The Laramie County Conservation District Range and Wildlife Specialist, Rex Lockman, has been monitoring range condition and habitat on Pole Mountain area and Curt Gowdy State Park for nearly two decades now. Over that period, there has been a trend of invasive weeds, especially cheatgrass (Bromus tectorum), outcompeting and overtaking our native ranges. The eastern flank of the Laramie Range is considered prime wildlife habitat for both mule deer and elk. It is not insignificant that the mule deer population has dropped 40% during the same period of record. The District believes that invasive species, especially cheatgrass, are a major contributor to the population declines. Therefore, Rex decided in 2019 that he needed to address the resource concern.

Rex's mission was to partner with as many entities as he could find and obtain funding through grants to pay for the spraying of Curt Gowdy State Park, his primary focus. Partners included the local and state agencies of State Parks, Laramie County Weed and Pest, Cheyenne BOPU, and Wyoming Game & Fish. Two wildlife groups, Muley Fanatic Foundation – Southeast Wyoming Chapter and the Rocky Mountain Elk Foundation, rounded out the contributors for the spraying of the initial 550 acres in the state park. The total price tag to get the first portion sprayed was $33,836.

Prior to spraying, Rex set up control and test vegetation monitoring plots with numerous line-intercept transects. This allowed the District to track vegetative response and changes over time as the assumed decrease in cheatgrass density would occur. The herbicide selected for the treatment was a pre-emergent called "Rejuvra", produced by Bayer, that had very good results in combating cheatgrass in other regions. (Rejuvra Presentation). Application of the herbicide would be by helicopter given the rough terrain and limited access for wheeled vehicles, not to mention the timeline. Rejuvra would not be applied within 50-feet of any water body, streams, or lakes.

The first application in September 2020 had reasonable results given the poor amount of precipitation we received in the following 2021 water year. The amount of response with limited precipitation indicated we were headed in the right direction. Therefore, Rex pursued more funding and gained four additional funding sources in the process, the United States Forest Service, Laramie County Weed and Pest, Wyoming Weed and Pest Council, and the Wyoming Wildlife and Natural Resource Trust. These entities brought enough funding to complete the spraying of the entire state park and an additional 5,000 acres of USFS land adjacent to the park in the spring 2023.

To date, habitat response has been overwhelmingly positive (See Figure 1). Native grasses and forbs are making their way back on to the rangeland. Vital components of deer browse, like Mountain Mahogany and Bitterbrush, are making a comeback in all areas as well. It is assumed that we will see vegetative communities change as time goes on. We anticipated seeing pioneer species, such as Fringed sage wort, respond to a reduction in cheatgrass densities and increases in bare ground. However, the perennial shrubs in some circumstances almost seem to have come back from the dead (see Photograph 1).

Monitoring of the vegetative response and the chemical's longevity will continue for the next 5 years. The overall cost of the project was $556,206 and the partner breakdown can be found in the table below. See Figure 1 and photographed results below as well. Call Rex at 772-2600 with any questions about the project.

Partner Contribution for the Entire Project Implementation	
Laramie County Weed and Pest	$77,500
Muley Fanatic Foundation – Southeast Chapter	$33,000
Wyoming Game and Fish Dept	$40,000
Wyoming Wildlife and Natural Resource Trust	$111,606
USFS – Medicine Bow District	$234,600
Cheyenne BOPU	$5,000
Rocky Mountain Elk Foundation	$4,500
Wyoming Weed and Pest Council	$50,000

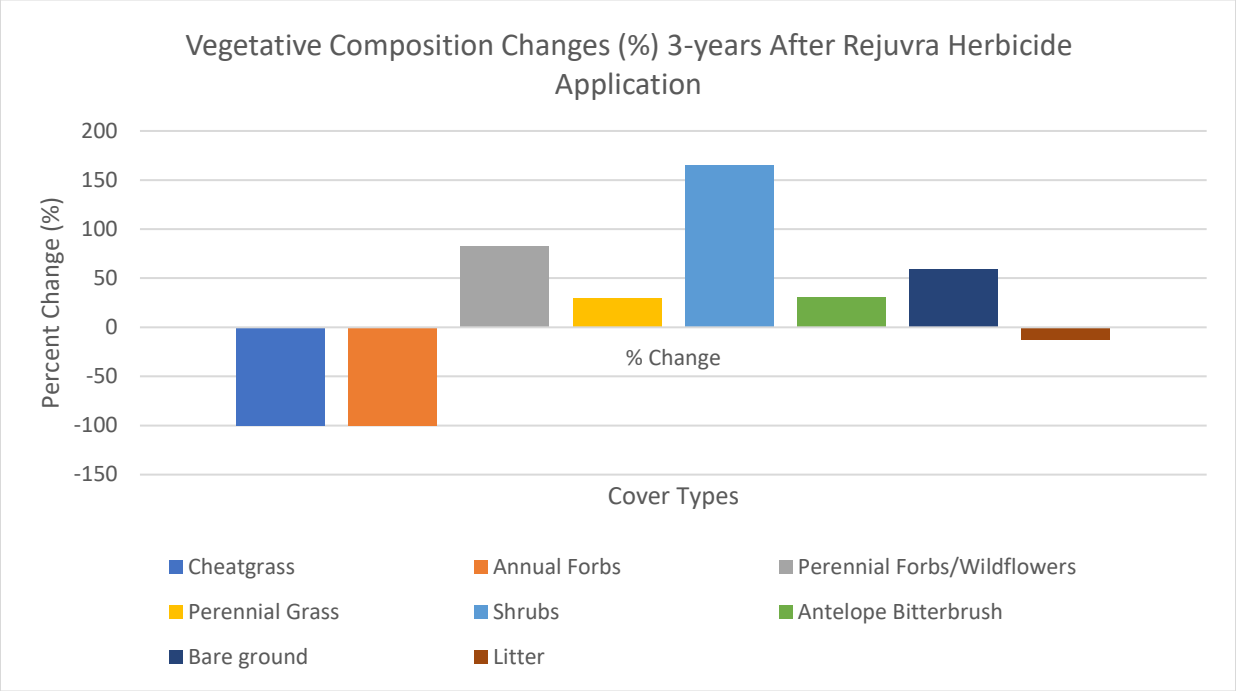

Figure 1. Cover Composition Changes after the application of Rejuvra can clearly be seen within a three-year period. The primary increase in shrub community was due to a flourish of Fringed Sagewort in one transect, a pioneer species. Litter decrease and bare ground increase would be from the reduction in cheatgrass.