

SUMMARY OF KDWPT 2012-13 DUCK HUNTER SURVEY

PERFORMANCE REPORT
STATEWIDE WILDLIFE RESEARCH AND SURVEYS

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Kansas Department of Wildlife, Parks & Tourism

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INTRODUCTION

Incorporating stakeholder feedback is an important component of developing wildlife regulations, particularly on issues that are social in nature (stakeholder preferences) rather than biological. For example, individual states can select season dates for migratory game birds within the given frameworks derived by the U.S. Fish & Wildlife Service (USFWS). The manner in which individual states set their season dates within the USFWS frameworks does not largely impact continental waterfowl populations, but it can greatly impact duck hunter satisfaction.

In the past 16 seasons, waterfowlers have experienced the longest waterfowl seasons and some of the highest duck populations in modern times. Despite these increased opportunities, duck hunter numbers have been slightly decreasing. This has led waterfowl managers to focus on determining the importance of factors related to duck hunter satisfaction. Season dates are often assumed to be an important factor affecting hunter satisfaction. Matching season dates to hunter preference gives the hunter the ability to hunt when they want to hunt. However, this can vary greatly from hunter to hunter based on where they hunt, what they hunt, how they hunt, past and recent experiences, and other time commitments including non-waterfowl hunting seasons (deer, pheasant, etc.). For example, some hunters in Kansas prefer earlier seasons when it's warmer and they can target early migrants in shallow wetlands. Others may prefer targeting later migrants in December and January in riverine or field settings.

Kansas has a diverse landscape that offers many different waterfowling opportunities. Beginning in the 2011-12 duck season, the Kansas Department of Wildlife, Parks & Tourism (KDWPT) was able to offer an additional duck hunting zone in its Low Plains Unit. (A map of Kansas' waterfowl zones can be found in Appendix A). This newly formed zone in Southeast Kansas was created in an attempt to satisfy waterfowl hunters who might prefer hunting alternative season dates in this portion of the state that differ from the larger Low Plains Late Zone. The majority of input KDWPT received suggested shifting October season dates from the beginning of the season to the second segment to offer additional late season hunting opportunities.

As part of KDWPT's continuous evaluation of hunter preferences, surveys were conducted in 2011, 2012 and 2013 to gauge duck hunters' satisfaction, and gain insight into season preferences. These surveys provide a summation of hunter preferences prior to when the zone was created (2010-2011 season), a year (2011-2012 season) with a modest season opening delay (1 week later than prior year) and a year (2012-2013 season) with the latest possible

season opener. Table 1 provides season dates for the past 3 years in Kansas' Low Plains Late Zone and for the past 2 years for Kansas' Low Plains Southeast Zone.

Table 1. Kansas Duck Hunting Season dates for the Low Plains Late Zone (2010 to 2012) and Low Plains Southeast Zone (2011 & 2012).

Season	Opening Day	End 1st Split	Opening 2nd Split	Last Day
2010-11 <i>Late Zone</i>	Oct 30	Jan 2	Jan 22	Jan 30
2011-12 <i>Late Zone</i>	Oct 29	Jan 1	Jan 21	Jan 29
2012-13 <i>Late Zone</i>	Oct 27	Dec 30	Jan 19	Jan 27
2011-12 <i>Southeast Zone</i>	Nov 5	Jan 8	Jan 21	Jan 29
2012-13 <i>Southeast Zone</i>	Nov 15	--	--	Jan 27

METHODS

An important component of the survey and question design of this survey was to focus on underlying motives for season date preferences versus mere polling of season dates. Even though such polls are of value in gaining popular choices of alternatives, they do not provide characteristics needed to detect and predict differential preferences among constituents. This type of information will be of greater value to aid in future management decisions, particularly if there are changes in season frameworks (i.e. season length or timing). For example, continental duck populations are cyclical in nature. They are mainly driven by habitat conditions in the Prairie Pothole Region of North America. The wet/dry cycles can persist for 10-20 years and as waterfowl are a wetland dependent species, their numbers are reflective of the amount and quality of wetlands on the landscape. Since 1996, there have been favorable conditions that have resulted in the most liberal of the four regulatory alternatives (closed, restrictive, moderate and liberal). Consequently, Kansas has enjoyed a 74-day season the past 16 seasons. As contentious as the season dates have been under the current liberal framework, they will undoubtedly be more so if season frameworks are reduce to 60 days under the moderate season or 39 days under the restrictive season. Results of season date polls designed for a 74 day framework will be of limited value when choosing dates for 60 or 39 day seasons. When making decisions on issues with multiple conflicting viewpoints, information on hunter motivation is also useful to maximize hunter satisfaction.

The Kansas Waterfowl Stamp provided the sampling base for this survey. All Kansas hunters who are required to obtain a hunting license must possess an annual Kansas State Waterfowl Stamp before hunting ducks, geese, or mergansers in Kansas (those that are not required to have a Kansas hunting license include people hunting their own land, residents 75 years and older and residents 15 and younger). A query of names was drawn from those who purchased

a 2012 Kansas Waterfowl Stamp between May 1, 2012 to January 28, 2013 (the last day of Kansas 2012-13 general duck season was January 27, 2013) that were Kansas residents and 18 years of age or older. A total of 27,016 stamps were sold during this period, of which 21,905 were Kansas residents, and of those 20,721 were over the age of 18. Three thousand four hundred survey instruments (Appendix B) were mailed to a random sample of the query above the first week of February 2013. A follow-up mailing was sent the second week in March to non-respondents of the first mailing.

This sampling differed from the two previous KDWPT duck hunter surveys where participants were selected from the Harvest Information Program (HIP) database instead of the Kansas Waterfowl Stamp. The Kansas Waterfowl Stamp was used for the 2013 survey as we believe it provides a more accurate count of waterfowl hunters than HIP, which is required for all licensed migratory game bird hunters (waterfowl, doves, cranes, etc.). The 2010 survey was conducted on a statewide scale whereas the 2012 survey targeted participants whose zip codes either were in or within close proximity to the Southeast Zone. Thus, the 2012 survey also included hunters from the metropolitan areas of Kansas City and Wichita who may be more likely to take advantage of the Southeast zone. For this 2013 survey, we again surveyed on a statewide scale, as season dates are statewide issues. However, we also recognize that those who utilize the Southeast Zone may have a larger stake in season dates for that zone, and provided the data for this user group in the survey analysis. A statewide sampling scheme also provided insight into hunter activity and distribution across the state.

RESULTS AND DISCUSSION

Response Rate

A total of 1,400 surveys were returned by April 30, 2013. When adjusted for incorrect addresses and other non-participation factors, a response rate of 42% was achieved. This was lower than the 2011 survey (60%, n=3,808) but similar to the 2010 survey (48%, n=3,456).

Hunter Demographics

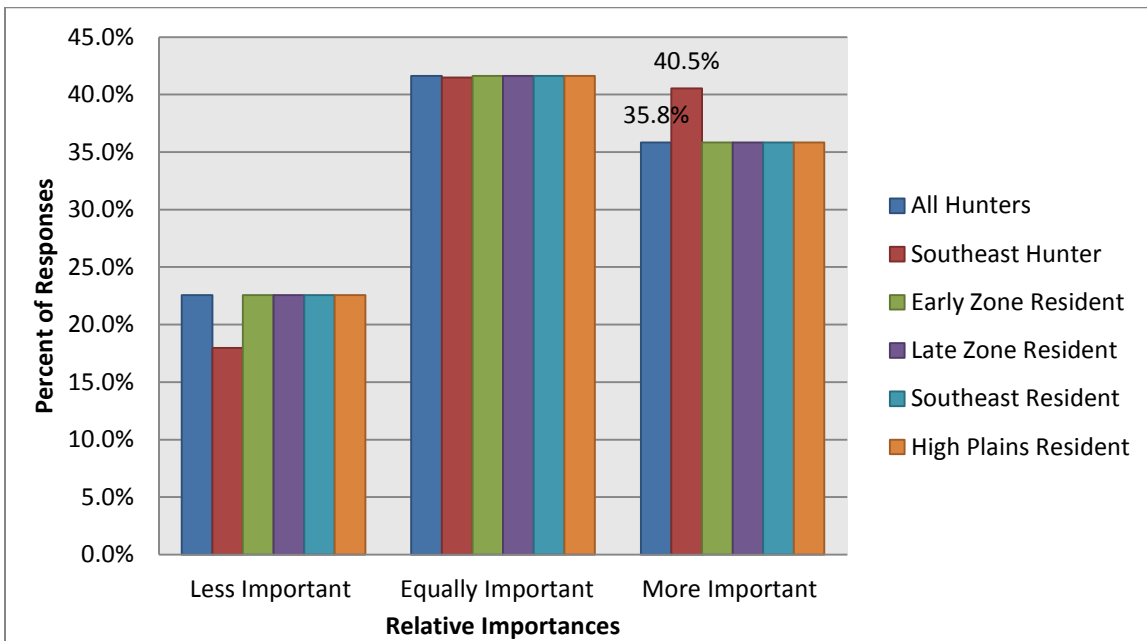
The average respondent's age was 47 years old. The most commonly reported age, or mode, was 56 years. Respondents have been waterfowl hunting on average for 21 years (mode=20) of which on average 19 years (mode=10 years) were in Kansas. Early zone residents have been waterfowl hunting slightly longer and experienced more seasons of Kansas waterfowling compared to hunters residing in the High Plains Zone, Late Zone and Southeast Zone.

Table 2. Respondents average age, total years waterfowl hunting, and number of years they have been waterfowl hunting in Kansas.

	All Hunters (mode)	Southeast Hunter	High Plains	Early Zone	Late Zone	Southeast Zone
Average Age	47 (56)	47	48	46	47	47
Years Hunting Waterfowl	21 (20)	21	21	25	21	21
Years Hunting Waterfowl in KS	19 (10)	19	20	23	19	18

As Kansans have many quality hunting options (deer, turkey, upland game, etc.), we felt it was important to ask respondents how important duck hunting is compared to their other hunting activities. Their evaluation of the importance of duck hunting can be used as a measure of how they identified themselves as a duck hunter (casual vs. avid), and the likelihood that the timing of other species hunting season dates play a role in their preferences for duck season dates. As can be gleaned from Figure 1, duck hunting is equally or more important than respondents' other hunting activities. For the Southeast Zone hunter, it is slightly more important than it is to all hunters combined.

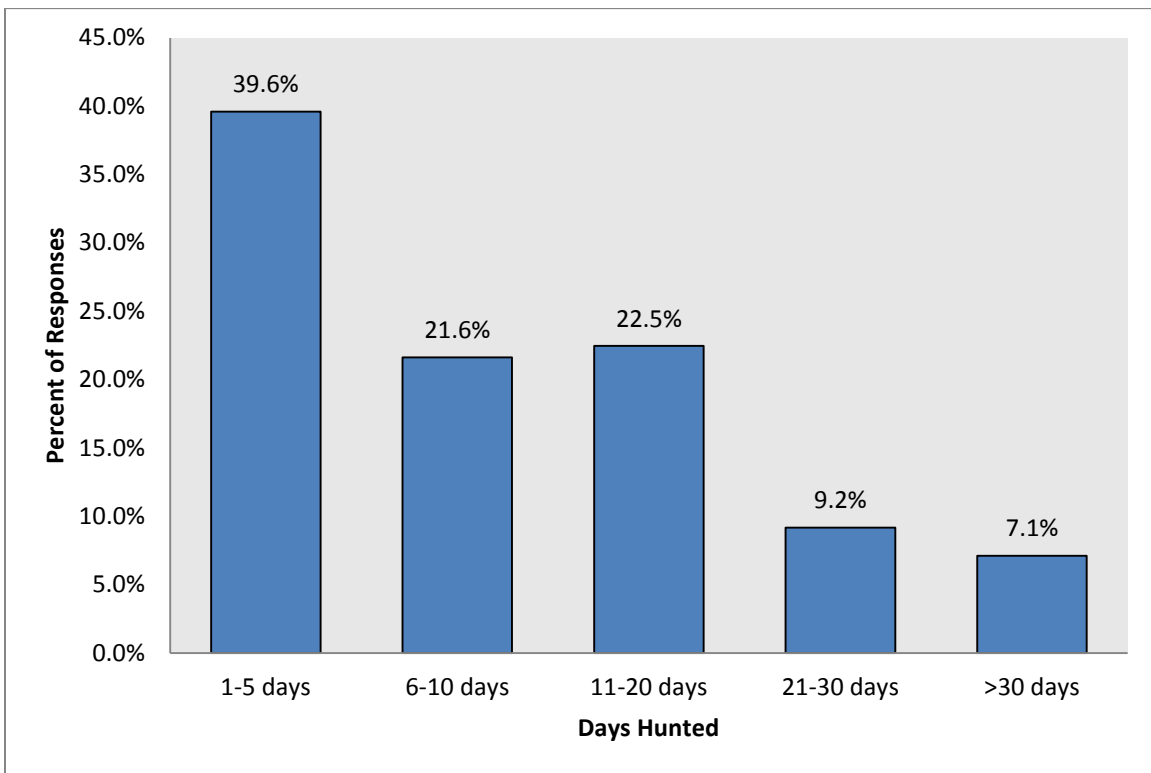
Figure 1. Importance of duck hunting compared to other hunting activity



Hunter Activity and Origin

Of the respondents, 1,068 hunted ducks at least 1 day during the 2012-13 Kansas duck season. Collectively, respondents amassed 12,727 hunt days, averaging 11.9 days per hunter. However, the mode was 1 day per hunter, with 9.6% of all respondents reporting hunting just one day. The average number of days of duck hunting in this survey is nearly double the USFWS HIP 1999-2011 average active duck hunter estimates of 6.8 days per year (USFWS 2012), but is similar to the 2006 National Duck hunter survey estimate for Kansas of 10.1 days per hunter (USFWS 2008). Figure 2 represents the distribution of number of hunter days. This distribution varied from the USFWS 2005 Central Flyway Survey of Kansas Hunters where 14% hunted 1 to 5 days, 29% hunted 6-10 days, 31% hunted 11-20 days, 15% hunted 21-30 days, and 11% reported hunting more than 30 days.

Figure 2. Average number of days duck hunting during the 2012-13 season by Kansas residents.



Of the four duck hunting zones in Kansas, the Late Zone has the largest geographic area, and contains the 10 most populated cities in Kansas. These 10 cities account for 45.7% of Kansas' total population. Not surprisingly, the Late Zone had the highest residency rate (70.5%) of respondents. Late Zone residents accounted for 71.8% of total hunters and 69.3% of hunter

days statewide (50.3% of hunters and 10.5% of the days in the Southeast Zone). The Southeast Zone had the second highest residency (16.8%) followed by the Early Zone (7.2%) and High Plains Zone (5.4%). Residents in the Southeast Zone were most active, where the average resident hunted 10.8 days (mode 1 day), followed by the Late Zone with 9.8 days (mode 2 days), Early Zone 6.2 days (mode 2 days) and the High Plains Zone of 5.7 days (mode 2 days) (Table 3). These results are similar to the 2010 Statewide survey, where 74.9% of respondents hunted the Late Zone (prior to when the Southeast Zone was created). However, in the same survey, hunter participation was higher in the Early Zone (44.8%) and the High Plains Zone (16.3%). This difference is potentially due to better habitat conditions in these zones compared to the 2012-13 season.

Table 3 and Figure 3 and 4 express the differences in participation among zone residents. The average number of days of duck hunting is lower for those that reside in the more western zones (High Plains Zone=6.5 days, Early Zone=10.2 days) than the more eastern zones (Late Zone=11.4 and Southeast Zone=15.1). A likely factor in the reduced number of hunt days is the extreme drought conditions across the western 2/3 of Kansas, which may have reduced duck hunter activity for those living in those zones. Drought conditions also likely reduced the number of eastern zone residents venturing west, and increased the number of western residents traveling east. Sixty-one percent of High Plains Zone residents and 75.0% Early Zone residents hunted in other zones, compared to 41.1% of Late Zone residents and 15.2% of Southeast Zone residents that hunted in other zones. One area that drought conditions greatly reduced hunter activity was Cheyenne Bottoms Wildlife Area near Great Bend, Kansas. This Early Zone KDWPT Wildlife Area is one of Kansas' most popular public hunting destinations. From 2005-2011 the average visitation estimates for the opening week of teal, general duck and goose seasons, based on traffic counters at Cheyenne Bottoms Wildlife Area, was 5,549 visits. In 2012 visitation dropped by 81.3%, with most use coming from deer and upland game hunters and bird watchers (Grover pers comm.).

Table 3. Hunter activity by zone residency.

Hunt Zone		Residency				
		High Plains Zone	Early Zone	Late Zone	Southeast Zone	Statewide
High Plains Zone	# of hunters	25	7	17	1	50
	% of hunters	50.0%	14.0%	34.0%	2.0%	
	Days hunted	151	27	78	2	258
	% of days	58.5%	10.5%	30.2%	0.8%	
	Avg. days hunted	6.0	3.9	4.6	2.0	5.7
Early Zone	# of hunters	13	34	89	3	139
	% of hunters	9.4%	24.5%	64.0%	2.2%	
	Days hunted	74	255	463	7	799
	% of days	9.3%	31.9%	57.9%	0.9%	
	Avg. days hunted	5.7	7.5	5.2	2.3	6.2
Late Zone	# of hunters	11	30	576	22	639
	% of hunters	1.7%	4.7%	90.1%	3.4%	
	Days hunted	42	239	5,927	167	6,375
	% of days	0.7%	3.7%	93.0%	2.6%	
	Avg. days hunted	3.8	8.0	10.3	7.6	9.8
Southeast Zone	# of hunters	1	2	170	165	338
	% of hunters	0.3%	0.6%	50.3%	48.8%	
	Days hunted	1	7	1,161	2,405	3,574
	% of days	0.0%	0.2%	32.5%	67.3%	
	Avg. days hunted	1.0	3.5	6.8	14.6	10.8
Total	# of hunters	41	52	671	171	935
	% of hunters	4.4%	5.6%	71.8%	18.3%	
	Days hunted	268	528	7,629	2,581	11,006
	% of days	2.4%	4.8%	69.3%	23.5%	
	Avg. days hunted	6.5	10.2	11.4	15.1	11.9
	% that hunted in other zones	61.0%	75.0%	41.1%	15.2%	

Figure 3. Proportion of duck hunting days by respondent's residency.

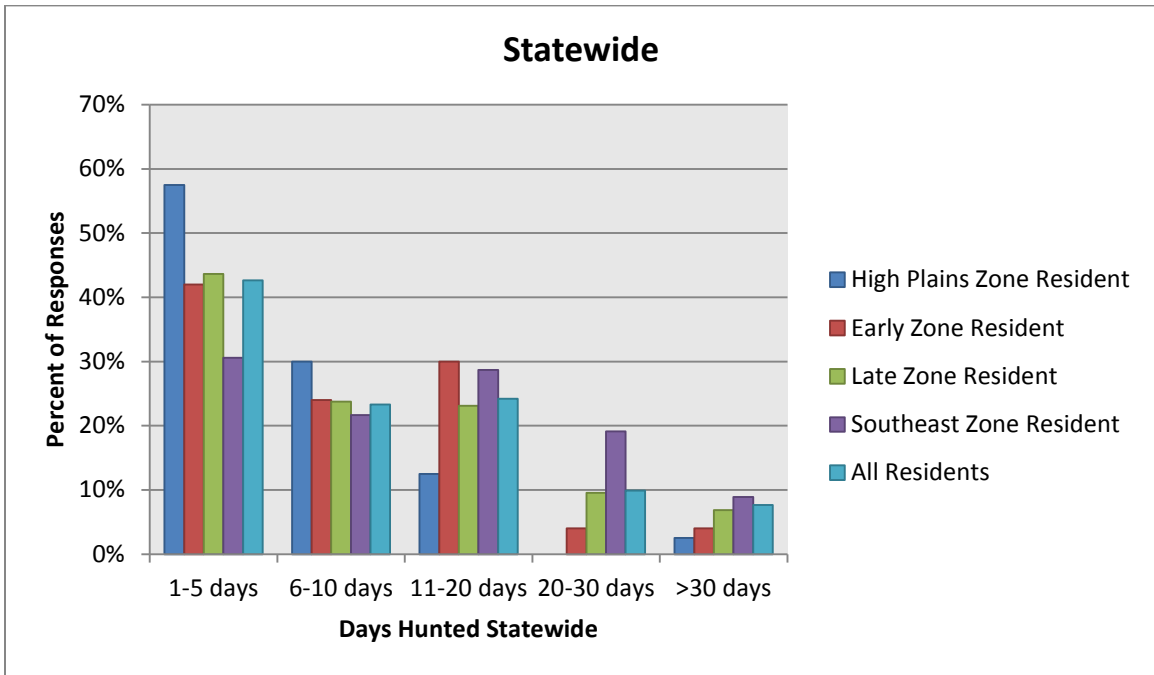
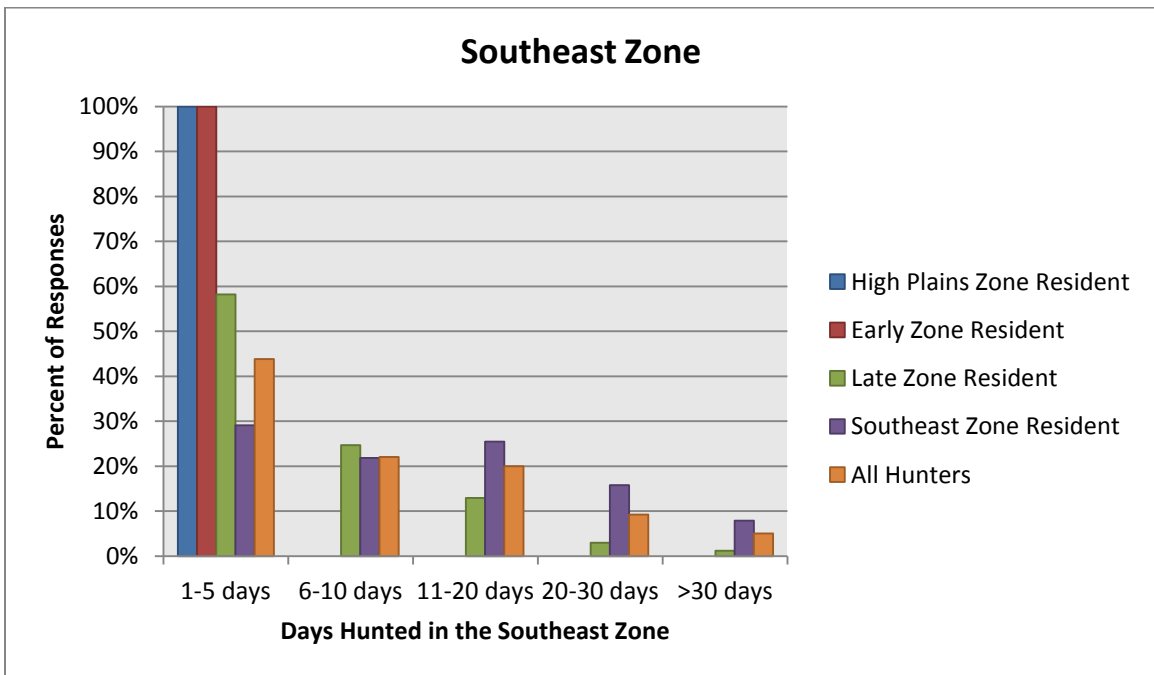


Figure 4. Proportion of duck hunting days by respondent's residency for the Southeast Zone.



Respondents were asked to list the county they hunted most in each zone (Table 4). Eighty-eight of the 105 Kansas counties (83.8%) were reported. The top three counties statewide were Linn County (6.6%), Reno County (5.1%) and Sedgwick County (5.1%). Norton County was the most reported county in the High Plains Zone, McPherson County in the Early Zone, Sedgwick County in the Late Zone and Linn County in the Southeast Zone. Other counties of interest in the Early Zone were Cloud (second) and Barton (third) counties. Jamestown Wildlife Area partially lies in Cloud County and Cheyenne Bottoms Wildlife Area is in Barton County. Jamestown had one of its better waterfowl years while Cheyenne Bottoms had one of its worst. Reno County, which includes Quivira National Wildlife Refuge, was second in the Late Zone. Neosho County with Neosho Wildlife Area was second in the Southeast Zone. This is similar to the 2011-12 season where 19.0% hunted in Linn County and 10.2% hunted in Neosho County.

Table 4. Number of hunters by the county they hunted in the most for each zone during the 2012-13 Kansas duck season. Numbers in () are percentages.

High Plains Counties							
51 hunters in 18 of the 31 counties in the zone (58.1)							
Norton	15 (29.4)	Seward	3 (5.9)	Finney	1 (2.0)	Rawlins	1 (2.0)
Ness	5 (9.8)	Gove	2 (3.9)	Graham	1 (2.0)	Sheridan	1 (2.0)
Ford	4 (7.8)	Hodgeman	2 (3.9)	Gray	1 (2.0)	Wichita	1 (2.0)
Kearny	4 (7.8)	Meade	2 (3.9)	Hamilton	1 (2.0)		
Trego	4 (7.8)	Thomas	2 (3.9)	Lane	1 (2.0)		
Early Zone Counties							
151 hunters in 22 of the 26 counties in the zone (84.6)							
McPherson	23 (15.2)	Pratt	8 (5.3)	Ellis	4 (2.6)	Ness	1 (0.7)
Cloud	18 (11.9)	Jewell	7 (4.6)	Ford	4 (2.6)	Norton	1 (0.7)
Barton	15 (9.9)	Trego	7 (4.6)	Rooks	4 (2.6)	Osborne	10.7
Mitchell	13 (8.6)	Reno	6 (4.0)	Rush	3 (2.0)	Phillips	1 (0.7)
Stafford	12 (7.9)	Pawnee	5 (3.3)	Ellsworth	2 (1.3)		
Republic	9 (6.0)	Rice	5 (3.3)	Hodgeman	2 (1.3)		
Late Zone Counties							
726 hunters in 55 of the 63 counties in the zone (87.3)							
Sedgwick	65 (9.0)	Marion	19 (2.6)	Russell	10 (1.4)	Barton	3 (0.4)
Reno	60 (8.3)	Saline	18 (2.5)	Jackson	9 (1.2)	Doniphan	3 (0.4)
Jefferson	36 (5.0)	Dickinson	17 (2.3)	Clay	8 (1.1)	Harper	3 (0.4)
Douglas	34 (4.7)	Butler	16 (2.2)	Cowley	8 (1.1)	Lincoln	3 (0.4)
Stafford	25 (3.4)	Johnson	16 (2.2)	Cloud	7 (1.0)	Ottawa	3 (0.4)
Riley	24 (3.3)	Sumner	16 (2.2)	Franklin	7 (1.0)	Jewell	2 (0.3)
Miami	22 (3.0)	Atchison	14 (1.9)	Morris	7 (1.0)	Nemaha	2 (0.3)
Osage	22 (3.0)	Geary	14 (1.9)	Osborne	6 (0.8)	Republic	2 (0.3)
Shawnee	22 (3.0)	Phillips	14 (1.9)	Brown	5 (0.7)	Rice	2 (0.3)
Harvey	21 (2.9)	Lyon	13 (1.8)	Barber	4 (0.6)	Coffey	1 (0.1)
Kingman	21 (2.9)	Pottawatomie	11 (1.5)	Chase	4 (0.6)	Ford	1 (0.1)
Mitchell	21 (2.9)	Wabaunsee	11 (1.5)	Kiowa	4 (0.6)	Pawnee	1 (0.1)
Leavenworth	20 (2.8)	Ellsworth	10 (1.4)	Marshall	4 (0.6)	Wyandotte	1 (0.1)
Pratt	20 (2.8)	Rooks	10 (1.4)	McPherson	4 (0.6)		
Southeast Counties							
370 hunters in 20 of the 22 counties in the zone (95.2)							
Linn	86 (23.2)	Greenwood	18 (4.9)	Anderson	12 (3.2)	Franklin	10 (2.7)
Neosho	35 (9.5)	Montgomery	17 (4.6)	Labette	12 (3.2)	Bourbon	9 (2.4)
Coffey	29 (7.8)	Crawford	15 (4.1)	Woodson	12 (3.2)	Allen	7 (1.9)
Cowley	26 (7.0)	Cherokee	14 (3.8)	Lyon	11 (3.0)	Wilson	5 (1.4)
Butler	25 (6.8)	Miami	13 (3.5)	Elk	10 (2.7)	Chautauqua	4 (1.1)

Season Preferences Based on Various Opportunities & Factors

A hunter's preference for duck season dates likely depends on the importance he or she places on various hunting opportunities. An important objective of this survey was to examine what motivations are important to hunters relative to season dates. Table 5 relates how respondents valued eight opportunities and four factors that may be important in deciding when they prefer to hunt.

Most opportunities were valued as moderately to very important in the season setting process by respondents. There was, however, strong support for the opportunity to hunt when the greatest overall numbers of ducks are present, which was valued very to extremely important. This indicates KDWP should place great consideration on the timing of migration when developing staff recommendations. To aid in this, KDWP has conducted waterfowl surveys at 38 locations across Kansas twice a month since 1970. The opportunity to hunt when the greatest overall numbers of ducks are present ranked higher than the opportunity to hunt when the most mallards are present, as well as when the greatest varieties of duck species are present. Mallards are the most numerous of duck species in the world, and the most harvested species in North America. In the last five years, Kansas mallard harvest has ranged from 61,041 to 98,160, comprising 42-58% of the total duck harvest for Kansas. As such, mallards are an important and highly sought after species in Kansas. However, for some locations in Kansas, species like teal are the most numerous birds in the bag, and some hunters place high value on other species like canvasbacks or pintails as trophy birds.

Not surprisingly, respondents valued being able to hunt ducks and geese concurrently, which ranked second amongst opportunities. It is an important consideration when developing waterfowl regulations to conduct goose seasons concurrent with duck seasons. With the USFWS frameworks for Canada and light geese at the 107-day maximum allowed by the Migratory Bird Treaty Act, and 74-day white-fronted goose season, ample opportunity exists to hunt ducks and geese simultaneously. The Early Zone provides the only exception, where a third of the duck season (October segment) is prior to goose season. This mismatch is due to the abundance of early migrating species in this zone, whereas geese do not generally start arriving in Kansas in significant numbers until the end of October.

The habitat related opportunities (shallow water ice free, greatest diversity of habitats available, when deep water hunting is best) all received similar rating among respondents. Shallow marsh opportunity ranked highest and deep water lowest, but all opportunities were similarly rated between moderately to very important. Many hunters take advantage of the public duck hunting opportunities provided by KDWP. Many of these wetlands are shallow (less than 2 feet deep) and are prone to early winter freezing. A segment of the Kansas hunting community prefers to hunt deeper or moving waters and/or have the ability to artificially maintain open water when surrounding areas freeze. Often these areas have limited to no public access.

Amongst other factors, only simplifying splits and zones had a rating above moderately important. Having multiple duck hunting zones does add complexity to regulations, but it does offer some advantages in its ability to time season dates to regional peaks in migrations, and allow hunters to hunt multiple zones across the state. Waterfowl hunters are often mobile and might travel to different zones to take advantage of hunting opportunities. For the 2012-13 Kansas duck season, it was possible to hunt from October 6, 2012 to January 27, 2013 (114 days) in the state. However, the opportunity to hunt in multiple zones and seasons appears to be less important with Kansas hunters, with a rating of only slightly to moderately important.

Saturday waterfowl openers and avoiding upland bird opening days were only slightly to moderately important to respondents, and avoiding deer opener was even less important. As noted in the hunter demographics gathered in this survey, respondents placed duck hunting as having higher importance than other hunter activities. This is reinforced by their lower rating to avoid duck season timing as not to interfere with hunting of other species.

Table 5. Importance of hunting opportunities and other factors on season date preferences by hunter residency. Five is extremely important and one being not at all important. (All = all respondents, HP = High Plains Zone resident, EZ = Early Zone resident, LZ = Late Zone resident, SZ = Southeast Zone Resident, and SE = those that hunt in the Southeast Zone)

Opportunity to hunt...	All	HP	EZ	LZ	SZ	SE
When the greatest overall numbers of ducks are present	4.21	4.23	4.09	4.23	4.26	4.30
Ducks while goose hunting	3.88	3.81	4.01	3.88	3.89	3.83
When the most mallards are present	3.82	3.79	3.83	3.78	3.99	3.84
When marshes and other shallow waters are ice free	3.45	3.51	3.39	3.41	3.60	3.49
When the greatest variety of duck species are present	3.36	3.44	3.20	3.31	3.56	3.38
When the greatest diversity of habitats are available to hunt	3.25	3.31	3.58	3.23	3.29	3.30
When deep water (ponds and reservoirs), rivers and artificially ice-free waters (ice-eaters) are best	3.20	3.15	3.19	3.22	3.19	3.21
Across the state in multiple zones and seasons	2.74	2.73	2.92	2.72	2.87	2.82
Factor						
Reduce the number of zones and season split dates to simplify regulations	3.02	3.05	3.04	3.00	3.06	2.82
Open the duck season on a Saturday	2.65	2.70	2.61	2.64	2.77	2.48
Avoid duck season opening weekend the same as upland bird opening weekend	2.64	2.59	2.69	2.63	2.63	2.53
Avoid season overlap so duck season does not interfere with firearm deer season	2.16	2.25	2.36	2.15	2.11	2.09

Participation in the Southeast Zone

Because season date preferences are often the result of the types of habitats that hunters utilize, we included questions addressing where hunters were hunting ducks in the Southeast Zone. Overall, 41.7% of respondents that hunt the Southeast Zone utilized private property with no fee associated, and 7.7% utilized private property with an access fee. Southeast Zone residents hunted private property with no access fees more than residents from other zones did, whereas residents of other zones, especially the High Plains, hunted private property with paid access more than local Southeast Zone residents. Respondents from other zones also tended to hunt public properties, especially Marais Des Cygnes and Neosho Wildlife Areas, more than Southeast Zone residents (Table 6).

Table 6. Where duck hunting occurs in the Southeast Zone by percentage. Respondents were asked to check all that applied.

Hunting Areas	Residency				
	All	High Plains	Early Zone	Late Zone	Southeast Zone
Private property which hunt for free	41.7%	23.3%	37.3%	30.8%	40.3%
Private property which pay to access	7.7%	11.6%	8.5%	5.6%	5.4%
Marais Des Cygnes Wildlife Area	16.3%	16.3%	10.2%	13.6%	13.4%
Neosho Wildlife Area	11.5%	9.3%	8.5%	9.9%	6.7%
Flint Hills National Wildlife Refuge	6.4%	2.3%	3.4%	5.3%	6.0%
El Dorado Wildlife Area/Reservoir	3.7%	2.3%	0.0%	3.4%	1.3%
Walk-in Hunting Access Program	1.6%	2.3%	0.0%	1.2%	0.0%
Other Public Area in Southeast Zone	11.1%	32.6%	32.2%	30.1%	26.8%

Wetlands are extremely limited in the Kansas landscape, with less than half of the state’s historic wetlands still remaining. Many of the remaining wetlands are present within the less than 2% of lands in government ownership. As a result, public hunting areas are crucial for waterfowl hunting in the state. In the 2010 KDWPT waterfowl survey, nearly 55% of the respondents reported hunting on public land. In the Southeast Zone, there are 26 KDWPT Wildlife Areas and 2 National Wildlife Refuges. When asked to quantify their public land duck hunting for this survey, over 65% of hunters reported at least some of their Southeast Zone hunting occurred on public land, and over 36% reported that the majority of their Southeast Zone hunting occurred on public land (Table 7). Not surprisingly, residents of the Southeast Zone tended to hunt public lands less than residents traveling from other zones. However, over half of respondents still relied on public land for at least some of their Southeast Zone duck hunting, and the amount of hunters relying on public land for the majority of their duck hunting in the Southeast Zone was similar to other zones (32%). This amount of hunter use highlights the importance of public wetlands in the Southeastern Kansas landscape.

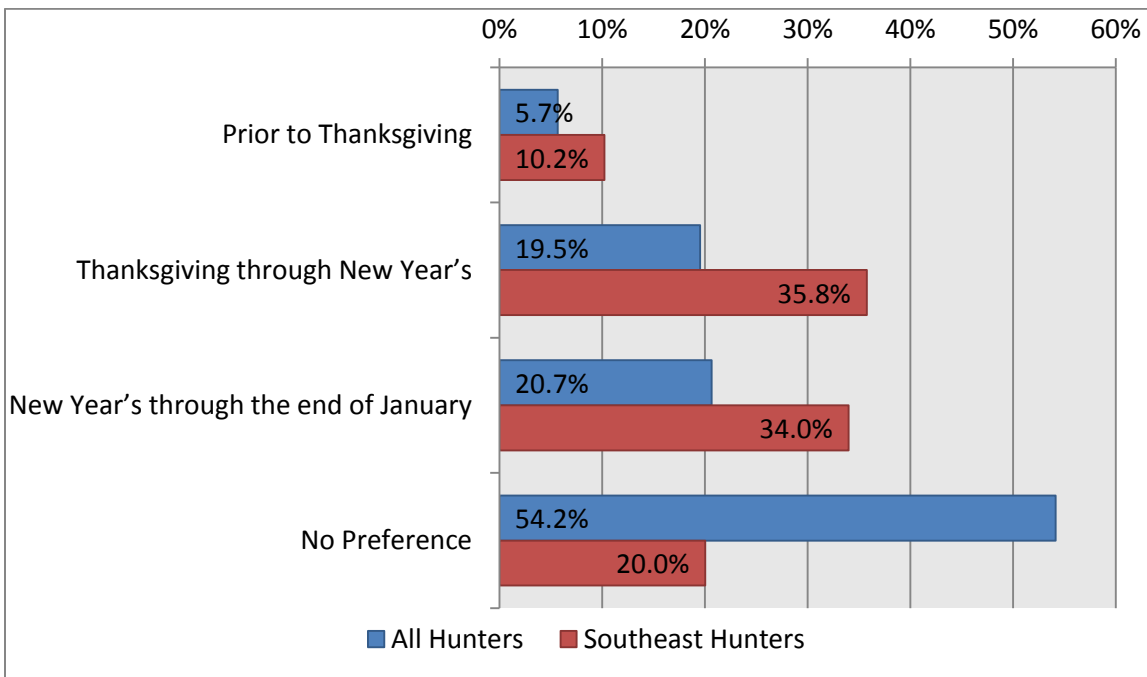
Table 7. Portion of duck hunting on public land in the Southeast Zone by respondents' residency.

	All	High Plains	Early Zone	Late Zone	Southeast Zone
None	34.6%	39.1%	37.5%	28.9%	50.0%
Less than half	17.9%	8.7%	18.8%	19.8%	9.8%
Half	10.8%	13.0%	18.8%	9.4%	8.5%
More than half	15.2%	8.7%	3.1%	17.9%	15.9%
All	21.5%	30.4%	21.9%	24.0%	15.9%

Season Preferences for the Southeast Zone

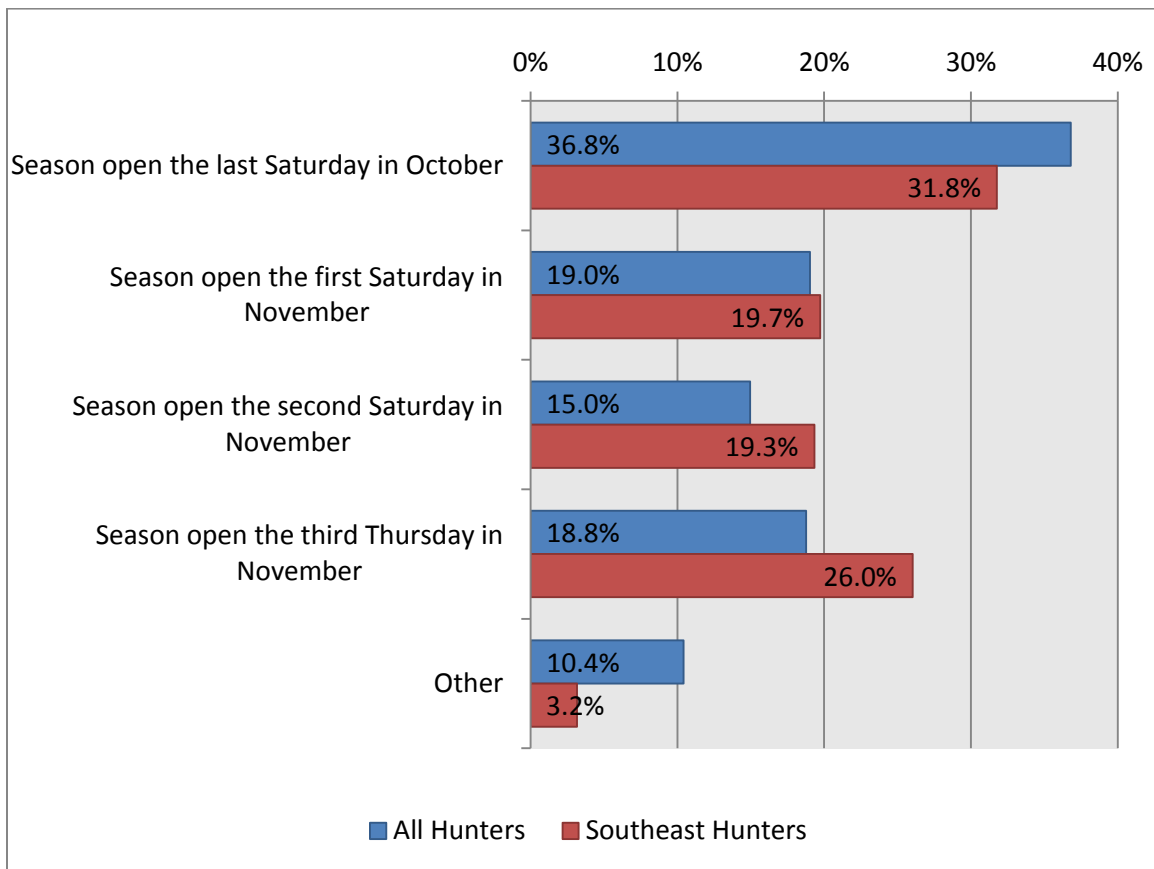
There are a variety of variables (weather, habitat type, etc.) that play an important role in a hunter's season date preference. Questions 7 through 10 were related to hunter preferences regarding the timing of the season in the Southeast Zone. The majority of respondents (54.2%) had no preference for when they most would prefer to hunt in the Southeast Zone. However, those that do duck hunt in the southeast had a slight preference to have most of their hunting from Thanksgiving to New Year's (35.8%). Figure 5 provides hunter preference for when respondents most prefer to go duck hunting in the Southeast Zone.

Figure 5. When most prefer to go duck hunting in the Southeast Zone.



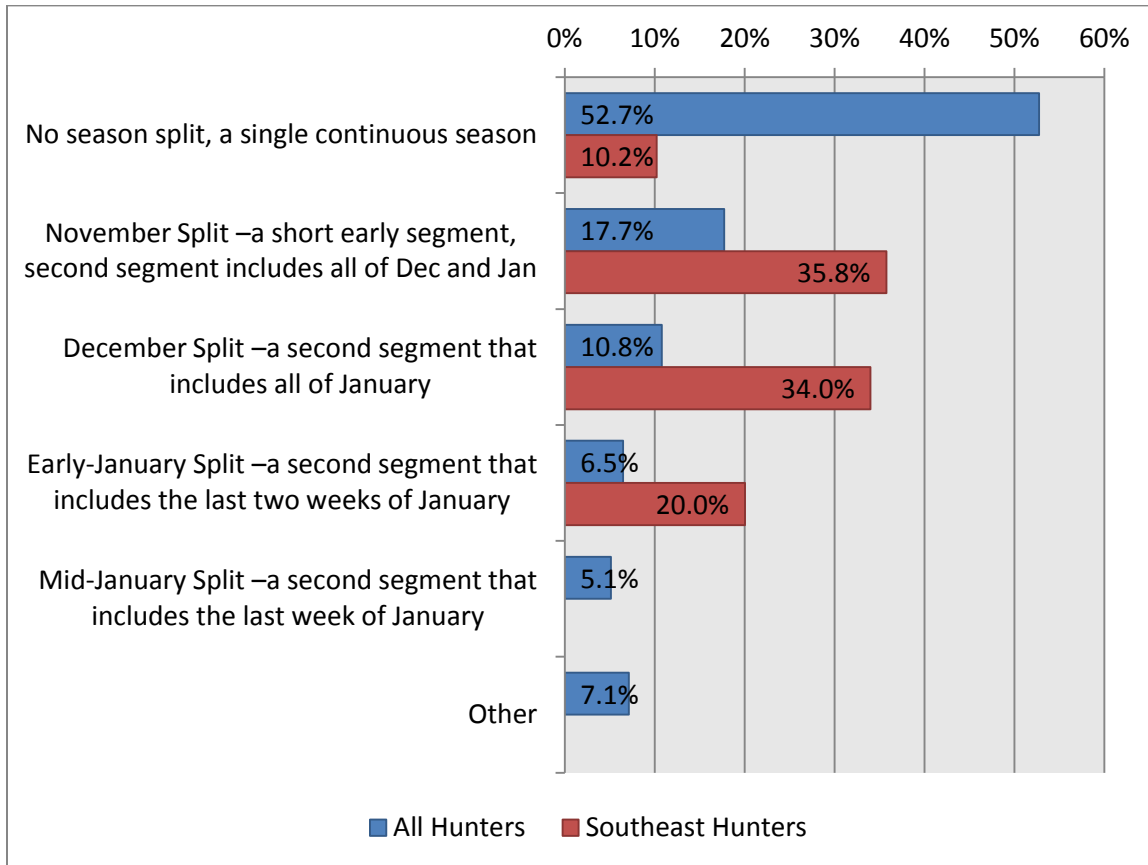
Federal regulations require that duck seasons must take place between the Saturday nearest September 24 and the last Sunday in January. Currently, for the liberal federal framework, Kansas is permitted 74 days with up to 1 split (2 segments) for the *Southeast Zone*. Respondents were asked, based on these restrictions, what would be their preference for opening day and timing of splits for the Southeast Zone. The majority of hunters, including those that hunt in the Southeast Zone, preferred an opening day be the last Saturday in October (Figure 6).

Figure 6. Preference for Opening day in the Southeast Zone.



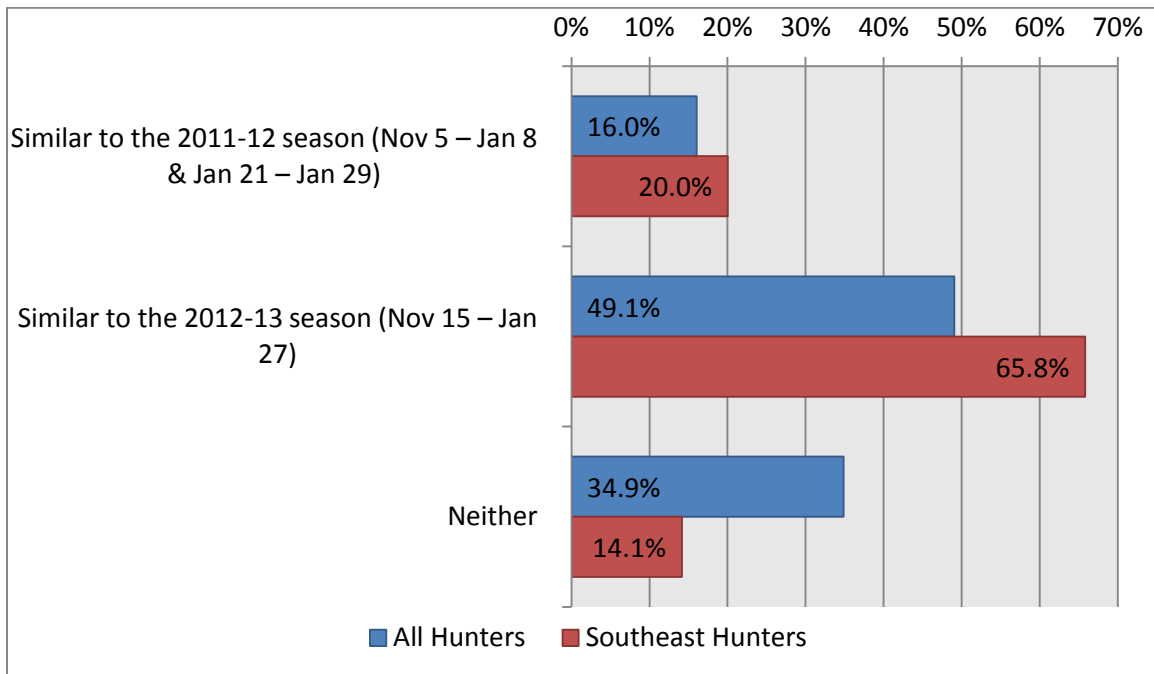
Preferences regarding season splits differed. Overall hunter preference was to have no split. For Southeast Zone hunters, there was a slight preference (35.8%) for a November split, with a short early segment and the second segment that includes December and January. There was also support for a December split (34.0%) (Figure 7).

Figure 7. Preference for timing of season split in the Southeast Zone.



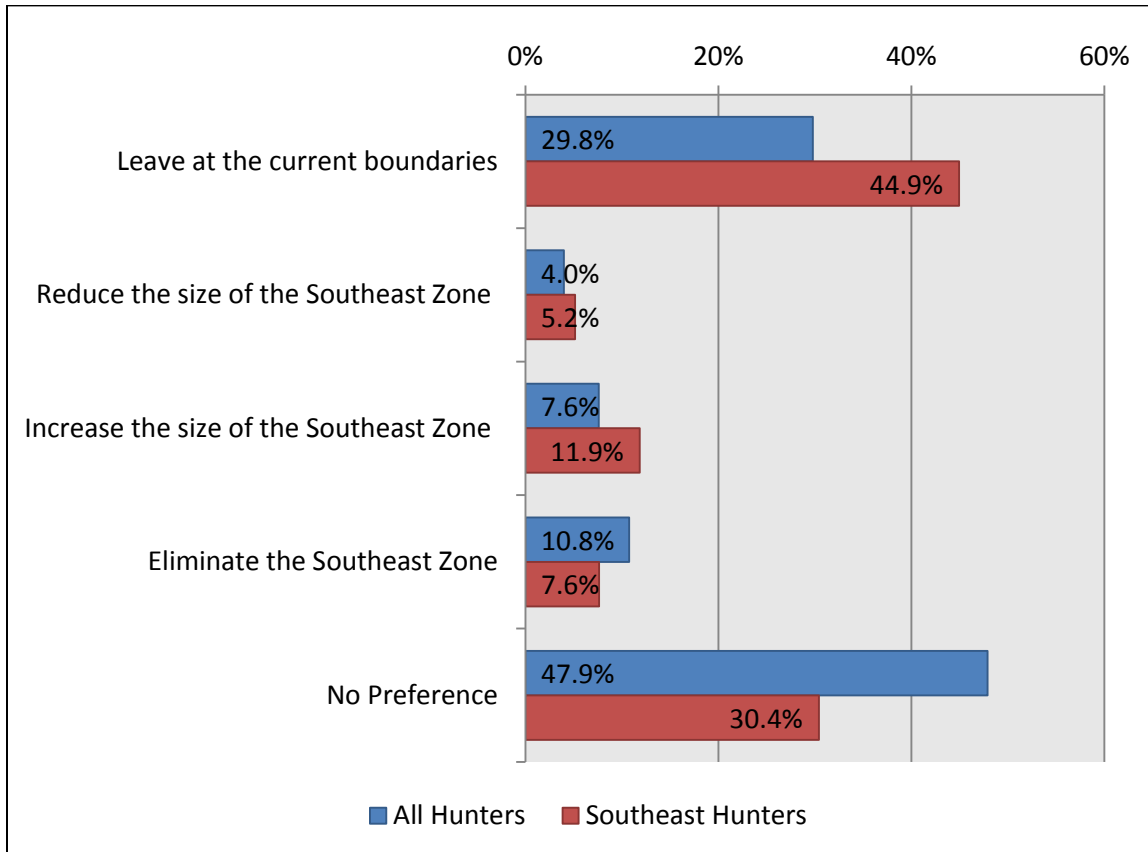
Kansas has completed two duck seasons in the Southeast Zone with slightly different season structures. In the first season (2011-12), season dates were shifted 1 week later than Late Zone, in which the area was previously zoned as. For its second season (2012-13), the season was “backdated” – held as late as possible in the Federal Frameworks. This shift of two weeks of the 2012-13 season eliminated the season split, and left a segment of Southeast hunters, which preferred earlier dates, unsatisfied. This was particularly true for some hunters in the northern portion of the zone. Kansas was the only state that “back-dated” its season for the 2012-13 duck season. Nine states had a later start date in at least one zone (Florida, Georgia, South Carolina, Arkansas, and Louisiana started on November 17 and New York, Alabama, Kentucky, Illinois, and Mississippi started either November 22 or 23) but all these states only had a 60-day season (compared to Kansas’ 74-day season). This is interesting to note as Kansas is traditionally considered a migration area, whereas all the other states (except New York and Illinois) are better known as key waterfowl wintering states. The desires for later season dates are likely due to greater focus on late season migrants (particularly mallards) and/or a shift in waterfowl migration (real or perceived). However, after experiencing these two seasons, the majority of respondents indicated that they favored the 2012 season structure (Figure 8).

Figure 8. Preference for season structure for the Southeast Zone.



The U.S. Fish & Wildlife Service allows states to modify zone boundaries every five years. The next opportunity Kansas will have to change duck zone boundaries is after the 2015-16 season. the majority of respondents who hunt the Southeast Zone indicated they prefer to leave the Southeast Zone at its current boundaries (Figure 9). Statewide, however, the majority of respondents had no preference regarding the zone boundary.

Figure 9. Preference for zone boundaries for the Southeast Zone (Question 11).

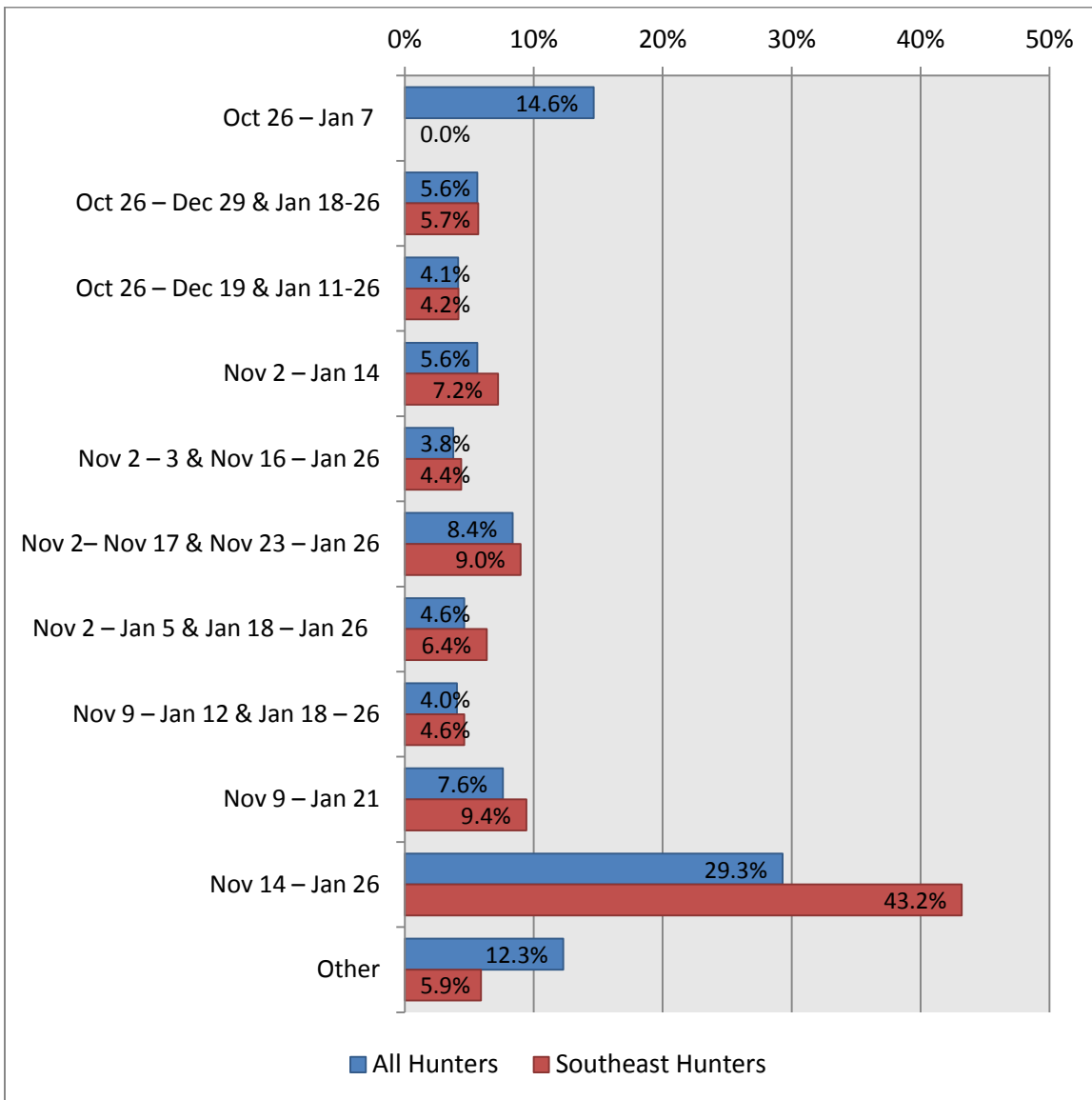


Season Date Preferences for the Southeast Zone

When asked to choose from all likely season date options for the Southeast Zone, the most preferred dates of respondents were November 14, 2013 to January 26, 2014 (all respondents=29.3% and Southeast Hunters=43.2%). This season would be the similar to the 2012-13 Southeast Zone seasons, with adjustments made for changes in the calendar year. The second preference for all respondents (14.6%) was October 26, 2013 to January 7, 2014 and for those that hunted in the Southeast Zone was November 9, 2013 to January 21, 2013 (9.4%) (Figure 9). It is interesting to note that the preferred seasons contain no split. This supports the findings in question 8, where 52.7% of all respondents and 58.5% of Southeast Zone hunters preferred no split over the five season split options (Figure 7). To maximize hunter participation, seasons normally begin on Saturday and end on a Sunday. However, with a 74-day season without a split, it is not possible to start on a Saturday and end on a Sunday while taking advantage of all available hunting days in the framework. The season must start on Thursday or end on a Tuesday. Weekday openers are a non-traditional opening day for most waterfowl seasons. However, there are other Kansas hunting seasons, like firearm deer and turkey, which do have a weekday or “soft “opener. Weekday openers have the potential to

lessen opening day hunting pressure on highly utilized areas. As noted in question 4 of the survey, a Saturday opener was only a moderately important factor (score 2.65 out of 5) on its relative importance of season preference. However, for a segment of hunters, and particularly youth, weekday openers are not favorable as they are likely unable to participate. Limiting the participation of any hunter group in the season opener is not favorable. Given the importance in hunter recruitment, this is especially true for youth hunters.

Figure 10. Preference for the 2013-14 season dates for the Southeast Zone.



For comparison, the most preferred dates from the previous 2012 Southeast Duck Hunter Survey would have resembled the 2011-12 season (Nov. 3 – Jan. 6, 2013 and Jan. 19-27, 2014) (n = 498, 27.7%). The second preference (n=347, 19.3%) in the same survey was for Nov. 17 - Jan. 27, even though this option would result in 72 hunting days rather than the 74 hunting days allowed under the USFWS frameworks. This potential shift in respondent preferences for season dates from the 2012 to the 2103 survey may be a result of experiencing a season with later season dates. However, the most recent season dates also often receive significant support in hunter surveys. Waterfowl hunting is steeped in tradition, and any change from past experience can cause consternation regarding the development of season dates for a new zone. As KDPWT continues to define season dates for the diversity of hunter and waterfowl habitats in Southeast Kansas, hunters themselves also are continually determining what dates may best suit their hunting preferences.

CONCLUSION

Results of this survey demonstrate the diversity of Kansas's waterfowling landscape, opportunities, and hunters. Season dates are designed to take into account the life histories (population dynamics, migration behavior, etc.) of Kansas waterfowl species, and hunter preferences (where they hunt, when they hunt and how they hunt). There are more than 27 species of ducks in Kansas with varying life history strategies and habitat needs. In addition, waterfowl stakeholders often have competing interest. Since 1997, Kansas has remained at the most liberal of duck harvest packages in the modern waterfowl era. With a possible 97-day season in the High Plains and 74-days in the Low Plains, there are a variety of season options. Individual season options have merit based on individual hunter preferences. This makes development of season dates even more challenging. The KDWPT objective when developing staff recommendations for waterfowl season dates is to *provide the greatest opportunity for Kansas waterfowl hunters within the biological capacity of the species*. Waterfowl hunters are passionate about their craft and KDWPT received very strong sentiment regarding the setting of the season dates for the new Southeast Zone. The use of formal opinion surveys will assist KDWPT in the waterfowl season setting process, relative to achieving our objective.

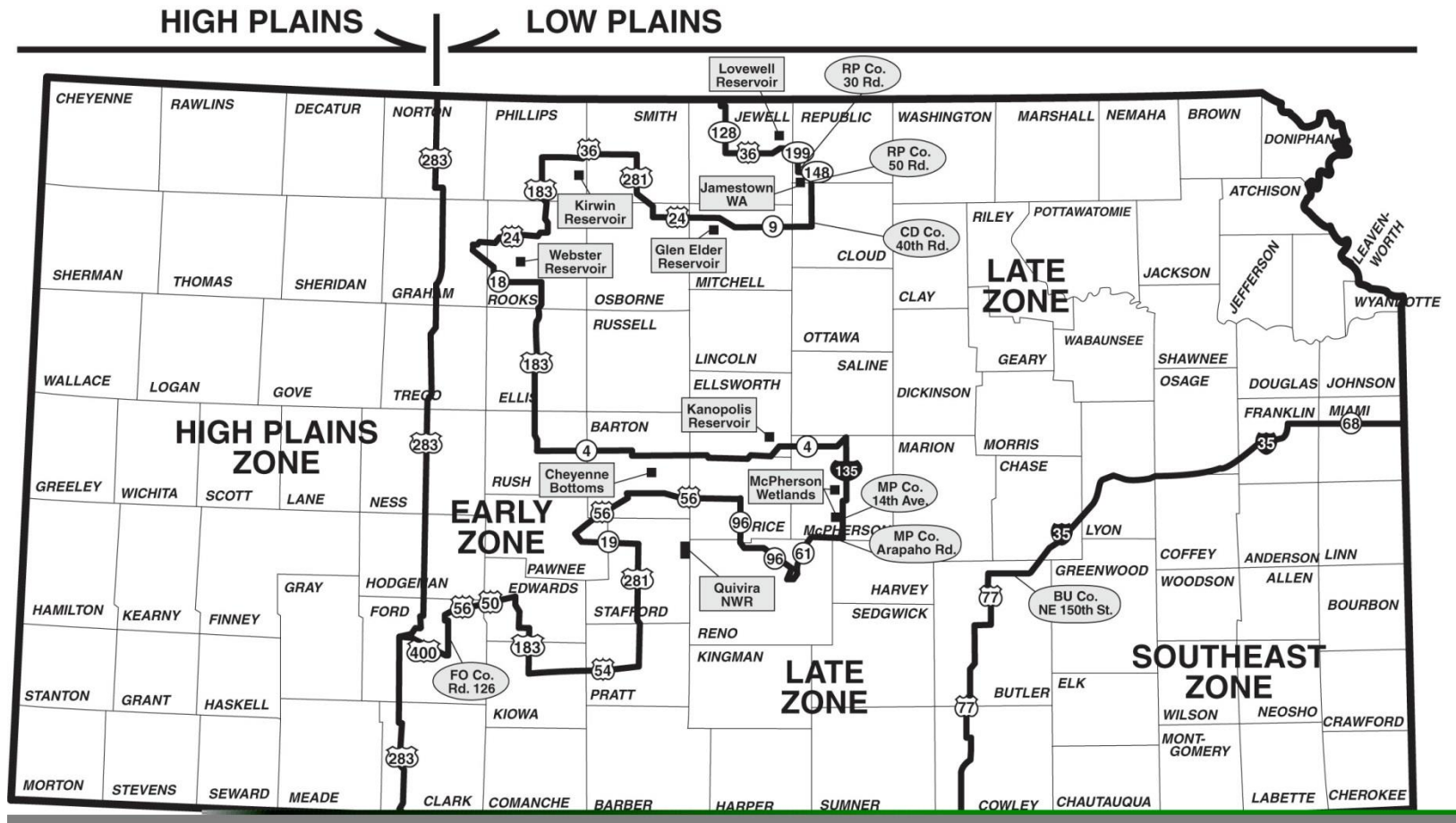
From this survey, KDPWT has gained much valuable information. Of the 74 days (97 days in the High Plains) available for duck hunting in Kansas seasons, 60% of the respondents duck hunt 10 days or less. For motivations relating to season date preferences, the most important opportunity for respondents is to hold the season when the greatest overall duck numbers are present, followed by the preference for overlapping duck and goose seasons. Most species-specific and habitat specific opportunities received similar intermediate importance rankings. Factors relating to avoiding conflicting opening days with small and big game were valued surprisingly low, as was having the duck opener on a Saturday.

Regarding season dates, respondent preferences varied between questions. When asked to pick an opening day, the majority of respondents favored late October. When asked when they

prefer to hunt, the majority of respondents favored December hunt days. However, when comparing the season structures of the last two seasons, and when given a list of all likely season dates, the majority of respondents chose dates that resembled the season structure in 2012-2013, which do not align well with their preference for opening day or hunt days. These conflicting preferences between survey responses highlight the difficulty in setting season dates for this zone, and also the importance of also considering hunter motivations in decisions regarding season dates.

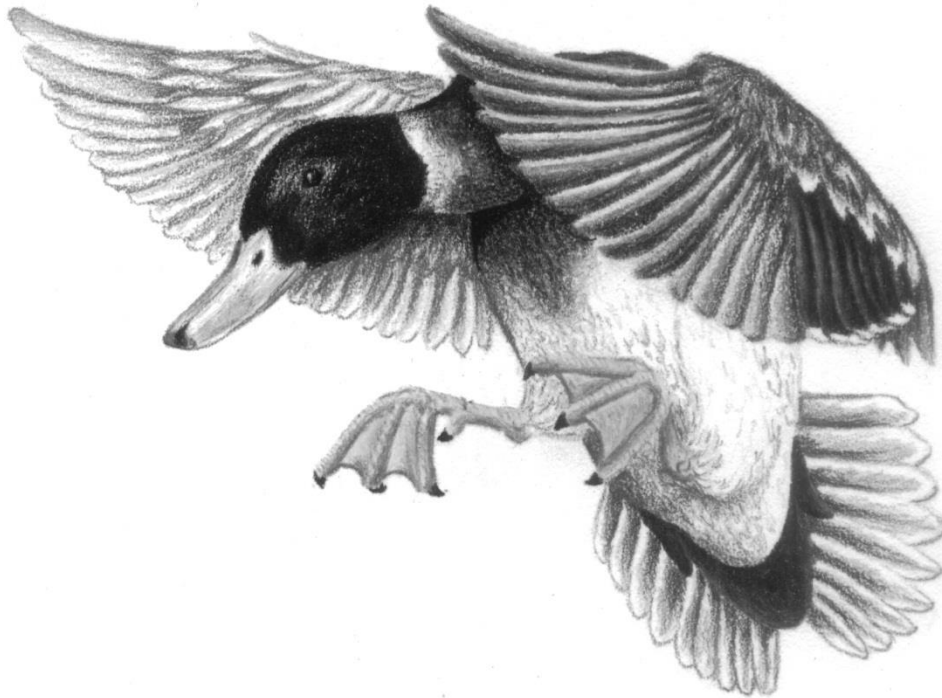
Given that the majority of respondents hunt less than 10 days in the Southeast Zone, and the preference to hunt when the most ducks are present, it is likely that hunter satisfaction will be high if season dates are selected that encompass the peak of waterfowl abundance. Reaching a compromise between the minorities of hunters that favor extremely early or late season dates is the challenge that KDWPT faces in setting season dates for 2013-2014 and going forward.

APPENDIX A. Kansas duck hunting zones.



APPENDIX B. Copy of the 2012-13 KDWPT Duck Hunter Survey Instrument.

KDWPT DUCK HUNTER SURVEY
-WITH EMPHASIS ON THE SOUTHEAST ZONE SEASON DATES-



APENDIX B. (continued)

Dear Waterfowl Hunter:

You have been selected to participate in a Kansas Department of Wildlife, Parks and Tourism (KDWPT) duck hunter opinion survey. KDWPT is interested in learning about your duck hunting experiences and preferences, particularly as they relate to the Kansas Southeast Zone (see map on opposite page). As any changes to Kansas duck seasons may affect you as a hunter, your input is greatly needed.

Through this process, we aim to increase our knowledge and understanding of what waterfowl hunters would like KDWPT to consider when setting duck hunting seasons. Your responses and contact information will be kept confidential and results will only be reported in aggregate totals. Please take a few minutes to complete the following questionnaire and return it in the postage paid envelope provided. *Your prompt response will eliminate the need for additional mailings and hence save funds for other waterfowl initiatives.* Thank you for your participation, as it is very important to waterfowl management in Kansas.

Sincerely,

Tom Bidrowski

Tom Bidrowski
Kansas Department of Wildlife, Parks and Tourism
Migratory Game Bird Program Coordinator

APENDIX B. (continued)

Question 3. KDWPT considers waterfowl migration chronology and hunter preferences from a broad array of constituents when developing recommendations for duck season dates. A hunter’s preference for duck season dates may depend on the importance he or she places on various opportunities. We would like to know how important the following opportunities are to you. (Circle a response for each question)

	<i>Not at all Important</i>	<i>Slightly Important</i>	<i>Moderately Important</i>	<i>Very Important</i>	<i>Extremely Important</i>
Opportunity to hunt when the greatest overall numbers of ducks are present	1	2	3	4	5
Opportunity to hunt when the greatest variety of duck species are present	1	2	3	4	5
Opportunity to hunt when the most mallards are present	1	2	3	4	5
Opportunity to hunt when marshes and other shallow waters are ice free	1	2	3	4	5
Opportunity to hunt when deep water (ponds and reservoirs), rivers and artificially ice-free waters (ice-eaters) are best	1	2	3	4	5
Opportunity to hunt when the greatest diversity of habitats are available to hunt	1	2	3	4	5
Opportunity to hunt across the state in multiple zones and seasons	1	2	3	4	5
Opportunity to hunt ducks while goose hunting	1	2	3	4	5

APENDIX B. (continued)

Question 4. Hunters’ preferences for duck season dates may be related to a variety of factors. Please indicate the importance of each statement below relating to the timing of duck hunting seasons. *(Circle response for each question)*

	Not at all Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Reduce the number of zones and season split dates to simplify regulations	1	2	3	4	5
Open the duck season on a Saturday	1	2	3	4	5
Avoid duck season opening weekend the same as upland bird opening weekend	1	2	3	4	5
Avoid season overlap so duck season does not interfere with firearm deer season	1	2	3	4	5

The Southeast Zone was created to offer alternative season timing for the unique waterfowling opportunities in Southeast Kansas. Please answer each of the following questions relating to the Southeast Zone.

Question 5. Where do you hunt ducks in the *Southeast Zone*? *(Check all that apply)*

- I do not hunt in the Southeast Zone
- Private property which I hunt for free (my property or property owned by family, friends, etc.)
- Private property which I pay to access (lease, membership, outfitter/guide, etc.)
- Marais Des Cygnes Wildlife Area
- Neosho Wildlife Area
- Flint Hills National Wildlife Refuge
- El Dorado Wildlife Area/Reservoir
- Walk-in Hunting Access Program (WIHA)
- Other Public Area *(please specify)* _____

Question 6. What portion of your duck hunting in the *Southeast Zone* occurs on public land?

- None
- Less than half
- Half
- More than half
- All

APENDIX B. (continued)

Question 7. When would you **most prefer** to go duck hunting in the *Southeast Zone*?
(Check only one)

- Prior to Thanksgiving
- Thanksgiving through New Year's
- New Year's through the end of January

Question 8. Federal regulations require that duck seasons must be held between the Saturday nearest September 24 and the last Sunday in January. Currently, Kansas is permitted 74 days with up to 1 split (2 segments) for the *Southeast Zone*. Based on these restrictions what would be your preference for **opening day and timing of splits** for the *Southeast Zone*?

Opening Day (Check only one)

- Season open the last Saturday in October
- Season open the first Saturday in November
- Season open the second Saturday in November
- Season open the third Thursday in November
- Other _____

Season Split (Check only one)

- No season split, a single continuous season
- November Split –a short early segment, second segment includes all of Dec and Jan
- December Split –a second segment that includes all of January
- Early-January Split –a second segment that includes the last two weeks of January
- Mid-January Split –a second segment that includes the last week of January
- Other _____

Question 9. Kansas has now completed two seasons with the *Southeast Zone*; each with slightly different season structure. Of the two seasons which season structures do you prefer for the *Southeast Zone*? (Check only one)

- Similar to the 2011-12 season (Nov 5 – Jan 8 & Jan 21 – Jan 29)
- Similar to the 2012-13 season (Nov 15 – Jan 27)
- Neither

APENDIX B. (continued)

Question 10. What would be your preferred duck season dates for next year (2013-14 season) in the *Southeast Zone*? (Check only one)

- Oct 26 – Jan. 7
- Oct 26 – Dec 29 & Jan 18-26
- Oct 26 – Dec 19 & Jan 11-26
- Nov 2 – Jan 14
- Nov 2 – 3 & Nov 16 – Jan. 26
- Nov 2– Nov 17 & Nov 23 – Jan. 26
- Nov 2 – Jan 5 & Jan 18 – Jan 26
- Nov 9 – Jan 12 & Jan 18 – 26
- Nov 9 – Jan 21
- Nov 14 – Jan 26 (Thursday Opener)
- Other _____

Question 11. The US Fish & Wildlife Service allows states to modify zone boundaries every five years. The next opportunity Kansas will have to change duck zone boundaries is after the 2015-16 season. What would be your preference for zone boundaries for the *Southeast Zone*? (Check only one)

- Leave at the current boundaries
- Reduce the size of the Southeast Zone
- Increase the size of the Southeast Zone
- Eliminate the Southeast Zone
- No Preference

This last set of questions will help us understand some basic information about Kansas duck hunters. Please answer each question.

Question 12. How important is duck hunting compared to your other hunting activities?

- Less Important Equally Important More Important

Question 13. How many years have you been hunting waterfowl? _____

Question 14. How many years have you been hunting waterfowl in Kansas? _____

Thank you for your time and commitment to Kansas' waterfowling heritage.

APENDIX B. (continued)

Please return your completed survey in the postage paid reply envelope as soon as possible

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Emporia, KS 66801
(620) 342 – 0658
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