



## 2012-13 Harvest Recommendation Report

Southwest Hamilton Wildlife Management Association  
Hamilton and Lampasas Counties

Southwest Hamilton WMA strives to maintain deer numbers below the carrying capacity of the habitat and provide ample mature buck harvest opportunities for its members. This report provides a deer population summary and harvest recommendation to help Southwest Hamilton WMA achieve its deer management goals.

### Deer Population Estimate

Population estimates are based on survey data, both incidental daytime and spotlight data, collected by SW Hamilton WMA members. Data collected from spotlight routes (East and Northwest Routes) were used to estimate deer density and herd composition. Surveys for each route were replicated 3 times. Incidental data (1,434 identified deer from 14 member properties) were collected to assess buck antler quality and strengthen herd composition estimates. These data can be observed on page 1 of the *SW Hamilton Harvest Recs 2012* attachment.

Population density – The current estimated deer population density is 6.4 acres per deer, identical to last year's deer density estimate (Table 1). The population management goal is to maintain the mid-winter (post-harvest) deer density at no higher than 8 acres/deer. The harvest recommendation strives to accomplish this.

Sex ratio - The management objective for a free-ranging (low-fenced) deer population typically is to maintain the adult sex ratio at 2 does per 1 buck. The sex ratio has continued to decline, trending towards fewer does per buck for the past 13 years (Figure 1). Additionally, association members have done a nice job of maintaining the sex ratio below 2.5 does per buck for the past 7 years. The estimated sex ratio (2.2 does per buck) and fawns/doe ratio (0.51 fawns per doe) were derived exclusively from daylight observation data since the ratios derived from spotlight surveys were so severely skewed toward does.

Recruitment - The current estimated fawn production of **0.51 fawns per doe** is greater than the long-term average fawn production (0.42 fawns per doe) from 2000 to 2012 and represents an improvement over last year's estimated recruitment (0.31 fawns per doe). Nearby Vista Mountain WMA also produced an estimated 0.51 fawns per doe this year.

Buck antler quality – 306 bucks observed during the daylight observation surveys were classified by number of antler points to provide the following summary: 6.5% are spikes, 12.7% have 3-5 points, 14.7% have 6-7 points, and 66% have 8+ points. The overall trend displays an increasing percentage of 8+ point bucks (Figure 2).

Table 1. Population estimates, Southwest Hamilton WMA, 2000-2012

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Acres/Deer	7.08	5.71	5.77	5.17	5.18	5.31	5.23	9.14	4.41	5.14	4.91	6.4	6.43
Acres/Adult	9.4	8.13	7.87	6.36	6.76	6.54	6.29	12.34	5.54	6.6	6.24	7.75	8.65
Does/Buck	2.31	2.77	2.18	2.61	2.55	2.63	2.19	2.05	2.27	2.03	2.25	2.22	2.22
Fawns/Doe	0.47	0.58	0.53	0.32	0.42	0.32	0.29	0.52	0.37	0.42	0.39	0.31	0.51
Bucks/1000 acres	32	33	40	43	42	42	50	26	55	50	49	40	36
Does/1000 acres	74	90	87	113	106	111	109	54	126	102	111	89	80
Fawns/1000 acres	35	52	46	37	45	35	32	29	46	43	44	27	40
Total/1000 acres	141	175	173	193	193	188	191	109	227	195	204	156	156

Figure 1. Sex ratio trend, Southwest Hamilton WMA, 2000-2012.

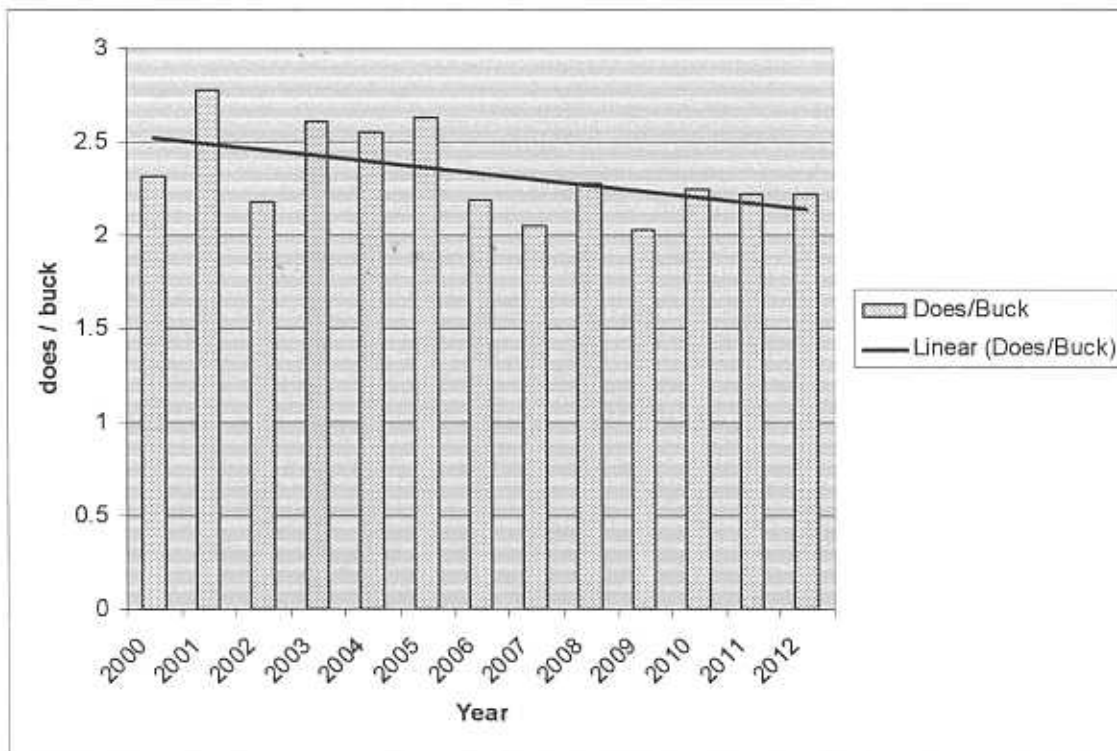
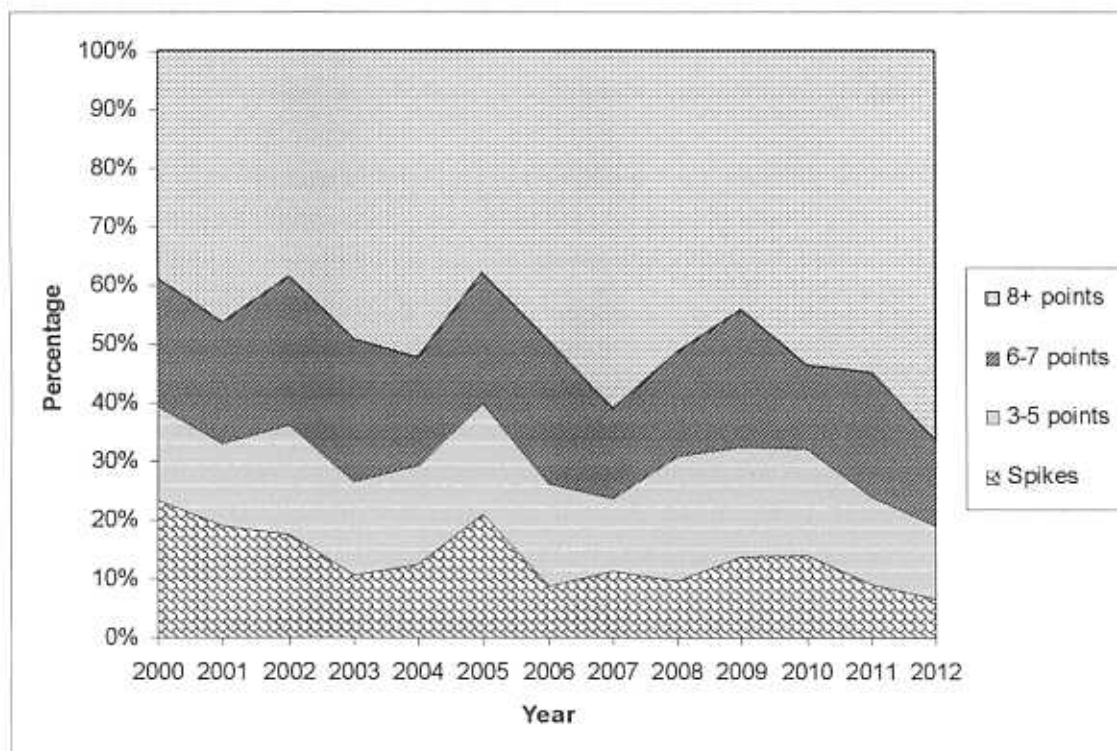


Figure 2. Percentage of bucks, classified by antler points, SW Hamilton WMA, 2000-2012.



## Deer Harvest Recommendations

Southwest Hamilton WMA strives to achieve a post-harvest deer density objective of 8-10 acres per deer, which is thought to be below the carrying capacity of area's habitat. Additionally, the WMA strives to maintain a sex ratio of 2 or fewer does per buck. A quality management philosophy has been adhered to by limiting buck harvest to no more than 33% of the estimated number of bucks and avoiding the harvest of young bucks with good antler characteristics. TPWD provides an annual deer harvest recommendations to assist the WMA with meeting these population management objectives.

Population estimates provided from deer spotlight/incidental data were utilized to develop the harvest recommendation. Detailed deer harvest recommendations are provided in the *SW Hamilton Harvest Recs2012* attachment.

### Bucks

A 33% buck harvest rate results in a maximum recommended harvest of **12 total antlered bucks per 1,000 acres (1 buck per 83 acres)**. The harvest recommendation includes all bucks, including trophies, cull, or management bucks. The actual buck harvest rate for the 2011-12 hunting season was 1 buck per 114 acres. Regardless of the buck harvest rate, the emphasis of the buck harvest should be on:

- Selectively harvesting bucks that are approaching or have reached maturity – at least 4 ½ years old.
- Restricting the harvest of immature (less than 4½ years old) bucks to those displaying substandard antler characteristics relative to other bucks in their same age class. This may include spike-antlered bucks and bucks at least 3 ½ years old with less than 8 points.

The actual number of bucks harvested will be limited by the numbers of bucks that meet the harvest criteria above. In other words, the actual buck harvest rate should be less than recommended if/when individual properties observe fewer trophies, culls, and management bucks than anticipated.

### Does

The recommended doe harvest is 36 does per 1,000 acres (**1 doe per 28 acres**) throughout the area, which is approximately 45% of the number of does estimated to be in the population. The harvest rate strives to lower the sex ratio, make room for an incoming fawn crop and lower the post-harvest deer density.

- As a general rule-of-thumb, the data indicate that **approximately 3 does should be harvested for every antlered buck harvested**. When the maximum buck harvest is adhered to and the recommended doe harvest is achieved, the sex ratio is lowered, increasing the proportion of bucks in the population.
- The emphasis of the doe harvest should be on removing the oldest does from the population, but please **avoid** limiting your doe harvest to “barren” does that do not have a fawn at side; many of the does that do not have fawns are typically 1½ years old and too young to have

produced a fawn this year. Avoid harvesting female fawns and “nubbin bucks” (buck fawns).

### Harvest Data

To monitor the ages of the bucks being harvested, the age structure of the doe population, and the nutritional condition of the population, it is recommended that you use the approved harvest data form to collect the following:

- Accurate **field-dressed** weights from all deer harvested – bucks, does, and fawns. Please calibrate your scales with a known-weight object prior to the hunting season.
- Complete antler measurements (number of points, beam length, inside spread, and basal circumference) from every antlered buck, **including spikes and other “culls.”**
- Gross Boone and Crockett score for each harvested buck.
- The lower jawbones be removed from all deer (bucks and does), properly labeled, and stored until the aging bee that will be held for the WMA after the season. Weight and antler measurement data are of little value without knowing the age of a deer.

The collection of jawbones and the recording of weight and antler data are required of landowners who are the recipients of Managed Lands Deer Permits and/or those receiving the reduced cost WMA Hunting Lease License. Data collection is voluntary, but highly encouraged, of landowners who do not receive a lease license or permits.

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### SW Hamilton Harvest Recs 2012

Ranch: SW Hamilton WMA (Total)

Survey Technique: Spotlight + Incidentals

County: Lampasas/Hamilton

Year: 2012

Survey Route/Pasture	Date	Deer Observed					Acres Sampled	Acres Per Deer	Deer Per 1,000 Ac.
		Bucks	Does	Fawns	Undet	Total			
East Route (7.3 miles)	7/28/2012	13	83	13	13	122	713	5.84	171.2
East Route (7.3 miles)	8/25/2012	10	30	16	23	79	713	9.03	110.7
East Route (7.3 miles)	9/2/2012	11	52	11	37	111	713	6.42	155.8
Northwest Route (10.4 miles)	7/28/2012	12	94	25	65	196	1,164	5.94	168.4
Northwest Route (10.4 miles)	8/19/2012	18	63	28	24	133	1,164	8.75	114.3
Northwest Route (10.4 miles)	9/1/2012	21	128	37	49	235	1,164	4.95	202.0
Survey Totals		85	450	130	211	876	5,631	6.43	155.5
Incidental Observations		310	689	350		1,349			
Combined Totals		395	1,139	480		2,014			

Ranch Size (ac.): 1,000

**Harvest Recommendation**

Antlered Bucks: no more than 12 bucks per 1,000 acres (1 buck per 83 acres)

Acres/Deer: 6.43

Does/Buck: 2.22

Fawns/Doe: 0.51

**Composition -**

Bucks: 23.0%

Does: 51.3%

Fawns: 25.7%

Antlerless Deer: 36 does per 1,000 acres (1 doe per 28 acres)

Deer/1,000Ac: 155.57

Adult/1,000Ac: 115.59

Acres/Adult: 8.65

Estimated sex ratio and fawns/doe ratio derived exclusively from daylight observation data.

**Estimated Population -**

Bucks: 36

Does: 80

Fawns: 40

Total: 156

Remarks: Buck quality (306 classified by number of antler points)

Spikes: 6.5%

3-5 points: 12.7%

6-7 points: 14.7%

8+ points: 66%

DEER HARVEST RECOMMENDATION

Ranch: SW Hamilton WMA (Total) County: Lampasas/Hamilton Year: 2012

Objective & Goals: Maintain a winter (post-season) deer population density no higher than 8  
acres per deer. Maintain a sex ratio of 2 or fewer does per 1 buck.  
Harvest no more than 33% of the estimated number of bucks.

Ranch Size: 1,000 acres

Estimated Deer Population:	Bucks	36
	Does	80
	Fawns	<u>40</u>
	Total	156

1. Recommended Population Harvest  
 156 Total Deer X  Kill Rate = 48 Deer Harvest Quota

2. Recommended Buck Harvest  
 36 Total Bucks X  Kill Rate = 12 Buck Harvest Quota

3. Recommended Doe or Antlerless Deer Harvest  
 48 Recommended Deer Harvest Quota  
-12 Recommended Buck Harvest Quota  
 36 Recommended Doe Or Antlerless Deer Harvest Quota

45% Of The Does Recommended To Be Harvested

4. Recommended Spike Buck Harvest  
 12 Buck Harvest X  Spike Kill Rate = 3 Spike Buck Quota

5. Potential Effect of The Harvest

	Bucks	Does	Fawns
Census	36	80	40
Rec. Har.	-12	-36	
	24	44	
Yearlings	20	20	
Carryover	44	64	

Estimated Winter Density 9.26 acres/deer

Estimated Winter Sex Ratio 1.45 does/buck

Remarks: Recommendations for an "average" 1,000 acres in the area. Harvest should be higher in  
areas where the deer density is higher than the average, and lower where the density is  
lower than the average.

Recommended antlerless harvest = 36 does per 1,000 acres (1 doe per 28 acres)

Recommended antlered buck harvest = no more than 12 bucks per 1,000 acres (1 per 83 ac.)

The buck harvest quota includes all bucks (culls and mature bucks).

Harvest of bucks should be limited to those nearing maturity (4.5 years and older)

& cull bucks with substandard antler characteristics for their age.