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THE NEW DEAL'S LAND UTILIZATION PROGRAM IN THE GREAT PLAINS

GEOFF CUNFER

Drive the remote highways of the Great Plains and you will find signs marking US Forest Service property in the midst of the nation's vast interior grassland, a place where it could be miles to the next tree, let alone a forest. In fact, the Forest Service (USFS) manages several million acres of land in the Great Plains, public land designated "National Grasslands" and committed to grazing by private cattle ranchers. The National Grasslands are remnants of the Great Plains past, their story rooted in pioneer homesteads and in the

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drought and depression of the 1930s. USFS brochures explain the history of these parcels of public land in the midst of an overwhelmingly private and treeless Great Plains:

[N]ew settlers, called "sodbusters" by some, attempted intensive agriculture, by raising cultivated crops rather than livestock. . . . Between 1905 and 1915 as a great number of "sodbusters" came, the less desirable areas were homesteaded. . . . During the mid-1920's, rainfall became less and less frequent. . . . With little or no rain, crops did not mature and homesteaders had nothing to harvest. . . . The soil, once held in place by the roots of native grasses and later by the cultivated crops during the years of good moisture, was now free to move, and move it did! Thus began the black blizzards which plagued the western plains for nearly a decade.¹

Beginning in 1934 the federal government repurchased 11 million acres of land from private owners and created large, federally managed grazing lands under the auspices of the Land Utilization Program (LUP). Government

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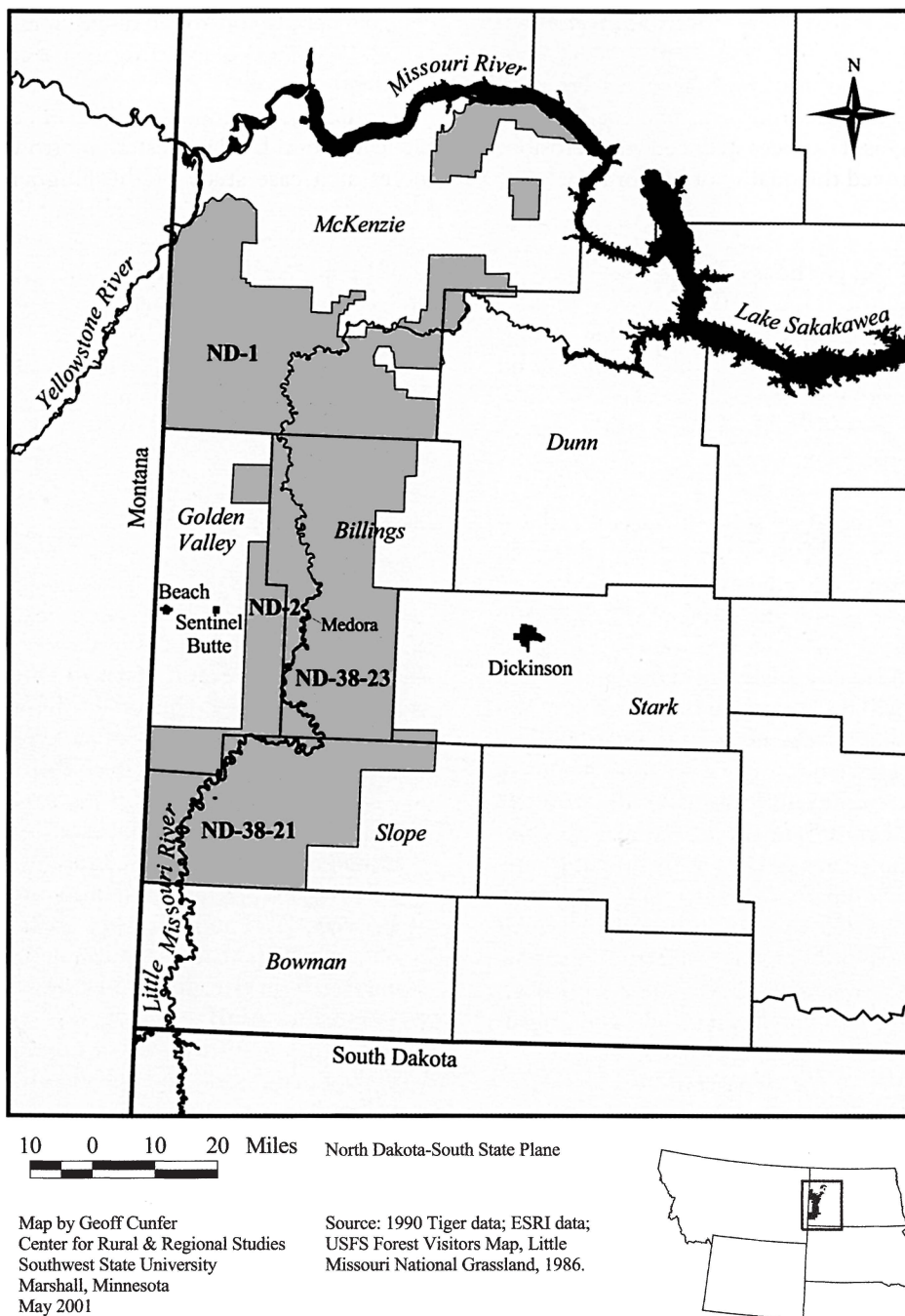


FIG. 1. The 750,000 acre Little Missouri Land Utilization Project, North Dakota.

managers, so the story continues, reformed land use by revegetating cropland and converting it to pasture. Grazing was better suited to the natural environment, and it conserved soil and grass resources, reduced wind erosion, and improved the quality of life for remaining families:

Hundreds of thousands of acres were reclaimed during this 10-year period. Most were reseeded to crested wheat-grass, a plant introduced from Russia. In 1945, at the end of World War II, these lands were once again as productive as many of those that had never been farmed.²

This is an attractive story of tragedy and salvation. It has a bitter foe in the region's harsh and unpredictable climate; it has victims needing rescue—destitute farmers and a fragile natural landscape; it has heroes—federal agencies including the Soil Conservation Service (SCS) and the Forest Service. And it has a happy ending—a rescued grassland and prosperous ranchers.³

In fact, the Land Utilization Program did not drastically alter basic land use in the ways the official story asserts. The program purchased very little cropland at all. Most land that the federal government purchased under the LUP was not in crop production and never had been plowed. The government intentionally left most of the plowed land in its project areas in private ownership, and it purchased primarily unplowed pasture land, most of which was still in native grass. Budget restrictions by the late 1930s meant that the Land Utilization Program was able to reseed only a small portion of what little cropland it did acquire. The LUP did not convert cash crop land to grazing uses and did not reseed plowed, exposed croplands on the majority of its purchases. What the program actually did was to transform informal, open range ranching to bureaucratically managed ranching. The LUP removed squatters grazing a *de facto* open range in preference for a "better" class of local ranchers who subsequently acquired exclusive ac-

cess to federally controlled range. The story of the LUP is a story of evolving uses of common grasslands.⁴

The largest project on the Great Plains, the Little Missouri LUP in western North Dakota, serves as a case study of the program. This location is representative of the implementation of New Deal land use adjustment throughout the plains. Like most of the grassland, western North Dakota experienced severe economic depression beginning in the 1920s and coinciding in the mid 1930s with the worst drought in recorded plains history. Here, as at some two dozen other Land Utilization sites across the region, federal land managers stepped in after 1933 to purchase private land from destitute farmers, rejuvenate it, and manage it for grazing, rather than for cropland. And here too restricted budgets and a disjuncture between rhetoric and practice meant that the Land Utilization failed to achieve its lofty ambition to correct misuse of agricultural land in the Great Plains. The story of the Little Missouri Land Utilization Program presented here illustrates the practical application and ultimate limitations of one of the New Deal's most ambitious land use reform efforts.

Billings, McKenzie, Golden Valley, and Slope Counties nestle on the extreme western edge of North Dakota, between the Little Missouri River and the Montana state line (Fig. 1). Though mostly flat or gently rolling, the plains descend into waves of badlands along the Little Missouri River. Here the soft, silty and clayey bedrock erodes from hills and cliffs into piles of stony rubble devoid of vegetation. The badlands extend for fifteen miles on either side of the river and for 150 miles along its course. In the cedar-crowded draws and on the steep hills there is hardly a place flat enough to run a plow. Floodplains along the river bottom are plowable, and there are occasional high, wide divides between draws where steady winds comb short grass. Rain is scant in the region, averaging fifteen inches per year. Drought is a risk every season.⁵ Long, cold winters prevent cattle from grazing year round, so supplemental feeding is necessary. Every

year stock raisers must buy or grow feed crops—corn, sorghum, oats, and hay. Otherwise, animals may starve over the winter before spring grasses become available in April. It was in these beautiful, unproductive badlands that the Land Utilization Program established one of its biggest reclamation projects.

The first Euro-American settlers moved into western North Dakota between 1879 and 1900 to raise livestock on a vast expanse of open pasture available for use by whomever entered. The big land boom—ubiquitous in Plains history—came to western North Dakota between 1900 and 1920, and it triggered a thirty-five-year evolution of common resources from open range to private ownership to government-regulated reserve. In 1905 the town of Sentinel Butte was exclusively livestock country. That year it shipped out 64 railroad cars of cattle, 28 of sheep, 5 of horses, 25 of wool, but only 4 car loads of grain.⁶ By the following year, however, farmers began to displace livestock raisers. In just two months in 1906 the General Land Office at Dickinson recorded over 1,400 homestead entries.⁷ Throughout 1906 the *Billings County Republican* reported new arrivals weekly: “Four more cars of emigrant movables arrived here last Friday and Saturday. It is hard to keep track of them all.”⁸ The county population rose from 975 in 1900 to over 10,000 a decade later.⁹ Everyone jumped at the chance to claim a free quarter section of land. In Sentinel Butte the newspaper editor homesteaded a plot and the schoolteacher left his classroom to take up farming.¹⁰

The Northern Pacific Railway and land speculators joined the boom, too. In 1906 the railroad patented 51,000 acres in Billings County for immediate sale to settlers and speculators.¹¹ The biggest real estate operator around Sentinel Butte was the Golden Valley Land and Cattle Company, which brought speculators from Iowa, Minnesota, and points east to buy land. The company did a booming business, which was capped in May 1906 when an Iowa speculator purchased three townships—some 69,120 acres.¹² Generous rainfall

accompanied the boom. At twenty inches, precipitation in 1906 was 30 percent better than average and crops did very well, with yields of 28 to 30 bushels per acre for wheat.¹³ Even the ranches, forced to adjust to the loss of open range, made money. With new farmers arriving, ranchers found a strong local market for their horses.¹⁴ Land prices skyrocketed, fueling speculation. During the summer of 1906 the price of land rose from \$5.00 per acre to \$17.50.¹⁵ By 1915 land agents and the railroad listed property on the rolling plains at between \$15 and \$30, with “hilly or broken” badlands real estate starting much lower at \$7.50.¹⁶ Some people filed homestead claims and then sold relinquishments as soon as possible, a procedure that could bring a swift \$1,000 profit.¹⁷ People moved in and out of the area quickly, acquired land, sold at a profit, and moved on. Yet many intended to farm, and every week brought news of homes going up on the plains and fences enclosing pastures.¹⁸

In a few years farmers transformed land use in western North Dakota, and in the process the nature of common resources. The biggest change was a sharp reduction in the amount of free common grazing land available. As the government privatized land, new owners took action to prevent common use of their property. Advertisements flooded local newspapers warning off trespassers. J. H. Moore advertised that he now owned the odd-numbered sections (640 acres each) between Sentinel Butte and Beach, and no one was to cut timber there or trespass.¹⁹ The “odd-numbered sections” suggests he had purchased land from the railroad, thus removing thousands of acres of formerly unmanaged open range from grazing access. A man from Dale, Wisconsin, wrote to say that no one was to cut hay or graze on his five sections of land.²⁰ And the biggest landowner in the area felt the same way: “Notice. Any party or parties grazing or cutting hay on any lands owned or contracted by the Golden Valley Land and Cattle Co. in Billings County . . . will be prosecuted to the full extent of the law.”²¹ In 1918 A. L. Martin put

it succinctly: "Notice—All parties who own or have stock in their charge that are now grazing on lands belonging to the undersigned that this will be no longer tolerated. These lands are private property and not public commons, and I am entitled to the sole use of them."²²

Although landownership changed quickly, sodbusters had plowed only a small portion of the North Dakota grassland before the beginning of the LUP. The primary cash crop in the three-county area was wheat, which grew from 3 acres in 1899 to 37,725 acres in 1909, then skyrocketed in the next decade to 132,968 acres. By 1929 farmers planted 274,576 acres of wheat. These acreages are significant and the increase was swift, but this plow-up took place in a region of 2,178,560 acres, meaning that at the peak of the wheat boom in 1929 only 13 percent of the three counties' total area was devoted to wheat. Farmers grew corn and oats to feed their livestock through severe northern winters, with acreages varying between 14,000 and 69,000 acres, or between 1 and 3 percent of total land area. Altogether, plowed land never exceeded about 20 percent of the entire three-county area. The other 80 percent of land remained in native grass, but ranges experienced increasing use as well. Even as plowed land encroached on former open range, livestock numbers rose. The three-county region had supported 21,000 cattle in 1899 when most land was in the public domain. By 1920 cattle numbers had doubled to 45,811. Thus, even unplowed land was more intensively used by 1930.²³

The economic boom faltered by the end of World War I, and social and economic crises mounted in the Little Missouri region. First, the good rains ceased. Rainfall was a dismal 9 inches in both 1917 and 1919. Between 1921 and 1931 rainfall in Golden Valley and Billings Counties was below the 15-inch average for 8 of 11 years, and for 7 of the 11 in Slope County.²⁴ The counties issued bonds, using the revenue to offer small feed-and-seed loans to farmers unable to provide their own. In 1918 Golden Valley County issued 125,000

dollars in bonds for seed loans, and in 1921 Billings County issued 90,000 dollars' worth. Fourteen years later Billings had repaid none of that money and had borrowed more.²⁵ As poor crop followed poor crop, farmers packed up and left without repaying loans or outstanding property taxes. The *Sentinel Butte Review* reported a steady flow of farmers giving up at the end of the 1925 season.²⁶ Between 1920 and 1930 population dropped by nearly 1,500 in the three counties, a 12 percent decline.²⁷ As of 1935, 49 percent of 1928 property taxes in Billings County remained unpaid, along with 59 percent of those for 1929 and 58 percent from 1930.²⁸ County debts climbed, loan repayment was slow or nonexistent, and tax income plummeted as people left. And all of this happened in the 1920s, before the stock market crash, before the Great Depression, and before the ferocious drought of the next decade.

Between 1900 and 1930 the federal government privatized the public domain lands of western North Dakota, but the venture was only partially successful. Privatization took hold on the upland plains but not in the badlands. By the 1920s almost no public domain was left to homestead. And yet, most of the badlands still functioned as a common range. The badlands were simply too poor to recompense small farm or livestock operations, let alone repay speculative investments made at boom-time prices. The badlands were a patchwork of unsold railroad land, state-owned school land, absentee-owned range seldom visited by its owners, who often lived in other states, and the small homesteads of latecomers who had been squeezed out of better farmland on the plains but who nonetheless tried to survive in the beautiful, impoverished canyons. As the 1920s came to a close, badlands acreage reverted to the counties when landowners defaulted on property taxes. There was no one to manage or oversee any of these properties, so resident stock raisers squatted on them without permission and without charge. A vast, common rangeland had retreated from the wide plains but found continued refuge

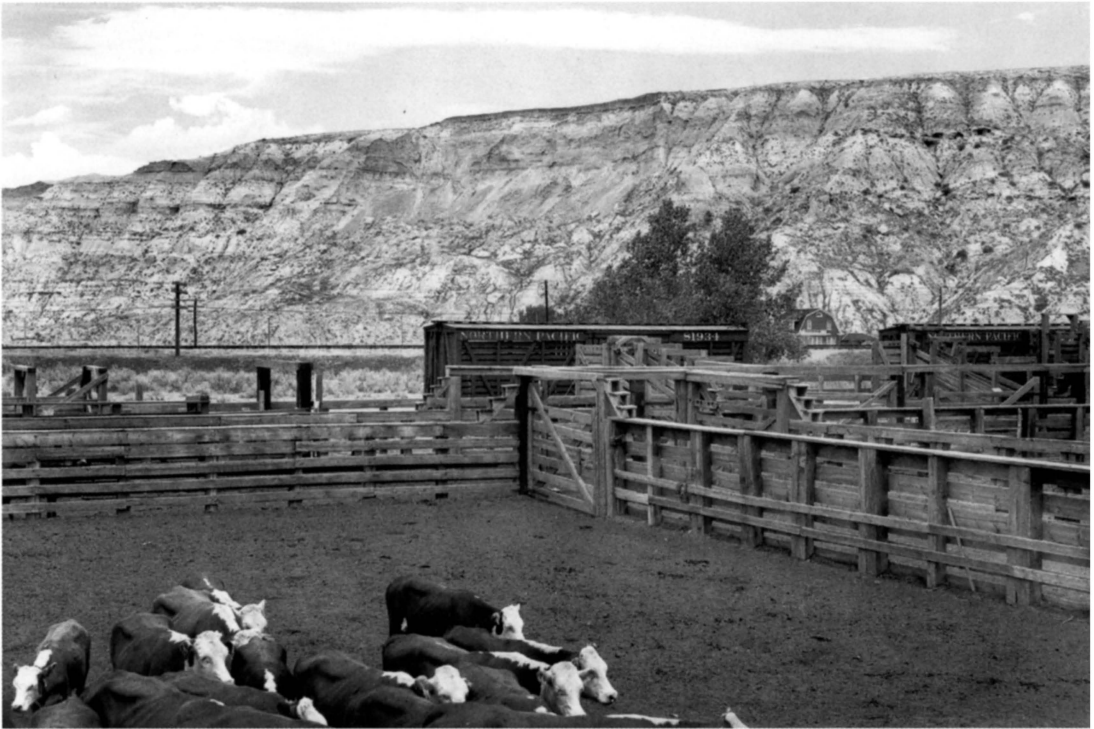


FIG. 2. A livestock corral near Medora, Billings County, North Dakota, with a badlands escarpment in the background, July 1936. Photograph by Paul Carter. Library of Congress, Prints & Photographs Division, FSA-OWI Collection, LC-USF341-T-011202-B.

into the mid-twentieth century by huddling into neglected back corners of the Great Plains. It was here that federal land managers focused their attention in the 1930s.

Ten years of poor rainfall, poor crops, and growing indebtedness for individual farmers and ranchers left the community weakened when disaster struck in 1934. That year saw a record-setting drought during which Billings, Golden Valley, and Slope Counties each received only 7 or 8 inches of rain. Over 240,000 acres of cropland failed that summer.²⁹ Grain farmers were in dire straits, but cattle raisers were no better off. Feed crops died, pasture grass dried up, and hay-cutting was all but impossible. Faced with an approaching winter of starving livestock, ranchers sold nearly all of their herds. The federal government stepped in that year with a generous offer to purchase cattle in the Great Plains at above market

prices from ranchers who needed to liquidate. Golden Valley County stock raisers lined up to participate, and for two months a backlog of thousands of cattle awaited railroad cars for shipment out on the government purchase plan.³⁰ Of the 10,370 cattle in the county, stock raisers sold more than 9,300 in 1934.³¹ In Billings County 59 percent of the population was on relief in 1935, 62 percent in McKenzie County.³² Drought continued in 1936, as rainfall again was a meager 7 or 8 inches. In fact, 1934 and 1936 were two of the three driest years in a century of rainfall records for western North Dakota.³³

Although the mid-1930s drought was severe across the entire Great Plains, the northern plains did not experience the "Dust Bowl" conditions that impacted the southern and central plains. In fact, wind erosion in the northern Great Plains was only a minor prob-

lem. Dust storms occasionally accompanied drought in the northern plains, but the problem was neither persistent nor comparable to the erosion disaster on the southern and central plains. The classic Dust Bowl region was in the Texas and Oklahoma panhandles, eastern New Mexico and Colorado, and western Kansas.³⁴ Lower temperatures, lower evapotranspiration rates, and extended spring snow cover meant very little blowing dust on the Dakota plains. Despite the dust storms farther south, federal land use adjustment programs concentrated their efforts on the northern plains, and the Little Missouri watershed in western North Dakota became the largest of the Land Utilization Projects in the grassland.

The economic and agricultural disaster of the 1930s provided an opening for experimentation with federal land use management. The idea had begun in the 1920s among economists in agricultural colleges who proposed removing "submarginal" land from crop production. "Submarginal" referred to land low in productivity, unsuited for the production of farm crops, or incapable of profitable cultivation. A "land utilization" movement emerged in the 1920s to classify farmland as good, poor, marginal, or submarginal, and to forcibly retire the latter from production. Such planning aimed to reduce farm poverty, contract chronic overproduction of farm crops, and protect land vulnerable to damage. M. L. Wilson of Montana State Agricultural College focused the academic movement, while Lewis C. Gray at the Bureau of Agricultural Economics (BAE) led the effort within the US Department of Agriculture.³⁵ The land utilization movement began well before the 1930s, but the drought and dust storms of that decade provided a fortuitous justification for a land use policy already on the table, and agencies such as the Soil Conservation Service and Farm Security Administration, which benefited from increased land utilization funding, were the loudest to publicize and deplore the Dust Bowl wracking America's heartland. Yet 64 percent of all Land Utilization Program purchases in the Great Plains were in

Montana, Wyoming, and the Dakotas, far from the black blizzards of the Dust Bowl region.³⁶

Franklin Roosevelt initiated the Land Utilization Program in February 1934 when he created a Land Policy Section within the Agricultural Adjustment Administration (AAA) and transferred 25 million dollars from the Federal Emergency Relief Administration. The initial plan for the LUP was to purchase 10 million acres of submarginal land across the country.³⁷ The Land Utilization Program was one experimental agency among many in the early days of the New Deal. The program moved through five agencies within the Department of Agriculture in as many years. First part of the AAA, then the Resettlement Administration, Farm Security Administration, and Gray's Bureau of Agricultural Economics, in 1938 the LUP found some stability in the Soil Conservation Service (SCS), where it remained through 1953.³⁸ In 1954 the Forest Service acquired responsibility for much LUP land, soon to be called National Grasslands, while another portion went to the Bureau of Land Management. Between 1935 and 1946 the LUP spent 48 million dollars to purchase 11 million acres of land around the country. By 1954 it had spent an additional 30 million dollars developing and rehabilitating that land.³⁹

The purchases of the LUP were concentrated in the Great Plains. In 1934 administrators identified the badlands along the Little Missouri River as a likely site for a Land Utilization Program. They divided the region into two initial purchase areas. The areas in McKenzie County they labeled ND-1. The section that lay primarily in Billings County, overlapping into the eastern townships of Golden Valley County, they dubbed ND-2. In 1937, with passage of the Bankhead-Jones Farm Tenant Act, the North Dakota LUP expanded with the addition of two new projects adjacent to the old ones. ND-38-23 added several townships of land to the eastern edge of ND-2 in Billings County. ND-38-21 was on the southern border of the earlier projects in

Slope County. By the early 1940s administrators consolidated all of these projects into a single unit, ND-24. When the Forest Service took over in 1954 the entire project became the Little Missouri National Grassland, which now contains some 750,000 acres of federally owned land acquired under the LUP.⁴⁰

Although by 1934 the federal government had disposed of the public domain in western North Dakota, an enormous acreage remained unoccupied and unmanaged, comprising an informal, uncontrolled commons. On ND-2's 700,000 acres only 5 percent remained in the public domain. State school lands made up 9 percent and the Northern Pacific Railway owned 10 percent.⁴¹ Nonresidents owned 48 percent of the area. These were former homesteaders who had abandoned their farms, regional operators who lived in nearby towns, and distant investors who had speculated in land. Resident farmers and ranchers leased some of this absentee-owned land, but a great deal of it was completely unmanaged. Resident owners occupied only 23 percent of the badlands and surrounding area. These were small operators who had homesteaded 160 acres or purchased similar tracts from the railroad or from a land company in the past twenty years. Much of their land was both mortgaged and tax delinquent. Billings and Golden Valley Counties owned 5 percent of the land in ND-2—tax deed lands recently confiscated for failure to pay property taxes.⁴² The counties had no mechanism for managing ranches and would have preferred to keep such land in the tax base. The badlands of western North Dakota were so poor that much of them remained unoccupied long after the federal government had distributed free land to citizens, private corporations, and the state.

Some small-holders and tenants continued to try making a living in the badlands, but they were not cash crop wheat farmers. About two-thirds of the occupied land was operated by owners and one-third by renters, but regardless of status farmers in the badlands relied on livestock raising as their primary

occupation.⁴³ They grazed cattle, sheep, and a few horses on the rugged ranges around Medora and Sentinel Butte. Residents grazed stock on land they owned and leased but also on unoccupied land. Many were squatters. Government surveyors found that most residents relied on land they neither owned nor rented, nor even had permission to use. A common description of local farm units was "Considerable land grazed in common with other operators free of charge." Most had legitimate use of a home plot and some range, and simply expanded onto nearby unused land, but some operators owned nothing. Describing one rancher, a surveyor commented that "This operator is squatting on present location and is just using other land he claims to be renting."⁴⁴ There was plenty of land to squat on. Neither public domain, state school land, county tax deed land, nor Northern Pacific property had any formal management or any person to oversee its use. Private land owned by absentees was often unsupervised as well. These categories comprised some 525,000 acres in the area, and several hundred small stock raisers put it to use in a haphazard way. Farmers may have had incentive to graze as many cattle or sheep as possible on unmanaged land, reserving profits to themselves while sharing the costs of overgrazing with distant landowners and other squatters.⁴⁵ In 1937 the government recorded some overgrazing but it was not perceived as excessive. In a hint at a communal solution to the "tragedy of the commons," government officials alluded to informal agreements between neighboring squatters delineating who would make use of which lands.⁴⁶ The local community negotiated internally about how best to manage its common range. Most residents plowed a small amount of cropland, too, usually on land they owned or rented. Winter feed for livestock was essential, and farmers either grew feed crops or purchased supplements. Many also planted cash grains, mostly wheat, but in very small amounts. In 1934 farmers in the area planted 38,000 acres in wheat, just 5 percent of the total area.⁴⁷

Despite the small acreages involved, federal administrators exaggerated the role of wheat farming and identified it as the primary land use problem in the badlands. Cash grain farming on unsuitable land had been the target of the land utilization movement in the 1920s, and removing such land from production had political appeal in Washington. So administrators continued to use the rhetoric, even though it did not apply to the local situation. The May 1935 Final Plan for ND-2 said, "The purpose of the project is to remove submarginal lands from commercial grain production and shift them to a grazing use."⁴⁸ Five months later the General Development Plan echoed those words: "The purpose of the project is to remove low grade crop lands from commercial grain production and shift them to a grazing use for which they are best fitted."⁴⁹ In December of that year, the message was repeated: "The development contemplates an adjustment in present usage of low grade crop lands for commercial grain production to grazing use for which such lands are naturally adapted. . . . Farmers have cultivated large acreages. . . . Unproductive lands will be removed from grain crop production, restored to the original vegetative cover and returned to grazing."⁵⁰ Federal managers in North Dakota misled their superiors in Washington with such language. In February 1936, an auditor in Washington evaluating a 143,000-dollar funding request reported, "This project . . . involves grazing and 'hay vegetative' developments on 273,158 acres of infertile crop lands."⁵¹ He apparently was under the impression that practically all of the land so far purchased under the LUP had been plowed, because that was the message administrators in North Dakota conveyed. A year later another auditor in Washington evaluating a 180,000-dollar request made the same assumption: "The purpose of this project is to remove submarginal crop land from commercial grain production and shift it to grazing use for which it is best fitted."⁵² With only 5 percent of the 700,000 acre target area actually plowed for cash crops, such language by fed-

eral managers was disingenuous. In August 1937, three years into the project, W. F. Dickson, in charge of the Lincoln, Nebraska, Soil Conservation Service office, laid out his justification for the project. From the initial accurate statement that "This project involves the purchase of approximately 277,818 acres of low grade farm lands and untitled native grass lands to be converted to a controlled grazing use," he later shifted back to the standard line:

The area in which this project is located has been subjected to an incorrect land use through the homesteading of small tracts with a view to cash crop farming operations. Because of the high crop risk which exists in the area, the standards of living for those who depend on cash crops have become very low. . . . The correct fundamental use of this area is the production of livestock.

An attached memo says, "the fundamental adjustment is from cash crop farming to livestock production, the use for which this area is best fitted."⁵³

What government administrators actually changed on the LUP was the management of common range lands, taking control away from poor local ranchers and placing it in the hands of government experts. This move mirrored the conservation ideology applied by Gifford Pinchot's Forest Service to wooded lands at the turn of the century. The LUP was part of a broadening of conservation ideology during the New Deal to encompass agricultural land and rivers as well as forests. LUP managers developed a plan that would allow them to control chaotic and inefficient grazing practices.⁵⁴ The first step was to purchase submarginal lands. This was the most decisive way to acquire control over their use, and there were plenty of willing sellers. The second step was resettlement—moving "uneconomical" small operators out of the area. Third came range rehabilitation, which encompassed revegetation of plowed land, restoration of

overgrazed range through resting, delimitation of logical pasture units through rational fencing, and water development. Water would be key to the success of stage four: controlled grazing by remaining middle-class stock raisers. Fewer operators would have larger, more economical ranches. The government would ensure that no more cattle were put on the grass than could be supported sustainably.⁵⁵

In implementing the first phase of its program on ND-2, the Department of Agriculture purchased mostly pasture in native grass. When administrators proposed the project in 1934 they estimated that it would eventually consume 56,000 acres of cropland (11 percent) and 464,000 acres of rangeland (89 percent).⁵⁶ After appraisal and optioning, and as purchases began in earnest, the numbers were similar: the government planned to buy 53,604 acres of cropland (10 percent) plus 459,700 acres of untilled range (90 percent).⁵⁷ Funding constraints resulted in more modest actual acquisitions, and an evaluation in January 1936, when most initial purchases were complete, was that ND-2 would retire 19,432 acres of cropland (7 percent) with 268,568 acres of pasture (93 percent) comprising the bulk of purchases.⁵⁸ Roughly half of the cropland was probably devoted to feed crops for livestock and not to wheat.⁵⁹ Despite its rhetoric of converting land use from cash cropping to pasture, only about 7 percent of the newly acquired property on ND-2 was in crops and probably under 10,000 acres of the 277,000 initially purchased was planted to cash grain.

The boundaries of the Little Missouri LUP were drawn around the Little Missouri badlands in a way that excluded wheat cropping areas of the region. Sentinel Butte township in Golden Valley County is a good example because it straddles the edge of the project. The western half of the township is on the flat upland plains while the eastern half falls into eroded badlands. The year before the LUP began, 113 farmers grew wheat on the upland plains half of Sentinel Butte township, but only 14 grew wheat on the badlands half. Yet the LUP purchased land only in the badlands

half of the township, leaving the true cash crop farming areas alone. Nearly all of the badlands half of the township is now in the National Grassland while farmers continue to grow wheat on private land on the upland half. If the government wanted to retire cash grain farming in the dry plains, it chose the wrong half of Sentinel Butte township for purchase.⁶⁰

The LUP transformed access to resources more than land use itself. The government bought entire farms, so retiring cropland meant also buying the pasture land associated with it. But in most cases farmers were cultivating only the best land on their property and grazing the poorer land. Ensuring that remaining stock raisers could provide adequate winter feed for their cattle was a serious concern for government officials. In some instances SCS transferred acquired cropland to remaining ranchers for use in growing feed crops, thus explicitly not retiring from production some of the little cropland it purchased. The Final Plan of May 1935 included the following recommendation:

In view of the fact that limited areas or tracts of so-called "submarginal land" are in reality fair to good crop lands, and further, since a number of resident stockmen do not now own a sufficient amount of crop land for the production of supplementary winter feed for their livestock, it is recommended that limited areas or tracts of suitably located crop lands be made available for purchase by the stockmen who need such lands to block out economic ranch units.⁶¹

Nearly all of the land in ND-2 had been used as range prior to acquisition. The small portion that was cropped was the better land, mostly used for feed crops to support livestock operations, and federal managers worked to maintain some of that land in feed cultivation.

Although the badlands along the Little Missouri River are exceptionally poor farmland, the practice of land use adjustment in North Dakota was typical of the Land Utiliza-



FIG. 3. An upland wheat farm near Beach, Golden Valley County, North Dakota, at the depth of the drought, July 1936. Photograph by Arthur Rothstein. Library of Congress, Prints & Photographs Division, FSA-OWI Collection, LC-USF34-005117-D.

tion Program in general. The purchase of rangeland in overwhelming proportion to cropland was not restricted to the North Dakota site. On the southern plains the Mills Land Use Adjustment Project was in the center of the Dust Bowl in eastern New Mexico.⁶² Administrators there described numerous farms ruined by eroded soils and drifted dunes of blown sand. Despite the wind erosion problem on the southern plains, the New Mexico project was much smaller than that in North Dakota. Federal agents had purchased only 73,112 acres of land by 1940. Of that, 19,085 acres, or 26 percent, had been in cultivation. Restricted rehabilitation budgets meant that most of that land was left to revegetate on its own, which it did quickly. The project planned to reseed only 2,500 acres.⁶³ On the Mills project the government reseeded less than 4 percent of the land it purchased. In the heart of the Dust Bowl the Department of Agriculture acquired a higher percentage of plowed land than in North Dakota, but even there

three quarters of the property it bought was already used as rangeland. Despite the emphasis of the Soil Conservation Service and the Forest Service on the conversion of plowed land to range and the mitigation of wind erosion, the LUP retired very little land devoted to cash crops, reseeded less, and did not focus its efforts on the region of greatest wind erosion activity.

In 1937 Congress reenergized the Land Utilization Program with the Bankhead-Jones Farm Tenant Act. Title III of the law gave the LUP 50 million dollars. Congress would later reduce that appropriation, but in the meantime land purchases resumed. Title III instructed the Secretary of Agriculture to "develop a program of land conservation and land utilization, including the retirement of lands which are submarginal or not primarily suitable for cultivation." In North Dakota, project manager M. B. Johnson moved to acquire more land for ND-2 in Billings and Golden Valley Counties. The language in Title

III seemed to require the retirement of cultivated land only, and this caused planners some concern. They were careful to incorporate the law's words in justifying new purchases in western North Dakota. In 1937 C. F. Clayton wrote to Paul Koenig, head of acquisition, describing the type of land he intended to add to ND-2:

As a general rule the tracts are devoted largely to the production of cash crops in an area best adapted to a grazing economy. The tracts were taken up at one time as homesteads and came to be operated mainly on a cash crop basis. . . . The purpose of the project is to remove sub-marginal crop land from commercial grain production and shift it to grazing use.⁶⁴

In early 1938 the purchase went forward. The department added 14,120 acres to ND-2, of which only 2,595 acres were cultivated land, the remainder range.⁶⁵ Despite the specific legal requirements of Title III, only 19 percent of the new acquisition was plowed. Land purchased in the new ND-38-23 area apparently did not even reach that standard. In one lot of sixteen parcels comprising 4,560 acres there were only 320 acres of abandoned cropland to be retired—7 percent of the total.⁶⁶

As the slow legal process of accepting options, clearing title, and resettling residents moved forward through 1936, initial land rehabilitation got under way on ND-2. Now the Resettlement Administration would have a chance to put into action the plan its administrators had for years anticipated: restoring the land to health and rationalizing resource use. Now that ownership had been recast, the social structure of the land had to be rearranged by removing families, obliterating farmsteads, and most importantly—both symbolically and ecologically—refencing the land to reflect a controlled grazing commons. Under the old, uncontrolled grazing system, fences were of uncertain quality, sometimes poorly maintained, and as often as not simply absent. Government optioners had difficulty describing landownership accurately because prop-

erty boundaries were not marked on the ground with fences.⁶⁷ The Department of Agriculture set out to remedy such chaos. Employees removed 150 miles of old fence on ND-2, rearranged grazing units, and built 120 miles of new fence to divide the range more “rationally.”⁶⁸

A key to rationalizing resource use was water development. Getting the most use possible out of the grassland meant spacing livestock evenly. This would allow maximum consumption of the resource without overgrazing popular spots. Fences supported livestock spacing, but water developments were the most important tool. Cattle graze near a water source and do not stray far from it. Having only a few watering sites on a range means overuse of grass around water locations and underuse of grass distant from water. The project put more effort into water developments than any other category of range improvements, developing springs, building impoundment and diversion dams, and drilling wells powered by windmills.

Re seeding croplands to grass was one of the most difficult rehabilitation projects SCS tackled. Despite ambitious goals, the LUP was able to replant only a small amount of land to grass. By 1939 the Resettlement Administration and the Bureau of Agricultural Economics had reseeded only 5,084 acres on the entire 750,000-acre Little Missouri project.⁶⁹ Considering the rhetorical weight the program placed on the conversion of cropland to grassland, re seeding was an important symbol in land rehabilitation. The majority of fields to be reseeded had been abandoned for several years by the time SCS was ready to return them to grass. In that time they went through the early stages of ecological succession, initially growing over with annual weeds, then shifting to native grasses and forbs on their own.⁷⁰ After the early lull in cropland reclamation, re seeding increased in 1940 and 1941. The SCS had ambitious plans for the LUP. In early 1941 it projected that 94,217 acres needed seeding to grass.⁷¹ By mid-April the estimate had dropped to 60,000 acres.⁷² At the end of 1941 planners hoped to reseed only 40,000 acres.⁷³



FIG. 4. *North Dakota farmers awaiting payment in a Resettlement Administration office, July 1936.* Photograph by Arthur Rothstein. Library of Congress, Prints & Photographs Division, FSZ-OWI Collection, LC-USF34-005141-E.

Reseeding estimates did not decline because the LUP had succeeded in planting 50,000 acres in the course of the year. By mid-1941 the project had reseeded only 15,383 acres.⁷⁴ In 1941 manager M. B. Johnson's superiors hoped to use a five-man crew on each of four tractors, running for sixteen hours a day beginning 1 September and working until the first freeze. At that rate, they estimated they could seed 22,500 acres a year for four years and finish the job.⁷⁵ But manpower shortages and other work commitments interfered with seeding plans. Slow seed supplies, the experimental nature of the work, and, most importantly, limited budgets held accomplishments far below goals. In the spring season of 1942

administrators planned to replant 2,525 acres but succeeded in seeding only 380.⁷⁶ That year Johnson complained that the only man available to run a reseeding tractor refused to work for the low wages—\$3.33 per day—the SCS was allowed to pay, and that no seeding was likely to be done for the foreseeable future.⁷⁷ In the fall he expected to rely solely on volunteer labor for the project.⁷⁸ It is not clear precisely how much land the government finally replanted to grass on the Little Missouri. As of fall 1942, eight years into the project, the LUP had seeded only 18,400 of the approximately 750,000 acres in the project.⁷⁹ Additional acreage may have received treatment after 1942, but with World War II, the end of the drought,

and economic recovery from the depression, the urgency of the LUP seemed diminished, and funding declined steadily.

When reseeding was finished, old fences obliterated and new ones built, families and homesteads removed, ponds constructed and springs developed, the birth of the LUP was complete. By the mid-1940s the government had turned range chaos into rational grass use. The task now was to maintain proper range use into the indefinite future. Work had revolved around rehabilitation of damaged resources in the first eight years. Proper management of that rejuvenated grassland would be an ongoing task. Government officials wanted people to use the reserve fully and efficiently but also sustainably. The practical implementation of such land use required the creation of local grazing associations comprised of the "better" area stock raisers who remained after the removal of less efficient operators.⁸⁰

The Medora Grazing Association (MGA), which came to control federal lands in ND-2 and ND-38-23, is representative of the newly created institution.⁸¹ There were three requirements for joining the association. First, ranchers must be "dependent" upon the reserved land. A stock raiser was considered dependent on grazing lands controlled by the association when the operating unit was "within or near the exterior boundaries of the grazing district and such lands are necessary for the economic operation of the ranch unit." Second, participating ranchers must have grazed cattle in the area prior to September 1934. The final requirement for membership was "commensurability." This referred to a stock raiser's ability to feed livestock over the winter when range grass was not available. A rancher had to own or lease enough private land to grow feed crops, cut hay, and put livestock on winter pasture for the four months they were not allowed on the federal reserve. Commensurable land included winter pasture, land cultivated in feed crops, and alfalfa or native hay meadows. A user had to be able to produce a quarter ton of roughage per animal grazed on the reserve.⁸²

Because the LUP wanted to support middle-class ranchers rather than large operations, access to the reserve was capped at a maximum of 350 cattle per rancher, a limit that remains in effect today.⁸³ Grazing fees were variable from year to year, allowing managers to reduce them during droughts when money was tight.⁸⁴ Small, poor ranchers who remained in the area could not qualify to join the MGA and no longer had access to free use of lands they did not own. The grazing association was made up of local people, not absentees. It consisted of established stock raisers rather than newcomers. And it was an association of family operations with access to good private land, buildings, and homes within the boundaries of the grazing district or immediately adjacent to it. By 1938 nearly three quarters of remaining stock raisers in the area had joined the MGA.⁸⁵

To extend its influence without additional cost, the government insisted that the grazing associations lease as much of the remaining private land within the district as possible.⁸⁶ Government planners realized that there were cheaper ways to adjust land use than by buying property. One effect of the piecemeal acquisition process was a checkerboard pattern of ownership. Private property, federal property, and state, county, and railroad land intermingled. By requiring the grazing association to lease intermixed private land, and then to apply the same grazing program to all land it controlled, the government regulated land use on additional property without purchasing it. By 1940 the Medora and McKenzie County Grazing Associations grazed 821,624 acres of land, of which 575,067 acres were federally owned. Thus the government controlled the stocking rate on an additional quarter million acres that it did not own.⁸⁷

The most important issue for range management is carrying capacity, the amount of land necessary to support an animal without land degradation.⁸⁸ On the new reserve the government had the right to establish the carrying capacity, and grazing associations were bound to limit range use at that level on both

their federal and private land. In case of drought the government could further curtail stocking rates.⁸⁹ Initially, government managers were uncertain how many cattle the North Dakota badlands could support. Before the Land Utilization Program the average operator in the badlands controlled 2,000 acres, on which he grazed 83 cattle, a stocking rate of 24 acres per animal for twelve months.⁹⁰ Federal administrators initially established the very same stocking rate for the reserve, but for only eight months each year. In 1940 they reduced it to 28 acres before a careful range survey established 20 acres per animal over eight months as an acceptable carrying capacity, a rate that would put more cattle on the range than had been there before the LUP.⁹¹ There may have been good reason for this, as federal fencing and water developments distributed cattle more evenly across the grassland.

Federal attempts to establish a sustainable stocking rate were mostly academic in the first decade of the LUP. Actual grazing was far below these theoretical carrying capacities. The 1934-1936 drought cut livestock numbers drastically across western North Dakota.⁹² On ND-2, although government managers determined there was room for 14,555 cattle in 1938, the MGA could only muster 1,146 animals to stock the range.⁹³ In that first year on federal land, cattle grazed at the astonishing rate of 304 acres per animal. Livestock numbers increased considerably the next year, when the stocking rate was 70 acres per animal.⁹⁴ In 1940 herds recovered more, so that the rate on ND-2 was 46 acres per animal.⁹⁵ This was far below the 24 acres per animal that government managers then estimated the range could support. It took more than ten years for herds to recover; by 1948 they nearly filled available government permits, at a rate of 28 acres per animal.⁹⁶

As livestock herds slowly grew, the range improved. The 1934-1936 drought curtailed grass growth but the accompanying reduction of livestock would have allowed range recovery without government assistance. A combi-

nation of three good years of rain and understocking of pastures restored the grass. Ranchers claimed the range was in excellent shape as early as 1939, and in 1941 the local agricultural experiment station reported that the grass had fully recovered.⁹⁷ This prompt recovery suggests that the range was not seriously overstocked or badly damaged prior to the drought and government purchase. Nonetheless, federal management ensured that stocking rates declined, from around 24 acres per animal for twelve months in the early 1930s to eventually hover around 28 acres per animal for eight months a year.

As America approached World War II congressional and popular support for the Land Utilization Program waned and operating budgets declined. Significant land purchases and rehabilitation ceased by 1943. After the war the economy boomed, agriculture did well, and the LUP became a distant memory. It is an open question what might have happened in the North Dakota badlands without government intervention. The drought that removed practically all cattle from the badlands in the mid-1930s would have provided a decade-long rest for the range, even without the LUP. Abandoned farmland would have begun a natural succession back to grassland. Although full recovery of plowed ground takes a century or more, it seems unlikely that the reseeding done by SCS moved the process along any faster. The LUP did reduce stocking rates slightly below previous levels and rationalized use of the grass resource. The LUP, with its support for middle-class stock raisers and its limit of 350 animals per operator, also put access to resources in the hands of medium-sized operators rather than either small or very large ranchers. The program did not alter cash crop wheat farming in the region to any great extent.

Today, wheat farming continues on the upland plains in western North Dakota. In 1987 Billings, Golden Valley, and Slope County farmers devoted over 400,000 acres to wheat cropping (in the form of wheat land and cultivated summer fallow), 19 percent of

the entire land area, compared to about 275,000 acres and 13 percent of land in 1929.⁹⁸ Despite claims of retiring cash grain farmland, only about 7 percent of the property the Department of Agriculture purchased on ND-2 had been plowed. Probably half of that was devoted to feed crops, a land use the department approved of, allowed to continue, and encouraged in remaining stock raisers. The LUP did not convert substantial amounts of land from cash crop farming to grazing. Re-seeding covered only about 20,000 of the 750,000 acres in the present Little Missouri National Grassland. The badlands had been used for grazing and still were in 1934. They still are today. The primary consequence of the LUP was to bring federally managed order to private exploitation of common resources.

NOTES

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