A Proposal for Reallocation of Federal Grazing—Revisited

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Over a quarter of a century ago, I analyzed the allocation procedures utilized by the federal agencies which administer livestock grazing on the public lands (Gardner 1962). Two factors contributing to grazing misallocation and reduced range productivity were identified: (1) the "eligibility" requirements that qualify permittees for grazing privileges prevented the utilization of forage by ranchers who would value it most, and (2) use-tenure insecurity resulting from cuts in permitted grazing impeded private investment in range improvements on the public ranges. In a second paper, I proposed that the grazing privilege system be reformed such that efficient allocation of forage and tenure security could be more nearly achieved (Gardner 1963). Following in this paper is further discussion of my proposal to create perpetual grazing rights, why it is still applicable today, and why I believe that little was done to implement it.

The Allocation of Grazing Permits on the Federal Lands

Some History

When public control of livestock grazing on the public lands was initiated many decades ago, agency regulations required that rancher applicants be engaged in the livestock business and that they own or control land or water base property. This "commensurability" requirement was designed to eliminate the so-called "itinerant" stockman from consideration for permits. These "nomadic" livestock producers, often with little or no ranch property of their own, moved large herds of grazing animals across vast areas of the West during the various seasons of the year when forage was available. Commensurability was thought to promote the stability of the ranching and derivative industries that make up the local community.

The other major eligibility requirement was "use-priority" which gave preference to those applicants who were using the public land prior to governmental regulation.

At the time when government control of grazing was being considered, ranchers who had been previously utilizing the public lands and paying no fees felt economically threatened. Naturally, they resisted the new regulations. To minimize their political opposition, these ranchers were given preference by the government for receiving the available permits via the eligibility requirements. Fees were set at very low levels, presumably only to cover the costs of administering the new grazing programs. Agency

boards of local ranchers were given considerable power to influence grazing policy decisions. These stratagems had their desired effects. Political opposition by ranchers was not sufficiently strong to block the proposed regulation and control.

Modern Day Issues

The system that restricted permit allocation to only those "qualified" permittees has been incapable of responding to changes in the livestock business and other pressures on the public lands and thus is becoming increasingly inefficient (Gardner 1984). Non-permittee ranchers desire access to the subsidized grazing. This can be accomplished only by becoming "eligible," often requiring the purchase of the base property or livestock of an existing permittee.

With the increase in the demand for outdoor recreation and the emergence of the environmental movement in the 1960's and 1970's, other outputs from the federal lands have become increasingly valuable and new pressures are being brought to reduce livestock grazing. As a consequence, the total animal-unit-months (AUMs) of permitted livestock grazing were reduced, first on the national forests in the 1950's and 1960's, and later on the public domain (Gardner 1962). The result has been a waning of confidence that federal grazing will continue to be available to permittees at favorable terms.

It is axiomatic that successful entrepreneurs must be capable of responding quickly to changes in technological possibilities, prices, and costs if they are to survive in a competitive market environment. Yet federal agencies dictate stocking rates, classes of livestock that can be grazed, the length of the grazing season and what can and cannot be done to increase forage yields. Permittees have little freedom to choose and utilize different grazing regimes, various grazing intensities, and earlier or later grazing than dictated by the regulating agency. Also, permitted grazing may be cut by agency discretion giving rise to tenure insecurity described above. Incentives are weak at best for rancher investment in capital improvements that might increase the productivity of the public ranges and thus benefit all public land users.

Perpetual Grazing Rights Plan

In 1963 I proposed the creation of perpetual grazing rights. The government would specify the quantity of AUMs that could be grazed on a given allotment, the class of grazing animals (e.g., cattle or sheep), and the season of use. These rights would be issued to the existing permittees as a substitute for existing permits.

Eligibility requirements would be eliminated and the

The paper has benefited from suggestions by Ray Huffaker, Arden Pope, John Workman, Dean Lueck and Ed Frandsen. The editor of Rangelands, Gary Frasier and an anonymous reviewer were immensely helpful in shortening and recasting the paper. Only the author, however, should be blamed for errors in fact and logic which remain.

grazing rights could be freely transferred in voluntary market transactions. Thus, property rights in grazing would be created that were defined, defendable, and divestible. If the federal government decided that range condition warranted an increase in livestock AUMs, it would simply create new rights and auction them off to the highest bidder. If it wanted to decrease grazing, it could buy up the existing rights at market prices. Very importantly, if other user groups wanted the forage or the grazing allotment without livestock, they could purchase the rights in the market. The proposal seemed to promote an efficient allocation of resources and security of tenure lacking in the existing procedures and yet continued to give the government final authority to set stocking rates.

I anticipated that the grazing fee issue might be relevant to the political feasibility of the proposal. If grazing rights were perpetual and freely transferable among ranchers, the expected minimum market transfer price of the rights would be the capitalized differential between the expected average value of the grazing and the average costs of taking the forage. One of these costs would be the fee paid to the government. Thus, the level of the fee and the value of the right would be inversely related.

At fee levels existing in the early 1960s when the proposal was made, the new rights could have been expected to be worth more than the permits they replaced because they were transferable and offered greater economic security. Thus, unless fees were raised, wealth windfalls would have been created for the permittees. Since the alleged "subsidy" to ranchers has always been controversial, it appeared that the political feasibility of the proposal would be enhanced by not directly increasing the wealth of the permittees. To avoid this problem, I recommended that the fee be fixed at a level which would make the new rights equal in value to the old permits.

The increased fees would have been attractive to the taxpayer owners of the public lands and to the government agencies desiring larger budgets. Environmental organizations would have been sated because they have always wanted the subsidy to ranchers reduced and more revenues for range improvements. The ranchers would have tenure security and a vigorous market in which they could buy and sell the grazing rights. Thus, the proposal appeared to be attractive to all the relevant parties.

Then why hasn't the proposal been adopted in the intervening years? The answer to this question is complex.

In my view, public choice theory provides the most plausible answer. This theory postulates that given interest groups can manipulate legislative, administrative, and judicial decisions to their advantage, even though in aggregate across all interests, the contest for government favors is likely to be negative-sum. That is, the total gains captured by the winners of some public action (e.g., environmental groups) are less than the total losses suffered by the losers (e.g. rancher permittees). Presumably, recreational, environmental, and conservation organizations that wanted reduced livestock grazing on the public

lands believed it was in their interest to retain the existing permit system and used judicial action and pressure on the legislative and executive branches to accomplish their goals. This doesn't mean that they are satisified with the status quo, but they certainly did not want any reforms that gave definable rights to the livestock permittees.

Evidence that supports this hypothesis is found in two recent suits: 1) a 1985 suit brought in a federal court to block "cooperative management agreements" (CMAs) that were created to implement the "experimental rancher stewardship" (ESP) programs as authorized by the Public Rangeland Improvement Act (PRIA), and 2) a 1986 suit challenging the grazing fee formula also authorized in PRIA.

The Suit Against Cooperative Management Agreements

The Federal Land Policy and Management Act (FLPMA) of 1976 was very restrictive in the regulations imposed on ranchers. However, PRIA of 1978 took a halting step forward to loosen these restrictions and give permittees more flexibility.

Despite evidence to the contrary (Box 1978), FLPMA simply asserted that the federal rangeland was "continuing to deteriorate" (43 U.S.C. art. 1751, Sec. 401(b), 1976) and instituted comprehensive long-run federal management of rangeland for the twin purposes of sustained yield and multiple use. It authorized the Secretary of Interior to cancel, suspend, or modify permits as punishment for rule violations; to offer short-term licenses rather than ten-year permits when they are in the "interest of sound land management", and to limit the guarantee of renewal to an offer of "first priority" so long as expiring permit holders were willing to accept any new conditions of the Secretary (43 U.S.C. art. 1751, Sec. 402 (a), 1976).

PRIA repeated the assertion of deterioration of public rangeland and supplemented FLPMA's comprehensive land management program by authorizing additional funds for federal rangeland management programs (43 U.S. Code, art. 1901, Sec. 5, 1978). However, PRIA broke new ground by establishing the Experimental Stewardship Program (43 U.S.C. 1906, Sec. 12, 1978). The ESP authorized the Secretaries of the Interior and Agriculture to "... explore innovative grazing management policies and systems which might provide incentives to improve range condition... and such other incentives as they may deem appropriate."

Under this authority, the Secretaries implemented the 5D0 Cooperative Management Agreement program. The CMAs were cooperative agreements between government officials and grazing permittees who demonstrate exemplary rangeland management practices. The agreements established mutually determined "performance standards" for the graziers. Cooperative permittees, viewed as the stewards of their grazing allotments, were to be rewarded with increased tenure security. Since arbitrary cuts could not be made without review, the permittees were left relatively free to determine the livestock numbers

and seasons of use which achieve the standards (BLM Handbook 1984).

A CMA was issued for a ten-year term but operated on a five-year "rolling" plan as it was to be jointly reviewed after five years of implementation. If objectives of the plan were not being met, the cooperative permittee "... is allowed a reasonable time to make the necessary adjustments to comply with the objectives before the agreement terminates" (BLM Handbook 1984). The procedure was to be repeated every five years.

This step towards greater rancher autonomy in managing their allotments was perceived, at least in some quarters, as a public giveaway to private rancher interests unwarranted by Congressional intent. In 1985, a suit was brought before a Federal District Court by five environmental and wildlife organizations and one individual challenging agency regulations establishing the CMA program (NRDC v. Hodel 1985).

The Court struck down the regulations establishing the CMA program stating that the CMA: (1) created a permanent permit issuance system which did not meet the description of projects the ESP program was intended by Congress to encourage; and (2) was also unjustified by past public grazing law, such as the Taylor Grazing Act and FLPMA (Huffaker and Gardner 1987).

In a recent paper, Huffaker and Gardner (1987) argued that the Court's interpretation was unjustifiably narrow since it frustrated Congressional intent in fashioning the ESP. The CMAs can be consistent with both the ESP and past grazing legislation if the statutes are given a slightly wider reading.

We argued that "the 'plain meaning' of the ESP is an incompletely developed policy meant to discover, under controlled conditions, whether allowing qualified permittees to actively direct decisionmaking results in improved range condition. . . Public land managers would be the true stewards if they could cancel, suspend, or modify the permits of permittees who made decisions not conforming to the manager's desires. . . Hence, the experimental design of the ESP would be frustrated since it is meant to determine what permittees, not public range managers, with decisionmaking responsibility will do. . . (t)he CMA program is administered under controlled conditions. Agreements are entered into only with qualified permittees. The agreements are cooperatively drafted and reviewed every five years. . . The Court's charge that the five-year review period makes a CMA permanent, notwithstanding the cooperative permittee"s performance, is grossly exaggerated" (Huffaker and Gardner 1987).

In fact, we believe that the Court missed the point behind congressional creation of the CMAs. It incorrectly assumed that a reading of the history of livestock grazing on the public lands teaches that if left uncontrolled, rancher permittees will overgraze their allotments. The rationale for this conclusion is found in resource depletion caused by "common property" ownership of the allotments, the very case made famous by Garrett Hardin's (1968) "tragedy of the commons."

In fact, the uncontrolled open access to resources that may have resulted in overgrazing in the past is almost wholly circumvented by the CMAs. Allotments could be designed for exclusive permittee use. A rancher could benefit by having flexibility in management practices that could improve range productivity and thus could improve his wealth position. Incentives would be created for giving wealth gains to ranchers through improvements in range productivity.

Whether or not these incentives would result in enhanced range condition was the objective of the experiment. But if the five-year review revealed that the experiment wasn't producing results completely satisfactory to the agency officials, the true custodians of the range, the program could be terminated. What greater guarantees could be needed to prevent possible rancher abuse? Here was an opportunity to determine if greater rancher management discretion might lead to increases in range productivity that would enhance environmental amenities as well as livestock output. I, for one, regret that because of the Court's decision we may never know.

The Controversy over the Quantity of Grazing and Grazing Fees

By Executive Order 12548, dated February 14, 1986, the President directed that the Secretaries of Agriculture and Interior exercise their authority "... to establish fees for domestic livestock grazing on the public rangelands by applying the formula in Section 6 (a) of the PRIA, with the added provision that the fee shall not be less than \$1.35 per head month" (USDA, Finding 1987).

In 1986, eight environmental and recreational organizations and two individuals1 brought suit against the Forest Service and the Bureau of Land Management. The suit challenged the authority of the Secretaries of Agriculture and Interior to use the formula and the procedures followed in establishing the 1986 grazing fee. The suit charged that the fee formula ". . . was adopted without compliance with mandated procedures. Moreover, the formula was alleged to violate the substantive statutory requirement that fair market value be charged for use of the public's resources. As a result, the formula adopted by the federal defendants will deny funds badly needed to protect and rehabilitate lands and resources degraded by past livestock grazing and will seriously hamper the government's ability to manage properly the public rangelands" (Civil No. S-86-0548, 1986). The positions of both plaintiffs and the government defendants are partially but not wholly valid.

The plaintiffs' position is based on two points: (1) grazing is like any other commodity with a negatively sloped demand curve (Rice affidavit 1985), and (2) setting the fee below "fair market value" results in overstocking the ranges by the permittees and deprives the government of

¹The plaintiffs in this suit were the Natural Resources Defense Council, American Fisheries Society, California Trout, Inc., Izaak Walton League of American, National Audubon Society, National Wildlife Federation, Oregon Trout, The Wilderness Society, Carl L. Weidert III, and Stanley A. Weidert.

revenues that are designated by formula to be spent to improve range productivity.

The government defendants argued that the level of the fee has no impact on the quantity of allowable grazing. Speaking for the Forest Service, "The permitted use level is determined through the Forest planning and allotment management planning processes and is set in the grazing permit. This process occurs entirely independently of grazing fees. Therefore, physical and biological effects of permitted livestock grazing are determined by factors other than the grazing fee levels" (USDA, Finding 1987, Workman 1988).

Both theoretical and empirical considerations are relevant to this dispute. For various reasons, collectively and perhaps individually, permittees usually do not actually graze the number of AUMs authorized. The difference between permitted and actual use is termed nonuse. Nonuse has been recorded by the Forest Service over the period 1979 to 1986 and has varied from a low of 11.1% in 1980 to a high of 15% in 1986.

The fact that some nonuse is now occurring at present fee levels is evidence that for one reason or another some grazing is not worth what the permittees are being asked to pay for it. Therefore, raising the fee would almost surely result in more nonuse. The plaintiffs were technically correct in asserting that a rise in the fee would reduce livestock grazing. On the other hand, the fact that many permittees are utilizing the full allowable use implies that raising the fee would reduce their permit values but may not affect the quantity of grazing.

What do the available data indicate about fees and nonuse? Not much variation in annual nonuse exists. The government maintains that there is no relationship between the fee and the quantity of grazing demanded over the years that the PRIA formula has been in effect, 1979-1986 (USDA, Finding 1987). The government correctly argued that other factors appear to correlate more closely with variation in actual use than do grazing fees. "For example, the costs that livestock producers pay for production of their cattle, and the prices they receive for those cattle, may influence the level of actual use and therefore nonuse. A statistical analysis comparing beef cattle prices in 1979-1986, with the percent of nonuse, shows a strong negative correlation. That is, as beef cattle prices increase, percent nonuse tends to decrease. Also, a statistical analysis for the same period comparing producer prices paid (cost of livestock production), with percent of nonuse, shows a strong positive correlation" (USDA, Finding 1987).

The problem is that both beef prices received and production costs incurred are terms in the formula for determining the grazing fee. As beef cattle prices rise, the profitability of grazing should increase and nonuse should fall, all other things equal. As production costs increase, the profitability of public grazing should decrease and nonuse should increase. As the value of substitute forage decreases, nonuse of permitted federal forage should

increase as ranchers shift to the now cheaper private substitutes.

In summary, it is clear that changes in the fee itself are not closely associated with changes in nonuse over the period of the PRIA formula, although individual components of the fee do seem to be so associated. However, much variation exists in the physical and economic situations of individual ranchers that would cause them to value the federal forage at different levels, and no one really knows how many would opt for nonuse in the face of substantially higher fees.

Summary and Conclusions

I believe that the nature of the allocation problem on government-owned ranges has changed over the past 25 years. In 1963, I was concerned primarily about the allocation of the allowable grazing among potentially competing ranchers. Clearly, the critical allocation problem now is between livestock producers and other users of the public ranges.

As in 1963, I see no compelling reasons for maintaining the eligibility requirements for receiving grazing preferences. There is no question that the allowable quantity of livestock grazing would be more efficiently allocated if grazing rights were created along the lines of my original proposal. Incentives to invest in range improvements would exist if these improvements were truly economically feasible. Potential users who now regard the public lands as unavailable to them could easily acquire access by buying out the ranchers.

In my opinion, there is also little doubt that the quantity of grazing that is now allowable to livestock could be much more efficiently utilized if ranchers were given more management flexibility as was attempted in the cooperative management program. However, there is little available evidence for this conclusion, except a priori logic. That stewardship program should be reinstated to permit us to observe whether or not ranchers would increase range efficiency and productivity and by how much.

The level of rancher subsidy and fees will continue to be a controversial subject. But the ranchers are not the only ones who benefit more from the public lands than they are paying. If the environmental organizations and recreationists want to reduce livestock grazing in order to increase the amount of forage left for their users or for the public generally, they might think about taxing themselves to buy the ranchers out and/or contribute funds for range improvement. It is possible that they could do it more economically under a scheme of transferable rights to forage than attempting to manipulate political and legal institutions via rent-seeking expenditures they are now making.

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Requiescant in Pace

Alexander Johnston, 69, a longtime member of the Society for Range Management and widely respected range ecologist died in his sleep on April 12, 1989, in Lethbridge, Alberta.

Alex was born on January 26, 1920, in Webb, Saskatchewan, and took his early schooling there. He graduated from the University of Saskatchewan with a B.Sc. in Agriculture in 1941 and the Montana State University in 1954.

In his early years at the Lethbridge Experimental Station he assisted with the regrassing of abandoned farm lands in southeastern Alberta. He was later given responsibility for initiating a research program at the Stavely Grassland Substation established in the foothills of southwestern Alberta in 1949. Over the next 30 years he conducted studies on vegetation and livestock relationships and determined the carrying capacity of the Fescue Grassland prairie. The Public Lands grazing policy in Alberta is closely related to his research findings. Alex communicated the results of his research through the publication of 66 scientific and 124 semi-technical and popular articles and through rangeland tours, meetings, short courses and the various news media. He retired from the Agriculture Canada Research Branch on December 30, 1980.

Alex was a Charter and Life Member of the Society for Range Management and was very active at the Section and National levels. He held various offices in the International Mountain Section and was Newsletter Editor for 18 years. He was Program Chairman for the 1969 and 1982 Annual Meetings held in Calgary. At the National level he served on several committees, on Editorial Boards and on the Board of Directors during 1965–1967. Alex also belonged to and held offices in several other research and conservation societies or associations.

During his career Alex earned a number of significant awards. Among them are: Canada Centennial Medal—1967; Citation and Certificate of Merit, Society for Range Management—1970; Honorary Doctorate [LL.D.] from the University of Lethbridge—1976; Fellow of the Agricultural Institute of Canada—1976; and Fellow of the Society for Range Management—1977.

Alex undertook foreign assignments in West Pakistan in 1961–1962 as Range Improvement Advisor; in Kenya in 1978 to evaluate Kenya's Rangelands Ecological Monitoring Unit; and again in Pakistan in 1979 to identify and advise on agricultural problems. He also fulfilled assignments to Newfoundland and Yukon for the Canadian government.

In retirement Alex devoted full time to the study of local and regional history, an interest which began in the early 1960's. He was instrumental in establishing the Galt Museum in 1964 through the Lethbridge Historical Society. He researched and authored or coauthored over 12 local history books, the most notable being Lethbridge—A Centennial History in 1985. He was to attend a press conference to unveil his latest book entitled *Lethbridge; Its Coal Industry* and to autograph copies on the day of his death.

Walter H. Sundell, 71, of Boise, died suddenly Monday, January 9, 1989, at home of natural causes.

Mr. Sundell was born April 23, 1917, in Miles City, Montana. He was educated in Kingsburg, California, Miles City, and graduated from the University of Montana in 1941 with a degree in forestry. He worked as a forest ranger in various Montana National Forests, residing in Helena, Ennis, Ashland, and White Sulphur Springs. In 1962 he was promoted with the Forest Service in Range Management, in Orem, Utah. In 1963, Mr. Sundell moved to Boise, filling the position of Staff Officer in charge of Wildlife, Watershed, Range Management, and Soils in the Boise National Forest. He retired after 33 years with the Forest Service and was honored in 1975. Following his retirement, he worked as a title researcher and in other capacities in the gas and oil lease business.

Walter served as president of the Idaho Section, Society for Range Management. He was a great lover of the outdoors, expressing his love of nature in his oil and watercolor paintings and exquisitely carved duck decoys. He spent hours giving of himself with the Boy Scouts of America. He was devoted to his family and grandchildren. Walter was a skilled horseman, an enthusiastic walker, and avid golfer.