population of owls will be shut out of their burrows in the rubble pile. This will ensure no owls shall be occupying the rubble pile when construction starts in summer 2007. The new habitat will already be in place to help simplify the relocation process.

Summer 2007. Owls are relocated and construction begins.

4.1.3 Alternative 1: No Action

No adverse effects to biological resources are expected from the No-Action Alternative

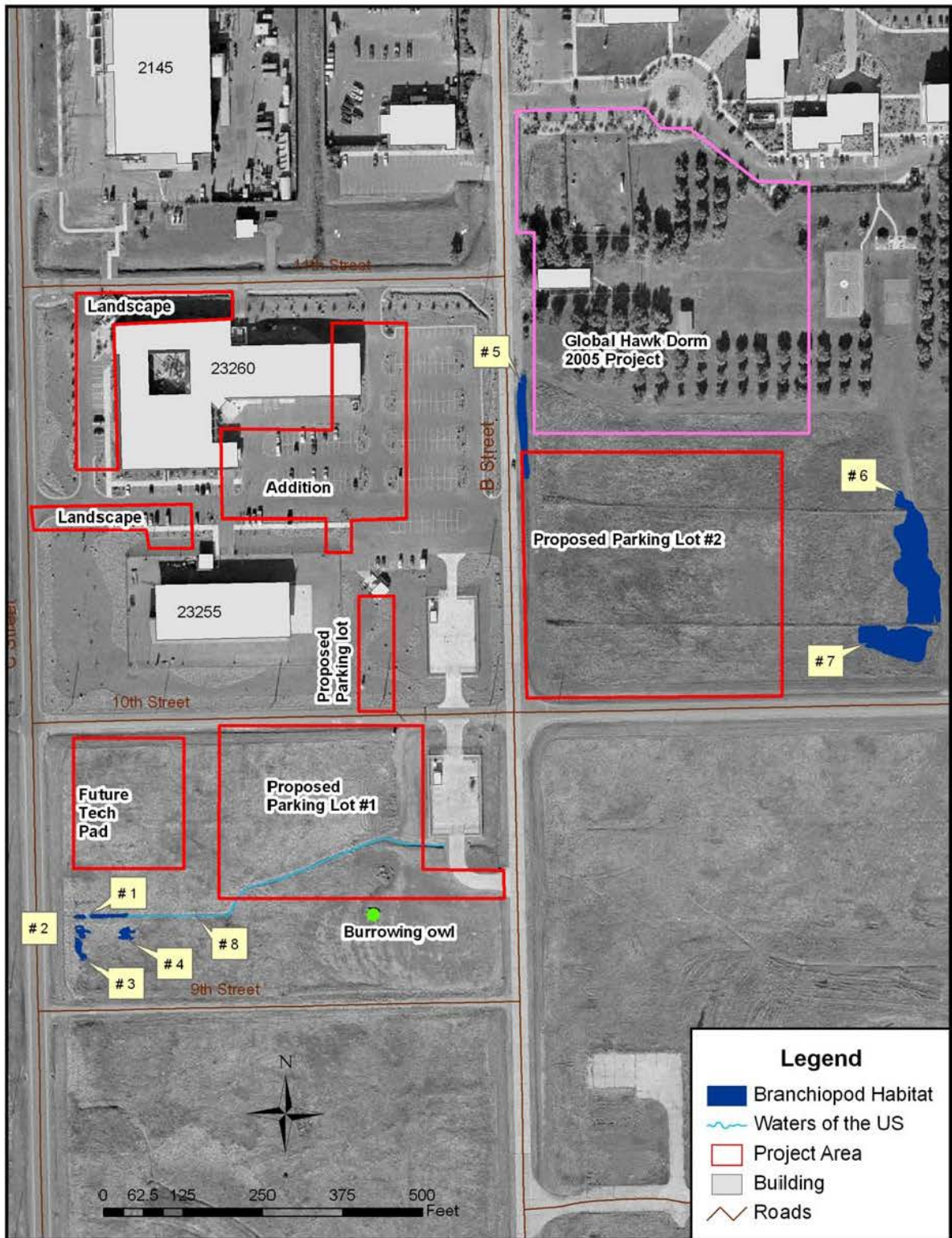


Figure 4-1 Branchiopod Habitat and Waters of the U.S.

4.1.4 Cumulative Effects

No significant cumulative effects to biological resources are expected because the proposed action and alternative and would not result in any significant direct, indirect, or secondary impacts on biological resources.

4.2 SOILS

4.2.1 Proposed Action

If selected, the proposed action would require detailed planting, grading plans and soils management prior to start of construction. The Proposed Action plan has no short or long term effects on soils or geologic resources.

4.2.2 Alternative 1: No Action

The No-Action Alternative would not result in any substantial effects on existing soils or geology.

4.2.3 Cumulative Effects

Neither the proposed project nor the alternatives would result in any substantial cumulative effects on soils or geologic resources.

4.3 WATER RESOURCES

4.3.1 Proposed Action

4.3.1.1 Surface Water

Implementation of the Proposed Action is expected to have no direct or indirect adverse effects on water quality. The Proposed Action would minimally increase the impervious surface area and runoff on the installation. Storm water runoff would flow into drainage systems that are of sufficient capacity. With adherence of best management practices, adverse effects from erosion would be avoided. Therefore, significant impacts to surface waters would not be expected as a result of the Proposed Action.

Construction of the facility expansion shall not interrupt flow to and from the drainage near the project site, which carries water into Hutchinson Creek. Because the new facility space would replace existing parking lot space, surface flow into the drainages would not change significantly from existing conditions. Therefore construction of the facility expansion would have no significant effects on surface water runoff within the specific drainage basin of the proposed project site. The new parking lots would reduce permeability and concentrate surface water flow from these areas. Due to the relatively

small size of the parking lots, these effects are minor resulting in no significant impacts to surface water. In addition, surface water drainage shall be incorporated into the design process to ensure water is captured and draining these areas efficiently.

Impact: Increase of surface runoff by parking lot creation:

Creation of parking lots and tech pad will displace some surface water that would previously have percolated back into the ground. This will create additional surface runoff.

Avoidance Measure:

Parking lots and tech pad shall be designed to properly drain into improved drainage systems.

4.3.1.2 Water Quality

Impact: Short-Term Construction-Related Surface Water Effects

Impacts from construction activities during facility construction may occur and cause minor sedimentation at the project site or adjacent drainages.

Avoidance Measure 1: Implement Best Management Practices in Accordance with Base Storm Water Pollution Prevention Plan

- Stabilize drainages where erosion is probable.
- Provide sedimentation barriers to decrease sedimentation in drainages from the project site.
- Re-vegetate disturbed soil as soon as possible after construction with approved Beale AFB seed mix.
- Equipment would be confined to the immediate construction area, and adjacent area would be protected from disturbance by barrier fencing and worker training.
- Obtain a storm water construction permit from the California Regional Water Quality Control Board if more than an acre of soil will be disturbed or exposed during construction.

4.3.2 Alternative 1: No Action

Alternative 1 would have no change to existing surface water, water quality or groundwater conditions.

4.3.3 Cumulative Effects

Neither the proposed project nor the alternative would result in any substantial cumulative effects on water resources.

4.4 AIR QUALITY

4.4.1 Proposed Action

The proposed project would result in short-term construction related air quality impacts that would generate emissions (ROG, NO_x and PM₁₀) from construction equipment exhaust, construction worker commute and fugitive dust from soil disturbance.

Impact: Temporary Increase in Construction-Related Emissions

Construction activities would result in temporary air emissions; however, emissions would be minor due to the extent of the construction activities, the duration of the project, and the temporary nature of the construction activities. Construction workers would be exposed to dust for only very short periods of time.

Avoidance Measure: None required

Impact: Installation of New Equipment May Require Air Permits.

Avoidance Measure: An air permit may need to be obtained for the operation of new equipment in the B/ expansion area.

4.4.2 Alternative 1: No Action

Under the No-Action Alternative, no facility space would be constructed; therefore, no adverse effects on air quality are expected because current air quality conditions would not change.

4.4.3 Cumulative Effects

Short-term air emissions associated with the proposed action would not contribute to a cumulative adverse effect in the Northern Sacramento Valley Air Basin.

4.5 Hazardous Materials and Hazardous Waste Management

Neither the proposed action nor any alternative would use hazardous materials or generate hazardous waste, with the exception of fuel for the construction equipment. The construction contractor would be responsible for following applicable regulations for proper hazardous materials management and disposal of hazardous waste generated on the property. Therefore, impacts to hazardous materials and hazardous waste management are not expected.

Both the B/ expansion and parking lot 1 are sited on Environmental Restoration Program (ERP) site 39. This site contains solvents in the soil and ground water. Cleanup of the contamination is ongoing. Monitoring wells exist within the project site that will need to be maintained and ensure access to these systems continues for several years to come. Additionally, two prior underground storage sites (UST's) are located northeast and southeast of the B/ 23260. These were removed and closed out on 19 August 1996 and 22 August 1996, respectively, and closure was reaffirmed on 13 August 1998. Another

UST site exists on the western portion of the parking lot 1 site. This UST has been removed and is pending regulatory concurrence for closure of the site.

Proposed Action

Impacts to Hazardous Materials and Wastes.

Construction activities associated with the Proposed Action would require the use of certain hazardous materials such as paints, welding gases, solvents, preservatives, and sealants. It is anticipated that the quantity of products containing hazardous materials used during the construction would be minimal and their use would be of short duration. The quantity of hazardous wastes generated from proposed construction activities would be negligible. Therefore, hazardous materials and wastes at Beale AFB would not be impacted by the proposed construction activities.

Impacts to Asbestos Containing Materials and Lead-Based Paint.

Any ACM or LBP encountered during demolition of B/s would be handled in accordance with established USAF policy and the Asbestos Management Plan or Lead-Based Paint Management Plan. It is anticipated that the structure associated with the project does not contain ACM or LBPs because it was constructed in 2000. USAF regulations prohibit the use of ACM and LBPs for new construction. Specifications for new facilities would be in accordance with USAF policies and regulations.

Impacts to Environmental Restoration Program.

The Proposed Action is within ERP site 39. A construction waiver for construction on ERP site 39 was issued by HQ ACC/CEV on 29 June 2005, for project BAEY 04-0079, DCGS Parking Lot 2. This waiver identifies environmental concerns and stipulations, which are shown below. Other ERP waivers will need to be obtained for all other aspects of the project prior to construction.

Environmental Protection Measures:

Avoid contact or spread of contaminated material by complying strictly with stipulations of ACC ERP waiver.

- a. This project will comply with State of California guidance for disposal of contaminated soils/materials.
- b. Contaminated material identified during construction will be removed and disposed using project funds.
- c. Construction contractor and site workers will be informed of the potential for encountering contaminated material on the job site. Safety observers currently certified with OSHA 1910.120 Hazardous Waste Operations and Emergency response (HAZWOPER) training will be on site during all construction activities involving hazardous materials.
- d. The construction contractor's personnel shall be trained in all phases of environmental protection and pollution control. Training shall include anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants.

- e. A monitoring program during construction will be established.
- f. A site-specific Health and Safety Plan will be developed. The base CEVR has a current Health and Safety Plan that will be adopted for this project. Detailed references are available in 9 CES/CEVR's library.
- g. Procedures for decontamination of heavy equipment will be established.
- h. Provisions to safeguard the public (i.e., conspicuous signs, security arrangements, air monitoring etc.) will be implemented.
- i. An AF Form 103, (Digging Permit) will be coordinated through base civil engineering channels prior to project start-up.

No Action Alternative

Under the No Action Alternative, there would be no change in or effects on hazardous materials and wastes at Beale AFB.

5.0 Cumulative Impacts

Cumulative impacts on environmental resources result from incremental effects of the Proposed Action, when combined with other past, present, and reasonably foreseeable future projects in the area. Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (Federal, state, and local) or individuals. Informed decision making is served by consideration of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

During the timeframe of the Proposed Action, no other proposed actions are scheduled to take place near the proposed project site. Therefore, no significant impacts on the environment would be anticipated from the proposed action.

Unavoidable Adverse Impacts

Unavoidable adverse impacts would result from implementation of the Proposed Action. None of these impacts would be significant.

Biological Resources. The Proposed Action would result in minimal loss of vegetation and wildlife habitat. Because implementation of the Proposed Action would result in temporary or very minor effects on other resources on Beale AFB, the Proposed Action would not contribute to a substantial cumulative effect on other biological resources.

Geological Resources. Under the Proposed Action, construction activities, such as grading, excavating, and recontouring of the soil, would result in soil disturbance. Implementation of best management practices during construction would limit environmental consequences resulting from construction activities. Standard erosion control means would also reduce environmental consequences related to construction. Although unavoidable, effects on soils at the base are not considered significant.

6.0 REFERENCES

This report has been prepared by the United States Air Force at Beale Air Force Base, California. Those involved in preparation of this report are listed below.

U.S. AIR FORCE, BEALE AIR FORCE BASE

Preparers

Charles Carroll	Natural Resources Manager
Diane Arreola	EIAP Manager
Kirsten Christopherson	Deputy Environmental Flight Chief
Tamara Gallentine	GIS/Cultural Resources Manager

7.0 REFERENCES

- 9 CES/CEC 2004 9 Civil Engineering Squadron, Engineering Flight (9 CES/CEC). 2005. Personal communications with Mr. John Featherlin regarding project requirements for DCGS facility addition/renovation and parking lots. 2005.
- ACC 2003 Air Combat Command (ACC). 2003. *Management Action Plan Beale Air Force Base, California*. December 2003.
- BAFB 1998 Beale Air Force Base (BAFB). 1998. *Cultural Resources Management Plan for Beale Air Force Base, California*. Prepared by Harding Lawson Associates. February 1998.
- BAFB 1999 Beale Air Force Base (BAFB). 1999. *Integrated Natural Resources Management Plan Beale Air Force Base, California: Volumes I and II*. Prepared by Jones & Stokes. January 1999.
- BAFB 2000 Beale Air Force Base (BAFB). 2000. *General Plan Beale Air Force Base California*. Prepared by Higginbotham/Briggs & Associates. June 2000.
- e²M 2005 Engineering-environmental Management, Inc. (e²M). 2005. *Wing Infrastructure Development Outlook Wetland Delineation Report*.
- Sawyer and Keeler-Wolf 1995 Sawyer, Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society Press: Sacramento, CA.
- SMAQMD 1994 Sacramento Metropolitan Air Quality Management District (SMAQMD). 1994. *Thresholds of Significance*. December 1994.
- USACE 2001 U.S. Army Corps of Engineers (USACE). 2001. *Archives Search Report: Camp Beale Ordnance & Explosive Cleanup Project*. Prepared by TechLaw, Inc. October 2001.

8.0 LIST OF AGENCIES CONSULTED

USACE

Mr. Tom Cavanaugh, Regulatory Section

USFWS

Mr. Ken Fuller, Endangered Species Division