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Win Win

Keeping the lights on, thanks to juniper. By Dave Sanden, NRCS



Twenty-one California ranchers in Lassen and Modoc counties are among those in 11 states participating in a private/federal initiative to restore habitat for the imperiled sage grouse. Protecting and improving habitat is important because this wild bird is currently a candidate for the endangered species list. If it's listed, it will dramatically impact western ranching.

The Natural Resources Conservation Service (NRCS) launched the Sage Grouse Initiative (SGI) in 2010 as an effort to improve habitat for sage grouse and improve sustainability and productivity of their native rangelands. Several large-scale threats facing sage grouse also affect the sustainability and productivity of grazing lands. One of these threats is the encroachment of junipers.

"Past management practices, especially fire suppression, have enabled these conifers to encroach into sagebrush communities, reducing habitat for both sage grouse and domestic livestock," says Heidi Ramsey, NRCS range management specialist in

Susanville. "This has become a costly problem for California ranchers, so it's not surprising that juniper removal has been one of the most popular practices and is a part of almost all of our SGI conservation plans."

NRCS was looking for partners to help with the cost of removal. "Juniper is invasive and noxious," says Darrell Wood of Wood Ranches. "We've participated in NRCS programs for over 20 years, so when I heard about the Sage Grouse Initiative here, I was the first one to sign up."

Wood is currently participating in two SGI juniper treatment projects on a total of 760 acres in Lassen County. He says that improvements for sage grouse habitat and rangeland for cattle go hand in hand. "We'd been looking for multiple ways of increasing spring flows for riparian management as well as increasing beneficial vegetation—not only sagebrush, but also forbs and grasses for feed for cattle and wildlife," Wood explains. "We're pretty excited about the groundwater increases we've seen so far. We've already seen a significant increase in spring flows."

Ramsey adds, "Juniper water use is estimated to be as high as 60 gallons for one tree per day. When juniper is removed across hundreds or thousands of acres, you can only imagine the huge volume of water that is released into the soil profile for other plants to use. Forbs and grasses have much shallower rooting systems than juniper trees. With juniper removed, these native sagebrush steppe plants can once again use water closer to the surface to complete their life cycles and, in turn, offer life-giving nutrients and much-needed cover for sage grouse and other animals."

Buck Parks of Parks Ranch is another SGI participant. He and his family have been involved in treating close to 5,000 acres of western juniper on both public and private land. "The western juniper has over the last 100 years turned what was once open space into, for lack of a better term, brush patches," Parks says. "The idea of the sage grouse being listed prompted my family to take a proactive approach in dealing with the juniper issue because we felt that

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Cowboys hand cut juniper at Five Dot Ranch in Lassen County, Calif.

aggressive steps had to be taken to improve the conditions for the sage grouse and a hands-off attitude would not work.”

Parks says that removal of juniper returns these areas to open space and makes survival of sage grouse and many other species more likely. “There is an increase in plant and forage production and variety. Dense stands of juniper create a monoculture that very few species of wildlife or livestock get any good out of. We’ve seen many plants and forage in the sites where we’ve removed juniper, and the ecosystem as a whole begins to improve.”

When juniper is removed, Parks notes, livestock grazing and distribution become much easier to manage and both livestock and sage grouse do better. It also creates a more difficult environment for predators. “Fewer raptor perches and more open country will ultimately help sage grouse.”

Clearing junipers can cost from \$80 to \$250 per acre, depending on tree density. “With input costs on the rise,” says Parks, “it is very important that people understand the long-term benefits of juniper removal and understand that cost sharing to get this work done is vital to the success of achieving those benefits.”

Some SGI participants are chipping juniper for use as biofuel to produce electric power. This led to a welcome additional benefit during last summer’s wildfire season, when fire damaged PG&E power transmission lines in the Feather River Canyon and caused recurring power outages. To turn the lights back on in Susanville, the local utility district switched to the nearby Honey Lake power biomass/geothermal plant. This provided 30 megawatts of electricity, nearly half generated from juniper chips removed as part of the Sage Grouse Initiative.

“Our office would not have been open if it weren’t for the juniper chips,” says Ceci Dale-Cesmat, NRCS district conservationist in Susanville. “The ranchers and our partners in the Sage Grouse Initiative have been very excited about the progress we’re making with the juniper treatments. But I didn’t foresee the junipers literally keeping the lights on. This is definitely a win win.” ■

Dave Sanden works for the Natural Resources Conservation Service in Red Bluff, Calif.