

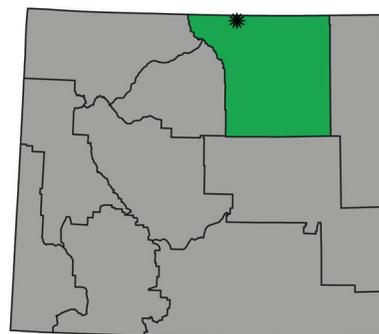


*Native Plant Materials
Development Program*

Expanding Restoration and Reclamation Abilities in Northern Wyoming

Reclamation Benefits Sage-Grouse

Under a multiple-use mandate, the BLM manages operations that make significant contributions to the domestic energy supply. Over 17,000 federal oil and gas wells have been drilled in the Powder River Basin in northeastern Wyoming. The majority, about 13,000, are coal bed natural gas wells which each have a production lifespan of approximately 12 years. Currently, almost 3,000 of the coal bed natural gas wells are ready for plugging and reclamation.



Welch Ranch,
Buffalo Field
Office
(Wyoming)

Greater Sage-Grouse, a candidate for protection under the Endangered Species Act, is also found in the Powder River Basin. While its population has been severely reduced by habitat fragmentation from large-scale energy and mineral development, habitat loss from fire, and diseases such as West Nile Virus, there is still a viable population present according to a 2012 study. Using native plants for successful reclamation of the inactive wells will help reverse development impacts by restoring and improving sage-grouse habitat.

Acquiring Welch Ranch

In 2004, the Bureau of Land Management (BLM) Buffalo Field Office acquired 1,747 acres of land north of Sheridan, Wyoming, in exchange for federal minerals (coal). Commonly called Welch Ranch, the acquired land is located along the Tongue River in northeastern Wyoming. In addition to the land, the BLM acquired Welch Ranch's 1.7 cubic-foot per second water right to irrigate up to 119 acres. The BLM is converting one acre of alfalfa into native seed production for use in sage-grouse habitat restoration research and development. There are currently about 100 acres in non-irrigated hay production.

Putting Welch Ranch to Work for BLM

The combination of the BLM farmland and water right provides the unique opportunity to grow locally collected seed for research and development, primarily for range and wildlife restoration projects. The produced seed would be used in trials, experiments, and also to rehabilitate and restore native plant communities in the Powder River Basin. Various wildlife species such as mule deer, pronghorn antelope, elk, small mammals, and non-game birds, as well as the Greater Sage-Grouse will benefit from restoration of disturbed lands with native seed.

Greater Sage-Grouse males performing elaborate courtship displays on a lek in native plant habitat. (BLM Buffalo Field Office/Bill Ostheimer)



From top to bottom: Bed preparation, fencing, and planting.
(BLM Buffalo Field Office)

A Multi-Step Process to Production

- **Seed Collection & Cleaning** – Local seed collections made through the Seeds of Success program were cleaned by the Bend Seed Extractory and the Upper Colorado Plant Materials Center.
- **Cultivation** – The collected seed was transferred to the University of Wyoming’s Sheridan Research Center to be cultivated in a greenhouse.
- **Herbicide Application** – In the spring of 2014, the Sheridan Weed and Pest District applied a general herbicide by ATV to the seeding area to remove the existing vegetation.
- **Bed Preparation** – University of Wyoming personnel rototilled the area and prepared the 30 planting beds with a specialized plow, weed fabric mulch, and drip tape.
- **Fencing** – An 8-foot high reinforced woven wire fence was constructed over six days. The High Plains District Office led the effort with help from the Buffalo Field Office based fire crew and employees.
- **Planting** – In the first year of the project, propagation efforts focused on grass species grown in the Sheridan Research Center’s greenhouse including Bluebunch Wheatgrass (*Pseudoroegneria spicata*) and Green Needlegrass (*Nassella viridula*). Twelve Buffalo Field Office employees, five Chicago Botanic Garden Interns, and two volunteers transplanted approximately 7,000 tublings on July 1, 2014. These plants should produce seed for 3-5 years.
- **Irrigation** – To maximize seed yield, plants will be irrigated throughout the growing season. Welch Ranch will use a drip irrigation system of 150-foot drip tapes attached to an irrigation pump tied directly to the Tongue River.

The focus of the initial project is to test the viability of creating a native plant research and development facility on the Welch Ranch. Buffalo Field Office anticipates collectable seed production from Welch Ranch in 2015. Future years will focus on research and development of various native plants for restoration activities as needed by the BLM.



For more information on the native plant work being done by the BLM Buffalo Field Office at Welch Ranch or by the national Native Plant Materials Development Program, contact:

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