



Economic Summary of Big Game Hunting in the Northern Red Desert

The Northern Red Desert: Crucial for Hunting Habitat

The Red Desert contains important habitat for elk, mule deer, and antelope. The area provides “crucial habitat” for all three big game species, as well as birthing grounds for both elk and mule deer.

Crucial habitat is the determining factor in a population’s ability to maintain itself at a certain level.

The northern Red Desert elk herd is one of the nation’s only herds that live in a sagebrush-desert environment. Approximately 187,000 acres are crucial winter or crucial yearlong range for elk. This is about 30% of the area. In total, at least 72% of the area is used by elk during some part of the year.

Mule deer find over 112,000 acres of crucial winter or crucial yearlong range here, and another 13,000+ acres of severe winter relief range. In total, about 49% of the study area is used by mule deer during some part of the year.

Antelope use the entire study area, 100%, during some portion of the year. About 82,000 acres of this area is crucial range for antelope, and the famous Sublette herd at 50,000 strong is a major draw for hunters.

Big game hunting in Wyoming is a major economic driver as well as a recreational opportunity enjoyed by thousands. Due to the current energy boom, many traditional hunting grounds face threats from oil, gas and coal-bed methane development.

One such place is the northern Red Desert, an area the Bureau of Land Management calls the Jack Morrow Hills. This area provides a significant source of revenue to the state and counties through fees and expenditures, as illustrated below; the figures were taken or calculated from the Wyoming Game and Fish Department’s (WGFD) 2005 Harvest Reports, their 2006 Annual Report and the Wyoming Resident and Nonresident Deer, Elk and Antelope Hunter Expenditure Survey of 2004.

Before looking at specific numbers, explaining some general hunting trends may place the figures into context. The average hunter total seasonal expenditure was \$1,158 in 2005 adjusted for inflation. “The leading expenditures for all hunters in Wyoming in 2003 were gasoline (\$18,370,535 overall; \$133 per hunter), followed by groceries and liquor (\$15,966,453 overall; \$103 per hunter), package trips (\$13,256,034 overall; \$207 per hunter), and lodging (\$11,525,313 overall; \$111 per hunter).” These dollars provide much needed revenue to local businesses and counties during hunting season.

Only portions of the hunting districts are found in the Jack Morrow Hills analysis area as shown in Table 1; all numbers have been adjusted to reflect these percentages.

- A total of 1,209.95 antelope hunters accounted for 686.5 harvested animals resulting in 1,155.63 total hunter days. This provided \$92,946 in total economic return and \$131,997 total hunter expenditures with \$84,125 coming from residents and \$47,872 from non-residents.
- For elk, a total of 247.1 hunters accounted for 197.4 harvested animals resulting in 1,071.7 hunter days. This provided \$326,105 in total economic return and \$239,268 total hunter expenditures with \$217,694 from residents and \$21,574 from non-residents.
- Mule deer hunting drew 605.04 hunters that accounted for 220.02 harvested animals resulting in 2111.81 hunter days. This provided \$187,237 in total economic return and \$507,772 in total hunter expenditure with \$490,687 coming from residents and \$17,085 from non-residents.

In summary, the northern Red Desert, in 2005, provided \$606,288 in total economic return and \$879,037 in total hunter expenditures with \$792,506 coming from Wyoming residents and \$86,531 from non-residents.

Table 1. “Summary of the Wyoming Game and Fish Department 2005 Harvest Report”¹

Species	Hunting district	% acres in the BLM analysis area*	Active license/hunters-resident pooled	Active license/hunters-non-resident pooled	Number of licenses sold+	Total Harvested	Hunter Days – resident	Hunter Days-non-resident	Total Hunter Days
Antelope	92	70%	176.4	63.7	298.9	193.2	575.4	265.3	840.7
	107	23%	45.31	24.84	86.94	58.19	144.21	113.16	257.37
	60	6%	5.34	1.26	7.68	6	16.62	3.66	20.28
	64	4%	7.28	1.56	16.04	11.24	33.56	3.72	37.28
Elk	100	70%	214.9	32.2	252	197.4	874.3	197.4	1071.7
Mule Deer	131	60%	591	28.2	15	218.4	1944.6	118.2	2062.8
	95	13.5%	14.04	3.92	0	1.62	38.21	10.8	49.01
Totals			1054.27	155.68	676.56	686.05	3626.9	712.24	4339.14

1. All figures have been adjusted to the JMH/CAP analysis area using the calculation formula, number / percentage in analysis area.

* These percentages were taken from the BLM FEIS for the JMH/CAP, p. 3-44.

+ For specific areas the WGFD did not indicate if the licenses sold were resident or non-resident.

Table 2. “2005 Economic Summary for Hunting Recreation in the Jack Marrow Hills Analysis Area”

Species	Hunting district	Economic return per animal ¹	Economic return per hunting district ²	Average cost for a single resident hunter for a season ³	Average cost for a single non-resident hunter for a season ³	Total hunter seasonal expenditure: resident ⁴	Total hunter seasonal expenditure: non-resident ⁴
Antelope	92	\$346	\$66,847	\$359	\$524	\$63,328	\$33,379
	107	\$346	\$20,134	\$359	\$524	\$16,266	\$13,016
	60	\$346	\$2,076	\$359	\$524	\$1,917	\$660
	64	\$346	\$3,889	\$359	\$524	\$2,614	\$817
Elk	100	\$1,652	\$326,105	\$1,013	\$670	\$217,694	\$21,574
Mule Deer	131	\$851	\$185,858	\$811	\$532	\$479,301	\$15,002
	95	\$851	\$1,379	\$811	\$532	\$11,386	\$2,083
Total			\$606,288			\$792,506	\$86,531

1. These values were taken from the WGFD 2006 Annual Report.

2. Calculation Formula = Economic return per animal * total animals harvested from Table 1

3. These figures assume non-package costs and are taken from the *Wyoming Resident and Nonresident Deer, Elk and Antelope Hunter Expenditure Survey, 2004*.

4. Calculation Formula = pooled active license/hunter from Table 1 * average season cost

The average hunter total seasonal expenditure was \$1,158 in 2005 adjusted for inflation (calculated from WGFD 2006 Annual Report table, p. 156 and the *Wyoming Resident and Nonresident Deer, Elk and Antelope Hunter Expenditure Survey, 2004*).

Friends of the Red Desert is a coalition of citizens, businesses and conservation organizations united to protect Wyoming's magnificent Red Desert. For more information please contact us at:

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