

Building Rangeland Resilience to Climate Change in the Pacific Northwest

Rancher-To-Rancher Case Studies

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Why Rangelands?

Rangelands cover 21.6 million acres in the Pacific Northwest. **Ranchers must adapt to the climate change effects on rangelands.** Although climate change discussions have become highly politicized, our experience suggests that:

- (a) management addressing current rangeland stresses—fire risk, invasive plants, droughts—will continue to be necessary, and
- (b) Pacific Northwest ranchers support win-win strategies that provide ecological and economic benefits now in addition to increasing resilience to climate change.

Why Case Studies?

Our goal is to foster adoption of win-win strategies by sharing individual success stories.

Successful ranchers are experienced at dealing with economic, production, and weather risks in their decision making. They are well poised to identify and implement practices that increase resilience to climate change, while balancing the other risks they face.

Our multi-media case studies **share the insights of forward-thinking ranchers, to encourage other ranchers to consider making changes** to enhance the resilience of their operations to ongoing climate change.

How Do We Tell Their Stories?

Each case study consists of a **brief video** highlighting an innovative rancher and their climate-resilient practices, and a **peer-reviewed written factsheet** with descriptions of the ranch's management practices and decision-making processes, as well as their personal context and motivations. This narrative is paired with easy-to-digest sidebars providing key science findings relevant to the practices being discussed.

Final video and written case studies will be available in early 2019 at <http://csanr.wsu.edu/>

Russ Stingley

Kittitas, WA



Russ Stingley leases rangeland from Puget Sound Energy and the Washington Dept. of Fish and Wildlife, and manages grazing on these lands under a Coordinated Resource Management plan. This plan, developed in collaboration with the land owners and with the input of multiple stakeholders, is **designed to simultaneously achieve cattle production, wildlife habitat, and wildfire risk reduction goals.** Grazing practices include:

- applying conservative stocking rates,
- allowing native perennial bunchgrasses to set seed every other year,
- grazing during critical periods only one year out of three,
- limiting grazing duration to less than half the active growing season, and
- maintaining sufficient grass height for Greater sage grouse breeding and brood-rearing.



His approach focuses on **the health of the rangeland vegetation**, which also increases resilience to changing climatic conditions.

Jack Southworth

Seneca, OR



Jack Southworth grazes high-desert rangelands and dry forests on his own land and land leased from the U.S.

Forest Service. As part of his **holistic management approach focused on rangeland and soil health**, he has implemented a variety of grazing practices, such as:

- grazing with relatively high densities and frequent rotations,
- using plant phenology to decide when to start grazing in the spring,
- seeding degraded rangeland with high forage production species, and
- monitoring annually to track the soil and vegetation's response to management.

These practices, in combination with **the ability and willingness to be flexible**, allow him to remain profitable now, while helping him manage the risks posed by changing climatic conditions.



Brenda and Tony Richards

Murphy, ID



Brenda and Tony Richards' cattle graze on sagebrush steppe on their own

lands, on lands leased from the Bureau of Land Management, and state-managed and private rangelands leased to a grazing association they are a part of. In 2015, most of the Richards' ranch burned in the Soda Fire. **A robust network of people in their community** helped each other save their cattle and infrastructure, as well as finding solutions to



lack of forage during the rangeland's recovery after the fire. The Richards continue to **engage in local and agency processes**, so that their efforts can translate to **greater flexibility, better management and increased resilience** on all public lands, not just their leases.

Building Resilience to Climate Change

These case studies highlight different types of resilience: **ecological resilience**, based on the health and condition of the rangeland vegetation and soils; **operational resilience**, based on the ability to make management changes in response to year-to-year variations; and **social resilience**, fostered by investing in goals of the community and partners.

There is no one recipe for increased resilience that works across the inland Pacific Northwest. These three case studies provide examples of cattle operations with very different characteristics and different challenges, as well as different strategies that have led to increased resilience to change, including future climate change.

