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**Environmental Assessment**  
Integrated Natural Resources Management Plan  
October 2018

**JOINT BASE LEWIS-McCHORD, WASHINGTON**



**REVIEWED BY:**

\_\_\_\_\_  
Christopher J. Runner  
NEPA Program Manager

\_\_\_\_\_  
Date

\_\_\_\_\_  
Steven T. Perrenot, P.E.  
Director, Public Works

\_\_\_\_\_  
Date

**APPROVED BY:**

\_\_\_\_\_  
Nicole M. Lucas  
Colonel, US Army  
Commanding

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Date

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## Environmental Assessment Integrated Natural Resources Management Plan

### **Purpose of and Need for the Proposed Action (32 CFR § 651.34 (b))**

The purpose of and need for the Proposed Action is to comply with the Sikes Act (16 USC § 670a(b)(2)) and meet the requirements of Department of Defense Instruction 4715.3, Environmental Conservation Program, 3 May 1996, and Army Regulation (AR) 200-1, Environmental Quality - Environmental, Protection and Enhancement, 13 December 2007. The Sikes Act directs the Secretary of Defense to “Carry out a program to provide for the conservation and rehabilitation of natural resources on military installations.” Military installations having significant natural resources must prepare and implement an Integrated Natural Resources Management Plan (INRMP). The Sikes Act states the primary purposes of a military conservation program are conservation and rehabilitation of natural resources, sustainable multipurpose use of those resources, and public access to military lands subject to safety requirements and military security (16 USC § 670a, et seq.). The Conservation Program must be consistent with the mission-essential use of the Installation and its lands and not cause a net loss of military land use. The Sikes Act requires the preparation of an INRMP to facilitate the Conservation Program and states the INRMP shall be prepared cooperatively with the appropriate Federal and State agencies, which are U.S. Fish and Wildlife (USFWS) and Washington State Department of Fish and Wildlife (WDFW). Section 101(b)(2) of the Sikes Act states, each INRMP “Must be reviewed as to operation and effect by the parties thereto on a regular basis, but not less often than every five years.” The 2018 revised Joint Base Lewis-McChord (JBLM) INRMP was prepared cooperatively with USFWS and WDFW resulting from review of the JBLM’s existing Natural Resources Management Plan prepared in 2007.

As required by the National Environmental Policy Act (NEPA), this Environmental Assessment (EA) evaluates whether adopting the updated INRMP will or will not have a significant impact on the human and natural environment.

### **Proposed Action (32 CFR § 651.34 (c))**

The Proposed Action is to adopt a revised INRMP for JBLM that fully meets the requirements of the Sikes Act (16 U.S.C. 670a-670b). Per the Sikes Act, the goal of the INRMP is to implement an ecosystem-based conservation program that provides for conservation and rehabilitation of natural resources in a manner consistent with the military mission.

The elements of the INRMP provide for:

- Fish and wildlife management, land management, forest management and fish and wildlife-oriented recreation.
- Fish and wildlife habitat enhancement or modifications.

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- Wetland protection, enhancement, and restoration for support of fish and wildlife.
- Integration of, and consistency among, the various activities conducted under the plan.
- The establishment of specific natural resource management objectives and time frames for proposed actions.
- The sustained use of natural resources by the public to the extent such use is consistent with the needs of fish and wildlife resources management.
- Public access to the military Installation, as appropriate, to comply with the requirements necessary to ensure safety and military security.
- The enforcement of the Natural Resource laws and regulations and no net loss in the capability of installation land to support the military mission of the Installation.

The following lists component plans contained and incorporated as part of the revised INRMP.

### **Controlled Use Areas**

As the number of environmental statutes has increased, so has the corresponding need to identify, evaluate, and manage specific areas on JBLM to comply with those statutes. To assist planners, both military and civilian, these specific areas are called Controlled Use Areas (CUAs). Almost all of the CUAs have been mapped and/or inventoried and are available as inputs into planning sessions such as the Public Works (PW) sponsored land use deconfliction process or through outputs produced by PW such as the Environmental Coordination Map training aid and the Master Planning Environmental Overlay. The establishment of CUAs is necessary if JBLM is to be a sustainable installation for achievement of the triple bottom line. The triple bottom line requires an assessment of and commitment for balancing the social, economic, and environmental needs of society in such a way that future generations do not forgo options based on what we do now.

### **Fish and Wildlife Management Plan**

The purpose of the JBLM Fish and Wildlife Management Plan is to provide strategies for managing natural resources on JBLM. This plan fulfills the requirement set forth in AR 200-1, which requires each installation to prepare and implement this plan, review it annually for required changes, and revise it when significant changes occur. According to AR 200-1, all plans must include a program for the development, maintenance and coordination of flora and fauna, and game conservation. The plan must include Endangered Species Management Component (ESMC) for listed species, species proposed for listing, and critical habitats that may occur on JBLM.

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### **Endangered Species Management Component**

AR 200-1, 4-3d(5)(a) requires preparation and implementation of an ESMC to the INRMP. This component and/or plan are developed for all federally listed, proposed, and candidate species and critical habitat present on an Army Installation. These ESMCs include management measures to protect, maintain, and if needed, enhance populations and their habitat on JBLM. The implementation of these ESMCs is not only essential to support the species, but also to provide for no net loss in the capability of the Installation lands to support the military missions. All affected programs provided input, including the Directorate of Plans, Training, Mobilization and Security, JBLM Fish and Wildlife, USFWS and the WDFW ensure that conflicts between training activities and species management strategies were minimized.

Taylor's Checkerspot Butterfly, Mazama Pocket Gopher, Streaked Horned Lark, Oregon Spotted Frog, Puget Sound Chinook Salmon, Puget Sound Steelhead, Bull Trout – Coastal/Puget Sound, Northern Spotted Owl, Water Howellia, and Rockfish are already listed under Endangered Species Act (ESA). Section 7(a)(2) of the ESA directs all Federal agencies to ensure that any action they authorize, fund, or carryout does not jeopardize the continued existence of an endangered or threatened species or its designated priority habitat at JBLM. Therefore, all management, recreational and military activities occurring in occupied or priority habitat must be coordinated through the JBLM Fish and Wildlife Program. This includes any activity that may alter the habitat or impact these threatened species.

Coordination with JBLM Fish and Wildlife Staff must occur before the activity can begin. JBLM Fish and Wildlife Staff will determine whether the action will require consultation under the ESA. This is imperative because without proper consultation with USFWS, actions can lead to violations of the ESA with possible civil or criminal penalties.

### **Prairie Management Plan**

Prairies on JBLM provide essential habitat for the U.S. Army to meet its military mission of training combat forces for deployment throughout the world. The JBLM prairies support regionally significant populations of several species of rare flora and fauna. It contains approximately 90 percent of the prairie remaining in the South Puget Sound, including some of the highest quality habitat. JBLM must balance management activities to meet the military mission of the Installation with the responsibility to manage prairies for their natural resource values. The purpose of the Prairie Management Plan is to: "Provide guidance for effective and efficient management of the prairie landscape to meet military training and ecological conservation goals."

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Fortunately, there are broad areas of overlap in the manner in which activities can be conducted to meet the mandates of both military training and ecological conservation. These compatibilities are best realized when considering the principal issues that drive the need for prairie management. The key issues for the military training mission are: “Maintaining access to adequate amounts of open landscapes for training, and conducting rehabilitation on prairie lands to ensure proper conditions for training.”

There are four key ecological conservation issues: “Maintaining a functional native prairie ecosystem, maintaining viable populations of rare species, controlling invasive species, and implementing native prairie restoration actions.”

### **Bird-Wildlife Aircraft Strike Hazard Strategy**

The Bird/Wildlife Aircraft Strike Hazard plan for McChord Field Airfield, establishes an overall bird/wildlife control program and minimizes extremely hazardous aircraft exposure to potentially hazardous bird/wildlife strikes by establishing the Wildlife Hazard Working Group (WHWG). The WHWG consists of organizations involved in airfield bird control, habitat management, operations, civil engineering, public works, security police, and flight safety.

Identifying the local bird/wildlife problems and developing measures to reduce the attractants to birds/wildlife.

Developing procedures to disperse bird/wildlife posing an immediate threat to flying operations.

Establishing procedures to inform and educate aircrews of specific bird/wildlife hazards and for hazard avoidance during all phases of flight.

### **Wildland Fire Management Plan**

The objective of this plan is to set forth the responsibilities and procedures needed to safely control and use wildfires on JBLM, maximizing military training while at the same time protecting government property, natural resources, and adjoining properties.

### **Prescribed Fire Management Plan**

The use of prescribed fire to manage fire dependent ecosystems has been recommended in both the Federal Wildland Fire Management Policy and Program and in AR 200-1. Prescribed fire not only reduces fuel loads reducing the risk of catastrophic wildfire, it also enhances habitats and improves troop training by helping maintain open landscapes. Prescribed fire can also be an important smoke management tool. Through proper timing of fires, reduction of fuels can be accomplished in times of good air quality and favorable wind directions to help reduce the impacts on neighboring communities.

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In 1983, a prescribed burning program was initiated on Fort Lewis, now JBLM. Prior to 1983, the majority of intentional burning on JBLM was conducted to control wildfires started by military training. A goal of treating an average of 4,200 acres per year by 2020 has been established as part of endangered species management on JBLM. Along with the drive to treat more acres for military training benefit, the decline of several prairie associated and dependent species altered the direction of the Prescribed Fire Program. With the impending listing of multiple prairie dependent species, the focus of the Prescribed Fire Program shifted from one of fuel reductions and wildfire prevention to one of ecological restoration. This shift led to a change in the responsible party for prescribed ecological fire. In August of 2012, the Fish and Wildlife Program became responsible for planning and implementing prescribed ecological fire on JBLM.

### **Murray Sequalitchew Watershed Management Plan**

The purpose of this Watershed Management Plan is to assist JBLM in developing an implementation plan for maintaining and improving the quality of the water resources in the Murray/Sequalitchew watershed in a manner that is consistent with Federal requirements, regional efforts, and the military mission. Objectives of the Watershed Management Plan include the following:

- Identify the key goals of the military mission and their relationship to watershed management objectives.
- Provide a comprehensive, multidisciplinary description of historical and existing watershed conditions.
- Identify key watershed problems.
- Identify potential solutions to address key watershed problems and to help meet regional and federal requirements for water quality and habitat.
- Recommend management actions and an implementation plan to address environmental concerns while supporting the military mission.

### **Integrated Pest Management Plan**

This Integrated Pest Management Plan (IPMP) provides guidance for operating and maintaining an effective pest management program. Principles of Integrated Pest Management (IPM) are stressed in the plan. IPM consists of the judicious use of both chemical and non-chemical control techniques to achieve effective pest management with minimal environmental impact. It uses up-to-date industry standard technological and management techniques to produce an effective degree of pest prevention and suppression in a safe, cost-effective, and environmentally sound manner. The use of this plan is designed to control or prevent pests and disease vectors that may adversely

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impact readiness or military operations by affecting the health of personnel, by damaging structures, materiel, or property in accordance with and in compliance with applicable laws and regulations. The plan identifies elements of the program to include health and environmental safety, pest identification, pest management, as well as pesticide storage, transportation, use, and disposal. This plan is to be used as a tool to reduce reliance on pesticides, to enhance environmental protection, and to maximize the use of IPM techniques. In the Memorandum, Office of the Secretary of Defense, OSD, 11 August 1994, subject: Comprehensive Pollution Prevention Strategy, the Department of Defense (DoD) is directed to take immediate action to implement the objectives. Pest management is addressed in Object 3, sub-objective 10, which tasks the DoD to implement IPM fully throughout the DoD to reduce pesticide risk. The goal is to reduce the amount of pesticide applied annually, as measured in pounds of active ingredient, by 50 percent from the Fiscal Year 1993 baseline. IPM outlines found in Appendix A and B are provided in order to comply with pesticide reduction. This IPMP is consistent with the Fort Lewis Integrated Natural Resource Management Plan (2007) and the final draft of the 2018 JBLM INRMP, which includes, but not limited to, compliance with the Clean Water Act (CWA) and the ESA. It incorporates sustainable IPM philosophy, strategies, and techniques in all aspects of DoD vector control and pest management planning, training, and operations including, Installation Pest Management Plans and other written guidance to reduce pesticide risk and prevent pollution.

### **Alternatives Considered (32 CFR § 651.34 (d))**

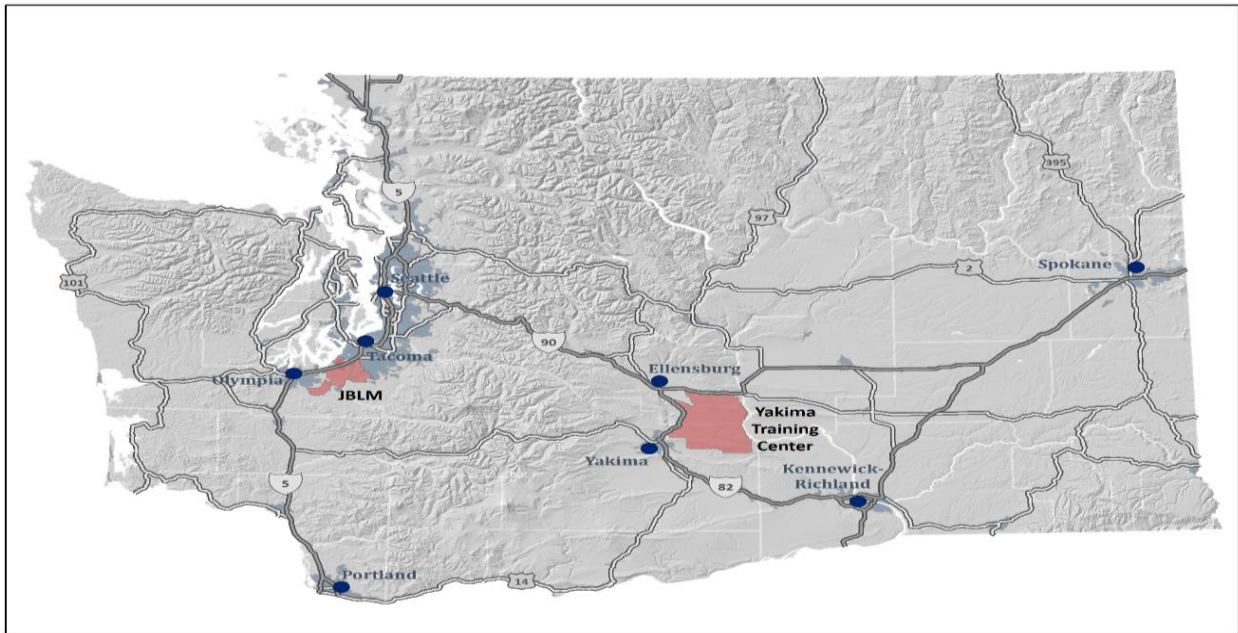
NEPA's implementing regulations provide guidance on the consideration of alternatives to a federally proposed action and require rigorous exploration and objective evaluation of reasonable alternatives. Only those alternatives determined to be reasonable require detailed analysis. The Proposed Action and No-Action Alternatives were deemed reasonable alternatives, and therefore, carried forward for detailed analysis in this EA.

### **Existing Conditions and Affected Environment (32 CFR § 651.34 (e))**

Located in Pierce and Thurston Counties in the western portion of Washington, JBLM encompasses more than 90,000 acres bordering Tacoma, Washington, to the Northwest (approximately 35 miles South of Seattle) and seven miles Northeast of Olympia, Washington. JBLM also includes the Yakima Training Center (YTC), which encompasses approximately 324,000 acres located approximately ten miles Northeast of Yakima, Washington. YTC has its own INRMP and EA.



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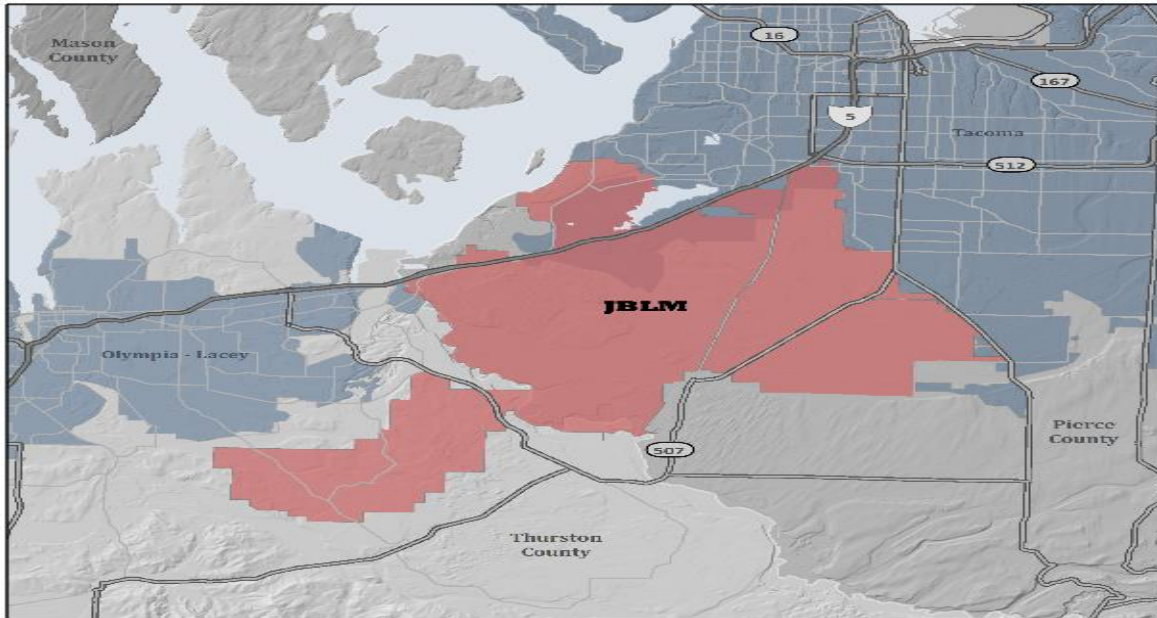


**Figure 1. Joint Base Lewis-McChord Regional Setting**

Interstate 5, the main transportation corridor in the Puget Sound region, bisects the Installation. It is bordered by suburban and commercial development on the North; rural areas, forested land, and several small communities on the East and South; and the Puget Sound, Nisqually Indian Reservation, and rural areas that surround Olympia on the West. The Billy Frank Jr. Nisqually Wildlife Refuge is located on the Northwest border of the Installation.

Home to more than 58,000 Service members, and employees, the Installation also supports approximately 52,000 Family members and dependents. Installation priorities include “Providing continued support to the war efforts, continuing to transform the force, establishing and maintaining first-class training facilities, and providing top-notch care to Service members, and their Families.”

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**Figure 2. Joint Base Lewis-McChord Vicinity**

U.S. Air Force units located on McChord Field include the 62<sup>nd</sup> Airlift Wing and its Reserve Partner the 446<sup>th</sup> Airlift Wing, the Western Air Defense Sector, and the 22<sup>nd</sup> Special Tactics Squadron. JBLM is known for its abundance of high quality, close-in training areas, including 115 live-fire ranges and substantial space for maneuver training.

The Puget Sound region has a relatively mild climate typically described as Pacific Coast marine, characterized by cool, wet winters and warm, dry summers. Temperatures range from a mean of 37 degrees Fahrenheit (°F) in the winter to 65 °F in the summer. Average precipitation in the region is 40 to 50 inches per year. The topography at JBLM is typically flat to gently rolling, with localized areas of moderately sloping land. Over 90 percent of JBLM's soils are excessively drained, gravelly sandy loams up to two feet thick. Four major water drainage sources occur on JBLM: the Nisqually River basin, the Sequimitchew Creek basin (including American Lake), the Deschutes River basin, and the Chambers/Clover Creek basin (Clover Creek runs through McChord Field). A wide variety of plant community types occurs on JBLM, and approximately 700 species of vascular plants are found on the Installation. There are four main habitat types: coniferous/mixed forests, oak/oak-mixed woodlands, prairies, and wetlands/riparian areas. Approximately 52,600 acres of JBLM are forested, with an estimated additional 20,000 acres of prairie habitat. JBLM provides habitat for numerous wildlife species, including federally listed species, and other special-status species. Management for wildlife populations and habitats is primarily directed by the Fish and Wildlife Management Plan.

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In order to relieve environmental encroachment associated with ESA listed species, JBLM started the Army Compatible Use Buffer (ACUB) Program in 2006. The goal of the ACUB Program is to reduce environmental encroachment (restrictions on training) on JBLM associated with the listing or potential listing of prairie species under the ESA by supporting the conservation of these species on lands off of the Installation.

### **The ACUB objectives are:**

- Obtain credits by protecting off-base lands in conservation status, creating secure populations of the listed species on these lands, and creating stewardship endowments to maintain these species in perpetuity.
- Seek to minimize costs while successfully earning credits.
- Continue to work with multiple partners, sharing funding, personnel, and expertise to achieve crediting conservation milestones sooner than if the Army acted alone.

### **Environmental Consequences of the Proposed Action (32 CFR § 651.34 (f))**

This environmental assessment focuses on the categories of air quality, prairie management, wildlife resources, and recreation for analysis. It does not include a repetitive discussion of on-going long-term management strategies (silviculture, invasive species management, prairie management, etc.) that have not changed, and that have been previously reviewed and analyzed in the 2007 INRMP and/or other previous NEPA documentation. Several other potential categories were also given a more detailed evaluation (see table on the next few pages). More in-depth discussion of these resources can be found in the updated INRMP.

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<b>Resource Topics and Significance Threshold</b>	<b>Environmental Consequences</b>
<p><b>Air Quality</b>                      Increase ambient air pollution concentrations to exceed the National Ambient Air Quality Standards.</p> <p>Impair visibility within federally mandated Prevention of Significant Deterioration Class I areas.</p> <p>Result in the potential for any stationary source to be considered a major source of emissions as defined in 40 CFR § 52.21 (total emissions of any pollutant subject to regulation under the Clean Air Act that is greater than 250 tons per year for attainment areas), or</p> <p>For mobile source emissions, result in an increase in emissions to exceed 250 tons per year for any pollutant.</p> <p>Result in the violation of any existing Title V Permits.</p>	<p>Minor, short-term, adverse impacts are expected with increased prescribed burning at JBLM. These impacts are not considered significant because prescribed burning will be conducted in accordance with all regulatory rules and requirements. Increase in use of prescribed burning will likely result in minor increases to nuisance smoke complaints. Timing of the burns, and plans and systems in place to reduce nuisance smoke, will continue to maintain complaints below a significant level. Overall, impacts to air quality associated with natural resource management activities would be short-term, localized, and less than significant</p>
<p><b>Biological and Natural Resources</b>                      Substantial permanent conversion or net loss of habitat at landscape scale.</p> <p>Long-term loss or impairment of a substantial portion of local habitat (species dependent) or substantial loss to a species population, including special status species resultant from implementation of the Proposed Action.</p>	<p>Long-term beneficial effects are expected with the implementation of the updated INRMP due to new management projects, which are focused on species conservation and recovery. The revised INRMP expands the use of the ACUB program and prescribed burning for habitat protection. The proposed INRMP also expands the use of captive propagation, species relocations, and/or reintroductions outside the Installation to support local and regional recovery efforts for ESA-listed species.</p>

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<b>Resource Topics and Significance Threshold</b>	<b>Environmental Consequences</b>
<p><b>Cultural Resources</b>                      The activity would cause an adverse effect on an archaeological, historical, or other cultural site that is listed in or eligible for inclusion in the National Register of Historic Places (NRHP), and measures minimizing or mitigating the adverse effect of the resource that are not implemented.</p> <p>The activity involves construction, repair, or maintenance affecting contributing elements to a historic building or district and historic landscapes.</p> <p>The activity would permanently introduce visual, audible, or atmospheric elements that are out of character with the historic property or alter its setting when the setting contributes to the property's qualifications for the NRHP, and measures minimizing or mitigating the adverse effect of the resource that are not implemented.</p> <p>The activity would restrict access to a cultural resource of significance to the federally recognized tribes, and no attempt has been made to mitigate or to address issues through Government-to-Government consultation.</p>	<p>There are no management changes proposed in the revised INRMP. Potential impacts to cultural and tribal resources were identified and discussed in the 2007 INRMP.</p>
<p><b>Geology and Soils</b>                      Substantially degrade soils, soil fertility, soil productivity, or geologic resources.</p>	<p>No new projects proposed in the revised INRMP. Topography, geology, and soils were discussed in the 2007 INRMP.</p>

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<b>Resource Topics and Significance Threshold</b>	<b>Environmental Consequences</b>
<p><b>Land Use</b> An action would not be compatible with the surrounding land use.</p> <p>Or an action would not conform to zoning and community land use plans and policies</p>	<p>Long-term, beneficial effects to military land use would be expected from the Proposed Action because of the implementation of management practices that complement, or otherwise provide mutual benefit, to military training.</p> <p>Species protection for ESA-listed species will expand and improve with the plan implementation.</p> <p>The expanded use of the ACUB program is expected to provide long-term beneficial impacts to land use because the open habitat areas that are acquired will be protected from development or other land conversion activities.</p> <p>Areas on JBLM with non-Army easements and leases would be treated the same as all other areas wherever safe and practical. For instance, there would be no controlled burning beneath electric transmission lines.</p> <p>Overall, the proposed, updated INRMP is considered to have long-term, beneficial impacts to land use.</p>
<p><b>Noise</b> Noise levels on the Installation would exceed compatibility standards for noise zones at JBLM.</p> <p>Occupational noise levels exceed 85 decibel for an eight-hour day.</p>	<p>Noise generated from the Proposed Action would not exceed typical noise levels already existing on a daily basis on JBLM due to facility use and range use. There would be no long-term change in the noise environment at JBLM with implementing the Proposed Action or the No-Action Alternative.</p>

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<b>Resource Topics and Significance Threshold</b>	<b>Environmental Consequences</b>
<p><b>Socioeconomics and Environmental Justice</b>  Impacts would be considered significant if the estimated impacts on socioeconomic issues, such as employment, business volume, population, and income, would affect a large number of individuals, groups, businesses, or government entities and/or be readily detectable and observed and/or occur over a wide geographic area and have a substantial influence on social and/or economic conditions.</p> <p>An environmental justice impact is considered significant if the impact from an Action Alternative disproportionately and adversely affects a minority or low-income community.</p> <p>An impact on a population of children is considered significant if the impact from an Action Alternative disproportionately and adversely affects this population of children.</p>	<p>There are no management changes that are proposed in the revised INRMP that would affect socioeconomic resources and environmental justice at JBLM. Potential impacts to cultural and tribal resources from management activities were identified and discussed in the 2007 INRMP.</p>
<p><b>Public Health and Safety</b>  A substantial safety risk to the general Public and Installation personnel.</p> <p>Notable public safety and emergency service level reductions.</p> <p>Increases for the potential in manmade disasters and decrease the ability of services to respond.</p>	<p>The Proposed Action would not affect public health because it would be located entirely within JBLM where public access is permitted only by permission. The Proposed Action or the No-Action Alternative would occur entirely on Army lands.</p>

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<b>Resource Topics and Significance Threshold</b>	<b>Environmental Consequences</b>
<p><b>Solid and Hazardous Waste and Pollution</b>                      An unacceptable risk of exposure or impact on human health and safety regarding the amount of materials or waste to be handled, stored, used, or disposed of, or probable regulatory violation.</p> <p>Site contamination conditions that would preclude development of the site for the proposed use.</p>	<p>No modification or impacts to solid and hazardous waste, and pollution would occur because of the Proposed Action or the No-Action Alternative.</p>
<p><b>Water Resources</b>                      Alter the existing pattern of surface or groundwater flow or drainage in a manner that would adversely affect the uses of the water within or outside the region.</p> <p>Degrade surface or groundwater quality in a manner that would reduce the existing or potential beneficial uses of the water.</p> <p>Would be out of compliance with existing or proposed water quality standards or other regulatory requirements related to protecting or managing water resources, including all requirements of JBLM's Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems, Permit Number WAS-026638.</p> <p>Would not comply with the CWA.</p> <p>Would not comply with the Safe Drinking Water Act.</p>	<p>No management changes are proposed in the revised INRMP. Potential impacts to water resources were identified and discussed in the 2007 INRMP.</p> <p>If during implementation of individual elements of the INRMP could impact water resources and wetlands, regulatory compliance measures, including permitting would be required.</p>



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<b>Resource Topics and Significance Threshold</b>	<b>Environmental Consequences</b>
<p><b>Transportation and Traffic</b>                      Level of service is reduced to unacceptable levels.</p> <p>Intersections and gates would reach capacity and extensive delays would develop.</p>	<p>No modification or impacts on transportation or traffic would occur as a result of the Proposed Action or the No-Action Alternative.</p>
<p><b>Utilities and Services</b>                      Impacts would be considered significant if the Proposed Action would require more utility service than could be reliably provided and sustained by the combination of available utility agencies, system and sources.</p>	<p>No modification or impacts on infrastructure or utilities would occur as a result of the Proposed Action or the No-Action Alternative.</p>
<p><b>Visual Resources</b>                      Result in changes to the physical features that would diminish the aesthetic character and value of the landscape.</p> <p>Eliminate public viewing opportunities.</p>	<p>Implementation of the Proposed Action or No-Action Alternative would have a negligible, if any, impact on the current visual and aesthetic landscape of JBLM.</p>

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### **Cumulative Impacts**

Council on Environmental Quality (CEQ) regulations implementing the procedural provisions of NEPA define cumulative impacts as: “The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” (40 CFR § 1508.7)

For the Proposed Action to have a cumulatively significant impact to an environmental resource, two conditions must be met. First, the combined effects of all identified past, present, and reasonably foreseeable projects, activities, and processes on a resource, including the effects of the Proposed Action, must be significant. Second, the Proposed Action must make a substantial contribution to that significant cumulative impact. In order to analyze cumulative effects, a cumulative effects region must be identified for which effects of the Proposed Action and other past, present, and reasonably foreseeable actions would occur.

Each resource, ecosystem, and human community must be analyzed in terms of its ability to accommodate additional effects, based on its own time and space parameters. Therefore, cumulative effects analysis normally will encompass a Region of Influence or geographic boundaries beyond the immediate area of the Proposed Action, and a time frame including past actions and foreseeable future actions, to capture these additional effects.

The scope of the cumulative impacts analysis involves both the geographic extent of the impacts and the timeframe in which the impacts could be expected to occur. It is possible that analysis of cumulative impacts will go beyond the scope of the project-specific direct and indirect impacts to include expanded geographic and time boundaries and a focus on broad resource sustainability. This approach is becoming increasingly important as growing evidence suggests that the most significant impacts result from the combination of individual, often minor, impacts of multiple actions over time. The underlying issue is whether a resource can adequately recover from the impact of an action before the environment is exposed to a subsequent action(s).

Based on the analysis performed in this EA, implementation of the Proposed Action, in general, would have less than significant direct, indirect, and cumulative effects on the quality of the natural or human environment. A detailed impact analysis would be conducted as part of future tiered NEPA reviews as further details are developed.

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**Other Considerations Required by NEPA**

In accordance with 40 CFR § 1502.16(c), analysis of environmental consequences shall include discussion of possible conflicts between the Proposed Action and the objectives of Federal, Regional, State and Local land use plans, policies, and controls. The table below identifies the principal Federal and State laws and regulations that are applicable to the Proposed Action, and describes briefly how compliance with these laws and regulations would be accomplished:

<b>Federal, State, Local, and Regional Land Use Plans, Policies, and Controls</b>	<b>Status of Compliance</b>
NEPA (42 USC §4321 <i>et seq.</i> ); CEQ NEPA implementing regulations (40 CFR 1500-1508;	Preparation of this EA has been conducted in compliance with NEPA and in accordance with CEQ regulations and the Army's NEPA procedures.
Clean Air Act (42 USC §7401 <i>et seq.</i> )	The Proposed Action would not change air quality attainment status or conflict with attainment and maintenance goals established in the State Implementation Plan. Therefore, a Clean Air Act conformity determination is not required.
Clean Water Act (Sections 401 and 404, 33 USC 1251 <i>et seq.</i> )	Adopting the updated INRMP as a management tool under the Proposed Action would have no adverse effect on water resources since it does not designate any specific tasks at specific locations, including wetlands, that can be evaluated or require permits. Thus, permits under the CWA for the adoption of the updated INRMP are not required.
Safe Drinking Water Act (42 U.S.C. 330f-300j)	In addition to having a Comprehensive Water System Plan, JBLM has an approved Wellhead Protection Plan to protect surface and subsurface land areas in order to prevent contamination of wells and well-fields supplying public water systems. Implementation of the INRMP would be consistent with JBLM's Comprehensive Water System Plan and Wellhead Protection Plan.
Coastal Zone Management Act (16 USC 1451 <i>et seq.</i> )	No activities would occur that would require a Coastal Consistency Determination. Use of the existing Solo Point Boat Ramp would be consistent with the enforceable policies of the Coastal Zone Management Act.

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<b>Federal, State, Local, and Regional Land Use Plans, Policies, and Controls</b>	<b>Status of Compliance</b>
National Historic Preservation Act (54 USC 306102 and 54 USC 306108)	<p>Adopting the updated INRMP as a management tool under the Proposed Action is not an undertaking under National Historic Preservation Act (NHPA) that would have an adverse effect on historic properties since it does not designate any specific tasks at specific locations that can be evaluated or consulted for impacts. Thus, consultation under the NHPA for the adoption of the updated INRMP is not required.</p> <p>However, some of the management actions may affect historic properties if they are implemented. Any management actions that disturb soils or may cause erosion (i.e., fence repair, tree planting, culvert removal, etc.) have the potential to adversely affect historic properties. If and when decisions are made to use these management actions and locations are defined, then cultural resource assessments, State Historic Preservation Office, and tribal consultations may be required under NHPA.</p>
Endangered Species Act (16 USC 1531 <i>et seq.</i> )	<p>The Army developed the INRMP cooperatively with USFWS and WDFW, and determined that the Proposed Action would not adversely affect any federally-listed threatened, sensitive, or endangered species.</p> <p>Some of the management actions may affect threatened or endangered species and critical habitat if they are implemented. If and when decisions are made to use these management actions, biological assessments and agency consultations may be required under the ESA.</p>
Marine Mammal Protection Act (16 USC 1361 <i>et seq.</i> )	No Effect to marine mammals would occur.
Migratory Bird Treaty Act (16 USC 703-712)	The Proposed Action would not adversely affect birds under the Migratory Bird Treaty Act. Consultation with USFWS is not required.
Bald and Golden Eagle Protection Act (16 USC 668-668d)	The Proposed Action would not adversely affect Bald and Golden eagles under the Bald and Golden Eagle Protection Act. Consultation with USFWS is not required.

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<b>Federal, State, Local, and Regional Land Use Plans, Policies, and Controls</b>	<b>Status of Compliance</b>
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-income Populations	Proposed activities under the Proposed Action and No-Action Alternative are survey and informational in nature, coordinated interagency planning, and monitoring and eradication of noxious/invasive plants that would not result in development of new structures or facilities beyond informational signage. In addition, acquisition for proposed activities would conform to policies and instructions to provide sufficient opportunity for woman- or minority-owned businesses and to provide equitable distribution of socioeconomic benefits. Consequently, proposed activities under the Proposed Action and No-Action Alternative would not result in displacement of people or businesses nor change the economic character or stability of the Installation or surrounding area. Therefore, in accordance with Executive Order 12898, proposed activities under either alternative would not have a disproportionate adverse effect on minority or low-income populations.
Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks	Adoption of the revised JBLM INRMP would have no adverse effect on children’s health and safety. The specific projects included in the revised INRMP do not constitute health risks to children. Appropriate safety measures would be implemented during the implementation of management recommendations as required to ensure the health and safety of children who utilize JBLM, including the monitoring of any construction activities and the emplacement of physical barriers preventing access by children to construction sites and equipment.

**Irreversible or Irretrievable Commitment of Natural or Depletable Resources (40 CFR § 1502.16)**

Resources irreversibly or irretrievably committed to a project are those used on a long-term or permanent basis. This includes the use of non-renewable resources such as metal and fuel, and natural or cultural resources. These resources are irretrievable since they would be used for a specific project when they could have been used for other purposes. Human labor is also considered an irretrievable resource. Another

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impact falling under this category is the unavoidable destruction of natural resources that could limit the range of potential uses of that particular environment. Implementation of the updated INRMP under the Proposed Action would commit capital, labor, fuel, and non-renewable energy sources, i.e., resources to survey and map resources, as well as to perform removal of invasive species. It would also incorporate updated protection and conservation measures for the Natural Resources existing on JBLM. These types of activities and labor are not in short supply and their continued use would not adversely impact the availability of these resources. Implementation of the No-Action Alternative reverts to ongoing natural resource management practices at JBLM, which would involve capital, labor, fuel, and energy sources.

### **Relationship between Local Short-Term Use of the Human Environment and Maintenance and Enhancement of Long-Term Natural Resource Productivity (40 CFR § 1502.16)**

The implementation of the updated INRMP under the Proposed Action would have long-term beneficial impacts on natural resources at JBLM. This alternative would maintain, conserve, and improve the Natural Resources present on the Installations and update effective management practices for these resources. Short-term uses are associated with surveys, invasive species control, or other land-management actions needed to proactively manage natural resources.

Implementation of the No-Action Alternative would continue to have some long-term beneficial impacts to the Natural Resources at JBLM. However, the beneficial impacts to natural resources would be less than with implementation of the Proposed Action since the No-Action Alternative would not update conservation and management practices for natural resources and would not include long-term natural resources goals or objectives. Minor adverse effects would be possible from the lack of a comprehensive Natural Resources Plan to guide long-range planning, resulting in piecemeal development that lacks ecosystem planning.

### **Means to Mitigate and/or Monitor Adverse Environmental Impacts (40 CFR § 1502.16(h))**

Adopting the INRMP would not result in any adverse environmental impacts.

### **Any Probable Adverse Environmental Effects That Cannot Be Avoided and Are Not Amenable To Mitigation**

This EA has determined that adopting the INRMP would not result in any significant impacts; therefore, there are no probable adverse environmental effects that cannot be avoided or are not amenable to mitigation.

### **Public Involvement (32 CFR § 651.21)**

The Army made the EA and Draft Finding of No Significant Impact (FNSI) available for public review. An announcement was published **XX XXX 2018** in The Tacoma News

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Tribune and The Olympian in accordance with 32 CFR Part 651.36. The public comment period occurred from xxxx xx through xxxx xxxxx. Xx/No comments were received.

### **Conclusion (32 CFR § 651.34 (g))**

Implementation of the Proposed Action or the No-Action Alternative would not result in significant impacts to any resource area when considered individually or cumulatively in the context of NEPA, including both direct and indirect impacts. Adopting the updated INRMP as proposed would not constitute a “Major Federal action significantly affecting the quality of the human environment.” Therefore, this EA supports a FNSI and the preparation of an Environmental Impact Statement is not warranted or required.

### **References (32 CFR § 651.34 (i))**

JBLM. 2015. Endangered Species Management Plan for the Oregon Spotted Frog. JBLM, Directorate of Public Works, Environmental Division, Washington.

JBLM. 2014. Endangered Species Management Plan for the Mazama Pocket Gopher. JBLM, Directorate of Public Works, Environmental Division, Washington.

JBLM. 2014. Joint Base Lewis-McChord Master Plan Digest. JBLM, Directorate of Public Works, Master Planning Division, Washington.

JBLM. 2013. Endangered Species Management Plan for the Taylor's Checkerspot Butterfly. JBLM, Directorate of Public Works, Environmental Division, Washington.

JBLM. 2013. Endangered Species Management Plan for the Water Howellia. JBLM, Directorate of Public Works, Environmental Division, Washington.

JBLM. 2013. Endangered Species Management Plan for the Rockfish. JBLM, Directorate of Public Works, Environmental Division, Washington.

JBLM. 2013. Endangered Species Management Plan for the Streaked Horned Lark. JBLM, Directorate of Public Works, Environmental Division, Washington.

JBLM. 2013. Endangered Species Management Plan for the Threatened Species - Puget Sound Chinook Salmon, Puget Sound Steelhead, Bull Trout – Coastal/Puget Sound. JBLM, Directorate of Public Works, Environmental Division, Washington.

JBLM. 2012. Endangered Species Management Plan for the Northern Spotted Owl. JBLM, Directorate of Public Works, Environmental Division, Washington.

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U.S. Army (U.S. Department of the Army). 2007. Army Regulation 200-1, Environmental Quality - Environmental, Protection and Enhancement Headquarters, Department of the Army, Washington, DC.

JBLM. 2007. Final Integrated Natural Resources Management Plan, Fort Lewis, Washington. JBLM, Directorate of Public Works, Environmental Division, Washington.

### **List of Preparers and Persons Consulted (32 CFR § 651.34 (h))**

Chris Runner, NEPA Program Manager

Dave Clouse, Natural Resources Branch Chief

Jeff Foster, Ecologist

Rebecca Kowalski, Stormwater Program Manager

Tom Olsen, Air Program Manager