

ECONOMIC IMPORTANCE OF LIVESTOCK IN NEVADA'S COW COUNTIES

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INTRODUCTION

The livestock image has always dominated rural Nevada. This is well documented by the fact that, politically, Nevada's rural counties have always been referred to as the "Cow Counties." Although some consider all counties outside of Clark and Washoe as rural, from a practical sense, those counties historically heavily dependent on the range cattle industry have been Humboldt, Elko, Lander, Eureka, White Pine and Nye Counties. This entire area has long been considered one of the primary range cow areas in the United States. There are good reasons for this livestock heritage. The majority of the landscape of the region is dominated by what we know today as the cold desert shrub region or the sagebrush steppe. The cold desert shrub region is characterized by relatively shallow soils and cold, dry winters, followed by a relatively short, cool and usually moist growing season, that is very conducive to growing a multitude of bunch grasses. The following hot, dry summer and fall normally cures standing forage in a very useable form. Thus, forage for livestock is normally abundant from as early as March or April until it is covered by snow the following fall or winter. Properly managed, this resource has provided the necessary nutrition for millions of cattle for nearly 150 years.

However, times have changed and livestock do not dominate the landscape as they once did. Continued utilization of the vast reaches of federal lands for livestock grazing now even seems questionable, a fact, which 25 short years ago, wouldn't have even been worthy of consideration. It is not the intent of this paper to consider the various causes that have resulted in this declining livestock population. It is sufficient to say that there have been many reasons, but of primary consideration must be the ever changing multiple use management concepts of the various federal land management agencies. These changes, coupled with an increased political presence of those that demand no or little grazing on federal lands potentially could spell the final disaster for the livestock industry in Nevada's "Cow Counties". How bad has the decline in cattle numbers been and how much has this shift in numbers economically impacted the region? The answer is simple and can be summarized in few words: The impact is *significant*, *very significant*, and further, if those that demand that all range cattle be removed from public lands get their way, then the ultimate economic impact would be *catastrophic*.

PRESENT STATUS

Livestock numbers are kept on an annual basis for each of Nevada's 17 counties by the State Statistician, located on the University of Nevada campus in Reno. He inventories each county as to the total number of cattle and calves within the county as of January 1 each year. Data for both the State of Nevada and the six "Cow Counties," taken directly from the annual statistical publications, are presented in Table 1 for the years 1971-2009. Numbers for Nevada

**TABLE 1. THIRTY NINE YEAR HISTORY OF LIVESTOCK NUMBERS IN NEVADA
AND THE COW COUNTIES (X 1,000)**

YEAR	NEVADA	HUMBOLDT	LANDER	EUREKA	ELKO	WHITE PINE	NYE	COW COUNTIES
1971	639.0	92.7	32.6	30.1	206.4	21.9	33.1	416.8
1972	645.0	80.0	37.7	31.8	205.7	23.9	32.1	411.2
1973	651.0	77.0	36.0	30.0	220.0	23.0	31.0	417.0
1974	664.0	84.0	34.0	32.0	215.0	26.0	32.0	423.0
1975	657.0	80.0	35.0	33.0	215.0	22.0	32.0	417.0
1976	651.0	78.0	34.0	33.0	200.0	26.0	30.0	401.0
1977	611.0	68.0	31.0	35.0	195.0	27.0	28.0	384.0
1978	585.0	63.0	28.0	36.0	180.0	28.0	28.0	363.0
1979	575.0	64.0	24.0	34.0	185.0	26.0	28.0	361.0
1980	595.0	65.0	27.0	33.0	187.0	27.0	27.0	366.0
1981	640.0	70.0	27.0	40.0	195.0	31.0	28.0	391.0
1982	700.0	90.0	25.0	41.0	210.0	32.0	30.0	428.0
1983	650.0	75.0	24.0	39.0	195.0	30.0	27.0	390.0
1984	660.0	74.0	28.0	39.0	190.0	32.0	25.0	388.0
1985	620.0	69.0	28.0	38.0	180.0	31.0	24.0	370.0
1986	610.0	68.0	29.0	37.0	178.0	30.0	24.0	366.0
1987	580.0	69.0	38.0	25.0	180.0	26.0	20.0	358.0
1988	530.0	65.0	35.0	21.8	169.0	22.0	18.0	330.8
1989	520.0	63.0	34.0	12.0	176.0	21.0	17.0	323.0
1990	530.0	63.0	30.0	15.0	168.0	24.0	19.0	319.0
1991	520.0	61.0	29.0	15.0	160.0	24.0	19.0	308.0
1992	520.0	60.0	27.0	15.0	159.0	24.0	19.0	304.0
1993	500.0	58.0	29.0	14.0	147.0	23.0	17.0	288.0
1994	490.0	58.0	29.0	13.0	151.0	25.0	10.0	286.0
1995	500.0	57.0	29.0	13.0	157.0	25.0	12.0	293.0
1996	500.0	55.0	28.0	14.0	155.0	25.0	16.0	293.0
1997	520.0	56.0	30.0	15.0	156.0	26.0	17.0	300.0
1998	510.0	63.0	21.0	23.0	159.0	26.0	22.0	314.0
1999	510.0	66.0	20.0	24.0	164.0	25.0	22.0	321.0
2000	520.0	69.0	19.0	24.0	168.0	25.0	23.0	328.0
2001	520.0	70.0	17.0	22.0	170.0	24.0	25.0	328.0
2002	500.0	66.0	11.0	22.0	169.0	24.0	24.0	316.0
2003	510.0	66.0	24.0	18.0	165.0	27.0	30.0	330.0
2004	510.0	63.0	31.0	19.0	155.0	27.0	31.0	326.0
2005	510.0	64.0	33.0	18.0	150.0	27.0	32.0	324.0
2006	500.0	65.0	34.0	16.0	152.0	26.0	36.0	329.0
2007	500.0	64.0	32.0	18.0	150.0	27.0	35.0	326.0
2008	450.0	63.0	23.0	25.0	132.0	22.0	30.0	295.0
2009	450.0	63.0	30.0	22.0	130.0	22.0	30.0	297.0

remained relatively constant for the 12 year period of 1971-1982, averaging 634,400 head. Numbers for the "Cow Counties" also remained constant, averaging 398,200 head or nearly two thirds of the state total.

The historically documented cattle cycle of livestock numbers was obviously occurring during this period with a gradual buildup in numbers from the low of 1971 to the peak of 1974-75. This was followed by a decrease in numbers to the low of 1978, followed by a rise to the modern day high in 1982. Again, it is important to note that this cycle was occurring simultaneously in both "non-Cow Counties" as well as the "Cow Counties". Since 1982, a downward trend of sufficient magnitude has occurred in the "Cow Counties" to significantly affect not only their numbers, but the over all statewide numbers as well. From 1994 through 2006 numbers held constant and even improved during some years. However, during the last two years, numbers have again taken a drastic reduction.

ECONOMIC IMPACT

Every ranch represents a form of wealth, not only to the owner, but definitely to the community, the county and the state. Simply put, it is an integral part of the economic infrastructure. Today, the real estate value of an animal unit is somewhere between \$750 and \$1,500, depending on the size and location of the unit. For an example, we could say the average real estate value of a "Cow County" ranch is \$1,125 per animal unit. Coupled with that is the actual value of the animal unit, which could be anywhere from \$700 to \$1,200, depending on the quality of the unit, but again we could use an average value of \$950. Different ranches require different levels of mechanization for operation, but a value of \$250 per animal unit for equipment is not unreasonable. Thus, the total value of the animal unit, including real estate, cattle and equipment for the "Cow County" ranch, is about \$2,325. What happens when this ranch goes out of business? Obviously, the livestock are gone, as well as the equipment. Their final sale may represent a value, but the livestock and equipment are gone from that point on, no longer involved in the future development of wealth and/or taxes. What happens to the grazing permit? It may be purchased by a larger ranch, or it may just sit idle never to be grazed by livestock again. Under these conditions, the ranch also no longer produces wealth and, thus, is no longer of economic value. And what value are the remnant pieces of private property under these conditions? Probably not much, and individually these parcels represent perhaps less than 25% of the original ranch value. Additionally, the other ranch assets, including equipment and livestock, are no longer present, thus no longer taxable. One could assume that the tax-base loss to the counties would be 50% of the above stated average value of \$2,325 per animal unit for real estate, cattle and equipment, or \$1,162.50 per animal unit. The actual tax value of all of the livestock and related resources within the "Cow Counties" could be determined by assessing tax roles county by county. For this report it is safe to assume that the combined property value used to generate annually property taxes within Nevada's "Cow Counties" would be significant if further loss in the cow-calf base were to occur.

What might be of more importance, however, is the impact of the loss of ranch income and resulting ranch expenses incurred by the ranch, from the present decrease in cow numbers. These ranch expenses appear as circulated income throughout the local business community that supplies services for

TABLE TWO. ECONOMIC IMPACT OF DECREASING COW NUMBERS IN THE SIX RURAL "COW COUNTIES".

YEAR	BASE NUMBER*	ACTUAL NUMBER*	LOST COWS	DIRECT DOLLAR IMPACT	INDIRECT DOLLAR IMPACT	TOTAL DOLLAR IMPACT
1983	298,700	292,500	6,200	\$2,170,000	\$2,864,400	\$5,034,400
1984	298,700	291,000	7,700	\$2,695,000	\$3,557,400	\$6,252,400
1985	298,700	277,500	21,200	\$7,420,000	\$9,794,400	\$17,214,400
1986	298,700	274,500	24,200	\$8,470,000	\$11,180,400	\$19,650,400
1987	298,700	272,500	26,200	\$9,170,000	\$12,104,400	\$21,274,400
1988	298,700	243,000	55,700	\$19,495,000	\$25,733,400	\$45,228,400
1989	298,700	242,200	56,500	\$19,775,000	\$26,103,000	\$45,878,000
1990	298,700	239,200	59,500	\$20,825,000	\$27,489,000	\$48,314,000
1991	298,700	231,000	67,700	\$23,695,000	\$31,277,400	\$54,972,400
1992	298,700	228,000	70,700	\$24,745,000	\$32,663,400	\$57,408,400
1993	298,700	216,000	82,700	\$28,945,000	\$38,207,400	\$67,152,400
1994	298,700	214,500	84,200	\$29,470,000	\$38,900,400	\$68,370,400
1995	298,700	219,800	78,900	\$27,615,000	\$36,451,800	\$64,066,800
1996	298,700	219,800	78,900	\$27,615,000	\$36,451,800	\$64,066,800
1997	298,700	225,000	73,700	\$25,795,000	\$34,049,400	\$59,844,400
1998	298,700	235,500	63,200	\$22,120,000	\$29,198,400	\$51,318,400
1999	298,700	240,750	57,950	\$20,282,500	\$26,772,900	\$47,055,400
2000	298,700	246,000	52,700	\$18,445,000	\$24,347,400	\$42,792,400
2001	298,700	246,000	52,700	\$18,445,000	\$24,347,400	\$42,792,400
2002	298,700	237,000	61,700	\$21,595,000	\$28,505,400	\$50,100,400
2003	298,700	247,500	51,200	\$17,920,000	\$23,654,400	\$41,574,400
2004	298,700	244,500	54,200	\$18,970,000	\$25,040,400	\$44,010,400
2005	298,700	243,000	55,700	\$19,495,000	\$25,733,400	\$45,228,400
2006	298,700	246,750	51,950	\$18,182,500	\$24,000,900	\$42,183,400
2007	298,700	244,500	54,200	\$18,970,000	\$25,040,400	\$44,010,400
2008	298,700	221,250	77,450	\$27,107,500	\$35,781,900	\$62,889,400
2009	298,700	222,750	75,950	\$26,582,500	\$35,088,900	\$61,671,400
TOTAL LOSS FOR LAST 27 YEARS				\$526,015,000	\$694,339,800	\$1,220,354,800

*Base number and actual number of cows simply obtained by multiplying data in Table 1 by 75%.

Sources: Economic Linkages in the Economy of Humboldt County
1993. T. Harris, T. MacDiared, S. Stoddard, W. Champney & D. Torell
Tech. Report, UCED 92-01, Univ. of Nevada, Reno

Various Northern Nevada Ranch Analyses conducted by
Great Basin Resource Management
Elko, NV

this industry, thus everybody loses when cattle numbers decline. A summary of these economic impacts for the years 1983-2008 for the "Cow Counties" is presented in Table 2. Cattle and calf numbers averaged 398,250 for the years 1971-1982, which is considered as the base line data for this table. Based on the assumption that cattle and calf numbers for January 1 would represent 75% breeding age females, one could project that the average number of cows within the "Cow Counties" for the period of 1971-1982 was 298,700. This figure is listed for each year in column two as the base number. Column three presents actual cow numbers for the years 1983-2009. Column four represents the difference between columns two and three or the actual number of cows that no longer roam "Cow County" ranges, year by year. Numerous economic studies have appeared during the last few years indicating that total annual expenses for operating typical ranches run anywhere from \$200 to \$400 per cow per year. Based on our experiences with a number of northern Nevada ranches, as both a manager and consultant, we feel that all ranch expenses average about \$350 per cow per year. There is considerable variability in this figure, based on region, type of operation, etc. However, we feel currently that this figure is still as valid today, as it was twenty five years ago when this study was started. The direct impact of that lost income, column five, represents the value of \$350 multiplied by the number of lost cows for each of the 26 years. For 1983 this value amounted to \$2,170,000 and has increased to \$26,582,500 for the year 2009.

In addition to direct impacts, there are also indirect financial impacts. Every time a rancher directly purchases goods in the community, the community business is also able to make additional purchases. A recent University of Nevada publication indicated that for Humboldt County the indirect impacts are approximately 1.32 times the direct impacts. Column six is simply a reflection of each figure in column five multiplied by 1.32. The final column, column seven, is a summary of the direct and indirect impacts by year. For 1983, total direct and indirect monies lost to the business communities of the "Cow Counties" due to decreased livestock numbers was \$5,034,400, and that loss has increased to \$61,671,400 for the year 2009. *The total lost monies, including both direct and indirect impacts, for the 27 year period of 1983-2009 amounts to some \$1,220,354,800.*

RAMIFICATIONS

Throughout the 1980-90 era, the Nevada's gold mining industries grew at a dizzying rate. Strangely enough, this growth, and the resulting economic boom, occurred throughout the "Cow Counties", the same time, the same era and the same area that was suffering the economic loss from the livestock industry. The economic impacts from this gold mining growth more than offset the lost economies of the livestock industry. Thus, for the community business leaders, as well as local politicians, the livestock loss was hardly noted. However, starting in the mid 1990's, the gold mining industry started a steady pull back. In fact, since 1996, there have been essentially no new gold mining ventures in northern Nevada, while the existing operations have down sized, and even closed the doors in some instances. The consequences of the slow down of mining are now being felt in every single "Cow County". In fact it's safe to say that in every community in each of the six "Cow Counties", economic hard times are becoming very prevalent. Historically, when mining has taken one of its very predictable down turns, the livestock industry was

always there to pick up the slack. However, today, that industry is against the ropes as well.

It is important is to take a very real look at what is actually going on. Economically, livestock numbers were building during the last half of the ninety's, not only in Nevada, but throughout the west and nationally. The ranches that we are familiar with all increased numbers during that period if it were at all possible. Regardless of the confining nature of a range permit, all ranches have some capacity to increase numbers if economics dictates. And that is precisely what occurred. The 20% increase in numbers since 1994 is about all that can occur under the federally regulated constraints, which the range livestock industry operates under.

Will range numbers go higher during the next decade? That's highly unlikely for several reasons. First and foremost, there would have to be significant changes in federal land management policy if that scenario were to occur. The Bureau of Land Management seems to be in somewhat of a holding pattern in regard to actual permitted livestock numbers throughout Nevada, however; there are some notable exceptions to that which do not support increased numbers. The United States Forest Service is presently embarking on an ambitious schedule of Environmental Impact Statements regarding livestock grazing on the Humboldt Toiyabe Forest. The initial draft EIS regarding much of the Santa Rosa District in Humboldt County does not present a stable future of livestock grazing, at least on that District. If this initial EIS goes into effect as written, and is indicative of other forthcoming EIS's then Nevada's "Cow Counties" are in line for further significant reductions in livestock numbers.

Additionally, there is a well organized environmental effort coming out of Idaho to basically eliminate livestock grazing within watersheds. Environmentalist Jon Marvel has had some success in this regard, both in forcing (either willingly or unwillingly) the BLM to enforce more restrictive grazing regimes within specific watersheds, as well as purchasing and retiring actual ranch allotments. Carried to the fullest extent of Mr. Marvel's philosophy, elimination of livestock grazing within defined watersheds would essentially eliminate range livestock grazing in Nevada, with the possible exception of certain winter permits.

In addition to Jon Marvel's group, there are now those that want the federal government to simply buy out the range livestock industry. Politically, these pseudo-environmentalists have had some success to this point. Who would have thought a few short years ago that the timber industry on federal lands would essentially have been shut down, or that we would now be seriously contemplating the breaching of major dams throughout the west. So as wild as it might seem, a federal buy-out is not entirely out of the question, especially if the economic, and environmental consequences of such nonsense are not carefully considered.

The environmental impacts of the loss of livestock grazing on federal lands is well worth considering in detail, but this paper does not allow space or time for a full analyses. However, it is sufficient to say that the economic impacts, based on the above information would be monumental, and must be considered. We have already seen what about a 20-25% reduction, plus or minus, in the range livestock industry has brought about. For the sake of argument,

let's just consider that a federal buyout were to occur, or Jon Marvel's program were successful, or the land management agencies just simply totally capitulated to the environmentalist philosophy, what would be the impact? If any of these philosophies were to be successful, two thirds of the existing range cattle in the "Cow Counties" would likely go down the road! What would be the approximate annual economic impacts? There would be somewhere around one hundred and thirty five million less dollars circulating annually throughout the business community that serves the industry. There would be around seven million less sales tax dollars to let local politicians try to balance the budget with. The loss of money from property tax would be impossible to calculate until the full ramification were felt, but certainly would be many million more. All told, the economic impacts would be essentially insurmountable. Elko could well down size to about where Winnemucca currently is at, Winnemucca could down size to the level of Battle Mountain, and the likes of Battle Mountain, Carlin, Wells and, well who knows! Simply put, the economical impact of further downsizing of the livestock industry is just unacceptable.

Each of us, whether we are just a citizen living in northern Nevada, a businessman, a livestock producer, or even a land management specialist must be acutely aware of what drives this region economically. Collectively, we must work with politicians, federal land management agencies, and any other concerned entity to disallow further reductions in the regions livestock production, and just as hard, we must all pull to put the "Cow Counties" back on the map. The citizens of these counties must look to themselves and their elected officials for answers. Ultimately, these answers will clearly indicate that land management decisions must be brought back to the local level. Until that day arrives, rural Nevada continues to face the fight of their very lives.