

SUMMARY

Title: Ecological and Economic Benefit-Cost Comparison of Grazed and Ungrazed Prairie Land for Critical Species Protection in Western Washington

Most rangelands west of the Cascades in the Pacific Northwest occur on sites that historically supported native prairie. Over 90% of the prairies in this region have been converted to agriculture or lost to development, making conservation of this rare system a top conservation priority. At the same time, the human population in this region continues to grow, demanding more from regional food production systems. Therefore, agricultural producers are under pressure from growing needs for food production and habitat conservation. Because of this, it is increasingly recognized that prairie conservation can only be achieved by partnering with private landowners to develop incentivized conservation strategies that maintain productive farms.

Through a unique collaboration between agricultural producers, conservation scientists, economists, sociologists, regulators and agricultural researchers, we propose to evaluate if and how conservation value for rare native plants and animals can be enhanced on working landscapes while simultaneously maintaining or improving agricultural productivity. Through on-farm experimental demonstrations, we will quantify improvements in habitat value for rare species generated by conservation tools (altered grazing regimes, spring rest period, seeding native species). Additionally, we will evaluate the costs and benefits associated with conservation actions to provide guidance on strategies and expenses for agricultural producers. Finally, we will survey producers to identify concerns, questions and needs (financial, technical, other) surrounding habitat conservation on their properties. The combined ecological, economic and social survey data will help guide government incentive programs. We expect this work to identify opportunities for agricultural producers to increase the conservation value of their properties, while maintaining or enhancing their bottom line.

Study findings and educational materials resulting from the demonstration trials will be communicated through peer-reviewed publications, presentations at academic conferences, a published grazing management guidebook, and a series of collaborative regional workshops for agricultural producers, researchers, extension agents, and land managers.