LU Land Projects—Preserving the Land and the People

Larry C. Eichhorn

Opportunities for Montana homesteaders were as bare as their cupboards in the early 1930's. Homesteaders had flocked to the state at the turn of the century, drawn by railroad propaganda and the allure of owning their own place. And, at first, nature seemed inclined to bless the enterprise—1909–1915 (when most lands were homesteaded in Montana) were years of good precipitation. Crops grew, confounding those who had declared that homestead lands were fit only for grazing. The prices of farm commodities rose as the warring nations of Europe sought to feed their citizens, and the small farms prospered.

But lean years followed the fat. There were a number of dry years when the wind stripped the thin topsoil of the plowed fields. Commodity prices after World War I fell even as the dust clouds rose. Homesteaders sank further and further into debt just to feed their families. Finally, many saw their farms go to the county for the taxes they had no way to pay.

Many Montana counties were left with two problems; first, to aid the displaced homesteaders and other unemployed workers; second, to get the idle homesteaded lands back into the use for which they were best suited. Some people were relocated to more productive lands and special project areas. A county agent in northern Montana during this period came up with a solution that solved both problems, though. Henry Lantz, Phillips County Agent, suggested that the Federal government buy up homesteaded farms that had gone under or were sinking and employ the erstwhile homesteaders and others on project work.

Lantz' suggestion was embodied in the Bankhead-Jones Tenant Act of July 22, 1937. Title III of this act authorized the Secretary of Agriculture to repurchase for the Federal government lands unsuited for cultivation. These "Land Utilization" lands were to be improved and put back into production as rangeland wherever possible. The act also authorized that 25% of the net revenue from LU lands be returned to the counties in which they lay to support roads or schools.

One objective of the Department of Agriculture's acquisition program was to provide work for the unemployed in the area. This was to be done by range treatment projects on LU lands. Funds were funneled through the Works Progress Administration for the projects, while the U.S. Soil Conservation Service supervised.

What kinds of range projects were undertaken and how efficient were they? A look at a project Dry Blood Creek on LU lands provides the answers to these questions.

Dry Blood Creek lies 10 miles north of Winnett in central Montana. In 1936, WPA began a flood control demonstration project on a tributary of this drainage. A catchment reservoir was built, providing information on the run-off characteristics of the watershed. Frequent floods down Dry Blood gouged a trench through the landscape. The catchment reservoir slowed the erosion but floods in March and June of 1937 damaged the spillway of the reservoir. Clearly, something else was needed to counter the corrosive floodwaters.

SCS decided to mechanically treat the drainage above the reservoir to reduce water velocity down the drainageway. Contour furrowing, the recommended treatment, impedes the flow of water across the soil surface, allowing more time for water to infiltrate, thus decreasing run-off and therefore erosion. The goal of contour furrowing is to hold as much water on the soil on which it falls as possible. This mechanical treatment was not new, even in 1937, having been employed in South Africa in 1876 (Bennett 1939) and in Texas in the 1880s.

The trick was to match the size of the furrows and their spacing to the soils and the climatic conditions of the site. Soils are predominantly loams and clay loams in the Dry Blood drainage basin. Slopes are from 5–20%. Precipitation averages 13 inches yearly. A Lister (a double moldboard plow) was used with either single or double blades cutting furrows 4 inches deep and 12 inches wide. The furrows were from 7–21 feet apart, depending on the contour and the percentage of the slope of the land. After treatment, the slopes were seeded with crested wheatgrass *(Agropyron desertorum)*.

No water went over the spillway after the mechanical treatments; very little, in fact, even collected in the reservoir. The project proved that flooding could be at least partially controlled by contour furrowing the steeper slopes above the problem drainage, as Larson (1940) concluded. The efficiency of the Dry Blood flood control project in general is borne out by pictures of the area.

LU lands repurchased by the Federal Government ultimately reached 2.5 million acres, of which 1,934,000 acres are in Montana. Today, most of the LU lands are administered by the U.S. Bureau of Land Management for livestock grazing. These lands are intermingled with private, state, and public domain lands.

By converting marginal and submarginal farmlands into rangelands, LU land projects redirected the economy of the region while using the land and human resources to the highest capacity.

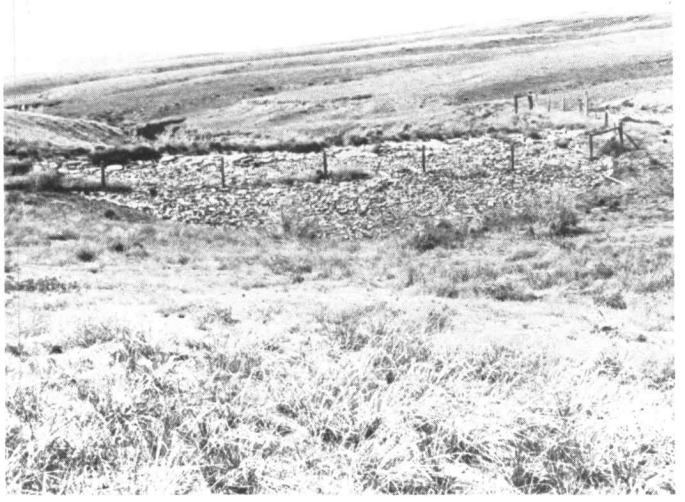
Four thousand men worked on the LU projects during its 5-year (1935–1939) history and then moved on. Like the land, they had been an under-utilized resource.

Author is with the Bureau of Land Management, Lewistown, Montana.

Literature Cited

Bennett, H.H. 1939. Soil Conservation. McGraw-Hill Book Co., New York. 993 p.

Larson, F. 1940. Value of contour furrows as a flood control measure. Soil Conservation Serv. 8 p.

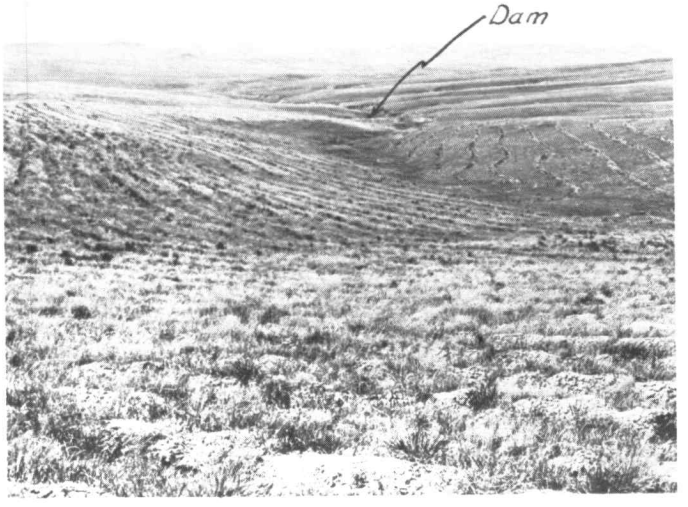


A reservoir constructed in 1936 provided information on run-off characteristics of the watershed. **1936**

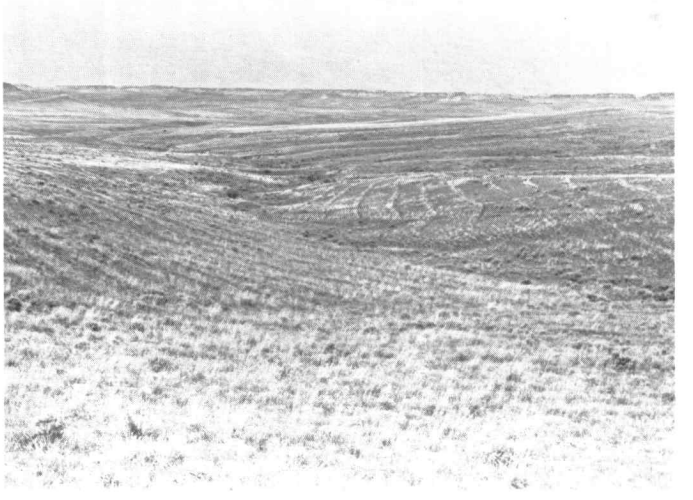
The reservoir today. **1981**

The drainage below the reservoir as it appeared in **1937**

The same area today. **1981**



The drainage basin after contour furrowing in **1937.**



The drainage basin today, 44 years after contour furrowing. **(1981).**

Dry Blood Reservoir, gully below reservoir and drainage basin before and after contour furrowing. The treatment significantly lessened erosion in this drainage. The furrows still have an average width of 12 inches and 2-4 inches in depth. Note that the gully is no longer sharply incised and the soil is stable enough to support shrubs and grass.

The most common plants on the sites are crested wheatgrass, western wheatgrass (Agropyron smithii), *plains muhly* (Muhlenbergia cuspidata), *green needlegrass* (Stipa viridula), *needleandthread* (S. comata), *Junegrass* (Koeleria cristata), *and big sagebrush* (Artemesia tridentata).