

## **Willamette Valley Conservation Study**

### **Frequently Asked Questions**

#### **What is the Willamette Valley Conservation Study and why did the U.S. Fish and Wildlife Service conduct it?**

Decades of habitat loss and fragmentation coupled with new invasive species and the loss of natural wildlife and floods, which rejuvenated and maintained native habitats, has resulted in population declines of many of the Willamette Valley's sensitive wildlife and plants. Several Willamette Valley species are listed under the State or Federal endangered species acts and many more have been extirpated from the valley.

There is a long history of partners working together to address these issues, through land-based and educational conservation actions across the valley. To determine where and how the U.S. Fish and Wildlife Service could best complement these actions, we worked with the Oregon Department of Fish and Wildlife, other state, local and federal agencies and partners to identify conservation needs and opportunities in the valley. For the study, land-based conservation includes actions to identify, preserve, restore, and manage terrestrial areas primarily for their wildlife habitat values while promoting nature-based recreational and educational activities where appropriate.

#### **What were the study's findings and recommendations?**

The study concluded that the amount and distribution of lands currently managed for sensitive, native wildlife is inadequate for depressed populations to recover to a healthy and viable condition across their range in the valley. The study recommends that networks of grassland, oak woodland, and riparian habitats in specific areas of the valley—subsets of Conservation Opportunity Areas identified by the Oregon Department of Fish and Wildlife (2015), be provided as safe and secure habitat to allow populations of sensitive native wildlife and plants space and time to recover.

#### **How were the specific areas of the valley identified?**

When attempting to reverse the declines in native wildlife populations, it is necessary to address the factors that are limiting those populations in the first place. The Oregon Conservation Strategy (ODFW 2015) identifies several such factors: habitat loss and fragmentation; competition from invasive species; loss of disturbance regimes; and the timing of land management practices occurring during critical nesting times. ODFW concluded that these factors have resulted in small and disjunct populations (i.e., disjoined and distinct from one another) that are at an increased risk of extirpation.

The Service worked with Willamette Valley wildlife experts to select a suite of species to represent the valley's native habitats and then to establish population goals for those species. Using each species' unique biological requirements, we determined the amount and distribution of habitat thought needed to meet those goals.

Because we wanted to prioritize actions in areas where the targeted species occur (i.e., the disjunct populations ODFW describes), we compiled recent species occurrence data (from 2008 to 2013) from numerous sources across the valley. We combined the species locations with habitat maps and then used the conservation network design optimization algorithm, Marxan (Ball et al. 2009) to help identify areas of the valley that have the species and habitat present that makes them suitable as part of the network. The study identifies 76 areas of the valley that we are calling Priority Conservation Areas. These areas also include populations of listed species that, if protected, would help meet downlisting or delisting goals.

**What's next?**

The Service will work with its partners and the public to determine the best path forward for implementing the study's recommendations.