



Albany County Related Hunting and Fishing Spending, 2015

For the Wyoming Wildlife Federation



WYOMING WILDLIFE FEDERATION

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Introduction

Expenditures by hunters and anglers make an important contribution to Wyoming's economy. This contribution is particularly important during times of economic downturn in the state's energy sectors. The U.S. Fish and Wildlife Service (USFWS), in its National Survey of Fishing, Hunting, and Wildlife-Associated Recreation report, estimates that 443,000 resident and nonresident hunters and anglers participated in 4.8 million days hunting and fishing in Wyoming during 2011 (Table 1). The report also estimates that during 2011 this recreational activity generated \$683.7 million of spending within the Wyoming economy.

Access to both public and private lands is important for hunting and fishing in Wyoming. For hunting, the USFWS report estimates that 49 percent of hunters in Wyoming hunt exclusively on public land, 35 percent hunt on both public and private land, and 16 percent hunt exclusively on private land. Overall, more than one-third of hunters in Wyoming hunt on both public and private lands.

Although the statewide information on hunting and fishing expenditures is important, residents and local officials are also interested in the local economic importance of hunting and fishing expenditures. In response to this interest, this analysis attempts to estimate the spending associated with hunting and fishing for Albany County, Wyoming.

Methodology

In order to estimate recreational spending, two types of information are needed. One is the amount of recreational use and the other is per unit expenditures associated with that recreational use. For this analysis recreational use for hunting was based on the hunter-day estimates from the Wyoming Game and Fish Department's 2015 Annual Harvest Reports by Hunt Area. Harvest reports were available for the following species: Antelope, Bighorn Sheep, Bison, Black Bear, Deer, Elk, Moose, and Mountain Goat.

Because Hunt Area boundaries are based on habitat rather than county boundaries, not all the Hunt Areas found in Albany County are located entirely within the borders of the county. To account for this, a GIS analysis was conducted by the Wyoming Game and Fish Department to estimate the percent of each Hunt Area that was located within Albany County. This percentage was then used to allocate the proportion of total hunter days for the Hunt Area in Albany County. These percentages by hunt area are detailed in the maps at the end of this report. Unfortunately, there was no data available on fishing-days by sub-regions of the state. Because of this, recreational use for fishing was based on the Game and Fish Department's 2015 data on fishing licenses sold in Albany County.

In order to estimate per unit expenditures for hunting and fishing in this analysis, per unit estimates for Wyoming from the USFWS 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation report were used. These values were adjusted for inflation to 2015 dollars. Combining the recreational

use amounts with the per unit of expenditures amounts provided estimates for hunting and fishing spending related to Albany County. Since the USFWS expenditure estimates are for all of Wyoming, not just Albany County and because the fishing associated with the purchase of a Wyoming fishing license in Albany County can occur throughout the state, it is not possible to assume that 100 percent of these expenditures solely occurred within the Albany County economy. However, based on proximity it seems more than likely that a high percentage of these expenditures occurred within the county's economy.

Results

Table 2 summarizes the estimates of Albany County related to hunting and fishing spending for 2015. From Game and Fish Hunt Area data, it is estimated that there were nearly 59,000 Big Game and Trophy Game hunting days in Albany County in 2015. Based on USFWS expenditure estimates for Wyoming, adjusted to 2015 dollars (\$90.91 per day for residents and \$579.82 per day for nonresidents), it is estimated that these hunter-days generated spending of \$11 million. Information on the hunter-days by individual species can found in the Appendix tables in this report.

Fishing license sales data indicated that nearly 30,000 fishing licenses were sold in Albany County in 2015. From USFWS data for average fishing days in Wyoming, it is estimated that the users of these fishing licenses participated in more than 113,000 angler-days in Wyoming. The expenditures associated with these fishing licenses are estimated to be \$14.3 million. This spending estimate was developed by using USFWS annual individual expenditures in Wyoming by anglers for annual fishing licenses and USFWS daily individual expenditures in Wyoming by anglers for daily fishing licenses. Since USFWS expenditure data only applies to hunters and anglers 16 years-of-age and over, youth annual license sales, which are for ages 14-18, were reduced by 50 percent to account for anglers less than 16 years-of-age. Combined total hunting and fishing related spending related to Albany County in 2015 is estimated to be \$25.3 million.

Summary and Conclusions

Hunting and fishing are economically important to the Albany County economy. It is likely that much of the \$25.3 million of spending by hunters and anglers occurs within the Albany County economy. In addition, those dollars that are spent locally generate secondary impacts in various other support sectors within the local economy. These types of economic contributions become particularly important during times of economic downturn in the state's energy sector. The popularity of hunting and fishing with both residents and nonresidents indicates that these recreational activities are important in terms of both contributions to the local economy and contributions to the residents' quality of life.

Table 1. 2011 Hunting and Fishing Spending in Wyoming					
Participation					
	Total	Resident	Nonresident	Resident	Nonresident
	Fishing	Fishing	Fishing	Fishing	Fishing
Total Individuals	303,000	110,000	193,000	36.3%	63.7%
Total Trips	2,902,000	1,510,000	1,392,000	52.0%	48.0%
Total Days	3,123,000	2,009,000	1,114,000	64.3%	35.7%
Average Days	10.3	18.3	5.8		
	Total	Resident	Nonresident	Resident	Nonresident
	Hunting	Hunting	Hunting	Hunting	Hunting
Total Individuals	140,000	76,000	64,000	54.3%	45.7%
Total Trips	1,204,000	978,000	225,000	81.2%	18.7%
Total Days	1,726,000	1,103,000	623,000	63.9%	36.1%
Average Days	12.3	14.5	9.7		
Source: USFWS, 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Wyoming - Table 3)					
2011 Trip and Equipment Expenditures in Wyoming					
	Total	Resident	Nonresident	Resident	Nonresident
	Fishing	Fishing	Fishing	Fishing	Fishing
Total Amount	\$438,892,000	\$95,365,000	\$343,527,000	21.7%	78.3%
Per Individual	\$1,448.49	\$866.95	\$1,779.93		
Per Trip	\$151.24	\$63.16	\$246.79		
Per Day	\$140.54	\$47.47	\$308.37		
	Total	Resident	Nonresident	Resident	Nonresident
	Hunting	Hunting	Hunting	Hunting	Hunting
Total Amount	\$244,865,000	\$115,763,000	\$129,102,000	47.3%	52.7%
Per Individual	\$3,134.94	\$1,254.80	\$5,367.61		
Per Trip	\$364.53	\$97.51	\$1,526.79		
Per Day	\$254.28	\$86.46	\$551.41		
Source: USFWS, 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Wyoming - Table 21)					

Table 2. Albany County Related Hunting and Fishing Spending, 2015				
Big and Trophy Game Hunting				
	Resident	NonResident	Combined	
	Hunter	Hunter	Hunter	
Species	Days (1)	Days (1)	Days (1)	
Antelope	5,047	4,752	9,799	
Bighorn Sheep	36	8	44	
Black Bear	1,225	61	1,286	
Deer	9,223	2,043	11,266	
Elk	31,692	4,570	36,262	
Moose	112	49	161	
Total Hunting Days	47,335	11,483	58,818	
Total Hunting Days	47,335	11,483	58,818	
Spending Per Day (2)	\$90.91	\$579.82	\$186.36	
Total Hunting Spending	\$4,303,465	\$6,657,838	\$10,961,303	
Fishing Licenses Sold in Albany County 2015				
	License	Per Angler	Total Fishing	Total Angler
Type	Sold (3)	Spending (2)	Spending	Days (2)
Resident Annual	4,173	\$911.62	\$3,804,188	76,366
Resident Youth Annual	153	\$911.62	\$139,478	2,800
Resident Daily	2,597	\$49.92	\$129,632	2,597
Non-Resident Annual	1,721	\$1,871.64	\$3,221,093	9,982
Non-Resident Youth Annual	121	\$1,871.64	\$226,468	702
Non-Resident Daily	20,946	\$324.26	\$6,791,922	20,946
Total Fishing Spending	29,711	\$481.73	\$14,312,781	113,392
Combined Hunting & Fishing Spending			\$25,274,084	
(1) Based WGFD Annual Harvest Reports by Hunt Area and percent of Hunt Areas that are in the County				
(2) Based on USFWS 2011 National Survey of Fishing, Hunting, and Wildlife - Associated Recreation - Wyoming (Adjusted for inflation)				

Appendix Table 1. Albany County Antelope Hunting, 2015								
				Total	Total	County	County	Combined
				Resident	NonRes	Resident	NonRes	County
Hunt	Total	County	County	Hunter	Hunter	Hunter	Hunter	Hunter
Areas	Acres	Acres	Percent	Days	Days	Days	Days	Days
30	696,460	34,823	5.0%	428	620	21	31	52
37	216,045	118,825	55.0%	851	133	468	73	541
38	1,511,685	619,791	41.0%	3,657	2,294	1,499	941	2,440
42	711,108	711,108	100.0%	595	344	595	344	939
43	285,966	263,089	92.0%	574	2,169	528	1,995	2,524
44	273,316	273,316	100.0%	506	328	506	328	834
45	416,859	341,824	82.0%	1,099	991	901	813	1,714
46	248,736	27,361	11.0%	552	343	61	38	98
47	703,176	147,667	21.0%	976	233	205	49	254
50	746,208	97,007	13.0%	970	333	126	43	169
103	709,141	120,554	17.0%	798	574	136	98	233
Total	6,518,701	2,755,365	42.3%	11,006	8,362	5,047	4,752	9,799

Source: Wyoming Game and Fish Department Annual Harvest Reports, 2015

Appendix Table 2. Albany County Bighorn Sheep Hunting, 2015								
				Total	Total	County	County	Combined
				Resident	NonRes	Resident	NonRes	County
Hunt	Total	County	County	Hunter	Hunter	Hunter	Hunter	Hunter
Areas	Acres	Acres	Percent	Days	Days	Days	Days	Days
18	1,483,640	712,147	48.0%	0	0	0	0	0
19	3,508,644	1,508,717	43.0%	84	18	36	8	44
Total	4,992,284	2,220,864	44.5%	84	18	36	8	44

Source: Wyoming Game and Fish Department Annual Harvest Reports, 2015

Appendix Table 3. Albany County Black Bear Hunting, 2015								
				Total	Total	County	County	Combined
				Resident	NonRes	Resident	NonRes	County
Hunt	Total	County	County	Hunter	Hunter	Hunter	Hunter	Hunter
Areas	Acres	Acres	Percent	Days	Days	Days	Days	Days
7	3,800,386	1,634,166	43.0%	745	27	320	12	332
8	2,088,260	1,002,365	48.0%	1,885	102	905	49	954
Total	5,888,646	2,636,531	44.8%	2,630	129	1,225	61	1,286

Source: Wyoming Game and Fish Department Annual Harvest Reports, 2015

Appendix Table 4. Albany County Deer Hunting, 2015								
				Total	Total	County	County	Combined
				Resident	NonRes	Resident	NonRes	County
Hunt	Total	County	County	Hunter	Hunter	Hunter	Hunter	Hunter
Areas	Acres	Acres	Percent	Days	Days	Days	Days	Days
59	860,429	266,733	31.0%	1,541	787	478	244	722
60	313,065	125,226	40.0%	1,474	209	590	84	673
61	216,045	118,825	55.0%	626	78	344	43	387
64	1,900,739	1,216,473	64.0%	3,821	1,696	2,445	1,085	3,531
65	850,367	25,511	3.0%	2,748	1,076	82	32	115
74	537,870	290,450	54.0%	696	115	376	62	438
75	325,819	140,102	43.0%	2,452	191	1,054	82	1,136
76	261,775	261,775	100.0%	3,184	282	3,184	282	3,466
77	240,814	240,814	100.0%	390	63	390	63	453
78	297,809	68,496	23.0%	1,214	285	279	66	345
Total	5,804,732	2,754,405	47.5%	18,146	4,782	9,223	2,043	11,266



Source: Wyoming Game and Fish Department Annual Harvest Reports, 2015

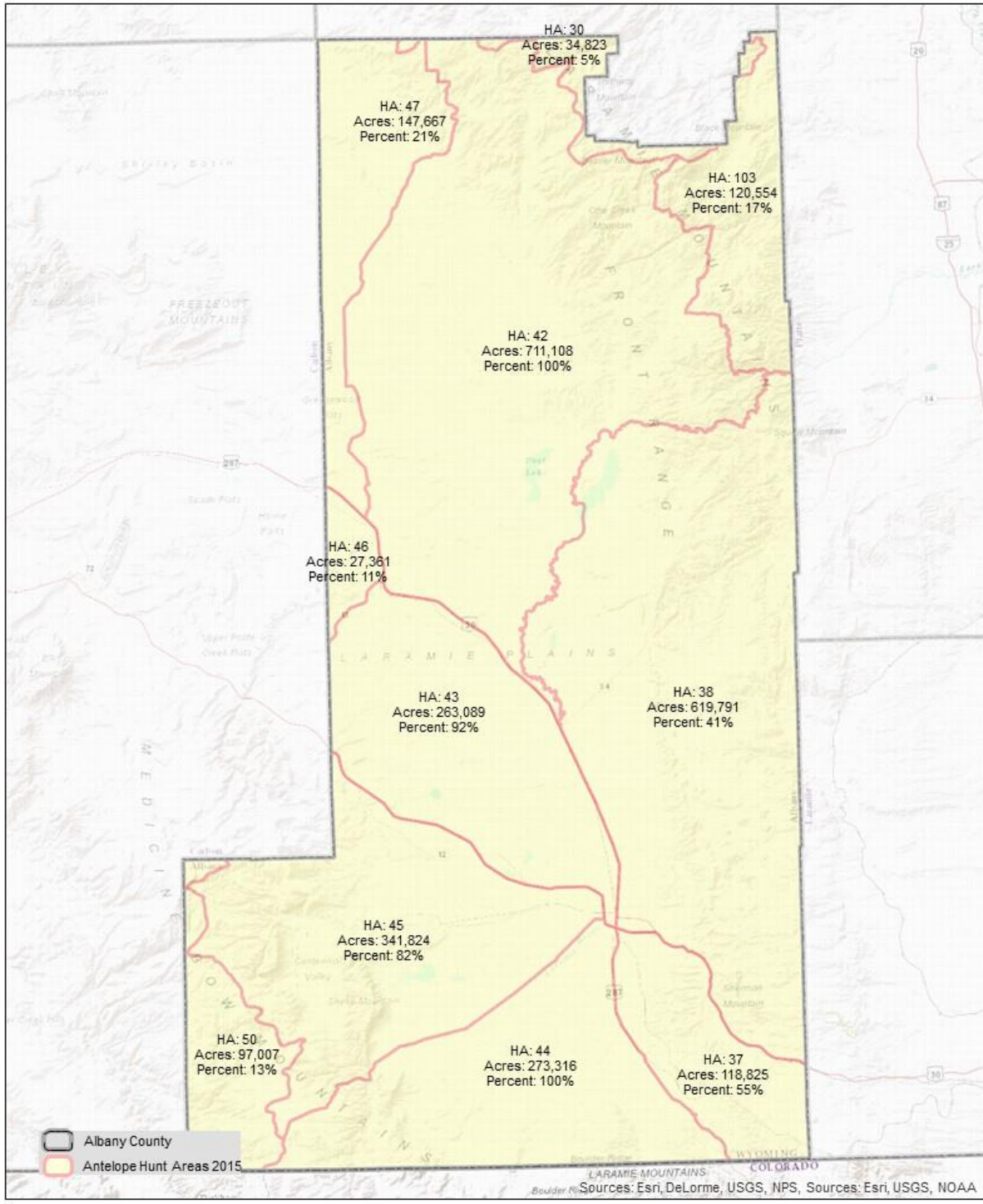
Appendix Table 5. Albany County Elk Hunting, 2015								
				Total	Total	County	County	Combined
				Resident	NonRes	Resident	NonRes	County
Hunt	Total	County	County	Hunter	Hunter	Hunter	Hunter	Hunter
Areas	Acres	Acres	Percent	Days	Days	Days	Days	Days
6	1,380,495	510,783	37.0%	7,579	1,163	2,804	430	3,235
7	2,587,073	1,241,795	48.0%	24,799	4,529	11,904	2,174	14,077
8	240,814	240,814	100.0%	981	216	981	216	1,197
9	261,775	261,775	100.0%	7,288	388	7,288	388	7,676
10	212,880	136,243	64.0%	8,447	1,727	5,406	1,105	6,511
11	128,633	3,859	3.0%	3,046	677	91	20	112
110	297,809	68,496	23.0%	12,014	771	2,763	177	2,941
114	537,870	290,450	54.0%	842	109	455	59	514
Total	5,647,349	2,754,215	48.8%	64,996	9,580	31,692	4,570	36,262

Source: Wyoming Game and Fish Department Annual Harvest Reports, 2015

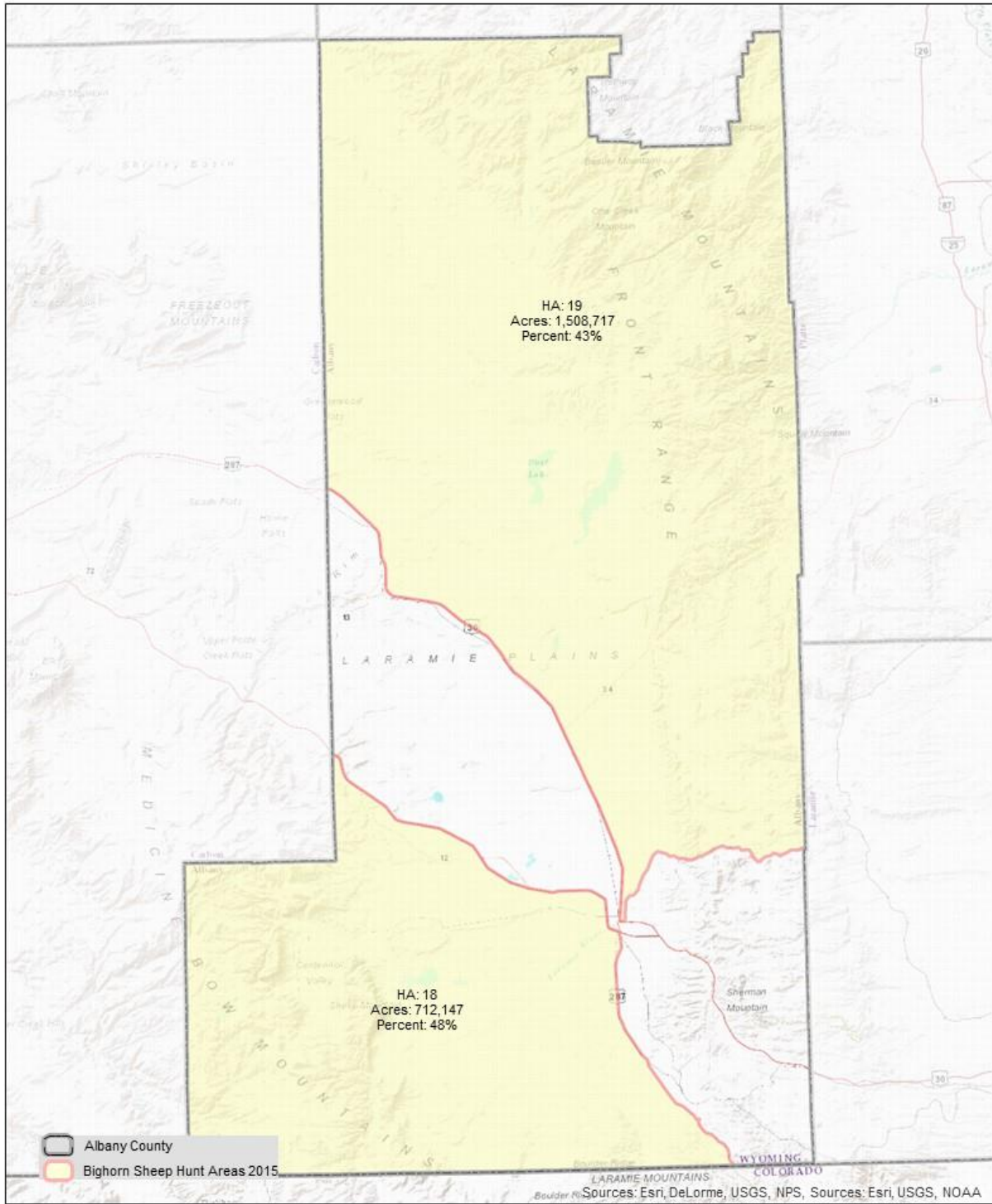
Appendix Table 6. Albany County Moose Hunting, 2015								
				Total	Total	County	County	Combined
				Resident	NonRes	Resident	NonRes	County
Hunt	Total	County	County	Hunter	Hunter	Hunter	Hunter	Hunter
Areas	Acres	Acres	Percent	Days	Days	Days	Days	Days
38	2,597,179	1,246,646	48.0%	234	102	112	49	161
Total	2,597,179	1,246,646	48.0%	234	102	112	49	161

Source: Wyoming Game and Fish Department Annual Harvest Reports, 2015

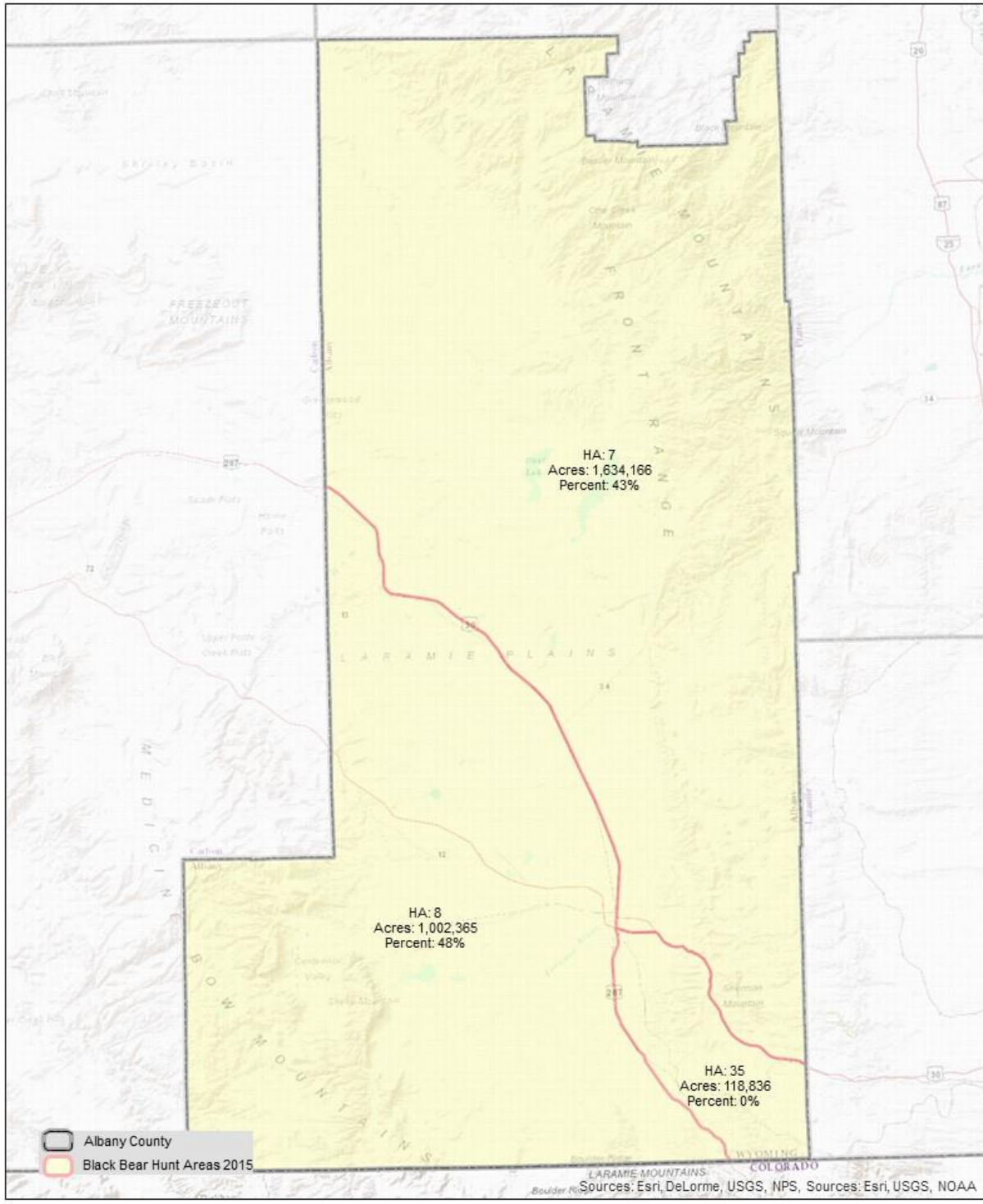
Appendix Table 7. Fishing Licenses Sold in Albany County 2015			
		Adjustment	County
	County	Youth Under	Over 16
Type	Licenses	16	Licenses
Resident Annual	4,173		4,173
Resident Youth Annual	306	50.0% 	153
Resident Daily	2,597		2,597
Non-Resident Annual	1,721		1,721
Non-Resident Youth Annual	242	50.0% 	121
Non-Resident Daily	20,946		20,946
Total	29,985		29,711
Source: Wyoming Game and Fish Department, 2015			



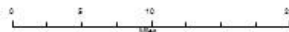
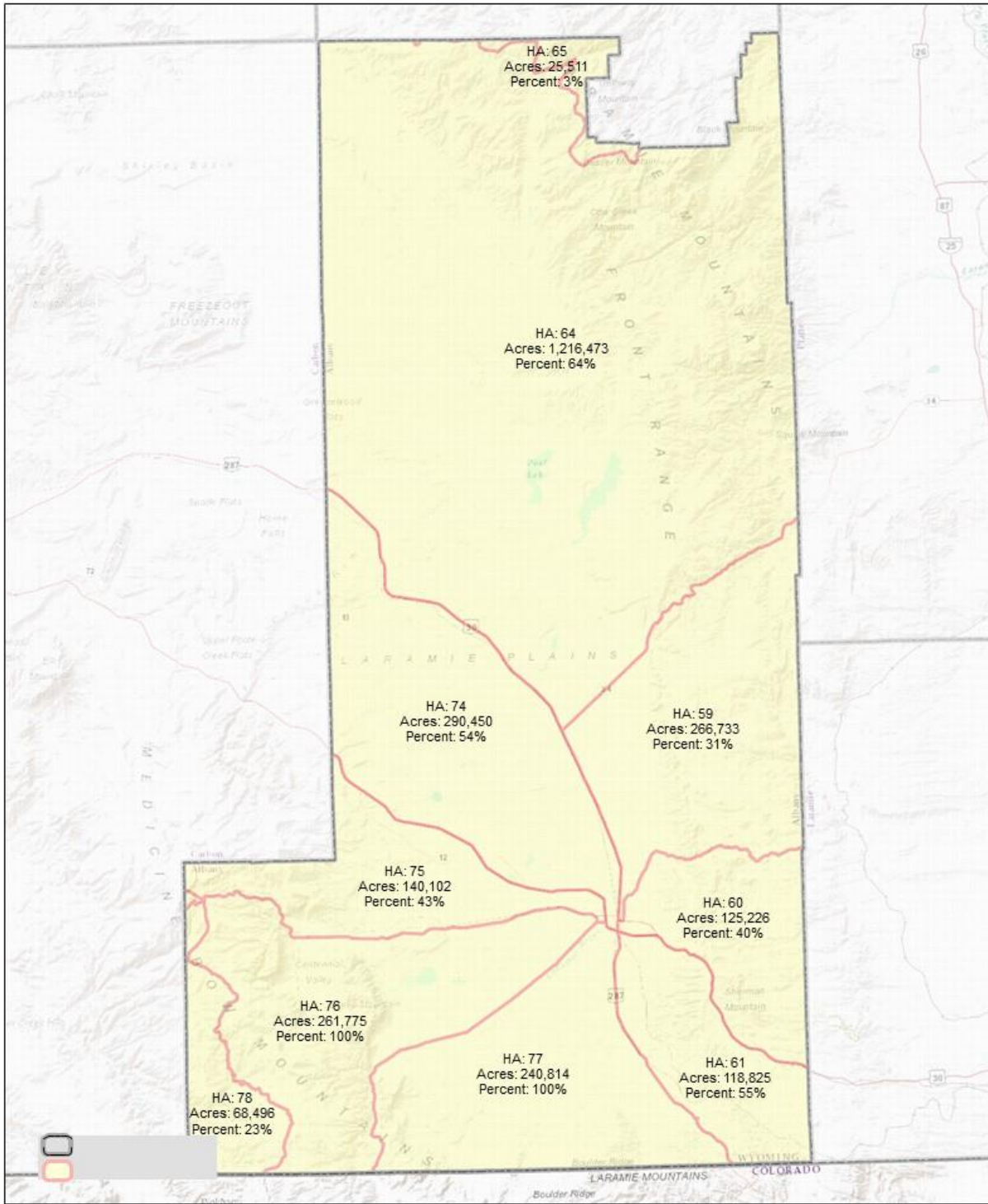
Percentage of 2015 Antelope Hunt Areas (HA) within Albany County



Percentage of 2015 Bighorn Sheep Hunt Areas (HA) within Albany County

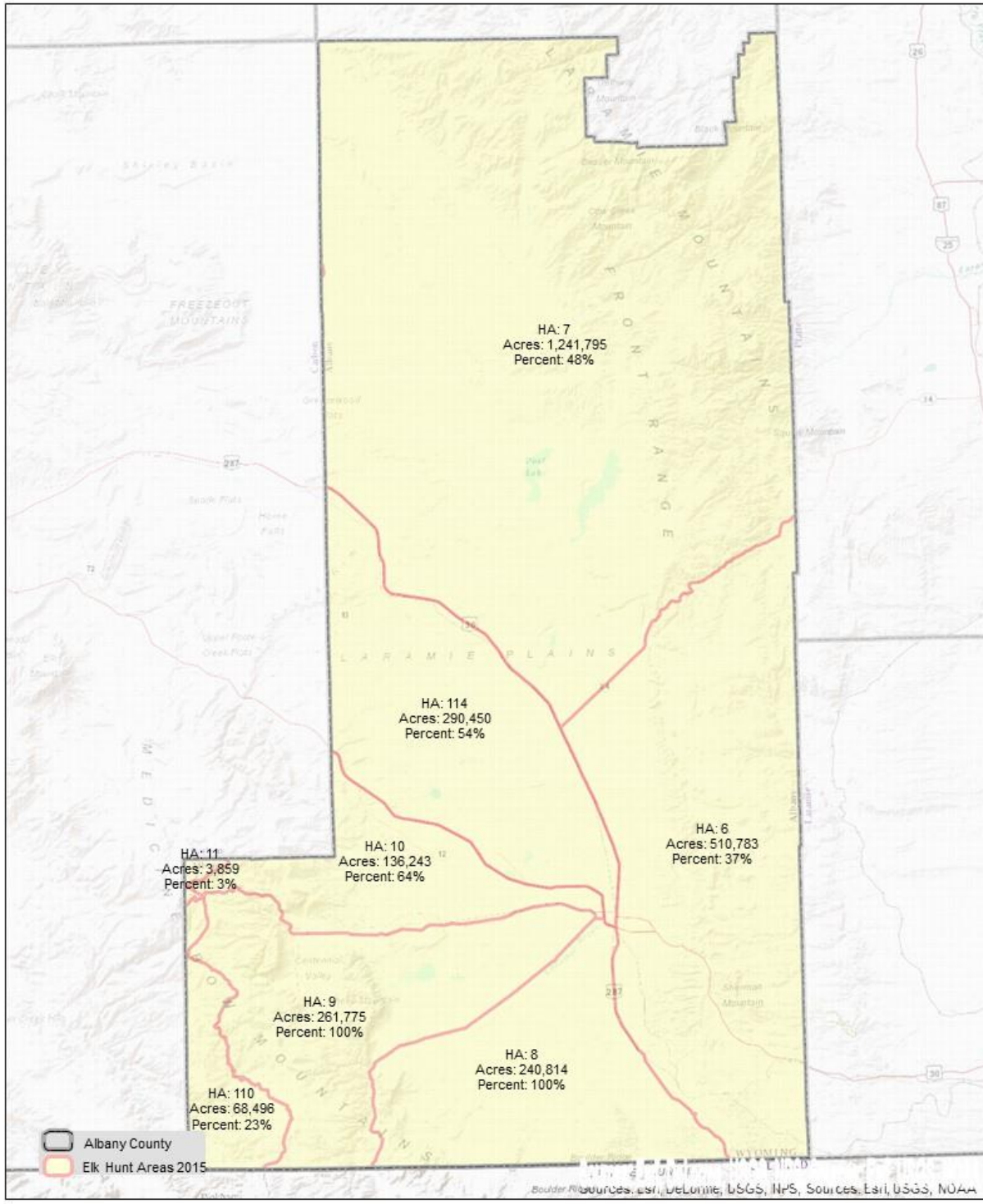


Percentage of 2015 Black Bear Hunt Areas (HA) within Albany County

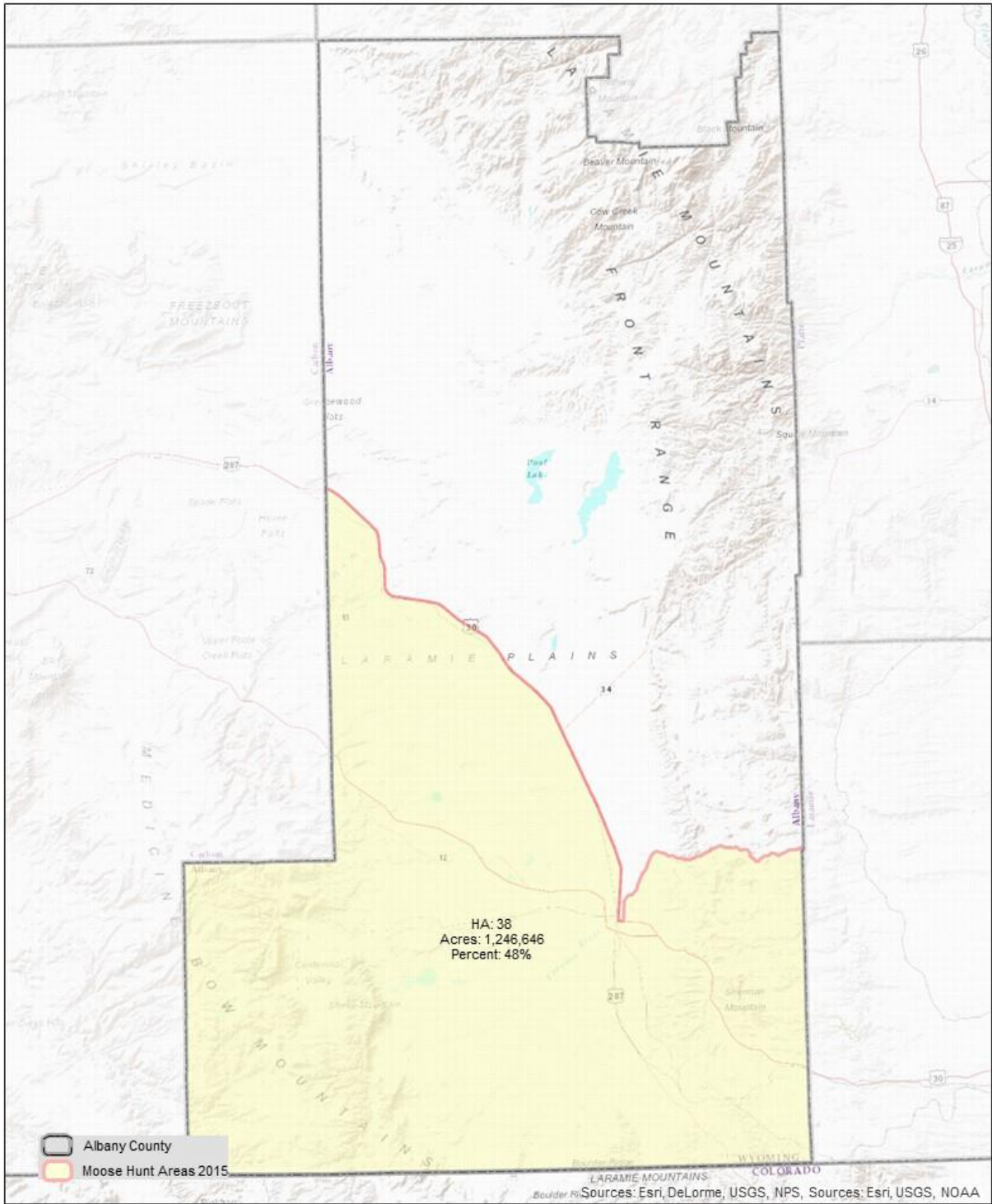


Scale: 1:669,445

Percentage of 2015 Deer Hunt Areas (HA) within Albany County



Percentage of 2015 Elk Hunt Areas (HA) within Albany County



Percentage of 2015 Moose Hunt Areas (HA) within Albany County