

## Socioeconomics and Environmental Justice

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## 1 **3.8 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE**

### 2 **3.8.1 INTRODUCTION**

3 This section evaluates effects related to socioeconomics and environmental justice (as required under  
4 Executive Order [EO] 12898, *Federal Actions to Address Environmental Justice in Minority Populations*  
5 *and Low-Income Populations*).

#### 6 **3.8.1.1 Definition**

7 Socioeconomics includes an evaluation of the basic attributes and resources associated with the human  
8 environment, particularly population, and economic activity. Economic activity encompasses  
9 employment, personal income, and industrial growth. Impacts on these fundamental socioeconomic  
10 components influence other issues, such as housing availability and provision of public services.

#### 11 **3.8.1.2 Federal Requirements**

12 Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and*  
13 *Low-Income Populations*, provides that “each Federal agency shall make achieving environmental justice  
14 part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse  
15 human health or environmental effects of its programs, policies, and activities on minority populations  
16 and low-income populations.” The Council on Environmental Quality Guidance on Environmental Justice  
17 (10 December 1997) provides direction on type of information generally used, requires that the analysis  
18 determine whether the proposed action has adverse human health effects on the minority populations,  
19 low-income populations, or Indian tribes, and whether the proposed action has other adverse  
20 environmental effects or impacts on the minority populations, low-income populations, and Indian  
21 tribes.<sup>1</sup>

22 Section 1-101 of EO 12898 provides specific guidance to federal agencies for determining whether or  
23 not disproportionately high and adverse human health or environmental effects are caused by  
24 programs, policies, and activities. The guidance includes:

25 “When determining whether human health effects are disproportionately high and  
26 adverse, agencies are to consider the following three factors to the extent practicable:

27 (a) Whether the health effects, which may be measured in risks and rates, are significant  
28 (as employed by the National Environmental Policy Act [NEPA]), or above generally  
29 accepted norms. Adverse health effects may include bodily impairment, infirmity,  
30 illness, or death; and

31 (b) Whether the risk or rate of hazard exposure by a minority population, low-income  
32 population, or Indian tribe to an environmental hazard is significant (as employed by  
33 NEPA) and appreciably exceeds or is likely to appreciably exceed the risk or rate to the  
34 general population or other appropriate comparison group; and

35 (c) Whether health effects occur in a minority population, low-income population, or  
36 Indian tribe affected by cumulative or multiple adverse exposures from environmental  
37 hazards.”

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<sup>1</sup> The definitions for “low-income population,” “minority,” and “minority population” are found in Section 1-101 of Executive Order 12898.

1 Further information is provided for determining disproportionate environmental effects in the guidance:

2 “When determining whether environmental effects are disproportionately high and  
3 adverse, agencies are to consider the following three factors to the extent practicable:

4 (a) Whether there is or will be an impact on the natural or physical environment that  
5 significantly (as employed by NEPA) and adversely affects a minority population, low-  
6 income population, or Indian tribe. Such effects may include ecological, cultural, human  
7 health, economic, or social impacts on minority communities, low-income communities,  
8 or Indian tribes when those impacts are interrelated to impacts on the natural or  
9 physical environment; and

10 (b) Whether environmental effects are significant (as employed by NEPA) and are or  
11 may be having an adverse impact on minority populations, low-income populations, or  
12 Indian tribes that appreciably exceeds or is likely to appreciably exceed those on the  
13 general population or other appropriate comparison group; and

14 (c) Whether the environmental effects occur or would occur in a minority population,  
15 low-income population, or Indian tribe affected by cumulative or multiple adverse  
16 exposures from environmental hazards.”

17 For this Proposed Action, analysis for EO 12898 requires assessment of readily available demographic  
18 data on the local, regional, and national populations, including race and ethnicity, age, income, and  
19 poverty metrics. Information to support this analysis is derived from the United States (U.S.) Census  
20 Bureau readily accessible documents and internet sites. The U.S. Decennial Census forms the basis of  
21 the data for 2000, which is completed every 10 years; the most recent census occurred in 2010. The U.S.  
22 Census Bureau 2010 Demographic Profile and the U.S. Census American Community Survey (ACS) for  
23 2005-2009 data are used to document the most recent conditions.

### 24 **3.8.1.3 Determination of Significance**

25 Factors used to assess the significance of impacts on socioeconomics and environmental justice include  
26 the extent or degree to which an alternative would have a serious negative impact on regional and  
27 community economics, employment, housing, and population growth, as well as disproportionately high  
28 and adverse human health or environmental effects on minority populations or low-income populations.

## 29 **3.8.2 AFFECTED ENVIRONMENT**

### 30 **3.8.2.1 Regional Setting**

31 The Naval Weapons Systems Training Facility (NWSTF) Boardman is located in a rural urban area  
32 approximately 2.5 miles (mi.) (4.02 kilometers [km]) south of the City of Boardman. As presented in  
33 Section 3.7, Land Use and Recreation, land use in the surrounding areas consists of agricultural lands,  
34 undeveloped areas, wind development projects, a tree farm to the east, a recreational trail to the south,  
35 and conservation areas to the west.

### 36 **3.8.2.2 Region of Influence**

37 The socioeconomic Region of Influence (ROI) includes Morrow County, Oregon, and portions of Gilliam  
38 County, Oregon and Umatilla County, Oregon (Figure 3.8-1) which underlie the special use airspace of  
39 NWSTF Boardman. The City of Boardman and NWSTF Boardman are located within Morrow County. The

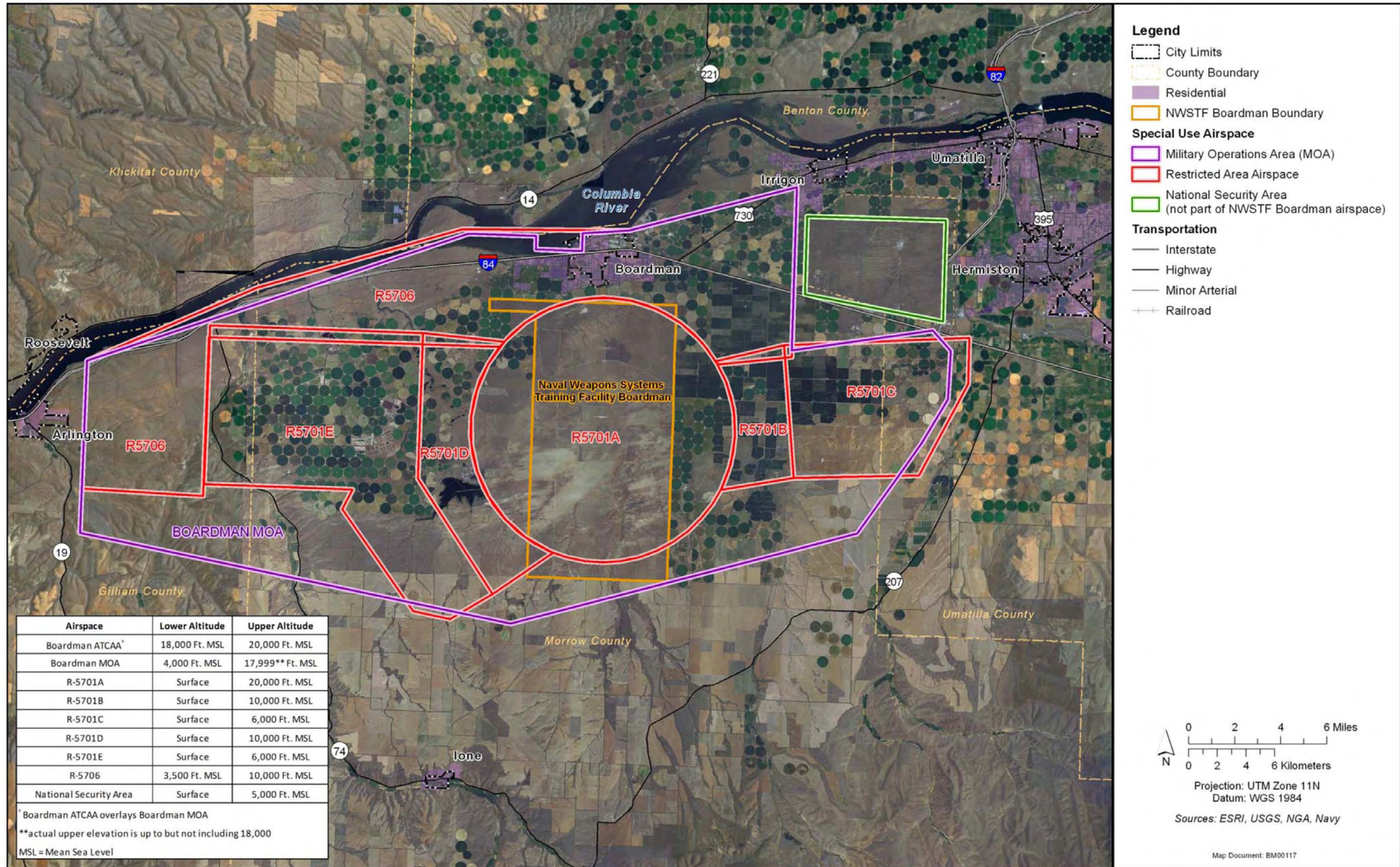


Figure 3.8-1: Special Use Airspace and Underlying Counties

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1 summary of socioeconomics activity in the ROI is compiled from regional and federal government  
 2 sources. In addition, data regarding minority and low-income populations is presented for the ROI and,  
 3 for comparison purposes, on a state and national level.

### 4 **3.8.2.3 Regional and Local Economy**

#### 5 **3.8.2.3.1 Regional Employment**

6 The economy of Morrow County is diversified; the leading employment sectors are agriculture and  
 7 manufacturing services, retail trade, and hospitality. The largest employers in the area are Lamb-Weston  
 8 (food preparation company), Oregon Potato Company, Portland General Electric Coal Fired Plant and  
 9 Coyote Springs Co-Gen Plant, Morrow County School District, and Boardman Foods Incorporated. These  
 10 employers account for over half of the total estimated employment for the City of Boardman. The  
 11 estimated total employment for Oregon, Morrow County, and the City of Boardman for the years 2000  
 12 and 2005-2009 is shown in Table 3.8-1. In general, the City of Boardman had a higher percent change in  
 13 total employment between the 2000 and 2005-2009 data than Morrow, Umatilla, and Gilliam Counties  
 14 and Oregon.

15 **Table 3.8-1: Estimated Total Employment**

	2000 <sup>1</sup>	2005-2009 <sup>2</sup>	Percent Change
Oregon	1,742,638	1,919,162	10.1%
Gilliam County	941	858	-8.8%
Umatilla County	31,068	31,405	1.1%
Morrow County	5,201	5,236	0.6%
City of Boardman	1,238	1,574	27%

<sup>1</sup> U.S. 2000 Census

<sup>2</sup> U.S. Census American Community Survey 2005-2009

16 From the 2005-2009 U.S. Census data, the county average unemployment rate was 8.1 percent, which is  
 17 above the state rate of 7.8 percent and the federal rate of 3.7 percent (U.S. Census 2005-2009). Six full-  
 18 time military personnel are employed at NWSTF Boardman to support military readiness activities at the  
 19 range.

### 20 **3.8.2.4 Population and Housing**

#### 21 **3.8.2.4.1 Regional Housing**

22 According to the 2010 U.S. Census data, housing stock in Morrow County was 4,442 units and the City of  
 23 Boardman housing stock was 1,017 (Table 3.8-2). In general, the City of Boardman and Gilliam and  
 24 Morrow County show a lower percent of increase in total housing units between the 2000 and 2010  
 25 data compared to Oregon. Additionally, the City of Boardman had no housing units built after 2005.

26 NWSTF Boardman serves as a regional range for Naval units homeported in the Pacific Northwest area;  
 27 however, there is no military housing on the range. The full-time military personnel stationed at NWTSE  
 28 Boardman live off base in the surrounding area.

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**Table 3.8-2: Estimated Total Housing Units**

	2000 <sup>1</sup>	2010 <sup>2</sup>	Percent Change	Percent of Units Occupied 2010	Percent of Units Built after 2005 <sup>3</sup>
Oregon	1,452,709	1,675,562	15.3%	90.6%	3.2%
Gilliam County	1,043	1,156	10.8%	74.7%	3.4%
Umatilla County	27,676	29,693	7.3%	90.6%	2.1%
Morrow County	4,276	4,442	3.8%	88.1%	1.0%
City of Boardman	947	1,017	7.4%	94.7%	0.0%

<sup>1</sup> U.S. 2000 Census

<sup>2</sup> U.S. 2010 Census

<sup>3</sup> U.S. Census American Community Survey 2005-2009

2 **3.8.2.4.2 Population Demographics**

3 Table 3.8-3 presents population characteristics, including the population in 2000, 2010, and the percent  
 4 change in population between 2000 and 2010. In general, the City of Boardman has a higher percentage of  
 5 change in population between the 2000 U.S. Census and the 2010 U.S. Census data compared to Morrow,  
 6 Umatilla, Gilliam Counties, and Oregon.

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**Table 3.8-3: Estimated Total Population Growth**

	2000 <sup>1</sup>	2010 <sup>2</sup>	Percent Change from 2000 to 2010
Oregon	3,421,399	3,831,074	11.9%
Gilliam County	1,915	1,871	-2.3%
Umatilla County	70,548	75,889	7.6%
Morrow County	10,995	11,173	1.6%
City of Boardman	2,855	3,220	12.7%

Notes: <sup>1</sup>U.S. 2000 Census, <sup>2</sup>U.S. 2010 Census

8 **Minority Populations**

9 Table 3.8-4 provides the racial and ethnic composition for the city, county, state, and nation, using the  
 10 2000 and 2010 U.S. Census data. In general, the City of Boardman has a racial composition similar to the  
 11 County of Morrow and Oregon. However, the City of Boardman has a higher percentage of Hispanic  
 12 individuals than county, state, or national populations. Both Morrow and Umatilla counties have higher  
 13 percentages of Hispanic individuals than state or national populations.



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**Table 3.8-4: Population, Race, and Ethnicity for the NWSTF Boardman Region of Influence**

Race / Ethnicity	Census Years	City of Boardman	Morrow County	Umatilla County	Gilliam County	Oregon	USA
Population (%)	2000 <sup>1</sup>	2,855	10,885	70,548	1,915	3,421,399	281,421,906
	2010 <sup>2</sup>	3,220	11,394	75,889	1,871	3,727,407	298,757,310
White	2000	55.2	76.3	82.0	96.7	86.6	75.1
	2010	60.1	77.7	79.1	95.2	83.6	72.4
Black or African American	2000	0.4	0.1	0.8	0.1	1.6	12.3
	2010	0.7	0.5	0.8	0.1	1.8	12.6
American Indian and Alaskan Native	2000	1.9	1.4	3.4	0.8	1.3	0.9
	2010	0.9	1.2	3.5	1.0	1.4	0.9
Asian	2000	0.7	0.4	0.7	0.1	3.0	3.6
	2010	2.4	0.9	0.9	0.1	3.7	4.8
Native Hawaiian and Pacific Islander	2000	0.1	0.1	0.1	0	0.2	0.1
	2010	0.3	0.1	0.1	0.7	0.3	0.2
Other race	2000	38.7	19.5	10.7	1.1	4.2	5.5
	2010	33.0	16.9	12.5	0	5.3	6.2
Two or more races	2000	2.9	2.1	2.2	0.9	3.1	2.4
	2010	2.6	2.6	3.1	1.3	3.8	2.9
Hispanic <sup>3</sup>	2000	50.1	24.4	16.1	1.8	8.0	12.5
	2010	61.7	31.3	23.9	4.7	11.7	16.3

<sup>1</sup> U.S. 2000 Census<sup>2</sup> U.S. 2010 Census<sup>3</sup> The Hispanic category is an ethnic, rather than a racial, distinction. The individuals counted under other racial categories (white, black or African American, American Indian and Alaskan Native, Asian, Native Hawaiian and Pacific Islander, and other races) may also be categorized as Hispanic.

Note: USA = United States of America

**2 Low-Income Populations**

3 Table 3.8-5 depicts median household income and poverty levels for the city, county, state, and nation,  
4 using the 2000 census and 2005-2009 ACS data. In general, the City of Boardman has a median  
5 household income below Morrow County, Oregon, and the United States of America (USA). The City of  
6 Boardman also has a greater percentage of persons below the poverty level than Morrow County,  
7 Oregon, and the USA. Both Morrow and Umatilla counties have a higher percentage of persons below  
8 the poverty level than state and national populations.

1 **Table 3.8-5: Low-Income Populations for the NWSTF Boardman Region of Influence**

Metrics	Year	City of Boardman	Morrow County	Umatilla County	Gilliam County	Oregon	USA
Population	2000 <sup>1</sup>	2,855	10,995	70,548	1,915	3,421,399	281,421,906
	2005-2009 <sup>2</sup>	2,990	11,394	72,905	1,623	3,727,407	298,757,310
Median household income	2000	\$32,543	\$37,525	\$36,249	\$33,611	\$40,916	\$41,994
	2005-2009	\$39,792	\$43,581	\$51,752	\$51,250	\$49,033	\$51,425
% Persons below poverty	2000	20.1	14.8	12.7	9.1	11.6	12.4
	2005-2009	23.2	16.8	15.5	10.8	13.6	13.5

<sup>1</sup> U.S. 2000 Census

<sup>2</sup> U.S. Census American Community Survey 2005-2009

### 2 **3.8.2.5 Current Requirements and Management Practices**

3 There are no current mitigation measures related to socioeconomics or environmental justice. However,  
4 mitigation measures in place for other resources (e.g., Air Quality, Water Resources, Noise, and Public  
5 Health and Safety) ensure that non-participants are not affected by actions on NWSTF Boardman.

### 6 **3.8.3 ENVIRONMENTAL CONSEQUENCES**

7 This section focuses on potential impacts and overall changes, as they relate to employment, housing,  
8 and minority and low-income populations associated with implementation of all current and proposed  
9 military readiness activities and proposed range enhancements at NWSTF Boardman. An assessment of  
10 environmental justice is based on potential impacts associated with air quality, water quality, noise, and  
11 public health and safety from the Proposed Action. Air emissions and pollutants are addressed in Section  
12 3.2, Air Quality, in accordance with the Clean Air Act. Effects to water quality are addressed in Section  
13 3.3, Water Resources. The effects of noise from training and construction activities are addressed in  
14 Section 3.4, Acoustic Environment, and health and safety issues are addressed in Section 3.11, Public  
15 Health and Safety and Protection of Children.

#### 16 **3.8.3.1 No Action Alternative**

17 Under the No Action Alternative, the number of personnel stationed at NWSTF Boardman and tempo of  
18 training would remain unchanged.

##### 19 **3.8.3.1.1 Socioeconomics**

20 No changes to the current socioeconomic conditions (employment, housing, and population growth) of  
21 Morrow County are expected under the No Action Alternative as the U.S. Department of the Navy  
22 (Navy) would maintain baseline levels of personnel already employed at NWSTF Boardman and no  
23 changes in training would occur. Therefore, regional and community economics, employment, housing,  
24 and population growth are not affected as a result of the No Action Alternative.

##### 25 **3.8.3.1.2 Environmental Justice**

26 Based on the analysis presented in this Environmental Impact Statement on Air Quality, Water  
27 Resources, Noise, and Public Health and Safety associated with the No Action Alternative, the following  
28 conclusions are presented in regard to human health and environmental effects to minority and low-  
29 income populations:

- 1 • Air Quality (Section 3.2) – Air emissions do occur from the No Action Alternative but are within  
2 or below historical or desired air quality conditions, and therefore do not pose  
3 disproportionately high and adverse human health or environmental effects on minority  
4 populations and low-income populations.
- 5 • Water Resources (Section 3.3) – There is little chance for an incidental spill to reach  
6 groundwater, if one were to occur, based on the response procedures in place and the small  
7 quantities of materials and wastes used and generated at NWSTF Boardman. Non-explosive  
8 practice munitions would have negligible effects on groundwater under the No Action  
9 Alternative because potential contaminants are not expected to migrate to groundwater.  
10 Domestic wastewater would continue to be treated by a septic system serving the  
11 Administrative Area. Based on the limited full time presence at NWSTF Boardman (six  
12 personnel), loadings to the system would be low and the effects to groundwater under the No  
13 Action Alternative would be negligible. While current groundwater usage data are not available  
14 for NWSTF Boardman, use is limited based on the number of full time personnel and the needs  
15 to support training. Because water discharges do not have significant impacts to the local water  
16 resources at NWSTF Boardman, they do not pose health or environmental risks to the  
17 surrounding communities. Therefore, there are no disproportionately high and adverse human  
18 health or environmental effects on minority populations or low-income populations.
- 19 • Acoustic Environment (Section 3.4) – Major sources of sound at NWSTF Boardman include  
20 aircraft (fixed-wing and helicopters) and weapons firing. Concerns related to noise from the No  
21 Action Alternative on the surrounding communities include hearing loss, non-auditory health  
22 effects, and speech interference/temporary attention. Sound impacts to community noise levels  
23 from military readiness activities under the No Action Alternative are negligible on lands outside  
24 of the Target Areas, and are partially mitigated by the training schedule. Military aircraft  
25 readiness activities on NWSTF Boardman occur primarily during the day, whereas individuals are  
26 most sensitive to sound at night. The areas surrounding NWSTF Boardman are primarily  
27 agricultural and, thus, very few members of the public are exposed to sound from military  
28 readiness activities on NWSTF Boardman.
- 29 • Public Health and Safety (Section 3.11) – The Navy has specific and documented procedures in  
30 place to ensure that non-participants, including children, are not endangered by Navy actions,  
31 including fencing, and signage. Therefore, there are no disproportionately high and adverse  
32 human health or environmental effects on minority populations or low-income populations.

33 No disproportionately high and adverse human health or environmental effects of the No Action  
34 Alternative are anticipated on minority and low-income populations. Minority and low-income  
35 populations are not significantly affected as a result of the No Action Alternative.

### 36 **3.8.3.2 Alternative 1**

37 Implementation of Alternative 1 would include an increase in existing military readiness activities, new  
38 military readiness activities, range enhancements including the construction of five new facilities at  
39 NWSTF Boardman, and the establishment and use of an additional Military Operations Area (MOA) to  
40 the northeast of the existing airspace.

#### 41 **3.8.3.2.1 Socioeconomics**

42 Implementation of Alternative 1 would result in an increase of seven additional military personnel  
43 employed at NWSTF Boardman associated with the operation of the Unmanned Aerial Systems (UAS)  
44 Training and Maintenance Facility. During drill weekends and annual training periods, a full platoon of

1 27 Soldiers would be present at the UAS facility. Under Alternative 1, an increase in the number of  
2 personnel at the UAS facility would have a beneficial effect on the local economy due to a possible  
3 increase in spending by military personnel employed and temporarily present for training at NWSTF  
4 Boardman.

5 Economic activity, such as local employment and materials purchasing associated with the proposed  
6 construction of five new facilities under Alternative 1, would provide short-term economic benefits to  
7 the local economy that would last for the duration of the construction; however, beneficial impacts from  
8 construction would be negligible on a regional scale. Other economic activity, such as the presence of  
9 non-local construction crews would also provide short-term economic benefits to the local economy for  
10 the duration of the construction activities; however, beneficial impacts from this activity would be  
11 negligible on a regional scale.

12 Under Alternative 1, the establishment and use of additional MOAs to the northeast of the existing  
13 airspace would occur (Figure 2-5). It is not anticipated that actions under Alternative 1 would affect local  
14 aviation traffic. Local aviators may coordinate activities that require entrance into Restricted Airspace  
15 during active hours with Air Traffic Control, and general flight publications and Notices to Airmen  
16 (NOTAMs) allow aviators the opportunity to plan around military readiness activities and coordinate  
17 flight times with Seattle Air Route Traffic Control Center (ARTCC). Local aviators are also allowed to  
18 operate under Restricted Areas (Restricted Area R-5706, for instance, has a base altitude of 3,500 ft.  
19 [1,066.8 m] Above Ground Level [AGL]). Though LATT would occur within the new Boardman Northeast  
20 MOA, training hour restrictions allow local aviators to plan their activities outside of the Navy training  
21 hours. Further, though the MOA does not require clearance for local aviators to fly through, aviators  
22 may still coordinate with Seattle ARTCC if they need to fly during the timeframe of LATT activities. Pilots  
23 are still allowed to operate under Visual Flight Rules within the MOA itself without requiring authority  
24 (unless a Restricted Airspace is active). Therefore, while local activities will need to schedule for use of  
25 airspace, economic activity, such as local employment, farming or ranching operations, would not be  
26 significantly impacted. For more detail, please see Section 3.9 (Transportation).

#### 27 **3.8.3.2.2 Environmental Justice**

28 Based on the analysis presented herein on air quality, water resources, acoustics, and public health and  
29 safety associated with Alternative 1, the following conclusions are presented in regards to human health  
30 and environmental effects to minority and low-income populations:

- 31 • Air Quality (Section 3.2) – Air emissions do occur from Alternative 1 but do not pose human  
32 health or environmental risks to surrounding communities as the status of the air quality in the  
33 Eastern Oregon Intrastate Air Quality Control Region 191 would not be affected. Therefore, air  
34 quality emission with implementation of Alternative 1 would not result in disproportionately  
35 high and adverse human health or environmental effects on minority and low-income  
36 populations.
- 37 • Water Resources (Section 3.3) – There is little chance for an incidental spill to reach  
38 groundwater, if one were to occur, based on the response procedures in place and the small  
39 quantities of materials and wastes used and generated at NWSTF Boardman. Non-explosive  
40 practice munitions would have negligible effects on groundwater under Alternative 1 because  
41 potential contaminants are not expected to migrate to groundwater. Domestic wastewater  
42 would continue to be treated by a septic system serving the Administrative Area. Additionally,  
43 the UAS Training and Maintenance Facility/Range Operations Control Center would share a  
44 septic system, and a well would be drilled for non-potable water. The principal water-producing

1 zones of the alluvial aquifer in the lower Umatilla Basin occur in deposits of coarse sand and  
2 gravel that fill three east-to-northeast-trending shallow troughs between Boardman and Cold  
3 Springs Reservoir. Water-level declines are unlikely in the gravels in the Boardman area as  
4 pumping will be buffered by capture of water from the Columbia River. (OWRD 2003) Therefore,  
5 the drilling of a well would not have a significant impact on groundwater. Based on the limited  
6 full time presence at NWSTF Boardman (the current six personnel plus the additional seven  
7 personnel for the UAS Training and Maintenance Facility), loadings to the system would be low  
8 and the effects to groundwater under Alternative 1 would be negligible. While current  
9 groundwater usage data are not available for NWSTF Boardman, use is limited based on the  
10 limited number of full time personnel and the limited needs to support training. Because water  
11 discharges do not have significant impacts to the local water resources at NWSTF Boardman,  
12 they do not pose health or environmental risks to the surrounding communities. Therefore,  
13 water quality with implementation of Alternative 1 would not result in disproportionately high  
14 and adverse human health or environmental effects on minority and low-income populations.

- 15 • Acoustic Environment (Section 3.4) – Major sources of sound includes aircraft (fixed-wing and  
16 helicopters) and weapons firing. Concerns related to noise from Alternative 1 on the  
17 surrounding communities would include hearing loss, non-auditory health effects, and speech  
18 interference/temporary attention. Under Alternative 1, construction related noise would be  
19 short-term and negligible and would not propagate beyond NWSTF Boardman boundaries. The  
20 addition of the proposed MOAs and increase in Low-Altitude Tactical Training within the  
21 proposed MOAs, current MOA, and current restricted area airspace would generate levels of  
22 sudden-onset pass-by aircraft sound, but few individuals would be close enough to the aircraft  
23 to hear such sounds, as these activities would occur in areas with low densities of sensitive  
24 receptors. Based on the distribution and magnitude of noise impacts under Alternative 1,  
25 communities surrounding NWSTF Boardman and those located under the current and proposed  
26 MOAs, as well as restricted area airspace, would continue to be slightly affected by training  
27 noise. A small portion of lands to the west of NWSTF Boardman (conservation lands and  
28 agricultural lands) and east (agricultural lands) have a community Average A-weighted Day-  
29 Night Sound Level (ADNL) between 60 and 65 A-weighted decibels (dBA) as a result of military  
30 readiness activities, but no surrounding land areas have a community DNL in excess of 65 dBA.  
31 Community sound levels up to 65 dBA are compatible with land uses such as residences,  
32 transient lodging, and medical facilities. Additionally, sounds that propagate off NWSTF  
33 Boardman are partially mitigated by the training schedule. Aircraft training and demolition  
34 activities on NWSTF Boardman occur primarily during the day, whereas individuals are most  
35 sensitive to sound at night. Further, the areas surrounding NWSTF Boardman are primarily  
36 agricultural and thus, very few members of the public are exposed to sound from military  
37 readiness activities on NWSTF Boardman. Therefore, acoustic emissions with implementation of  
38 Alternative 1 would not result in disproportionately high and adverse human health or  
39 environmental effects on minority and low-income populations .
- 40 • Public Health and Safety (Section 3.11) – The Navy has specific and documented procedures in  
41 place to ensure that non-participants, including children, are not endangered by Navy actions,  
42 including fencing, and signage.

43 Minority and low-income populations are not affected as a result of Alternative 1. Therefore, no  
44 disproportionately high and adverse human health or environmental effects as a result of  
45 implementation of Alternative 1 are anticipated on minority and low-income populations.

### 1 **3.8.3.3 Alternative 2**

2 Alternative 2, the Preferred Alternative, would include all elements of Alternative 1. In addition,  
3 Alternative 2 would include additional range enhancements (three mortar firing positions, a second  
4 Convoy Live Fire Range, and a new joint-use Range Operations Control Center (separate from the UAS  
5 facility) and additional training associated with mortar firing practice.

#### 6 **3.8.3.3.1 Socioeconomics**

7 Under Alternative 2, impacts would be the same as those described under Alternative 1. Increases in  
8 personnel at NWSTF Boardman and military readiness activities would have a beneficial effect on the  
9 local economy due to an increase in spending by military personnel employed at NWSTF Boardman. The  
10 establishment and use of additional MOAs to the northeast of the existing airspace would occur (Figure  
11 2-5); however, economic activity, such as local employment, farming or ranching operations, would not  
12 change.

13 Economic activity, such as local employment and materials purchasing associated with the proposed  
14 construction of new facilities under Alternative 2, would provide short-term economic benefits to the  
15 local economy that would last for the duration of the construction; however, beneficial impacts from  
16 construction would be negligible on a regional scale. Other economic activity, such as the presence of  
17 non-local construction crews, would also provide short-term economic benefits to the local economy for  
18 the duration of the construction activities; however, beneficial impacts from this activity would be  
19 negligible on a regional scale. The presence of Guard and Navy training units would have no net  
20 economic impact on a regional scale since personnel associated with military readiness activities would  
21 mainly remain within NWSTF Boardman.

22 Under Alternative 2, there would be no economic impact from construction activities related to farming  
23 and ranching operations or other activities on neighboring lands and areas under military airspace  
24 because construction of the additional facilities would occur within NWSTF Boardman range boundaries.  
25 While local activities would need to schedule for use of airspace, there would be no significant impact or  
26 change in economic activity under Alternative 2.

#### 27 **3.8.3.3.2 Environmental Justice**

28 Under Alternative 2, Air Quality, Water Resources, Acoustic Environment, and Public Health and Safety  
29 effects would be similar to those described under Alternative 1, where minority and low-income  
30 populations would not be affected as a result of activities associated with Alternative 1. Therefore, no  
31 disproportionately high and adverse human health or environmental effects as a result of  
32 implementation of Alternative 2 are anticipated on minority and low-income populations.

### 33 **3.8.3.4 Proposed Management Practices, Monitoring, and Mitigation Measures**

#### 34 **3.8.3.4.1 Proposed Best Management Practices**

35 No adverse socioeconomic effects were identified; therefore, no proposed Management Practices for  
36 socioeconomics and environmental justice are warranted. However, Best Management Practices for  
37 other resources that affect environmental justice (e.g. Air Quality, Water Resources, and Acoustic  
38 Environment) would be implemented.

#### 39 **3.8.3.4.2 Proposed Monitoring**

40 No specific monitoring needs were identified for socioeconomics and environmental justice.

1 **3.8.3.4.3 Proposed Mitigation Measures**

2 No mitigation measures are warranted for socioeconomics and environmental justice based on the  
 3 analysis presented in Section 3.8.3 and implementation of proposed BMPs.

4 **3.8.3.5 Summary of Effects and Conclusions**

5 Table 3.8-6 summarizes the effects of and mitigation measures for the No Action Alternative, Alternative  
 6 1, and Alternative 2 under Socioeconomics and Environmental Justice.

7 **Table 3.8-6: Summary of Effects for Socioeconomics and Environmental Justice**

Stressor	Summary of Effects and National Environmental Policy Act Impact Determination
<b>No Action Alternative</b>	
<b>Socioeconomics</b>	<ul style="list-style-type: none"> <li>Regional and community economics, employment, housing, and population growth are not affected as a result of the No Action Alternative.</li> </ul>
<b>Impact Conclusion</b>	<ul style="list-style-type: none"> <li>The No Action Alternative would result in no significant impacts to the regional and community economics, employment, housing, and population.</li> <li>There are no disproportionately high and adverse human or environmental effects of the No Action Alternative on minority and low-income populations.</li> </ul>
<b>Alternative 1</b>	
<b>Socioeconomics</b>	<ul style="list-style-type: none"> <li>Beneficial effects on the local economy due to an increase in spending by both the additional full-time military personnel employed by NWSTF Boardman and the increased military personnel participating in military readiness activities while in the local area.</li> <li>Economic activity would provide short-term economic benefits to the local economy; however, beneficial impacts from range development would be negligible on a regional scale.</li> <li>Local activities would need to schedule for use of airspace, but there would be no significant impact or change in economic activity related to farming and ranching operations.</li> </ul>
<b>Impact Conclusion</b>	<ul style="list-style-type: none"> <li>Alternative 1 would result in no significant impacts on the socioeconomics of the Boardman region.</li> <li>There are no disproportionately high and adverse human or environmental effects of Alternative 1 on minority and low-income populations.</li> </ul>
<b>Alternative 2</b>	
<b>Socioeconomics</b>	<ul style="list-style-type: none"> <li>Beneficial effects on the local economy due to an increase in spending by both the additional full-time military personnel employed by NWSTF Boardman and the increased military personnel participating in military readiness activities while in the local area.</li> <li>Economic activity would provide short-term economic benefits to the local economy; however, beneficial impacts from range development would be negligible on a regional scale.</li> <li>Local activities would need to schedule for use of airspace, but there would be no significant impact or change in economic activity related to farming and ranching operations.</li> </ul>
<b>Impact Conclusion</b>	<ul style="list-style-type: none"> <li>Alternative 2 would result in no significant impacts on the socioeconomics of the Boardman region.</li> <li>There are no disproportionately high and adverse human or environmental effects of Alternative 2 on minority and low-income populations.</li> </ul>

Note: NWSTF = Naval Weapons Systems Training Facility

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