

UCROSS ranch: A living laboratory for natural resource stewardship

New assessment and monitoring plan will help preserve, improve resource base.

Nathan Lindsey, manager of conservation and stewardship at Clear Creek Farm in Wyoming, has coordinated the development of “Holistic Rangeland Watershed Assessment and Monitoring Protocol” specifically for the Ucross Ranch.

This assessment and monitoring plan was designed by Todd Graham of Ranch Advisory Partners, Tim Keane, Ph.D., of Kansas State University, and professional hydrologist Cheryl Harrelson of Steady Stream Hydrology. The plan calls for the selection, assessment and detailed monitoring of 10 upland pasture sites and five stream channel sites over the next 10 years. This integrated monitoring plan will track changes in range grass species and productivity, rates of soil erosion, rainfall runoff vs. infiltration, stream bank erosion, overall stream channel stability, and many additional factors over years of varying weather conditions.



[Editor's note: Apache established the Ucross Foundation in Ucross, Wyo., as a nonprofit organization in the early 1980s. The 22,000-acre property continued as a working cattle ranch. The foundation's mission is threefold: (1) A residency program providing space in which to nurture the creative spirit for selected artists and writers; (2) meeting facilities for community and regional consensus building; and (3) a model of land management for northeast Wyoming.

The Ucross Ranch is a developing model for ecologically sound, holistic ranching practices. In 1999, the foundation placed a conservation easement, held by the Wyoming Chapter of The Nature Conservancy, on more than 12,000 acres of the ranch. As part of this initiative, the foundation has broadened its programs to include the natural sciences and land issues of the American West in the 21st century.]

The management focus at the Ucross Ranch shifted about 10 years ago toward restoring the health and vitality of the resource base under the guidance of Graham.

Efforts to improve rangeland health, riparian conditions, wildlife habitat and fisheries, as well as outreach and education of the conservation ranching community are ongoing, and the monitoring plan put together by Lindsey, Graham, Keane and Harrelson will aid and inform these efforts.

Monitoring of pastures and stream channel sites will help measure the success of these new management practices. Monitoring results will inform management at the ranch and will be shared with the larger community of ranchers, resource managers, students, and conservationists. The Ucross Ranch will become a living, learning laboratory for natural resource stewardship.

While showcasing the stewardship and restoration efforts of the ranch management, Ucross also will become an outdoor classroom for the practices of holistic ranching.

“The Holistic Rangeland Watershed Assessment and Monitoring Protocol combines simple, sustained measures of vegetation, soil, water and landscape change to quantify the impacts of various grazing management practices” said Doug O’Neil, region vice president of Wyoming operations. “The monitoring also considers the effects of the weather, invasions of aggressive weeds, grasshopper outbreaks, and other – often unforeseen or unpredictable – aspects of ranching and is an indication of Apache’s dedication to preserving and improving this asset.”

“Selection and implementation of the first three Clear Creek

assessment and monitoring sites will occur during the summer of 2012 with subsequent sites being installed or re-assessed during the next nine years,” Lindsey said. “Workshops and short courses are being designed around this monitoring effort to share the techniques and results with students and practitioners of holistic ranch management.”

Manmade structures, farming practices, and past abuse of the land have altered the natural stream flows and processes. This has allowed the creeks to become wider and shallower, harming the fisheries and the natural state of the creek.

Steady Stream Hydrology has installed rock structures within Piney Creek to stabilize the bank and improve the fisheries.

These structures channel the water toward the center, scouring the creek, which creates deeper pools for fish. This scouring action created by the carefully placed rock cross vanes, allows the fine sediment to be deposited along the bank. This reduces the suspended sediment in the water and builds the bank to reduce erosion and cutting.

At Ucross, the rock structures have helped restore the creek to its natural state, improve the habitat, and reduce erosion.



Nathan Lindsey, manager of conservation and stewardship at Clear Creek Farm in Wyoming, monitors range development from one of many monitoring locations on the ranch.

More structures are being planned and designed to reduce bank erosion in Piney and Clear Creek over the next 10 years.

Unconventional grazing practices like short duration, high intensity, or rest-rotation grazing have been applied to the Ucross properties by Lindsey and the leaseholder Barry Bauer. By using the livestock as a tool to improve the rangeland over the last decade, many pastures have doubled in production.

The theory is that cattle don’t like to be bunched together and often first graze the best grasses, which thrive near bodies of water. These areas tend to be overgrazed while the steep hillsides and portions of the pasture where there is less water have little utilization. By increasing the number of livestock in the pasture, they are forced to spread out and better utilize all of the land.

The key is to only keep the livestock in the pasture for a few days. Though it is more labor intensive to move livestock regularly, the benefits allow more cattle to run, while improving the amount and quality of forage on the rangeland.

One might say these practices offer a holistic alternative to “milking it for all it’s worth.”

EXPLORE