## **JOINT BASE LEWIS-MCCHORD** SENTINEL LANDSCAPE

Washington | est. 2013



The JBLM Sentinel Landscape encompasses over 63,000 acres of military training area, including over 7,000 acres of impact area, 86 ranges and mortar points, 13 drop zones, and two airfields. In addition, the landscape supports the majority of the remaining native prairie habitat in the south Puget Sound. Once extending over 150,000 acres, this critical ecological asset now covers only 23,000 acres, 90 percent of which is located on JBLM.

For decades, native prairie lands have deteriorated throughout the region due to rapid urban sprawl and subsequent land use conversion. Conversely, the fire-dependent ecosystem has thrived on base where development is minimal and periodic fires caused by prescribed burning and military training activities maintain healthy vegetation. As a result, multiple species listed under the Endangered Species Act (ESA) that depend on prairie habitat-such as the Taylor's checkerspot butterfly, the streaked horned lark, and the Mazama pocket gopher-persist on the installation. Environmental regulations activated by the ESA impact JBLM's mission by restricting the time, location, and type of training activities that can occur on base. JBLM Sentinel Landscape partners have worked together to conduct conservation practices aimed at strengthening military readiness through the recovery of threatened and endangered species.

## Figure 1: JBLM Sentinel Landscape Boundary



Table 2: JBLM Sentinel Landscape Footprint Details (acres)

Total Protected Acres: <sup>5</sup>	18,382.0
Total Enrolled Acres: <sup>6</sup>	78,874.0
Active Base Area:	91,322.3
Total Sentinel Landscape Area:	196,526.0

For example, in 2007, partners initiated the reintroduction of the Taylor's checkerspot butterfly onto the Scatter Creek Wildlife Area, a 1,400-acre property owned by the Washington

Partner	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
USDA	\$0.6	\$0.5	\$0.3	\$4.3	\$0.6	\$7.7	\$5.3
DoD	\$1.5	\$6.5	\$1.6	\$1.7	\$0.8	\$0.0	\$0.0
State	\$0.8	\$0.6	\$0.3	\$3.5	\$3.7	\$0.7	\$0.7
Private	\$1.2	\$2.0	\$1.1	\$1.6	\$0.5	\$0.2	\$0.1
DOI	\$1.2	\$1.0	\$0.4	\$2.5	\$3.7	\$2.1	\$0.3
Local	\$0.1	\$1.0	\$1.5	\$1.5	\$0.7	\$0.9	\$0.5

Table 1: JBLM Sentinel Landscape Total Funding by Partner in Millions

<sup>5</sup> Represents total acres protected through projects administered by sentinel landscape partners since FY 2012.

<sup>6</sup> Represents total acres enrolled in state and federal conservation programs since FY 2012.







The federally endangered Taylor's checkerspot butterfly at Scatter Creek, an enrolled ACUB property. (Photo by: USFWS)

Department of Fish and Wildlife and enrolled in the Army Compatible Use Buffer Program. For years, partners have leveraged funding from the REPI Program to restore and maintain Scatter Creek's native prairie habitat. These efforts culminated in 2013, when the Taylor's checkerspot butterfly population increased significantly and expanded its boundaries beyond the original introduction point at the Scatter Creek Wildlife Area. Building off this success, JBLM and USFWS are now working together to develop a formal speciescrediting strategy<sup>7</sup> that will ease ESA-related restrictions on the installation. The rich landscape of working farms, forests, and ranches within the JBLM Sentinel Landscape offers additional opportunities to preserve south Puget Sound's critical natural resources. In 2018, a research collaborative consisting of Thurston County, the Center for Natural Lands Management, Washington State University, and others received a grant from USDA's Western Sustainable Agriculture Research and Education Institution (WSARE) to evaluate how agricultural practices can improve the conservation value of working lands for prairie ecosystems. The objective of the project is to quantify the ecological benefits associated with such practices, thereby increasing opportunities for working landowners to receive technical or financial assistance related to habitat management. Lastly, USFWS and NRCS recently established a working group to develop a framework to incentivize and streamline agricultural easements within the sentinel landscape. Increasing the number of easements in the area would preclude development, preserve natural resources, and reduce encroachment pressures on JBLM.

<sup>7</sup> A species crediting strategy is a tool that federal agencies can use to benefit threatened and endangered species on non-federal lands by creating a "bank" of credits. That is, a federal agency may develop and store conservation credits that can be used later to offset negative impacts of its actions.

## Table 3: JBLM Sentinel Landscape Goals and Progress

Goal	Progress
<b>Goal #1</b> Increase military training flexibility at JBLM and enhance biodiversity by creating opportunities to conserve prairie habitat and imperiled species outside of the installation's fence-line	<ul> <li>Sentinel landscape partners have restored and maintained imperiled species habitat on over 5,000 acres of land outside of JBLM that are enrolled in the Army Compatible Use Buffer(ACUB) Program.</li> </ul>
	<ul> <li>The Army, in coordination with USFWS, is developing a species crediting strategy for the Taylor's checkerspot butterfly, the streaked horned lark, and the Mazama pocket gopher.</li> </ul>
	<ul> <li>The Center for Natural Lands Management is working with USFWS to establish a conservation bank<sup>8</sup> for the Yelm pocket gopher that can be used by Thurston County and private developers.</li> </ul>
	<ul> <li>Sentinel landscape partners actively participate in a regional prescribed fire program that supports prescribed burns on and off the installation.</li> </ul>
	★ Thurston County recently drafted a Habitat Conservation Plan (HCP) that focuses the county's efforts on restoring native prairie habitat and imperiled species within the sentinel landscape. The City of Tumwater and the Port of Olympia are also in the process of preparing a joint HCP. <sup>9</sup> Collectively, these actions will deter the loss of native prairie habitat and reduce ESA-related restrictions on military training on JBLM.
<b>Goal #2</b> Maintain the south Puget Sound agricultural landscape by promoting mutually beneficial projects that support local agricultural viability, sustainable community development, and prairie conservation on working lands.	★ NRCS has administered conservation measures on over 20,000 acres of working land within the sentinel landscape.
	★ A recently established USFWS-NRCS working group is developing a framework to incentivize and streamline conservation easements within the sentinel landscape.
	★ A research collaborative funded by USDA's WSARE is examining opportunities to restore prairie habitat and prairie-dependent species on working lands. Three active ranches within the sentinel landscape will implement NRCS rotational grazing regimes and native seed mixes as part of the experimental study.



Prescribed burns at Wolf Haven, an enrolled ACUB property. Prescribed burning is an essential conservation tool for restoring native prairie within the JBLM Sentinel Landscape. (Photo Credits: Sanders Freed, CNLM)



Native prairies at Scatter Creek, an enrolled ACUB property and site of first Taylor's checkerspot butterfly reintroduction. (Photo by: USFWS)

- <sup>8</sup> Conservation banks are permanently protected lands that contain natural resource values. These lands are conserved and permanently managed for species that are endangered, threatened, or at-risk. Conservation banks function to offset adverse impacts to these species that occurred elsewhere. In exchange for permanently protecting the land and managing it for these species, USFWS approves a specified number of habitat or species credits that bank owner can sell.
- <sup>9</sup> A Habitat Conservation Plan is required to apply for an Incidental Take Permit, a permit issued under the Endangered Species Act to non-federal entities undertaking projects that might impair threatened and endangered species habitat.