

THE VALUE OF PUBLIC LANDS GRAZING TO NEVADA, EUREKA COUNTY, AND INDIVIDUAL RANCHES

Prepared by Jake Tibbitts, Eureka County Natural Resources Manager

Public land grazing is vital to Nevada, its counties and its residents, especially in rural area. Nearly all of the cattle and sheep commodity sales in the State are made possible by grazing permits on federally administered land (BLM and USFS). Take Eureka County as an example. Of all the agricultural commodity sales in Eureka County, cattle/calves and sheep/lambs historically average 40% of the sales with most of the remainder made up of export hay. According to the 2007 Census of Agriculture, there was a livestock inventory in Eureka County of nearly 25,000 head and \$25,015,000 worth of agriculture commodity sales. The 2012 Census of Agriculture highlighted a cattle inventory of 17,092 (the 2012 Census of Ag did not disclose sheep numbers) with \$36,020,000 worth of ag commodity sales. Livestock accounts for 40 percent of agriculture commodity sales in Eureka County; therefore, livestock production from 2007 through 2012 was responsible for generating \$10,000,000 to \$14,000,000 worth of product sales in Eureka County annually.

The direct and induced benefits of the livestock industry in Eureka County can be determined based upon information contained in the University of Nevada Report: Reno Technical Report UCED 2005/06-14 Updated Economic Linkages in the Economy of Eureka County. The livestock sector in Eureka County has a final demand multiplier of 2.0283. In short this means that for every \$1 generated by the sector Eureka County's economy will benefit \$2.02 of total revenue. The high final demand multiplier suggests strong economic linkages of the livestock sector to other sectors of the county's economy. Income and employment multipliers are also of importance. The livestock sector has an income multiplier of 1.6812 and an employment multiplier of 1.4439. Thus, for every \$1 generated by livestock production, total county household income increases by \$1.68 and for every job added by the livestock sector, total employment in Eureka County increases by 1.44 employees.

In 1999 funds were appropriated through the Nevada Legislature to create a Nevada Public Land Grazing Database and Economic Analysis. In 2000, the Nevada State Department of Agriculture asked the Nevada Association of Counties to assist in fulfilling this mandate. Resource Concepts, Inc. was contracted to help complete the database and analysis. The product of this effort is the report, *Nevada Grazing Statistics Report and Economic Analysis for Federal Lands in Nevada (Resource Concepts, Inc. March 26, 2001)*. Table 3 of the Report (p. 48) summarizes the economic impacts of 1 AUM of grazing in Nevada as follows:

Table 3. Economic Impacts of 1 AUM of Grazing in Nevada			
Value of AUMs = \$24.40			
AUM Increase or Loss = 1			
Value of Production per AUM (5 yr. Avg.) = \$24.40			
Impact	Direct Impacts	Indirect/Induced Impacts	Total Impacts
Total Industry Impacts	\$24.40	\$16.00	\$40.40
Total Labor Income Impact	\$3.40	\$4.00	\$7.40
Total Value-Added Impact	\$5.00	\$8.00	\$13.00
Total Employment Impacts	0.00	0.00	0.00
Total Economic Impacts ¹	\$29.40	\$24.00	\$53.40

Basically, for every AUM lost (or gained), the overall impact to the livestock producer himself in one year equaled \$29.40 (in 1999 dollars) in one year. However, to value an AUM in 2016 dollars there must be adjustments based on inflationary changes since 1999.

Take the following as an example. The Bureau of Labor Statistics reports an average inflation rate over the past 40 years (since 1976) to be about 3% per year (actually 2.96%). Applying a rate of 3% each year since 1999 gives a 2016 value of one AUM to the producer alone at \$48.59 per year.

When determine value of an AUM (loss or gain) using the analysis above, 1 AUM is currently (2018) worth \$51.55 per year to the producer alond. What is critical to understand is that AUM loss if typically forever. Forage/AUM loss impacts do not occur to ranchers as a one-time impact. If AUMs are diminished, the economic loss occurs year-after-year for as long as the rancher owns and operates the grazing permit where the AUM loss occurred. Take for instance the table below that shows the cumulative loss to the rancher (in 2018 dollars, not adjusted for future inflation), over 50 years (in 5 year increments), due to just one AUM loss (amounts rounded).

Year Interval	1	5	10	15	20	25	30	35	40	45	50
Cumulative value of 1 AUM	\$52	\$258	\$516	\$773	\$1031	\$1289	\$1547	\$1804	\$2062	\$2320	\$2578