

# CHAPTER 2

## DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

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### 2.1 INTRODUCTION

This section describes the alternatives considered and the alternative selection criteria used for this EIS. The No Action Alternative, as required by NEPA (40 CFR 1508.25[b]), is also described.

The range of alternatives for this EIS is dictated in large part by preceding events. As described in **Section 1.1**, the decision to station approximately 1,880 additional Soldiers, including an Expeditionary Sustainment Command (ESC), at Fort Lewis has already been the subject of a Programmatic EIS and ROD. The Army has not yet decided whether stationing of a medium CAB or CSS units will occur at Fort Lewis and YTC. This EIS analyzes the effects of having all three SBCTs training with all of the other major subordinate units currently at Fort Lewis, the stationing of the additional units, the potential stationing of additional CSS units, and potential stationing of a medium CAB at Fort Lewis, as well as the update of the Fort Lewis and YTC ADPs (i.e., the impacts of bringing the units and Soldiers to Fort Lewis and YTC).

#### 2.1.1 Limited Alternatives

For many aspects of the stationing actions, there are no true alternatives. For example, increased numbers of Soldiers and Families, the need for and location of new facilities, and the need for training are all necessary elements or results of the stationing actions. Analysis of alternatives focuses on the impacts on the natural and human environments from these actions. Appropriate mitigation measures also are presented in this EIS.

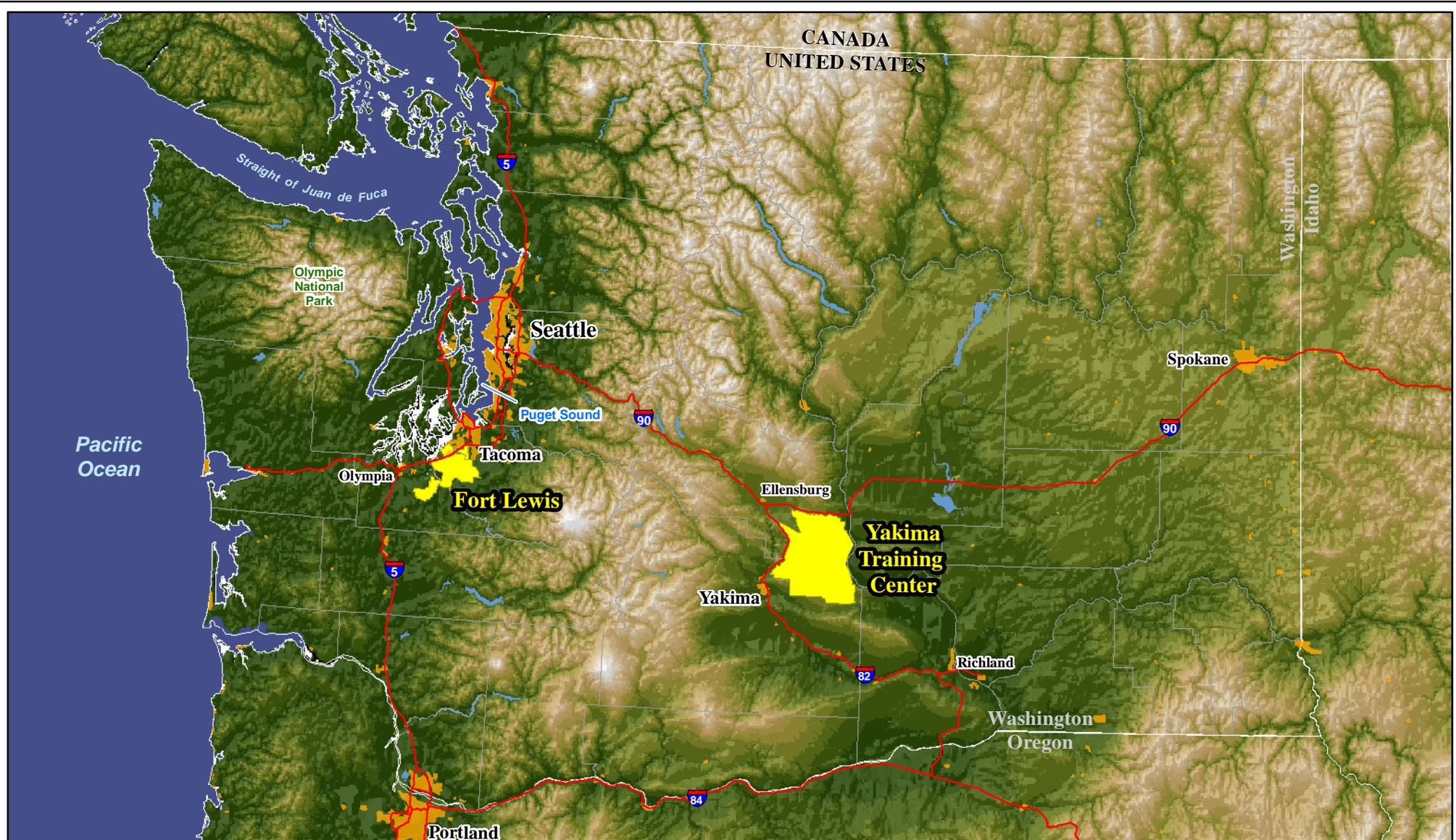
#### 2.1.2 Fort Lewis and Yakima Training Center

It is important to note that implementing the proposed action would not alter the essential nature of Fort Lewis or YTC. Both would remain as military installations on which Soldiers train, work, and live and on which facilities exist to support those activities.

##### *2.1.2.1 Fort Lewis*

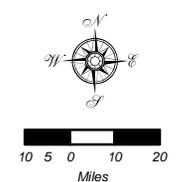
Fort Lewis is an 86,176-acre (34,874 hectares [ha]) military reservation located in western Washington, in Pierce and Thurston Counties, approximately 35 miles (56 km) south of Seattle and 7 miles (10 km) northeast of Olympia. Interstate 5 (I-5), which is the main transportation corridor in the Puget Sound region, runs through the installation (**Figure 2-1**). Fort Lewis is bordered on the north by McChord Air Force Base (AFB) and suburban and commercial development; on the east and south by rural areas, forestland, and several small communities; and on the west by Puget Sound, the Nisqually Indian Reservation, and rural areas that surround Olympia.

Fort Lewis is a major facility for both weapons qualification and field training. It is home to the I Corps Headquarters and other major units as stated in **Section 1.2**. Army Reserve units and the Washington Army National Guard also use Fort Lewis' facilities. Out-of-state Army units and units from allied nations periodically train at Fort Lewis as well.



**Legend**

Interstate Highway	County Boundary
Municipal Area	Lake
State Boundary	Project Area



**FORT LEWIS GTA EIS**

*Figure 2-1  
Relative Locations of Fort Lewis  
and Yakima Training Center*

ANALYSIS AREA: Thurston & Pierce Counties, Washington	
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1 Fort Lewis also accommodates a variety of nonmilitary activities. These activities include recreation,  
2 commercial timber harvest, and Native American traditional cultural practices. Primary recreational  
3 activities are hunting, fishing, horseback riding, and other outdoor activities.

4 Soldier support facilities are provided in the cantonment area. This built-up area, which is split by I-  
5 5 into the Main Post and North Fort, contains Soldier and Family housing; administrative,  
6 maintenance, community support, recreational, supply, and storage facilities; utilities; classrooms;  
7 and simulation training facilities.

8 Fort Lewis' training area serves as an active military training facility for both weapons qualification  
9 and field training. The downrange area comprises the land area outside the cantonment area,  
10 including live-fire ranges, training lands, and impact areas.

11 In 2005, the BRAC Commission's recommendation to establish Joint Base Lewis-McChord became  
12 law. The Army will be responsible for operating Joint Base Lewis-McChord. Although the Army  
13 will assign a joint base commander and the Air Force will assign a deputy joint base commander,  
14 neither will command any of the Army or Air Force units on the base. The Army and Air Force units  
15 will remain under the command and control of their military service. Therefore, the joint basing  
16 change will not affect the current or future unit operations at Fort Lewis or McChord AFB. The  
17 transformation of both installations into Joint Base Lewis-McChord will be completed on September  
18 30, 2010.

#### 19 **2.1.2.2 Yakima Training Center**

20 YTC is a training installation located in central Washington northeast of the City of Yakima (**Figure**  
21 **2-1**) and west of the Columbia River. YTC encompasses approximately 327,231 acres (132,426 ha)  
22 in Yakima and Kittitas Counties. Although the active Army units assigned to Fort Lewis and the 81<sup>st</sup>  
23 HBCT of the Washington Army National Guard are the principal users of YTC, other units and  
24 forces also use YTC. They include the Special Operations Command, Marine Corps, Air Force,  
25 Navy, Coast Guard, local and federal law enforcement, and allied forces from Canada and Japan.

26 Currently, YTC plays a major role as part of the Stryker Center of Excellence. The Center of  
27 Excellence (Fort Lewis and YTC) is responsible for concept development, compilation and  
28 distribution of lessons learned, and development of technical and tactical expertise for SBCTs.

29 YTC includes both maneuver areas and live-fire ranges. In particular, the central impact area (CIA)  
30 and Multi-Purpose Range Complex (MPRC) are used for training with conventional and tactical  
31 weapons. The CIA is used primarily for tank, artillery, and infantry gunnery. The MPRC is a tank  
32 and infantry live-fire range with remotely controlled moving and pop-up targets.

#### 33 **2.1.3 Study Area**

34 Most construction associated with the proposed action and alternatives would occur inside the Fort  
35 Lewis cantonment area, with additional construction of range projects planned for both Fort Lewis  
36 and YTC.

37 The primary study area includes all land within the boundaries of Fort Lewis and YTC. Baseline  
38 conditions and effects to areas surrounding Fort Lewis and YTC are described and considered as  
39 appropriate in Chapters 3 through 6, based on the Region of Influence (ROI) for environmental  
40 resource areas. For instance, effects to biological and cultural resources would primarily occur within  
41 the boundaries of Fort Lewis and YTC, but effects to other resource areas, such as socioeconomics,  
42 utilities, and transportation, could be regional in nature. Cumulative effects involve a more extensive  
43 analysis of resource areas, combining a historic perspective with present and anticipated future  
44 effects for each resource area. Cumulative effects consider Fort Lewis, YTC, and surrounding areas.

## 2.2 PROPOSED ACTION

The proposed action is to implement those actions from FY 2010 through 2015 needed to support the Army's decisions on growth and realignment at Fort Lewis and YTC. These actions would allow the Army to achieve a size and composition that is better able to meet national security and defense requirements, modify the force in accordance with Army Transformation, sustain unit equipment and training readiness, and preserve quality of life for the Soldiers and their Families. Fort Lewis and YTC must take actions to support the strategic deployment and mobilization requirements of the nation's combatant commanders to ensure they will have the forces necessary to support regional contingency operational requirements.

Specifically, the proposed action includes:

- training of all three SBCTs simultaneously with other currently stationed major subordinate units at Fort Lewis and YTC,
- stationing the new units and accommodating the augmented units identified in the Fort Lewis portions of the ROD for the 2007 GTA FPEIS,
- upgrading infrastructure in the cantonment area for the third SBCT and GTA units so that it meets current standards,
- updating the Fort Lewis and YTC ADPs to accommodate these defined and potential stationing actions,
- potentially stationing at Fort Lewis and YTC CSS units with up to 1,000 Soldiers, and
- potentially stationing at Fort Lewis and YTC a medium CAB with up to 2,800 Soldiers.

The proposed action would:

- **Troop-Level Increase** – Accommodate an overall increase in Soldiers who would work, live, and train at Fort Lewis and YTC. Under the proposed action, up to 5,800 new Soldiers (new GTA units, existing units augmented under GTA, new CSS units, and a medium CAB) would be stationed at Fort Lewis. In addition, Fort Lewis must construct the facilities needed to support the additional Soldiers and to replace substandard facilities currently occupied by the third SBCT stationed at Fort Lewis with facilities meeting Army standards. An SBCT consists of approximately 4,100 Soldiers, 1,000 unit vehicles, and all accompanying equipment.
- **Staged Stationing of Troops** – Include continuous stationing and transformation of Fort Lewis' force structure. Implementation of full stationing and transformation is expected to be complete by 2013. As the Army proceeds with Transformation planning, the total unit strength may vary throughout the implementation period (although these variations relate to smaller units below the BCT level). Troop arrival schedules at Fort Lewis from stationing and deployment, and availability of facilities for the SBCT, would affect the timing of implementing new training requirements.
- **Facility Construction/Renovation and/or Deconstruction/Demolition** – Remove facilities and infrastructure that are no longer needed, relocate facilities to support new construction, construct new facilities and infrastructure, and renovate existing facilities and infrastructure to support the new population and training activities. Construction under the proposed action would take place at Fort Lewis and at YTC.
- **Timing of Construction Projects** – Accomplish construction in phases throughout the implementation period. The timing of construction projects would be contingent upon funding availability and priorities.

- 1 • **Live-Fire Training and Maneuvers** – Provide for training for existing and new units  
2 stationed at Fort Lewis while balancing additional or different maneuver training, live-fire  
3 training, and environmental management to meet the Army’s integrated goals of maintaining  
4 military training readiness and sustaining lands for continued use (**Section 1.2.2**). Live-fire  
5 training and maneuver activities under the proposed action would be similar to those  
6 described for Alternative 1 (**Section 2.3.1**). The requirements of training three SBCTs  
7 simultaneously with all other major units, however, could result in increased frequency of use  
8 of maneuver training areas and weapons firing ranges. YTC is anticipated to support most of  
9 the requirements for maneuver training at the battalion level and above.
- 10 • **Training Strategy** – Continue training under the proposed action throughout Fort Lewis and  
11 YTC in accordance with the suitability of the land for different training activities (e.g.,  
12 maneuver or live-fire) and the ability to sustain the land.
- 13 • **Environmental and Training Conditions** – Change in response to factors beyond the  
14 Army’s control, such as troop deployments, and climatic conditions, affect the  
15 implementation of training. Because environmental and training conditions are dynamic, the  
16 Army would monitor training activity under the proposed action and respond to changing  
17 conditions to sustain the land for training and provide maximum troop readiness.

## 18 **2.2.1 Changes in Force Structure and Installation Population**

19 This section presents changes in force structure that would result from implementing the proposed  
20 action. As identified above, these changes include those needed to implement the ROD for the 2007  
21 GTA FPEIS, the potential stationing of CSS units with up to 1,000 Soldiers, and the potential  
22 stationing of a medium CAB composed of approximately 2,800 Soldiers. Each of these sets of  
23 changes is described below.

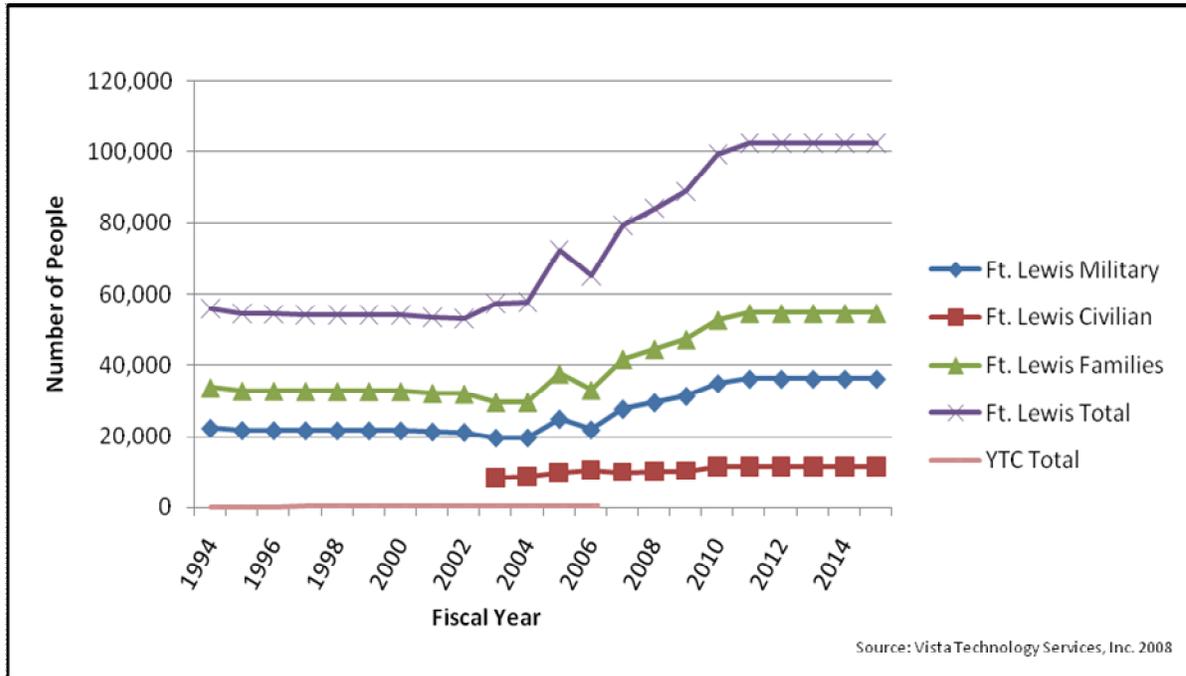
### 24 **2.2.1.1 Implementation of the Record of Decision for the 2007 GTA FPEIS**

25 Implementation of the ROD for the 2007 GTA FPEIS would increase the population at Fort Lewis  
26 beyond the approximately 1,880 Soldiers scheduled to be stationed there because most of the  
27 Soldiers will bring Families with them. These approximately 2,860 Family members would increase  
28 the number of people living on and around Fort Lewis. Additional civilians and contractors would be  
29 needed at both Fort Lewis and YTC between FY 2010 and FY 2015 to help construct, maintain, and  
30 operate the new facilities.

31 About half of these Soldiers have already arrived at Fort Lewis and have been stationed. These  
32 Soldiers were placed in existing buildings and are training on existing ranges within previously  
33 approved range capacities. Eventually, however, some of the units would require additional  
34 cantonment area construction. With the 1,880 GTA Soldiers and all three SBCTs stationed on Fort  
35 Lewis and training simultaneously, Fort Lewis would need new ranges and would experience  
36 increased use of training areas. So another part of the purpose of the proposed action is to support the  
37 presence of, and training requirements for, the GTA Soldiers, whether their units have already  
38 arrived or not.

39 The population of Soldiers, civilian employees, contractors, and military Family members at Fort  
40 Lewis and YTC has fluctuated over time (**Figure 2–2**). For about 10 years, from the mid-1990s to  
41 the mid-2000s, the population of Soldiers and their Families decreased slightly. Since the mid-2000s,  
42 however, the population at Fort Lewis has grown and would continue to grow for a few more years  
43 as the GTA decisions are implemented before leveling off after 2012 (**Figure 2–2**). By 2011, the

1 total population (Soldiers, civilian employees, contractors, and Family members) would increase to  
 2 about 102,400 at Fort Lewis and 630 at YTC (Vista Technology Services, Inc. 2008).



3  
 4 **Figure 2–2 Trends in the Fort Lewis and YTC Populations**

5 As announced in the ROD for the GTA FPEIS, Fort Lewis was selected to receive several new units  
 6 and increases to some existing units. Altogether, the changes involve a net increase of about 1,880  
 7 Soldiers at Fort Lewis and YTC (**Table 2–1**). About 30 percent of the changes involve new units and  
 8 the rest involve increases to existing units, including the three SBCTs.

9 As shown on **Table 2–1**, the 2007 ROD for the GTA FPEIS identifies several new units for  
 10 stationing at Fort Lewis and YTC. The ESC is the largest new unit. The ESC is the single logistics  
 11 command headquarters for a designated area of operations. It plans, controls, and synchronizes all  
 12 support operations for the Army or Joint Force Commander. It is capable of commanding and  
 13 controlling the full range of logistics capabilities through multiple phases of operations  
 14 simultaneously. The ESC is the single provider for Army distribution operations, and it advises and  
 15 provides logistics planning assistance to the supported command.

16 **2.2.1.2 SBCT Organization and Training**

17 The units and organizations at Fort Lewis and YTC support the three SBCTs. Because the three  
 18 SBCTs are the primary BCTs present at Fort Lewis and YTC, it is useful to understand them. An  
 19 SBCT has approximately 4,105 Soldiers, 317 Stryker combat vehicles, 588 wheeled support  
 20 vehicles, 18 155-millimeter (mm) howitzers, and numerous trailers and other pieces of equipment  
 21 (**Table 2–2**).

22 Each major unit of the SBCT is composed of a number of smaller constituent units, including  
 23 battalions, companies, platoons, and squads. About half of the 4,105 Soldiers would be assigned to  
 24 infantry battalions (**Table 2–3**). The rest would be distributed among the other battalions, companies,  
 25 and platoons that comprise the SBCT (**Table 2–3**).

**Table 2–1 Summary of Grow-the-Army Strength Change at Fort Lewis and YTC**

<b>Activity/Unit/Capability</b>	<b>Fiscal Year</b>	<b>GTA Strength Change<sup>1</sup></b>
<b>Growth</b>		
573 <sup>rd</sup> Construction Management Team	2008	9
595 <sup>th</sup> Military Police Company	2009	124
575 <sup>th</sup> Area Support Medical Company	2009	72
140 <sup>th</sup> Movement Control Team	2008	21
Test Measurement and Diagnostic Equipment	2010	7
Expeditionary Sustainment Command (ESC)	2011	254
Military Police Detachments	2011	72
<b>Increase to Existing Units</b>		
707 <sup>th</sup> Explosive Ordnance Disposal Company	2007	21
710 <sup>th</sup> Explosive Ordnance Disposal Company	2007	44
787 <sup>th</sup> Explosive Ordnance Disposal Company	2007	44
3 <sup>rd</sup> Explosive Ordnance Disposal Battalion	2008	1
129 <sup>th</sup> Explosive Ordnance Disposal Company	2009	44
53 <sup>rd</sup> Explosive Ordnance Disposal Company	2009	21
SBCTs (3/2 <sup>nd</sup> , 4/2 <sup>nd</sup> , 5/2 <sup>nd</sup> )	2008-2010	555
22 <sup>nd</sup> Human Resources Company	2008	26
201 <sup>st</sup> Battlefield Surveillance Brigade	2010	547
61 <sup>st</sup> Heavy Chemical Company	2010	2
62 <sup>nd</sup> Chemical Company	2010	6
6 <sup>th</sup> Technical Escort Unit Company Headquarters	2010	8
<b>Total</b>		<b>1,878</b>

**Note:**

1. The Army adjusts its force structure to meet operational requirements, modernize its units, reflect changes to doctrine, and apply lessons learned. These could cause modifications to these strength changes over the program years.

Source: Army 2007f, g

An SBCT is a rapidly deployable unit designed for early entry into operational scenarios. The SBCT is capable of deploying with all combat gear and equipment loaded on the vehicle so that it can begin supporting military operations immediately upon its arrival. The increased mobility and speed of the SBCT allows the unit to quickly respond to and prevent, contain, stabilize, or resolve small-scale conflicts. An SBCT participates in major wartime operations as a subordinate component within a division or corps, in a variety of possible roles. The SBCT was designed for increased armored protection, reduced logistical support requirements, and rapid deployment. It uses a highly mobile, medium-weight armored combat/combat support platform, which requires a minimum of logistical support to allow the SBCT to function as more of an expeditionary unit requiring less resupply. Preconfigured in ready-to-fight combined arms packages, the entire SBCT is designed to be rapidly deployed anywhere in the world in a few days' time.

The SBCT is organized primarily as a combined arms, mounted infantry organization. The Stryker Infantry Carrier Vehicle serves as the platform for infantry carriers; mobile gun systems; mortars; reconnaissance, surveillance, and target acquisition elements; anti-tank carriers; engineer mobility support vehicles; nuclear/biological/chemical reconnaissance; as well as many of the command and control carriers within the brigade. Overall, the Stryker vehicle comes in ten variants, including a medical evacuation model. The SBCT extends the tactical mobility of commanders in the operational theaters of war and increases the firepower available to support dismounted infantry assaults.

**Table 2–2 SBCT Personnel and Equipment Breakdown**

<b>Type</b>	<b>Number</b>
Soldiers	4,105
Intelligence, Surveillance, and Reconnaissance	
Unmanned aerial vehicles	4
Vehicles	
Wheeled support vehicles	588
Combat vehicles	317
Tracked	0
Major Direct Fire Systems	
Mobile gun systems	27
Javelins (Shoulder Mounted Anti-Armor Systems)	121
Anti-Tank Guided Missiles	9
Indirect Fire Systems	
Mortars	
120 mm	36
81 mm	12
60 mm	18
Howitzers	
M777	18

Source: Army 2008c

1

**Table 2–3 Units in a Stryker Brigade**

<b>Unit</b>	<b>Assigned Personnel</b>
Brigade Headquarters, Headquarters and Headquarters Company	131
Infantry Battalions (3 at 698 each)	2,094
Support Battalion	621
Reconnaissance, Surveillance, and Target Acquisition (RSTA) Battalion	436
Field Artillery Battalion	393
Engineer Company	127
Military Intelligence Company	79
Signal Company	70
Anti-Tank Company	54
Maintenance	100
<b>Total</b>	<b>4,105</b>

Source: Army 2008c

2

3 SBCTs move mostly by road, with limited off-road or cross-country operations. The SBCT uses  
4 Stryker vehicles to traverse terrain and obstacles to ensure protected delivery of infantry squads to  
5 their dismount points. Although the Stryker can maneuver across slopes that are less than 30 percent  
6 in pitch and up slopes that are less than 60 percent grade, most mounted movement occurs on roads  
7 or unrestricted terrain. This operation allows SBCTs to take full advantage of the Stryker's speed.

8 In addition, maximum road usage provides the best fuel efficiency (Taylor 2004). The Stryker  
9 vehicle travels 5.7 miles per gallon of fuel on roads. In contrast, off-road, cross-country operations  
10 result in degradations in performance of as much as 45 to 60 percent (about 2.92 miles per gallon of  
11 fuel).

1 The SBCT uses many of the weapon systems of traditional Army brigades. In addition to these  
2 systems, the SBCT incorporates upgraded technologies and more advanced systems, including the  
3 Mobile Gun System (MGS), the M777 lightweight howitzer, and reconnaissance and target  
4 acquisition systems.

### 5 **2.2.1.3 Combat Service Support Logistics Units**

6 Typical CSS Logistics (Sustainment) units include transportation, quartermaster, medical, and  
7 headquarters units and functions. CSS units are responsible for transporting fuel, munitions, parts,  
8 food, medical supplies, and battlefield casualties during training and operational scenarios. These  
9 units maintain vehicles, recover destroyed or damaged vehicles, and provide medical care to injured  
10 Soldiers. The number of Soldiers in the CSS units varies with the function and mission of each unit.  
11 In the future, as many as 1,000 Soldiers spread across these units may be stationed with about 1,520  
12 Family members at Fort Lewis and YTC.

13 CSS units use a wide variety of vehicles. Vehicles assigned to each unit are based in part on the  
14 types of units they are supporting and the missions they need to accomplish. Wheeled vehicles are  
15 capable of on-road and off-road maneuver, but will more often travel on-road.

16 The following sections describe the missions, numbers of Soldiers, and primary equipment for  
17 typical CSS units likely to be stationed at Fort Lewis and YTC.

#### 18 **2.2.1.3.1 Transportation Units**

19 **Mission.** The mission of the Transportation component is to transport, distribute, and issue general  
20 military supplies and equipment. Military supplies and equipment include ammunition; fortification  
21 and construction materials; water, subsistence, and water purification equipment; petroleum  
22 products; repair parts and end items; and medical supplies.

23 **Soldiers.** Transportation units typically consist of company-sized organizations of 100 to 200  
24 Soldiers.

25 **Primary Equipment.** Transportation units primarily use High Mobility Multi-Wheeled Vehicles  
26 (HMMWVs), other light trucks, cargo trucks with 5-ton (4,500-kilogram [kg] or larger capacity, and  
27 fuel trucks (5,000-gallon [18,930-liter]). In addition, they may have Heavy Equipment Transport  
28 (HET) trucks, which they use for transporting armored combat vehicles.

#### 29 **2.2.1.3.2 Quartermaster Units**

30 **Mission.** The mission of the Quartermaster component is to receive, store, and issue general military  
31 supplies and equipment. These supplies and equipment include fortification and construction  
32 materiel, water, subsistence, repair parts, and medical supplies.

33 **Soldiers.** Quartermaster units typically consist of platoon- to company-sized organizations of 30 to  
34 120 Soldiers.

35 **Primary Equipment.** Quartermaster units use HMMWVs and cargo trucks with 5-ton (4,500-kg)  
36 capacity.

#### 37 **2.2.1.3.3 Medical Units**

38 **Mission.** The mission of the Medical component is to provide health care support during training and  
39 operational deployments.

1 **Soldiers.** Medical units vary in size with the type of medical unit and function.

2 **Primary Equipment.** Medical units use HMMWVs, some configured as medical evacuation  
3 vehicles, and cargo trucks with 5-ton (4,500-kg) capacities.

#### 4 **2.2.1.3.4 Headquarters Units**

5 **Mission.** The mission of Headquarters units includes collecting information, conducting planning  
6 and staffing, disseminating guidance to subordinate units, and overseeing operations. Headquarters  
7 units are responsible for the command and control of units in garrison and during training and  
8 operational deployments. These units are typically collocated with combat maneuver units during  
9 maneuver rotations.

10 **Soldiers.** Headquarters units vary in size with the mission and function of the headquarters.  
11 Typically, they range from 50 to 400 Soldiers, depending on the span of operational control and  
12 number of subordinate units.

13 **Primary Equipment.** Headquarters units use HMMWVs, other light trucks, and cargo trucks with  
14 5-ton (4,300-kg) or larger capacities.

15 If all 1,000 additional CSS Soldiers are stationed at Fort Lewis, they would be expected to bring  
16 about 1,520 Family members with them. Consequently, full staffing of the additional CSS units at  
17 Fort Lewis would increase the installation's population by approximately 2,520 people.

#### 18 **2.2.1.4 Medium Combat Aviation Brigade**

19 As discussed in **Section 1.2**, the Army is considering Fort Lewis and other locations for the  
20 stationing of a medium CAB in the 2010 to 2013 timeframe. Stationing a medium CAB at Fort  
21 Lewis and YTC would support the three SBCTs and other units already stationed at Fort Lewis and  
22 YTC by supporting and enhancing integrated training. A decision to station a medium CAB to Fort  
23 Lewis would result in an increase of approximately 2,800 Soldiers and 4,260 Family members.

24 A medium CAB plans, prepares, executes, and assesses aviation and combined arms operations to  
25 support division and maneuver brigades to find, fix, and destroy enemy forces at a decisive time and  
26 place. The structure of the medium CAB is tailored to the types of BCTs it supports. A medium CAB  
27 can support up to five BCTs. It is organized into two attack/reconnaissance battalions, an assault  
28 battalion, a general support battalion, an aviation support battalion (medium), and an air traffic  
29 service company. Typical mission essential tasks of a medium CAB include conducting:

- 30 • air assault operations
- 31 • air defense operations
- 32 • air movement operations
- 33 • air volcano (scatterable mine dispensing system) operations
- 34 • command, control, communications, computers, and intelligence operations
- 35 • combat service support operations
- 36 • combat support operations
- 37 • deployment/redeployment operations
- 38 • fast rope insertion and extraction system/special patrol infiltration/exfiltration system operation
- 39 • mission planning/preparation
- 40 • mobility, counter mobility, and survivability operations

- 1           • reconnaissance and surveillance operations
- 2           • stability operations and support operations
- 3           • casualty evacuation

4           Medium CABs use a variety of equipment and are authorized 110 helicopters. Each attack battalion  
5           has 24 attack helicopters (AHs). The assault battalion has 30 utility helicopters (UHs). In addition to  
6           eight UHs, the general support battalion has 12 cargo helicopters (CHs) and 12 medevac helicopters.  
7           Finally, a CAB is accompanied by approximately 700 tactical vehicles, including light trucks,  
8           fuelers, and transport vehicles.

9           If the medium CAB were stationed at Fort Lewis and YTC, about 2,800 additional Soldiers would be  
10          stationed at Fort Lewis. These Soldiers would be expected to bring about 4,260 Family members  
11          with them. Consequently, full staffing of the medium CAB at Fort Lewis would increase the  
12          installation’s population by approximately 7,060 people.

## 13   **2.2.2 Construction of Facilities at Fort Lewis and YTC**

14          This section describes the construction of facilities that would have to occur to support the proposed  
15          action. As with **Section 2.2.1**, the discussion focuses on the GTA ROD, CSS units, and the medium  
16          CAB.

17          Construction of facilities would involve both permanent and temporary disturbances of the ground at  
18          Fort Lewis and YTC. Permanent ground disturbance would include the creation of new impervious  
19          areas, including buildings, sidewalks, and parking lots. Temporary disturbance would include areas  
20          likely to be affected by construction activities, such as staging and trenching areas. All utilities  
21          would be underground where possible and disturbed areas would be restored after completion of  
22          construction.

### 23   **2.2.2.1 Implementation of the Record of Decision for the 2007 GTA FPEIS**

24          Construction, for the purposes of implementing the ROD for the 2007 GTA FPEIS, includes those  
25          projects that would be required to house, train, and support stationing of units in a manner that  
26          supports the Army Campaign Plan and Army growth initiatives. In addition, Fort Lewis must  
27          construct the facilities needed to support the third SBCT at current Army standards.

28          Actions that Fort Lewis and YTC would need to take to support the 2007 GTA ROD include  
29          construction of necessary cantonment area facilities at Fort Lewis and training ranges at Fort Lewis  
30          and YTC. Cantonment area construction support involves the construction of SBCT facilities within  
31          Fort Lewis’ cantonment area that are in line with the alternatives set forth in the Master Plan update.  
32          At Fort Lewis, the cantonment area under the Master Plan has been divided into three districts. They  
33          are the East Division, Downtown Area, and North Fort. **Appendix A** presents the construction  
34          projects for Fort Lewis’ cantonment area that would be part of the 2007 GTA FPEIS implementation  
35          and **Figure 2–3** shows the distribution of these projects.

36          The implementation of Army Transformation has required the Army to overhaul and modernize its  
37          training range and training facilities infrastructure. Army TC 25–8 describes the standard designs  
38          and requirements of the Army’s Sustainable Range Program for training modular Army units to  
39          standard. A suite of ranges is required to support Army SBCTs and other brigades to ensure that they  
40          can meet all pre-deployment training requirements.

1 To meet the needs of the proposed action, Fort Lewis and YTC must construct the necessary ranges  
 2 required to meet training readiness standards of units it receives as part of the growth and  
 3 realignment of the Army. **Table 2–4** lists the currently scheduled range/training infrastructure  
 4 construction projects for FY 2010 through FY 2015 at Fort Lewis and YTC. Brief descriptions of  
 5 each proposed range construction/upgrade and range use are listed below. The locations of the  
 6 proposed range projects are shown on **Figure 2–4** for Fort Lewis and on **Figure 2–5** for YTC. These  
 7 range projects are required to meet the collective needs all units stationed on Fort Lewis, including  
 8 the approximately 1,880 GTA Soldiers.

**Table 2–4 Scheduled Range/Training Infrastructure Construction FY 2010–2015**

Installation	Range Project Type	FY	Project # (1391 #)
Lewis	Shoothouse at Range 25C <sup>1</sup>	2010	41842
Lewis	Modified Record Fire (MRF) at Range 92 <sup>1</sup>	2010	66531
Lewis	MRF at Range 8	2013	67164
Lewis	MRF Range – probably convert to Shoothouse (location to be determined)	2013	
Lewis	Fast Rope Rappel Sniper Tower at Range 19	2013	72089
YTC	Sniper Field Fire (SFF) will be a new range in Training Assembly Area 1 (TAA 1)	2011	65386
YTC	Multi-Purpose Machine Gun (MPMG) at Range 5	2014	54106

Note:

1. Although these range projects are associated with GTA and included here, they were identified before the GTA FPEIS was prepared and, consequently, were evaluated under NEPA previously. They are incorporated in this GTA analysis to ensure all GTA-related projects are addressed in this analysis.

Source: Larson 2009b.

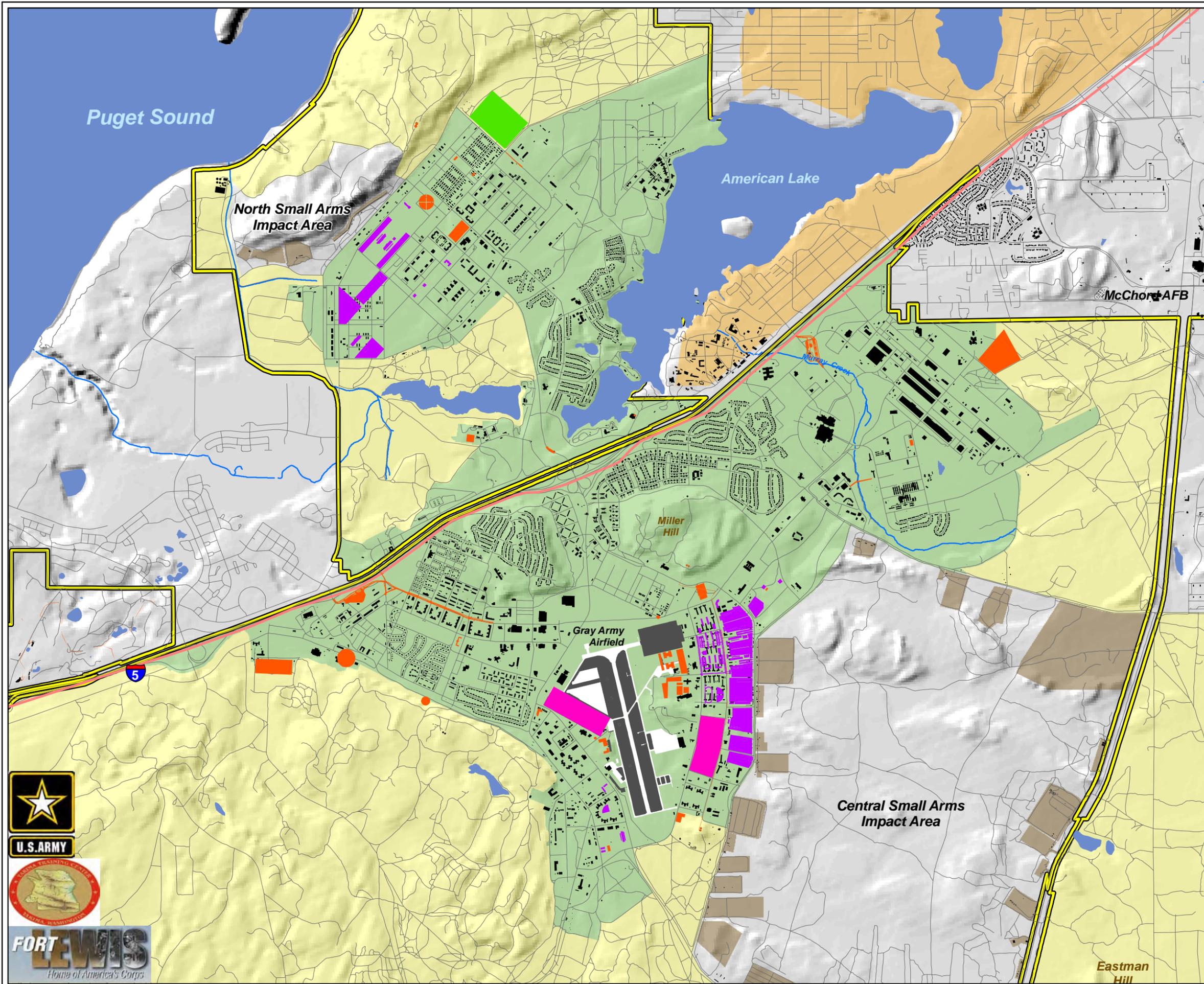
9

10 **Shoothouse.** The Live Fire Exercise Shoothouse provides the commander with a facility to train and  
 11 evaluate units on their ability to move tactically (enter and clear a room, enter and clear a building),  
 12 engage targets, conduct breaches, and practice target discrimination (Army 2004f). The shoothouse  
 13 supports blank fire, Multiple Integrated Laser Engagement System/Tactical Engagement System,  
 14 Special Effects Small-Arms Marking System, and installation-approved small arms service  
 15 ammunitions.

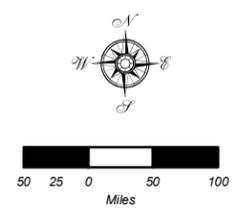
16 **Modified Record Fire (MRF) Range.** The MRF range is used to train and evaluate individual  
 17 Soldiers on the skills necessary to identify, engage, and defeat stationary infantry targets for  
 18 day/night qualification requirements with the M16 and M4 rifles. This range combines the  
 19 capabilities of Automated Field Fire, Automated Record Fire, and the Automated Night Fire to  
 20 reduce land and maintenance requirements and increase efficiencies. All targets are fully automated,  
 21 and the event-specific target scenario is computer driven. The proposed action includes the need for  
 22 two MRF ranges. Meeting this need would be accomplished by upgrading the targetry at existing  
 23 ranges. Range upgrades would include a range operation and control area, range control tower, range  
 24 operations and storage building, classroom building, latrine, covered mess shelter, ammunition  
 25 breakdown building, bleacher enclosure, and building information systems.

26 **Multi-purpose Machine Gun (MPMG) Range.** The MPMG range is designed to train Soldiers to  
 27 engage stationary infantry and mobile vehicular targets with the full range of Army machine guns to  
 28 include the M249, M60, M240, and .50 caliber machine guns. Under the proposed action, this would  
 29 be an upgrade to Range 5 at YTC to include site development, a general instruction building,  
 30 ammunition breakdown building, bleacher enclosure, range operations tower, range operations and  
 31 storage building, latrine, covered mess shelter, and building information systems.

32



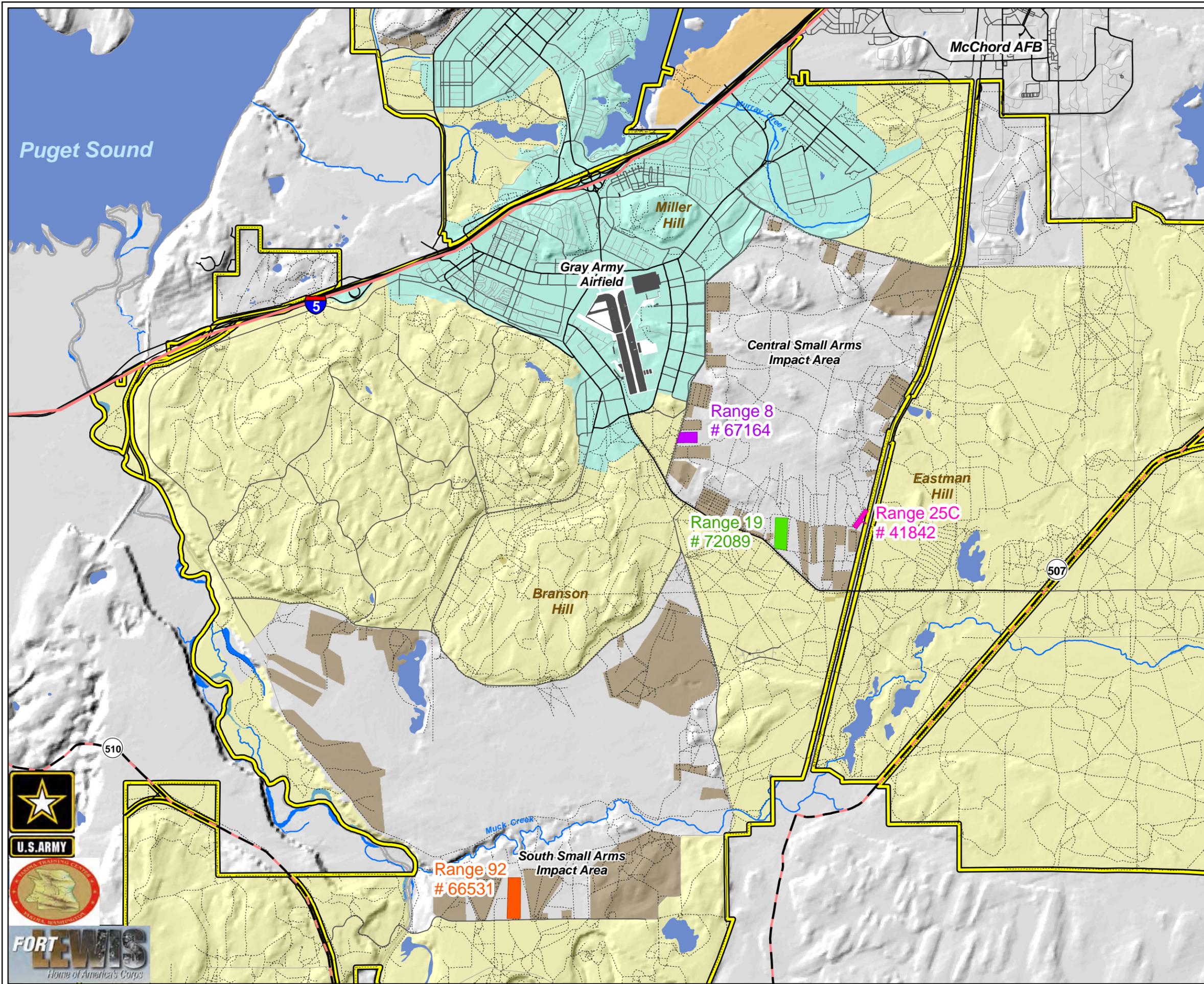
- ### Legend
- Future Projects**
- No Action
  - Grow the Army (GTA)
  - Combat Support Services (CSS)
  - Medium Combat Aviation Brigade (CAB)
  - Interstate Highway
  - State Route
  - Primary / Secondary Road
  - Existing Structure
  - Water Body
  - River / Stream
  - Fort Lewis Boundary
  - Training Area
  - Live Fire Range
  - Cantonment Area
  - Municipal Area
  - County Boundary



**FORT LEWIS GTA EIS**

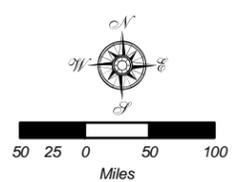
*Figure 2-3  
Distribution of "No Action" Projects and Projects  
Proposed for Construction in the Fort Lewis  
Cantonment Area to Implement the 2007  
Grow-the-Army Decision,  
CSS Units, and Medium CAB*

ANALYSIS AREA: Thurston & Pierce Counties, Washington	
Date: 7/14/2009	File: FortLewis\Cantonment.mxd
Prepared By: JG	Layout: Cantonment.pdf



- Legend**
- Range 92 \*
  - Range 8
  - Range 25C \*
  - Range 19
  - Interstate Highway
  - State Route
- Fort Lewis Roads**
- Primary
  - Secondary
  - Tertiary
  - Unpaved
- Water Body
  - River / Stream
  - Fort Lewis Boundary
  - Training Area
  - Live Fire Range
  - Cantonment Area
  - Municipal Area
  - County Boundary

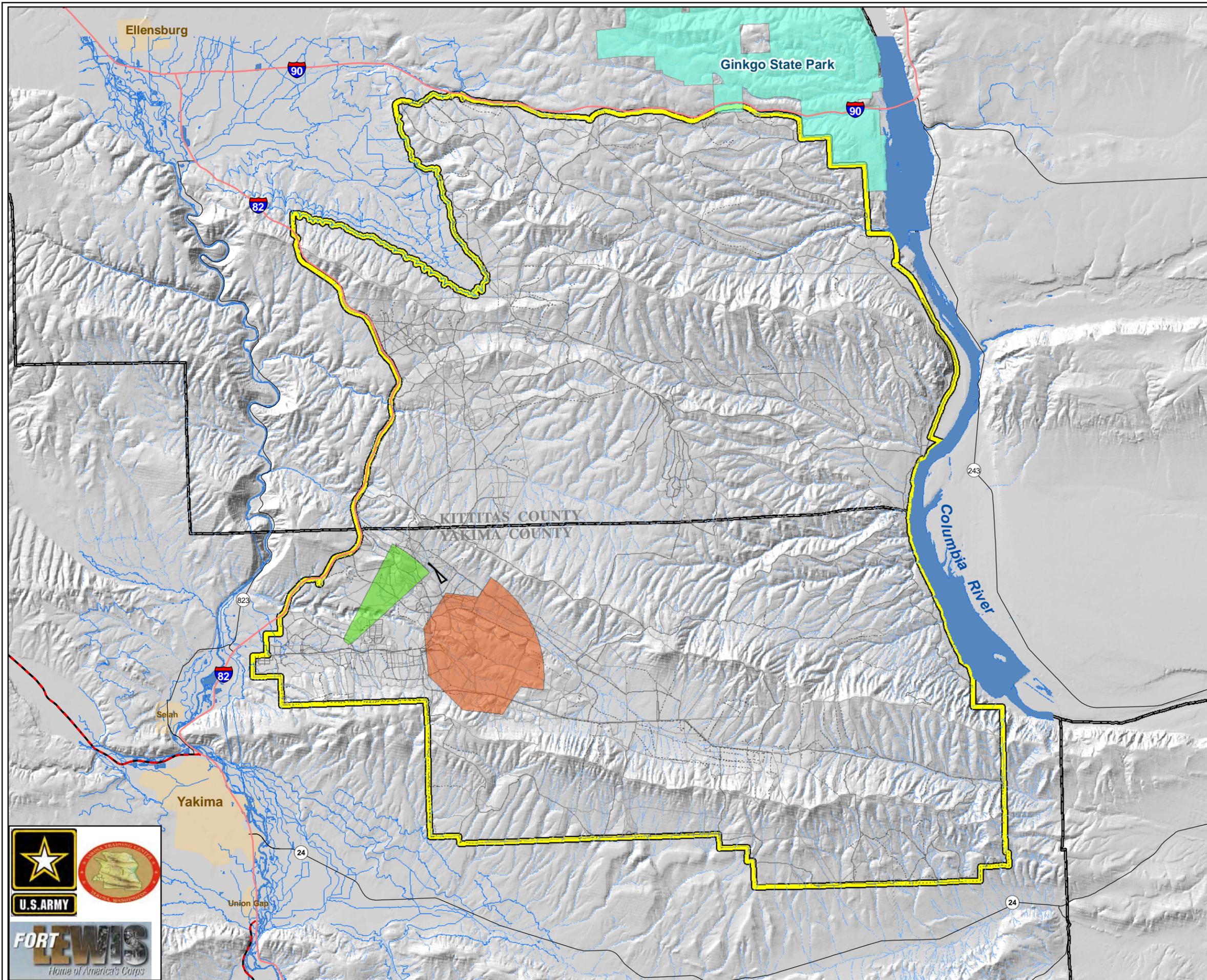
\* Ranges previously evaluated under NEPA.



**FORT LEWIS GTA EIS**

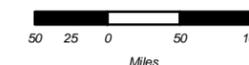
*Figure 2-4  
Locations of Training Ranges Proposed  
for Construction or Upgrade on Fort Lewis*

ANALYSIS AREA: Thurston & Pierce Counties, Washington	
Date: 7/14/2009	File: FortLewisFL_TrainingAreas.mxd
Prepared By: JG	Layout: FL_TrainingAreas.pdf



**Legend**

- Interstate Highway
- Federal Highway
- State Route
- Sniper Field Fire Range
- Multi-Purpose Machine Gun Range
- Selah Airstrip
- YTC Roads**
- Secondary / Light Duty
- Unimproved
- Trail
- Ginkgo State Park
- Water
- Perennial Stream
- Intermittent Stream
- Yakima Training Center Boundary
- Municipal Area
- County Boundary



**FORT LEWIS GTA EIS**

*Figure 2-5  
Locations of Training Ranges  
Proposed for Construction  
at Yakima Training Center*

ANALYSIS AREA: Yakima & Kittitas Counties, Washington

Date: 7/14/2009

File: FortLewisYak\_Training.mxd

Prepared By: JG

Layout: Yak\_Training.pdf



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1 **Sniper Field Fire (SFF) Range.** The SFF range, which would be a new range constructed at YTC,  
 2 provides training that sniper teams need to build marksmanship skills in weapons use, and to detect,  
 3 identify, engage, and defeat stationary and moving infantry targets in a tactical array. The range is  
 4 designed to satisfy the training and qualification requirements of the M24 sniper rifle equipped  
 5 teams. The SFF range provides sniper teams the capability to meet all live training tasks as outlined  
 6 in Standards in Training Commission (STRAC) live-fire tasks for Army sniper teams. The range  
 7 would train sniper teams to meet mission essential live-fire training tasks while simultaneously  
 8 providing the best possible training for threats the Army currently encounters during combat  
 9 operations in the contemporary operating environment.

10 **2.2.2.2 Combat Support Service Units**

11 The construction of the facilities required for the CSS units cannot currently be determined because  
 12 the precise distribution of units among transportation, quartermaster, medical, headquarters, or other  
 13 CSS units is unknown. Although exact facilities are unknown currently, **Table 2–5** provides a  
 14 generalized estimate of facilities required for 1,000 CSS Soldiers. Fort Lewis, however, expects to  
 15 construct any facilities required for these units on the north side of North Fort. If the Army decides to  
 16 station the CSS units at Fort Lewis, facilities for these units would be constructed in a 50-acre (20-  
 17 ha) area in what is now Training Area A East, which is currently undeveloped (**Figure 2–3**). As  
 18 these future units are defined, the Army would conduct site-specific NEPA analyses before any  
 19 construction would occur.

**Table 2–5 Garrison Facilities for 1,000 Combat Support Service Soldiers**

<b>Facility<sup>1</sup></b>	<b>Areal Extent (square feet)</b>
Brigade Offices	0
Battalion Offices	22,211
Company Offices	104,849
Organization Classroom	4,116
Ammunition Storage	572
Unit Storage Buildings	41,600
Family Housing	819,643
Barracks Space	147,760
Military Vehicle Parking	385,056
Vehicle Maintenance	25,186

Note:

1. Required facilities also include 151,660 gallons (574,100 liters) in vehicle fuel storage.

Source: Army 2008d

21 **2.2.2.3 Medium Combat Aviation Brigade**

22 An Army decision to station a medium CAB to Fort Lewis and YTC would require the construction  
 23 of a complex of cantonment facilities for the unit. The medium CAB complex would include  
 24 headquarters, barracks, and company operations, classrooms, vehicle maintenance facilities, and  
 25 housing and dining facilities. All cantonment facilities for the medium CAB would be sited on or  
 26 near Gray Army Airfield (GAAF) and the East Division Area, which are largely developed already  
 27 (**Figure 2–3**). **Table 2–6** shows the standard set of facilities for a medium CAB.

1 No new live-fire ranges or maneuver training areas are currently identified for the CAB. Live-fire  
 2 training would occur on ranges already present on Fort Lewis and YTC. Flight and joint military  
 3 training would occur on the existing Digital Multi-purpose Range Complex (DMPRC) at YTC.

**Table 2–6 Standard Medium Combat Aviation Brigade Cantonment Facilities Set**

<b>Facility<sup>1</sup></b>	<b>Areal Extent (square feet)</b>
Brigade Offices	17,656
Battalion Offices	63,305
Company Offices	302,623
Organization Classroom	22,925
Ammunition Storage	2,900+
Unit Storage Buildings	34,050
Family Housing	2,049,107
Barracks Space	346,602
Military Vehicle Parking	1,476,810
Vehicle Maintenance	84,365
Aircraft Maintenance Hanger	295,370

Note:

1. Required facilities also include 700,000+ gallons (2,600,000+ liters) in vehicle fuel storage.

Source: Army 2008d

4

### 5 **2.2.3 Training**

6 Training is an Army unit's number one priority, and commanders train their units to be combat ready  
 7 before deployment. "Battle Focus" is a concept used to derive training requirements, and units train  
 8 according to their Mission Essential Task Lists (METLs). These METLs are derived from wartime  
 9 operational plans (why they fight), specific (to unit) combat capabilities (how they fight), the  
 10 operational environment (where they fight), directed missions (what they must do), and any external  
 11 guidance. The Army trains Soldiers in individual skills, units on collective tasks, and different levels  
 12 of units through multi-echelon training. The Army trains as it fights, as a combined arms team.

13 The objectives of the Army's exercise training program are to:

- 14 • Train commanders, staffs, and units in a wartime operating environment;
- 15 • Sustain METL proficiency, melding combat, combat support, and combat service support
- 16 elements into a trained combined arms force;
- 17 • Assess operational readiness;
- 18 • Conduct joint training with other Services; and
- 19 • Provide combined training with other nations.

20 The Army conducts two types of exercise training at Fort Lewis and YTC: live-fire training and  
 21 maneuver training. Live-fire training is an essential component of Army training and of the  
 22 implementation of the proposed action. To be operationally effective, Soldiers must have the skills  
 23 and experience necessary to operate and maintain their weapons. Live-fire involves both munitions  
 24 and explosives that would be used in combat and non-explosive training rounds designed to meet  
 25 Soldiers' training needs. Soldiers must "train as they fight" to ensure their readiness for combat  
 26 situations.

1 All Soldiers qualify with their individual weapon (rifle or pistol) at least twice annually; crew-served  
2 weapons (machine guns and other automatic weapons) qualification varies by type of unit. This  
3 training is usually accomplished at the company level on fixed ranges described in TC 25–8.  
4 Weapons system training consists of a series of “tables” and occurs on large range complexes.

5 In addition, platoons, companies, and maneuver battalions must conduct collective live-fire training  
6 exercises on firing ranges to ensure they have rehearsed and coordinated battle procedures and are  
7 prepared to deploy to support wartime operations. Various weapons systems use different types of  
8 munitions. Where possible, some weapons systems use inert rounds, which have less environmental  
9 impact, as a substitute for the firing of live rounds.

10 Army units must conduct regular combined-arms training certifications to ensure that all of the units’  
11 capabilities can be integrated and synchronized to execute missions under stressful operational  
12 conditions. Maneuver training consists of collective training of the constituent units of the BCT  
13 working together to integrate their combined capabilities and skills. Modular BCTs must conduct  
14 and rehearse maneuver training at every echelon from platoon through brigade level to ensure they  
15 can accomplish their mission-critical tasks.

16 Training ranges and training lands are the Army’s classroom, and “Commanders take every  
17 opportunity to move Soldiers out into the field, to fire weapons, maneuver as a combined arms team,  
18 and incorporate protective measures against enemy actions” (Field Manual [FM] 7–1, Battle Focused  
19 Training).

### 20 **2.2.3.1 Implementation of the Record of Decision for the 2007 GTA FPEIS**

21 The primary modularized units stationed and training simultaneously at Fort Lewis and YTC under  
22 GTA would be the three SBCTs. The SBCTs would conduct semi-annual individual and crew-served  
23 weapons qualifications, in accordance with Army policy for maintaining trained and ready units.  
24 Crews, squads, and platoons would also conduct collective training qualifications at least once every  
25 six months. In addition, larger units at the company and battalion level that comprise each SBCT  
26 would conduct combined arms live-fire training exercises to ensure proper integration and  
27 synchronization of its different types of units in combat scenarios.

28 The 4,105 Soldiers of the SBCT are authorized annually more than 13 million blank and live training  
29 rounds of ammunition and explosives. **Table 2–7** shows the approximate distribution of the different  
30 types of ammunition that would be used to support the training of each SBCT. Together, the three  
31 SBCTs would be authorized about 39.3 million training rounds and explosives.

32 Maneuver training is a critical component of the SBCT collective training plan that trains units on  
33 how to synchronize the execution of battle tasks and shoot, move, and communicate on the  
34 battlefield. Large-scale maneuver training events (battalion and brigade levels) are often the capstone  
35 training exercises that are used to test and certify units for operational deployments abroad.  
36 Maneuver training builds on all of the individual skills that Soldiers possess and tests each echelon  
37 of command of the SBCT. Platoons, companies, and battalions of the SBCT as well as the entire  
38 SBCT itself conduct maneuvers to ensure unit proficiency at each successive level of command.  
39 Small unit training at the platoon and company levels, as well as some battalion level training,  
40 typically occur at Fort Lewis. Larger unit training at the battalion and brigade levels would typically  
41 occur at YTC, and this training often incorporates company level training. If available, a final  
42 rotation for unit evaluation and certification for deployment would occur at a combat training center  
43 such as the National Training Center (NTC) at Fort Irwin, California. **Table 2–8** depicts the size of  
44 the units of the SBCT and the maneuver training area each requires to conduct training to doctrinal

1 standard. TC 25–1 (Army 2004e) is the Army’s definitive source for defining maneuver training land  
 2 requirements. These requirements were staffed by the Army Training and Doctrine Command and  
 3 approved and accepted by Headquarters, Department of the Army (HQDA).

**Table 2–7 Annual Authorization for Training Ammunition for SBCTs, CSS Units, and Medium CABs**

Training Ammunition	Approximate Number Authorized		
	SBCT <sup>1</sup>	CSS Units <sup>2</sup>	Medium CAB
105MM (MGS)	3,186	0	0
120MM (mortar)	5,988	0	0
155MM (howitzer)	3,260	0	0
81MM (mortar)	2,040	0	0
60MM (mortar)	3,060	0	0
40MM (grenade)	213,152	51,925	39,022
50CAL	1,252,220	305,048	177,772
9MM	89,376	21,772	3,712
7.62MM	1,853,686	451,568	269,808
5.56MM	9,511,262	2,316,994	1,447,884
Boosters, Charges, Caps, Detonation cord	77,817	18,957	0
Grenades	51,309	12,499	22,139
Mines	465	0	50
Rocket, missile	133	0	8,006
Shotgun/rifle	12,222	2,977	0
Signal, smoke, flare, simulators	29,148	0	10,060
<b>Total</b>	<b>13,108,324</b>	<b>3,181,740</b>	<b>1,978,453</b>

Notes:

1. The rounds shown here are for a single SBCT. Three SBCTs training at Fort Lewis and YTC would be authorized a total of about 39.3 million rounds and explosives.
2. The annual authorization for training ammunition for the CSS units is an approximation. The actual authorization would depend on the combination of CSS units and number of CSS Soldiers eventually stationed at Fort Lewis.

Sources: Army 2008c, Ackerman 2009

**Table 2–8 SBCT Training Land Requirement**

Type of Unit	Soldiers	Vehicles	Land Requirement
Platoon	18 – 39	4 – 6	6x4 km <sup>1</sup>
Company Team	150 – 240	40 – 60	17x6 km
Battalion	800 – 1,200	300 – 450	20x14 km
Brigade Combat Team	4,000 – 5,200	1,000 – 1,400	50x50 km

Note:

1. km = kilometer

Source: Army 2004e

5 To support SBCT training, each platoon, company, battalion, and brigade must conduct maneuver  
 6 events to ensure the operational capabilities of the SBCT. Each platoon and company must train up  
 7 to five weeks per year to meet maneuver-training requirements. In addition, each battalion must  
 8 conduct semi-annual maneuvers that last approximately four to six weeks per year to certify its  
 9 subordinate units, and each brigade must conduct maneuvers every 12 to 18 months and in advance  
 10 of operational deployments, as required.  
 11

1 One or two SBCTs have been training at Fort Lewis and YTC since the Army fielded the first SBCT,  
2 which was stationed at Fort Lewis. With the stationing of the third SBCT and full implementation of  
3 the 2007 ROD for the GTA FPEIS, three SBCTs could be training at Fort Lewis and YTC annually.  
4 Training of three SBCTs simultaneously represents a 50-percent increase in the amount of maneuver  
5 and live-fire training conducted by two SBCTs simultaneously at Fort Lewis and YTC previously.

### 6 **2.2.3.2 Combat Service Support Units**

7 Typical CSS Logistics (Sustainment) units include transportation, quartermaster, and medical units  
8 and headquarters functions. CSS units are responsible for transporting of fuel, munitions, parts, food,  
9 medical supplies, and battlefield casualties during training and operational scenarios. These units  
10 maintain vehicles, recover destroyed or damaged vehicles, and provide medical care to injured  
11 Soldiers. CSS units use a wide variety of vehicles, based in part on the types of units they are  
12 supporting and the missions they need to accomplish. Wheeled vehicles are capable of on-road and  
13 off-road maneuver, but will more often travel on-road. The number of Soldiers in each unit varies  
14 with the function and mission of specific units. As many as 1,000 Soldiers spread across these units  
15 may be stationed at Fort Lewis and YTC in the future.

16 As described below, the Soldiers in each CSS unit must conduct live-fire training with individual and  
17 crew-served weapons. **Table 2–7** shows the approximate amount of training ammunition likely to be  
18 authorized annually for 1,000 CSS Soldiers.

#### 19 **2.2.3.2.1 Transportation Units**

20 Live-fire training consists of individual weapons and crew-served weapons practice and  
21 qualification. Individual and crew-served weapons training occurs on fixed ranges with firing points  
22 and targets contained within marked areas and boundaries. Soldiers and crews train and qualify on  
23 these weapons twice annually. Soldiers would also conduct convoy live-fire training and urban  
24 operations on an as-needed basis.

25 Maneuver training consists of individual training and collective training at the platoon and company  
26 levels. The primary training events are loading, transporting, and unloading cargo. Unit movements  
27 and logistical sites would be on roads, trails, and maneuver areas. Force protection training (for  
28 example, convoy defense and position perimeter defense) is integrated into all training missions.  
29 Units would conduct multi-day small unit (platoon and company) training exercises as often as five  
30 times per year at each echelon of training and would support combat maneuver elements and  
31 battalion and brigade training. Training impacts would also vary according to the size and weight of  
32 unit equipment and the types of activities the unit must engage in as part of its doctrinal operations.

#### 33 **2.2.3.2.2 Quartermaster Units**

34 Live-fire training consists of individual weapons and crew-served weapons practice and qualification  
35 and convoy live-fire training. Individual and crew-served weapons training occurs on fixed ranges  
36 with firing points and targets contained within marked areas and boundaries. Soldiers and crews train  
37 and qualify on these weapons twice annually. Soldiers would also conduct convoy live-fire training  
38 and urban operations on an as-needed basis.

39 Maneuver training consists of individual training and collective training at the platoon and company  
40 levels. Quartermaster units would deploy on multi-day training events up to five times per year at  
41 platoon and company echelons. These units would support combat maneuver unit training events  
42 when at home station. The primary training events are unloading, storing, and loading cargo.  
43 Training impacts would also vary according to the size and weight of the truck and cargo.

1       **2.2.3.2.3 Medical Units**

2       Live-fire training consists of individual weapons and crew-served weapons practice and qualification  
3       and convoy live-fire training. Individual and crew-served weapons training occurs on fixed ranges  
4       with firing points and targets contained within marked areas and boundaries. Soldiers and crews train  
5       and qualify on these weapons twice annually. Soldiers would also conduct convoy live-fire training  
6       and urban operations on an as-needed basis.

7       Maneuver training consists of individual training and collective training at the platoon and company  
8       levels. The primary training events are moving to or relocating medical operations, establishing unit  
9       medical operations, performing Combat Health Support, and defending the unit location. Unit  
10       movements and logistical sites would be on roads, trails, and maneuver areas.

11       Force protection training (for example, convoy defense and position perimeter defense) is integrated  
12       into all training missions. Units would support multi-day training exercises and provide attachment  
13       support for integrated training exercises on an as-needed basis. Typically, medical squads, platoons,  
14       or companies would deploy on multi-day training events up to five times per year at each unit  
15       echelon. These units would support combat maneuver elements and battalion and brigade training  
16       when at home station. Small units would train at the squad and platoon level to retain their training  
17       proficiency.

18       **2.2.3.2.4 Headquarters Units**

19       Live-fire training consists of individual weapons and crew-served weapons practice and  
20       qualification. Individual and crew-served weapons training occurs on fixed ranges with firing points  
21       and targets contained within marked areas and boundaries. Soldiers and crews train and qualify on  
22       these weapons twice annually. Soldiers would also conduct convoy live-fire training and urban  
23       operations on an as-needed basis. Weapons qualifications usually involve pistol, rifle, and limited  
24       crew-served weapons qualification with heavy machine guns (.50 caliber).

25       Maneuver training consists of maneuvering on trails and in maneuver areas, establishing Tactical  
26       Operations Centers (TOCs) at select locations, and establishing communications infrastructure to  
27       monitor events and control battlefield operations. Headquarters units would typically support from  
28       four to six maneuver rotations annually. Each of these rotations could involve two- to three-week  
29       deployments in support of joint training exercises, brigade training events, and battle command  
30       simulation exercises for command headquarters units. These simulation exercises test commanders  
31       and the proficiency of headquarters units using computer-simulated scenarios. Exercises take place  
32       in a replicated tactical scenario and involve minimal training maneuvers of vehicles in a tactical  
33       setting.

34       **2.2.3.3 Medium Combat Aviation Brigade**

35       Medium CAB training would occur at Fort Lewis and YTC. Aviation units must train to fight  
36       collectively with supported and supporting units in joint and combined arms environments.  
37       Likewise, to support or be supported efficiently by aviation forces, non-aviation forces need the  
38       requisite training. The aviation units conduct aviation gunnery tasks, such as door gunner  
39       qualification, diving fire engagements, and aviation armor engagements. They also would support  
40       maneuver-training rotations at YTC and support combined arms live-fire exercises (CALFEX) at  
41       Fort Lewis and YTC. Aviation training would occur at Fort Lewis and YTC and would be conducted  
42       to support integrated training exercises.

1 A critical aspect of the battle-focused concept is understanding the responsibility for and linkage  
2 between collective, mission-essential, crew, and individual tasks. **Section 2.2.1.4** describes the  
3 mission essential tasks for a medium CAB.

4 Training would involve execution of day-to-day support operations and routine joint military training  
5 at nearby training lands and ranges. Units perform primarily three modes of flight:

- 6 • Low-level flight is conducted at a selected altitude at which detection or observation of an  
7 aircraft is avoided or minimized. The route is preselected and conforms generally to a straight  
8 line and a constant air speed and indicated altitude.
- 9 • Terrain or Contour flight is at low altitude conforming generally to the contours of the Earth.  
10 This type of flight takes advantage of available cover and concealment in order to avoid  
11 observation or detection of the aircraft and/or its points of departure and landing.
- 12 • Nap-of-the-Earth (NOE) requires flight as close to the Earth's surface as vegetation or obstacles  
13 will permit. Air speed and altitude are varied as influenced by the terrain, weather, and enemy  
14 situation.

15 Units conduct aerial gunnery at the ranges with the Observation Helicopter OH-58D (Kiowa) and  
16 the AH-64 (Apache). Door gunnery live-fire training tasks would be conducted from the CH-47  
17 (Chinook) and UH-60 (Blackhawk). With the Chinook and Blackhawk helicopters, they conduct  
18 sling load operations (delivering munitions), assault landings, rappelling, etc., and conduct flight  
19 training under day, night, and night-vision goggle conditions. Field exercises involve establishing  
20 Forward Area Rearming and Refueling Points (FARRPs) and tactical areas for field environments.  
21 Weaponry, which is used primarily for Force Protection perimeter guarding, includes the Mark 19,  
22 40-mm grenade launching machine gun, (MK19), M2 .50 caliber machine gun, M240B machine  
23 gun, Squad Automatic Weapon (SAW), and personal weapons (i.e., M16 rifle, 9-mm pistol, and  
24 .45 caliber pistol). Gunnery training is conducted at least twice per year, but training is conducted  
25 throughout the year, to include personal weapon training as well as aircraft gunnery. Field exercises  
26 could be combined with gunnery training. Training includes convoy to a designated site, perimeter  
27 security, FARRP Operations, and Forward Tactical Operations. **Table 2-7** shows the approximate  
28 amount of training ammunition authorized annually for a medium CAB.

29 The CAB logistics and command and control elements include ground unit vehicles from the Family  
30 of Medium Tactical Vehicle (FMTV), Heavy Expanded Mobility Tactical Truck (HEMTT),  
31 HMMWV, and wheeled support element vehicles.

32 A typical medium CAB logs about 250 flight hours per aircraft per year, which equals about 29,000  
33 flight hours annually for the entire brigade. Approximately 27,550 of these hours would be flown in  
34 training at Fort Lewis (Clayton 2009a). The addition of these hours would approximately double the  
35 current flight training hours conducted at Fort Lewis (Rodriguez 2009).

36 Stationing a medium CAB at Fort Lewis also would increase the number of takeoffs and landings at  
37 GAAF. A typical medium CAB would perform approximately 55,100 takeoffs and landings  
38 annually. The addition of the medium CAB would increase the overall number of takeoffs and  
39 landings at GAAF by 344 percent (Clayton 2009b).

40 Training a medium CAB at YTC also would increase the number of takeoffs and landings at  
41 Vagabond Army Heliport (VAH). A typical medium CAB would perform approximately  
42 55,100 takeoffs and landings annually. The addition of the medium CAB would double the overall  
43 number of takeoffs and landings at VAH from approximately 2,600 to 5,500 (Clayton 2009a).

### 2.2.3.4 Training Facilities and Range Construction/Upgrades

The implementation of Army Transformation has required the Army to overhaul and modernize its training lands and training facilities infrastructure. TC 25–8 describes the standard designs and requirements of the Army’s Sustainable Range Program for training modular Army units to standard. A suite of ranges, as discussed in the GTA PEIS, is required to support Army BCTs and to ensure that they can meet all pre-deployment training requirements.

Live-fire training is an essential component of Army training. Fort Lewis and YTC have approximately 80 ranges and facilities in their range inventory for use by all units that train there. The range types span from individual weapons qualifications to advanced combined arms events that include heavy artillery live-fire. To be operationally effective, Soldiers must have the skills and experience necessary to operate and maintain their weapons. Live-fire training involves both munitions and explosives that would be used in combat and non-explosive training rounds designed to meet Soldiers’ training needs. All Soldiers qualify with their individual weapon (rifle or pistol) at least twice annually. Crew-served weapons (machine guns and other automatic weapons) qualification varies by type of unit. This training is usually accomplished at the company level on fixed ranges described in TC 25–8. Weapons system training consists of a series of “tables” and occurs on large range complexes.

In addition, platoons, companies, and battalions of BCTs must conduct collective live-fire training exercises on firing ranges to ensure they have rehearsed and coordinated battle procedures and are prepared to deploy to support wartime operations. Various weapons systems use different types of munitions. Where possible, weapons systems use inert training rounds, which have less environmental impact, as a substitute for the firing of live rounds.

Every range on which live-fire exercises are conducted has an associated surface danger zone (SDZ), also called a “range safety fan,” which is active whenever that range is in use. The SDZ comprises the entire surface area on which munitions could possibly land, taking into account the whole spectrum of stray rounds. When Fort Lewis and YTC ranges are in use, their SDZs often cause extensive maneuver areas to be unavailable. The proposed action would increase use of live-fire ranges, which would in turn increase the frequency of activation of SDZs.

#### 2.2.3.4.1 Stryker Brigade Combat Team and Range Facilities

The proposed action would include constructing and/or upgrading several ranges and range facilities at Fort Lewis and YTC required to meet training readiness standards for three SBCTs training simultaneously. Existing ranges to be upgraded and newly constructed ranges/range facilities at Fort Lewis are shown on **Table 2–4**. With the simultaneous training of three SBCTs, use of existing ranges also would increase.

## 2.2.4 Screening Criteria Used to Identify Range of Potential Construction Locations

### 2.2.4.1 Military Construction Planning Considerations:

Reasonable alternatives must:

- Include sites that have the space capable to construct the facilities within reasonable cost parameters;
- Provide unit cohesiveness;
- Conform to the Master Plan;
- Keep facilities collocated with each other;

- Consider Fort Lewis’ sustainability principles (see **Section 1.2.2**); and
- Consider feasibility of timely completion of Military Construction (MILCON).

#### 2.2.4.2 *Land/Environmental Constraints*

Reasonable alternatives must consider:

- Topography (buildable space and ability to train);
- Wetlands;
- Threatened and endangered species and/or habitat;
- Cultural resources;
- Contaminated sites under the management of the Installation Restoration Program;
- Off-limits training/restriction areas;
- Unexploded ordnance (UXO); and
- Impacts to existing infrastructure and maneuver lands.

**Figure 2–6** depicts known major land and/or environmental constraints for future development on the Fort Lewis cantonment area. **Figure 2–7** shows the environmental constraints that Soldiers training on Fort Lewis must follow, and **Figure 2–8** shows the constraints that Soldiers training on YTC must follow.

### 2.2.5 Fort Lewis and YTC Area Development Plans

Fort Lewis has a Master Plan dating from 1995. The plan describes 11 different uses on Fort Lewis and 11 slightly different uses for YTC. The plan includes objectives and planning factors and makes general comments on present and future land use in different areas. It does not include ADPs or have the level of detail contained in the ADPs.

The installation Master Plans for both Fort Lewis and YTC are being revised to accommodate the range of changes that either have occurred due to previous actions or would occur because of the proposed action. These revisions respond to the need for potentially significant changes to traffic (transit) infrastructure and flow, Family housing densities and construction, Soldier and Family “quality of life” attributes, commercial and retail development and offerings, and mission capability enhancements. To facilitate planning, Fort Lewis and YTC cantonment areas have been divided into 14 areas. Each area has a specific ADP, which is the primary planning tool for the update of the overall Master Plans.

The 14 ADPs are:

1. North Fort
2. Historic Downtown
3. East Division
4. Madigan
5. Old Madigan
6. Hillside
7. Jackson
8. Gray Army Airfield
9. Miller Hill
10. Logistics Center

- 1 11. Greene Park
- 2 12. 3<sup>rd</sup> Brigade
- 3 13. American Lake
- 4 14. Yakima Training Center

#### 5 **2.2.5.1 North Fort ADP**

6 The North Fort ADP encompasses most of the developed portion of North Fort (**Figure 2–9**). The  
7 ADP builds upon and strengthens the pattern of development the Army has already begun in the area  
8 (Urban Collaborative 2009b). It includes a mixed-use town center utilizing a combination of  
9 greenspace, barracks, shopfront retail, and community support facilities. The town center will  
10 provide people with walkable access to basic shopping, dining, fitness, medical, and recreational  
11 facilities. In addition, the town center will be reinforced by the compact development of Company  
12 Operations Facilities (COFs), headquarters facilities, and maintenance facilities located within  
13 walking distance of one another and the town center. Barracks housing for Soldiers would be within  
14 a ten minute walk of the town center and the Soldiers' places of work, which would improve Soldier  
15 health and reduce the costs of driving. Finally, the existing Operational Readiness Training Center  
16 (ORTC) area would be revitalized to reduce its footprint.

17 Few constraints inhibit development within the North Fort ADP area (Urban Collaborative 2008f).  
18 The ADP area is an old World War I to pre-World War II artillery and mortar range and requires  
19 special awareness measures during construction. Additional constraints include a landfill to the south  
20 and southwest of the area. Finally, several small Installation Restoration Program (IRP) sites are  
21 located throughout the North Fort ADP area. A north/south GAAF runway is located south of the  
22 North Fort ADP area. The Accident Potential Zone extends northward from the runway into a  
23 portion of the ADP area. Certain types of development are restricted in this area and must be  
24 evaluated before siting.

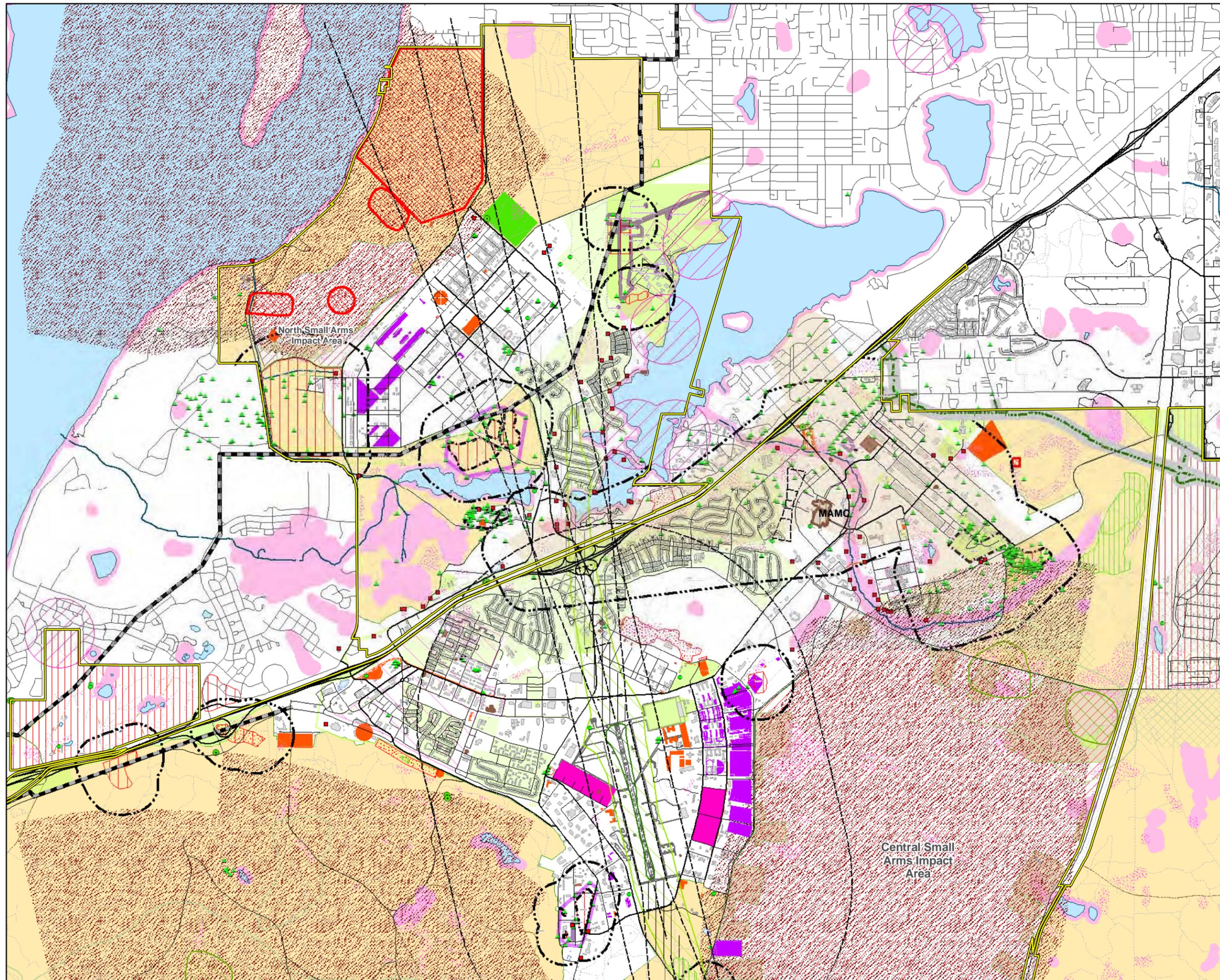
#### 25 **2.2.5.2 Historic Downtown ADP**

26 The Historic Downtown ADP encompasses the installation's central core (**Figure 2–9**). The ADP  
27 focuses on redevelopment of Pendleton Avenue into a multi-way boulevard and the development of  
28 the land surrounding Pendleton into a lively historic downtown with community support facilities,  
29 such as retail, housing, training, and office functions (Urban Collaborative 2009). It improves the  
30 existing development plans for the Post Exchange (PX) and commissary additions. Elements of the  
31 existing historic district, including the street system, planned open spaces, and multi-story, narrow  
32 buildings would be preserved. Overall, the ADP is historically sensitive, maximizes views, provides  
33 focal point terminations, and provides Fort Lewis with a true downtown center of activity.

34 The Fort Lewis Garrison historic district is located within the Historic Downtown ADP area. Other  
35 than the NHPA restrictions discussed in **Section 3.6.3**, very few constraints exist within this ADP  
36 area (Urban Collaborative 2008c).

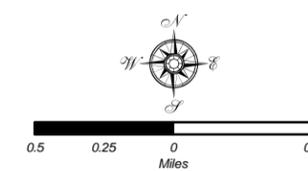
#### 37 **2.2.5.3 East Division ADP**

38 The East Division ADP encompasses the World War II troop housing area on the east side of GAAF  
39 and south of Pendleton Avenue (**Figure 2–9**). The ADP focuses on the redevelopment of this  
40 housing area to a modern barracks and company operations area (Urban Collaborative 2009). It  
41 provides space for two large brigades, complete with six battalions, ten companies and their  
42 associated maintenance facilities, and more than 75 acres of motor pool hardstand. The barracks  
43 space would accommodate 3,330 Soldiers.



**Legend**

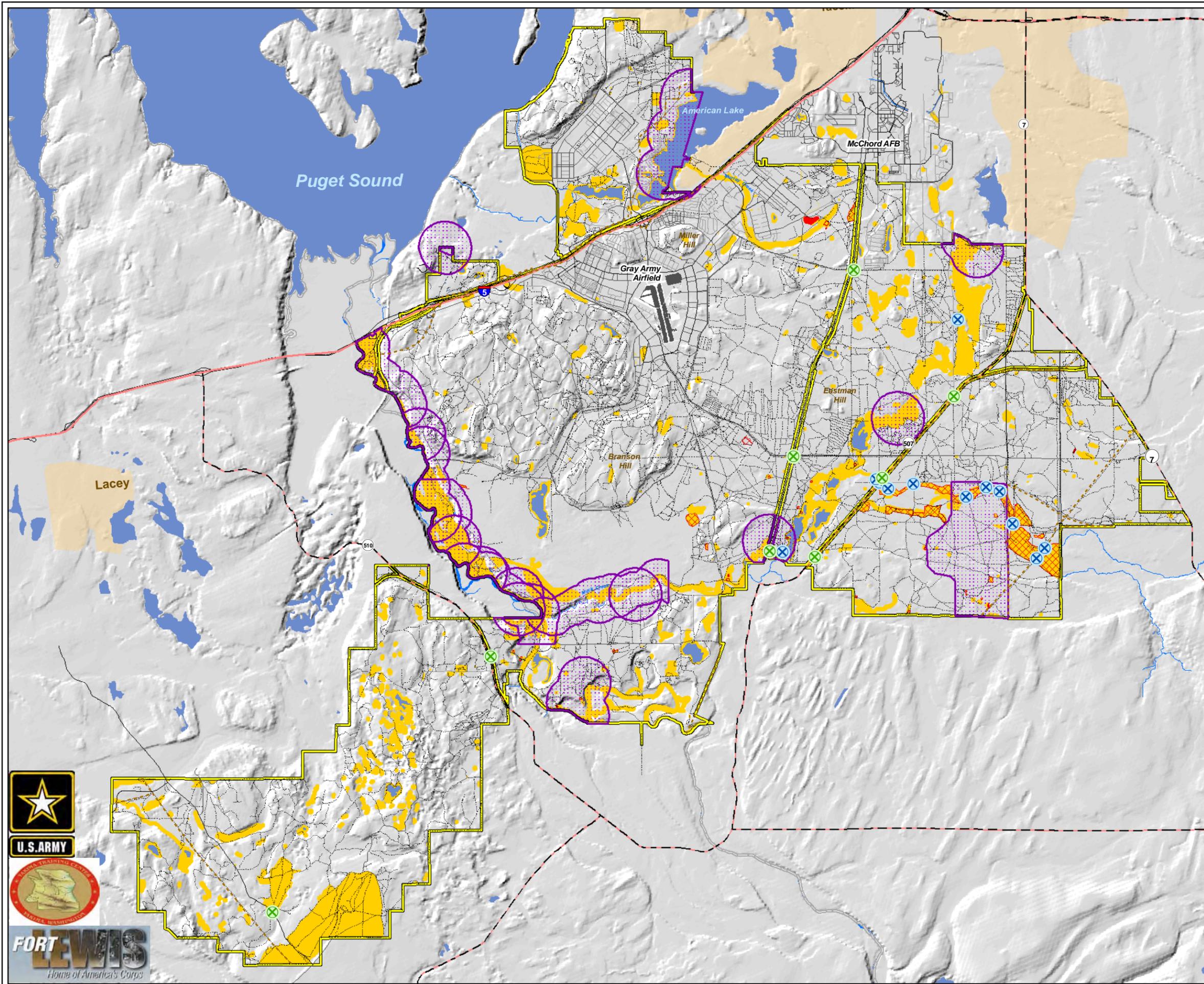
- Alternative 1
  - Alternative 2
  - Alternative 3
  - Alternative 4
- SAFETY ZONE**
- Bldg 4061 Hazardous Chemical Storage Area
  - High Tension Power Line
  - Airfield Linear Safety Feature Line
  - APZ II
  - APZ I
  - CLEAR ZONE
- UNDERGROUND HAZARDS/LIMITS**
- Code 3 Tank Locations
  - Wellhead Protection Area
  - Underground Storage Tank (permitted)
  - Logistics Center NPL Site (ground water contamination plume)
- ABOVEGROUND LIMITING FACTORS**
- Cell Tower
  - Well (Drinking Water)
  - Well (Monitoring)
  - Borrow Pit Area
  - Outgrate Area (Housing, Schools)
  - Outgrate Area
  - Surface Danger Zone Area
  - Live Fire Ranges
  - Training Areas
  - EQSD Arcs
  - Stormwater Stilling Basin
  - Proposed Cross Base Highway
- Installation Compatible Use Zone - 1995 (Noise Contours)**
- Maximum Level Decibel Quantity
- 62
  - 65
  - 70
  - 75
- SURFACE HAZARDOUS & TOXIC DISPOSAL AREAS**
- Stormwater Outfall Point
- CERCLA Sites**
- Further Investigation and/or Action Required
  - Remedy Implemented; Maintenance of Institutional Controls Only
  - Remaining Required Action
  - Remedy Implemented; Long-Term Monitoring & Maintenance of Institutional Controls Only
  - Remaining Required Action
  - Institutional Controls Only
  - Remaining Required Action
  - No Further Action Required (No Land Use Restrictions)
- Institutional Control Extent**
- Land use planning institutional control(s) required
  - Groundwater use planning institutional controls required
- RCRA Sites**
- Further Investigation and/or Action Required
  - Former Range in Active Training Area
  - Landfill
- NATURAL RESOURCES**
- Bald Eagle Mgt Zone (400 m buffer of nest)
  - Historic District Area
  - Oak Habitat
  - Wetland w/50m Buffer
- CULTURAL AREAS - Not shown, consult with CR Manager.**



**FORT LEWIS GTA EIS**

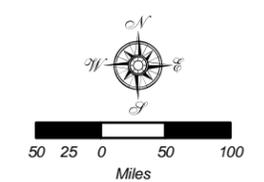
*Figure 2-6  
Major Land and Environmental Constraints  
on Future Development in the Fort Lewis  
Cantonment Area*

ANALYSIS AREA: Thurston & Pierce Counties, Washington	
Date: 7/14/2009	File: FortLewis\FL_Constraint\MPEO.mxd
Prepared By: JG	Layout: FL_Constraint\MPEO.pdf



**Legend**

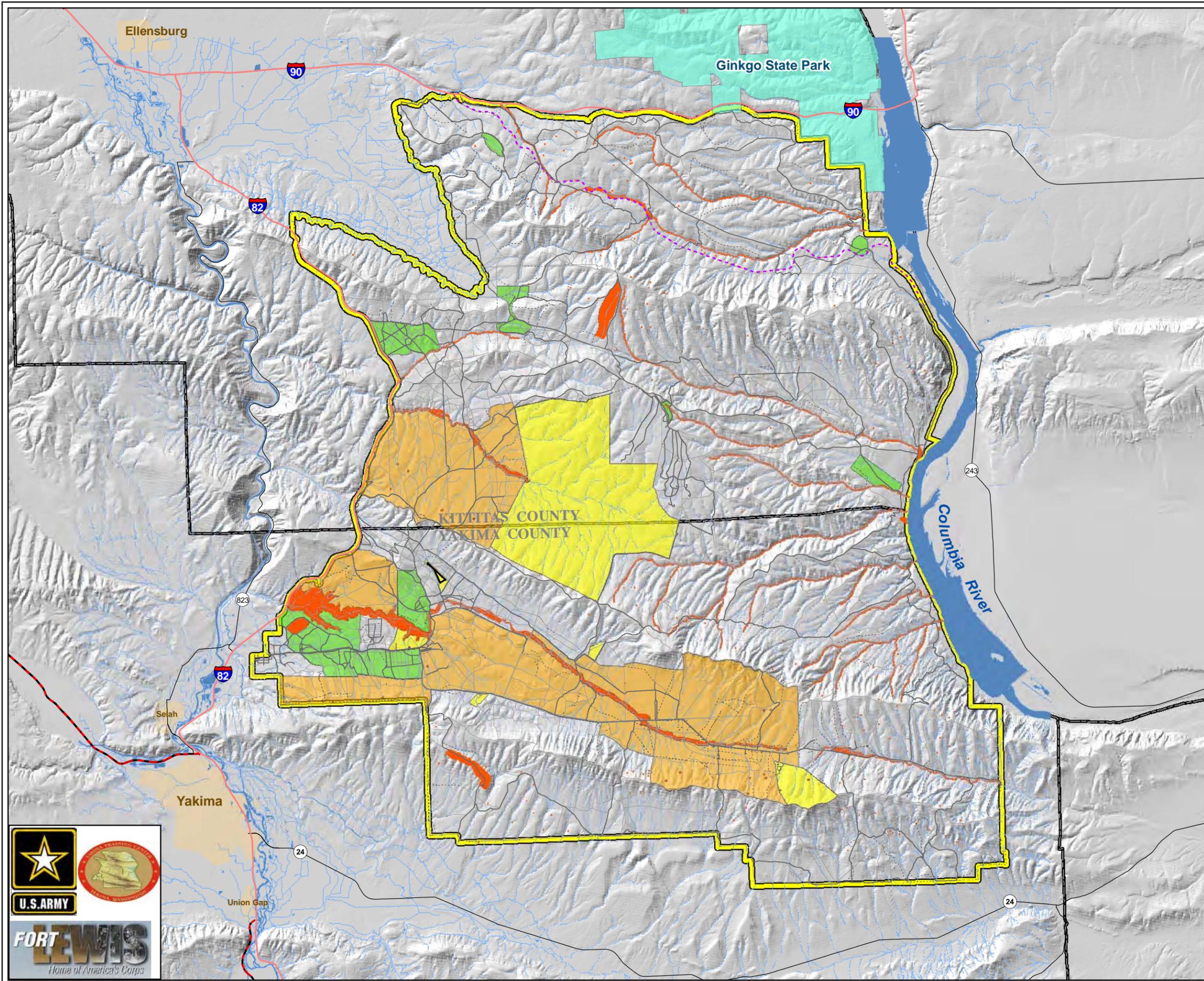
- Approved Tracked Vehicle Crossing
- Approved Vehicle Stream Crossing / Forging Site
- Underground Utility
- Seasonal Constraint
- Interstate Highway
- State Route
- Fort Lewis Roads**
- Primary
- Secondary
- Tertiary
- Unpaved
- Water Body
- Fort Lewis Boundary
- No Access Authorized
- Seibert Staked Area / Foot Traffic Only
- No Digging, Bivouacking, or Off-Road Vehicle Activities Authorized
- River / Stream
- County Boundary
- Municipal Area



**FORT LEWIS GTA EIS**

*Figure 2-7  
Major Land and Environmental Constraints  
on Training Areas at Fort Lewis*

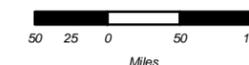
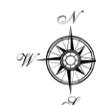
ANALYSIS AREA: Thurston & Pierce Counties, Washington	
Date: 7/14/2009	File: FortLewisFL_ECM.mxd
Prepared By: JG	Layout: FL_ECM.pdf



**Legend**

- Interstate Highway
- State Route
- Federal Highway
- Selah Airstrip
- YTC Roads**
- Secondary / Light Duty
- Unimproved
- Trail
- John Wayne Trail
- Water
- Perennial Stream
- Intermittent Stream
- Sensitive Environmental Area \*
- Sage Grouse Protection Area
- Bivouac Area
- Restricted Area
- Ginkgo State Park
- Municipal Area
- Yakima Training Center Boundary
- County Boundary

\* Sensitive Environmental Areas include Wetlands, Riparian Zones, Springs, and Major Streams



**FORT LEWIS GTA EIS**

*Figure 2-8  
Major Land and Environmental  
Constraints on Training Areas at YTC*

ANALYSIS AREA: Yakima & Kittitas Counties, Washington

Date: 7/14/2009

File: FortLewisYAK\_Constraint.mxd

Prepared By: JG

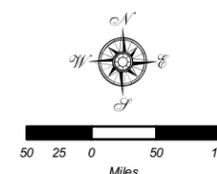
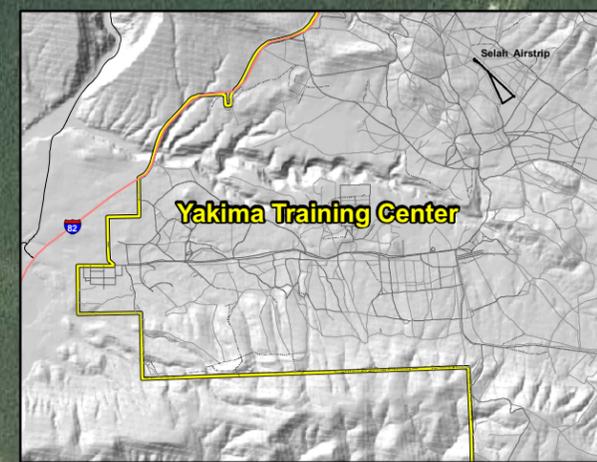
Layout: YAK\_Constraint.pdf





**Legend**

- Area Development Plan Boundary
- Water Body



**FORT LEWIS GTA EIS**

*Figure 2-9  
Distribution of the 14 Area Development  
Plans for Fort Lewis and YTC*

ANALYSIS AREA: Thurston & Pierce Counties, Washington	
Date: 7/14/2009	File: FortLewisADP.mxd
Prepared By: JG	Layout: ADP.pdf

1 Very few constraints exist in the East Division ADP area (Urban Collaborative 2008a). These  
2 include an old munitions area located northeast of the area and several IRP sites located between  
3 GAAF and 2<sup>nd</sup> Division Drive.

#### 4 **2.2.5.4 Madigan ADP**

5 The Madigan ADP is centered on Madigan Army Medical Center (**Figure 2–9**). The ADP focuses on  
6 the Madigan Army Medical Center (MAMC) and new requirements for Warrior Transition Unit  
7 (WTU) facilities, an addition to the women’s clinic, additional child development centers, and  
8 additional parking (Urban Collaborative 2009b). To accommodate these requirements, the ADP  
9 creates an east side town center coupled with improved traffic patterns and clear pedestrian and  
10 vehicular connections among the facilities.

11 Constraints in the Madigan ADP area include wellhead protection areas, oak preserves, wetlands,  
12 and airfield criteria (Urban Collaborative 2008e). In addition, no new drinking water wells may be  
13 drilled in the area, because it is an investigation site for an NPL plume of contaminated groundwater.  
14 An emergency trauma helipad exists on the MAMC site east of the Madigan ADP. The clear zones  
15 and imaginary surfaces associated with the helipad are situated in the east portion of the ADP. Any  
16 development in this area must account for these restrictions. In addition, a large site that contains fill  
17 from the over-excavation of the MAMC is located on the MAMC site. Construction in this area  
18 would require investigation and possible special measures to achieve a suitable soil substrate.  
19 MAMC also has an emergency septic system located underground in a field west of the facility.

#### 20 **2.2.5.5 Old Madigan ADP**

21 The Old Madigan ADP encompasses the area southeast of MAMC that is bounded by Jackson  
22 Avenue/Madigan Bypass to the north, by Y Road to the south and west, and by McKinley Road to  
23 the east (**Figure 2–9**). The ADP focuses on two components: construction of a Special Operations  
24 Forces (SOF) campus located east of the existing SOF compound and a replacement housing area  
25 located south of the Old Madigan facilities (Urban Collaborative 2009b). The housing area, which  
26 would be organized around a community center located in a central green, would be easily accessed  
27 by a clear and logical street grid system.

28 The main development constraints within the ADP area are wetlands, historic facilities, and the  
29 leased housing area (Urban Collaborative 2008g). Wetlands and marshes are associated with Murray  
30 Creek. The ADP area contains the former hospital (Old Madigan) and associated outbuildings that  
31 are eligible for listing on the Washington Heritage Register. The Madigan neighborhood has been  
32 leased for housing uses through a privatized housing initiative that Fort Lewis created with  
33 EQR/Lincoln. The area to the north and east of the ADP area is an investigation site for the NPL  
34 plume of contaminated groundwater. It is possible that the contamination could spread west toward  
35 the Old Madigan area during the cleanup process, which should be complete before any housing is  
36 placed in this area.

#### 37 **2.2.5.6 Hillside ADP**

38 The Hillside ADP encompasses housing areas located to the west of MAMC, known as New Hillside  
39 and Evergreen (**Figure 2–9**). The ADP focuses on redeveloping these housing areas into a more  
40 sustainable neighborhood model. The area would have a central park that will create a safe, lively,  
41 central green for the neighborhood and smaller neighborhood parks. Each single family home or  
42 rowhouse would be within a three minute walk of a neighborhood park (Urban Collaborative 2009b).  
43 The ADP would double the density of housing units and improve land use efficiency.

1 There are minimal constraints for most of the Hillside ADP area (Urban Collaborative 2008b). Most  
2 of the area is an investigation site for the Logistics Center NPL plume of contaminated groundwater.  
3 No drinking wells are planned for the investigation site. A former skeet range is located in the  
4 northwest corner. This area requires further remediation and cannot be developed. An emergency  
5 trauma helipad is located on the MAMC site east of the ADP. The clear zones and imaginary  
6 surfaces associated with the helipad are situated in the east portion of the ADP. Any development in  
7 this area must account for these restrictions. In addition, the oak preserve area must not be  
8 developed, and consideration must be given to eagle habitat areas within the ADP.

#### 9 **2.2.5.7 Jackson ADP**

10 The Jackson ADP addresses the future development of the area south of Jackson Avenue and  
11 southwest of MAMC (**Figure 2-9**). This area is being developed as a single Soldier housing and  
12 company operations area. Facilities include barracks, a chapel, medical facilities, and company  
13 operations and administrative facilities (Urban Collaborative 2009b). Overall, this ADP creates a  
14 neighborhood where people can live, eat, worship, exercise, and get to the doctor or dentist in the  
15 north and work in the south.

16 The Jackson ADP area is not heavily constrained by environmental contaminants (Urban  
17 Collaborative 2008d). Most of the area was once the site of the Evergreen firing range. However, all  
18 remediation has been completed and the old environmental cleanup sites have been closed. Two  
19 locations have potential groundwater contamination: the area to the southwest (which was the former  
20 landfill) and the area to the north (near the Logistics Center). In both of these locations, drinking  
21 water wells are discouraged and will require EPA approval if considered for construction. Therefore,  
22 drinking water supply must be considered due to limitations on well locations. In addition, the  
23 wooded areas and marshes require special attention during construction in this ADP, because these  
24 are sensitive resources.

#### 25 **2.2.5.8 Gray Army Airfield ADP**

26 The GAAF ADP focuses on GAAF and its surrounding flightline facilities (**Figure 2-9**). Although  
27 the overall structure and circulation pattern of GAAF would remain unchanged, the ADP addresses  
28 potential future missions for GAAF. The 4-6 Air Cavalry Squadron would be relocated to the east  
29 side of the airfield freeing up space on the west side for a medium CAB (Urban Collaborative  
30 2009b). Along with some limited relocations of other facilities, an option exists to extend the runway  
31 by 3,000 feet to the south and provide parking for nine C-5s along that extension.

32 GAAF and the surrounding areas are largely developed (HDR 2008c). Within GAAF itself, there are  
33 very limited opportunities for additional development. Immediately outside the airfield fence line,  
34 there are some areas for potential development; however, much of this area is the required clear zone  
35 under the flight path. Constraints to development in the area of GAAF primarily relate to aircraft  
36 operations. Existing and future development must be compatible with airfield operations. Factors  
37 influencing development decisions include clear zones and other imaginary surfaces required to  
38 safeguard against aircraft accidents, noise, and other safety restrictions.

#### 39 **2.2.5.9 Miller Hill ADP**

40 The Miller Hill ADP encompasses the area around and including the prominent topographical feature  
41 on Fort Lewis, known as Miller Hill (**Figure 2-9**). The ADP preserves Miller Hill itself because it is  
42 one of the most valued natural areas on the installation (Urban Collaborative 2009b). Development  
43 would create a mixed-use town center focused on the Stone Education Complex and adjoining

1 facilities. The network of streets would be realigned to a symmetrical grid aligned with Pendleton  
2 Avenue to the south, which would allow a direct connection to the Historic Downtown area. In  
3 addition, a physical fitness trail that runs through the Miller Hill natural area is being developed.

4 Constraints within the Miller Hill area are naturally influenced and manmade (HDR 2008b). Natural  
5 constraints are limited to Miller Hill itself. Because of the existing topography, development on  
6 Miller Hill would be very costly. Passive recreational uses and supporting facilities constitute the  
7 most feasible uses. Man-made constraints within the ADP boundary include contaminated soils,  
8 airfield constraints, and existing wells. The constraints from Miller Hill's proximity to GAAF  
9 include clear zone and height restriction requirements. These constraints are concentrated on the  
10 west end of the ADP boundary and affect development in both zones.

#### 11 **2.2.5.10 Logistics Center ADP**

12 The Logistics Center ADP encompasses more than 620 acres (**Figure 2-9**), which house most of  
13 Fort Lewis' maintenance, transportation, deployment, and storage functions in mainly World War II  
14 era warehouses and administrative buildings. A significant rail connection enters from the east and  
15 splits out in the mobilization yard and several other tracks throughout the Logistics Center. The  
16 primary truck access control point is on the northern end of the center via 80<sup>th</sup> Street. The ADP  
17 preserves the existing street grid and provides an optimal layout for key facilities (Urban  
18 Collaborative 2009b). It also improves traffic flow and provides a separate gate for commercial truck  
19 traffic delivering supplies to the Army Materiel Command facilities. Finally, it provides for a  
20 possible future connection to McChord AFB as joint basing progresses.

21 Constraints within the Logistics Center ADP area are both naturally influenced and manmade (HDR  
22 2008a). Natural constraints include the wetlands south of the Logistics Center and Murray Creek to  
23 the west. These natural constraints limit expansion availability in their relative areas. Man-made  
24 constraints within the ADP boundary include contaminated soils, the Defense Reutilization and  
25 Marketing Office (DRMO) yard, and the old landfill. Contaminated soils underlie the entire area.  
26 Any potential residential use should be restricted from these contaminated areas. Therefore, the best  
27 use for this area is to continue as industrial use.

#### 28 **2.2.5.11 Greene Park ADP**

29 The Greene Park ADP focuses on the largely natural area located between North Fort and the Main  
30 Post (**Figure 2-9**). Most of the area is used for training exercises, including medical, air assault,  
31 water operations, and rappelling. The key facility in the area is the Fort Lewis Military Museum, and  
32 the ADP preserves the area around the museum for its potential future expansion. As a result, the  
33 ADP minimizes development and preserves most of the Greene Park area as range and training land  
34 (Urban Collaborative 2009b). Key constraints in the Greene Park ADP area include a landfill, a high-  
35 tension power line, and historic buildings (Urban Collaborative 2009a).

#### 36 **2.2.5.12 3<sup>rd</sup> Brigade ADP**

37 The 3<sup>rd</sup> Brigade ADP encompasses one of Fort Lewis' key brigade operations areas — the area west  
38 of GAAF (**Figure 2-9**). The ADP focuses on redevelopment of the area with properly sized facilities  
39 in which Soldiers of an SBCT can live, work, and train (Urban Collaborative 2009b). It also provides  
40 relief for the traffic problems that plague the area. One feature of the ADP is a 0.9-mile long physical  
41 training trail that will reduce the need to shut down the road network at key traffic hours to  
42 accommodate physical training. This trail also would serve as a key pedestrian connector allowing  
43 Soldiers access to all of the facilities in the area.

1 Few constraints exist in the 3<sup>rd</sup> Brigade ADP area (Urban Collaborative 2009c). These include an old  
2 landfill and IRP sites located throughout the area.

### 3 **2.2.5.13 American Lake ADP**

4 The American Lake ADP would create a unified housing and community area out of the partially  
5 developed, partially natural area between the Main Post and North Fort east of 41<sup>st</sup> Division Drive  
6 (**Figure 2–9**). It would continue development of housing in the area, including a waterfront  
7 development with a small town center south of American Lake (Urban Collaborative 2009b). All of  
8 the housing areas and community support facilities would be connected by a greenway path that  
9 would run along the edge of the lake. Housing developments in this ADP area would no longer be  
10 isolated and undesirable. Key constraints in the American Lake area consist of wetland buffers  
11 (Urban Collaborative 2009a).

### 12 **2.2.5.14 Yakima Training Center ADP**

13 The YTC ADP encompasses the entire cantonment area at YTC (**Figure 2–9**). The ADP allows for  
14 future expansion of the cantonment area in support of YTC’s mission (Urban Collaborative 2009b).  
15 Although the ADP includes the development of a tract of land on the east end of the cantonment area  
16 to accommodate up to four new BCTs, this development is not contemplated in the near future. For  
17 the foreseeable future, the cantonment area at YTC would continue to support SBCTs and other units  
18 that travel to YTC temporarily for training. In addition, a number of old temporary buildings (meant  
19 to be in place less than five years) continue to be used at YTC; however, some of these buildings  
20 have greatly exceeded their useful life. These facilities require additional maintenance are energy-  
21 inefficient, and need to be demolished and replaced (Urban Collaborative 2008h).

## 22 **2.3 ALTERNATIVES CONSIDERED IN DETAIL**

### 23 **2.3.1 Alternative 1 — No Action Alternative**

24 Alternative 1 serves as the baseline condition for analysis and includes those stationing decisions that  
25 have already been made by the Army, including stationing actions recommended by the 2005 Base  
26 Realignment and Closure (BRAC) Commission, as well as Army GDPR actions that took place prior  
27 to 2009. The addition of upgraded SBCT facilities and approximately 1,880 GTA Soldiers, the  
28 potential stationing of CSS units, and the potential stationing of a medium CAB would not be  
29 implemented. Force structure, assigned personnel, and equipment would remain as they exist at Fort  
30 Lewis and YTC.

31 Although none of the facilities required for the new and augmented units under the GTA ROD, the  
32 potential CSS units, or the potential medium CAB would be constructed under this Alternative, a  
33 substantial number of other projects would be constructed. Fort Lewis is undergoing substantial  
34 modernization of its facilities, and many projects have been constructed recently, are being  
35 constructed, or are planned for construction. Projects include replacing outdated buildings and  
36 improving infrastructure. These actions have previously been evaluated and are not further analyzed  
37 under this EIS.

38 A variety of known projects is included in Alternative 1. Nonetheless, additional and yet unidentified  
39 facility construction and training activities may be required in the future to support current activities.  
40 These projects would undergo separate NEPA review before implementation in accordance with  
41 regulations and current practice.

1 Analysis of Alternative 1 is required by CEQ and Army NEPA-implementing regulations. It is,  
2 however, not a feasible alternative. Alternative 1 does not meet the Purpose and Need for the  
3 proposed action. It does not meet the current and future strategic security and defense requirements  
4 of the Nation. The Army's decision to increase the size of the force has been made, after NEPA  
5 review, and is reflected in the 2007 GTA FPEIS. That decision included the study of the possible  
6 locations within the Army for stationing of the new units. Fort Lewis was chosen as a stationing  
7 location as part of that process. Likewise, this EIS provides the data and analysis required before the  
8 Army determines whether to station additional CSS units or a medium CAB at Fort Lewis.  
9 Alternative 1 provides a benchmark to compare the magnitude of the environmental effects of the  
10 proposed action and the other Alternatives.

### 11 **2.3.1.1 Force Structure**

12 Force structure and population are based on the best information currently available. The number of  
13 Soldiers assigned to Fort Lewis, however, may vary as frequently as daily based on unit movements,  
14 personnel actions, and other factors. The Army is in a constant state of flux (for example,  
15 deployments, stationing, modularity, conversion, activation), and population changes are to be  
16 expected. Therefore, the baseline for Alternative 1 considers the force structure that will be in place  
17 at the end of FY 2009 (**Table 2-1**).

18 This baseline establishes a measure to compare Alternative 1 with the proposed action. The baseline  
19 is realistic in terms of overall troop levels and training needs. The stationing of units, however, is  
20 dynamic, and the description of the force structure described here might not depict the actual  
21 conditions and related training schedules at Fort Lewis and YTC at any given time. Additionally,  
22 deployed troops assigned to Fort Lewis are not physically located on the post or training at YTC at a  
23 particular point in time. Despite these deployments, some Families of deployed Soldiers continue to  
24 be supported by Fort Lewis and civilian employees and contractor personnel who continue working  
25 at the installation. Under Alternative 1, the major units identified in **Section 1.2** would continue to be  
26 assigned to Fort Lewis.

27 Equipment currently assigned to Fort Lewis and YTC would continue to be assigned to the  
28 installations under this Alternative. This equipment includes vehicles, engineering equipment, aerial  
29 systems, and various weapons. **Table 2-9** identifies the equipment currently assigned to Fort Lewis  
30 and YTC, the mission for each piece, and the type of training for which each piece is used.

### 31 **2.3.1.1 Construction**

32 Under Alternative 1, maintenance, repair, and replacement of Fort Lewis's existing facilities and  
33 infrastructure would continue. Currently, Fort Lewis is undergoing substantial modernization of its  
34 facilities, and many projects have been constructed recently, are being constructed, or are planned for  
35 construction. They include replacing outdated buildings and improving infrastructure. **Appendix A**  
36 identifies the projects planned for construction in the FY 2010 to FY 2015 period, and **Figure 2-3**  
37 shows the distribution of these projects. These projects are all included in Alternative 1.

38 The Army has conducted environmental review under NEPA for the planned and under-construction  
39 facilities identified in **Appendix A** and determined that no significant impact on the environment  
40 would occur from these projects. Any new facility construction in support of the three SBCTs,  
41 potential stationing of CSS units, or the potential stationing of a medium CAB would not be  
42 accomplished on Fort Lewis under Alternative 1. Any new facility construction unrelated to the  
43 proposed action not identified in **Appendix A** would be subject to separate NEPA review.

**Table 2–9 Major Equipment Items Assigned to Fort Lewis and Yakima Training Center**

<b>Category/Equipment</b>	<b>Mission</b>	<b>Type of Training</b>
<i>Wheeled Vehicle</i>		
Stryker M1126 Infantry Carrier Vehicle (includes nine configurations)	Provides a highly deployable wheeled armored vehicle that combines firepower, battlefield mobility, survivability, and versatility with reduced logistics requirements.	Maneuver and Live-fire
Stryker M1128 Mobile Gun System	Provides a highly deployable wheeled armored vehicle that combines fully stabilized shoot-on-the-move firepower, battlefield mobility, survivability, and versatility with reduced logistics requirements.	Maneuver and Live-fire
Family of Medium Tactical Vehicles	Fills the Army's medium tactical vehicle requirements for mobility and resupply, and transportation of equipment and personnel	Maneuver
Heavy Expanded Mobility Tactical Truck	Provides heavy transport capabilities for re-supply of combat vehicles and weapons systems	Maneuver
High-Mobility Multi-Purpose Wheeled Vehicle	Provides a common light tactical vehicle capability	Maneuver
Palletized Loading System	Performs line haul and unit resupply. Rapid movement of combat configured loads of ammunition and all classes of supply, shelters, and containers	Maneuver
<i>Engineer Equipment</i>		
Dozers, Scrapers, Loaders, Excavators, Dump Trucks	Performs horizontal construction to ensure mobility and base support for strike, sustainment, and logistics forces	Maneuver; Engineering (excavation, clearing, grubbing)
<i>Tracked Vehicles (associated with the Washington National Guard)</i>		
M1 Abrams Main Combat Tank	Provides heavy armor superiority on the battlefield (120-mm main gun)	Maneuver and Live-fire
M2/M3 Bradley Fighting Vehicle	Provides protected transport of an infantry squad and over watching fires to support the dismounted infantry (25-mm main gun)	Maneuver and Live-fire
M109 Paladin Self-Propelled Howitzer	Provides the primary artillery support for armored and mechanized units (155-mm artillery round)	Maneuver and Live-fire
M113 Armored Personnel (Mortar) Carrier. This includes the variant M577 command post vehicle.	Provides a highly mobile, survivable, and reliable tracked-vehicle platform that is able to keep pace with Abrams and Bradleys. The M577 provides a mobile command capability.	Maneuver and Live-fire
M1117 Armored Security Vehicle	Fills the Army's armored wheeled vehicle requirements for one with a turret and armament system designed to meet the security mission requirements of the Military Police Corps.	Maneuver and Live-fire
<i>Aerial Vehicles</i>		
Tactical Unmanned Aerial Vehicles	Used to support integral intelligence, reconnaissance, and target acquisition at distances of up to 78 miles (125 km); detects and identifies targets from a range of 2-3 miles (3-5 km) and offers automatic target tracking	Maneuver
<i>Aerial Systems</i>		
Unmanned Aerial Systems	Provides real-time data, intelligence, surveillance, and reconnaissance support for base perimeter defense and convoy protection	Maneuver
<i>Helicopters</i>		
Attack Helicopter	Conduct aerial gunnery.	Maneuver and Live fire
Cargo Helicopter	Conduct sling load operations, assault landings, rappelling, door gunnery, and flight training.	Maneuver and Live fire
Observation Helicopter	Conduct aerial gunnery and observation.	Maneuver and Live fire
Utility Helicopter	Conduct sling load operations, assault landings, rappelling, door gunnery, and flight training.	Maneuver and Live fire
Medevac Helicopter	Conduct medical evacuations	Maneuver

**Table 2–9 Major Equipment Items Assigned to Fort Lewis and Yakima Training Center**

Category/Equipment	Mission	Type of Training
<i>Indirect Fire</i>		
Towed Howitzer	Provides long-range destructive, suppressive, and protective indirect and direct field artillery fires	Maneuver and Live-fire
Mortars	Provides long- and medium-range indirect fire support	Maneuver and Live-fire
High Mobility Artillery Rocket System (HIMARS)	Provide reinforcing field artillery rocket and missile fires in support of maneuver BCTs.	Maneuver and Live-fire
<i>Anti-Armor Weapons</i>		
Javelin Anti-Tank Missile	Provides a man-portable, highly survivable medium anti-tank weapon system	Maneuver and Live-fire
Tube-launched, Optically-Tracked, Wire-Guided Missile System	Defeats threat armored vehicles and urban enclosed threats at extended ranges in all expected battlefield conditions	Maneuver and Live-fire
<i>Individual and Crew-Served Weapons</i>		
M2 .50-Caliber Machine Gun	Engages targets with accurate automatic direct fire (.50 caliber)	Live-fire
MK19 Automatic Grenade Launcher	Engages targets with accurate automatic indirect fire (40-mm grenades)	Live-fire
M240B Machine Gun	Engages targets with accurate direct automatic fire (7.62 mm)	Live-fire
M249 Squad Automatic Weapon	Engages targets with accurate direct automatic fire (5.56 mm)	Live-fire
M4 Carbine	Engages targets with accurate direct fire (5.56 mm)	Live-fire
M9 Pistol	Engages targets with accurate direct fire (9 mm)	Live-fire
M16 Rifle	Engages targets with accurate direct fire (5.56 mm)	Live-fire
M203 Grenade Launcher	Engages targets with accurate grenade fire (40 mm grenades)	Live-fire

1  
 2 As discussed above, a variety of known projects are included in Alternative 1. Nonetheless,  
 3 additional, and as yet unidentified, facility construction and training activities may be required in the  
 4 future to support current activities. These projects would undergo separate NEPA review before  
 5 implementation in accordance with regulations and current practice.

6 **2.3.1.2 Training**

7 Under Alternative 1, training would be accomplished just as it has been occurring at Fort Lewis and  
 8 YTC since the SBCTs were developed (**Section 2.2.3.1**). Under this alternative, although three  
 9 SBCTs would be assigned to Fort Lewis, only two would be training simultaneously at Fort Lewis  
 10 and YTC because of deployments. Soldier qualification with individual weapons would occur at the  
 11 live-fire ranges at Fort Lewis and YTC. In addition, as discussed in **Section 2.2.3.1**, small unit  
 12 maneuvers at the platoon and company levels typically occur at Fort Lewis. Larger unit maneuvers at  
 13 the battalion and brigade levels typically occur at YTC. Battalion and brigade level maneuvers also  
 14 occur at Fort Lewis, but much less frequently. Deployments to YTC for battalion and brigade  
 15 maneuvers are typical. These deployments also often involve the conduct of training at the company  
 16 level.

17 The two SBCTs present for training at Fort Lewis, including all echelons from squad to full brigade,  
 18 would account for most of the maneuver training that is conducted annually at Fort Lewis and YTC.  
 19 In general, this training involves units traveling on roads from the assembly area to a point near an  
 20 objective where they then tactically deploy through off-road movement around the objective. As a  
 21 result, most of this maneuvering (about 80 percent) occurs on roads, which include everything from

1 paved roads, improved gravel roads, unimproved roads, and trails. About 20 percent of maneuver  
2 training involves cross-country or off-road travel that is mostly confined to areas with no roads or  
3 trails and areas around objectives.

4 The Army bases its estimate of the approximate proportion of on-road versus off-road maneuvering  
5 (80 percent versus 20 percent) on vehicle tracking and additional Stryker training observations  
6 conducted at YTC. During this tracking effort, the Army installed vehicle tracking systems on 20  
7 vehicles in the 3<sup>rd</sup> Brigade, 1/14 Cavalry during a reconnaissance training exercise at YTC. Data  
8 from the vehicles and the additional training observations were used to estimate on-road/off-road  
9 distances and proportions of distance traveled per type of road. On average, individual Strykers  
10 traveled 16 miles per day (26 km per day) on roads and 4 miles per day (6 km per day) off roads,  
11 whereas the support vehicles traveled approximately 90 percent of the Stryker miles on and off road  
12 (McDonald 2009d).

13 Maneuvering by SBCTs varies between Fort Lewis and YTC in terms of total annual miles and off-  
14 road versus on-road miles. Units conduct maneuver training more frequently at Fort Lewis because  
15 of proximity, but this training involves fewer daily miles because the training areas are smaller. In  
16 contrast, SBCTs travel more daily miles while at YTC, but each vehicle only goes to YTC four to  
17 five times annually. An estimated 55 to 70 percent of the maneuver miles occur at Fort Lewis, and  
18 30 to 45 percent occur at YTC (Larson 2009d). Most of the annual maneuver miles that occur off  
19 road occur at YTC (70 percent). The primary reason is that fewer places exist on Fort Lewis where  
20 the vehicles can leave roads and trails on the maneuver lands (Larson 2009d).

21 Individual Strykers log approximately 3,200 maneuver miles (5,500 km) per year at YTC and Fort  
22 Lewis. About 1,280 maneuver miles (2,060 km) would be driven at YTC annually, and  
23 1,920 maneuver miles (3,090 km) would be driven at Fort Lewis. These estimates would vary from  
24 year to year depending on a number of factors, including local conditions, deployments, and types of  
25 exercises.

26 The Army estimates that maneuver training by the two SBCTs under this alternative would involve  
27 approximately 4,510,000 miles (726,000 km<sup>2</sup>) of driving annually. Approximately 60 percent of the  
28 total miles would be driven at Fort Lewis. **Appendix B** describes how the maneuver training mileage  
29 estimates were developed. The breakdown of mileage by units, type of vehicle, and class of road are  
30 shown in **Appendix E**.

31 Before units can train at YTC, they have to move their troops and equipment to YTC. Transportation  
32 of units to YTC occurs in convoys as directed by Fort Lewis Regulation 55–2. In general, a convoy  
33 consists of six or more vehicles organized to operate as a column or the dispatch of 10 or more  
34 vehicles per hour to the same destination over the same route. Stryker vehicles travel in groups of  
35 two to 10. The departures of all convoys are timed to avoid the presence of Army vehicles during the  
36 primary rush hours (6:00 am to 9:00 am and 3:00 pm to 5:00 pm) on I–5 and I–405 (Brayton 2009).

37 The primary approved convoy route from Fort Lewis to YTC is I–5 to Interstate 405 (I–405) to  
38 Interstate 90 (I–90) to Interstate 82 (I–82). Twenty-minute rest stops are required for every two hours  
39 of driving. Identified rest stops along the convoy route include I–90 Exit 38 and Exit 109 (Flying J  
40 Truck Stop).

41 Each year, convoys are dispatched between Fort Lewis and other locations, including YTC, Port of  
42 Tacoma, and Camp Rilea. The annual number of convoys varies. In 2008, approximately 1,100  
43 convoys departed from or arrived at Fort Lewis (Brayton 2009). Most of them were traveling  
44 between Fort Lewis and YTC. In contrast, the total number of convoys departing or arriving at Fort

1 Lewis in 2007 was approximately 200, and in 2006 the number was approximately 850 (Brayton  
2 2009). A variety of factors influence the total number of convoys each year, including deployments,  
3 funding, and unit commander decisions.

### 4 **2.3.2 Alternative 2 — Take Actions Necessary to Implement GTA Actions and** 5 **Those Actions Interconnected to GTA**

6 Under this Alternative, Fort Lewis would take the actions necessary to implement GTA and  
7 Transformation decisions. This alternative would require supporting the training of all three SBCTs  
8 at one time along with all support and other BCTs on Fort Lewis and YTC. In addition to the GTA  
9 unit changes, this alternative includes the proposal to house (in facilities that meet current standards),  
10 train, and supply support services for three SBCTs and all other Major Subordinate Commands on  
11 Fort Lewis and YTC. This alternative would also implement the cantonment area planned  
12 construction for FY 2010 through FY 2015 as well as updating the Fort Lewis and YTC ADPs.

13 The Army estimates that maneuver training by the primary units stationed at Fort Lewis and YTC  
14 under this alternative would involve approximately 6,909,000 miles of (11,100,000 km) driving  
15 annually. The three SBCTs would account for the majority of these miles. Approximately 60 percent  
16 of the total miles would be driven at Fort Lewis. **Appendix B** describes how the maneuver training  
17 mileage estimates were developed. The breakdowns of mileage by units, type of vehicle, and class of  
18 road are shown in **Appendix E**. Maneuver training would primarily involve traveling on roads from  
19 the assembly area to an objective as described for Alternative 1.

### 20 **2.3.3 Alternative 3 — All Actions under Alternative 2 and the Addition of up to** 21 **1,000 Combat Service Support Soldiers to Fort Lewis/YTC**

22 Under this alternative, Fort Lewis would take the necessary actions to implement GTA and  
23 Transformation decisions as identified in Alternative 2 and the actions needed for the stationing of  
24 up to 1,000 CSS Soldiers and their Families at Fort Lewis and YTC. This alternative provides for the  
25 construction of facilities and the necessary live-fire and maneuver training to support the stationing  
26 of the CSS Soldiers and their Families.

27 The Army estimates that maneuver training by the primary units stationed at Fort Lewis and YTC  
28 under this alternative would involve approximately 7,433,000 miles of (11,960,000 km) driving  
29 annually. The three SBCTs would account for the majority of these miles. Approximately 60 percent  
30 of the total miles would be driven at Fort Lewis. As with Alternatives 1 and 2, maneuver training  
31 would primarily involve traveling on roads from the assembly area to an objective. **Appendix B**  
32 describes how the maneuver training mileage estimates were developed. The breakdowns of mileage  
33 by units, type of vehicle, and class of road are shown in **Appendix E**.

### 34 **2.3.4 Alternative 4 — All Actions under Alternative 3 and the Addition of the** 35 **Realignment of a Medium Combat Aviation Brigade to Fort Lewis/YTC**

36 Under this alternative, Fort Lewis would take the necessary actions to implement GTA and  
37 Transformation decisions as identified in Alternative 2, the actions needed for the stationing of up to  
38 1,000 CSS Soldiers and their Families as stated in Alternative 3, and the stationing of a medium  
39 CAB to Fort Lewis and YTC. This alternative provides for the construction of facilities and the  
40 necessary live-fire and maneuver training to support the stationing of the medium CAB Soldiers and  
41 their Families.

1 The Army estimates that maneuver training by the primary units stationed at Fort Lewis and YTC  
2 under this alternative would involve approximately 7,880,000 miles (126,000,000 km) of driving  
3 annually. The three SBCTs would account for the majority of these miles. Approximately 60 percent  
4 of the total miles would be driven at Fort Lewis. Maneuver training would primarily involve  
5 traveling on roads from the assembly area to an objective as described for Alternatives 1, 2, and 3.  
6 **Appendix B** describes how the maneuver training mileage estimates were developed. The  
7 breakdowns of mileage by units, type of vehicle, and class of road are shown in **Appendix E**.

## 8 **2.4 ALTERNATIVES CONSIDERED BUT DISMISSED**

9 Through the NEPA process, the Army considered several additional alternatives for this EIS. All  
10 alternatives that can reasonably meet the Army's Purpose of and Need for the proposed action (as  
11 discussed in **Section 1.2**) have been carried forward for analysis in this EIS. This section discusses  
12 the alternatives that were considered but not carried forward for full analysis and why they were  
13 considered not reasonable.

### 14 **2.4.1 Train Troops at Locations Other than Fort Lewis and YTC**

15 The ROD for the 2007 GTA FPEIS identified Fort Lewis and YTC as a specific location to receive  
16 additional Soldiers under the GTA action. Considering an alternative that involves installation-level  
17 training at locations other than Fort Lewis and YTC was determined to be inefficient or impractical.  
18 It would essentially constitute re-examining the GTA ROD stationing decision, including whether  
19 those facilities are already being used at capacity.

20 Finally, home station training is extremely important to prepare Soldiers for combat and for morale.  
21 Use of training areas and ranges at Fort Lewis and YTC allows Soldiers to learn the basic skills  
22 necessary to meet qualification standards to travel to larger training events elsewhere for their pre-  
23 deployment training or to deploy directly. Use of these training facilities also reduces the time  
24 Soldiers are away from their Families, a particularly important factor in times, like the present, when  
25 Soldiers are subject to frequent deployments to combat.

### 26 **2.4.2 Lease/Purchase Land near Fort Lewis**

27 Acquiring land to eliminate the problems of land constraints is an alternative that would meet the  
28 demand for construction of facilities, increased training, and avoid the encroachment on McChord  
29 AFB and ranges. There are, however, no large areas of undeveloped lands adjacent to Fort Lewis that  
30 could be acquired easily. The area surrounding Fort Lewis is populated and developed, and  
31 expansion of Fort Lewis would be incompatible with this surrounding development due to safety  
32 concerns, community impacts, and encroachment on training values such as low light levels  
33 necessary for effective night training. Even if satisfactory land were available, the timeframe  
34 involved in purchasing land would not meet the Purpose of and Need for the proposed action as  
35 described in **Section 1.2**. The Army does not have the authority, funding, or plans to expand Fort  
36 Lewis.

### 37 **2.4.3 Construction of Facilities for the Combat Aviation Brigade at Different Sites**

38 Due to the aviation mission requirements and new standard Army operational requirements (Unified  
39 Facilities Criteria 4-140-01), the medium CAB must be either collocated or within close proximity  
40 to the supported units' airfield. This siting requirement is needed to ensure that Soldiers can  
41 adequately maintain their equipment and administrative control of the unit. Therefore, other  
42 locations for siting facilities to support the medium CAB will not be analyzed. The configuration of  
43 the medium CAB in the proposed action is the only reasonable alternative.