

## Cultural Resources

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## 1 **3.10 CULTURAL RESOURCES**

### 2 **3.10.1 INTRODUCTION**

#### 3 **3.10.1.1 Overview**

4 This section reviews issues and concerns associated with cultural resources, including compliance with  
5 the National Historic Preservation Act of 1966 (as amended in 2006), the Archaeological Resources  
6 Protection Act of 1979, the Native American Graves Protection and Repatriation Act of 1990, and related  
7 historic and cultural preservation programs. Cultural resources include districts, sites, structures,  
8 objects, landscapes, and ethnographic resources, as well as other physical evidence of human activity  
9 considered important to a culture, subculture, or community for scientific, traditional, religious, or other  
10 reasons. Cultural resources include archaeological resources, historic architectural resources, and Native  
11 American resources. Archaeological resources include both prehistoric and historic sites. Prehistoric  
12 resources are physical properties resulting from human activities that predate written records and are  
13 generally identified as archaeological sites. They can include village sites, temporary camps, lithic  
14 scatters, roasting pits/hearths, milling features, petroglyphs, rock features, and burials. Historic  
15 archaeological resources postdate the advent of written records in a region and can include building  
16 foundations, ruins, mines, and refuse scatters.

17 Architectural resources consist of standing buildings or structures from the historic period. Buildings  
18 provide shelter for human activity and may consist of residential buildings (e.g., farmhouses, and  
19 associated outbuildings, including sheds and barns), commercial buildings (e.g., stores, banks, and other  
20 business-related office buildings), and military buildings, such as administrative buildings, spotting  
21 towers, and other ancillary outbuildings. Structures are defined as those that do not provide shelter for  
22 human activity and include transportation-related structures, such as trails, roads, and bridges and  
23 military structures, such as water tanks and bombing targets.

24 Native American resources are sites, areas, and materials important to Native Americans for religious or  
25 heritage reasons. Resources may include prehistoric sites and artifacts, contemporary sacred areas,  
26 traditional use areas (e.g., native plant or animal habitat), sources used in the production of sacred  
27 objects and traditional implements, or traditional cultural properties. Traditional cultural properties are  
28 resources that are considered eligible for or listed in the National Register of Historic Places and may be  
29 associated with Native Americans. Sacred places important to religion may also be present and include  
30 mountain peaks, springs, and burial sites. Traditional rituals may prescribe the use of particular native  
31 plants, animals, or minerals from specific places. Therefore, activities that may affect sacred areas, their  
32 accessibility, or the availability of materials used in traditional practices may be of concern.

#### 33 **3.10.1.2 Regulatory Framework**

34 Archaeological, architectural, and Native American resources are protected by a variety of laws and their  
35 implementing regulations: the National Historic Preservation Act of 1966 as amended in 2006, the  
36 Archeological and Historic Preservation Act of 1974, the Archaeological Resources Protection Act of  
37 1979, the American Indian Religious Freedom Act of 1978, and the Native American Graves Protection  
38 and Repatriation Act of 1990. The Advisory Council on Historic Preservation further guides treatment of  
39 archaeological and architectural resources through the regulations, *Protection of Historic Properties* (36  
40 Code of Federal Regulations [C.F.R.] § 800). Historic properties, as defined by the National Historic  
41 Preservation Act, represent the subset of cultural resources listed in, or are eligible for, inclusion in the  
42 National Register of Historic Places.

1 Historic properties must be important in American History, have physical integrity, and meet at least one  
2 of the National Register of Historic Places criteria defined at 36 C.F.R. § 60.4:

- 3 • Criterion A: Be associated with events that have made a significant contribution to the broad  
4 patterns of American history
- 5 • Criterion B: Be associated with the lives of persons significant in the American past
- 6 • Criterion C: Embody the distinctive characteristics of a type, period, or method of construction,  
7 or that represent the work of a master, or that possess high artistic values, or that represent a  
8 significant and distinguishable entity whose components may lack individual distinction
- 9 • Criterion D: Yield, or may be likely to yield, information important in prehistory or history

10 A historic property also must possess integrity of location, design, setting, materials, workmanship,  
11 feeling, and association to convey its significance and qualify it for the National Register of Historic  
12 Places.

13 Under the implementing regulations of Section 106 of the National Historic Preservation Act, federal  
14 agencies must take into account the effects that an action would have on historic properties. The  
15 regulations implementing Section 106 (36 C.F.R. § 800) specify a consultation process to assist in  
16 satisfying this requirement. Accordingly, the Navy is consulting with the Oregon State Historic  
17 Preservation Office, the Advisory Council on Historic Preservation, federally recognized Native American  
18 tribes, and the public as required by Section 106 of the National Historic Preservation Act and by  
19 Executive Order (EO) 13175 *Consultation and Coordination with Indian Tribal Governments*.

20 Under the National Environmental Policy Act (NEPA), an Environmental Impact Statement (EIS) must  
21 address the adverse and beneficial effects of a proposed federal action on important historic and  
22 cultural aspects of our national heritage (40 C.F.R. § 1508.8) (here defined as resources eligible for or  
23 listed in the National Register of Historic Places, and other designations such as the National Trails  
24 System). While NEPA and Section 106 of the National Historic Preservation Act represent two separate  
25 procedural laws, the compliance process for the Proposed Action has been integrated to the extent  
26 possible. The NEPA scoping and Draft EIS public review processes (see Section 1.4.1) provide  
27 opportunities for the public to participate in the Section 106 consultation process. Consultation with the  
28 Oregon State Historic Preservation Office and federally recognized Native American tribes is ongoing  
29 (see Appendix C) and will be completed following public review of the Draft EIS and prior to completion  
30 of the Final EIS. The Final EIS will summarize the findings of the Section 106 consultation process. As  
31 discussed below in Section 3.10.1.3, these findings will be used to support NEPA conclusions in the Final  
32 EIS.

### 33 **3.10.1.3 Determination of Significance**

34 Under Section 106, an undertaking (i.e., proposed action under NEPA) is considered to have an effect on  
35 a historic property when the undertaking may alter characteristics of the property that may qualify it for  
36 inclusion in the National Register of Historic Places. An effect is considered adverse when it diminishes  
37 the integrity of the property's location, design, setting, materials, workmanship, feeling, or association  
38 (36 C.F.R. § 800.5(a)(1)).

39 Adverse effects as defined under 36 C.F.R. § 800.5(a) (2)(i) through (vii) include, but are not limited to:

- 40 1. Physical destruction, damage, or alteration of all or part of the property

- 1           2. Isolation of the property from or alteration of the character of the property's setting when that
- 2           character contributes to the property's qualification for the National Register of Historic Places
- 3           3. Introduction of visual, audible, or atmospheric elements that are out of character with the
- 4           property or alter its setting
- 5           4. Neglect of a property resulting in its deterioration or destruction
- 6           5. Transfer, lease, or sale of the property

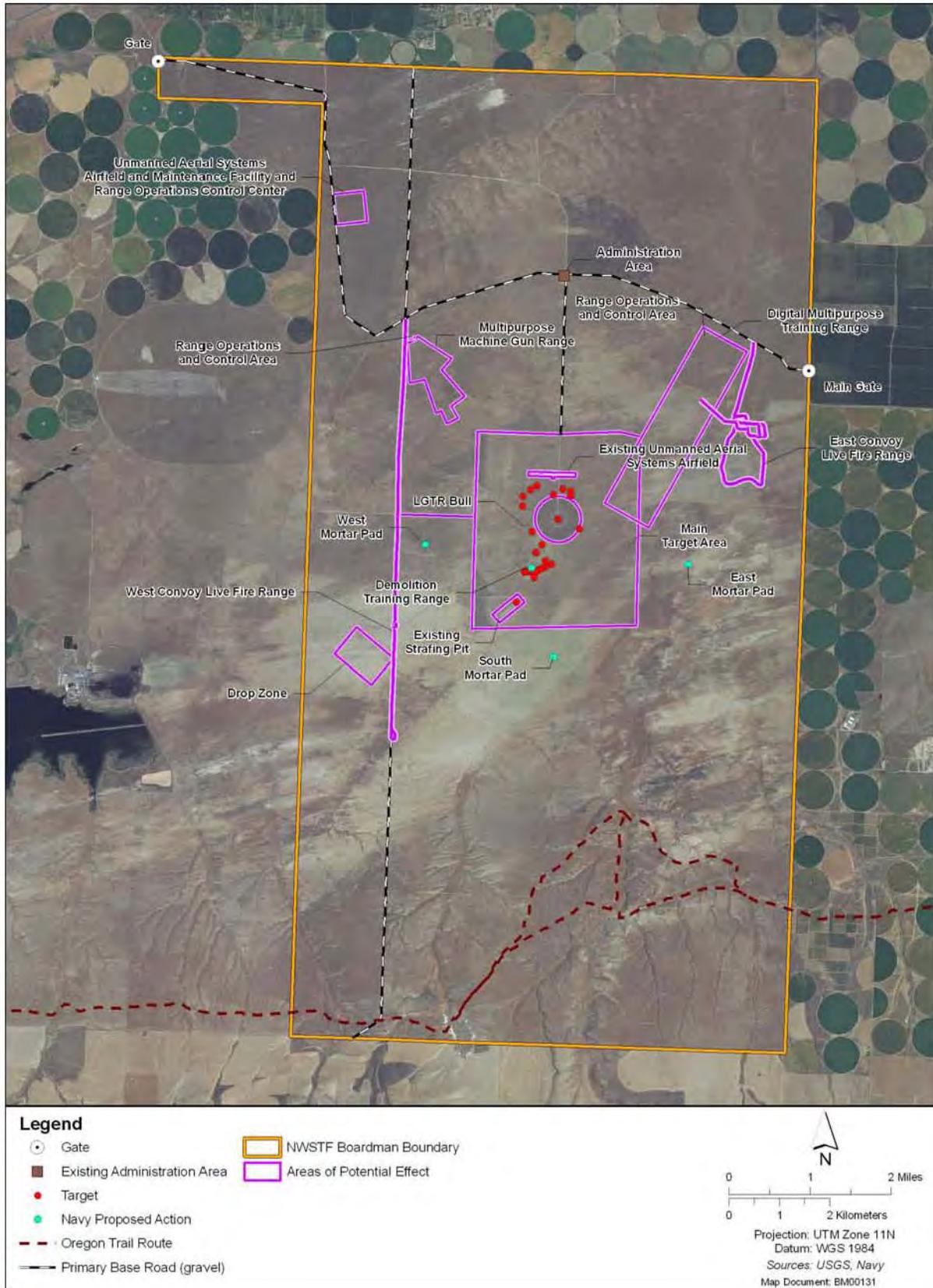
7 Adverse effects under the National Historic Preservation Act also include reasonably foreseeable effects,  
8 both direct and indirect, caused by the alternatives, and those that would occur later in time, be farther  
9 removed in distance, or be cumulative (36 C.F.R. § 800.5(a)(1)). Because cultural resources are typically  
10 nonrenewable, most adverse effects on National Register of Historic Places listed or eligible resources in  
11 the area of potential effects (APE) would be long term.

12 Under NEPA, impacts on cultural resources and the subgroup of historic properties are explicitly  
13 identified as attributes that must be addressed to determine the significance of a project's anticipated  
14 environmental impacts. The potential for adverse effects on cultural resources is considered in this  
15 NEPA assessment. An adverse effect on a historic property, however, does not necessarily equate to a  
16 significant impact under NEPA. Under NEPA, a significant impact can be mitigated to less than significant  
17 through completion of the Section 106 process resulting in data recovery or other treatment measures.  
18 For the purposes of this document, a significant impact under NEPA is defined as an "unresolvable"  
19 adverse effect under Section 106 of the National Historic Preservation Act because, in most cases,  
20 adverse effects may be resolved through consultation, development of a Memorandum of Agreement  
21 that stipulates mitigation measures, and implementation of the mitigation measures.

### 22 **3.10.2 AFFECTED ENVIRONMENT**

23 Two APEs have been identified based on potential stressors associated with the Proposed Action (e.g.,  
24 ground disturbance, noise, and visual intrusions) and the types of resources that could be affected by  
25 these stressors:

- 26           • The APE for ground disturbing activities, as defined in accordance with 36 C.F.R. § 800.16(d),  
27           consists of 16 discontinuous parcels (about 1,927 acres [ac.] [780.01 hectares {ha}]) at Naval  
28           Weapons Systems Training Facility (NWSTF) Boardman (Figure 3.10-1). This APE applies to  
29           archaeological resources, architectural resources, and Native American resources that could be  
30           impacted by ground disturbances that would occur under Alternatives 1 and 2.



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Figure 3.10-1: Area of Potential Effects for Ground Disturbing Activities, NWSTF Boardman

1       • The APE for activities that could generate noise, vibration, and visual intrusions consists of areas  
2 that lie beneath Restricted Areas 5701A-E and the proposed Boardman Northeast Military  
3 Operations Area (MOA) (Figure 2-5). These areas represent special use airspace where low-  
4 altitude (less than 3,000 feet [ft.] [914.4 meters {m}] above ground level) aircraft overflights may  
5 occur under Alternatives 1 and 2. Noise associated with weapons firing on the proposed ranges  
6 would also be audible in some areas that occur beneath Restricted Area 5701; specifically within  
7 portions of Restricted Area 5701A (Figure 2-5). The APE for noise and visual intrusions applies to  
8 archaeological sites and architectural resources in which historic setting may be critical to their  
9 eligibility for the National Register of Historic Places (i.e., the Well Spring Segment of the Oregon  
10 Trail) and Native American resources in which setting contributes to the importance of the  
11 location. Vibration intrusions apply only to historic architectural resources, which could be  
12 affected by vibration from aircraft overflights.

13 In accordance with NEPA and Section 106 of the National Historic Preservation Act, consultation with  
14 the Oregon State Historic Preservation Office and Native American Tribes was initiated on April 25, 2011  
15 (see Appendix C for cultural resources communications) and is ongoing.

### 16 **3.10.2.1 Archaeological Resources**

17 Seven archaeological investigations have been conducted within the current boundaries of the NWSTF  
18 Boardman, covering about 11 percent (or approximately 5,260 ac. [2,128.6 ha] of 47,432 ac. [19,195.1  
19 ha]) of this property. Four archaeological investigations have been conducted in the APE for ground  
20 disturbing activities (Geo-Marine 1992, Stuemke 2005, White and Wilt 2005, and Finley et al. 2011) and  
21 are summarized below. The remaining surveys were outside the APE for ground disturbing activities and  
22 are summarized in the *Cultural Resources Assessment for NWSTF Boardman, Morrow County, Oregon*  
23 (U.S. Department of the Navy 2010). The four surveys summarized below represent complete survey  
24 coverage of the APE for ground disturbing activities (Figure 3.10-2):

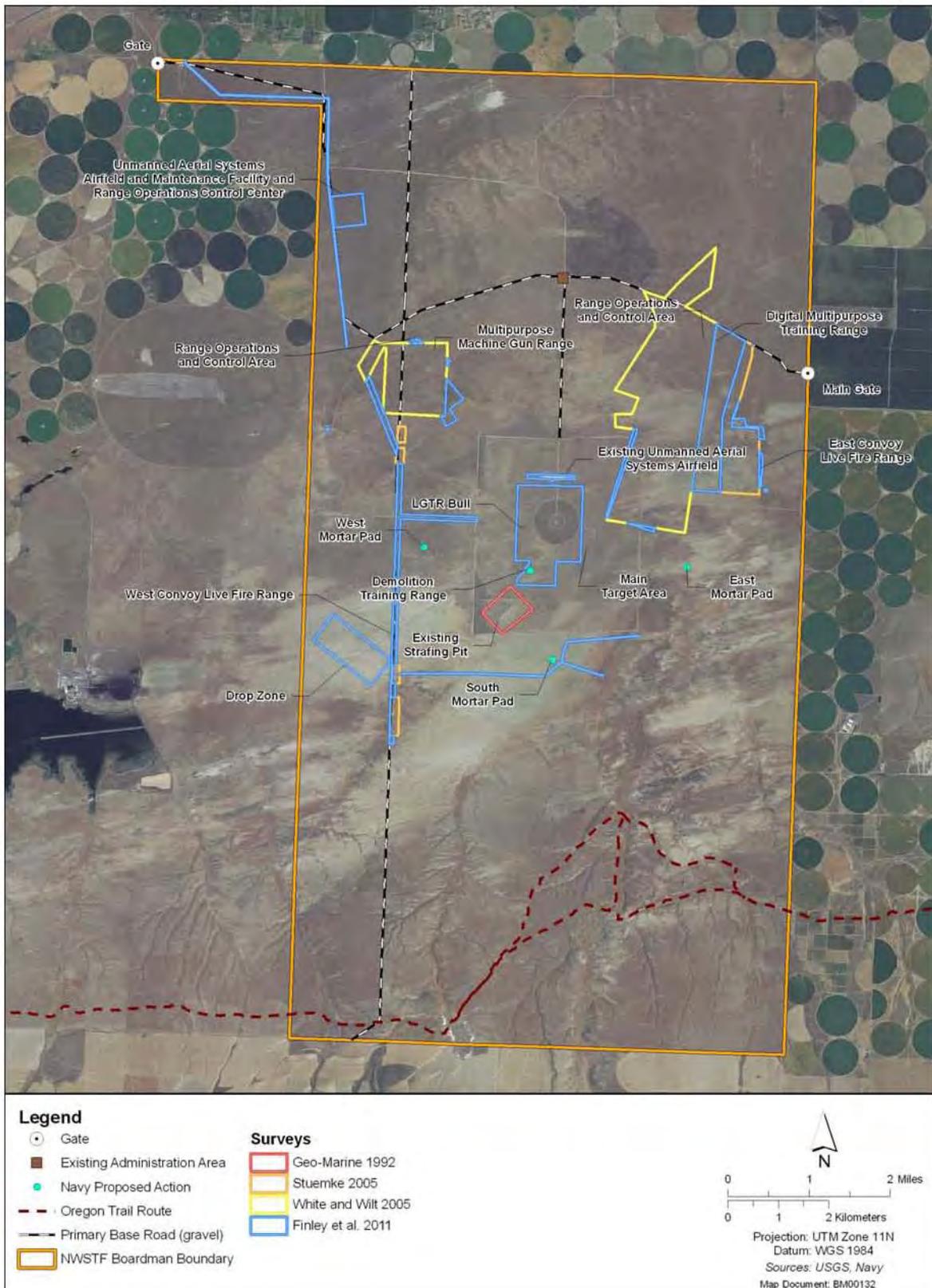
- 25       • In 1992, Dr. Maynard Cliff (Geo-Marine 1992) conducted an archaeological survey of 126 ac. (51  
26 ha) for a proposed strafing pit located within the main target area. The pedestrian transects  
27 were spaced at 20 m (65.6 ft.) intervals and no cultural resources were observed (Geo-Marine  
28 1992). In a letter dated 27 July 1992, the Oregon State Historic Preservation Office concurred  
29 that no historic properties would be affected by establishing and using the strafing pit.
- 30       • In October 2004, Applied Archaeological Research conducted a reconnaissance-level survey of  
31 approximately 2,240 ac. (9006.5 ha) for two parcels of land proposed by the Oregon Army  
32 National Guard (ORNG) for development of a multi-purpose training range and a multi-purpose  
33 machine gun range (White and Wilt 2005). The fieldwork resulted in the identification of three  
34 archaeological sites (35MW197, 35MW198, and 35MW199) and eight archaeological isolates.  
35 None of the 11 cultural resources identified in the study were considered eligible for the  
36 National Register of Historic Places. The Oregon State Historic Preservation Office concurred  
37 with these findings on 21 March 2005 (De Freitas 2005).
- 38       • In May 2005, an archaeological survey was conducted by the ORNG for two proposed convoy  
39 live-fire ranges (CLFRs), situated along existing unimproved roads (Stuemke 2005). Pedestrian  
40 survey consisted of 20 m (65.6 ft.) transect intervals extending 150 m (492.1 ft.) from the  
41 existing roads; no cultural resources were identified. The Oregon State Historic Preservation  
42 Office concurred with the report results on 14 July 2005 (Griffin 2005).
- 43       • In March 2011, Applied Archaeological Research conducted a reconnaissance-level survey of  
44 approximately 1,700 ac. (687 ha) for land proposed for additional development of training  
45 ranges (Finley et al. 2011). The fieldwork resulted in the identification of three historic

1 archaeological sites (35MW215, 35MW216, and 35MW217), three historic archaeological  
2 isolates, and four high probability areas with the potential to contain subsurface archaeological  
3 deposits (settings as defined by Dames and Moore 1993). Subsurface excavation of 40 small test  
4 units was subsequently conducted to determine the vertical and horizontal extent of any intact  
5 deposits; an additional historic isolate was recorded during testing (Finley et al. 2011). No  
6 surface or subsurface archaeological artifacts were recovered from the four high probability  
7 areas (Finley et al. 2011). None of the 3 sites or the 12 isolates contained subsurface deposits.  
8 The new sites are recommended as not eligible for the National Register of Historic Places. The  
9 technical report on the 2011 Phase I investigations was submitted to the Oregon State Historic  
10 Preservation Office for review and concurrence with the report findings. A formal determination  
11 is forthcoming.

### 12 **3.10.2.1.1 Archaeological Sites and Isolates**

13 Six archaeological sites and twelve isolates (defined as nine artifacts or less) have been identified in the  
14 APE for ground disturbing activities (Table 3.10-1). Archaeological isolates are typically not eligible for  
15 inclusion in the National Register of Historic Places and additional work is not required for these isolated  
16 artifacts. Sites 35MW197 and 35MW198 are both historic refuse scatters containing tin cans, glass  
17 bottle or jar fragments and miscellaneous metal items, dating circa 1947 (White and Wilt 2005). Site  
18 35MW199 is the location of a former steel observation tower (removed in the 1970s), a modern rock  
19 and charcoal concentration, and two refuse scatters most likely related to the military occupation  
20 (White and Wilt 2005). None of these sites were recommended as eligible for the National Register of  
21 Historic Places; the Oregon State Historic Preservation Office concurred with these findings on 21 March  
22 2005 (De Freitas 2005).

23 Sites 35MW215 and 35MW216 are also historic refuse scatters containing mostly tin cans and bottle  
24 glass dating to the early and mid-twentieth century (Finley et al. 2011). These scatters are located in the  
25 area proposed for the western CLFR. Site 35MW217 consists of a standpipe in a three-foot diameter  
26 circular depression associated with domestic refuse such as tin cans, bottle glass, and ceramic vessel  
27 fragments dating from the late 19th to early 20th century (Finley et al. 2011). As all three sites contained  
28 artifacts partially embedded in the soil, subsurface investigations at sites 35MW215, 35MW216, and  
29 35MW217 were conducted in May 2011 to determine the extent of buried deposits (Finley et al. 2011);  
30 none of the three sites contained subsurface deposits and were recommended as not eligible for the  
31 National Register of Historic Places.



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Figure 3.10-2: Archaeological Investigations in the Area of Potential Effects for Ground Disturbing Activities, NWSTF Boardman

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2**Table 3.10-1: Archaeological Sites and Isolates within the Area of Potential Effects for Ground Disturbing Activities, NWSTF Boardman**

Resource Number	Resource Type	Description	National Register of Historic Places Status	Reference
35MW197	Historic site	Domestic refuse scatter; circa 1947	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
35MW198	Historic site	Domestic refuse scatter; circa 1947	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
35MW199	Historic /Modern site	Two features and two refuse scatters: feature 1 consists of four concrete footings for steel observation tower, feature 2 is a rock and charcoal concentration (modern); refuse scatters contain glass bottle fragments, cans, and military ordnance debris; circa 1950s/1960s	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
35MW215	Historic site	Domestic refuse scatter; circa early twentieth century	Not eligible, pending Oregon SHPO concurrence	Finley et al. 2011
35MW216	Historic site	Domestic refuse scatter; circa 1937	Not eligible, pending Oregon SHPO concurrence	Finley et al. 2011
35MW217	Historic site	One feature and one refuse scatter: feature is a 6-inch-diameter metal pipe in a 3-foot-diameter depression (possible well); refuse scatter contains cans, window glass, bottle glass, and ceramic fragments; circa late nineteenth to early twentieth century	Not eligible, pending Oregon SHPO concurrence	Finley et al. 2011
AAR1	Historic isolate	Short-necked amber glass beer bottle circa 1951	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
AAR2	Prehistoric isolate	Chert core	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
AAR3	Prehistoric isolate	Basalt flake	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
AAR4	Historic isolate	Clear glass insulator (Hemingray) fragment and weathered wood support	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
AAR5	Historic isolate	Tin can scatter of four items; circa 1940s/1950s	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005

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1 **Table 3.10-1: Archaeological Sites and Isolates within the Area of Potential Effects for Ground Disturbing**  
 2 **Activities, NWSTF Boardman (continued)**

Resource Number	Resource Type	Description	National Register of Historic Places Status	Reference
AAR6	Historic isolate	Short-necked amber glass beer bottle; circa 1947	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
AAR7	Historic isolate	Short-necked amber glass beer bottle; circa 1949	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
AAR8	Prehistoric isolate	Tested quartzite cobble	Not eligible, Oregon SHPO concurrence 2005	White and Wilt 2005
AAR 1028-4i	Historic isolate	Sanitary tin can	Not eligible, pending Oregon SHPO concurrence	Finley et al. 2011
AAR 1028-5i	Historic isolate	Two hole-in-top tin cans	Not eligible, pending Oregon SHPO concurrence	Finley et al. 2011
AAR 1028-6i	Historic isolate	Tin can and metal scatter of eight items	Not eligible, pending Oregon SHPO concurrence	Finley et al. 2011
AAR 1028-7i	Historic isolate	Amber glass bottle	Not eligible, pending Oregon SHPO concurrence	Finley et al. 2011

Note: SHPO = State Historic Preservation Office.

### 3 3.10.2.1.2 Trails

4 The Well Spring Segment of the Oregon Trail and Lower Well Spring Diversion of the Well Spring  
 5 Segment are located within the APE for noise and visual intrusions (Figure 3.10-2). The Well Spring  
 6 Segment of the Oregon Trail (1841 to 1846) encompasses multiple wagon ruts; the Harbke Homestead  
 7 (1906-1934) (originally interpreted as a possible stage coach station by Rappel 1976); the Pioneer  
 8 Cemetery; and the water source, Well Springs (Lewarch et al. 1997: Appendix 3). The Well Spring  
 9 Segment of the Oregon Trail consists of 7 miles (mi.) (11.3 kilometers [km]) of visible continuous deep  
 10 and parallel wagon ruts and Well Springs, which was an important Oregon Trail water source (Hicks  
 11 1995:66). The Well Spring Segment of the Oregon Trail is listed on the National Register of Historic  
 12 Places under Criterion A for serving as an avenue through which immigration to the Pacific Northwest  
 13 occurred and securing the United States' territorial rights to that area later to become the Oregon  
 14 Territory (Hicks 1995:109). The Lower Well Springs Diversion of the Well Spring Segment of the Oregon  
 15 Trail consists of a nearly continuous alignment of single wagon ruts from the Oregon Trail to Tub Springs,  
 16 intersections with the main route of the Oregon Trail, multiple wagon ruts west of Tub Springs, and the  
 17 Tub Springs water source (Lewarch et al. 1997:55, Appendix 4). The Lower Well Springs Diversion of the  
 18 Well Spring Segment of the Oregon Trail is recommended as eligible for the National Register of Historic  
 19 Places under Criterion A because of its association with the Oregon Trail and the westward migration to  
 20 the Willamette Valley in 1851 to 1863 (Lewarch et al. 1997:55, Appendix 4). This eligibility determination  
 21 was never formalized with the Oregon State Historic Preservation Office.

22 The historic setting of the Oregon Trail on NWSTF Boardman is a quiet undeveloped/rural area with vast  
 23 open spaces. This setting was intact when the Well Spring Segment of the Oregon Trail and Lower Well

1 Spring Diversion of the Well Spring Segment were evaluated as eligible for the National Register of  
2 Historic Places in the 1990s. At that time, temporary noise and visual intrusions to the historic setting  
3 included military readiness activities. Minor visual intrusions, consisting of Immigrant Lane (a section  
4 line road) and fencing on the southern edge of NWSTF Boardman were also present at that time. The  
5 historic setting has not changed appreciably since the 1990s. Therefore, past and current activities do  
6 not diminish the integrity of setting, feeling, and association such that the segments of the Oregon Trail  
7 would have been determined not eligible.

8 As discussed in Sections 3.7 (Land Use and Recreation) and 3.11 (Public Health and Safety), public access  
9 to NWSTF Boardman is limited to ensure safety. However, the United States (U.S.) Department of the  
10 Navy (Navy) in cooperation with the National Park Service has established an interpretive area at the  
11 extreme southern end of NWSTF Boardman, which allows the public to safely access the Pioneer  
12 Cemetery, Well Springs, and a small portion of the Well Spring Segment of the Oregon Trail. Access to  
13 other portions of the Oregon Trail is restricted by fencing and signage.

14 Two segments of wagon roads have also been identified within the APE for noise and visual intrusions  
15 beneath the proposed Boardman Northeast Military Operations Area. A 6,000 ft. (1,828.8 m) segment of  
16 an 1874 wagon road and a 1,200 ft. (365.8 m) segment of the 1861 Old Emigrant Wagon Road were  
17 documented; both wagon roads have been previously disturbed. These segments of the two wagon  
18 roads have not been evaluated for eligibility for listing in the National Register of Historic Places  
19 (Pumphrey 2002).

20 No other known wagon road segments have been identified within the APE for noise and visual  
21 intrusions. Most of the remaining area beneath the existing and proposed special use airspace is  
22 agricultural land (Section 3.7) on which agricultural activities have likely disturbed or destroyed any  
23 original wagon road segments.

#### 24 **3.10.2.2 Architectural Resources**

25 An architectural resources inventory and evaluation conducted at NWSTF Boardman by Hardlines Design  
26 Company included surveying 15 buildings and structures (Hampton and Gissendanner 2009). These  
27 facilities consisted mainly of range buildings and small structures such as spotting towers and fuel tanks,  
28 plus the aircraft bombing target range itself. One building was constructed in 1943, and the rest of the  
29 survey properties were built from 1947 to 1989. Preliminary evaluations to determine National Register  
30 of Historic Places eligibility under Criteria A, B, C, D, and application of Criteria Consideration G (for  
31 resources achieving significance within the last 50 years) were prepared (Hampton and Gissendanner  
32 2009). The Oregon State Historic Preservation Office concurred with the findings that none of the  
33 architectural buildings or structures are eligible for listing in the National Register of Historic Places in a  
34 letter dated 4 May 2010 (Osborne 2010). Seven buildings (Buildings 30 to 35 and 37) were demolished in  
35 May 2009; only the five spotting towers (Buildings 2, 5, 6, 7, and 8) remain.

36 Three 1952 U.S. Air Force target ranges and two additional unknown target ranges also have been  
37 identified on NWSTF Boardman based on historical maps (Hampton and Gissendanner 2009). Based on  
38 current aerial photographs, no associated structures or spotting towers remain for any of these ranges.  
39 Even though these ranges have not been formally evaluated for National Register of Historic Places  
40 eligibility, associated structures and spotting towers have been demolished and original targets and  
41 ordnance fragments have been removed. These ranges are no longer intact and lack physical integrity.

1 Two World War II era buildings have also been identified within the APE for noise, vibration, and visual  
2 intrusions beneath the proposed special use airspace in the southern portion of the Umatilla Chemical  
3 Depot. The headquarters building (Building 1) and the firehouse (Building 2) are two-story structures  
4 with tan brick laid in 5/1 common bond and red clay tile hip roofs, constructed in 1941. The entrance  
5 bays are flanked by projecting brick piers with stone caps and brick pilasters that support elaborate brick  
6 and stone entablatures (Building Technology, Inc. 1984). Both buildings are located on the main  
7 entrance road; the headquarters building faces a landscaped U-shaped parade ground. The firehouse  
8 (Building 2) has a one-story garage on the south side. Both buildings are considered eligible for inclusion  
9 in the National Register of Historic Places by the Oregon State Historic Preservation Office (Pumphrey  
10 2002).

11 No other known architectural resources have been identified within the APE for noise, vibration, and  
12 visual intrusions. Most of the area within the APE for noise, vibration, and visual intrusions is agricultural  
13 land and small farms (Section 3.7) with limited architectural resources (farmhouses and outbuildings).  
14 The only architectural resources listed in the National Register of Historic Places in Morrow County are  
15 located in the town of Heppner: the Morrow County Courthouse, the Heppner Hotel, and the Gilliam  
16 and Bisbee Building (Oregon Parks and Recreation Department, Heritage Programs 2011); however,  
17 Heppner is not located within the APE for noise, vibration, and visual intrusions.

### 18 **3.10.2.3 Native American Resources**

19 Many Native American groups occupied, hunted and gathered, or traveled through the APEs. Today,  
20 they are represented by the Confederated Tribes of the Umatilla Indian Reservation, the Confederated  
21 Tribes of the Warm Springs of Oregon, the Confederated Tribes and Bands of the Yakama Nation, and  
22 the Nez Perce Tribe (Stern 1998, Pumphrey 2002). The Confederated Tribes of the Umatilla Indian  
23 Reservation, established in 1855, includes Cayuse, Umatilla, and Walla Walla peoples (Stern 1998). The  
24 Confederated Tribes of Warm Springs includes eight tribal groups: the four Sahaptin speaking groups  
25 (Tenino, Wyampan, Ta-ih, and Dock-spus), three groups speaking Kiksht or Upper Chinook known as the  
26 Wasco, and the Northern Paiutes (Hunn and French 1998). The Confederated Tribes and Bands of the  
27 Yakama Nation comprise 14 tribes and bands: Palouse, Piquose, Yakama, Wenatchapam, Klinquit, Oche  
28 Chotes, Kow way saye ee, Sk'in-pah, Kah-miltpah, Klickitat, Wish ham, See ap Cat, Li ay was, and Shyiks  
29 (Yakama Nation Museum 2010). The Nez Perce Tribe is closely related to the Sahaptin speakers of  
30 Oregon and Washington including the Palouse, Walla Walla, Yakima, Umatilla, and Wayampam (Walker  
31 1998).

32 In 1855, a treaty establishing the Umatilla Indian Reservation was signed by Isaac Stevens, governor of  
33 Washington Territory and its superintendent of Indian affairs, and headmen who were seen as  
34 representatives of the various bands of the Umatilla, Cayuse, and Walla Walla. Stevens and his  
35 associates were forced to yield certain concessions, including a reservation separate from the Nez Perce  
36 for the Umatilla, Cayuse, and Walla Walla, and allowing them to retain rights to their traditional lands.  
37 The treaty was ratified in 1860, and the Confederated Tribes of the Umatilla, Cayuse, and Walla Walla  
38 Reservation were removed to reservation lands. However, large numbers of the Umatilla and Walla  
39 Walla remained in their homelands along the Columbia River and continued their seasonal use of the  
40 region (Stern 1998:415).

41 Specific resources associated with these groups include hunting camps and blinds, drive lines and kill  
42 sites for deer or antelope, ceremonial locations, vision quest locations, pictographs/petroglyphs, sweat  
43 lodges/sweathouses, burial grounds and cremation circles, burial sites associated with the  
44 Shoshone/Bannock Indian Wars, and traditional use areas for collection of medicinal plants and herbs

1 (Hunn and French 1998, Schuster 1998, Stern 1998, Pumphrey 2002). During consultation in 2010 for  
 2 the soil sampling and the installation of proposed groundwater monitoring wells, the Confederated  
 3 Tribes of the Umatilla Indian Reservation indicated that “historic properties of religious and cultural  
 4 significance” are located on NWSTF Boardman (Dickson 2010). In addition, the Yakama Nation verified  
 5 that the facility is within the Usual and Accustomed territory of the Yakama reserved through the Treaty  
 6 of 1855 (Meninick 2011).

7 The Navy has invited government-to-government consultation with the Confederated Tribes of the  
 8 Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the  
 9 Confederated Tribes and Bands of the Yakama Nation, and the Nez Perce Tribe in accordance with EO  
 10 13175 *Consultation and Coordination with Indian Tribal Governments* and Department of Defense  
 11 Instruction 4710.02 *Department of Defense Interaction with Federally Recognized Tribes*. To date,  
 12 project and Section 106 consultation has included correspondence, tribal staff briefings, APE review and  
 13 concurrence, and initiation of a traditional cultural properties survey (Table 3.10-2). Staff-level  
 14 discussions, a traditional cultural properties survey, and consultation is ongoing.

15 **Table 3.10-2: Correspondence and Project Briefings held with Native American Tribes, Proposed Military**  
 16 **Readiness Activities, NWSTF Boardman, Oregon**

Date	Tribe	Format	Topics Discussed
October 2010	Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Confederated Tribes and Bands of the Yakama Nation, and the Nez Perce Tribe	Navy Correspondence	Notification of Intent to prepare an Environmental Impact Statement including a description of the Proposed Action; the scoping process; an invitation for a personal briefing; a copy of the PowerPoint briefing, and invitation to initiate government-to-government consultation.
March 3, 2011	Confederated Tribes of the Umatilla Indian Reservation	Navy Briefing	Section 106 process, previous cultural resources studies, any additional surveys to be conducted as a result of this project, the need for a traditional cultural property survey, a general request for cultural resources documents, natural resources management, and wildfire management.
April 25, 2011	Confederated Tribes of the Umatilla Indian Reservation	Navy Correspondence	Formal Section 106 initiation and project information packet.
April 25, 2011	Confederated Tribes of the Warm Springs Reservation of Oregon	Navy Correspondence	Formal Section 106 initiation and project information packet.
April 25, 2011	Confederated Tribes and Bands of the Yakama Nation	Navy Correspondence	Formal Section 106 initiation and project information packet.
April 25, 2011	Nez Perce Tribe	Navy Correspondence	Formal Section 106 initiation and project information packet.

1 **Table 3.10-2: Correspondence and Project Briefings held with Native American Tribes, Proposed Military**  
 2 **Readiness Activities, NWSTF Boardman, Oregon (Continued)**

Date	Tribe	Format	Topics Discussed
May 2, 2011	Confederated Tribes and Bands of the Yakama Nation	Navy Briefing	Overall project description, the purpose of the EIS and the extent and function of the airspace complex over NWSTF Boardman. Copies of the Section 106 letter sent to the Oregon State Historic Preservation Office and the draft Integrated Cultural Resource Management Plan were provided.
May 19, 2011	Confederated Tribes of the Warm Springs Reservation of Oregon	Tribal Correspondence	Confederated Tribes of the Warm Springs Reservation of Oregon would defer all project comment for Section 106 concerns to the Confederated Tribes of the Umatilla Indian Reservation because the proposed project is located on the Confederated Tribes of the Umatilla Indian Reservation ceded lands.
January 3, 2012	Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Confederated Tribes and Bands of the Yakama Nation, and the Nez Perce Tribe	Navy Correspondence	Revised Notice of Intent to change the scope of the Environmental Impact Statement to include the addition of a new Special Use Airspace in the form of a Military Operations Area.
February 15, 2012	Confederated Tribes of the Umatilla Indian Reservation	Meeting	Discussed area of potential effects and the need for traditional cultural properties survey.
August 30, 2012	Confederated Tribes of the Umatilla Indian Reservation	Meeting and Site Visit	Meeting and site visit at NWSTF Boardman to initiate the traditional cultural properties survey.
August 31, 2012	Confederated Tribes of the Umatilla Indian Reservation	Meeting	Area of potential effects review and concurrence.

Notes: Navy = U.S. Department of the Navy, NWSTF = Naval Weapons Systems Training Facility

3 **3.10.2.4 Current Requirements and Management Practices**

4 Cultural resources at NWSTF Boardman are managed in accordance with the National Historic  
 5 Preservation Act, the American Indian Religious Freedom Act, the Native American Graves Protection  
 6 and Repatriation Act, the Archaeological Resources Protection Act, and appropriate Navy Instructions.  
 7 The Navy is currently preparing an Integrated Cultural Resources Management Plan for NWSTF  
 8 Boardman, which is scheduled for completion by December 2012 and will include these goals:

- 9 • Comply with federal laws and regulations governing the treatment of cultural resources, while  
 10 causing the least disturbance to the military mission.
- 11 • Implement a cultural landscape planning approach to cultural resources management that  
 12 recognizes the complexity of the human cultural interaction with the natural terrain through  
 13 time.
- 14 • Inventory and evaluate cultural resources for eligibility to the National Register of Historic  
 15 Places.
- 16 • Identify historic properties of religious and cultural significant to Native American Tribes.

- 1 • Avoid, minimize, or mitigate adverse effects on cultural resources that meet criteria for inclusion
- 2 in the National Register of Historic Places (historic properties).
- 3 • Develop efficient management procedures that focus on cultural resources eligible for the
- 4 National Register of Historic Places as opposed to those resources of little or no potential for
- 5 eligibility.
- 6 • Enforce federal laws that prohibit vandalism of cultural resources on federal properties through
- 7 law enforcement, monitoring, and public awareness.
- 8 • Consider outside interests, including local governments and public groups.
- 9 • Consult with Native American Tribes.
- 10 • Establish a yearly review process for assessing ongoing appropriateness for the Integrated
- 11 Cultural Resources Management Plan.

### 12 **3.10.3 ENVIRONMENTAL CONSEQUENCES**

13 The stressors analyzed for archaeological sites are ground disturbing activities during construction,  
14 training, and range maintenance. Ground disturbing activities during construction include surface  
15 grading; building excavation and construction; road construction and use; utility line trenching; use of  
16 staging areas for heavy equipment and supplies; borrow pit excavations; and other activities. For  
17 training activities, physical strikes could result from non-explosive projectile impacts and heavy  
18 equipment air drops. Noise and visual intrusions may affect the historic setting and feeling of  
19 archaeological sites. Any ground-disturbing action in the area of a National Register of Historic Places-  
20 eligible archaeological site, or modification to such a site, can affect the physical integrity of that cultural  
21 resource, resulting in alteration or destruction of those characteristics or qualities that make it eligible  
22 for inclusion in the National Register of Historic Places.

23 The stressors analyzed for architectural resources are physical disturbance from modification or  
24 alteration, demolition, vibration from aircraft overflights and ordnance detonations, and inadvertent or  
25 intentional vandalism of architectural resources. In some cases, short-term audio intrusions during  
26 construction and visual intrusions to historic settings and cultural landscapes from new and  
27 incompatible construction may also occur. Any noise or visual intrusion to the setting or demolition or  
28 alteration of architectural traits can affect the integrity of a National Register of Historic Places-eligible  
29 or unevaluated architectural resource, resulting in alteration or destruction of those characteristics or  
30 qualities that make it eligible for inclusion in the National Register of Historic Places.

31 The stressors analyzed for Native American resources are physical disturbance (as described above for  
32 archaeological sites); audio, visual and/or vibration intrusions, and decreased access to resources.  
33 Temporary audio, visual, and/or vibration intrusions during construction activities and permanent,  
34 intermittent intrusions during training activities from aircraft overflights, vehicle operation, weapons  
35 firing, and explosive ordnance detonations (explosive ordnance disposal training) may disrupt the visual  
36 and audio landscape or the viewshed of sensitive Native American resources, which may require  
37 uninterrupted vistas and natural quiet. Decreased access to Native American resources, such as  
38 traditional habitats for plant and animal resources, and sacred or ceremonial locations, may disrupt the  
39 Native American ceremonial calendar. Any ground-disturbing action, audio or visual intrusion, or  
40 decreased access in the area of a sensitive Native American resource can affect the physical integrity of  
41 that cultural resource, resulting in alteration or destruction of the special Native American quality  
42 (sacredness) of the resource.

43 Any physical disturbance of a National Register of Historic Places listed or eligible cultural resource, or  
44 modification to such a resource can result in alteration or destruction of those characteristics or

1 qualities that make it eligible for inclusion in the National Register of Historic Places and, thus, would be  
2 an adverse effect under Section 106 of the National Historic Preservation Act.

### 3 **3.10.3.1 No Action Alternative**

#### 4 **3.10.3.1.1 Archaeological Resources**

5 Under the No Action Alternative, existing military readiness activities would continue and no new range  
6 enhancements would be constructed. No archaeological sites eligible for listing in the National Register  
7 of Historic Places are located in areas where ground disturbing military readiness activities currently  
8 take place (i.e., the Main Target Area, the existing strafing pit, and existing unmanned aerial systems  
9 airstrip). No known archaeological sites would be impacted by ground disturbing activities.

10 Visual and noise intrusions to the historic setting of the Well Spring Segment of the Oregon Trail and  
11 Lower Well Spring Diversion of the Well Spring Segment would not change under the No Action  
12 Alternative. Intrusions would be similar to those that existed when these segments were evaluated as  
13 eligible for the National Register of Historic Places. Current activities do not diminish the integrity of  
14 setting, feeling, and association such that the segments of the Oregon Trail would have been  
15 determined not eligible. Cultural resources would continue to be managed in accordance with current  
16 federal law and Navy policy.

#### 17 **3.10.3.1.2 Architectural Resources**

18 No impacts on architectural resources would occur as a result of the No Action Alternative because no  
19 architectural resources eligible for listing in the National Register of Historic Places are located on  
20 NWSTF Boardman or beneath the existing special use airspace.

#### 21 **3.10.3.1.3 Native American Resources**

22 No Native American resources or traditional cultural properties have yet been identified in the APEs  
23 although consultation with the Confederated Tribes of the Umatilla Indian Reservation, the  
24 Confederated Tribes and Bands of the Yakama Nation, and the Nez Perce Tribe is ongoing. The  
25 Confederated Tribes of the Warm Springs Reservation of Oregon has deferred comment on Section 106  
26 concerns to the Confederated Tribes of the Umatilla Indian Reservation. The Confederated Tribes of the  
27 Umatilla Indian Reservation has concurred with the APEs, identified the need to conduct a traditional  
28 cultural properties survey, and initiated work on the survey in August 2012. If Native American  
29 resources or traditional cultural properties are identified in the APEs, potential impacts would be  
30 evaluated in consultation with the affected tribes. If necessary, mitigation measures to avoid or  
31 minimize impacts would be developed in consultation with the tribes.

### 32 **3.10.3.2 Alternative 1**

#### 33 **3.10.3.2.1 Archaeological Resources**

34 The APE for ground disturbance does not contain archaeological sites eligible for listing in the National  
35 Register of Historic Places; therefore, no impacts to these resources would occur under Alternative 1.  
36 Known archaeological sites that are eligible for listing on the National Register of Historic Places and  
37 segments of the Oregon Trail were considered and avoided during the planning and siting process for  
38 the proposed range enhancements. The APE for ground disturbing activities is more than 2 mi. (3.2 km)  
39 from any portion of the Oregon Trail (Figure 3.10-1).

40 As discussed in Section 3.12, Wildfire, the Draft Integrated Wildland Fire Management Plan (Appendix H)  
41 includes proposed modifications to the existing system of fire breaks. The width of some fire breaks

1 would be reduced to the width of the adjacent road, some fire breaks that do not follow roads would be  
2 eliminated, and some new fire breaks would be created (Figure 3.12-2). The proposed new fire breaks  
3 would consist of about 19 ac. (7.7 ha) that would be maintained by disking, which could affect  
4 archaeological resources if they are present. The full process involved to establish new fire breaks would  
5 be through the Naval Air Station Whidbey Island Site Approval process, which would include  
6 archaeological survey and Section 106 consultation.

7 In the event of inadvertent discovery of sensitive archaeological materials during construction, the Navy  
8 and ORNG would ensure that measures are taken promptly to protect the find from disturbance, assess  
9 the significance of the discovery, and implement appropriate mitigation measures for significant  
10 resources. Inadvertent discovery of sensitive archaeological materials would be handled in accordance  
11 with the Navy's best management practices, which include provisions for stopping work and notifying  
12 the Navy Cultural Resources Manager, the Oregon State Historic Preservation Office, and other  
13 appropriate parties of the find. If human remains are inadvertently discovered, then the procedures  
14 established under the Native American Graves Protection and Repatriation Act and Chief of Naval  
15 Operations Instruction 11170.2A *Navy Responsibilities Regarding Undocumented Human Burials* would  
16 be followed.

17 Potential noise and visual intrusions to the historic setting of the Oregon Trail under Alternative 1  
18 include increases in military readiness activities and construction of proposed range enhancements.  
19 These potential intrusions have been minimized by siting the proposed range enhancements to the  
20 north, away from the Oregon Trail. Permanent buildings would be constructed at the Range Operations  
21 and Control Areas for the Digital Multipurpose Training Range (DMPTR) and the Multipurpose Machine  
22 Gun Range (MPMGR), which would be more than 6 mi. (9.7 km) from the Oregon Trail. The Joint-use  
23 Range Operations Control Center would be more than 8 mi. (12.9 km) from the Oregon Trail (Figure  
24 3.10-1). Noise during construction of these buildings is not expected to impact the historic setting based  
25 on distance from the Oregon Trail and because the noise would be temporary and intermittent.  
26 Likewise, no visual impacts to the setting are expected based on topography and distance of the  
27 buildings from the Oregon Trail. None of the buildings, other range enhancements, or ground-based  
28 training activities on the new ranges would be visible from the Oregon Trail interpretive area at Pioneer  
29 Cemetery and Well Springs along the southern boundary of NWSTF Boardman. Members of the public  
30 visiting the Oregon Trail interpretive area might occasionally see and hear aircraft overflights, and might  
31 hear weapons firing on the new ranges. Visual and noise intrusions would be transient in nature, brief in  
32 duration, and would not permanently affect the overall setting, feeling, and association of the Well  
33 Spring Segment of the Oregon Trail or the Lower Well Spring Diversion of the Well Spring Segment  
34 under Alternative 1.

35 Although two segments of wagon roads are located within the APE for noise and visual intrusions  
36 beneath the proposed Boardman Northeast MOA, no public access is permitted (i.e., absence of human  
37 noise receptors). Noise and visual intrusions from increased aircraft overflights would be transient in  
38 nature and brief in duration. Noise and visual intrusions from range construction and use of the new  
39 ranges would not affect these wagon road segments as these activities would occur on NWSTF  
40 Boardman located more than 12 mi. (19.3 km) west.

#### 41 **3.10.3.2.2 Architectural Resources**

42 No architectural resources eligible for listing in the National Register of Historic Places are located in the  
43 APE for ground disturbing activities. Therefore, ground disturbing activities would not impact  
44 architectural resources.

1 The World War II era headquarters building (Building 1) and the firehouse (Building 2) at Umatilla  
2 Chemical Depot are within the APE for noise, vibration, and visual intrusions. Noise and visual intrusions  
3 from range construction and use of the new ranges would not affect these buildings as these activities  
4 would occur on NWSTF Boardman located more than 12 mi. (19.3 km) west. Noise and visual intrusions  
5 from aircraft overflights would be transient in nature and brief in duration, and would not permanently  
6 affect the historic setting. Several studies have been conducted on the effects of aircraft overflights on  
7 cultural resources (Battis 1988, Hanson et al. 1991). Vibration studies indicate that, with the exception  
8 of helicopters, subsonic aircraft overflights do not generate sufficient vibrations to cause physical  
9 damage to the cultural resources including unreinforced brick buildings like the headquarters building  
10 and the firehouse. Training activities associated with helicopter use would primarily occur in the existing  
11 airspace over NWSTF Boardman and pilots avoid flying at low altitudes over existing structures.

### 12 **3.10.3.2.3 Native American Resources**

13 No Native American resources or traditional cultural properties have yet been identified in the APEs  
14 although consultation with the Confederated Tribes of the Umatilla Indian Reservation, the  
15 Confederated Tribes and Bands of the Yakama Nation, and the Nez Perce Tribe is ongoing. The  
16 Confederated Tribes of the Warm Springs Reservation of Oregon has deferred comment on Section 106  
17 concerns to the Confederated Tribes of the Umatilla Indian Reservation. The Confederated Tribes of the  
18 Umatilla Indian Reservation concurred with the APEs, identified the need to conduct a traditional  
19 cultural properties survey, and initiated work on the survey in August 2012. If Native American  
20 resources or traditional cultural properties are identified in the APEs, potential impacts would be  
21 evaluated in consultation with the affected tribes. If necessary, mitigation measures to avoid or  
22 minimize impacts would be developed in consultation with the tribes.

### 23 **3.10.3.3 Alternative 2**

#### 24 **3.10.3.3.1 Archaeological Resources**

25 The APE for ground disturbance does not contain archaeological sites eligible for listing in the National  
26 Register of Historic Places; therefore, no impacts to these resources would occur under Alternative 2.  
27 Known archaeological sites that are eligible for listing on the National Register of Historic Places and  
28 segments of the Oregon Trail were considered and avoided during the planning and siting process for  
29 the proposed range enhancements. The APE for ground disturbing activities is more than 2 mi. (3.2 km)  
30 from any portion of the Oregon Trail (Figure 3.10-1).

31 As discussed in Section 3.12, Wildfire, the Draft Integrated Wildland Fire Management Plan (Appendix H)  
32 includes proposed modifications to the existing system of fire breaks. The width of some fire breaks  
33 would be reduced to the width of the adjacent road, some fire breaks that do not follow roads would be  
34 eliminated, and some new fire breaks would be created (Figure 3.12-2). The proposed new fire breaks  
35 would consist of about 19 ac. (7.7 ha) that would be maintained by disking, which could affect  
36 archaeological resources if they are present. The full process involved to establish new fire breaks would  
37 be through the Naval Air Station Whidbey Island Site Approval process, which would include  
38 archaeological survey and Section 106 consultation.

39 In the event of inadvertent discovery of sensitive archaeological materials during construction, the Navy  
40 and ORNG would ensure that measures are taken promptly to protect the find from disturbance, assess  
41 the significance of the discovery, and implement appropriate mitigation measures for significant  
42 resources. Inadvertent discovery of sensitive archaeological materials would be handled in accordance  
43 with the standard operating procedures outlined above for Alternative 1.

1 Potential noise and visual intrusions to the historic setting of the Oregon Trail under Alternative 2  
2 include increases in military readiness activities and construction of proposed range enhancements.  
3 These potential intrusions have been minimized by siting the proposed range enhancements to the  
4 north, away from the Oregon Trail. Permanent buildings would be constructed at the Range Operations  
5 and Control Areas for the DMPTR and the MPMGR, which would be more than 6 mi. (9.7 km) from the  
6 Oregon Trail. The Joint-use Range Operations Control Center would be more than 8 mi. (12.9 km) from  
7 the Oregon Trail (Figure 3.10-1). Noise during construction of these buildings is not expected to impact  
8 the historic setting based on distance from the Oregon Trail and because the noise would be temporary  
9 and intermittent. Likewise, no visual impacts to the setting are expected based on topography and  
10 distance of the buildings from the Oregon Trail. None of the buildings, other range enhancements, or  
11 ground-based training activities on the new ranges would be visible from the Oregon Trail interpretive  
12 area at Pioneer Cemetery and Well Springs along the southern boundary of NWSTF Boardman.  
13 Members of the public visiting the Oregon Trail interpretive area might occasionally see and hear  
14 aircraft overflights, and might hear weapons firing on the new ranges. Visual and noise intrusions would  
15 be transient in nature, brief in duration, and would not permanently affect the overall setting, feeling,  
16 and association of the Well Spring Segment of the Oregon Trail or the Lower Well Spring Diversion of the  
17 Well Spring Segment under Alternative 2.

18 Although two segments of wagon roads are located within the APE for noise and visual intrusions  
19 beneath the proposed Boardman Northeast MOA, no public access is permitted (i.e., absence of human  
20 noise receptors). Noise and visual intrusions from increased aircraft overflights would be transient in  
21 nature and brief in duration. Noise and visual intrusions from range construction and use of the new  
22 ranges would not affect these wagon road segments as these activities would occur on NWSTF  
23 Boardman located more than 12 mi. (19.3 km) west.

#### 24 **3.10.3.3.2 Architectural Resources**

25 No architectural resources eligible for listing in the National Register of Historic Places are located in the  
26 APE for ground disturbing activities. Therefore, ground disturbing activities would not impact  
27 architectural resources.

28 The World War II era headquarters building (Building 1) and the firehouse (Building 2) at Umatilla  
29 Chemical Depot are within the APE for noise, vibration, and visual intrusions. Noise and visual intrusions  
30 from range construction and use of the new ranges would not affect these buildings as these activities  
31 would occur on NWSTF Boardman located more than 12 mi. (19.3 km) west. Noise and visual intrusions  
32 from aircraft overflights would be transient in nature and brief in duration, and would not permanently  
33 affect the historic setting. Several studies have been conducted on the effects of aircraft overflights on  
34 cultural resources (Battis 1988, Hanson et al. 1991). Vibration studies indicate that, with the exception  
35 of helicopters, subsonic aircraft overflights do not generate sufficient vibrations to cause physical  
36 damage to the cultural resources including unreinforced brick buildings like the headquarters building  
37 and the firehouse. Training activities associated with helicopter use would primarily occur in the existing  
38 airspace over NWSTF Boardman and pilots avoid flying at low altitudes over existing structures.

#### 39 **3.10.3.3.3 Native American Resources**

40 No Native American resources or traditional cultural properties have yet been identified in the APES  
41 although consultation with the Confederated Tribes of the Umatilla Indian Reservation, the  
42 Confederated Tribes and Bands of the Yakama Nation, and the Nez Perce Tribe is ongoing. The  
43 Confederated Tribes of the Warm Springs Reservation of Oregon has deferred comment on Section 106  
44 concerns to the Confederated Tribes of the Umatilla Indian Reservation. The Confederated Tribes of the

1 Umatilla Indian Reservation concurred with the APEs, identified the need to conduct a traditional  
2 cultural properties survey, and initiated work on the survey in August 2012. If Native American  
3 resources or traditional cultural properties are identified in the APEs, potential impacts would be  
4 evaluated in consultation with the affected tribes. If necessary, mitigation measures to avoid or  
5 minimize impacts would be developed in consultation with the tribes.

### 6 **3.10.3.4 Proposed Management Practices, Monitoring, and Mitigation Measures**

#### 7 **3.10.3.4.1 Proposed Best Management Practices**

8 Cultural resources at NWSTF Boardman would continue to be managed in accordance with the National  
9 Historic Preservation Act, the American Indian Religious Freedom Act, the Native American Graves  
10 Protection and Repatriation Act, the Archaeological Resources Protection Act, and appropriate Navy  
11 Instructions under Alternatives 1 and 2. The Integrated Cultural Resources Management Plan for NWSTF  
12 Boardman (scheduled for completion by December 2012) would be updated to reflect new conditions.

#### 13 **3.10.3.4.2 Proposed Monitoring**

14 No specific monitoring needs were identified for cultural resources.

#### 15 **3.10.3.4.3 Proposed Mitigation Measures**

16 No mitigation measures are required for archaeological or architectural resources because no National  
17 Register of Historic Places-eligible or listed archaeological or architectural resources would be impacted.  
18 If Native American resources or traditional cultural properties are identified through ongoing  
19 consultation and cannot be avoided, specific mitigation measures would be developed in further  
20 consultation with the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes  
21 of the Warm Springs of Oregon, the Confederated Tribes and Bands of the Yakama Nation, the Nez  
22 Perce Tribe, and the Oregon State Historic Preservation Office.

#### 23 **3.10.3.5 Summary of Effects and Conclusions**

24 Known archaeological sites and the Oregon Trail were considered and avoided during the planning and  
25 siting process for the proposed range enhancements. Survey results indicate that no archaeological sites  
26 or architectural resources eligible for listing in the National Register of Historic Places are located in the  
27 APE for ground disturbing activities. Findings of the most recent survey work within the APE for ground  
28 disturbing activities are pending concurrence from the Oregon State Historic Preservation Office and  
29 further consultation with Native American Tribes (Table 3.10-3).

30 Visual intrusions from increased aircraft overflights and noise intrusions from range construction,  
31 increased aircraft overflights, and increased range operations would be transient in nature and brief in  
32 duration, and would not permanently affect the overall setting of the Well Spring Segment of the  
33 Oregon Trail or the two segments of wagon roads located beneath the proposed Boardman Northeast  
34 MOA. The World War II era headquarters building (Building 1) and the firehouse (Building 2) would not  
35 be adversely affected by noise, visual, or vibration intrusions.

36 Native American resources and traditional cultural properties may occur within the APE for noise and  
37 visual intrusion, which encompasses the smaller APE for ground disturbing activities. While no specific  
38 Native American resources or traditional cultural properties have yet been identified in the APEs, the  
39 Confederated Tribes of the Umatilla Indian Reservation initiated a traditional cultural properties survey  
40 in August 2012. If Native American resources or traditional cultural properties are identified in the APE,

- 1 potential impacts would be evaluated in consultation with the affected tribes. If necessary, mitigation
- 2 measures to avoid or minimize impacts would be developed in consultation with the tribes.
- 3 Navy conclusions regarding impacts to cultural resources are pending completion of ongoing Native
- 4 American consultations and National Historic Preservation Act Section 106 consultation with the Oregon
- 5 State Historic Preservation Office.

6 **Table 3.10-3: Summary of Impacts on Cultural Resources, NWSTF Boardman, Oregon**

Alternative and Stressor	Summary of Effects and Impact Conclusion	
	Section 106	National Environmental Policy Act
<b>No Action Alternative</b>		
Noise, Vibration, and Visual Intrusions	No Historic Properties Affected <sup>1</sup>	No significant impact
Ground Disturbing Activities	No Historic Properties Affected <sup>1</sup>	No significant impact
Physical Strikes	No Historic Properties Affected <sup>1</sup>	No significant impact
<b>Alternative 1</b>		
Noise, Vibration, and Visual Intrusions	No Adverse Effect to Historic Properties	No significant impact
Ground Disturbing Activities	No Historic Properties Affected <sup>1</sup>	No significant impact
Physical Strikes	No Historic Properties Affected <sup>1</sup>	No significant impact
<b>Alternative 2</b>		
Noise, Vibration, and Visual Intrusions	No Adverse Effect to Historic Properties	No significant impact
Ground Disturbing Activities	No Historic Properties Affected <sup>1</sup>	No significant impact
Physical Strikes	No Historic Properties Affected <sup>1</sup>	No significant impact

<sup>1</sup> Pending government-to-government consultation with Native American Tribes, concurrence by the Oregon State Historic Preservation Office with the 2011 Phase I report findings, and concurrence with a finding of "No Adverse Effect to Historic Properties"