## 2016 Sage-grouse Harvest Report

The 2016 Sage-grouse report provides information on the estimated harvest of Sage-grouse. A post-season harvest survey was conducted by phone and email. A stratified random sample of 3,500 potential Sage-grouse hunters was drawn from among Harvest Information Program (HIP) participants. The sample was stratified as follows:

- 1 = Not Likely to hunt
- 2 = Somewhat Likely to hunt
- 3 = Very Likely to hunt
- 4 = Very Likely to hunt for 3 or more years

#### **Harvest Data Summary**

The survey contacted 1,554 (44.4% response rate) hunters in 2016. Approximately 4.4% (69) reported hunting Sage-grouse during the season. Thirty-three (33) hunters (47.8%) reported that they successfully harvested Sage-grouse. Statewide harvest was estimated at 1,089  $\pm$  537 (552 – 1,627).

### Comparison with 2015 survey results:

Comparing the figures for the Sage-grouse season for both years, the estimated harvest in 2016 is higher than 2014 when an estimated  $745 \pm 349$  (435 - 1,134) birds were harvested. Hunter numbers increased slightly in 2016 at  $1,393 \pm 412$  (980 - 1,805) from  $1,291 \pm 409$  (881 - 1,709) in 2015. Total days hunted increased in 2016 to 3,854 + 1,396 (2,459 - 5,249) when compared to 2,914 + 1,015 (1,898 - 3,930) in 2015.

## **Discussion**

According to survey data, Sage-grouse harvest increased by approximately 46% between 2016 and 2015. Total hunter numbers increased by 7.9% while days hunted increased 32% between years.

	2014	2015	2016	2014	2015	2016
Strata	Hunter Estimate	Hunter Estimate	Hunter Estimate	Harvest Estimate	Harvest Estimate	Harvest Estimate
(1) Not Likely	140	396	331	280	66	166
(2) Somewhat Likely	526	468	584	778	324	428
(3) Very Likely	341	343	373	307	234	320
(4) Very Likely for >3 years	91	84	104	107	161	175

As an additional measure, CPW calculated an estimate of average birds harvested per hunter from 1999-2015. In 2016, hunters averaged 0.78 birds per hunter, suggesting that average hunting success was lower than the long term average of 1.2 birds per hunter.

## **Hunter Statistics and Harvest Estimates by Strata and County**

The following summary tables provide estimates of hunter numbers, days in the field and Sage-grouse harvest statewide and by county. Estimates are followed by the standard error of the estimate, and 95% upper (UCI) and lower (LCI) confidence intervals around the estimate. In 2014, Colorado Parks and Wildlife attempted to reduce erroneous harvest location responses by allowing answers that correspond to greater sage grouse

occurrence and where legal hunting seasons occur. All other location responses – for instance if a hunter said he hunted Sage-grouse in Yuma County, were cached into an "Unknown" category, and eliminated from the data set.

## 2016 Sage-grouse Harvest by Strata

			LCI	UCI	Days	SE (Days	LCI	UCI			LCI	UCI
Strata	Hunters	SE(hunters)	Hunters	Hunters	Hunted	Hunted)	Days	Days	Harvest	SE(harvest)	Harvest	Harvest
(1) Not Likely	331	104	182	605	696	266	337	1436	166	99	56	491
(2) Somewhat Likely	584	157	348	981	1831	575	1003	3340	428	209	174	1058
(3) Very Likely	373	92	232	602	1120	322	645	1947	320	143	139	738
(4) Very Likely for >3 years	104	14	80	135	207	37	146	294	175	38	114	268
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Total	1393	210	980	1805	3854	712	2459	5249	1089	274	552	1627

# 2016 Sage-grouse Harvest by County

			LCI	UCI	Days	SE (Days	LCI	UCI			LCI	UCI
County	Hunters	SE(hunters)	Hunters	Hunters	Hunted	Hunted)	Days	Days	Harvest	SE(harvest)	Harvest	Harvest
Moffat	1122	362	606	2077	815	291	414	1608	363	157	161	817
Rio Blanco	784	338	350	1760	520	233	225	1203	213	161	57	796
Summit	1992	574	1145	3467	1261	482	611	2602	191	103	71	516
Jackson	172	63	86	344	366	168	155	864	152	86	54	428
Grand	356	129	179	709	363	136	178	739	105	61	36	304
Other	1128	478	509	2501	528	302	186	1498	66	66	13	339
Total	1393	210	980	1805	3854	712	2459	5249	1089	274	552	1627

<sup>\*</sup>Hunters could provide up to 3 counties when asked "where did you harvest sage grouse?"





