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## 3.11 Cultural Resources

### **No Action Alternative**

Under the No Action Alternative, the 1999 Congressional land withdrawal of 201,933 acres from public domain (Public Law 106-65) would expire on November 5, 2021, and military training activities requiring the use of these public lands would cease. Expiration of the land withdrawal would terminate the Navy's authority to use nearly all of the Fallon Range Training Complex's (FRTC's) bombing ranges, affecting nearly 62 percent of the land area currently available for military aviation and ground training activities in the FRTC.

### **Alternative 1 – Modernization of the Fallon Range Training Complex**

Under Alternative 1, the Navy would request Congressional renewal of the 1999 Public Land Withdrawal of 202,864 acres, which is scheduled to expire in November 2021. The Navy would request that Congress withdraw and reserve for military use approximately 618,727 acres of additional Federal land and acquire approximately 65,157 acres of non-federal land. Range infrastructure would be constructed to support modernization, including new target areas, and expand and reconfigured existing Special Use Airspace (SUA) to accommodate the expanded bombing ranges. Implementation of Alternative 1 would potentially require the reroute of State Route 839 and the relocation of a portion of the Paiute Pipeline. Public access to B-16, B-17, and B-20 would be restricted for security and to safeguard against potential hazards associated with military activities. The Navy would not allow mining or geothermal development within the proposed bombing ranges or the Dixie Valley Training Area (DVTA). Under Alternative 1, the Navy would use the modernized FRTC to conduct aviation and ground training of the same general types and at the same tempos as analyzed in Alternative 2 of the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada, Final Environmental Impact Statement* (EIS). The Navy is not proposing to increase the number of training activities under this or any of the alternatives in this EIS.

### **Alternative 2 – Modernization of Fallon Range Training Complex with Managed Access**

Alternative 2 would have the same withdrawals, acquisitions, and SUA changes as proposed in Alternative 1. Alternative 2 would continue to allow certain public uses within specified areas of B-16, B-17, and B-20 (ceremonial, cultural, or academic research visits, land management activities) when the ranges are not operational and compatible with military training activities (typically weekends, holidays, and when closed for maintenance). Alternative 2 would also continue to allow grazing, hunting, off-highway vehicle (OHV) usage, camping, hiking, site and ceremonial visits, and large event off-road races at the DVTA. Additionally under Alternative 2, hunting would be conditionally allowed on designated portions of B-17, and geothermal and salable mineral exploration would be conditionally allowed on the DVTA. Large event off-road races would be allowable on all ranges subject to coordination with the Navy and compatible with military training activities.

### **Alternative 3 – Bravo-17 Shift and Managed Access (Preferred Alternative)**

Alternative 3 differs from Alternative 1 and 2 with respect to the orientation, size, and location of B-16, B-17, B-20 and the DVTA, and is similar to Alternative 2 in terms of managed access. Alternative 3 places the proposed B-17 farther to the southeast and rotates it slightly counter-clockwise. In conjunction with shifting B-17 in this manner, the expanded range would leave State Route 839 in its current configuration along the western boundary of B-17 and would expand eastward across State Route 361 potentially requiring the reroute of State Route 361. The Navy proposes designation of the area south of U.S. Route 50 as a Special Land Management Overlay rather than proposing it for withdrawal as the DVTA. This Special Land Management Overlay would define two areas, one east and one west of the existing B-17 range. These two areas, which are currently public lands under the jurisdiction of BLM, would not be withdrawn by the Navy and would not directly be used for land-based military training or managed by the Navy.

# Environmental Impact Statement

## Fallon Range Training Complex Modernization

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### 3.11 Cultural Resources

This section describes cultural resources in the existing Fallon Range Training Complex (FRTC) as well as additional areas proposed for withdrawal or acquisition. Each alternative is then analyzed to identify actions that could impact cultural resources within these areas. Factors considered in determining whether an alternative would have significant impacts on cultural resources include the extent or degree to which the impacts of proposed actions can be managed, addressed, and minimized or mitigated through implementation of specific management practices and/or compliance measures under specific cultural resources-related statutes and regulations.

The term cultural resource applies broadly to a variety of resources subject to consideration under the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), the Archeological Resources Protection Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), Executive Order 13007 “Indian Sacred Sites,” and similar laws. Included are historic properties as defined under NHPA. Historic properties consist of districts, sites, buildings, structures, or objects that are listed or eligible for listing in the National Register of Historic Places (NRHP). Under NEPA, the consideration of cultural resource issues may include properties that do not meet NRHP criteria, such as cemeteries and certain sacred sites (Council on Environmental Quality & Advisory Council on Historic Preservation, 2013).

For purposes of this Environmental Impact Statement (EIS), cultural resources are divided into three categories: archaeological resources, architectural resources, and traditional cultural properties and sacred sites.

- Archaeological resources: Any material remains of past human life or activity. Archaeological resources can date from prehistoric and historic periods and be present in sites and/or districts. Archaeological resources may contain NAGPRA cultural items, including Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony.
  - Archaeological sites are the place or places where the remnants of a past culture survive in a physical context that allows for the interpretation of these remains.
  - Archaeological districts comprise a significant concentration, linkage, or continuity of sites united historically or aesthetically by plan or physical development.
- Architectural resources: Buildings, structures, and objects, or districts of such resources.
  - Buildings principally shelter any form of human activity.
  - Structures are for purposes other than creating human shelter. Examples include roads and bridges, military structures such as water tanks and beacons, irrigation features, and others.
  - Objects are those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed. Examples include boundary markers, mileposts, monuments, statuary, and others.
  - Districts comprise a significant concentration, linkage, or continuity of buildings, structures, or objects united historically or aesthetically by plan or physical development.
- Traditional Cultural Properties (TCPs) and Sacred sites: TCPs are historic properties that are eligible for inclusion in the National Register of Historic Places because of their association with cultural practices and beliefs of a living community that are (a) rooted in the community’s

history and (b) important to maintaining the continuing cultural identity of the community (National Park Service, 1998).

- Sacred sites are specific locations that are identified as sacred by virtue of their established religious significance to, or ceremonial use by, an Indian religion. Sacred sites may or may not be eligible for listing on the NRHP, but still subject to protection. Specifically, Indian sacred sites are any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.

### 3.11.1 Methodology

This analysis has been developed to describe cultural resources and potential impacts as a result of the Proposed Action discussed in this EIS. Subsequent sections review the locations associated with the Proposed Action, summarize cultural resources information, and analyze potential impacts.

#### 3.11.1.1 Region of Influence

For purposes of this EIS, the region of influence for cultural resources is referred to as Potential Impact Areas (PIAs), a term analogous to the NHPA Section 106 Area of Potential Effect (APE). The present analysis, however, differs from Section 106 to the degree that it (1) considers a wide array of proposed actions that are not undertakings per 36 Code of Federal Regulations (CFR) Section 800.16, and also (2) considers the impact on a wider range of cultural resources than NRHP-eligible or potentially eligible historic properties alone. Importantly, APEs and assessments of effect to historic properties under Section 106 would be addressed when specific undertakings are proposed and known in detail in the future, consistent with an amended 2011 *Programmatic Agreement Among Naval Air Station, Fallon, Nevada, The Nevada State Historic Preservation Officer and the Advisory Council on Historic Preservation Regarding the Identification, Evaluation and Treatment of Historic Properties on Lands Managed by Naval Air Station, Fallon*. The Navy would continue to consult in order to ensure an amended 2011 Programmatic Agreement (PA) is updated as applicable for the Tribes.

The PIAs addressed in this document are based on activities associated with the Proposed Action to holistically analyze the potential impacts on cultural resources. PIA boundaries are defined in consideration of potential impacts on cultural resources from ground disturbance; vibrations from sonic booms, aerial target strikes, and military expended material strikes; visual and auditory intrusions; and changes in access (Figure 3.11-2, Figure 3.11-3, Figure 3.11-4, and Figure 3.11-5).

The PIAs include lands within the Surface Danger Zones (SDZs)/Weapons Danger Zones (WDZs) for each of the Bravo ranges (B-16, B-17, and B-20) and the Dixie Valley Training Area (DVTA) as well as lands below the FRTC Special Use Airspace (SUA). Accordingly, the analysis here focuses on ranges, but also considers the effects of noise on sensitive cultural resources beneath the proposed FRTC SUA. With respect to the existing B-19, there are no proposed changes to land withdrawal and training activities, and there would be no construction activities associated with this area. Therefore, B-19 is not discussed further and would be maintained as discussed in the 2015 *Fallon Range Training Complex Final Environmental Impact Statement* (U.S. Department of the Navy, 2015).

FRTC SUA is airspace in which military training activities must be confined. The FRTC SUA includes two Supersonic Operating Areas (SOAs), identified as SOA A and SOA B, nine restricted areas, 15 Military Operations Areas (MOAs), 14 Air Traffic Control Assigned Airspaces, and a Civilian Visual Flight Rules corridor. In order to utilize the four Bravo training ranges, aircraft typically follow predetermined routes (“course rules routes”) for access into (ingress) and out of (egress) the training ranges. Except for a slight expansion beyond the existing northern boundary of the FRTC (Table 2-4 and Figure 2-7), the requested airspace modifications would be within the existing boundary of the FRTC airspace. Proposed changes to the FRTC SUA that could impact cultural resources include the expansion of the two SOAs, narrowing of the ingress/egress corridors, and revisions to the minimum altitude (operational floor) in six MOAs. Under the current proposal, both SOA A and SOA B would be expanded (Figure 3.11-1), and the operations within the Reno, Zircon, Ruby, Diamond, Duckwater, and Smokie MOAs would occur at lower altitudes. Additionally, the ingress/egress corridors in the northern and southern portions of the FRTC SUA would be narrowed.

In NHPA Section 106 consultation to support the 2015 EIS analysis, the Navy determined that sonic booms from supersonic overflights at 30,000 feet or more above mean sea level (MSL) had a negligible potential to affect historic properties in SOA A and SOA B (Military Readiness Activities at Fallon Range Training Complex Environmental Impact Statement, 2015). For more about this methodology, see Section 3.11.1.4.1, Noise and Vibration. The Nevada (NV) State Historic Preservation Officer (SHPO) concurred with the Navy’s determination that the APE accounts for all potential direct, indirect, and cumulative effects that may result from this undertaking in keeping with 36 CFR Part 800.4(a)(1) and 36 CFR Part 800.16(d) (see Appendix B [Agency Correspondence] for a copy of the 30 August 2018 letter from the NV SHPO to the Navy).. Because all FRTC proposed SOA A supersonic flights would remain at altitudes above 30,000 feet MSL, the existing SOA A and proposed expansion of SOA A would have no potential impact on cultural resources and therefore is not analyzed as a PIA.



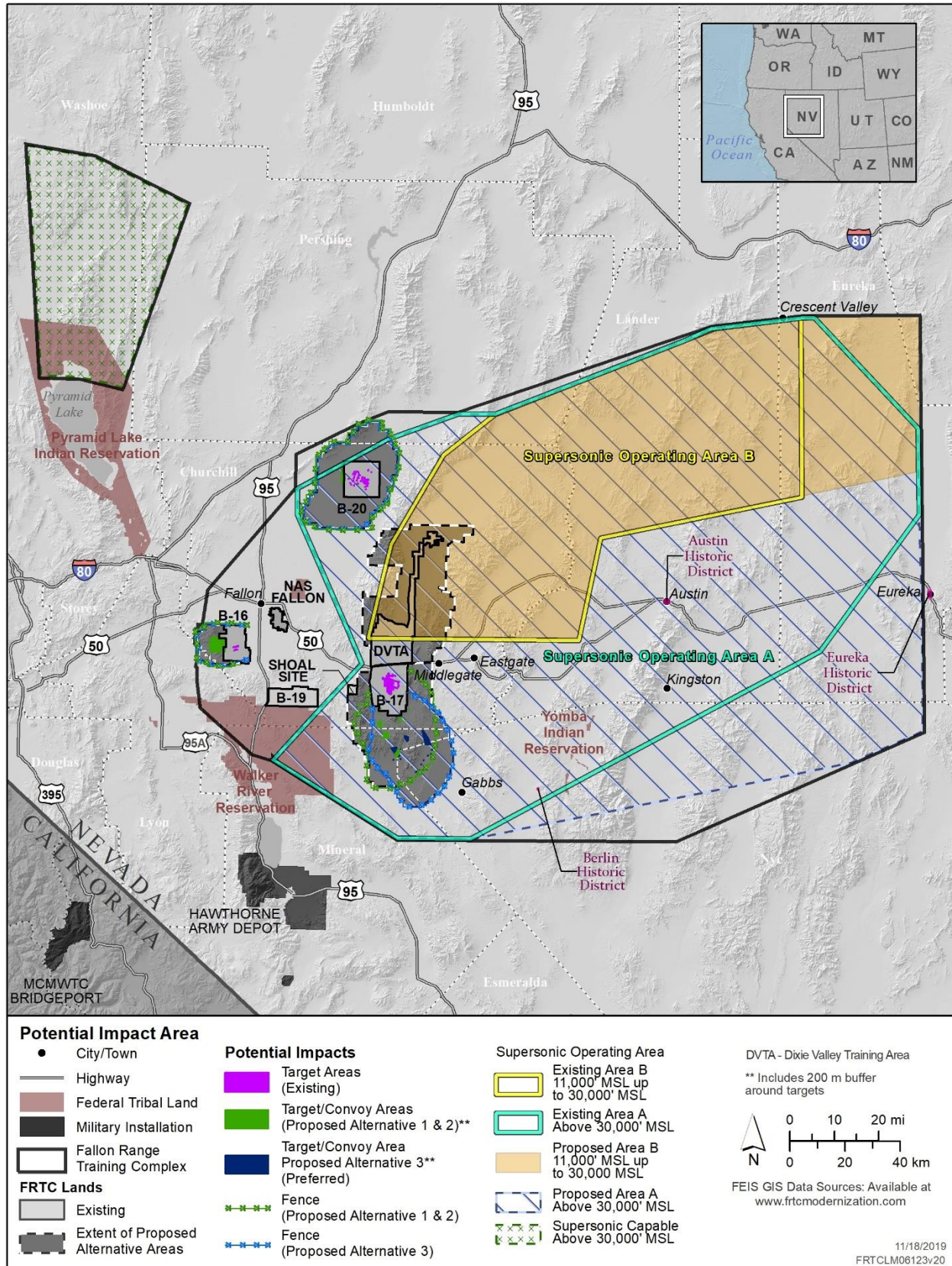


Figure 3.11-1: Fallon Range Training Complex Potential Impact Areas



### 3.11.1.2 Regulatory Framework

Cultural resources are governed by federal laws and regulations, including the NHPA, Archeological and Historic Preservation Act, American Indian Religious Freedom Act, ARPA, and NAGPRA. A Federal agency's responsibility for protecting historic properties is defined primarily by sections 106 and 110 of the NHPA. Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties. Section 110 of the NHPA requires federal agencies to establish—in conjunction with the Secretary of the Interior—historic preservation programs for the identification, evaluation, and protection of historic properties. Key implementing regulations include the Protection of Historic Properties (36 CFR Part 800); the Criteria for Evaluation (36 CFR Section 60.4); and the Curation of Federally-Owned and Administered Archeological Collections (36 CFR Part 79).

ARPA establishes permitting procedures for conducting archaeological fieldwork on public lands as well as fines and penalties for unauthorized excavation. It also calls for the preservation of objects and associated records and prohibits public disclosure of information on the locations of archaeological resources if they could be damaged.

Executive Order 13007 promotes the protection of and access to Indian Sacred Sites on Federal lands. It directs federal land managing agencies, to the extent practicable and consistent with the agency's mission and function, to accommodate access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners as well as avoidance of adverse effects to such sacred sites.

NHPA is the predominant driver of cultural resource identification and protection. The criteria of eligibility for NRHP listing in 36 CFR Section 60.4 states: "the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

- A. that are associated with events that have made a significant contribution to the broad pattern of our history; or
- B. that are associated with the lives of persons significant in the past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value or represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in prehistory or history."

Properties that meet these criteria are afforded protection under the NHPA and are eligible for NRHP inclusion. It is important to note that unevaluated properties are treated as "eligible" unless and until assessed and concluded to be "ineligible" for NRHP listing. Section 106 requires federal agencies to take into account the effect of any undertaking upon NRHP listed, eligible, or potentially eligible properties; share information about proposed undertakings with the potential to affect historic properties; and to afford SHPO, Advisory Council on Historic Preservation (ACHP), and interested parties an opportunity to comment prior to initiating the proposed undertaking. Federal regulation 36 CFR Part 800, "Protection of Historic Properties," defines specific procedures for federal agencies to follow in complying with Section 106 of NHPA. Importantly, the transfer of properties into federal control is not an action with the potential to affect historic properties, because the protections and procedures under 36 CFR Part 800 apply. Subsequent actions with the potential to affect historic properties on transferred lands, such as construction and training, would be subject to Section 106 review prior to approval.

Under 36 CFR Section 800.14, federal agencies may develop program alternatives, such as a PA, in order to tailor Section 106 compliance measures to the resources, actions, and stakeholders involved. A PA may be developed to govern the implementation of a particular program or the resolution of adverse effects from complex projects or multiple undertakings by establishing alternative processes for managing historic preservation compliance for routine actions, or when the effects of an undertaking are not fully known in advance. In this case, the effects of the Proposed Action are not yet fully known, and an amended 2011 PA would administer NHPA for implementation of the Proposed Action.

Previous consultations under NHPA conducted in support of installation operations, training programs, and related activities resulted in the development of the 2011 PA between Naval Air Station (NAS) Fallon, ACHP, the Nevada SHPO, and the Nevada State Office of Bureau of Land Management (BLM) of the Department of the Interior. The 2011 PA was developed consistent with 36 CFR Section 800.14(b)(3) in consultation with interested parties as a program alternative to fulfill the installation's Section 106 responsibilities. The 2011 PA contains measures to develop and share information, and to consider the views of SHPO, ACHP, BLM, potentially affected Indian tribes, and other interested parties as projects are developed. The 2011 PA also included processes for consulting to determining mitigation measures when historic properties may be adversely affected. The Navy is consulting with SHPO, ACHP, federally recognized tribes, local governments, and the public to amend the 2011 PA to support operations and activities associated with the Proposed Action.

If human remains are discovered, depending on the origin and age of the remains, the Navy follows the procedures established under NAGPRA (implementing regulations 43 CFR Part 10), Chief of Naval Operations Instruction 11170.2B (*Navy Responsibilities Regarding Undocumented Human Burials*), and an amended 2011 PA. Recognizing the potential for encountering Native American graves, the Navy would also consult with culturally affiliated tribes to develop a NAGPRA Plan of Action or Comprehensive Agreement.

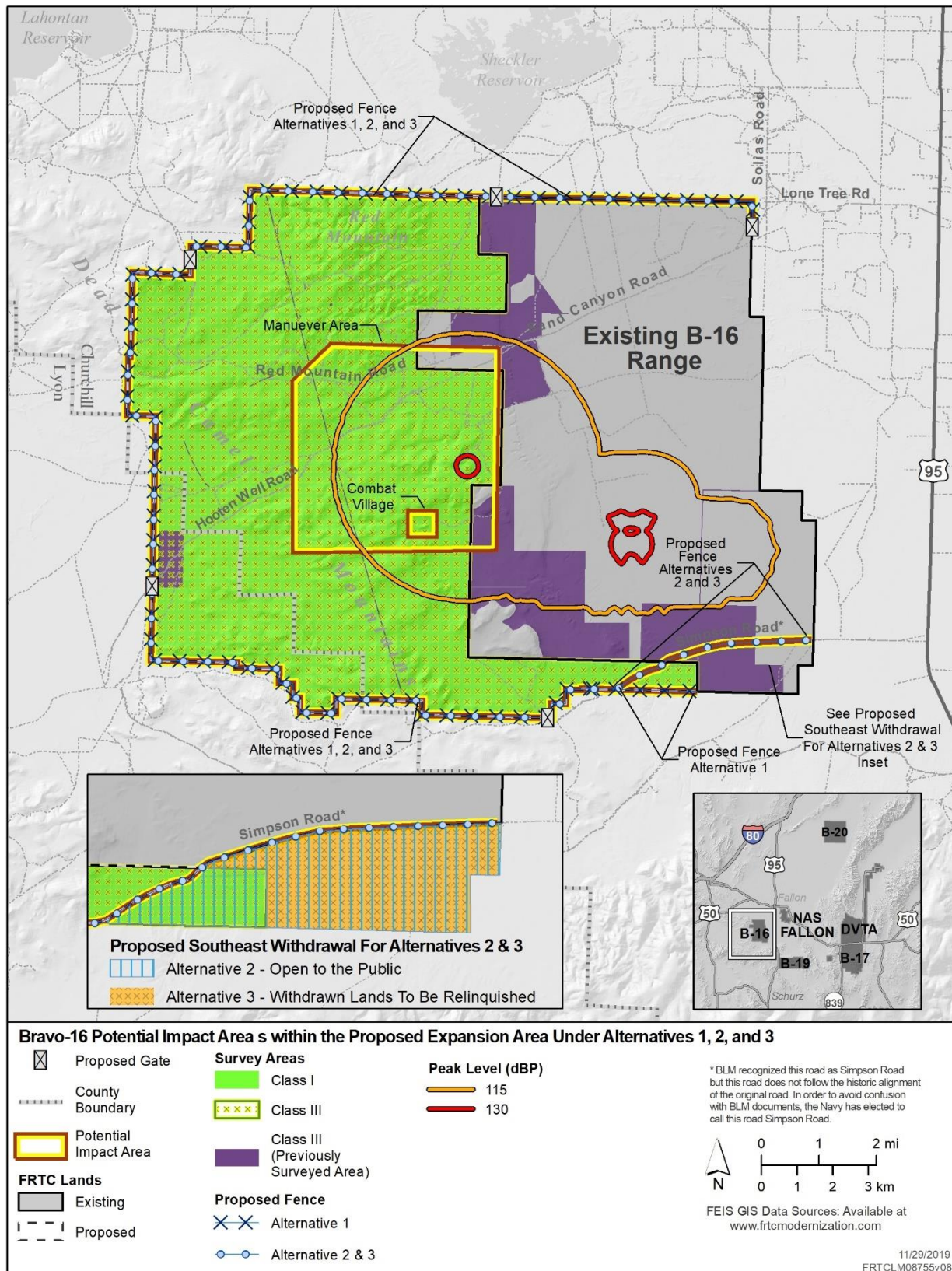
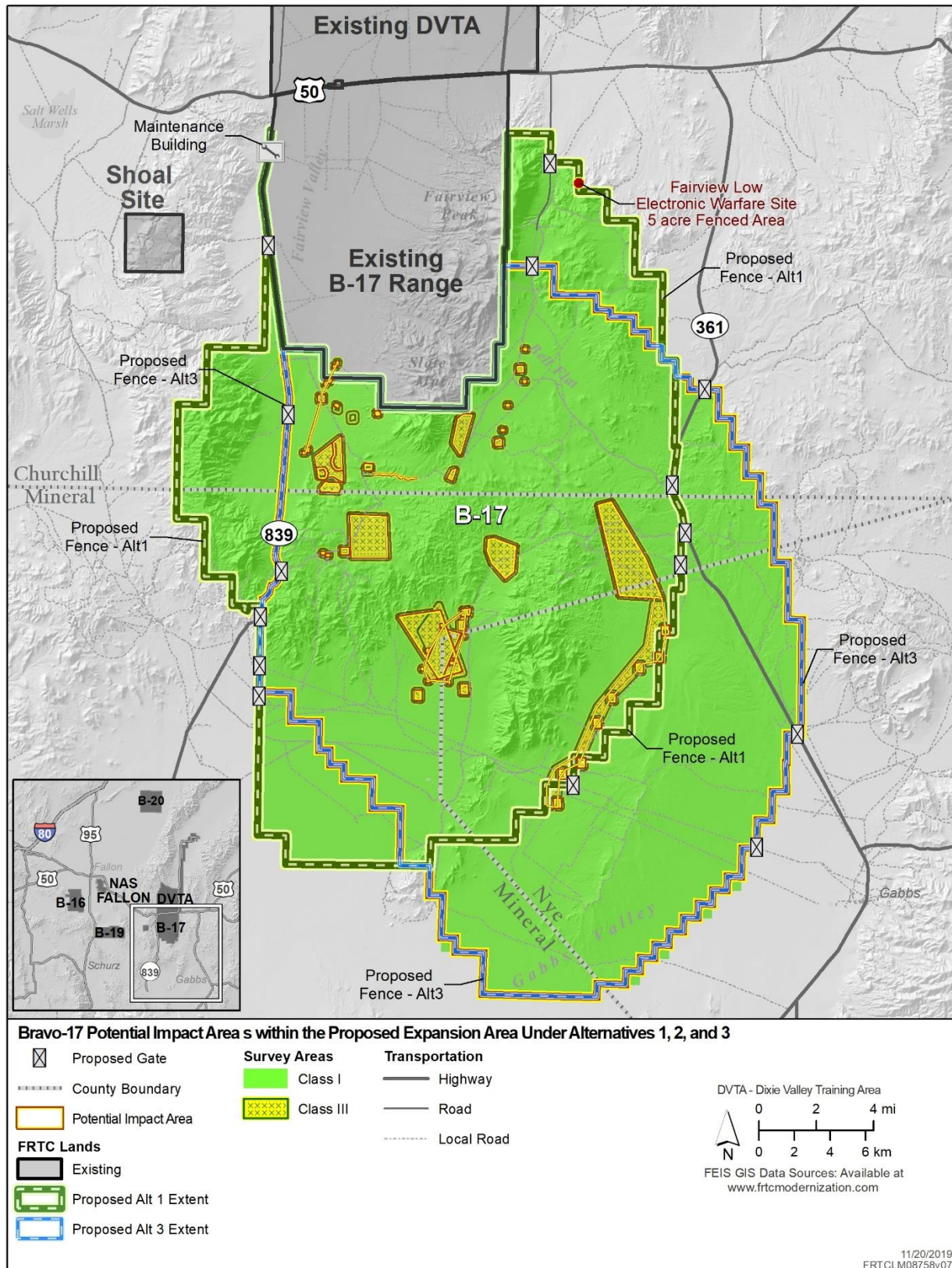


Figure 3.11-2: Bravo-16 Potential Impact Areas within the Proposed Expansion Area Under Alternatives 1, 2, and 3





**Figure 3.11-3: Bravo-17 Potential Impact Areas Within the Proposed Expansion Area Under Alternatives 1, 2, and 3**

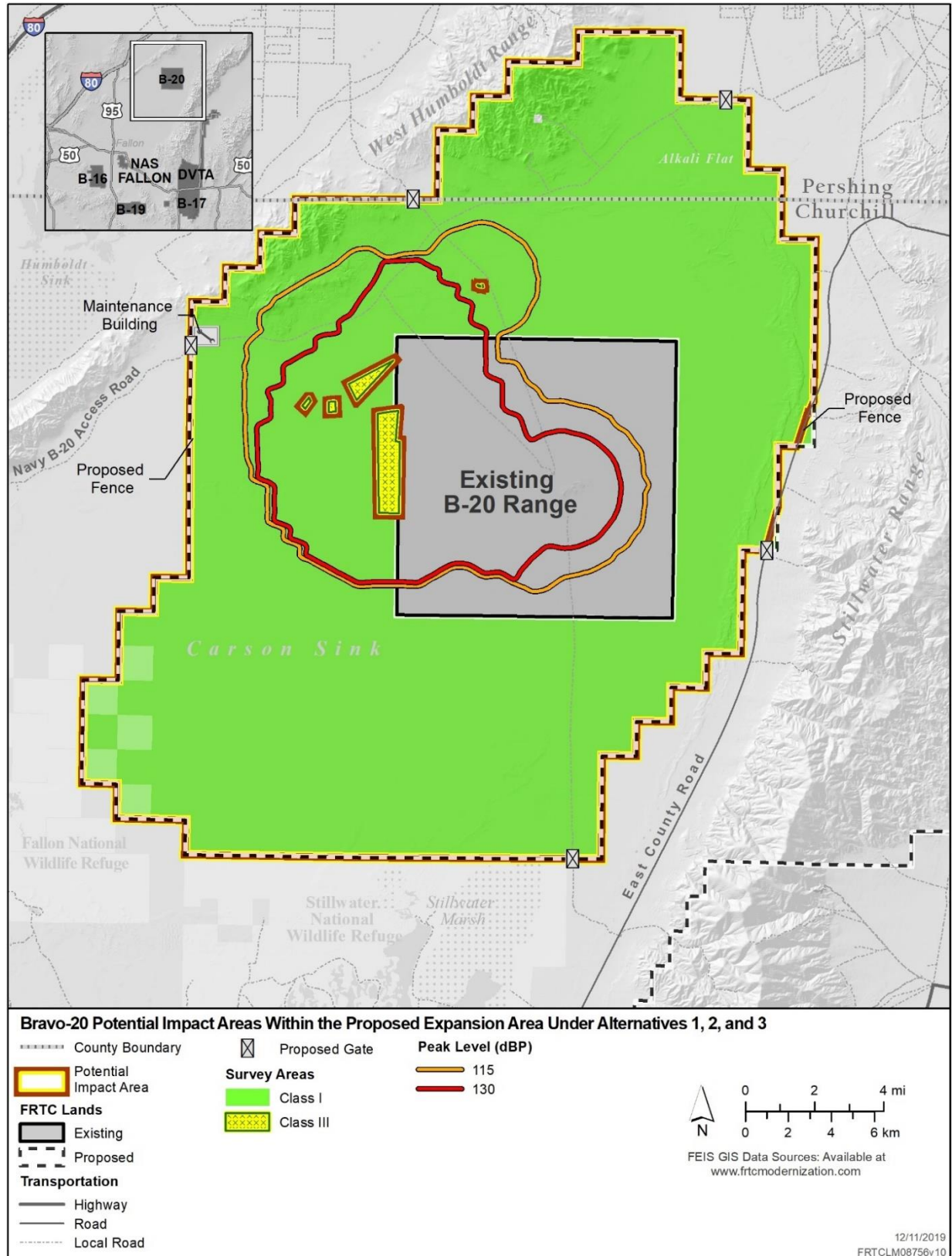


Figure 3.11-4: Bravo-20 Potential Impact Areas Within the Proposed Expansion Area Under Alternatives 1, 2, and 3



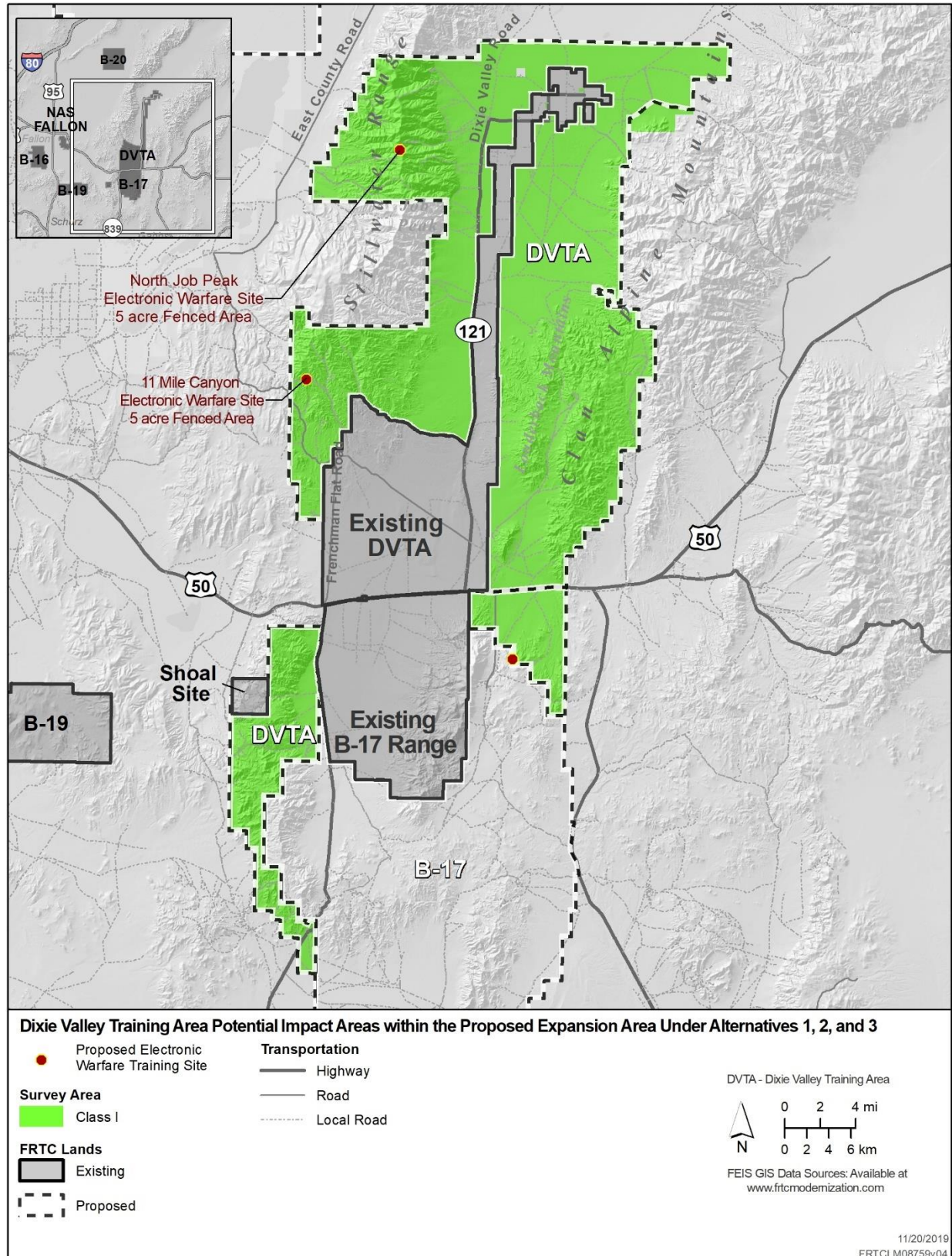


Figure 3.11-5: Dixie Valley Training Area Potential Impact Areas Within the Proposed Expansion Area Under Alternatives 1, 2, and 3

### 3.11.1.3 Cultural Resources Investigations

In the state of Nevada, cultural resources inventories are defined as Class I, Class II, or Class III studies:

- A Class I Inventory is a broad-based literature review of published and unpublished documents, records, reports, files, registers, and other sources, resulting in an analysis and synthesis of all reasonably available data.
- A Class II Inventory is a probabilistic field survey designed to help characterize the probable density, diversity, and distribution of archaeological properties in a large area.
- A Class III Inventory is an intensive pedestrian survey carried out by archaeologists to locate and record archaeological sites and other cultural resources, as applicable. Class III methods vary geographically, conforming to the prevailing standards for the region involved, but generally involve close-interval pedestrian survey transects.

All inventories conducted in association with past or present efforts are done so in accordance with the BLM Nevada State Office *Guidelines and Standards for Archaeological Inventory, Fifth Edition* (Bureau of Land Management Nevada, 2012) and the *State Protocol Agreement between the Bureau of Land Management Nevada and the Nevada State Historic Preservation Officer for Implementing the National Historic Preservation Act* (BLM-NVSHPO 2014).

#### 3.11.1.3.1 Previous Studies and Investigations for Existing FRTC

For the existing FRTC, the Navy began by reviewing the *Analysis of the Management Situation: Carson City District Resource Management Plan Revision and Environmental Impact Statement* to identify potential cultural resources (Bureau of Land Management, 2013). The Navy then completed supplementary cultural resources surveys and Class III inventories within the existing B-16, B-17, and B-20 ranges between 2012 and 2014. In addition, the Nevada Cultural Resources Information System (NVCRIS) was also used to gather other recorded archaeological and architectural data within the existing ranges. The NAS Fallon Integrated Cultural Resources Management Plan (ICRMP) includes an inventory of completed studies and identified cultural resources for the NAS Fallon Main Station and seven outlying training areas administered by NAS Fallon, including the existing B-16, B-17, B-19, and B-20 ranges; the Dixie Valley Training Area; the Shoal Site; and the Sand Springs parcel (U.S. Department of the Navy, 2013). To date, the Navy has conducted Class III surveys for 48,812 acres of existing ranges.

In 2015, the Navy analyzed an increase in the types and number of training activities at the FRTC to accommodate new force changes. In conjunction with the NEPA process, the Navy conducted Section 106 consultation to account for potential effects as a result of the Navy's Proposed Action. In early 2015, the Navy consulted with the Nevada SHPO; interested federally recognized tribes including Battle Mountain Shoshone Tribe, Duckwater Shoshone Tribe, Elko Band (Te-Moak Tribe), Fallon Paiute-Shoshone Tribe, Lovelock Paiute Tribe, Pyramid Lake Paiute Tribe, South Fork Band (Te-Moak Tribe), Te-Moak Tribe of Western Shoshone, Walker River Paiute Tribe, Winnemucca Paiute Tribe, Yerington Paiute Tribe, and Yomba Shoshone Tribe; and the Inter-Tribal Council of Nevada. Nevada SHPO concurred with the Navy's determination of no adverse effect to historic properties.

#### 3.11.1.3.2 Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas

In association with the Proposed Action analyzed within this EIS, the Navy compiled information from fieldwork, literature reviews, and input from Tribal representatives to evaluate the presence of and potential impacts on cultural resources within the proposed FRTC expansion lands.



The Navy prepared a Class I Cultural Resources Overview Study in 2018 for the B-16, B-17, B-20, and DVTA proposed land expansion areas (refer to Figure 3.11-2, Figure 3.11-3, Figure 3.11-4, and Figure 3.11-5). Sources of information for this report included Nevada SHPO site files, the National Register Database, the NVCRIS (for areas underlying the proposed airspace expansion area), previously conducted Class III BLM-surveys, as well as information compiled from BLM documents as part of the 2015 FRTC EIS (U.S. Department of the Navy, 2015). In total, this study covered 680,000 acres within Churchill, Lyon, Mineral, Nye, and Pershing counties for requested withdrawal and proposed acquisition areas associated with Alternatives 1, 2, and 3. The Navy also prepared a second Class I cultural resources overview for 92,315 acres associated with additional requested withdrawal and proposed acquisition areas under Alternative 3 only.

The Navy also completed a Class III Cultural Resource Inventory in 2017. The Class III inventory was conducted for approximately 14,000 acres of proposed target areas, convoy routes, and ground mobility training activities associated with the requested B-16, B-17, and B-20 land withdrawal areas under Alternatives 1 and 2. The Navy conducted a second Class III inventory in 2019 for 31,948 acres within the requested B-16 and B-17 land withdrawal area within proposed target areas, 200-meter buffer areas around all targets, and ground mobility training activities to include convoy routes in B-17, under all alternatives. The Navy also conducted a third Class III inventory in 2019 as an addendum to the previous inventories. This latter investigation assessed 2,867 acres to identify potential cultural resources within proposed target areas associated with the B-17 requested land withdrawal area under Alternative 3. All Class III survey areas were inventoried by crews of four to six archaeologists, with each transect separated by an interval of no more than 30 meters (see Supporting Study: Class I Archaeological Report, available at <https://frtcmodernization.com>; and Section 3.11.2 [Affected Environment], for more information).

#### **3.11.1.3.3 Identification of Traditional Cultural Properties**

In order to identify known and potential Traditional Cultural Properties and Sacred Sites, the Navy conducted a preliminary study to synthesize information obtained through a broad literature review of over 200 documents, and supplemented this through communication with the Fallon Paiute-Shoshone, the Walker River Paiute, and the Yomba Paiute Tribes (all tribes were invited), as well as the Bureau of Indian Affairs in Carson City, NV. The study sought to identify previously documented places of cultural and/or religious importance to Indian Tribes who are culturally affiliated with the lands within the proposed FRTC. Of the 900 places of potential cultural and religious importance identified in this study, about half are located on lands beneath FRTC SUA. Such properties include mountain peaks, springs, plant resources, and pinyon stands that derive importance from their association with traditional origin and mythological places or spiritual/ceremonial locations as well as traditional hunting and gathering locations.

Specifically, the Fallon Paiute-Shoshone, the Walker River Paiute, and the Yomba Paiute Tribes utilize resources within the existing and proposed FRTC Modernization area (U.S. Department of the Navy & Bureau of Land Management, 2001). Based on previous consultation and discussions with these tribes regarding the Resource Management Plan for certain federal lands in Churchill County, the Navy and BLM identified sensitive areas that may have religious or cultural importance (U.S. Department of the Navy & Bureau of Land Management, 2001).

Notwithstanding these efforts to identify TCPs and Sacred Sites, the Navy recognizes the need for additional studies or inventories to be conducted in consultation with the Indian tribes to more fully

determine the presence of potential TCPs or sacred sites. The Navy also recognizes that access constraints could impact traditional cultural practices of these tribes.

#### **3.11.1.4 Approach to Analysis**

Potential impacts on cultural resources may result from physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the importance of the resource; introducing visual, atmospheric, or audible elements that are out of character for the period the resource represents (thereby altering the setting); neglecting the resource to the extent that it deteriorates or is destroyed, or constraining access.

The Navy synthesized information from past and current studies to facilitate an analysis of potential impacts on known and potential cultural resources for each alternative within the existing FRTC and the proposed expansion areas. Under the Proposed Action, impacts on cultural resources may include, but are not limited to, the following:

- Physical destruction, damage, or alteration of all or part of an historic property
- Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting
- Isolation or neglect of a property resulting in its deterioration or destruction
- Limiting access to historic properties and sacred sites.

The following general principles were used to evaluate impacts:

- The extent, if any, to which the action would result in substantial physical alteration, damage, or destruction of all or part of a resource
- The extent, if any, that the action would alter characteristics of the surrounding environment that contribute to the importance of the resource through the introduction of visual, atmospheric, or audible elements
- The degree, if any, to which the action would constrain access to culturally important sites.

##### **3.11.1.4.1 Noise and Vibration**

Operational changes associated with the Proposed Action may introduce noise and vibrations with the potential to impact cultural resources. Yet given the wide variety of cultural resource types and noise measurements, there is not a precise threshold for determining impacts. Broadly, very high noise and vibration levels can, in extreme cases, cause direct physical harm to certain resource types while less intense noise levels can also impact resources, such as TCPs, by altering the setting. As discussed in more detail in Section 3.7 (Noise) of this EIS, different noise measurement methodologies assess the frequencies, duration, and sensitivity of noise receptors. Generally, noise measurements weighted to replicate human hearing sensitivity is expressed as A-Weighted Decibels (dBA), while C-Weighted Decibels (dBC) correspond to actual sound pressure levels received by sound meters.

In total, a Day Night Level (DNL) measurement assesses the average impact of noise events during the course of a day. In assessing potential noise impacts on the settings of cultural resources, the Navy adheres to the accepted standard of 65 dBC DNL as the threshold of potential noise annoyance. Noises at or above this level may interfere with the experience of cultural resources, especially TCPs and sacred sites.

Specifically, current and proposed aircraft supersonic operations involve sonic booms, impulsive sounds similar to thunder. The sound is generated by shock waves created by an object traveling through air faster than the speed of sound. The duration of a sonic boom is brief (less than one second), and the intensity is greatest directly under the flight path and weakens as distance from the flight track increases. Several factors influence the characteristics of sonic booms: weight, size, and shape of aircraft or vehicle; altitude; flight paths; and atmospheric conditions. Increasing altitude is the most effective method of reducing sonic boom intensity. Noise modeling results are presented in Section 3.7 (Noise). The change in air pressure associated with a sonic boom is only a few pounds per square foot greater than normal atmospheric pressure. This is about the same pressure change experienced by a change in elevation of 20–30 feet, or riding an elevator down two or three floors. This additional pressure above normal atmospheric pressure is called overpressure. It is the sudden onset of the pressure change that makes the sonic boom audible.

Cultural resources potentially impacted by noise and vibrations caused by sonic booms at lower altitudes may include certain types of historic properties, such as caves and rock shelters; petroglyphs or pictographs on rock faces; sensitive historic architectural resources, such as adobe structures, unreinforced stone structures, and mine shafts and adits; and traditional cultural properties and sacred sites. To assess the potential physical impacts on cultural resources from noise and vibration associated with the Proposed Action, the Navy utilized available noise studies and guidelines. A study of the effects of supersonic overflights (including Air Combat Maneuver flight training activities) on cultural resources that may be impacted by noise and vibration was conducted between 1988 and 1990 and included the Fallon Supersonic Operating Areas (Sutherland et al., 1990). This 1990 study found that the creation of sonic booms in the atmosphere at altitudes above 30,000 feet MSL reached a lateral cut-off point where refraction prevents the sonic boom from reaching the ground. Therefore, sonic booms at that altitude are less likely to create overpressures that would affect cultural resources sensitive to noise and vibration. The National Research Council also has developed general guidelines for evaluating overall impacts of various noise levels (National Research Council and National Academy of Sciences, 1977). The National Research Council guidelines have been cited consistently as the basis for evaluating impacts on historic properties. For example, sounds lasting more than one second and with a peak unweighted sound level greater than or equal to 130 decibels (dB) (in the 1 hertz [Hz] to 1,000 Hz frequency range) are considered potentially damaging to structural components. This is a conservative standard for assessing all sound.

Additional noise impact data is available from two studies conducted in the 1970s in connection with proposed Concorde operations in the U.S. Hershey, Kevala, and Burns (1975) examined the potential for structural feature breakage at five historic sites within the Concorde flightpath, including the St. George's Church near Kennedy Airport, and four historic sites near Dulles Airport (Sully Plantation, Dranesville Tavern, Broad Run Bridge and Tollhouse, and Manassas Battlefield Park). The historic sites chosen for study were all located within a few miles of the proposed Concorde flight paths. The authors evaluated the impact on structural features, including windows, brick chimneys, a stone bridge, and plaster ceilings. They determined that the potential for breakage was generally less than 0.001 percent for a year of overflights at all five historic sites. In 1977, Wesler reevaluated the noise analysis at the Sully Plantation and concluded that no damage was found to the 1795 plantation house from routine departures of the Concorde aircraft 1,500 feet from the runway centerline of Dulles Airport (Wesler, 1977). Wesler found that the structural vibration levels from the Concorde takeoff and landings were actually less than those caused by touring groups and vacuum cleaning. Of note, both Concorde studies also concluded that "noise exposure levels for compatible land use also were protective of conventional

historic and archaeological sites.” Meanwhile, a 2012 Navy study at NAS Whidbey Island assessed potential noise and vibration impacts from Navy airfield operations to historic buildings and structures. The study suggested that sounds lasting more than one second above a sound level of 130 dBC are potentially damaging to structural components, and that given takeoff conditions with C-weighted sound levels greater than 110 dBC for certain aircraft operations, there was some potential for noise-induced vibration (Kester & Czech, 2012).

#### **3.11.1.5 Public and Tribal Concerns**

The Navy invited Indian tribes to participate in the NEPA process for this EIS (see Appendix C, Tribal Correspondence). In addition, the Navy invited interested Indian tribes to (1) participate in project meetings, (2) provide additional information related to cultural resources, (3) provide internal document review (e.g., of the Class III Cultural Resources Inventory Report) during the development of this EIS, and (4) provide input during the Section 106 Government-to-Government consultation to amend the existing 2011 PA. The federally recognized Indian tribes that were contacted are listed in Table 3.11-1.

During the public scoping process, the public review of the Draft EIS, and through government to government consultation meetings, the public and Indian tribes provided a number of comments concerning cultural resources and the Proposed Action’s potential impacts on these resources. Such comments included a general concern for compliance with Section 106 of the NHPA and NAGPRA. Public comments also addressed possible conflicts between the Proposed Action and the objectives of federal, regional, state, local, and Indian tribes’ land use plans, policies, and controls for the concerned areas. Public concerns focused primarily on cultural resources related to Gabbs Valley; historic sites and effects from sonic booms; restricted access; noise; and visual integrity.

The Navy received tribal concerns during public outreach and Tribal Council meetings from the Fallon Paiute-Shoshone Tribe, the Walker River Paiute Tribe, the Duckwater Shoshone Tribe, and the Yomba Shoshone Tribe. The Fallon Paiute-Shoshone Tribe expressed concerns with restrictions on the tribe’s access to sacred and other cultural sites, aircraft overflights, respect for cultural heritage, fire control, and damage to cultural resources generally, and the fact that cultural resources surveys/investigations have not been conducted throughout the entirety of the proposed range expansion areas. The Walker River Paiute Tribe expressed concerns regarding monitoring of cultural resources, use of tribal monitors, access to ancestral lands including ceremonial use, ordnance issues in regard to contamination and safety, increased aircraft (jet) activity and noise, increased use of the airspace over tribal lands, increased pollution, and off-target bomb drops. Concerns from the Duckwater Shoshone Tribe included conducting archaeological surveys after tribal consultation, use of a tribal monitor, placing a higher value on visual integrity in regard to vision quest sites, and access to vision quest sites. The Yomba Shoshone Tribe expressed concerns related to use of tribal members when conducting cultural resource surveys, sonic booms and jet flyovers and associated noise, and consultation with elders and tribal members.

For further information regarding comments received during the public scoping process and public comments during the public comment period, please refer to Appendix E (Public Participation) and Appendix F (Public Comments and Responses).

**Table 3.11-1: Indian Tribes Contacted/Consulted**

Battle Mountain Shoshone Tribe
Duckwater Shoshone Tribe
Elko Band Council
Fallon Paiute-Shoshone Tribe
Fort McDermitt Paiute and Shoshone Tribe
Lovelock Paiute Tribe
Pyramid Lake Paiute Tribe
Reno-Sparks Indian Colony
South Fork Band Council
Summit Lake Paiute Tribe
Te-Moak Tribe of Western Shoshone
Walker River Paiute Tribe
Washoe Tribes of California and Nevada
Wells Band Council
Winnemucca Indian Colony of Nevada
Yerington Paiute Tribe
Yomba Shoshone Tribe

### 3.11.2 Affected Environment

Note: It is Navy policy to protect certain information related to cultural resources from general distribution. The policy is consistent with NHPA and ARPA, which address confidentiality restrictions to prevent the inappropriate release of locational data for archaeological sites and TCPs. Accordingly, this EIS does not contain detailed locational descriptions or figures showing the specific locations of archaeological sites or TCPs.

#### 3.11.2.1 Cultural Context

The following cultural context is excerpted and adapted from the NAS Fallon ICRMP (U.S. Department of the Navy, 2013), the Class I Survey Report for the lands requested for withdrawal and proposed for acquisition, and the Class III Cultural Resources Inventory of proposed new target areas and convoy routes.

##### 3.11.2.1.1 Prehistoric Context

Prehistoric periods identified in or near the existing and proposed FRTC Modernization Area include the Hypothetical Pre-Clovis (< 20,000–9500 BC), Western Clovis (9500–8500 BC), Great Basin Stemmed Point (8500–5000 BC), Mixed Dart (5000–2500 BC), Gatecliff (2500–500 BC), Elko (500 BC–AD 500), Rosegate (AD 500–1350), and Desert (AD 1350–1850) periods (U.S. Department of the Navy, 2013).

Historical evidence suggests that Pre-Clovis groups were organized into highly mobile, independent family units with an unspecialized subsistence economy based on hunting and gathering a wide variety of plants and animals. Sites would most likely be identified along the former shorelines of Pleistocene Lakes. The Western Clovis period occupations areas are identified by the presence of fluted points (ancient stone weaponry) and may represent an adaptation to lacustrine (marshes, lakes, and rivers) resources rather than big game hunting, as defined in other parts of the western United States. The lacustrine adaptation continues in the Great Basin Stemmed Point period and is characterized by weakly shouldered large blades with heavily ground and usually rounded bases. Twined basketry and weaving are present during this period.

The Mixed Dart period represents a shift from the large stemmed points to a variety of strongly shouldered dart points, some notched with expanding stems, others with square stems, and most importantly the Pinto Split-stem point. Milling slabs and handstones for processing seeds are common. Basketry including simple S-twist and diagonal twisting as well as some of the earliest examples of coiled basketry are associated with this period. Olivella shell beads were also being traded from the California coast.

The Gatecliff period occupations indicate some degree of sedentism suggested by the structural complexity, and the size and number of houses found in winter villages. Lowland sites tend to have well-developed milling assemblages and fauna dominated by rabbits and rodents. Periodic movement to resource zones away from these villages is indicated by the use of caves as temporary camps and cache sites. Specialized hunting camps in the mountains are also common throughout the area and often include faunal assemblages dominated by bighorn sheep. Trade of Olivella shell beads increased during this time. The Elko period occupations were a continuation of the Gatecliff adaptation; however, the trade of Olivella shell beads decreased greatly.

Bow and arrow technology characterizes the Rosegate Period. Villages along major rivers were occupied but the houses became smaller. Cave sites continued to be used for burials and caches. Intensification of plant food processing and small game harvest (especially rabbits) characterized the subsistence in the Rosegate period, with less emphasis on the use of large game. The Desert period is identified by the presence of the Desert Side-Notched point. Residential sites near rivers and marshes were still in use in this period, but house size decreased, and most houses lack internal features such as hearths, post holes, and cache and burial pits. The diet appears to have been dominated by fish, small game, waterfowl, and seeds. Some groups began to intensively exploit pinyon along the eastern slope of the Sierra and in some of the higher interior ranges.

#### **3.11.2.1.2 Historic Context**

The Fallon area's Euro-American history began in the late 1820s with fur trapping parties and exploratory expeditions. Major events that influenced the region's chronology included emigrant wagon trains in the 1840s, the 1849 California Gold Rush, and Comstock Lode (1859–1880). In the early 20th century, the Newlands Project (1903–1905), highway construction, and the construction of the Churchill County's airstrip set the stage for the Fallon area's strong ties to the federal government that continue to the present.

In 1943, the Navy assumed control of the airfield and constructed barracks, hangars, air traffic control facilities, and target ranges. In 1944, it commissioned the Naval Auxiliary Air Station Fallon. The Navy placed the station on caretaker status in 1946, but reactivated it in 1951. On January 1, 1972, Naval Auxiliary Air Station Fallon became NAS Fallon. NAS Fallon's training mission expanded steadily in the 1980s with the arrival of the Tactical Aircrew Combat Training System and the permanent assignment of Strike Fighter Squadron 127, the "Desert Bogeys." Changes in aviation technology brought more advanced aircraft to NAS Fallon, such as the F/A-18 Hornet. In 1995 and 1996, the U.S. Navy Fighter Weapons School (TOPGUN) and the Carrier Airborne Early Warning Weapons School (TOPDOME) were merged with Strike University, creating the Naval Strike and Air Warfare Center, which is now named the Naval Aviation Warfighting Development Center.

### 3.11.2.2 Bravo-16

The B-16 PIA consists of the existing B-16 range (27,359 acres) and the proposed expansion area (32,201 acres).

#### 3.11.2.2.1 Archaeological Resources

Based on previous Class III studies of 15,263 acres within the existing B-16 range, there are 71 NRHP-eligible or potentially eligible archaeological sites.

Within the proposed B-16 expansion area, a total of 32 NRHP-eligible or potentially-eligible archaeological sites have been identified based on Class I and Class III surveys of all 32,201 acres. To identify archaeological sites within this proposed expansion area, the Navy completed two supplementary studies, (1) a Class I Cultural Resources Overview for the entire proposed expansion area in 2018 and (2) a Class III cultural resource inventory conducted from 2017 through 2019 (refer to Section 3.11.1.3.2, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas). Archaeological sites that have been identified in the Class I and Class III cultural resources investigations are shown in Table 3.11-2.

**Table 3.11-2: NRHP-Eligible and Potentially Eligible Archaeological Sites in the Proposed B-16 Expansion Area**

Location	BLM Site No.	State Site No.	AGE	Site Type	NRHP Criterion*
<b>B-16 Class I Inventory</b>					
Maneuver Area	-	CH2100	P	Rock Art	-
Maneuver Area	03-6287	CH2092	P	Rock Art/South Salt Cave Pictographs	-
Maneuver Area	03-4989	CH2084	P	Rock Art/Rockshelter/Salt Cave #3	-
Maneuver Area	03-5262	CH2082	M	Cave/Rockshelter/Trapping/Ground Stone	C/D
Maneuver Area	03-0564	CH84	P	Rock Art/Rockshelter/Salt Cave Shelters 1&2	-
Maneuver Area	03-4990	CH2083	P	Cave/Rockshelter/Salt Cave #4	-
Fence	03-8419	CH3343	H	Road	-
Fence	03-9425	CH3814	H	Road	-
SDZ	03-9426	CH3815	P	Simple Flaked Stone	-
SDZ	03-9428	CH3817	P	Simple Flaked Stone	-
SDZ	03-8746	CH3533	P	Basic Habitation	-
SDZ	03-9447	CH3836	H	Road	-
SDZ	03-9446	CH3835	H	Road	-
SDZ	03-9444	CH3833	P	Simple Flaked Stone	-
<b>B-16 Class III Survey</b>					
SDZ	03-8746	CH3533	P	Complex Habitation	D
SDZ	03-11208	CH4756	P	Complex Flaked Stone	D
SDZ	03-11222	CH4770	P	Basic Habitation	D
SDZ	03-11223	CH4771	P	Complex Habitation	-
SDZ	03-11245	CH4793	M	Rockshelter/Animal Trap	D
SDZ	03-11254	CH4801	P	Lithic Procurement - Clast Quarry	-
SDZ	03-11260	CH4807	P	Complex Flaked Stone	D
SDZ	03-11267	CH4814	P	Complex Flaked Stone	D
SDZ	03-11271	CH4818	ETHNO	Complex Flaked Stone	D



**Table 3.11-2: NRHP-Eligible and Potentially Eligible Archaeological Sites in the Proposed B-16 Expansion Area  
(continued)**

Location	BLM Site No.	State Site No.	AGE	Site Type	NRHP Criterion*
SDZ	03-11273	CH4820	P	Basic Habitation	D
SDZ	03-11275	CH4822	P	Basic Habitation	D
SDZ	03-11327	LY2775	P	Lithic Procurement - Clast Quarry	D
SDZ	03-11355	LY2788	P	Complex Flaked Stone	D
SDZ	03-11373	CH4874	U	Stacked Rock Cairns	-
SDZ	03-11375	CH4876	M	Basic Habitation/Animal Trap	D
SDZ	03-11377	LY2797	P	Complex Flaked Stone	D
SDZ	03-11379	CH4878	P	Complex Habitation	D
SDZ	03-11382	CH4881	P	Basic Habitation	-

Notes: P = prehistoric, M = multicomponent (prehistoric and historic), NRHP = National Register of Historic Places.

\*NRHP Criterion "C" are sites that embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value or represent a significant and distinguishable entity whose components may lack individual distinction. NRHP Criterion "D" are sites that have yielded, or may be likely to yield, information important in prehistory or history.

Potential impacts on archaeological resources within the B-16 PIA are discussed in Section 3.11.3 (Environmental Consequences).

### 3.11.2.2.2 Architectural Resources

Based on previous studies (see Sections 3.11.1.3.1, Previous Studies and Investigations for Existing FRTC; and 3.11.1.3.2, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas), there are no known NRHP-eligible architectural resources within the B-16 range PIA (see Figure 3.11-2).

### 3.11.2.2.3 Traditional Cultural Properties and Tribal Resources

One place of potential traditional cultural significance is known to occur within the requested B-16 land withdrawal area. The site is eligible for the NRHP under criteria C and D and may have traditional cultural importance to the Northern Paiute Tribes. Site-specific information is sensitive and is not included in this EIS.

### 3.11.2.3 Bravo-17

The B-17 PIA consists of the existing B-17 range (54,786 acres) and the proposed expansion area (178,013 acres). The B-17 PIA includes a large SDZ/WDZ as well as target areas and convoy routes.

#### 3.11.2.3.1 Archaeological Resources

Based on previous Class III inventories of 14,019 acres within the existing B-17 range, there are 133 NRHP-eligible or potentially eligible archaeological sites. Most of the sites in the existing B-17 range are open lithic scatters (chipped stone debris). Other archaeological sites associated with mining sites and camps have been identified within the existing B-17 range and consist of dry stacked stone structures, mine adits, shafts, and prospect pits; none of these sites have yet been inventoried or evaluated to determine NRHP eligibility and are managed as eligible until formally evaluated for NRHP significance (U.S. Department of the Navy, 2015). In accordance with the 2011 PA, portions of the existing B-17 range are exempt from Section 106 review.

Within the proposed B-17 expansion area, a total of 56 NRHP-eligible or potentially eligible archaeological sites have been identified based on a complete Class I survey and 21,769 acres of Class III surveys. The Navy used two major sources of information to identify potential archaeological sites within the proposed B-17 expansion area. The first was a Class I Cultural Resources Inventory conducted in 2018. The second was a series of Class III cultural resource inventories, including 6,613 acres surveyed by prior agencies and 15,256 acres surveyed by the Navy from 2017 through 2019 focusing on the proposed target and convoy areas (refer to Section 3.11.1.3.2, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas). Archaeological sites that have been identified in the Class I and Class III cultural resources investigations are shown in Table 3.11-3.

**Table 3.11-3: NRHP-Eligible or Potentially Eligible Archaeological Sites Within the Proposed B-17 Area**

Location	BLM Site No.	State Site No.	AGE	Site Type	NRHP Criterion*
<b>B-17 Class I Inventory (Alt 1)</b>					
SDZ/WDZ (All Alts)	03-8562	CH1763	P	Complex Flaked Stone	-
SDZ/WDZ (All Alts)	03-3731	CH1237	P	Lithic Quarry	D
SDZ/WDZ (All Alts)	03-4655	CH2055	M	Basic Habitation/Historic Camp	D
SDZ/WDZ (All Alts)	03-3504	CH942	P	Complex Habitation	D
SDZ/WDZ (All Alts)	03-0637	NY537	P	Complex Habitation	-
SDZ/WDZ (All Alts)	03-1197	NY2012	P	Rock Alignments	-
SDZ/WDZ (All Alts)	03-8564	CH1765	P	Complex Flaked Stone	D
SDZ/WDZ (All Alts)	03-7169	MN1753	P	Basic Habitation	D
SDZ/WDZ (All Alts)	03-7019	MN1742	M	Complex Habitation/Refuse Scatter	D
SDZ/WDZ (All Alts)	03-7439	MN1898	M	Basic Habitation/Homestead	D
SDZ/WDZ (All Alts)	03-7021	MN1744	P	Complex Habitation	D
SDZ/WDZ (All Alts)	03-7012	MN1735	P	Complex Habitation	D
SDZ/WDZ (All Alts)	03-1998		H	Mine (uninhabited)	-
SDZ/WDZ (All Alts)	03-8553	CH3406	P	Basic Habitation	D
SDZ/WDZ (All Alts)	03-7017	MN1740	M	Complex Flaked Stone/Prospect Complex	D
SDZ/WDZ (Alt 1 & 2)	03-4661	CH2061	P	Lithic Quarry	-
SDZ/WDZ (All Alts)	03-3730	CH1236	M	Complex Habitation/Ranching	D
SDZ/WDZ (All Alts)	03-7807	NY14106	P	Basic Habitation	-
SDZ/WDZ (All Alts)	03-7809	MN1986	P	Basic Habitation	D
SDZ/WDZ (Alt 1 & 2)	03-8550	CH3403	M	Basic Habitation/Refuse Scatter	D
SDZ/WDZ (All Alts)	03-1885	N/A	H	Mining Camp	-
SDZ/WDZ (All Alts)	03-1984	N/A	H	Mining Camp	-
SDZ/WDZ (All Alts)	03-1985	N/A	H	Mine Complex (uninhabited)	-
SDZ/WDZ (All Alts)	03-1997	N/A	H	Mine Complex (uninhabited)	-
SDZ/WDZ (All Alts)	03-2015	N/A	H	Mill	-
SDZ/WDZ (All Alts)	03-1998	N/A	H	Mine (uninhabited)	-
SDZ/WDZ (Alt 3)	03-3142	N/A	P	Complex Habitation	-
SDZ/WDZ (Alt 3)	03-5765	N/A	H	Grave	-
SDZ/WDZ (Alt 3)	03-1974	N/A	H	Mining (Known but not recorded)	-

**Table 3.11-3: NRHP-Eligible or Potentially Eligible Archaeological Sites Within the Proposed B-17 Area  
(continued)**

Location	BLM Site No.	State Site No.	AGE	Site Type	NRHP Criterion*
<b>B-17 Class III Inventory</b>					
Convoy Route (Alt 1 & 2)	03-7966	26CH3181	P	Lithic Procurement - Clast Quarry	D
Target Area (Alt 1 & 2)	03-10482	26CH4548	M	Lithic Procurement - Clast Quarry/ Refuse Deposit	D
Target Area (Alt 1 & 2)	03-10475	26CH4541	P	Complex Flaked Stone	D
Target Area (Alt 1 & 2)	03-10499	26CH4565	P	Complex Flaked Stone	D
Target Area (All Alts)	03-10541	26MN2418	P	Basic Habitation	-
Target Area (Alt 1 & 2)	03-10542	26NY15876	P	Complex Flaked Stone	-
Target Area (Alt 1 & 2)	03-11419	26CH4917	P	Complex Flaked Stone	D
Convoy Route (Alt 1 & 2)	03-11504	26MN2825	P	Basic Habitation	D
Fence (Alt 1 & 2) Convoy Route (Alt 3)	03-11743	26NY16319	H	Road	D
SDZ/WDZ (All Alts)	03-11414	26CH4912	P	Lithic Procurement - Clast Quarry	D
SDZ/WDZ (All Alts)	03-11418	26CH4916	P	Basic Habitation	D
SDZ/WDZ (All Alts)	03-11437	26CH4928	P	Basic Habitation	D
SDZ/WDZ (All Alts)	03-11442	26CH4933	P	Complex Flaked Stone	D
SDZ/WDZ (All Alts)	03-11464	26MN2785	P	Lithic Procurement - Bedrock Quarry	D
SDZ/WDZ (Alt 1 & 2) Target Area (Alt 3)	03-11465	26MN2786	P	Complex Flaked Stone	D
SDZ/WDZ (Alts 1&2)	03-11466	26MN2787	P	Basic Habitation	D
SDZ/WDZ (Alt 1 & 2) Target Area (Alt 3)	03-11470	26MN2791	P	Basic Habitation	D
SDZ/WDZ (Alt 1 & 2) Target Area (Alt 3)	03-11473	26MN2794	P	Complex Habitation	D
SDZ/WDZ (Alt 1 & 2) Target Area (Alt 3)	03-11474	26MN2795	P	Basic Habitation	D
SDZ/WDZ (All Alts)	03-11493	26MN2814	U	Rock Alignment	-
SDZ/WDZ (All Alts)	03-11499	26MN2820	P	Basic Habitation	-
SDZ/WDZ (All Alts)	03-11503	26MN2824	P	Basic Habitation	-
SDZ/WDZ (All Alts)	03-11506	26NY16253	P	Complex Habitation	-
SDZ/WDZ (All Alts)	03-11507	26NY16254	P	Complex Habitation	D
SDZ/WDZ (Alt 1 & 2) Target Area (Alt 3)	03-11642	26MN2953	P	Lithic Procurement - Clast Quarry	-
Target Area (Alt 3)	31-3505	MN662	P	Basic Habitation	D
Convoy Route (Alt 3)	03-11743	NY16319	H	Road	A

Notes: H = historic, P = prehistoric, M = multicomponent (prehistoric and historic), NRHP = National Register of Historic Places.

\*NRHP Criterion "A" are sites that are associated with events that have made a significant contribution to the broad pattern of our history. NRHP Criterion "D" are sites that have yielded, or may be likely to yield, information important in prehistory or history.

Potential impacts on archaeological resources within the B-17 PIA are discussed in Section 3.11.3 (Environmental Consequences).

#### **3.11.2.3.2 Architectural Resources**

Based on previous studies (see Sections 3.11.1.3.1, Previous Studies and Investigations for Existing FRTC; and 3.11.1.3.2, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas), there are no known NRHP-eligible architectural resources within the B-17 PIA (Figure 3.11-3).

#### **3.11.2.3.3 Traditional Cultural Properties and Tribal Resources**

Five potentially significant tribal resource sites are located in the B-17 PIA. These sites consist mostly of resource collection areas and spiritual/ceremonial locations. Site-specific information is sensitive and is not included in this EIS.

#### **3.11.2.4 Bravo-20**

The B-20 PIA consists of the existing B-20 range (41,005 acres) and the proposed expansion area (180,329 acres under Alternatives 1 and 2, and 177,144 acres under Alternative 3). The B-20 PIA includes a large SDZ/WDZ surrounding and including the target areas.

##### **3.11.2.4.1 Archaeological Resources**

In accordance with the 2011 PA, all of the existing B-20 range is exempt from further Section 106 review, due to the historical use of high explosives and the resulting disturbance of the area.

Within the proposed B-20 expansion area, a total of 11 NRHP-eligible or potentially eligible archaeological sites have been identified based on a complete Class I survey in 2018, 1,200 acres of previously completed (non-Navy) Class III surveys, and 1,408 acres of Navy-completed Class III surveys that focused on proposed target areas (refer to Section 3.11.1.3.2, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas). Archaeological sites that have been identified in this proposed expansion area are shown in Table 3.11-4.

Potential impacts on archaeological resources within the B-20 PIA are discussed in Section 3.11.3 (Environmental Consequences).

##### **3.11.2.4.2 Architectural Resources**

Based on previous studies (see Sections 3.11.1.3.1, Previous Studies and Investigations for Existing FRTC; and 3.11.1.3.2, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas), there are no known NRHP-eligible architectural resources within the B-20 PIA (Figure 3.11-4).

##### **3.11.2.4.3 Traditional Cultural Properties and Tribal Resources**

There is one place of cultural and religious importance located within existing B-20. It is affiliated with the Northern Paiute as a traditional origin and mythological place, as well as a spiritual and ceremonial location. There is one additional potential traditional cultural property in close proximity to the B-20 PIA. While not located within the requested B-20 land withdrawal area, it is located 0.29 mile outside the westerly boundary. Site-specific information is sensitive and is not included in this EIS.

**Table 3.11-4: NRHP-Listed, Eligible, and Potentially Eligible Archaeological Sites Within the Proposed B-20 Expansion Area**

Location	BLM Site No. (CrNV-03)	State Site No (26-)	Age	Site Type	NRHP Criterion*
SDZ/WDZ (All Alts)	-	CH1446	P	Complex Habitation	D
Fence	-	CH1448	P	Complex Habitation	D
SDZ/WDZ (All Alts)	-	CH1449	P	Complex Habitation	D
SDZ/WDZ (All Alts)	03-0626	CH474	P	Basic Habitation	D
SDZ/WDZ (All Alts)	03-2282	CH739	P	Lithic Quarry	-
SDZ/WDZ (All Alts)	03-2283	CH740	P	Complex Habitation	-
SDZ/WDZ (All Alts)	03-2284	CH741	P	Simple Flaked Stone	-
SDZ/WDZ (All Alts)	03-2285	CH742	P	Complex Flaked Stone	-
SDZ/WDZ (All Alts)	22-7736	-	P	Complex Habitation	D
SDZ/WDZ (All Alts)	22-7738	-	P	Complex Habitation	D
Fence	-	CH304	P	Stillwater Marsh Archaeological Area	D

Notes: P = prehistoric, NRHP = National Register of Historic Places, SDZ = Surface Danger Zone, WDZ = Weapons Danger Zone.

\*NRHP Criterion "D" are sites that have yielded, or may be likely to yield, information important in prehistory or history.

### 3.11.2.5 Dixie Valley Training Area

The DVTA PIA consists of the existing DVTA (77,559 acres) and the proposed expansion area (293,343 acres).

#### 3.11.2.5.1 Archaeological Resources

Based on previous studies conducted within the existing DVTA, there are 23 NRHP-eligible or potentially eligible archaeological sites based on 5,625 acres of Class III surveys.

Within the proposed DVTA expansion area, a total of 20 NRHP-eligible or potentially eligible archaeological sites have been identified based on a Class I survey conducted in 2018 and 4,839 acres of previously completed (non-Navy) Class III surveys (refer to Section 3.11.1.3.2, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas). Archaeological sites that have been identified in the proposed DVTA expansion area are shown in Table 3.11-5.

**Table 3.11-5: NRHP-Eligible and Potentially Eligible Archaeological Sites Within the Proposed DVTA Expansion Area**

Location	BLM Site No. (CrNV-)	State Site No. (26-)	Age	Site Type	NRHP Criterion*
Maneuver Area	03-9525	CH2199	H	Historic Camp (Remnant Structure and Walls	-
Maneuver Area	-	CH1891	M	Complex Habitation/Refuse Deposit	D
Maneuver Area	03-3618	CH1078	P	Cave/Rockshelter	D
Maneuver Area	03-7846	CH2177	H	Homestead (Loraine Spencer Homestead)	A/D
Maneuver Area	03-7848	CH2179	H	Homestead (Devore Homestead)	C
Maneuver Area	03-7849	CH2180	H	Homestead (Ellis Homestead)	A/C/D
Maneuver Area	03-7852	CH2183	H	Homestead (Derrick Complex)	A/D
Maneuver Area	03-4595	-	H	Mining Camp	-
Maneuver Area	03-4594	-	H	Mining Camp	-
Maneuver Area	03-5369	-	H	Mining Camp	-
Maneuver Area	03-1857	-	H	Mining Camp	-
Maneuver Area	03-1819	-	H	Mine (uninhabited)	-
Maneuver Area	03-1846	-	H	Mining Camp	-
Maneuver Area	03-7428	CH2165	M	Complex Habitation/Refuse Scatter	-
Maneuver Area	03-9523	CH476	P	Complex Flaked Stone	-
Maneuver Area	03-7429	CH2166	P	Basic Habitation	-
Maneuver Area	03-7836	CH2167	P	Complex Habitation	-
Maneuver Area	03-7421	CH2158	P	Complex Flaked Stone	-
Maneuver Area	03-3445	CH921	P	Basic Habitation	-
Maneuver Area	03-2292	CH749	P	Complex Flaked Stone	-

Notes: H = historic, P = prehistoric, M = multicomponent (prehistoric and historic), NRHP = National Register of Historic Places.

\*NRHP Criterion "A" are sites that are associated with events that have made a significant contribution to the broad pattern of our history. NRHP Criterion "C" are sites that embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value or represent a significant and distinguishable entity whose components may lack individual distinction. NRHP Criterion "D" are sites that have yielded, or may be likely to yield, information important in prehistory or history.

### 3.11.2.5.2 Architectural Resources

Five known architectural resources, within the requested DVTA land withdrawal area, are eligible for listing on the NRHP (shown in Table 3.11-6). Despite the abandonment of nearly all of the ranches in the 1980s, a number of features continue to exist that are preserved by the efforts of the people in the Valley. Eligible architectural resources in the DVTA PIA are shown in Table 3.11-6.

Potential impacts on architectural resources within the DVTA PIA are discussed in Section 3.11.3 (Environmental Consequences).

**Table 3.11-6: NRHP-Eligible Architectural Sites Within the Proposed DVTA Expansion Area**

Location	Building/Site No. (26-)	Name	Location	Date of Construction	Description
Maneuver Area	CH2177	Lorraine-Spencer Homestead	DVTA	1920s	Eroded stone foundation, cottonwoods and corrals, 1950s refuse scatter
Maneuver Area	CH2179	Devore Homesite (formerly part of Ellis Ranch)	DVTA	1920s	Eroded adobe structure and small adobe food cellar associated with the historic archaeological deposits
Maneuver Area	CH2180	Ellis Ranch	DVTA	1920s	Semi-subterranean food storage building with stone foundation associated with the historic archaeological deposits
Maneuver Area	CH2183	Spencer-Derrick Homestead	DVTA	1920s	Nine contributing elements (five wood frame buildings consisting of two stores and three residences, four structures including three wood frame and earthen root cellars and a wood headframe) and two non-contributing elements
Maneuver Area	CH3100	Chalk Mountain Mining Camp	DVTA	1920s	Mine shafts, adits, drifts, prospects, tent platforms, standing wood shack, collapsed mining shacks, and refuse scatters

Notes: DVTA = Dixie Valley Training Area.

### 3.11.2.5.3 Traditional Cultural Properties and Tribal Resources

The Navy identified seven potentially significant tribal resource sites in the DVTA PIA. These sites are primarily traditional origin or mythological places and resource collection areas, as well as spiritual/ceremonial locations. Due to the sensitivity of this information, site specific information for potential TCPs is not included in this EIS.

### 3.11.2.6 Special Use Airspace

As discussed in 3.11.1.1 (Region of Influence), the FRTC SUA has been identified as a PIA for the purposes of impacts analysis for cultural resources, with emphasis on the areas with proposed changes.

Aircraft overflights may introduce visual, audible, or atmospheric elements that are out of character with certain cultural resources and may alter the setting in ways that diminish important resource qualities. While the Navy anticipates that aircraft operations-related impacts to cultural resources would be less than significant (see Section 3.11.3.3.5.2, Aircraft Overflights), potential impacts would be considered further during ongoing consultations pursuant to an amended 2011 PA, to include potential impacts from aircraft operations at lower altitudes within the modified SUA. Cultural resources potentially impacted by proposed auditory and visual intrusions may include sensitive architectural properties, such as adobe structures, traditional cultural properties, and sacred sites.



### 3.11.2.6.1 Archaeological Resources

There are nine noise and vibration-sensitive NRHP-eligible and potentially eligible archaeological sites that have been identified within the ground footprint beneath the proposed SOA B expansion area based on a data search from the NVCRIS.

### 3.11.2.6.2 Architectural Resources

Based on data from NVCRIS, two NRHP-listed architectural resources have been identified beneath the proposed expansion of Supersonic Operations Area B as well as the ground areas beneath proposed airspace modifications in the SUA as described in Section 3.11.1.1 (Region of Influence). Additionally, there are 7 architectural resources that underlie the Ruby, Zircon, Diamond, Duckwater, Reno, and Smokie MOAs (Table 3.11-7).

**Table 3.11-7: Vibration Sensitive Architecture under the Proposed Ruby, Zircon, Diamond, Duckwater, Reno, and Smokie Military Operations Areas and Ingress/Egress routes**

Location (MOA)	Resource Number
ZIRCON MOA	B1686
ZIRCON MOA	A_232
ZIRCON MOA	A_232
ZIRCON MOA	S1732
ZIRCON MOA	B11930
RUBY/ZIRCON/DIAMOND MOA	S1079
ZIRCON MOA	S1079

Notes: MOA = Military Operations Area

### 3.11.2.6.3 Traditional Cultural Properties and Tribal Resources

Based on the site files searches and a comprehensive study of available secondary sources, the Navy identified nine potential TCPs beneath proposed expansion and modification areas of the SUA PIA. For the purposes of this analysis, these sites are considered potential TCPs. Potential TCPs within the SUA PIA include traditional origin or mythological places, spiritual and ceremonial locations, and resource collection areas. There is one potential TCP directly under the proposed expansion area of SOA B. Within the Reno MOA, there are two potential TCPs. There are an additional five potential TCPs in the vicinity of the ingress/egress corridors. Site-specific information is sensitive and is not included in this EIS.

### 3.11.3 Environmental Consequences

This section evaluates how the Proposed Action and alternatives could impact cultural resources within the region of influence, or PIAs, for cultural resources using the general principles identified in Section 3.11.1.4 (Approach to Analysis). The analysis addresses potential impacts on all cultural resources that may result from implementation of the no action alternative and three action alternatives. Section 3.11.3.7 (Summary of Impacts and Conclusions) then provides a summary of potential impacts associated with implementation of the no action alternative and the three action alternatives.

The potential impacts on cultural resources from the Proposed Action vary in intensity, frequency, and location within the region of influence. The following types of activities and impacts are applicable to cultural resources within the region of influence, as reflected in the PIAs analyzed in this EIS:

- Training activities: Live and inert air-to-ground bomb drops, explosives ordnance disposal, air-to-ground machine gun fire, ground mobility training, and combat search and rescue training.
- Public accessibility: Constraints on access to lands, due to safety and operational considerations.
- Construction: Installation of new target systems, aircraft landing zones, launch and recovery areas for unmanned aircraft systems, and free maneuver areas for Tactical Ground Maneuver Training.
- Aircraft Operations: low-altitude overflights, sonic booms, and ingress/egress corridor overflights.

### **3.11.3.1 Potential Impacts**

The following sections provide an overview of potential impacts of the No Action Alternative and Alternatives 1 through 3 against the environmental baseline as described in Section 2.4 (Environmental Baseline [Current Training Activities]). Note that because the potential impacts for all three action alternatives are nearly identical, they are fully analyzed under Alternative 1 and summarized to highlight any differences in Alternatives 2 and 3.

### **3.11.3.2 No Action Alternative**

Under the No Action Alternative, the Proposed Action would not occur and the current withdrawal would expire on November 5, 2021. All training activities that require use of these public lands would cease. Upon the expiration of this withdrawal, the Navy would work with stakeholders to prioritize and address any environmental remediation needed on these lands, in anticipation of potential relinquishment to the BLM or other potential disposal options.

Under the No Action Alternative, a decision to allow the FRTC land withdrawal to expire would have no significant impact on cultural resources because the land would continue to be protected by federal statutes and regulations pertaining to cultural resources. With the likely cessation of military training activities within current FRTC ranges, there would be net beneficial impacts in the form of reduced levels of noise potentially affecting cultural resources and greater access to lands under Department of Defense control. Although some of the actions needed to decommission, decontaminate, and reuse the closed range could potentially affect the cultural resources present in the FRTC, both the Navy and BLM would be involved in the processing of the closed FRTC and would share responsibility for compliance with cultural resources regulations. Management and use of the closed FRTC would continue to be subject to NHPA Section 106, NAGPRA, and other applicable law and regulations governing the protection and management of cultural resources. Any future land use proposals and potential impacts on cultural resources associated with the closure process would be addressed by the responsible agencies.

### **3.11.3.3 Alternative 1: Modernization of the Fallon Range Training Complex**

Under Alternative 1, the Navy would renew the current public land withdrawal, propose to acquire or request to withdraw additional land, and expand the SUA reserved for military use. Alternative 1 would expand all bombing ranges and training areas to accommodate the larger safety zones needed for standoff weapons training. The amount of training within the proposed FRTC expansion areas and proposed revised SUA relative to baseline conditions analyzed in the 2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement (U.S. Department of the Navy, 2015) would remain the same but be dispersed within a larger area, i.e., throughout the existing FRTC ranges and SUA plus the proposed FRTC expansion areas and revised SUA. Training

activities would use existing target locations within the existing FRTC ranges and include new targets and training areas within the proposed expansion areas. This would increase the area where potential impacts on cultural resources could occur.

Changes in the location of aircraft targets and land-based munitions and live-fire training areas within each PIA have the potential to impact cultural resources. The following sections include discussion of the proposed changes in noise levels within each proposed range expansion area.

The following narrative addresses potential impacts associated with the proposed range expansions, airspace modifications, and range infrastructure-related changes, including construction and installation of perimeter fencing. Five PIAs have been identified and are described in Section 3.11.1.1 (Region of Influence). The PIAs for Alternative 1 include B-16, B-17, B-20, DVTA, and the FRTC SUA (Figure 3.11-1).

### **3.11.3.3.1 Bravo-16**

#### ***Training Activities***

Training activities within the B-16 range primarily consist of unit-level ground and air training. Training activities include tactical ground mobility training, helicopter gunnery training, fixed-wing inert ordnance, and Close Air Support and Combat Search and Rescue missions. The continued use of high-impact explosives (explosives ordnance disposal and land demolitions only) at previously disturbed target areas within the existing B-16 would not be considered a potential impact on cultural resources because intact archaeological sites no longer exist in such areas and because the type of activities carried out in these locations would not change from what has previously been analyzed and assessed for potential impacts in the 2015 EIS.

Based on Class I and Class III investigations conducted within the proposed B-16 expansion area for this EIS, six known archaeological sites and one potential TCP have been identified within the proposed maneuver area/close air support target area. An additional 24 archaeological sites are within the proposed SDZ. No architectural resources are present within the existing B-16 range (Section 3.11.2.3.1, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas).

Ground-disturbing activities associated with use of the drill ground maneuver area and close air support target area would be conducted in accordance with an amended 2011 PA and placed to avoid affecting known cultural resources when mission and safety requirements allow. With respect to the potential TCP, it is considered eligible for listing on the NRHP based on Criteria C and D but may have additional importance as a traditional cultural property. High-impact explosives would not be utilized in the proposed expansion area for B-16, and the types of ground training proposed for this area would not result in unanticipated explosives-related impacts. If cultural resources cannot be avoided, the Navy would follow 36 CFR Section 800.6 with additional stipulations as included in an amended 2011 PA. In the event of post-review discovery of cultural resources, or an inadvertent discovery under NAGPRA during training activities, training in the immediate vicinity of the discovery would be suspended until an archaeologist could assess the potential significance of the resource(s) and actions to be taken in accordance with applicable legal requirements, as appropriate. The Navy anticipates that, with implementation of these measures, training activities in B-16 under Alternative 1 could impact cultural resources, but through the implementation of avoidance, minimization, and mitigation measures consistent with an amended 2011 PA, the impacts would be reduced to a level less than significant.

Under Alternative 1, the B-16 range would expand the operational area subject to noise exposures during land-based training activities, primarily to the west of the existing B-16 range. Due to the

proposed munitions activities within the proposed expansion area, the estimated 57–70 DNL dBC noise contours would shift to the west along the border of the existing B-16 range, but remain primarily within the range boundary (see Figure 3.7-16). The Navy anticipates the risk of noise-related impacts to cultural resources outside the range boundary would be low, but would consult as appropriate to identify and evaluate any potential adverse effects to NRHP-eligible resources pursuant to an amended 2011 PA. Munitions noise under Alternative 1 has the potential to impact 5 noise-sensitive sites through the introduction of noise levels of 115-130 dB Peak. Final assessments of eligibility and effect would be carried out in accordance with an amended 2011 PA, and in consultation with potentially-affected tribes. For purposes of this analysis, the Navy assumed that these sites would be negatively impacted and would require mitigation, potentially in the form of recording oral histories, detailed documentation, and/or archaeological data recovery.

### ***Public Accessibility***

Under Alternative 1, the Navy would install approximately 31 miles of perimeter fencing to enclose the proposed expansion area and connect with the existing B-16 range perimeter fencing. The Navy would close and restrict public access to the proposed range expansion areas and existing B-16 range except for Navy-authorized activities (e.g., ceremonial or cultural site visits, research/academic pursuits, or regulatory or management activities such as BLM, United States Fish and Wildlife Service [USFWS], Nevada Department of Wildlife [NDOW] activities). As discussed above, one potential TCP is located within the B-16 PIA. Access to this site for ceremonial, cultural, or academic purposes would be allowed; however, access would need to be managed and coordinated based on mission constraints related to training and safety requirements, and thus would be limited relative to current conditions. The Navy would consult with tribes who attach religious and cultural significance to the TCP and similar sites within the PIA in accordance with an amended 2011 PA and 36 CFR Part 800. The Navy also proposes to manage access through a Memorandum of Understanding (MOU) with tribes who attach religious and cultural significance to sites within the PIA. Access to cultural resources within B-16 would be managed and not eliminated. Given the proposed access MOU has not been finalized and the high degree of concern with respect to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts. The Navy also notes that restricting public access could potentially provide for greater protection of historic properties and other cultural resources by reducing frequency of activities such as off-road vehicle use and unauthorized collection of archaeological material.

### ***Construction***

Under Alternative 1, proposed ground-disturbing construction activities (e.g., excavating, grading, grubbing, compacting, and soil clearing) in the proposed B-16 expansion area would directly impact approximately 150 acres. These construction activities are associated with the proposed combat village containing 35–45 conex boxes as well as the construction of 31 miles of perimeter fencing with five access gates.

Based on Class I and Class III investigations conducted in 2018 and 2019 in support of this EIS, two known archaeological sites and no potential TCPs have been identified in the vicinity of the proposed perimeter fence and the proposed combat village area. Ground-disturbing activities associated with new construction and staging areas would be conducted in accordance with an amended 2011 PA and placed to avoid affecting known cultural resources when mission and safety requirements allow. If cultural resources cannot be avoided, the Navy would consult with the SHPO, ACHP, potentially affected Indian

tribes and other interested parties in accordance with an amended 2011 PA and 36 CFR Section 800.6 to resolve adverse effects. In the case of post-review discovery of other cultural resources or an inadvertent discovery subject to NAGPRA during construction activities, construction would be suspended until an archaeologist could assess the significance of the encountered resource(s) and any actions to be taken in accordance with applicable legal requirements, as appropriate. Through implementation of these measures, construction activities would not result in significant impacts on cultural resources under Alternative 1.

### **3.11.3.3.2 Bravo-17**

#### ***Training Activities***

B-17's primary use is advanced aerial training with multiple aircraft, as well as land-based training. Existing and new target areas would accommodate live and inert munitions, including high-impact explosives. The continued use of high-impact explosives in target areas within the existing B-17 would not be considered a potential impact on cultural resources because the existing target areas are previously disturbed, and the type and frequency of activities would not change. While the vast majority of training weapons within the B-17 PIA would land within target areas (which for purposes of this analysis include the buffer areas surrounding targets), a small number may fall on non-target areas due to weapons failure, and thus could potentially land elsewhere within the WDZ.

Ground-disturbing training activities associated with convoy operations, as well as direct impacts and vibrations from aerial target strikes and military expended material strikes, may impact cultural resources within B-17. Based on Class I and Class III investigations conducted in support of this EIS, eight known archaeological sites and no potential TCPs have been identified within proposed new target and convoy operations areas. There are 42 archaeological sites and 5 potential TCPs within the SDZ/WDZ areas in the B-17 PIA for Alternative 1 (see Section 3.11.2.3.1, Archaeological Resources). No architectural resources are present within the existing B-17 range or the requested land withdrawal expansion area (see Section 3.11.2.3.1, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas). The Navy plans to avoid known cultural resources when placing new target areas and convoy routes when mission and safety requirements allow, with close attention to potentially vibration-sensitive resources.

With respect to cultural resources located within target areas and their associated 200-meter buffers, although the Navy would attempt to avoid cultural resources when placing target areas, it is anticipated that such resources would be impacted by training activities. A number of resources within target or buffer areas have been determined to be eligible for listing on the NRHP. However, with the implementation of an amended 2011 PA, adverse effects would be avoided, minimized, and/or mitigated to such an extent that impacts would be less than significant.

Of the eight known archaeological resources within proposed target/buffer areas or convoy routes on B-17 under Alternative 1, six are NRHP-eligible under Criterion D (resources that have either yielded or are likely to yield information important in prehistory or history) and two remain unevaluated. Where resources have not been evaluated, it is because there was insufficient information on which to make a determination as to NRHP eligibility at the time the resources were recorded. Unevaluated properties within such areas are treated as NRHP-eligible until their eligibility can conclusively be determined. Prior to any potential utilization of the proposed target/buffer areas or convoy routes, the Navy would (1) conduct further investigation to update and confirm the eligibility of unevaluated resources within the target/buffer areas and convoy routes; and (2) for eligible resources, engage in consultation with the

SHPO, ACHP, interested Indian Tribes, and other interested parties to identify measures to avoid, minimize, and/or mitigate potential adverse effects in accordance with an amended 2011 PA. Potential mitigation measures include data recovery, which may include controlled excavation, collection of artifacts, and preparation and publication of technical reports. Mitigation measures also include additional research and development of interpretive materials to record and preserve information concerning the resources.

The majority of weapons fall within target areas; however, the Navy recognizes that, although the risk is substantially lower, there is a potential for impacts to occur on cultural resources by both live and inert weapons if they were to fall outside of the target area. Therefore, the Navy proposes to investigate any errant weapon delivery, assess any potential impacts to cultural resources, and consult with SHPO and Tribes if necessary. These procedures will be stipulated in an amended PA.

Munitions-related noise impacts under Alternative 1 in the expansion of the B-17 range to the south would increase the area subject to noise exposures during aircraft and land-based training activities. Aircraft targets and land-based training facilities would be installed south of the existing B-17 range thereby causing associated aircraft and munitions activities to also shift to the south. Estimated DNL dBC noise contours from proposed munitions activities would also shift from occurring completely within the existing B-17 range (Figure 3.7-7) to overlying the proposed expansion area (Figure 3.7-19).

Munitions noise associated with Alternative 1 has the potential to impact cultural resources. Within the new 130 dB peak contours, three potentially noise sensitive cultural sites could be impacted. Final assessments of eligibility and effect would be carried out in accordance with an amended 2011 PA. For purposes of this analysis, the Navy assumed that these sites would be impacted and would require mitigation, potentially in the form of data recovery. Additional archaeological sites located within the new 115 dB contour are not expected to be impacted.

If sites cannot be avoided, the Navy would consult with the ACHP, SHPO, potentially affected Indian Tribes, and interested parties in accordance with an amended 2011 PA and 36 CFR Section 800.6 for resolution of adverse effects. Reporting and monitoring protocols for eligible archaeological sites, architectural resources, and any TCPs located in the B-17 range would be implemented in accordance with an amended 2011 PA. In the event of post-review discovery of cultural resources, or an inadvertent discovery subject to NAGPRA, during training activities, training would be suspended in the immediate vicinity of the discovery until an archaeologist could determine the significance of the encountered resource(s) and any actions to be taken in accordance with applicable legal requirements, as appropriate. In the event of unanticipated impacts from errant weapons, the Navy would engage in consultation pursuant to an amended 2011 PA. Through systematic implementation of measures in an amended PA, the Navy anticipates that training activities in B-17 under Alternative 1 would impact cultural resources, but the impacts would be reduced to a level less than significant.

### ***Public Accessibility***

Under Alternative 1, the Navy would install approximately 75 miles of perimeter fencing to enclose the proposed expansion area and connect with the existing B-17 range perimeter fencing. The Navy would close and restrict public access to the proposed range expansion areas and existing B-17 range except for Navy-authorized activities (e.g., ceremonial or cultural site visits, research/academic pursuits, or regulatory or management activities such as BLM, USFWS, NDOW activities). Five potential TCPs are located within the B-17 PIA. Access to these sites for ceremonial, cultural, or academic purposes would be allowed; however, access would need to be managed and coordinated based on mission constraints

related to training and safety requirements, and thus would be limited relative to current conditions. The Navy would consult with Tribes who attach religious and cultural significance to any TCPs, in accordance with an amended 2011 PA and 36 CFR Part 800. The Navy also proposes to manage access through an MOU with Tribes who attach religious and cultural significance to sites within the PIA. The Navy notes that restricting public access could potentially provide for greater protection of historic properties and other cultural resources by reducing frequency of activities such as off-road vehicle use and unauthorized collection of archaeological material. Access to cultural resources within B-17 would be managed and not eliminated. Given the proposed access MOU has not been finalized and the high degree of concern with respect to potential loss of access documented in comments received from Indian Tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts.

### ***Construction***

Proposed ground-disturbing construction activities (e.g., excavating, grading, grubbing, compacting, and clearing soil) associated with the proposed B-17 expansion area would directly impact approximately 3,000 acres. These ground-disturbing activities are associated with the proposed construction of two target maintenance buildings, two communication towers, convoy routes, military vehicle training routes, ground target areas, and 75 miles of security fencing with eight gates.

Based on Class I and Class III investigations conducted in support of this EIS, nine known archaeological sites and no potential TCPs have been identified in the vicinity of the proposed perimeter fence, convoy and military vehicle training routes, and the proposed ground target areas. Pre-construction surveys would be conducted prior to any ground-disturbing construction activities related to the construction of the target maintenance buildings and the communication towers once they are placed. Ground-disturbing activities associated with new construction and staging areas would be conducted in accordance with an amended 2011 PA and placed to avoid affecting known cultural resources when mission and safety requirements allow. If cultural resources cannot be avoided, the Navy would consult with the SHPO, ACHP, potentially affected Indian Tribes, and interested parties in accordance with an amended 2011 PA and 36 CFR Section 800.6 to resolve adverse effects. In the case of post-review discovery of cultural resources, or an inadvertent discovery under NAGPRA, during construction activities, construction would be suspended until an archaeologist could determine the significance of the encountered resource(s) as well as any appropriate actions to be taken in accordance with applicable legal requirements. Because of these measures, construction activities would not result in significant impacts on cultural resources under Alternative 1.

### ***Road and Infrastructure Improvements to Support Alternative 1***

#### **State Route 839**

Alternative 1 includes the potential realignment of State Route 839 and associated utility infrastructure. The Navy has identified three notional relocation corridors and is working with the Nevada Department of Transportation, BLM, Churchill County, and other stakeholders to identify a suitable location outside of the B-17 WDZ for the proposed relocation of State Route 839. A follow-on, site-specific NEPA document would be required to analyze the impacts of any route ultimately identified for the proposed relocation of the State Route 839, which would include analyzing potential impacts on cultural resources.

Using funding provided by the Navy, the Federal Highway Administration, in cooperation with the Nevada Department of Transportation, would be responsible for planning, designing, permitting, and



constructing any realignment of State Route 839. The Navy has submitted a Needs Report to the Surface Deployment and Distribution Command requesting authority to utilize funding through the Defense Access Roads program. If approved, the Navy would coordinate construction execution through the Federal Highway Administration. Nevada Department of Transportation would ensure that construction of any new route is complete before closing any portion of the existing State Route 839, and the Navy would not utilize any portion of the proposed expansion area of the B-17 range (if implemented) that would overlap the existing State Route 839 unless and until any such re-routing of the highway has been completed and made available to the public. Site-specific environmental analysis, appropriate cultural resource inventories, consultation, and pre-construction surveys would be conducted in the future, consistent with Section 106.

### **Paiute Pipeline**

Alternative 1 includes potential relocation of the Paiute Pipeline and associated utility infrastructure outside the B-17 WDC. The exact location of the potential pipeline relocation has not yet been determined, and the impacts on cultural resources resulting from the relocation cannot yet be analyzed. A follow-on, site-specific NEPA document would be required to analyze the impacts of any route ultimately identified for the proposed relocation of the Paiute Pipeline, which would include analyzing potential impacts on cultural resources.

The Navy would purchase the impacted portion of the Paiute Pipeline and then would pay for relocation of the existing Paiute Pipeline south of the proposed B-17 range. Using funding provided by the Navy, the Paiute Pipeline Company would be responsible for planning, designing, permitting, funding, and constructing any realignment of the pipeline. A Right of Way application submitted to the BLM by the pipeline owner would formally identify any proposed reroute. Site-specific environmental analysis, appropriate cultural resource inventories, pre-construction surveys, and NEPA planning would be required before any potential relocation of the pipeline could occur, and the Navy would not utilize any portion of an expanded B-17 range (if implemented) that would overlap the existing pipeline unless and until any such re-routing of the pipeline has been completed and made available to the pipeline owner. The BLM would have decision authority with respect to any proposed final routing subsequent to completion of site-specific environmental analysis. Site-specific environmental analysis, appropriate cultural resource inventories, consultation, and pre-construction surveys would be conducted in the future, consistent with Section 106.

### **3.11.3.3 Bravo-20**

#### ***Training Activities***

B-20 is primarily used for advanced weapons training and large force exercises. Existing and new target areas would accommodate both live and inert ordnance. The continued use of high-impact explosives in existing target areas would not be considered a potential impact because these areas have been previously disturbed, the type and frequency of activities would not change.

Ground-disturbing training activities include direct impacts, vibration and resultant noise from aerial target strikes, and military expended material strikes. Based on surveys conducted in 2017, no historic properties (eligible archaeological, architectural resources, or potential TCPs) are located within the 1,450 acres of proposed new B-20 target or convoy operations areas (see Section 3.11.2.3.1, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas). There are nine identified archaeological sites within the proposed B-20 SDZ/WDCs. The potential impacts to cultural

resources in non-target areas would be the same as discussed above with respect to Training Activities for B-17.

Under Alternative 1, the aircraft targets and land-based training facilities would be installed west of the existing B-20 range, thereby causing associated aircraft and munitions activities to also shift to the west. As a result, the estimated 57–70 DNL dBC noise contours from proposed munitions activities would shift to the northwest corner of the existing B-20 range and within the proposed expansion area (Figure 3.7-26). Munitions noise associated with Alternative 1 are not expected to impact cultural resources. The two archaeological sites located within the 130 peak dB contour are not considered noise and vibration sensitive.

Reporting and monitoring protocols for historic properties located in the B-20 training range would be implemented in accordance with an amended 2011 PA and as articulated in the ICRMP (U.S. Department of the Navy, 2013). In the event of post-review discovery of cultural resources or an inadvertent discovery subject to NAGPRA during training activities, training would be suspended in the immediate vicinity of the discovery until an archaeologist could determine the significance of the encountered resource(s) as well as any appropriate actions to be taken in accordance with applicable legal requirements. Through implementation of these measures, the Navy anticipates that there would be impacts on cultural resources as a result of training activities in B-20 under Alternative 1, but that these impacts would be reduced to a level less than significant.

#### ***Public Accessibility***

Under Alternative 1, the Navy would install approximately 90 miles of perimeter fencing to enclose the B-20 range. The Navy would close and restrict public access to the proposed range expansion areas and the existing B-20 range except for Navy-authorized activities (e.g., ceremonial or cultural site visits, research/academic pursuits, or regulatory or management activities such as BLM, USFWS, NDOW activities). One potential TCP is located within the existing B-20 range and within a high impact area that would not be available for managed access. The area is not able to be used for traditional use as the site has lost the trait which made it special to the Walker River Paiute Tribe and the area would be clear of any Traditional or cultural value at this time as described by the Walker River Paiute Tribe and Fallon Paiute-Shoshone Tribe respectively in past correspondence with the Navy. However, this site would be part of a planned ethnographic study and the Navy would continue to engage the Tribes regarding issues concerning the site. The Navy would consult with Tribes who attach religious and cultural significance to this potential TCP, in order to identify measures to avoid, minimize, and mitigate constraints to this potential TCP, in accordance with an amended 2011 PA and 36 CFR Part 800. Importantly, the Navy intends to develop an MOU with Tribes attaching religious and cultural significance to the sites to manage safe access. The Navy notes that restricting public access could potentially provide for greater protection of historic properties and other cultural resources by reducing frequency of activities such as off-road vehicle use and unauthorized collection of archaeological material. Given the proposed access MOU has not been finalized and the high degree of concern with respect to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts.

#### ***Construction***

Proposed ground-disturbing construction activities, e.g., excavating, grading, grubbing, compacting, and clearing soil in the proposed B-20 expansion area would directly impact approximately 1,450 acres. The

proposed ground-disturbing activities include a target maintenance building, associated vehicle parking and staging, target areas, and 90 miles of security fencing with five gates.

Based on Class I and Class III investigations conducted in support of this EIS, two known archaeological sites and no potential TCPs have been identified in the vicinity of the proposed perimeter fence. Sites near the fence line would be avoided. Surveys would be conducted prior to any ground disturbance to establish site boundaries and ensure avoidance. Additionally, pre-construction surveys would be conducted prior to any ground-disturbing construction activities related to the construction of the target maintenance building once placed. Ground-disturbing activities associated with facility construction and staging areas would be conducted in accordance with an amended 2011 PA and placed to avoid affecting known cultural resources when mission and safety requirements allow. If cultural resources cannot be avoided, the Navy would consult with the SHPO, ACHP, and the BLM in accordance with an amended 2011 PA and 36 CFR Section 800.6 to resolve adverse effects. In the event of post-review discovery of cultural resources or an inadvertent discovery under NAGPRA during construction activities, construction would be suspended until an archaeologist could determine the significance of the encountered resource(s) as well as any appropriate actions to be taken in accordance with applicable legal requirements. Through implementation of these measures, impacts on cultural resources as a result of construction activities under Alternative 1 would be reduced to a level less than significant.

#### **3.11.3.3.4 Dixie Valley Training Area**

##### ***Training Activities***

The DVTa is typically used for convoy training, fixed-wing and helicopter night vision device training, helicopter mountain-flying training, and Combat Search and Rescue activities. The DVTa also supports aviation electronic warfare and some Naval Special Warfare activities. No Air-to-Ground munitions delivery training or live-fire training activities occur within the DVTa.

Ground-disturbing training activities such as convoy operations and tactical ground mobility training would continue to occur within the existing DVTa and would therefore have at most a limited potential to impact cultural resources (Figure 3.11-5). Based on the Class I and Class III inventories conducted in support of this EIS (see Section 3.11.1.3.2, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas), there are 43 known NRHP-eligible or potentially eligible archaeological sites and 6 potential TCPs within the existing DVTa and proposed DVTa expansion area. None of the architectural resources present within the existing DVTa or the requested land withdrawal area would be affected by training activities (Section 3.11.1.3.2, Studies Conducted for the Requested Land Withdrawal and Proposed Acquisition Areas). When possible, new training areas would be placed to avoid known cultural resources when mission safety requirements allow. If cultural resources cannot be avoided, the Navy would consult with the ACHP, SHPO, potentially interested Indian Tribes, and interested parties in accordance with an amended 2011 PA and 36 CFR Section 800.6 for resolution of adverse effects.

Reporting and monitoring protocols for cultural resources located in the existing DVTa training area would be implemented in accordance with an amended 2011 PA and as articulated in the ICRMP (U.S. Department of the Navy, 2013).

As munitions activities are not proposed within the proposed DVTa expansion area, there would be no impacts within the proposed DVTa expansion area with respect to munitions. In the event of post-review discovery of cultural resources, or inadvertent discovery subject to NAGPRA, during training activities, training in the immediate vicinity of the discovery would be suspended until an archaeologist

could determine the significance of the encountered resource(s) as well as any appropriate actions to be taken in accordance with applicable legal requirements. Because of these measures, the Navy anticipates that impacts to cultural resources as a result of training activities in DVTA under Alternative 1 would be reduced to a level less than significant through implementation of an amended 2011 PA to avoid, minimize, and mitigate adverse effects.

### ***Public Accessibility***

The majority of the DVTA is accessible to the public under the terms of the 1999 Military Lands Withdrawal Act. There are several facilities on the existing DVTA that are fenced and locked, including radar sites, a maintenance yard, and an electronic support facility (Centroid Complex). The proposed expansion area would be open to the public for allowable uses and managed by the BLM. There are six potential TCPs located within the DVTA PIA. The Navy would not restrict access to these sites. Because access would be unrestricted, there would be no significant impact on cultural resources within DVTA with respect to public accessibility under Alternative 1.

### ***Construction***

Proposed ground-disturbing construction activities (e.g., excavating, grading, grubbing, compacting, and clearing soil) associated with the proposed DVTA expansion area would directly impact approximately 15 acres. These ground-disturbing activities are associated with three proposed 5-acre, graded, fenced electronic warfare sites at North Job Peak, 11 Mile Canyon, and Fairview Low. Based on the Class I inventory, there is one potential TCP near the North Job Peak electronic warfare site. Ground-disturbing activities associated with new construction and staging areas would be conducted in accordance with an amended 2011 PA and placed to avoid affecting known cultural resources when mission and safety requirements allow. If sites cannot be avoided, the Navy would consult with the SHPO, ACHP, potentially interested Indian tribes, and interested parties in accordance with an amended 2011 PA and 36 CFR Section 800.6 to resolve adverse effects. In the event of post-review discovery of cultural resources or the inadvertent discovery under NAGPRA during construction activities, construction would be suspended until an archaeologist could determine the significance of the encountered resource(s) as well as any appropriate actions to be taken in accordance with applicable legal requirements. Because of these measures, construction activities would not result in significant impacts on historic properties under Alternative 1.

#### **3.11.3.3.5 Fallon Range Training Complex Special Use Airspace**

Estimated noise levels associated with aircraft operations within the majority of the proposed SUA would not change from existing noise levels (see Figure 3.7-31). There are areas where noise from aircraft overflights would increase slightly, namely areas underlying the ingress/egress corridors and the proposed SOA B expansion area. Additionally, aircraft noise and overflights may impact certain types of cultural resources, these include prehistoric archaeological sites with natural features (e.g., caves, rockshelters, petroglyphs or pictographs on rock faces), historic architectural resources (e.g., adobe structures, unreinforced stone structures, and mine shafts and adits [horizontal mine passages]), and places of cultural and religious importance.

##### **3.11.3.3.5.1 Supersonic Operating Area B**

While the number of overflights would not increase, there are proposed changes in the airspace that could result in impacts to cultural resources, including the expansion of Supersonic Operation Area B (SOA B). Potential impacts from supersonic overflights within the existing SOA B were analyzed in the

2015 EIS. Because there is no change in use of this area, potential impacts on cultural resources are not re-analyzed for the existing SOA B. The proposed expansion of SOA B eastward is analyzed as part of the SUA PIA. The extension of SOA B is described in Section 2.3.4.7 (Special Use Airspace Modifications), which provides detailed, specific airspace modifications under Alternative 1.

Most supersonic flights within SOA B occur during adversarial training simulating air-to-air combat situations during Air Warfare and Large Force Exercises. The current frequency of supersonic events would not change under Alternative 1. The frequency of events is within the parameters (500 supersonic sorties per month or 6,000 sorties per year) defined by Sutherland et al. (1990) as unlikely to damage caves, rockshelters, or rock formations containing petroglyphs. Based on a review of available data from NVCRIS and the NRHP database, there are two known cultural (built-environment) resources and one potential TCP that may be sensitive to noise and vibration within the proposed SOA B expansion area. Consistent with an amended PA, any unanticipated impacts from the operations would be subject to review and consultation to identify appropriate treatment measures.

Procedures in an amended 2011 PA require further evaluation and protection of noise-sensitive cultural resources. With regard to religious, ceremonial, and other traditional activities at potential TCPs within the SUA, including ceremonies conducted on non-Navy property, the Navy would continue discussions with the Tribes to try to identify opportunities to minimize impacts from supersonic overflights, to the maximum extent practicable consistent with training requirements.

#### **3.11.3.3.5.2 Aircraft Overflights**

The Navy is proposing to modify training altitudes within six MOAs in order to improve tactical training capabilities and maximize scheduling flexibilities at the FRTC as well as to narrow the ingress/egress corridors. These tactical training abilities include the release of chaff and flares, both of which are so small as have minimal potential to impact cultural resources. Under Alternative 1, the noise analysis (Section 3.7.3.2.4, Fallon Range Training Complex Special Use Airspace) demonstrates that the resultant DNL noise contours caused by the lowered floors would not exceed 65 dBC DNL. There would therefore be no significant impacts on cultural resources caused by the lowering of the floor in the six MOAs. The noise analysis presented in Section 3.7.3.2.4 (Fallon Range Training Complex Special Use Airspace), however, demonstrates that the proposed narrowing of the ingress/egress routes would generate two narrow 65 dBC DNL contours—one that runs east of Gabbs, in Nye County, and one that runs northeast of Fallon (Figure 3.7-31). The Navy acknowledges potential impacts on the setting of certain cultural resources that may result from the introduction of 65 dBC DNL aircraft noise. However, the Navy anticipates that noise or other overflight -related impacts to cultural resources are unlikely, and ultimately would be less than significant.

##### **3.11.3.3.5.2.1 B-16**

In general, under Alternative 1, estimated aircraft noise levels within the proposed B-16 expansion area (Figure 3.7-19) would be consistent with existing levels (Figure 3.7-3).

##### **3.11.3.3.5.2.2 B-17**

Currently, DNL dBA noise contours from aircraft operations are confined within the existing B-17 range (Figure 3.7-6). Under Alternative 1, the 56–64 DNL dBA noise contours from proposed aircraft operations would overlie the majority of the proposed B-17 expansion area (Figure 3.7-18). Aviation noise under Alternative 1 has the potential to impact the setting of five TCPs through the introduction of noise levels of 65 dBC DNL. Final assessments of eligibility and effect would be carried out in accordance

with an amended PA, and in consultation with affected tribes. For purposes of this analysis, the Navy assumed that the TCP would be negatively impacted and would require mitigation, potentially in the form of recording oral histories or other documentation developed in consultation with the affected tribes.

### **3.11.3.3.5.2.3 B-20**

Currently, noise contours from aircraft operations overlie the existing B-20 range and also some areas to the west, south, and east (Figure 3.7-9). Estimated 61–65 DNL dBA noise contours from proposed aircraft operations under Alternative 1 would increase within the existing B-20 range and to the west, south, and east within the proposed expansion area (Figure 3.7-22). Aviation noise under Alternative 1 may impact one potential TCP that falls within the 65 dBA DNL contour. Final assessments of potential NHPA eligibility and potential Section 106 adverse effects would be carried out in accordance with an amended PA, and in consultation with affiliated tribes. For purposes of this analysis, the Navy assumed that the TCP would be negatively impacted and would require mitigation, potentially in the form of recorded oral histories or other documentation developed in consultation with the affected tribes.

### **3.11.3.3.6 Summary of Impacts and Conclusions**

**Training.** Under Alternative 1, impacts associated with military training activities would not be anticipated to be significant because (1) proposed target and maneuver areas would be placed to avoid known cultural resources when mission and safety requirements allow. If they cannot be avoided, the Navy would consult with the ACHP, SHPO, potentially affected Indian Tribes, and interested parties in accordance with an amended 2011 PA and 36 CFR Section 800.6 to resolve adverse effects; (2) NAS Fallon has procedures and protocols in place through an amended 2011 PA and ICRMP for the identification, evaluation, and protection of cultural resources that may be impacted by training and associated noise; and (3) before training activities would be authorized in requested withdrawal or proposed acquisition areas, all training locations would be reviewed in accordance with an amended 2011 PA to ensure adverse effects to historic properties are avoided, minimized, or mitigated, as appropriate. The Navy anticipates that significant impacts to unidentified cultural resources would be unlikely to occur and that through the implementation of the measures of an amended 2011 PA, impacts to known cultural resources would be less than significant.

**Public Accessibility.** Under Alternative 1, access to cultural resources for ceremonial, cultural, and academic activities would be allowed; however, access needs to be managed and coordinated based on mission constraints related to training and safety requirements, and thus would be limited relative to current conditions. The Navy would manage access through an MOU with Indian tribes who attach religious and cultural significance to specific potential TCPs. The Navy notes that restricting public access could potentially provide for greater protection of historic properties and other cultural resources by reducing frequency of detrimental activities such as off-road vehicle use and unauthorized collection of archaeological material. Access to cultural resources within the FRTC would be managed and not eliminated. Given the proposed access MOU has not been finalized and the high degree of concern with respect to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts.

**Construction.** Under Alternative 1, impacts associated with construction activities would not be significant because (1) cultural resources would be avoided if possible. If they cannot be avoided, the Navy would consult with the ACHP, SHPO, potentially interested Indian Tribes, and interested parties in accordance with an amended 2011 PA and 36 CFR Section 800.6 to resolve adverse effects; and (2)

before construction activities would be authorized in requested withdrawal or proposed acquisition areas, all proposed construction sites and staging areas would be reviewed in accordance with an amended 2011 PA to ensure adverse effects to historic properties are avoided, minimized, or mitigated, as appropriate.

**Aircraft Overflights.** Under Alternative 1, the frequency of supersonic overflights would not change, and thus would remain within the parameters (500 supersonic sorties per month or 6,000 sorties per year) defined by Sutherland et al. (1990) as unlikely to damage cultural resources that are potentially sensitive to noise and vibrations. In addition, under Alternative 1, supersonic flight activity would be distributed over a larger area, thus decreasing the amount of exposure to any one site. Additionally, procedures are in place for the identification, evaluation, and protection of cultural resources as defined in an amended 2011 PA. With regard to religious, ceremonial, and other traditional activities at potential TCPs within the SUA, including ceremonies conducted on non-Navy property, the Navy would continue discussions with the Tribes to try to identify opportunities to minimize impacts from supersonic overflights, to the maximum extent practicable consistent with training requirements. With implementation of these measures, accordingly, the Navy anticipates that potential impacts on cultural resources resulting from sonic booms would be less than significant.

Similarly, the modified training altitudes and ingress/egress routes within the SUA, there may be impacts on the setting of archaeological sites or TCPs but this is not expected to have significant impacts based on a maximum exposure of 65 dBC DNL. Additionally, procedures are in place for the identification, evaluation, and protection of cultural resources as defined in an amended 2011 PA. With regard to religious, ceremonial, and other traditional activities at potential TCPs within the SUA, the Navy would continue to coordinate with the Tribes to minimize impacts from overflights, including ceremonies conducted on non-Navy property, as stipulated in the MOU with Indian tribes who attach religious and cultural significance to potential TCPs.

#### **3.11.3.4 Alternative 2: Modernization of the Fallon Range Training Complex and Managed Access**

Alternative 2 is similar to Alternative 1. The proposed expansion areas, construction activities, and SUA would be the same as Alternative 1. The only difference between Alternative 1 and Alternative 2 are the allowable land use activities on the ranges and in the DVTA. Under Alternative 2, though withdrawn, a small portion south of Simpson Road and the lands south of Simpson Road at B-16 would remain open for public use. Under Alternative 2, access for certain land use activities would be allowed within B-16, B-17, and B-20 when the ranges are not in use (i.e., typically weekends, holidays, and when closed for scheduled maintenance) (see Table 2-5). Due to the small difference in the boundary of the proposed B-16 expansion area under Alternative 2, there would be a slight change in fence line along the southeastern corner. However, this difference with respect to the fence line would not be anticipated to generate new or different impacts – or to avoid impacts previously discussed under Alternative 1 – and so impacts on cultural resources would be the same as those previously assessed under Alternative 1.

#### **3.11.3.5 Alternative 3: Bravo-17 Shift and Managed Access (Preferred Alternative)**

Alternative 3 is similar to Alternative 1 and Alternative 2, but the proposed B-17 expansion area would extend further southeast. Unlike Alternative 1, the Navy would not withdraw land south of U.S. Route 50 as the DVTA. Rather, the Navy proposes that Congress categorizes this area as a Special Land Management Overlay. This Special Land Management Overlay would define two areas (one east and one west of the B-17 range) as Military Electromagnetic Spectrum Special Use Zones. These two areas, which are public lands under the jurisdiction of BLM, would not be withdrawn by the Navy and would not be

used for land-based military training or be managed by the Navy. Alternative 3 would have the same access restrictions and Controlled Access Program as Alternative 2. All proposed activities associated with Alternative 3, including construction and training activities, are similar to Alternatives 1 and 2, although Alternative 3 would have a different laydown for the target areas within the proposed B-17 expansion area. Additionally, under Alternative 3, part of the Paiute Pipeline and a segment of State Route 361 would potentially be relocated, and additional site-specific environmental analysis, including cultural resource inventories, would be required prior to any ultimate implementation.

#### **3.11.3.5.1 Bravo-17**

##### ***Training Activities***

Under Alternative 3, B-17 would rotate counterclockwise from the proposed configuration of Alternatives 1 and 2 (see Figure 2-12). As in Alternatives 1 and 2, ground-disturbing training activities would occur within the proposed B-17 range expansion area under Alternative 3. Training activities would use existing target locations within the existing B-17 range and include new targets and training areas within the proposed expansion area. Instead of the numerous target areas proposed in Alternatives 1 and 2, all targets and convoy areas would be situated in three large areas. Alternative 3 would have similar munitions noise levels as Alternatives 1 and 2. However, due to the reconfiguration of the target areas, the placement of the targets and the resultant munitions noise contours would impact different cultural resources (Table 3.11-3).

As with Alternative 1, munitions noise associated with Alternative 3 has the potential to impact cultural resources. Within the new 130 dB peak contours five potentially noise sensitive cultural sites could be impacted. Final assessments of eligibility and effect would be carried out in accordance with an amended PA. For purposes of this analysis, the Navy assumed that these sites would be impacted and would require mitigation, potentially in the form of data recovery. Additional archaeological sites located within the new 115 dB contour are not expected to be impacted.

The potential for impacts to cultural resources in both target/buffer areas and the SDZ/WDZ would be comparable to the discussion of such impacts with respect to training activities for B-17 under Alternative 1. When possible, targets and convoys would be placed away from eligible or unevaluated sites. If sites cannot be avoided, the Navy would consult with the SHPO in accordance with an amended 2011 PA and 36 CFR Section 800.6 for resolution of adverse effects. Therefore, the Navy anticipates that through implementation of measures in an amended 2011 PA, impacts would be reduced to a level less than significant as a result of training activities under Alternative 3.

##### ***Public Accessibility***

Under Alternative 3, impacts on access to cultural resources are the same as Alternative 2, with the exception of the Special Land Management Overlay discussed in Section 3.11.3.5 (Alternative 3: Bravo-17 Shift and Managed Access [Preferred Alternative]), which would not be restricted. Access to cultural resources within B-17 would be managed and not eliminated. Given the proposed access MOU has not been finalized and the high degree of concern with respect to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts.

##### ***Construction***

The construction activities within the proposed B-17 expansion area would be similar to Alternative 1. The major construction differences between Alternative 3 and Alternative 1 are that Alternative 3 would



not require the potential relocation of State Route 839 but would potentially relocate a portion of State Route 361. In addition, Alternative 3 has a different notional path for the Paiute Pipeline than Alternative 1.

Proposed ground-disturbing construction activities (e.g., excavating, grading, grubbing, compacting, and clearing soil) associated with the proposed B-17 expansion area are associated with the proposed construction of convoy routes, military vehicle training routes, ground target areas, three electronic warfare sites, and 78 miles of security fencing with seven gates.

Construction and reporting and monitoring measures under Alternative 3 would be the same as proposed under Alternatives 1 and 2. Therefore, there would be no significant impact on cultural resources as a result of construction under Alternative 3.

### ***Road and Infrastructure Improvements to Support Alternative 3***

#### **State Route 361**

Under Alternative 3, a portion (approximately 12 miles) of State Route 361 and associated utility infrastructure would potentially be relocated. The Navy is working with the Nevada Department of Transportation, BLM, Churchill County, and other stakeholders to identify a suitable location outside of the proposed B-17 expansion area for the relocation of State Route 361. A follow-on, site-specific NEPA document would be required to analyze the impacts of any route ultimately identified for the proposed relocation of the State Route 361, which would include analyzing potential impacts on cultural resources. Site-specific environmental analysis, appropriate cultural resource inventories, and pre-construction surveys would be conducted in the future in association with the proposed relocation of State Route 361.

Using funding provided by the Navy, the Federal Highway Administration, in cooperation with the Nevada Department of Transportation, would be responsible for planning, designing, permitting, and constructing any realignment of State Route 361. The Navy has submitted a Needs Report to the Surface Deployment and Distribution Command requesting authority to utilize funding through the Defense Access Roads program. If approved, the Navy would coordinate construction execution through the Federal Highway Administration. Nevada Department of Transportation would ensure that construction of any new route is complete before closing any portion of the existing State Route 361, and the Navy would not utilize any portion of an expanded B-17 range (if implemented) that would overlap the existing State Route 361 unless and until any such new route has been completed and made available to the public.

#### **Paiute Pipeline**

As with Alternative 1, Alternative 3 includes the potential relocation of approximately 18 miles of the Paiute Pipeline and associated infrastructure outside the proposed B-17 expansion area. Constructing a new pipeline and utility infrastructure, and removing existing pipeline and utility infrastructure could result in impacts on cultural resources. The exact location of the pipeline relocation has not yet been determined, and a follow-on, site-specific NEPA document would be required to analyze the impacts of any route ultimately identified for the proposed relocation of the Paiute Pipeline, which would include analyzing potential impacts on cultural resources. Site-specific environmental analysis, appropriate cultural resource inventories, and pre-construction surveys would be conducted in the future in association with the proposed relocation of the Paiute Pipeline.

The Navy would purchase the impacted portion of the Paiute Pipeline and then would pay for relocation of the existing Paiute Pipeline south of the proposed B-17 range. Using funding provided by the Navy, the Paiute Pipeline Company would be responsible for planning, designing, permitting, funding, and constructing any realignment of the pipeline. A ROW application submitted to the BLM by the pipeline owner would formally identify any proposed reroute. Site-specific environmental analysis, including for cultural resources, and NEPA planning would be required before any potential relocation of the pipeline could occur, and the Navy would not utilize any portion of an expanded B-17 range (if implemented) that would overlap the existing pipeline unless and until any such re-routing of the pipeline has been completed and made available to the pipeline owner. The BLM would have decision authority with respect to any proposed final routing subsequent to completion of site-specific environmental analysis.

#### **3.11.3.5.2 Summary of Impacts and Conclusions**

Impacts under Alternative 3 would be similar to Alternatives 1 and 2, and the Navy anticipates that impacts on cultural resources would be less than significant through the implementation of an amended 2011 PA. The Navy anticipates impacts to unidentified cultural resources would be unlikely to occur.

#### **3.11.3.6 Proposed Management Practices, Monitoring, and Mitigation**

##### **3.11.3.6.1 Proposed Management Practices**

Management of proposed expansion areas would require updates to the ICRMP. If the Proposed Action is implemented (i.e., expansion of the existing DVTA and B-16, B-17, and B-20 ranges), the NAS Fallon ICRMP would be revised to include management practices for cultural resources in the proposed expansion areas.

An amended 2011 PA and the ICRMP would continue to be implemented on existing withdrawn lands and lands requested for withdrawal and proposed for acquisition.

The Navy is also working with Indian Tribes to prepare an MOU defining access procedures to the requested renewal and proposed expansion areas.

##### **3.11.3.6.2 Proposed Monitoring**

The Navy would coordinate with BLM, Nevada SHPO, and affected Tribes in the revision of the ICRMP and would consider which additional management or monitoring activities can be incorporated. This coordination would include archaeological and tribal monitoring, as appropriate.

##### **3.11.3.6.3 Proposed Mitigation**

In cases where avoidance and minimization of adverse effect to historic properties is not possible, the process outlined in an amended 2011 PA and 36 CFR Section 800.6 (resolution of adverse effects) would be followed. The Navy acknowledges that there may be impacts that have yet to be defined and that it would continue to develop and incorporate mitigation measures consistent with an amended 2011 PA and 36 CFR Section 800.6.

#### **3.11.3.7 Summary of Impacts and Conclusions**

The Navy anticipates that through implementation of an amended 2011 PA, management practices of avoidance, the use of monitors, and mitigation measures, the Proposed Action impacts on cultural resources would be lessened to a level less than significant with respect to training activities, construction, and aircraft overflights, but may be significant with respect to public accessibility due to potential loss of access documented in comments received from Indian tribes (Table 3.11-8).

Under Alternatives 1, 2, and 3, military training levels would continue at the same levels of activities analyzed in the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement* (U.S. Department of the Navy, 2015), with activities dispersed more widely with the inclusion of the proposed expansion areas. Under the alternatives, impacts related to training activities, construction, and aircraft overflights would be less than significant because: (1) proposed target and maneuver areas, to include munitions and aircraft noise, would be placed to avoid known cultural resources when mission and safety requirements allow. If they cannot be avoided, the Navy would consult with the ACHP, SHPO, Indian tribes, and interested parties in accordance with an amended 2011 PA and 36 CFR Section 800.6 to resolve adverse effects, (2) NAS Fallon has procedures and protocols in place for the identification, evaluation, and protection of cultural resources that may be impacted by training, (3) before training activities would be authorized in requested withdrawal or proposed acquisition areas, all training locations would be reviewed in accordance with an amended 2011 PA to ensure adverse effects to historic properties are avoided, minimized, or mitigated, as appropriate; and (4) impacts to unidentified cultural resources would be unlikely to occur. Under the alternatives, access to cultural resources within the FRTC would be managed and not eliminated. Given the proposed access MOU has not been finalized and the high degree of concern with respect to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts.

Impacts with respect to Public accessibility, Construction, and Aircraft Overflights under Alternative 3 would be essentially the same as discussed in the Summary of Alternative 1 at Section 3.11.3.3.6 (Summary of Impacts and Conclusions).

Table 3.11-8: Summary of Impacts and Conclusions for Cultural Resources

Summary of Impacts and National Environmental Policy Act Determinations	
No Action Alternative	
Summary	<ul style="list-style-type: none"> <li>Decommissioning, decontamination, and reuse of the closed range could potentially affect cultural resources present in the FRTC.</li> <li>A decision to allow the FRTC land withdrawal to expire would have no direct effects on cultural resources because federal management of the area would continue.</li> </ul>
Impact Conclusion	The No Action Alternative would not result in significant impacts on cultural resources.
Alternative 1	
Summary	<ul style="list-style-type: none"> <li>The Navy would implement protective measures and negotiated mitigations for ground-disturbing activities and munitions noise for NRHP-eligible cultural resources and potential TCPs/sacred sites within the ranges in accordance with an amended PA and the ICRMP.</li> <li>Access for ceremonial, cultural, and academic activities and procedures for site visits would be allowed, dependent on the Navy's training and safety requirements, however, due to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts.</li> <li>Noise and vibration associated with sonic booms have the potential to result in negligible-to-minor damage to caves, rockshelters, or rock formations containing petroglyphs as well as adobe walls and stone structures. Procedures are in place for identifying, evaluating, and protecting such resources as defined by an amended PA and the ICRMP.</li> </ul>
Impact Conclusion	Under Alternative 1, the Navy anticipates that, with avoidance of known cultural resources and implementation of the other mitigation measures discussed in the chapter above, impacts to cultural resources would be lessened to less than significant levels. Access to cultural resources within the FRTC would be managed and not eliminated. Given the proposed access MOU has not been finalized and the high degree of concern with respect to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts.

Table 3.11-8: Summary of Impacts and Conclusions for Cultural Resources (continued)

Summary of Impacts and National Environmental Policy Act Determinations	
Alternative 2	
Summary	<ul style="list-style-type: none"> <li>As with Alternative 1, the Navy would implement protective measures and negotiated mitigations for ground-disturbing activities and munitions noise for NRHP-eligible cultural resources and potential TCPs/sacred sites within the ranges in accordance with an amended PA.</li> <li>Access for ceremonial, cultural, and academic activities and procedures for site visits would be allowed, dependent on the Navy's training and safety requirements, however, due to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts. In comparison with Alternative 1, there is no difference in cultural resource access associated under Alternative 2.</li> <li>Noise and vibration associated with sonic booms have the potential to result in negligible to minor damage to caves, rockshelters, or rock formations containing petroglyphs as well as adobe walls and stone structures. Procedures are in place for identifying, evaluating, and protecting such resources as defined by an amended PA and the ICRMP. Impacts are the same as compared to Alternative 1.</li> </ul>
Impact Conclusion	<p>Under Alternative 2, the Navy anticipates that, with avoidance of known cultural resources and implementation of the other mitigation measures discussed in the chapter above, impacts to cultural resources would be lessened to less than significant levels. Access to cultural resources within the FRTC would be managed and not eliminated. Given the proposed access MOU has not been finalized and the high degree of concern with respect to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts.</p>

Table 3.11-8: Summary of Impacts and Conclusions for Cultural Resources (continued)

Summary of Impacts and National Environmental Policy Act Determinations	
Alternative 3	
Summary	<ul style="list-style-type: none"> <li>As with Alternatives 1 and 2, the Navy would implement protective measures and negotiated mitigations for ground-disturbing activities and munitions noise for NRHP-eligible cultural resources and potential TCPs/sacred sites within the ranges in accordance with an amended PA.</li> <li>Access for ceremonial, cultural, and academic activities and procedures for site visits would be allowed, dependent on the Navy's training and safety requirements, however, due to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts. In comparison with Alternatives 1 and 2, there is no difference in cultural resource access associated under Alternative 3.</li> <li>Noise and vibration associated with sonic booms have the potential to result in negligible to minor damage to caves, rockshelters, or rock formations containing petroglyphs as well as adobe walls and stone structures. Procedures are in place for identifying, evaluating, and protecting such resources as defined by an amended PA and the ICRMP. Impacts are the same as compared to Alternative 1 and Alternative 2.</li> </ul>
Impact Conclusion	<p>Under Alternative 3, the Navy anticipates that, with avoidance of known cultural resources and implementation of the other mitigation measures discussed in the chapter above, impacts to cultural resources would be lessened to less than significant levels. Access to cultural resources within the FRTC would be managed and not eliminated. Given the proposed access MOU has not been finalized and the high degree of concern with respect to potential loss of access documented in comments received from Indian tribes, the Navy concludes limiting tribal access to cultural resources may result in significant impacts.</p>

## **REFERENCES**

- Bureau of Land Management. (2013). *Analysis of the Management Situation: Carson City District Resource Management Plan Revision and Environmental Impact Statement*. Carson City, NV: U.S. Department of the Interior.
- Bureau of Land Management Nevada. (2012). *Guidelines and Standards for Archaeological Inventory, Fifth Edition*. Reno, NV: Bureau of Land Management Nevada State Office.
- Council on Environmental Quality, and Advisory Council on Historic Preservation. (2013). *NEPA and NHPA: A Handbook for Integrating NEPA and Section 106*. Washington, DC: Executive Office of the President.
- Hershey, R. L., R. J. Kevala, and S. L. Burns. (1975). *Analysis of the effect of Concorde aircraft noise on historic structures*. Washington, DC: U.S. Department of Transportation. Retrieved from <http://www.dtic.mil/dtic/tr/fulltext/u2/a017082.pdf>.
- Kester, P. H., and J. J. Czech. (2012). *Aircraft Noise Study for Naval Air Station Whidbey Island and Outlying Landing Field Coupeville, Washington*. Oak Harbor, WA: U.S. Department of the Navy.
- National Park Service. (1998). *Guidelines for Evaluating and Documenting Traditional Cultural Properties* (National Register Bulletin). Washington, DC: U.S. Department of the Interior.
- National Research Council and National Academy of Sciences. (1977). *Guidelines for preparing environmental impact statements on noise*. Washington, D.C.: Committee on Hearing, Bioacoustics, and Biomechanics. Retrieved from [www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA044384](http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA044384).
- Sutherland, L. C., R. Brown, and D. Goerner. (1990). *Evaluation of Potential Damage to Unconventional Structures by Sonic Booms*. Brooks Air Force Base, TX: Noise and Sonic Boom Impact Technology.
- U.S. Department of the Navy, and Bureau of Land Management. (2001). *Bureau of Land Management and Navy Resource Management Plan for Certain Federal Lands in Churchill County, Nevada* (Navy Integrated Natural Resource Management Plan, Amendment to the BLM Lahontan Resource Management Plan, and Environmental Assessment). Fallon, NV: U.S. Department of the Interior.
- U.S. Department of the Navy. (2013). *Integrated Cultural Resources Management Plan: Naval Air Station, Fallon, Nevada*. Fallon, NV: Naval Facilities Engineering Command Southwest.
- U.S. Department of the Navy. (2015). *Military Readiness Activities at Fallon Range Training Complex Environmental Impact Statement*. Fallon, NV: Commander, U.S. Pacific Fleet.
- Wesler, E. (1977). *Concorde Operations at Dulles International Airport*. Chicago, IL: NOISEXPO '77.

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