

# ES 1 EXECUTIVE SUMMARY

## ES 1.1 INTRODUCTION AND BACKGROUND

The National Environmental Policy Act (NEPA) of 1969 (42 United States Code [U.S.C.] § 4321 et seq.) requires federal agencies to examine the environmental effects of major federal actions in an Environmental Impact Statement (EIS). An EIS is a public document that provides a detailed assessment of the potential effects that a major federal action may have on the human, natural, or cultural environment. The United States (U.S.) Department of the Navy (Navy) prepared this Draft EIS (hereafter referred to as “EIS”) to assess the potential environmental effects associated with ongoing and proposed Navy and Oregon National Guard (ORNG) training activities (described in detail in Chapter 2) within the Naval Weapons Systems Training Facility (NWSTF) Boardman (Figure ES-1). The Navy is the lead agency for this EIS pursuant to 40 Code of Federal Regulations (C.F.R.) § 1501.5 and § 1508.5 and the National Guard Bureau (NGB) and Federal Aviation Administration (FAA) are cooperating agencies pursuant to 40 C.F.R. § 1501.6. The Commander, U.S. Pacific Fleet signed a Memorandum of Agreement with the National Guard Bureau (NGB) and the ORNG to establish the lead-cooperating agency relationship (8 August 2010). The ORNG is the NGB’s agent for execution of this Memorandum of Agreement. The NGB is the federal instrument responsible for the administration of the National Guard of the United States established by the U.S. Congress as a joint bureau of the Department of the Army and the Department of the Air Force. Since the proposed action contemplates activities associated with Special Use Airspace (SUA), the Navy requested the FAA’s cooperation (10 January 2012) in accordance with the guidelines described in the Memorandum of Understanding between the FAA and the Department of Defense (DoD) concerning SUA Environmental Actions, dated 4 October 2005.

This EIS was prepared in compliance with NEPA (42 U.S.C. § 4321 et seq.), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (Title 40 C.F.R. §§ 1500-1508), Navy Procedures for Implementing NEPA (32 C.F.R § 775), and Environmental Analysis of Army Actions (32 C.F.R. § 651) which also covers Army National Guard activities.

The Navy’s mission is to organize, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. This mission is mandated by federal law (Title 10 U.S.C. § 5062), which ensures the readiness of the United States’ naval forces. The Navy executes this responsibility by establishing and executing training programs, and ensuring naval forces have access to the ranges, operating areas, and airspace needed to develop and maintain skills for conducting naval activities.

The ORNG has a dual state and federal mission to “provide the citizens of the State of Oregon and the United States with a ready force of citizen soldiers and airmen, equipped and trained to respond to any contingency.” A key component of the nation’s defense, the National Guard’s federal mission is “to provide trained units and qualified persons available for active duty in the armed forces, in time of war or national emergency, and at such other times as the national security may require, to fill the needs of the armed forces whenever more units and persons are needed than are available in the regular components” (Title 10 U.S.C. § 10102). The ORNG is also an asset to the state of Oregon during emergencies caused by natural disasters, civil disturbances, acts of terrorism, and other threats to life, property, or civil order. As Commander in Chief, the Governor may order the ORNG to duty in order to fulfill State mission requirements.

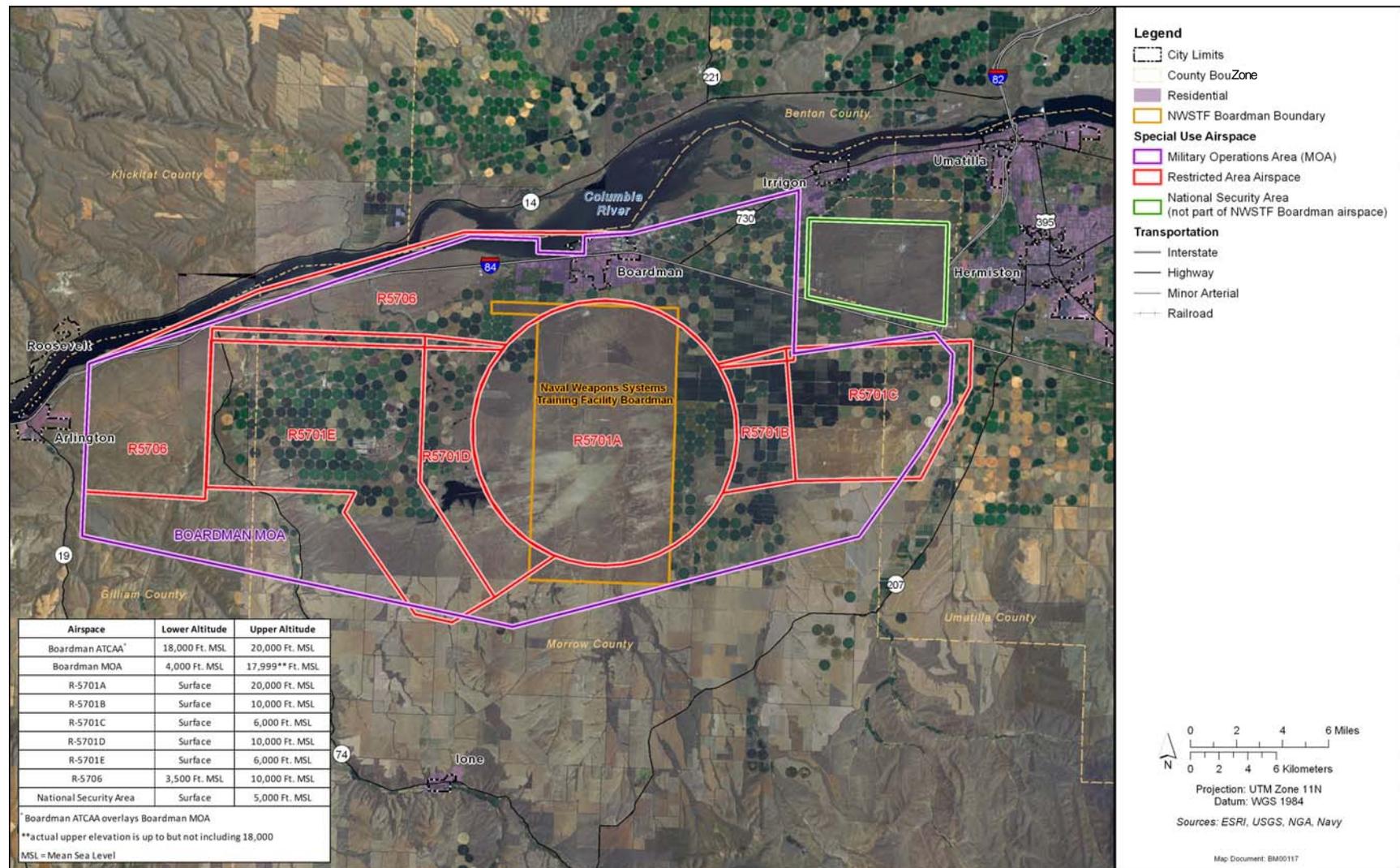


Figure ES-1: NWSTF Boardman Military Operations Area and Restricted Areas

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## 1 **ES 1.2 STRATEGIC IMPORTANCE OF NWSTF BOARDMAN**

2 NWSTF Boardman is the principal regional military aviation units and the only safe low altitude training  
3 area for junior Navy pilots at Naval Air Station (NAS) Whidbey Island and is used for training by ORNG  
4 units located throughout the state of Oregon. NWSTF Boardman also supports some training  
5 requirements of the U.S. Air Force Reserve (Washington-based units) and the special use airspace is  
6 used by DoD contractors to conduct Unmanned Aerial System (UAS) testing and ORNG UAS training.  
7 Accordingly, the strategic vision for NWSTF Boardman is to support naval and joint operational readiness  
8 by providing a realistic, live-training environment with the capability and capacity to support the  
9 Services' current, emerging, and future training requirements and UAS testing requirements. NWSTF  
10 Boardman has a unique combination of attributes that make it a strategically important training venue  
11 for the Services as presented in the sections below.

### 12 **ES 1.2.1.1 Location**

13 NWSTF Boardman serves as a regional range for Naval units homeported in the Pacific Northwest area  
14 including aviation units homeported at NAS Whidbey Island. NWSTF Boardman is located approximately  
15 225 miles (368.3 kilometers) southeast of NAS Whidbey Island. NWSTF Boardman also is located within  
16 an acceptable travel distance for the majority of the ORNG's soldiers and airmen which ensures that the  
17 actual time spent training during a training assembly is maximized. Individual Guard training typically  
18 occurs at Army National Guard organizational armories, readiness centers, maintenance shops, and  
19 training sites on a regular basis. Collective training of troops in the field during Annual Training occurs at  
20 larger training sites. Consequently, non-value added travel time must be kept to a minimum (less than  
21 25 percent according to Army Regulation 350-2 and NGB guidance) to ensure that all training tasks and  
22 qualifications can be met annually.

23 The Pacific Northwest region is home to thousands of military families. The military services strive, and  
24 in many cases are required, under OPNAV 3000.13C, to track and where possible limit "personnel  
25 tempo," meaning the amount of time that military personnel spend deployed away from home.  
26 Personnel tempo is an important factor in family readiness, morale, and retention. The availability of  
27 NWSTF Boardman and its associated airspace as a regional training range is critical to Navy and ORNG  
28 efforts in these administrative (or personnel) support functions.

### 29 **ES 1.2.1.2 Training Supported**

30 NWSTF Boardman plays a vital role in the execution of the military readiness mandate. This training area  
31 is the Pacific Northwest's only venue for Basic phase/Unit-level air-to-ground bombing practice for Naval  
32 aviation squadrons. In addition, NWSTF Boardman supports ORNG and U.S. Air Force Reserve training  
33 requirements, and UAS testing and training conducted by DoD contractors and ORNG. Training at  
34 NWSTF Boardman is critical to the preparation of the Services for advanced level training and  
35 predeployment certification.

### 36 **ES 1.2.1.3 Area of Training Space**

37 NWSTF Boardman has a large amount of air and ground training area within its boundaries, and is the  
38 only restricted airspace in Oregon available for military training. Detailed descriptions of these areas are  
39 provided in Section 1.3.3. The abundance of special use airspace co-located and surrounding NWSTF  
40 Boardman provides land-related training opportunities to Navy, Marine Corps, Air Force, and National  
41 Guard fixed-wing and rotary-wing aircraft and UAS (Figure ES-1).

### 1 **ES 1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION**

2 The purpose of the Proposed Action is to achieve and maintain military readiness by using NWSTF  
3 Boardman to support and conduct current, emerging, and future training and research, development,  
4 testing, and evaluation activities, while enhancing training resources through investment on the range.

5 NWSTF Boardman is important to military readiness because of the unique training environment it  
6 provides. Due to shortfalls in range capabilities at NWSTF Boardman, within the state of Oregon, and in  
7 the Pacific Northwest, the Navy and ORNG propose to take actions for the following purposes:

- 8 • Ensuring that NWSTF Boardman continues to support critical military training activities in a  
9 realistic and cost-effective manner;
- 10 • Achieving and maintaining military readiness using NWSTF Boardman to support and conduct  
11 current, emerging, and future training and research, development, testing, and evaluation  
12 activities; and,
- 13 • Upgrading and modernizing NWSTF Boardman's existing capabilities to address training range  
14 shortfalls in Oregon and the Pacific Northwest.

15 The Proposed Action is needed to provide a training environment consisting of ranges, training areas,  
16 and range instrumentation with the capacity and capabilities to fully support required training tasks for  
17 operational units and personnel utilizing NWSTF Boardman. In this regard, NWSTF Boardman furthers  
18 the military's execution of its roles and responsibilities under U.S.C. Title 10 (federal military) and Title  
19 32 (State National Guard). To comply with its Title 10 and 32 mandates, the military needs to maintain  
20 current levels of military readiness through improvement of training at NWSTF Boardman,  
21 accommodation of possible future increases in operational training, and maintenance of the long-term  
22 viability of NWSTF Boardman as a military training and testing area.

23 The Navy and ORNG have developed alternatives selection criteria pursuant to 40 C.F.R. § 1502.14,  
24 which are discussed in Chapter 2, based on this statement of the purpose and need.

### 25 **ES 1.4 THE ENVIRONMENTAL REVIEW PROCESS**

26 NEPA requires federal agencies to examine the environmental effects of their Proposed Actions. This EIS  
27 is a detailed public document that provides an assessment of the potential environmental impacts  
28 associated with a proposed major federal action. The impacts to be analyzed are those that occur to the  
29 human environment, including natural and physical resources.

#### 30 **ES 1.4.1 NEPA Public Participation**

31 The first step in the NEPA process is the preparation of a notice of intent to develop the EIS. The notice  
32 of intent provides an overview of the Proposed Action and the scope of the EIS (see Appendix A). The  
33 notice of intent for this project was published in the Federal Register (FR) on 5 October 2010 (75 FR  
34 61452), and throughout October 2010 in six local newspapers (East Oregonian, Tri-City Herald,  
35 Oregonian, Hermiston Herald, North Morrow Times and Heppner Gazette-Times), which cover  
36 Boardman, Pendleton, Hermiston, and the general northeast Oregon region. The notice of intent and  
37 newspaper notices included information about comment procedures, the length of the comment period  
38 (41 days), the project website address (<http://www.NWSTFBoardmanEIS.com>), a list of information  
39 repositories (public libraries), and the dates and locations of the scoping meetings.

1 Scoping is an early and open process for developing the “scope” of issues to be addressed in the EIS. The  
2 scoping meetings for this EIS (held in Boardman, Oregon and Hermiston, Oregon) were advertised in  
3 local newspapers. The advertisements invited public attendance to help define and prioritize  
4 environmental issues and how to convey these issues to the Navy (see Appendix G for information on  
5 the scoping meetings). Comments from the public, as well as from agencies and public interest groups,  
6 including the development of alternatives, have been considered in the preparation of this EIS.

7 A separate and additional scoping effort was conducted by the Navy and the ORNG to address the  
8 inclusion of an additional proposed action, a Military Operations Area (MOA) that would join the current  
9 airspace to the northeast of existing NWSTF Boardman Airspace. The additional Notice of Intent for this  
10 new proposed action was published in the Federal Register on 27 December 2011 (76 FR 80910), and  
11 throughout December 2011 and January 2012 in five local newspapers (East Oregonian, Tri-City Herald,  
12 Hermiston Herald, North Morrow Times, and Heppner Gazette-Times), which noted a 30-day public  
13 comment period. At the request of commenters, this comment period was extended from an original  
14 period of 30 days to a total of 62 days.

15 Subsequent to the scoping process, this Draft EIS has been prepared to assess the potential effects of  
16 the Proposed Action and Alternatives on the environment. A Notice of Availability has been published in  
17 the Federal Register and notices have been placed in the aforementioned newspapers announcing the  
18 availability of the Draft EIS. The Draft EIS will be available for public and agency review and will be  
19 circulated for review and comment. Public meetings will be advertised and held to receive public  
20 comments on the Draft EIS.

21 Responses to public comments may take various forms as necessary, including correction of data,  
22 clarifications of and modifications to analytical approaches, and inclusion of additional data or analyses.  
23 A Final EIS, including responses to public comments received on the Draft EIS, will be prepared. The Final  
24 EIS will then be made available for public review.

25 Finally, a Record of Decision (ROD) will be signed by the Secretary of the Navy and issued which reflects  
26 the Navy’s final decision on the Proposed Action, the rationale behind that decision, and any  
27 commitments to monitoring and mitigation. The ROD will be issued by the Navy following the issuance  
28 of the Final EIS and a 30-day wait/review period. A Notice of Availability of ROD will be published in the  
29 Federal Register, and the ROD will be distributed to agencies and interested parties, and posted on the  
30 NWSTF Boardman EIS website. The ROD will also be announced in local newspapers.

### 31 **ES 1.5 PROPOSED ACTION AND ALTERNATIVES**

32 The Proposed Action involves construction and operation of new range facilities and changes in existing  
33 training activities at NWSTF Boardman. The Proposed Action would result in enhancements and  
34 increases in training that are necessary to ensure NWSTF Boardman supports military training and  
35 readiness objectives. Actions to support current, emerging, and future training activities at NWSTF  
36 Boardman will be evaluated in this EIS. The components of the Proposed Action stem from U.S. Navy  
37 training requirements (Fleet Response Training Plan) and other military training requirements, including  
38 Army Regulation 350-1, *Army Training and Leader Development*; Army Regulation 350-2, *Reserve*  
39 *Component Training*; Department of the Army Pamphlet 350-38, *Standards in Training Commission*; and  
40 ORNG regulations and policies. In general, the Proposed Action would:

- 41 • Increase the types of training activities and the number of training events conducted at NWSTF  
42 Boardman

- 1 • Accommodate force structure changes
- 2 • Provide enhancements to training facilities and operations at NWSTF Boardman and its
- 3 associated special use airspace

#### 4 **ES 1.6 NO ACTION ALTERNATIVE: BASELINE TRAINING AND ACCESS RESTRICTIONS**

5 Each military activity described in this EIS meets a requirement that can be ultimately traced to  
6 requirements from the National Command Authority<sup>1</sup>. Over the years, the tempo and types of activities  
7 have fluctuated at NWSTF Boardman due to changing requirements, the dynamic nature of international  
8 events, the introduction of advances in warfighting doctrine and procedures, and force structure  
9 changes. Such developments have influenced the frequency, duration, intensity, and location of  
10 required training. The factors influencing tempo and types of activities are variable by nature, and will  
11 continue to cause fluctuations in training activities on NWSTF Boardman and in its associated airspace.  
12 Accordingly, training activity data used throughout this EIS are a representative baseline (based on  
13 historical information collected from 2007 to 2010) for evaluating impacts that may result from the  
14 proposed training activities.

15 The Navy and ORNG training activities currently conducted at NWSTF Boardman, presented as the No  
16 Action Alternative, have been ongoing at various levels and frequencies for approximately 20 years.  
17 Training activities at NWSTF Boardman would continue to vary from basic individual to unit level events  
18 of relatively short duration involving few participants. ORNG Soldiers would continue to be transported  
19 long distances to use out-of-state Army-standard training ranges (Washington and Idaho), dependent on  
20 the ability to schedule the use of those ranges, to meet qualification and training requirements which  
21 cannot be met at existing ORNG facilities. The Navy would continue to use the airspace and provide the  
22 range operations support. Evaluation of the No Action Alternative in this EIS provides a baseline for  
23 assessing environmental impacts of Alternative 1 and Alternative 2, as described in the following  
24 subsections.

#### 25 **ES 1.7 ALTERNATIVE 1 – INCREASE TRAINING ACTIVITIES, ACCOMMODATE FORCE** 26 **STRUCTURE CHANGES, AND IMPLEMENT REQUIRED RANGE ENHANCEMENTS**

27 Alternative 1 would include all current training and testing activities described under the No Action  
28 Alternative, and could include the establishment and use of an additional MOA to the northeast of  
29 existing NWSTF Boardman airspace, an increase in existing training activities, new training activities, and  
30 range enhancements to meet Navy and ORNG training requirements. Some ongoing training activities  
31 could increase or change as a result of force structure changes associated with the introduction of new  
32 aircraft or other equipment. The following proposed range enhancements would support new training  
33 activities and some ongoing activities (Figure 2-4):

- 34 • Establishment and use of an additional MOA to the northeast of existing NWSTF Boardman
- 35 airspace
- 36 • Construction and operation of an Army-standard Multi-Purpose Machine Gun Range, with a
- 37 heavy sniper lane, and associated support facilities

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<sup>1</sup> The National Command Authority is a term used by the U.S. military and government to refer to the ultimate lawful source of military orders. The term refers collectively to the President of the United States (as commander-in-chief) and the U.S. Secretary of Defense.

- 1 • Construction and operation of an Army-standard Digital Multi-Purpose Training Range and
- 2 associated support facilities
- 3 • Construction and operation of an eastern Convoy Live Fire Range (CLFR)
- 4 • Construction and operation of a Demolition Training Range
- 5 • Construction and operation of a single building housing a Range Operations Control Center and
- 6 UAS Training and Maintenance Facility with small airstrip
- 7 • Designation and establishment of a Drop Zone to accommodate parachute operations of
- 8 personnel and small-medium sized equipment (Containerized Delivery Systems)

9 **ES 1.8 ALTERNATIVE 2 – INCREASE TRAINING ACTIVITIES, ACCOMMODATE FORCE**  
 10 **STRUCTURE CHANGES, AND IMPLEMENT DESIRED RANGE ENHANCEMENTS**

11 Implementation of this alternative would include all elements of Alternative 1 (accommodating training  
 12 activities currently conducted, increasing training activities, accommodating force structure changes,  
 13 and implementing required range enhancements). Additional range enhancements, including those  
 14 described in Alternative 1, would be implemented, and could include the addition of three mortar pads,  
 15 a second (western) CLFR, and a Range Operations Control Center (built separate from the UAS Training  
 16 and Testing Facility) (Figure 2-9). In addition, under Alternative 2, training activities of the types  
 17 currently conducted would be distributed differently between existing and proposed ranges.

18 Alternative 2 would optimize the training capability of NWSTF Boardman and meet Navy and ORNG  
 19 minimum required capabilities as documented in the Navy Required Capabilities Document of 8  
 20 September 2005 and the U.S. Army Forces Command/Army National Guard/U.S. Army Reserve  
 21 Regulation 350-2, U.S. Army Reserve Regulation 350-1, and Department of the Army Pamphlet 350-8.

22 **ES 1.9 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

23 The EIS describes existing environmental conditions and assesses the environmental effects of the  
 24 Proposed Action and alternatives. The affected environment and environmental consequences are  
 25 described and analyzed according to categories of resources. Due to the concerns regarding wildfire,  
 26 and the frequency of fires in the region, the potential for wildfire as a result of military activities at  
 27 NWSTF Boardman is addressed in its own resource category. The categories of resources addressed, and  
 28 their respective section numbers, in the EIS are listed within Table ES-1.

29 **Table ES-1: Categories of Resources Addressed in the EIS**

Soils (3.1)	Land Use and Recreation (3.7)
Air Quality (3.2)	Socioeconomics and Environmental Justice (3.8)
Water Resources (3.3)	Transportation (3.9)
Acoustic Environment (3.4)	Cultural Resources (3.10)
Vegetation (3.5)	Public Health and Safety and Protection of Children (3.11)
Wildlife (3.6)	Wildfire (3.12)

30 In the environmental impact analysis process, the resources analyzed are identified and the expected  
 31 geographic scope of potential impacts for each resource, known as the resource’s region of influence, is  
 32 defined. The discussion and analysis, organized by resource area, mainly coincide with the air and land  
 33 training areas of NWSTF Boardman.

1 The Navy has a comprehensive management program that considers biological resources, cultural  
2 resources, environmental compliance, and environmental resource education and interpretation. The  
3 basis for Navy environmental resource management at NWSTF Boardman is a holistic, long-term view of  
4 human activities in conjunction with air/water quality, cultural resources, land uses, noise ordinances,  
5 waste management, or other terrestrial biological resources such as sensitive species and habitats. The  
6 Navy is responsible for compliance with applicable federal environmental laws, rules, regulations,  
7 policies, and guidelines designed to protect terrestrial, environmental, and cultural resources at NWSTF  
8 Boardman, concurrent with the Navy's sustained utilization of NWSTF Boardman for training.  
9 Environmental programs at NWSTF Boardman balance the need for environmental protection with the  
10 training mission, such that military forces maximize the benefits of NWSTF Boardman training assets  
11 while minimizing adverse effects on the environment.

12 To achieve this balance, the Navy monitors the effects of training activities on environmental resources,  
13 using an adaptive management strategy to modify resource management in response to the ongoing  
14 influx and evaluation of monitoring and management data. Through this approach, the Navy's  
15 environmental resource managers acquire information to identify potential impacts in a timely manner,  
16 thus allowing for ongoing adjustments to training and/or resource management while keeping the  
17 training mission on schedule to meet necessary training goals. The monitoring effort is focused not only  
18 on the environmental resource itself, such as a protected species, but also on the operational and  
19 administrative setting for training activities potentially affecting the resource.

## 20 **ES 1.10 SUMMARY OF EFFECTS**

21 Environmental effects which may result from the implementation of the Proposed Action or alternatives  
22 are summarized at the end of this summary in Table ES-2. A summary of effects is presented for each of  
23 the resource categories identified within the EIS as having potential significant impacts from the  
24 activities described under the action alternatives (Acoustics, Wildlife, Public Health and Safety, and  
25 Wildfire). Resource categories identified as having less than significant impacts from the activities are  
26 not presented in Table ES-2. Analysis of the activities described in the action alternatives and  
27 conclusions for all resource categories can be found in Chapter 3.

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**Table ES-2: Summary of Effects (presented for each of the resource categories identified within the EIS as having potential significant impacts)**

Resource	No Action Alternative	Alternative 1	Alternative 2
<p><b>3.04 Acoustics</b></p>	<p><b>Vehicle Noise</b></p> <ul style="list-style-type: none"> <li>The low number of vehicle trips associated with training activities under the No Action Alternative represent an extremely low percentage of the average traffic volume on Interstate 84 and is insufficient to noticeably affect ambient sound level. Vehicle traffic on other local roads likewise has no substantial effect on ambient sound levels. Military traffic on local roads is a minor portion of this traffic. Thus, project-related traffic sound would not significantly affect the acoustic environment under the No Action Alternative.</li> </ul> <p><b>Aircraft Noise</b></p> <ul style="list-style-type: none"> <li>Aircraft overflights would create discrete brief sound events that, while noticeable because they would exceed the ambient background sound level, would contribute very little to the hourly average sound level.</li> <li>Community sound levels from aircraft activities are compatible with land uses such as residences, transient lodging, and medical facilities. Thus, aircraft activities under the No Action Alternative would not significantly affect the acoustic environment.</li> </ul> <p><b>Range Noise</b></p> <ul style="list-style-type: none"> <li>Sound-generating events from training would be intermittent, occur in areas removed from sensitive receptors, and would not expose a significant number of sensitive receptors to high noise levels. CDNL contours would not extend beyond the NWSTF Boardman range boundary; therefore, there are no incompatible land use areas outside of NWSTF Boardman, and no significant impacts to the acoustic environment.</li> </ul>	<p><b>Vehicle Noise</b></p> <ul style="list-style-type: none"> <li>Future traffic volume increases on Interstate 84 (the only high-volume, high-speed road in the area) associated with training on NWSTF Boardman would be insufficient to noticeably affect ambient sound levels in the areas surrounding NWSTF Boardman.</li> <li>Increases in vehicle traffic on other local roads, being limited to a few minutes each occurrence, would likewise have no substantial effect on ambient community sound levels. Military traffic on local roads would be a minor portion of this traffic.</li> <li>Training and range-related traffic noise would not substantially affect the acoustic environment under Alternative 1.</li> </ul> <p><b>Construction Noise</b></p> <ul style="list-style-type: none"> <li>Sound-generating events would be intermittent, occur in areas removed from sensitive receptors, and would not expose a substantial number of human receptors to high noise levels.</li> <li>No sensitive receptors would likely be exposed to sound from construction activities under Alternative 1.</li> </ul>	<p><b>Vehicle Noise</b></p> <ul style="list-style-type: none"> <li>Future traffic volume increases on Interstate 84 (the only high-volume, high-speed road in the area) associated with training on NWSTF Boardman would be insufficient to noticeably affect ambient sound levels in the areas surrounding NWSTF Boardman.</li> <li>Increases in vehicle traffic on other local roads, being limited to a few minutes each occurrence, would likewise have no substantial effect on ambient community sound levels. Military traffic on local roads would be a minor portion of this traffic.</li> <li>Training and range-related traffic noise would not substantially affect the acoustic environment under Alternative 2.</li> </ul> <p><b>Construction Noise</b></p> <ul style="list-style-type: none"> <li>Sound-generating events would be intermittent, occur in areas removed from sensitive receptors, and would not expose a substantial number of human receptors to high noise levels.</li> <li>No sensitive receptors would likely be exposed to sound from construction activities under Alternative 2.</li> </ul>

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1 **Table ES-2: Summary of Effects (presented for each of the resource categories identified within the EIS as having potential significant impacts) (continued)**

Resource	No Action Alternative	Alternative 1	Alternative 2
<p><b>3.04 Acoustics (continued)</b></p>	<ul style="list-style-type: none"> <li>• <b>Impact Conclusion:</b> No significant impacts on the acoustic environment would occur under the No Action Alternative.</li> </ul>	<p><b>Aircraft Noise</b></p> <ul style="list-style-type: none"> <li>• Aircraft overflights would create discrete brief sound events that, while noticeable because they would exceed the ambient background sound level, would contribute very little to the hourly average sound level.</li> <li>• Though the number of sorties increases, community sound levels from aircraft activities remain compatible with land uses such as residences, transient lodging, and medical facilities. However, since there is an increase in the area exposed to a DNL between 60 and 65 dBA as well as an increase in the area exposed to a DNL between 65 and 70 dBA, there is a potential to have significant impacts to noise sensitive areas.</li> </ul> <p><b>Range Noise</b></p> <ul style="list-style-type: none"> <li>• Sound-generating events would be intermittent, occur in areas removed from sensitive receptors, and would not expose a significant number of sensitive receptors to high noise levels.</li> <li>• CDNL contours extend beyond the NWSTF Boardman range boundary; however, the primary land use is agricultural and livestock farming with occasional residences within the immediate vicinity of the eastern NWSTF Boardman boundary which is compatible with these modeled CDNLs. Therefore, there are no incompatible land use areas adjacent to NWSTF Boardman, and no significant impacts to the acoustic environment.</li> </ul>	<p><b>Aircraft Noise</b></p> <ul style="list-style-type: none"> <li>• Aircraft overflights would create discrete brief sound events that, while noticeable because they would exceed the ambient background sound level, would contribute very little to the hourly average sound level.</li> <li>• Though the number of sorties increases, community sound levels from aircraft activities remain compatible with land uses such as residences, transient lodging, and medical facilities. However, since there is an increase in the area exposed to a DNL between 60 and 65 dBA as well as an increase in the area exposed to a DNL between 65 and 70 dBA, there is a potential to have significant impacts to noise sensitive areas.</li> </ul> <p><b>Range Noise</b></p> <ul style="list-style-type: none"> <li>• Sound-generating events would be intermittent, occur in areas removed from sensitive receptors, and would not expose a significant number of sensitive receptors to high noise levels.</li> <li>• CDNL contours extend beyond the NWSTF Boardman range boundary; however, the primary land use is agricultural and livestock farming with occasional residences within the immediate vicinity of the eastern NWSTF Boardman boundary which is compatible with these modeled CDNLs. Therefore, there are no incompatible land use areas outside of NWSTF Boardman, and no significant impacts to the acoustic environment.</li> </ul>

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1 **Table ES-2: Summary of Effects (presented for each of the resource categories identified within the EIS as having potential significant impacts) (continued)**

Resource	No Action Alternative	Alternative 1	Alternative 2
<b>3.04 Acoustics (continued)</b>		<p><b>Impact Conclusion:</b> No significant impacts on the acoustic environment would occur under Alternative 1 from vehicle, construction or range noise. There is a potential for significant effects from aircraft activities under Alternative 1.</p>	<p><b>Impact Conclusion:</b> No significant impacts on the acoustic environment would occur under Alternative 2 from vehicle, construction or range noise. There is a potential for significant effects from aircraft activities under Alternative 2.</p>
	<p><b>Mitigation:</b>                      Detonations of NEWs above 50 lb. (22.7 kg) are restricted between February and August. Detonations of NEWs greater than 50 lbs. will be performed between September and January unless necessitated by operational or disposal requirements.                      Public notice would be given prior to detonation of 100 lb. (45.4 kg) NEW or greater.                      Detonation training would be conducted only during days when the weather is favorable. Studies have shown that variation of temperature and wind velocity with altitude can cause a noise event to be inaudible at one time (favorable) and audible at another time (unfavorable). A number of factors affect noise propagation during training events, and are considered by range managers and users when planning and conducting activities to help mitigate noise impacts. Conditions that can enhance the propagation of sound include steady winds; clear days on which 'layering' of smoke, fog, or clouds are observed; cold, hazy or foggy mornings; large temperature swings on the previous day; and high barometer/low temperatures. These conditions are avoided to the maximum extent possible when scheduling demolition activities.</p>		

Notes: CDNL=Community Day-Night Level, NWSTF=Naval Weapons Training Facility, DNL=Day-Night Level, dBA=A-weighted decibels, NEW=Net Explosive Weight, lb.=pound, kg=kilogram.

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1 **Table ES-2: Summary of Effects (presented for each of the resource categories identified within the EIS as having potential significant impacts) (continued)**

Resource	No Action Alternative	Alternative 1	Alternative 2
<p><b>3.6 Wildlife</b></p>	<ul style="list-style-type: none"> <li>• Widespread short-term minor effects from aircraft overflights in the form of physiological or behavioral responses.</li> <li>• Localized short-term minor effects from non-explosive practice munitions impact in the form of physiological or behavioral responses.</li> <li>• Localized short-term minor effects from small arms noise in the form of physiological or behavioral responses.</li> <li>• Localized short-term minor effects from vehicle and equipment noise in the form of physiological or behavioral responses.</li> <li>• Minor and localized effects from physical strikes. Low probability of incidental mortality. No observable population effects.</li> <li>• Localized short-term minor effects in the form of physiological or behavioral responses from electromagnetic fields or laser use.</li> <li>• Ground disturbance and habitat alteration would result in indirect, long-term minor effects in the form of localized habitat degradation.</li> </ul>	<ul style="list-style-type: none"> <li>• Widespread short-term minor effects from aircraft overflights in the form of physiological or behavioral responses.</li> <li>• Localized short-term minor effects from non-explosive practice munitions impact in the form of physiological or behavioral responses.</li> <li>• Short-term minor effects from small arms noise in the form of physiological or behavioral responses. Effects would be widespread.</li> <li>• Noise from large arms use has potential to reduce the fitness of individuals and diminish habitat quality. Potential to cause local population declines in Washington ground squirrels, grasshopper sparrows, western burrowing owls, and long-billed curlews.</li> <li>• Land demolitions have the potential to reduce the fitness of individuals and diminish habitat quality. Potential to cause local population declines in Washington ground squirrels, grasshopper sparrows, western burrowing owls, and long-billed curlews.</li> <li>• Widespread short-term minor effects from vehicle and equipment noise in the form of physiological or behavioral responses.</li> <li>• Minor and localized effects from physical strikes. Low probability of incidental mortality. No observable population effects.</li> <li>• Localized short-term minor effects in the form of physiological or behavioral responses from electromagnetic fields or laser use.</li> <li>• Ground disturbance and habitat alteration would result in indirect, long-term minor effects in the form of localized habitat degradation.</li> </ul>	<ul style="list-style-type: none"> <li>• Widespread short-term minor effects from aircraft overflights in the form of physiological or behavioral responses.</li> <li>• Localized short-term minor effects from non-explosive practice munitions impact in the form of physiological or behavioral responses.</li> <li>• Short-term minor effects from small arms noise in the form of physiological or behavioral responses. Effects would be widespread.</li> <li>• Noise from large arms use has potential to reduce the fitness of individuals and diminish habitat quality. Potential to cause local population declines in Washington ground squirrels, grasshopper sparrows, western burrowing owls, and long-billed curlews.</li> <li>• Land demolitions have the potential to reduce the fitness of individuals and diminish habitat quality. Potential to cause local population declines in Washington ground squirrels, grasshopper sparrows, western burrowing owls, and long-billed curlews.</li> <li>• Widespread short-term minor effects from vehicle and equipment noise in the form of physiological or behavioral responses.</li> <li>• Minor and localized effects from physical strikes. Low probability of incidental mortality. No observable population effects.</li> <li>• Localized short-term minor effects in the form of physiological or behavioral responses from electromagnetic fields or laser use.</li> <li>• Ground disturbance and habitat alteration would result in indirect, long-term minor effects in the form of localized habitat degradation.</li> </ul>

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1 **Table ES-2: Summary of Effects (presented for each of the resource categories identified within the EIS as having potential significant impacts) (continued)**

Resource	No Action Alternative	Alternative 1	Alternative 2
<p><b>3.6 Wildlife (continued)</b></p>	<ul style="list-style-type: none"> <li>• <b>Impact Conclusion:</b> The No Action Alternative would not result in significant impacts on wildlife.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Impact Conclusion:</b> Alternative 1 would result in significant impacts to wildlife because local declines in the Washington ground squirrel population could occur. Mitigation measures would be implemented to reduce impacts to this species.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Impact Conclusion:</b> Alternative 2 would result in significant impacts to wildlife because local declines in the Washington ground squirrel population could occur. Mitigation measures would be implemented to reduce impacts to this species.</li> </ul>
	<p><b>Mitigation:</b></p> <p>Based on the analysis presented in Section 3.6.3 and implementation of proposed BMPs for wildlife, additional mitigation measures are not required to further reduce adverse impacts on wildlife with the exception of the Washington ground squirrel. However, mitigation measures proposed to reduce adverse impacts on the Washington ground squirrel would also result in benefits to some other wildlife species as well as wildlife habitat at NWSTF Boardman as a whole. These proposed mitigation measures include restoration of native shrub steppe and grassland habitats in the southern portion of NWSTF Boardman.</p> <ul style="list-style-type: none"> <li>• The Navy and ORNG are proposing to implement a long-term habitat restoration program for selected locations on the southern portions of NWSTF Boardman to improve native plant communities that have been degraded by invasive plants and to enhance habitat for Washington ground squirrels, as well as long-bill curlews, grasshopper sparrows, western burrowing owls, and other species. The southern portion of NWSTF Boardman consists of approximately 13,000 ac. (5,261 ha) that are located away from most of the ongoing and proposed training activities. The restoration program would be incorporated into and implemented under the purview of the NWSTF Boardman INRMP. The restoration program would be implemented under the direction of the NAS Whidbey Island/NWSTF Boardman Natural Resources Program Manager, with support from Commander Pacific Fleet, Navy Region Northwest, National Guard Bureau, and ORNG in accordance with the Host-Tenant Agreement that would be updated prior implementing the selected alternative.</li> </ul>		

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1 **Table ES-2: Summary of Effects (presented for each of the resource categories identified within the EIS as having potential significant impacts) (continued)**

Resource	No Action Alternative	Alternative 1	Alternative 2
<p><b>3.7 Land Use and Recreation</b></p>	<ul style="list-style-type: none"> <li>• Aircraft overflights associated with the No Action Alternative would not directly change the ownership, land use, management, recreation or visual setting of the area beneath it.</li> <li>• Inland training activities are conducted within areas currently designated for military training use. Since these activities are consistent with established land uses within NWSTF Boardman, ongoing training activities have no impact on current land use within the training facility.</li> </ul> <p><b>Impact Conclusion:</b></p> <p>The No Action Alternative would not result in significant impacts on land use on or adjacent to NWSTF Boardman.</p>	<ul style="list-style-type: none"> <li>• New aircraft overflights associated with Alternative 1 would not directly change the ownership, land use, management, recreation, or visual setting of the area beneath the existing SUA and the proposed NE MOA. Restrictions on the availability of air space for non-participatory aircraft during training activities would occur; however, these times would be scheduled and Notices to Airmen would be issued. Aircraft activities would continue to occur over communities already subjected to these types of activities.</li> <li>• Under Alternative 1, the northeast MOA would not limit use by non-participating aircraft flying under Visual Flight Rules although aircraft entering this area would need to maintain vigilance, especially from two hours after sunrise until two hours before sunset, which is when LATT activities could occur in the MOA.</li> <li>• Proposed activities are consistent with established land uses within NWSTF Boardman; proposed increases in training activities would have no impact on current land use within the training facility.</li> <li>• The disturbed areas from proposed range enhancements are restricted to the NWSTF Boardman facility, and do not change the land use of these areas, as they are currently designated as military training space.</li> </ul>	<ul style="list-style-type: none"> <li>• New aircraft overflights associated with Alternative 2 would not directly change the ownership, land use, management, recreation, or visual setting of the area beneath it. Restrictions on recreational use of the airspace during training activities would occur; however, these would be scheduled and Notices to Airmen would be issued. Aircraft activities would continue to occur over communities already subjected to these types of activities.</li> <li>• Under Alternative 2, the northeast MOA would not limit use by non-participating aircraft flying under Visual Flight Rules although aircraft entering this area would need to maintain vigilance, especially from two hours after sunrise until two hours before sunset, which is when LATT activities could occur in the MOA.</li> <li>• Proposed activities are consistent with established land uses within NWSTF Boardman; proposed increases in training activities in Alternative 2 would have no significant impact on current land use within the training facility.</li> <li>• The disturbed areas from proposed range enhancements are restricted to the NWSTF Boardman facility, and do not change the land use of these areas, as they are currently designated as military training space.</li> </ul>

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1 **Table ES-2: Summary of Effects (presented for each of the resource categories identified within the EIS as having potential significant impacts) (continued)**

Resource	No Action Alternative	Alternative 1	Alternative 2
<p><b>3.7 Land Use and Recreation</b></p>		<ul style="list-style-type: none"> <li>Usage of the ranges proposed under Alternative 1 may increase the amount of noise that propagates off range, or temporarily lower the regional air quality. These effects are expected to be minimal to moderate, though not expected to change the land use of adjacent lands.</li> </ul> <p><b>Impact Conclusion:</b></p> <p>Alternative 1 would not result in significant impacts on land use on NWSTF Boardman. Alternative 1 would have impacts on the availability of area airspace for non-participatory aircraft. However, these impacts do not rise to the level of significance.</p> <p>The proposed training or construction is not expected to alter or disrupt area land use to the extent that there is a loss of usability, that routine activities would no longer be feasible, or that the historical or designated land use would be modified. The training and construction activities proposed under Alternative 1 would not significantly impact land use.</p>	<ul style="list-style-type: none"> <li>Usage of the ranges proposed under Alternative 2 may increase the amount of noise that propagates off range, or temporarily lower the regional air quality. These effects are expected to be minimal to moderate, though not expected to change the land use of adjacent lands.</li> </ul> <p><b>Impact Conclusion:</b></p> <p>Alternative 2 would not result in significant impacts on land use on NWSTF Boardman. Alternative 2 would have impacts on the availability of area airspace for non-participatory aircraft. However, these impacts do not rise to the level of significance.</p> <p>The proposed training or construction is not expected to alter or disrupt area land use to the extent that there is a loss of usability, that routine activities would no longer be feasible, or that the historical or designated land use would be modified. The training and construction activities proposed under Alternative 2 would not significantly impact land use.</p>
	<p><b>Mitigation:</b></p> <p>Mitigation measures in place for other resources (e.g., Acoustic Environment, Biological Resources), which affect land use on NWSTF Boardman, would continue to be implemented. These mitigation measures would also serve to prevent impacts on land use surrounding NWSTF Boardman.</p>		

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1 **Table ES-2: Summary of Effects (presented for each of the resource categories identified within the EIS as having potential significant impacts) (continued)**

Resource	No Action Alternative	Alternative 1	Alternative 2
<p><b>3.12 Wildfire</b></p>	<ul style="list-style-type: none"> <li>Under the No Action Alternative, the primary causes of ignition related to training activities would be target maintenance and non-explosive practice munitions impacting the ground surface within the Main Target Area.</li> <li>Depending on the area affected, the impacts from a wildland fire caused by training activities could have a significant impact on vegetation, wildlife, and air quality. However, with current training practices and the implementation of the <i>Integrated Wildland Fire Management Plan</i>, the impacts from training activities would be reduced and localized.</li> </ul> <p><b>Impact Conclusion:</b></p> <p>The No Action Alternative would not result in significant increases in the potential for wildfire from training activities. However, the potential for naturally caused fire continues to exist and the present limited ability to respond would persist in the foreseeable future. Large wildfires could continue to occur at NWSTF Boardman under the No Action Alternative. The effects would be widespread on NWSTF Boardman and could extend to surrounding properties in the case of a large wildfire.</p> <p><b>Mitigation:</b></p> <p>No mitigation measures are warranted for wildfire based on the analysis presented in Section 3.12.3 and implementation of proposed BMPs and monitoring.</p> <p>Military personnel would monitor for fire at all times during range operations from observation towers and while on patrols. Post-operation fire monitoring following training activities would be conducted by range operators while conducting range clearance duties.</p>	<ul style="list-style-type: none"> <li>The proposed increases in training under Alternative 1 at NWSTF Boardman could increase the risk of wildfire due to the associated increase in ignition sources being used.</li> <li>With current training practices and the implementation of the Integrated Wildland Fire Management Plan, the impacts from training activities would be reduced and localized.</li> </ul> <p><b>Impact Conclusion:</b></p> <p>Alternative 1 would result in significant increases in the potential for wildfire from training activities. Depending on the area affected, the impacts from a wildland fire caused by training activities could have a significant impact on vegetation, wildlife, and air quality.</p>	<ul style="list-style-type: none"> <li>The proposed increases in training under Alternative 2 at NWSTF Boardman could increase the risk of wildfire due to the associated increase in ignition sources being used.</li> <li>With current training practices and the implementation of the Integrated Wildland Fire Management Plan, the impacts from training activities would be reduced and localized.</li> </ul> <p><b>Impact Conclusion:</b></p> <p>Alternative 2 would result in significant increases in the potential for wildfire from training activities. Depending on the area affected, the impacts from a wildland fire caused by training activities could have a significant impact on vegetation, wildlife, and air quality.</p>

Notes: ES = Executive Summary, USFWS = United States Fish and Wildlife Service, NWSTF = Naval Weapons System Training Facility, NAS Whidbey Island = Naval Air Station Whidbey Island, ORNG = Oregon National Guard, ODFW = Oregon Department of Fish and Wildlife, NE = Northeast, MOA = Military Operations Area, SUA = Special Use Airspace, LATT = Low Altitude Tactical Training, EIS = Environmental Impact Statement, RNA = Research Natural Area, BMP = Best Management Practice.

## 1 **ES 1.11 CUMULATIVE IMPACTS**

2 Cumulative impacts were analyzed by following the NEPA of 1969, CEQ regulations, and CEQ guidance  
3 (40 C.F.R. §§ 1500-1508). Identifiable impacts of actions occurring in the past and present were  
4 analyzed, along with reasonably foreseeable future actions, to assess additive impacts of the Proposed  
5 Action, as well as other activities occurring in the region, including activities contributing to air quality  
6 emissions and loss of habitat. Cumulative effects were identified for the resource areas and determined  
7 to be minimal for soils, water resources, acoustics, socioeconomic resources, public health and safety,  
8 and cultural resources. When considered with other actions, the No Action Alternative, Alternative 1, or  
9 Alternative 2 would contribute to and increase the cumulative impacts on air quality, vegetation,  
10 wildlife, and wildfire. The No Action Alternative, Alternative 1, or Alternative 2 would also make  
11 incremental contributions to overall greenhouse gas emissions.

## 12 **ES 1.12 MITIGATION MEASURES**

13 As part of the Navy and ORNG commitment to sustainable use of resources and environmental  
14 stewardship, the Navy and ORNG incorporate measures that are protective of the environment into all  
15 of their activities. These include employment of best management practices (BMPs), standard operating  
16 procedures, adoption of conservation recommendations, and other measures that mitigate the impacts  
17 of training activities on the environment. Some of these measures are generally applicable and others  
18 are designed to apply to certain geographic areas during certain times of year, for specific types of  
19 military training.

20 NEPA regulations require that the federal agency evaluate means to mitigate adverse environmental  
21 impacts of the Proposed Action or alternatives (40 C.F.R. § 1502.16). Additionally, an EIS is to include  
22 study of appropriate mitigation measures not already included in the alternatives (40 C.F.R. §  
23 1502.14[f]). Each of the alternatives considered in this EIS includes proposed BMPs and mitigation  
24 measures intended to reduce the environmental effects of Navy and ORNG activities. Both BMPs and  
25 mitigation measures are discussed throughout the EIS in connection with affected resources, and are  
26 also addressed in Chapter 5, Mitigation Measures.

## 27 **ES 1.13 OTHER REQUIRED CONSIDERATIONS**

### 28 **ES 1.13.1 Possible Conflicts with Objectives of Federal, State, and Local Plans,** 29 **Policies, and Controls**

30 Implementation of the Proposed Action for the NWTSE Boardman EIS is not expected to conflict with the  
31 objectives or requirements of federal, state, regional, or local plans, policies, or legal requirements. The  
32 Navy and ORNG have consulted or conferenced with regulatory agencies as appropriate during the NEPA  
33 process and prior to implementation of the Proposed Action to ensure requirements are met.

### 34 **ES 1.13.2 Relationship between Short-term Uses and Long-term Productivity**

35 The majority of activities addressed in this EIS would be categorized as long-term. For example, although  
36 the use of training areas for individual training activities may be of short duration, the training areas  
37 would continue to receive increased and repeated use for the foreseeable future. As the proposed  
38 action includes an increase in training tempo, areas designated for training would accommodate a  
39 higher level of training uses in the long-term which would, in turn, affect the long-term productivity of  
40 environmental resources in those areas. Addressing such shortfalls through planning and  
41 accommodation of future training tempo requirements and deployment schedules will allow the Navy  
42 and ORNG to more readily facilitate long-term resource management strategies while achieving the

1 near-term goal of providing the capacity and capabilities to fully support required training tasks and  
2 meet the Title 10 and Title 32 mandates.

### 3 **ES 1.13.3 Irreversible or Irretrievable Commitment of Resources**

4 Range development activities associated with the Proposed Action at NWSTF Boardman would result in  
5 the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels  
6 (including fuel oil), natural gas, and gasoline for construction equipment. Implementation of the  
7 Proposed Action would require fuels used by aircraft and ground-based vehicles. Since fixed- and rotary-  
8 wing flights could increase, total fuel use would increase. Fuel use by ground-based vehicles involved in  
9 training activities would also increase. Therefore, total fuel consumption would increase and this  
10 nonrenewable resource would be considered irreversibly lost.

### 11 **ES 1.13.4 Energy Requirements and Conservation Potential**

12 Increased training activities on NWSTF Boardman would result in an increase in energy demand over the  
13 No Action Alternative. Although the required electricity demands would be met by the existing electrical  
14 infrastructure at NWSTF Boardman, energy requirements would be subject to any established energy  
15 conservation practices. The use of energy sources would be minimized wherever possible without  
16 compromising safety, training, or testing operations.

### 17 **ES 1.13.5 Natural or Depletable Resource Requirements and Conservation Potential**

18 Resources that will be permanently and continually consumed by project implementation include water,  
19 soils, electricity, natural gas, and fossil fuels. To the extent practicable, pollution prevention  
20 considerations are included. In addition, sustainable range management practices are in place that  
21 protect and conserve natural and cultural resources while preserving access to training areas for current  
22 and future training requirements.