SURVEY OF SOUTHEAST MINNESOTA DEER HUNTERS

A study of hunters' activities and opinions about deer populations and chronic wasting disease.

Final Report

A cooperative study conducted by:

Minnesota Cooperative Fish and Wildlife Research Unit
Minnesota Department of Natural Resources

A Study of Hunters' Activities and Opinions About Deer Populations and Chronic Wasting Disease

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Executive Summary

This study of 2018 southeastern Minnesota firearm deer hunters was conducted to assess:

- participation, involvement, and satisfaction with deer hunting in southeastern Minnesota,
- opinions and preferences for deer populations and management in southeastern Minnesota,
- knowledge and information sources related to chronic wasting disease (CWD),
- feelings and concerns about CWD,
- opinions and preferences related to CWD management, and
- trust in the Minnesota Department of Natural Resources generally, and specifically related to CWD management.

A questionnaire was distributed to 4,995 deer hunters in southeastern Minnesota. This sample included all firearms deer hunters who identified the CWD management zone (permit area 603) as their primary deer hunting area ($n = 2,195$), and a random sample of hunters who identified one of the 300-series permit areas in southeastern Minnesota near the CWD management zone ($n = 2,800$) as their primary deer hunting area at the time of license purchase. The number of full-length survey respondents for the two samples were: 880 for the CWD management zone, and 1,206 for the 300-series permit areas. Total response numbers including shortened, nonresponse surveys were: 993 for the CWD management zone, and 1,346 for the 300-series permit areas. After adjusting for undeliverable surveys and invalid respondents, the response rate for the full-length survey was 42% for the CWD management zone and 45% for the 300-series permit areas. The response rates including respondents to the shortened, nonresponse survey were 47% for the CWD management zone, and 50% for the 300-series permit areas.

Deer Hunting Participation and Harvest in 2018

Respondents had hunted for deer in Minnesota for an average of 29 years, and 85% of respondents had hunted all 5 of the past 5 years. On average, respondents hunted about 5 days during the firearm deer season. Hunters from the CWD management zone bagged significantly more antlered and fewer antlerless deer on average compared to hunters from the 300-series area, likely reflecting regulatory differences between the two areas.

Satisfaction

About two-thirds of hunters in the CWD management zone (67%) reported being satisfied with their general deer-hunting experience, with nearly three-fourths (73%) of hunters from the 300-series permit areas near the CWD management zone reporting being satisfied. Half of respondents from the CWD management zone were satisfied with their harvest, with 55% of hunters from the 300-series permit reporting satisfaction. Just less than half of respondents from both the CWD management zone and the 300-series permit areas were satisfied with the regulations.

Figure S-1: Average satisfaction

*p<.05 **p<.01*** p<.001

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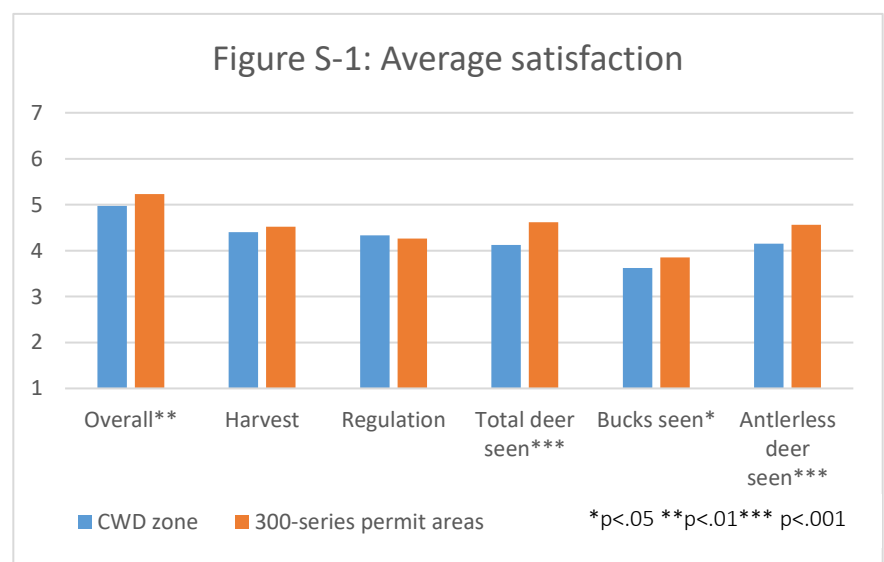
Hunters were also asked about their satisfaction with the number of deer seen in the field. Half of respondents from the CWD management zone were satisfied with the total number of deer they saw during the season, with about 60% of hunters from the 300-series permit areas reporting satisfaction. About 40% of respondents from the CWD management zone were satisfied with the number of bucks they saw during the season, compared to 43% of hunters from the 300-series permit areas. About half of respondents from the CWD management zone were satisfied with the number of antlerless deer they saw during the season. Average levels of satisfaction are presented in Figure S-1.

Trends and Opinions about Deer Populations in Southeastern Minnesota

Respondents were asked their perceptions of the trends in and opinions about deer populations in the area they hunt. In the CWD management zone, about 13% of hunters indicated there were more deer, with 60% indicating fewer deer. In the 300-series permit areas, 25% of respondents indicated there were more deer, with 38% indicating fewer deer. Other respondents indicated populations were about the same. In the CWD management zone, about 9% of hunters indicated that populations were too high, with 52% indicating they were too low. In the 300-series permit areas, 15% of respondents indicated populations were too high, with 40% indicating too low. All others indicated populations were about right. (Figure S-2).

Figure S-2: Deer population trend and opinion

***p<.001

Involvement in Deer Hunting

Respondents rated statements related to their involvement with deer hunting. Respondents agreed most strongly that: (a) I contribute to deer management through hunting, (b) Deer hunting is one of the most enjoyable things I do, (c) I enjoy discussing deer hunting with my friends, and (d) Deer hunting provides me with the opportunity to be with friends. There was less agreement that: (a) A lot of my life is organized around deer hunting and (b) Deer hunting has a central role in my life. Based on the five factors described by Kyle et al. (2007), hunters agreed most strongly with attraction to deer hunting, followed by social bonding, identity affirmation, identity expression, then centrality (Figure S-3). No differences in

Figure S-3: Involvement

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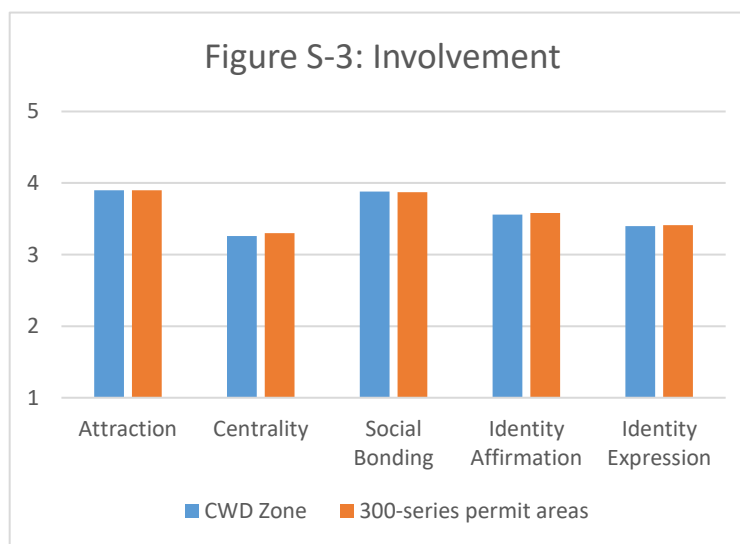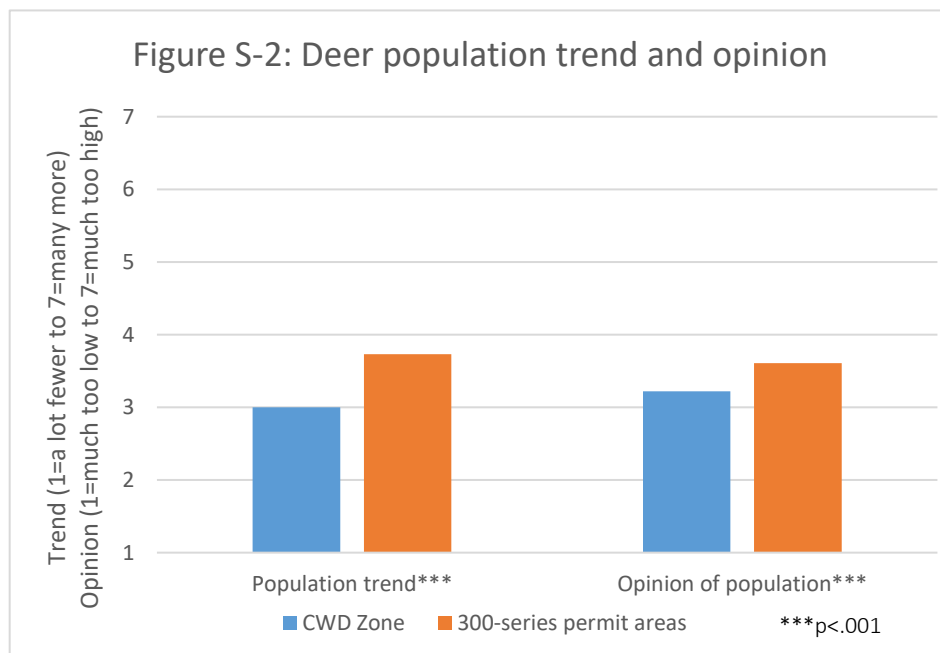
involvement were found between hunters in the CWD management zone and hunters in the 300-series deer permit areas.

Deer Management Strategies in Southeastern Minnesota

Respondents rated their support or opposition to six management strategies outside of the CWD management zone. Hunters reported the most support for allowing buck cross-tagging and combining the 3A and 3B deer seasons, and the strongest opposition to delaying the firearms deer season until December. Support or opposition to the management strategies was similar between hunters in the CWD management zone and those from the 300-series permit areas, except hunters from the CWD management zone were slightly opposed to the 4-point to one side antler point restriction, while hunters from the 300-series permit areas were slightly supportive.

Preference for Deer Harvest and Feelings about Reducing Deer Densities to Control the Spread of CWD

Study participants were asked two questions to assess their likelihood of harvesting more deer in future seasons. First, hunters indicated how many deer they would like to harvest during the next year's (2019) deer season. On average, hunters from the CWD management zone wanted to bag 1.67 deer and hunters from the 300-series permit areas wanted to bag 1.75. Next, hunters were asked to indicate the likelihood of increasing their desired harvest by one deer in 2019, and about half of the respondents indicated that they would be likely to increase their harvest. Study participants were asked to indicate their feelings about reducing deer densities to control the spread of CWD using scales anchored by the terms: foolish/wise, worthless/valuable, and bad/good. Results are shown in Figure S-4.
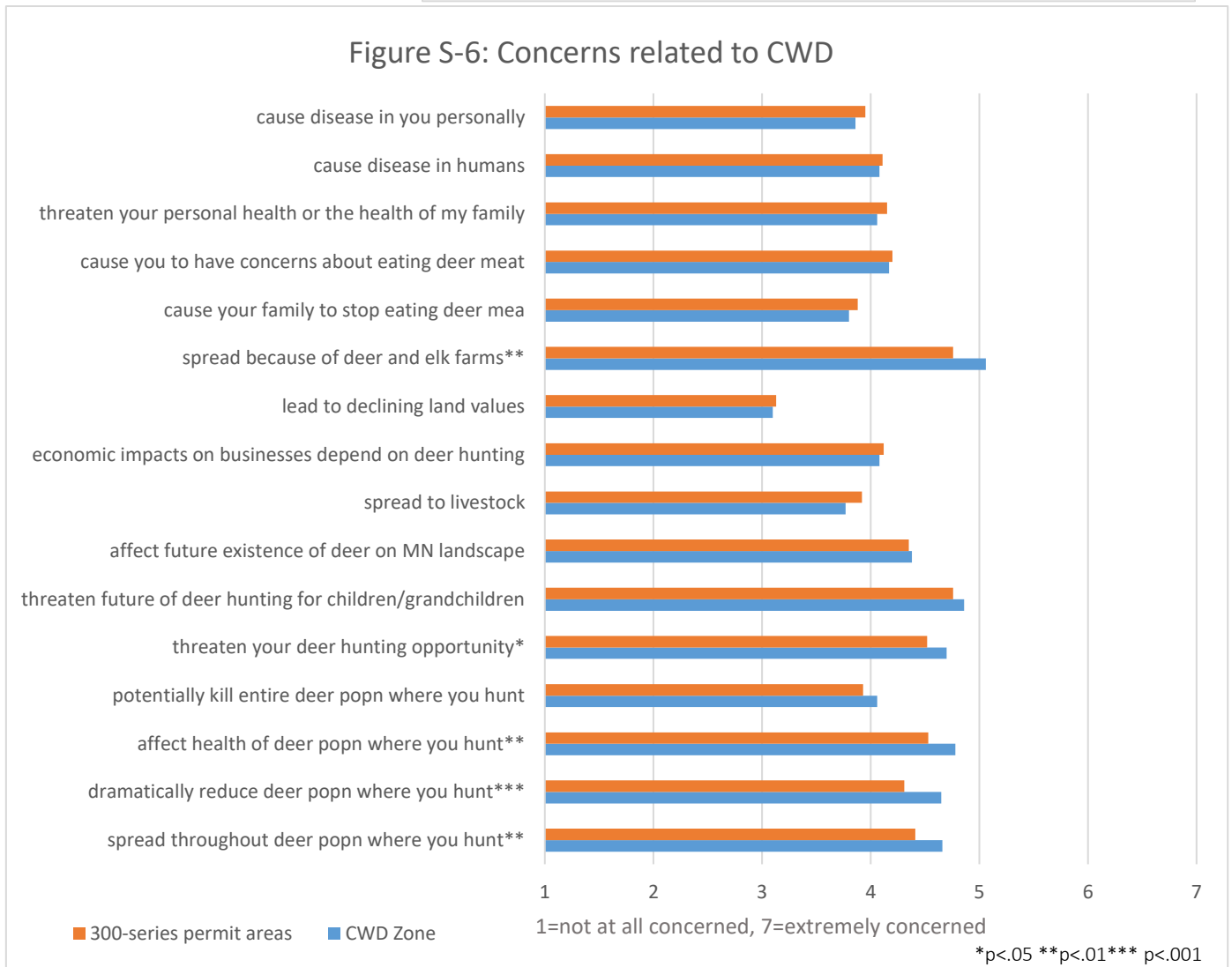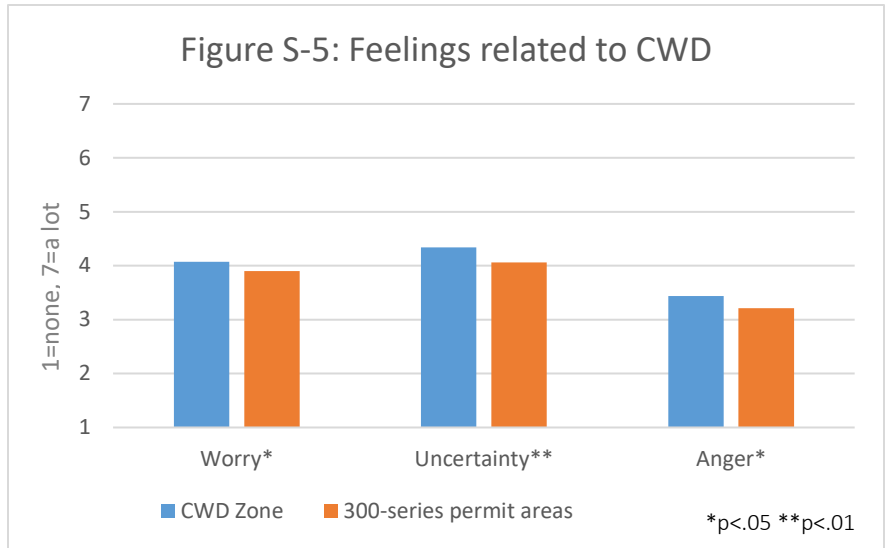

Figure S-4: Feelings about reducing deer densities to help control CWD
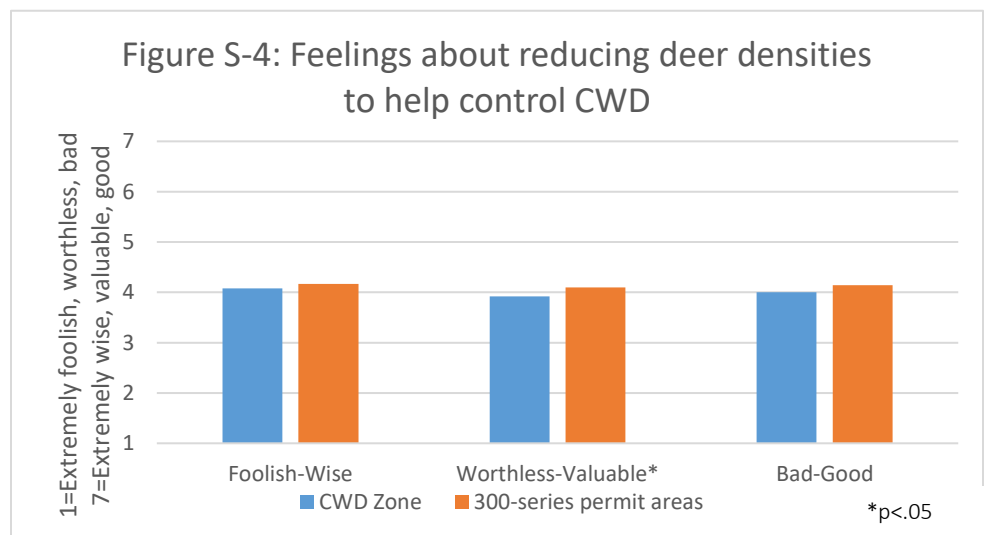
Knowledge and Information about Chronic Wasting Disease

Respondents were asked to indicate their knowledge level related to chronic wasting disease on the scale -3 = know nothing to +3 = know everything. Respondents from the CWD management zone rated their knowledge significantly higher than those outside the zone. Respondents got the most information from the Minnesota DNR hunting regulations and Minnesota DNR news releases, and the least amount of information from the Minnesota Board of Animal Health. Respondents from the CWD management zone agreed slightly more than those from the 300-series permit areas that they trusted the Minnesota DNR to: (a) provide them with enough information to decide what actions to take regarding CWD, and (b) provide truthful information about the number of CWD-positive deer discovered in Minnesota.

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Feelings and Concerns about Chronic Wasting Disease

Respondents were asked to rate their feelings of worry, uncertainty, and anger about chronic wasting disease. On average, respondents felt higher levels of uncertainty, than worry, or anger (Figure S-5). Respondents also indicated their level of concern over 16 possible outcomes of chronic wasting disease. Respondents were most concerned that CWD will: (a) "spread because of deer and elk farms" and (b) "threaten the future of deer hunting for your children and grandchildren" (Figure S-6). Respondents were also asked to indicate their likelihood of taking 11

Figure S-5: Feelings related to CWD

*p<.05 **p<.01

Figure S-6: Concerns related to CWD

1=not at all concerned, 7=extremely concerned

*p<.05 **p<.01*** p<.001

2019 Southeast Minnesota Deer Hunting
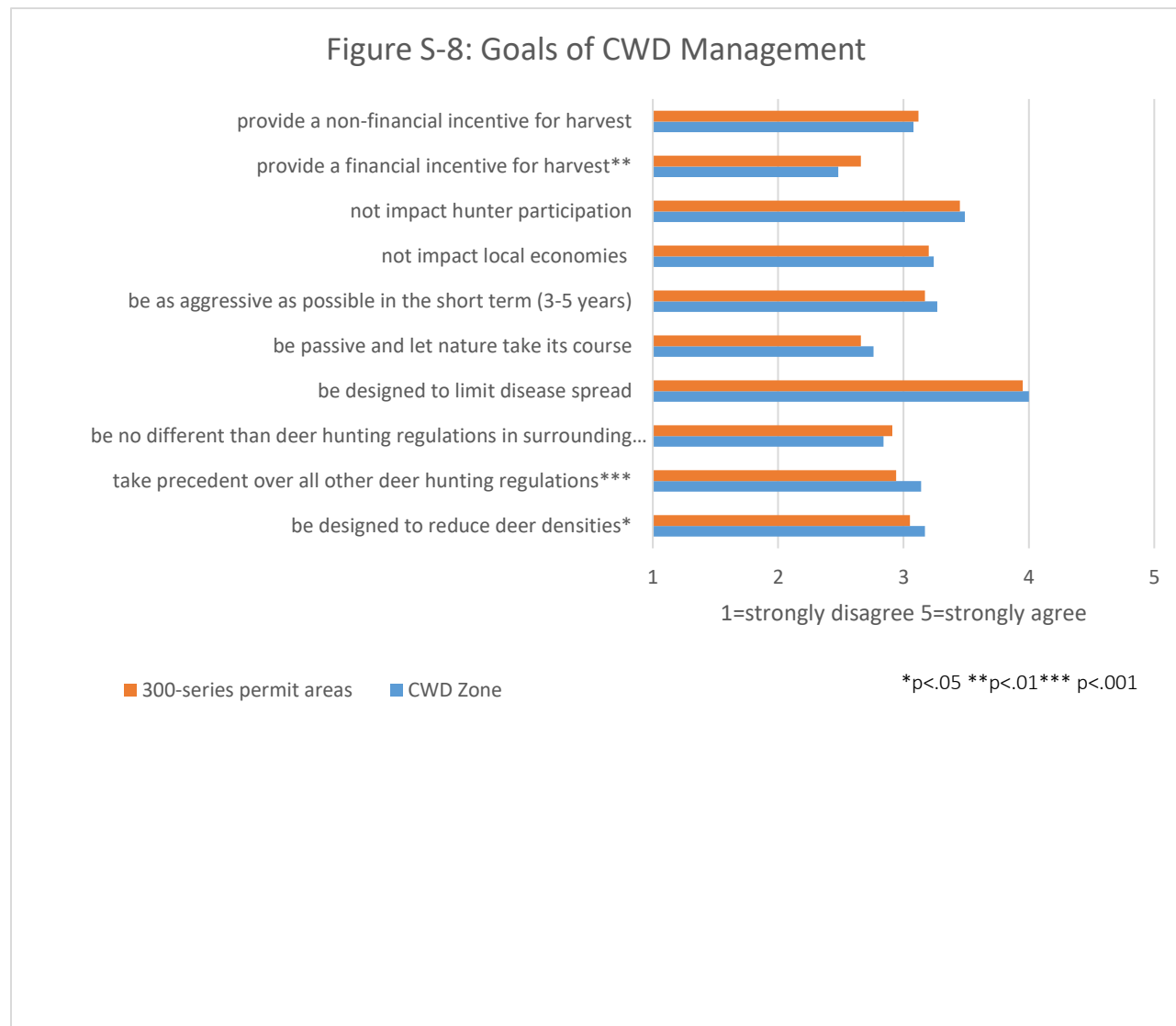
actions to help control the spread of chronic wasting disease (Figure S-7). Respondents were most likely to "Let the Minnesota DNR test every deer you shoot for CWD" and least likely to "Change your personal goals determining what you harvest when it relates to antler size in bucks"

Figure S-7: Taking actions to control CWD spread
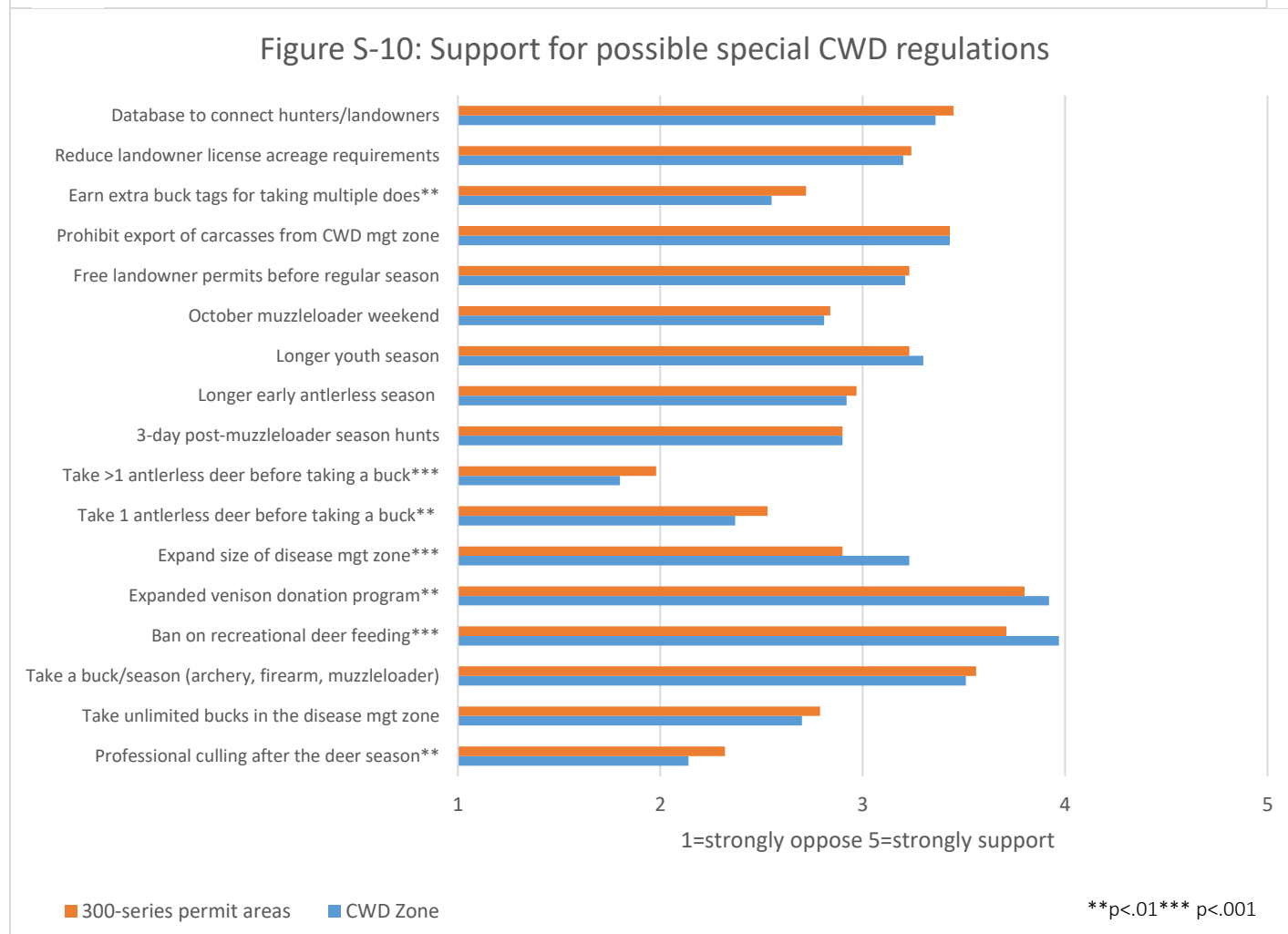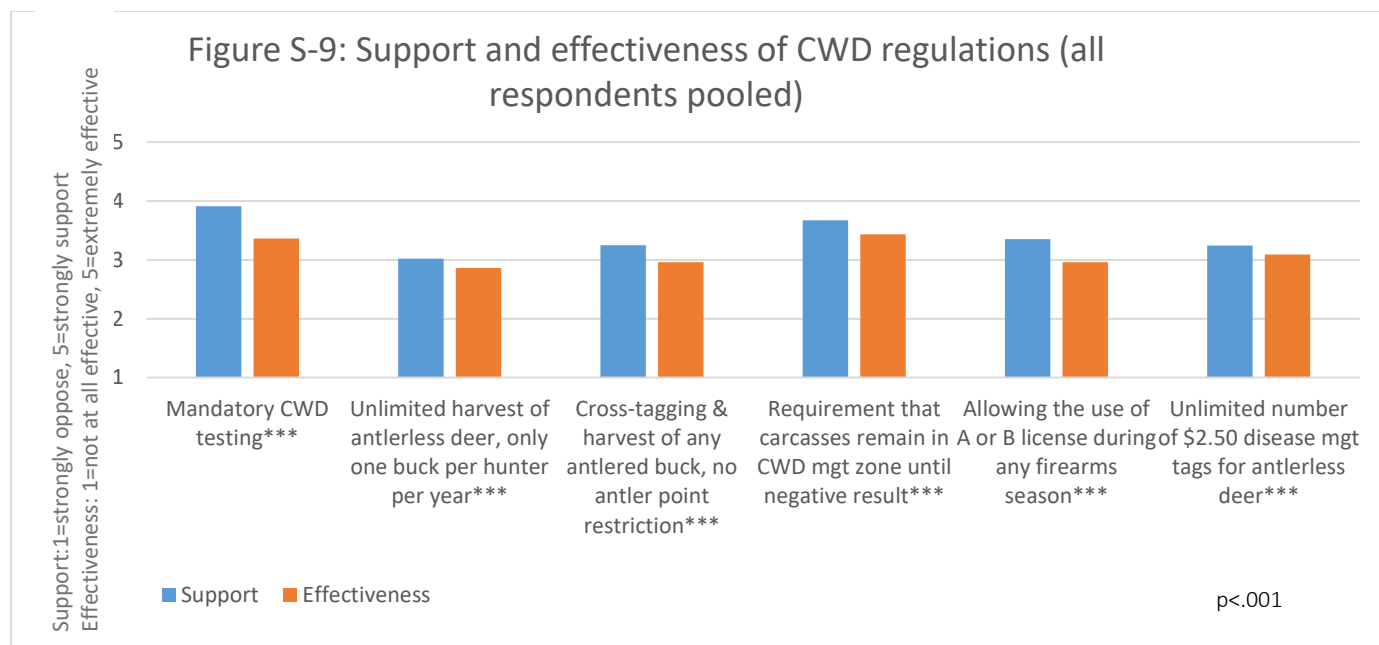
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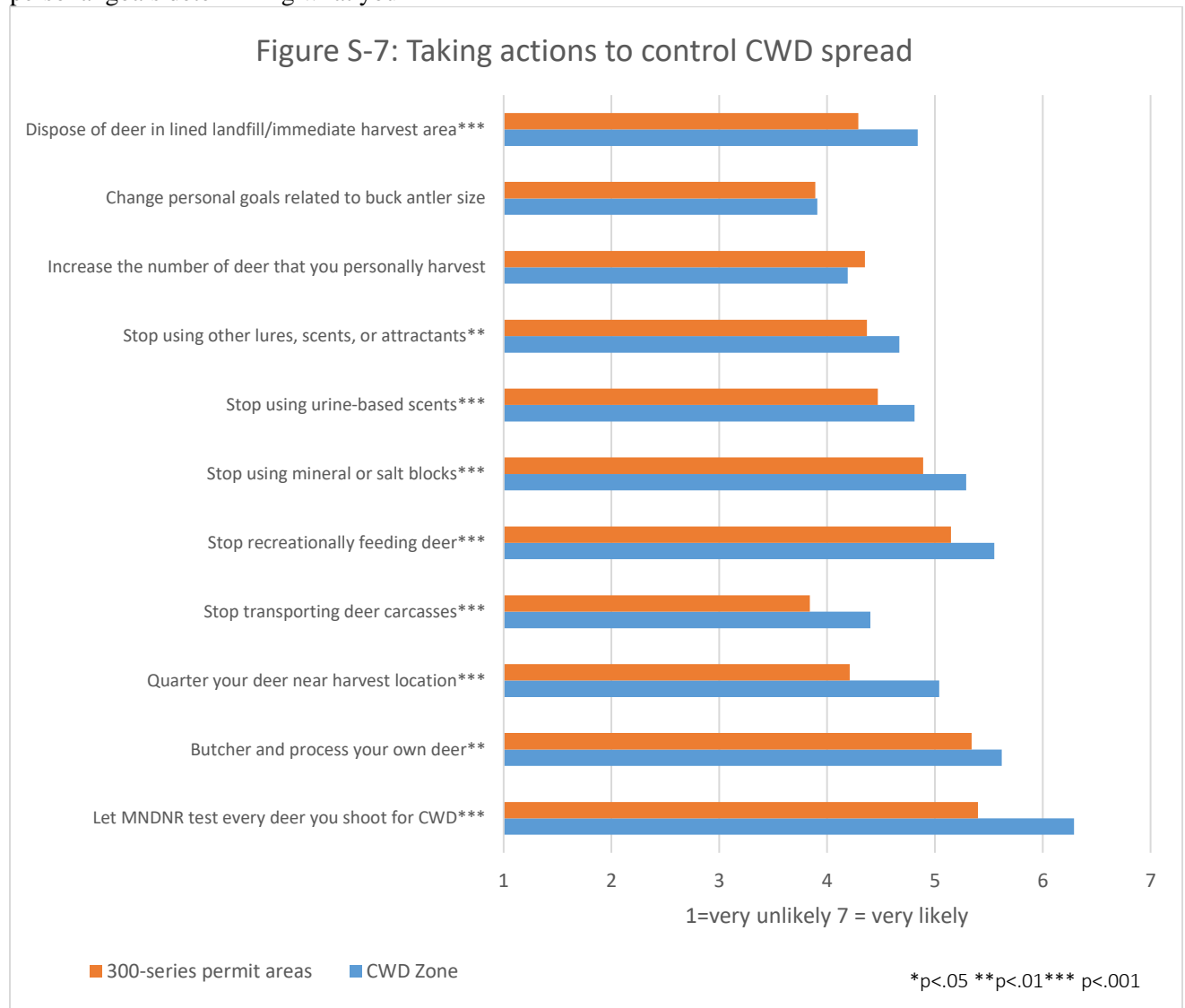
Management and Special Regulations to Address Chronic Wasting Disease

Respondents were asked to indicate if the Minnesota DNR's management of chronic wasting disease was (a) too aggressive, (b) about right, or (c) not aggressive enough. Just over half of respondents indicated that current management was about right, with about 30% indicating that it was too aggressive, and about 15% indicating that it was not aggressive enough. Respondents rated their agreement with 10 statements about goals for CWD regulations (Figure S-8), and rated their support/opposition and perceptions of the effectiveness of six existing regulations in the chronic wasting disease management zone (Figure S-9). Respondents also rated their support or opposition to 17 possible regulations to help manage chronic wasting disease (Figure S-10). Respondents were generally opposed to the use of incentives to reduce deer populations.

Figure S-8: Goals of CWD Management

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Figure S-9: Support and effectiveness of CWD regulations (all respondents pooled)

p<.001

Figure S-10: Support for possible special CWD regulations

1=strongly oppose 5=strongly support

p<.01* p<.001

Trust in the Minnesota Department of Natural Resources

Respondents rated their agreement with 11 items addressing their trust in the Minnesota Department of Natural Resources (MNDNR) (Figure S-11). Respondents agreed most strongly with an item about the agency having managers and biologists who are well-trained for their jobs items. Respondents disagreed slightly about two items related to the agency thinking and taking actions in ways similar to the respondent.

Figure S-11: The Minnesota DNR…

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Introduction

Chronic wasting disease (CWD) was first discovered in 2002 in a captive elk farm in Aitken, Minnesota. As of June 2019, the disease has been found in 8 captive cervid facilities across the state. In 2010, the disease was found in a single wild white-tailed deer (*Odocoileus virginianus*) in Olmsted County (southeastern Minnesota), in close association with a CWD positive captive elk farm. The detection prompted creation of a disease management zone and special regulations were designed to increase deer harvest and eliminate the disease. In 2014, the disease zone was dissolved because no further detections were discovered. In fall of 2016, several CWD positive deer were found in Fillmore county (southeastern Minnesota) as part of the risk-based sampling protocols established by the Department of Natural Resources (DNR). Regulations were again implemented to address the infection. As the disease has not been eliminated (and new infections have been found in other areas), DNR is evaluating a host of regulatory alternatives, incentives, and management responses. Regulations designed to mitigate the further spread of CWD in wild deer populations requires the support and participation of private citizens, including hunters. The preferences of hunters and other affected stakeholders must be considered in decisions if CWD management efforts are to succeed.

Study Purpose and Objectives

The purpose of this study to determine deer hunter preferences for managing deer populations in southeast Minnesota including season structure, regulations, harvest, and management actions to control the spread of CWD among deer.

The specific objectives of this study were to:

1. Continue baseline data for tracking trends in deer hunter participation, involvement, and satisfaction in southeastern Minnesota.
2. Determine hunters' opinions and preferences for deer populations and management in southeastern Minnesota.
3. Examine hunters' knowledge and information sources related to CWD.
4. Understand hunters' feelings and concerns about CWD.
5. Examine opinions and preferences related to management of CWD
6. Query hunters' trust in the Minnesota Department of Natural Resources generally, and specifically related to the management of CWD.

The questions used to address each objective are provided in the survey instruments (Appendices A and B) and discussed in more detail in the subsequent sections.

Methods

Sampling

The populations of interest in this study included all Minnesota resident firearm deer hunters 18 years of age and older who indicated that either the (a) CWD disease management zone (permit area 603), or (b) a 300-series permit area (Figure 1) was their primary deer hunting area for the 2018 season at the time of license purchase. The sampling frame used to draw the study sample was the Minnesota Department of Natural Resources' (DNR) Electronic Licensing System (ELS). We distributed questionnaires to all of the 2,195 hunters who had declared that the 603 permit area was their primary deer hunting area, and a random sample of 2,800 hunters (of 26,170 hunters total) that indicated the same in one the 300-series permit areas during the 2018 firearms deer season. In Minnesota, upwards of 90% of successful hunters take their deer in the area they indicated at time of purchase.
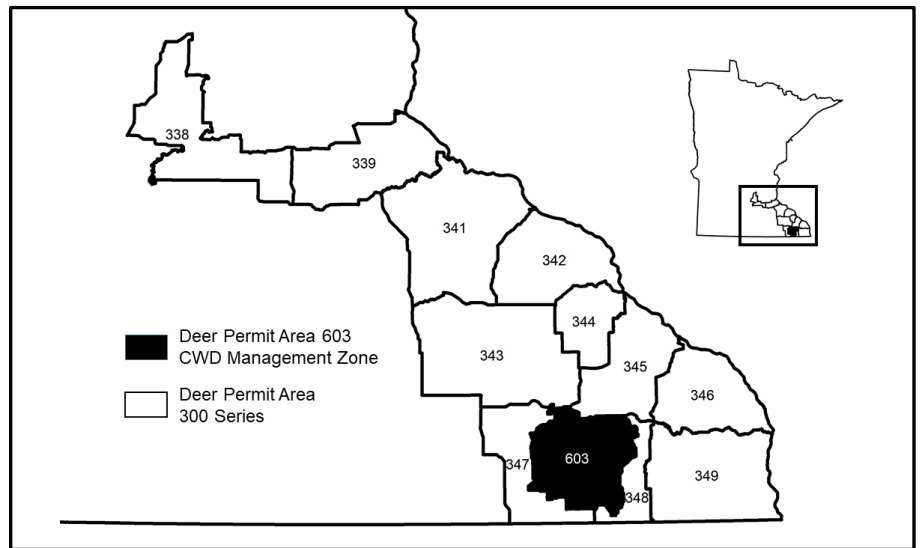
Figure 1.

Data Collection

Data were collected using a mail-back survey following a process outlined by Dillman (2000) to enhance response rates. We constructed a relatively straightforward questionnaire, created personalized cover letters, and made multiple contacts with the targeted respondents. Potential study respondents were contacted four times between November 2018 and April 2019. In the initial contact, a cover letter, survey questionnaire, and business-reply envelope were mailed to all potential study participants. The personalized cover letter explained the purpose of the study and made a personal appeal for respondents to complete and return the survey questionnaire. Approximately 5 weeks later, after the New Year, a second letter with another copy of the survey and business-reply envelope was sent to all study participants who had not responded to the first mailing. About a month after the second mailing a third mailing that included a personalized cover letter and replacement questionnaire with business-reply envelope was sent to all individuals with valid addresses who had not yet replied. Finally, in order to gauge nonresponse bias, a shortened, 1-page survey was distributed 1,234 hunters from the CWD management zone and 1,475 hunters from the 300-series permit areas who had not responded to previous mailings.

Survey Instrument

The data collection instrument was a 12-page self-administered survey with 11 pages of questions (Appendix A). The questionnaire addressed the following topics:

Part 1:   Your Minnesota Deer Hunting Background;

Part 2: Satisfaction with your 2018 Minnesota Deer Hunting Season;
Part 3: Deer Populations in Southeastern Minnesota;
Part 4: Involvement in Deer Hunting in Minnesota;
Part 5: Deer Populations and Management Strategies in Southeastern Minnesota;
Part 6: Information about Chronic Wasting Disease (CWD);
Part 7: Feelings about Chronic Wasting Disease (CWD);
Part 8: Concerns about Chronic Wasting Disease (CWD);
Part 9: Management and Special Regulations to Address Chronic Wasting Disease (CWD);
Part 10: Agency Trust;
Part 11: About you.

Additional information concerning age and gender of respondents was obtained from the ELS database.

Data Entry and Analysis

Data were keypunched and the data were analyzed on a PC using the Statistical Program for the Social Sciences (SPSS for Windows 25). We computed basic descriptive statistics and frequencies for the CWD management zone and the 300-series deer permit areas. The two research strata were compared using t-tests and cross-tabulations.

Survey Response Rate

Of the 2,195 questionnaires mailed to hunters in the CWD management zone, 68 were undeliverable. Of the remaining 2,127 questionnaires, a total of 880 full-length questionnaires were returned, resulting in a response rate of 41.4%. An additional 113 hunters returned the shortened survey, used to gauge nonresponse bias, for a total response rate of 47%. Of the 2,800 questionnaires mailed to hunters in the 300-series permit areas near the CWD management zone, 91 were undeliverable and 2 were mailed to individuals who had moved out of state. Of the remaining 2,707 questionnaires, a total of 1,206 full-length questionnaires were returned, resulting in a response rate of 44.5%. An additional 140 hunters returned the shortened survey for a total response rate of 50%. Response rates for both strata are summarized in Table I-1. The chart of response rates for each management region does not include 4 questionnaires that were returned without identification numbers.

Table I-1: Response rates for each study stratum

	Initial sample size	Number invalid	Valid sample size	Full-length surveys returned	Full-length survey response rate %	Shortened surveys returned	Total surveys returned	Full-length survey response rate %
CWD zone	2,195	68	2,127	880	41.4%	113	993	46.8%
300-series permit areas	2,800	93	2,707	1,206	44.5%	140	1,346	50.0%

The average age of respondents in both strata was significantly older than the sample age (CWD management zone: 51.7 years for respondents and 45.2 years for the sample, $t = 10.361***$; 300-series permit areas: 50.3 years for respondents and 45.0 years for the sample, $t = 10.014***$).

Population Estimates

The study sample was drawn using a stratified random sample with deer permit area defining the two study strata. For this reason, the data for southeastern regional estimates were weighted to reflect the proportion of the population of southeastern Minnesota deer hunters hunting in the deer permit area for

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the CWD management zone versus the 300-series deer permit areas. Table I-2 summarizes the population proportions for each region. Results separated by hunters from the CWD management zone versus the 300-series permit areas were not weighted.

Table I-2: Proportion of sample population of deer hunters by intended deer permit area hunted.

Deer permit area	Proportion of 2018 firearm deer hunters age 18 and older by reported southeastern Minnesota deer permit area	
	Frequency[1]	**Proportion**
CWD management zone (permit area 603)	2,195	7.74%
300-series permit areas	26,170	92.26%
Southeast deer permit areas combined [2]	28,365	100%

[1] Source: DNR license database

[2] The southeast Minnesota deer permit area combined total is not equal to the total number of firearm deer licenses sold. The number in the table reflects the sample population for the study, which excluded nonresidents and individuals less than 18 years of age.

Section 1: Minnesota Deer Hunting Background

Results for Part 1 of the deer hunter survey are reviewed below. This section of the survey focused on deer-hunting background and experiences during the 2018 Minnesota deer-hunting season.

Deer Hunting Participation and Harvest in 2018

Respondents had hunted for deer in Minnesota for an average of 29 years, and 85% of respondents had hunted all of the past 5 years (Tables 1-1, 1-2). Nearly all (98-99%) had also hunted during the 2018 season (Table 1-3). About 80% of respondents from the CWD management zone (permit area 603) sample had hunted most often in that zone (Table 1-4). On average, respondents hunted about 5 days during the firearm deer season (Table 1-5). Hunters from the CWD management zone bagged significantly more antlered bucks and significantly fewer antlerless deer on average compared to hunters from the 300-series permit areas (Table 1-6), likely reflecting regulatory differences between the two areas. Those in the CWD management zone bagged an average of .33 antlered bucks and .35 antlerless deer, and hunters in the 300-series permit areas bagged .27 antlered bucks and .47 antlerless deer. About one-fourth of respondents from both research strata hunted or planned to hunt during the 2018 archery deer season (Table 1-7). A significantly greater proportion of respondents from the 300-series permit areas (15.5%) compared to those from the CWD management zone (12.1%) hunted or planned to hunt during the 2018 muzzleloader deer season (Table 1-7).

Where Respondents Hunt

Over 90% of respondents indicated that they had an established place to hunt every deer season (Table 1-8). On average, respondents who did not have an established place to hunt found it slightly to moderately difficult to find a place to hunt during the 2018 season (Table 1-9). Nearly half of respondents did all of their hunting on private land that they did not own or lease (Tables 1-10, 1-13). About 20-25% of respondents did all of their hunting on private land they own (Table 1-10, 1-11). Leased private land (Table 1-12) and public land (Table 1-14) were less commonly used for deer hunting during the 2018 season. The few (*n* = 96, <5%) respondents who reported leasing private land were asked to indicate the reasons they lease property for deer hunting (Table 1-15). Most (nearly 50%) reported "leasing a parcel with friends so that their group had a place to hunt every year." About 30% indicated they were "one of a group of people leasing to manage for mature bucks," with about 20-25% "leasing a parcel myself so that I have a place to hunt every year," and 16-20% "leasing a parcel myself to manage for mature bucks." Less than 10% indicated that they "leased because they were unable to get permission on private land."

Section 1: Minnesota Deer Hunting Background

Table 1-1: Years hunting for deer in Minnesota

Hunting region	N	Mean
Southeast deer permit areas combined	2054	28.97
CWD zone	868	29.44
300-series permit areas	1187	28.93
		t = 0.714 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 1-2: Hunting in the last five years: % of hunters who hunted that particular year.

Hunting region	2017	2016	2015	2014	2013	Hunted every year	Did not hunt during any of these years
Southeast deer permit areas combined	93.5%	94.2%	92.3%	90.8%	89.7%	84.6%	1.5%
CWD zone	93.8%	94.0%	92.2%	91.0%	89.2%	84.5%	1.9%
300-series permit areas	93.5%	94.2%	92.3%	90.8%	89.8%	84.6%	1.5%
	$\chi^2 = 0.073$ n.s.	$\chi^2 = 0.046$ n.s.	$\chi^2 = 0.013$ n.s.	$\chi^2 = 0.021$ n.s.	$\chi^2 = 0.219$ n.s.	$\chi^2 = 0.002$ n.s.	$\chi^2 = 0.599$ n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 1-3: Hunt during 2018 firearm deer season?

Hunting region	n	% Yes
Southeast deer permit areas combined	2088	98.8%
CWD zone	878	98.3%
300-series permit areas	1207	98.8%
		$\chi^2 = 1.115$ n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 1-4: Which one deer permit area did you hunt most often during the 2018 firearm deer season: % of hunters who hunted that permit area.

Hunting region	338	339	341	342	343	344	345	346	347	348	349	603
CWD zone	0.0%	0.1%	0.1%	0.2%	0.8%	0.0%	1.1%	1.5%	6.3%	8.7%	0.2%	80.8%
300-series permit areas	0.0%	0.1%	0.1%	0.2%	0.8%	0.0%	1.1%	1.5%	6.3%	8.7%	0.2%	0.0%

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] $\chi^2 = 1583.663$*** p< 0.001

Section 1: Minnesota Deer Hunting Background

Table 1-5: Days hunting during 2018 firearm deer season.

Hunting region	n	Days
Southeast deer permit areas combined	2050	5.52
CWD zone	854	5.39
300-series permit areas	1184	5.52
		t = 0.644 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 1-6: Number of deer personally killed during 2018 firearm deer season.

Hunting region	Antlered bucks	Antlerless deer
Southeast deer permit areas combined	0.27	0.46
CWD zone	0.33	0.34
300-series permit areas	0.27	0.47
	t = 2.558*	t = 2.642**

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 1-7: Hunt or planned to hunt during 2018 archery or muzzleloader deer seasons?

Hunting region	Archery (% Yes)	Muzzleloader (% Yes)
Southeast deer permit areas combined	25.6%	15.2%
CWD zone	24.4%	12.1%
300-series permit areas	25.8%	15.5%
	χ^2 = 0.534 n.s.	χ^2 = 4.580*

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 1-8: Have an established place to hunt every deer season?

Hunting region	n	% Yes
Southeast deer permit areas combined	2043	90.5%
CWD zone	850	93.8%
300-series permit areas	1179	90.3%
		χ^2 = 7.711**

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Section 1: Minnesota Deer Hunting Background

Table 1-9: If hunter does not have an established place to hunt every deer season, how easy or difficult was it to find a place to hunt during the 2018 firearm deer season: % of hunters who reported each level of ease or difficulty and means.

Hunting region	n	Very difficult	Moderately difficult	Slightly difficult	Neither	Slightly easy	Moderately easy	Very easy	Mean
Southeast deer permit areas combined	190	28.9%	28.9%	17.9%	3.7%	8.4%	1.6%	10.5%	2.81
CWD zone	54	35.2%	22.2%	25.9%	7.4%	1.9%	0.0%	7.4%	2.48
300-series permit areas	113	28.3%	29.2%	17.7%	3.5%	8.8%	1.8%	10.6%	2.83
									t = 1.152 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] $\chi^2 = 7.646$ n.s.
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1 = very difficult, 2 = moderately difficult, 3 = slightly difficult, 4 = neither, 5 = slightly easy, 6 = moderately easy, 7 = very easy.

Table 1-10: Mean amount of firearm deer hunting done on each of the following types of land during the 2018 deer hunting season.

Type of land	Southeast deer permit areas combined mean	CWD zone mean	300-series permit area mean	t values
Private land that I own	1.83	1.89	1.83	1.019 n.s.
Private land that I lease for hunting	1.13	1.10	1.13	1.082 n.s.
Private land that I do **not** own or lease	2.75	2.78	2.75	0.440 n.s.
Public land	1.36	1.32	1.36	1.131 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none, 2=some, 3=most, 4=all.

Table 1-11: Amount of firearm deer hunting done on "private land that I own:" % of hunters who reported each level of use and means.

Hunting region	n	None	Some	Most	All	Mean
Southeast deer permit areas combined	1988	66.9%	5.4%	5.5%	22.2%	1.83
CWD zone	827	64.7%	5.0%	7.4%	23.0%	1.89
300-series permit areas	1148	67.0%	5.5%	5.3%	22.2%	1.83
						t = 1.019 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] $\chi^2 = 4.074$ n.s.
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1=none, 2=some, 3=most, 4=all.

Section 1: Minnesota Deer Hunting Background

Table 1-12: Amount of firearm deer hunting done on "private land that I lease for hunting:" % of hunters who reported each level of use and means.

Hunting region	n	None	Some	Most	All	Mean
Southeast deer permit areas combined	1978	94.8%	1.3%	0.6%	3.3%	1.13
CWD zone	820	95.9%	1.0%	0.6%	2.6%	1.10
300-series permit areas	1143	94.8%	1.3%	0.6%	3.3%	1.13
						t = 1.082 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] χ^2 = 1.449 n.s.
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1=none, 2=some, 3=most, 4=all.

Table 1-13: Amount of firearm deer hunting done on "private land that I do not own or lease:" % of hunters who reported each level of use and means.

Hunting region	n	None	Some	Most	All	Mean
Southeast deer permit areas combined	2018	33.6%	7.0%	9.8%	49.6%	2.75
CWD zone	836	30.6%	10.2%	9.8%	49.4%	2.78
300-series permit areas	1166	33.8%	6.8%	9.8%	49.7%	2.75
						t = 0.440 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] χ^2 = 8.352*
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1=none, 2=some, 3=most, 4=all.

Table 1-14: Amount of firearm deer hunting done on "public land:" % of hunters who reported each level of use and means.

Hunting region	n	None	Some	Most	All	Mean
Southeast deer permit areas combined	1984	81.8%	8.6%	1.5%	8.1%	1.36
CWD zone	824	81.9%	9.5%	3.4%	5.2%	1.32
300-series permit areas	1146	81.8%	8.6%	1.4%	8.3%	1.36
						t = 1.131 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] χ^2 = 15.506**
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1=none, 2=some, 3=most, 4=all.

Section 1: Minnesota Deer Hunting Background

Table 1-15: If hunter leased private land, primary reason they decided to lease property for deer hunting: % of hunters who selected each reason.

Hunting region	n	Lease a parcel myself to manage for mature bucks	One of a group of people leasing to manage for mature bucks	Lease a parcel myself so that I have a place to hunt every year	Lease a parcel with friends so my group has a place to hunt every year	Leased because I was unable to get permission on private land
Southeast deer permit areas combined	105	16.4%	32.2%	21.5%	46.9%	5.1%
CWD zone	35	20.0%	30.6%	25.0%	47.1%	8.6%
300-series permit areas	61	16.4%	31.1%	21.7%	47.6%	4.9%
		$\chi^2 = 0.199$ n.s.	$\chi^2 = 0.044$ n.s.	$\chi^2 = 0.142$ n.s.	$\chi^2 = 0.003$ n.s.	$\chi^2 = 0.507$ n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] n.s. = not significant, *p < 0.05, **p < 0.01, ***p < 0.001

Table 1-16: If hunter leased private land, number of total acres of land leased and number of hunters on lease.

Hunting region	Acres	Hunters
Southeast deer permit areas combined	163.67	5.17
CWD zone	163.56	4.42
300-series permit areas	163.67	5.22
	t = 0.003 n.s.	t = 0.894 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] n.s. = not significant, *p < 0.05, **p < 0.01, ***p < 0.001

Section 2: Satisfaction with the 2018 Deer Hunting Season

Study participants were asked to rate their satisfaction with their overall deer-hunting experience on a 7-point scale where 1 = very dissatisfied, 2 = moderately dissatisfied, 3 = slightly dissatisfied, 4 = neither, 5 = slightly satisfied, 6 = moderately satisfied, and 7 = very satisfied. They were also asked to rate their satisfaction with harvest, regulations, total number of deer seen, number of bucks seen, number of antlerless deer seen using the same response scale.

Satisfaction with the General Deer-Hunting Experience

About two-thirds of hunters in the CWD management zone (67%) reported being satisfied with their general deer-hunting experience, with 24.0% expressing dissatisfaction. Nearly three-fourths (73%) of hunters from the 300-series permit areas reported being satisfied, with 20% reporting dissatisfaction. The mean satisfaction score was 5.0 in the CWD management zone and 5.2 in the 300-series permit areas. There were significant differences in the pattern of responses between research strata, and on average, hunters from outside the CWD management zone were more satisfied (Table 2-1).

Satisfaction with Harvest

Half of respondents from the CWD management zone were satisfied with their harvest, and about a third were dissatisfied. About 55% of hunters from the 300 series permit areas reported being satisfied, with a third reporting dissatisfaction. The mean harvest satisfaction score was 4.4 in the CWD management zone and 4.5 in the 300-series permit areas. There were significant differences in the pattern of responses by stratum, but mean satisfaction levels did not differ significantly (Table 2-2).

Satisfaction with Regulations

Just less than half (48%) of respondents from the CWD management zone were satisfied with the regulations, and about a third were dissatisfied. Proportions were similar for hunters from the 300-series permit areas. The mean satisfaction score for regulations was 4.3 in both the CWD management zone and in the 300-series permit areas. There were no statistically significant differences in the pattern of responses by research stratum, or mean satisfaction levels (Table 2-3).

Satisfaction with the Number of Deer Seen

Respondents were asked to report their satisfaction or dissatisfaction with the total number of deer seen during the 2018 season, and specifically for bucks and antlerless deer. Half of respondents from the CWD management zone were satisfied with the total number of deer they saw during the season, with 43% dissatisfied. About 60% of hunters from the 300-series permit areas reported being satisfied with the total number of deer seen, with about a third (32%) reporting dissatisfaction. The mean satisfaction score was 4.1 in the CWD management zone and 4.6 in the 300-series permit areas. There were statistically significant differences in the pattern of responses by research stratum, and in mean satisfaction levels between the CWD management zone and the 300-series permit areas (Table 2-4).

About 40% of respondents from the CWD management zone were satisfied with the number of bucks they saw during the season, with 51% dissatisfied. About 43% of hunters from the 300-series permit areas reported being satisfied with the number of bucks seen, with 47% reporting dissatisfaction. The mean satisfaction score was 3.6 in the CWD management zone and 3.9 in the 300-series permit areas. There was no statistically significant difference in the pattern of responses,

but the mean satisfaction levels between the CWD management zone and the 300-series permit areas differed slightly (Table 2-5).

About half (49%) of respondents from the CWD management zone were satisfied with the number of antlerless deer they saw during the season, with 41% dissatisfied. Nearly 60% of hunters from the 300-series permit areas (57%) reported being satisfied with the number of antlerless deer seen, with a third reporting dissatisfaction. The mean satisfaction score was 4.2 in the CWD management zone and 4.6 in the 300-series permit areas. There were statistically significant differences in the pattern of responses by research stratum, and in mean satisfaction levels between the CWD management zone and the 300-series permit areas (Table 2-6).

Section 2: Satisfaction with the 2018 Deer Hunting Season

Table 2-1: Satisfaction with the overall deer-hunting experience for the 2018 season by permit area.

Hunting region	n	Very dissatisfied	Moderately dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Moderately satisfied	Very satisfied	Mean
Southeast deer permit areas combined	2005	5.9%	6.4%	7.8%	7.1%	15.0%	28.8%	29.0%	5.21
CWD zone	836	6.7%	7.8%	9.2%	9.6%	14.7%	29.4%	22.6%	4.97
300-series permit areas	1158	5.9%	6.3%	7.7%	6.8%	15.0%	28.7%	29.6%	5.23
									t = 3.220**

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] $\chi^2 = 17.079$** V = 0.093
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1 = very dissatisfied; 2 = moderately dissatisfied; 3 = slightly dissatisfied, 4 = neither; 5 = slightly satisfied; 6 = moderately satisfied; 7 = very satisfied.

Table 2-2: Satisfaction with the deer-hunting harvest for the 2018 season by permit area.

Hunting region	n	Very dissatisfied	Moderately dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Moderately satisfied	Very satisfied	Mean
Southeast deer permit areas combined	2001	13.4%	8.6%	11.1%	12.2%	12.2%	20.5%	22.0%	4.51
CWD zone	824	12.7%	8.7%	11.3%	17.0%	12.5%	19.3%	18.4%	4.39
300-series permit areas	1157	13.4%	8.6%	11.0%	11.8%	12.2%	20.7%	22.3%	4.52
									t = 1.346 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] $\chi^2 = 13.262$* V = 0.082
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1 = very dissatisfied; 2 = moderately dissatisfied; 3 = slightly dissatisfied, 4 = neither; 5 = slightly satisfied; 6 = moderately satisfied; 7 = very satisfied.

Table 2-3: Satisfaction with the deer-hunting regulations for the 2018 season by permit area.

Hunting region	n	Very dissatisfied	Moderately dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Moderately satisfied	Very satisfied	Mean
Southeast deer permit areas combined	1982	13.8%	10.9%	11.3%	15.7%	12.8%	17.9%	17.6%	4.27
CWD zone	814	12.4%	9.2%	11.8%	18.3%	12.2%	20.3%	15.8%	4.33
300-series permit areas	1146	14.0%	11.1%	11.3%	15.4%	12.9%	17.7%	17.7%	4.26
									t = 0.718 n.s.

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] $\chi^2 = 7.936$ n.s.
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1 = very dissatisfied; 2 = moderately dissatisfied; 3 = slightly dissatisfied, 4 = neither; 5 = slightly satisfied; 6 = moderately satisfied; 7 = very satisfied.

Section 2: Satisfaction with the 2018 Deer Hunting Season

Table 2-4: Satisfaction with the total number of deer seen for the 2018 season by permit area.

Hunting region	n	Very dissatisfied	Moderately dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Moderately satisfied	Very satisfied	Mean
Southeast deer permit areas combined	1994	11.6%	9.3%	12.2%	7.1%	17.4%	20.5%	21.9%	4.58
CWD zone	824	15.4%	14.3%	13.6%	6.6%	15.9%	18.7%	15.5%	4.11
300-series permit areas	1152	11.2%	8.9%	12.2%	7.1%	17.5%	20.7%	22.4%	4.62
									t = 5.405***

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] $\chi^2 = 33.302$*** V = 0.130
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1 = very dissatisfied; 2 = moderately dissatisfied; 3 = slightly dissatisfied, 4 = neither; 5 = slightly satisfied; 6 = moderately satisfied; 7 = very satisfied.

Table 2-5: Satisfaction with the number of bucks seen for the 2018 season by permit area.

Hunting region	n	Very dissatisfied	Moderately dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Moderately satisfied	Very satisfied	Mean
Southeast deer permit areas combined	1977	19.8%	13.9%	13.4%	9.8%	14.7%	15.2%	13.1%	3.84
CWD zone	819	22.1%	16.0%	13.3%	9.4%	15.3%	13.1%	10.9%	3.62
300-series permit areas	1142	19.6%	13.7%	13.4%	9.9%	14.7%	15.4%	13.3%	3.86
									t = 2.463*

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] $\chi^2 = 7.559$ n.s.
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1 = very dissatisfied; 2 = moderately dissatisfied; 3 = slightly dissatisfied, 4 = neither; 5 = slightly satisfied; 6 = moderately satisfied; 7 = very satisfied.

Table 2-6: Satisfaction with the number of antlerless deer seen for the 2018 season by permit area.

Hunting region	n	Very dissatisfied	Moderately dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Moderately satisfied	Very satisfied	Mean
Southeast deer permit areas combined	2003	11.3%	10.2%	12.4%	9.5%	15.8%	18.7%	22.1%	4.53
CWD zone	831	14.7%	12.4%	13.8%	9.9%	15.5%	19.3%	14.4%	4.15
300-series permit areas	1157	11.0%	10.0%	12.3%	9.5%	15.7%	18.7%	22.8%	4.56
									t = 4.484***

[1] This table does not include those respondents who did not hunt during the 2018 firearm deer season.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[3] $\chi^2 = 26.416$*** V = 0.115
[4] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[5] Mean based on the following scale: 1 = very dissatisfied; 2 = moderately dissatisfied; 3 = slightly dissatisfied, 4 = neither; 5 = slightly satisfied; 6 = moderately satisfied; 7 = very satisfied.

Section 3: Deer Populations in Southeastern Minnesota

Trends and Opinions about Deer Populations in Southeastern Minnesota

Respondents were asked to report their perception of the trend in deer population in the area they hunt over the last 5 years using the scale: 1 = a lot fewer deer; 2 = moderately fewer deer; 3 = slightly fewer deer, 4 = about the same number of deer; 5 = slightly more deer; 6 = moderately more deer; 7 = many more deer. Results are summarized in Table 3-1. In the CWD management zone, about 13% of hunters indicated there were more deer, with 60% indicating fewer deer. In the 300-series permit areas, 25% of respondents indicated there were more deer, with 38% indicating fewer deer. The mean score on population trend was 3.0 in the CWD management zone and 3.7 in the 300-series permit areas. There were statistically significant differences in the pattern of responses by research stratum, and in mean between the CWD management zone and the 300-series permit areas.

Respondents were also asked to give their opinions on the deer population in the area they hunt using the scale: 1 = much too low; 2 = moderately too low; 3 = slightly too low, 4 = about right; 5 = slightly too high; 6 = moderately too high; 7 = much too high. Results are summarized in Table 3-2. In the CWD management zone, about 9% of hunters indicated that populations were too high, with 52% indicating they were too low. In the 300-series permit areas, 15% of respondents indicated populations were too high, with 40% indicating too low. The mean score on opinions about the population was 3.2 in the CWD management zone and 3.6 in the 300-series permit areas. There were statistically significant differences in the pattern of responses by research stratum, and in mean values between the CWD management zone and the 300-series permit areas.

Section 3: Deer Populations in Southeastern Minnesota

Table 3-1: Trend in deer population in the area you hunt and surrounding area over the past 5 years.

Hunting region	n	A lot fewer deer	Moderately fewer deer	Slightly fewer deer	About the same number of deer	Slightly more deer	Moderately more deer	Many more deer	Mean
Southeast deer permit areas combined	2074	10.8%	11.8%	16.8%	36.4%	12.2%	8.2%	3.9%	3.68
CWD zone	871	20.7%	17.9%	20.8%	27.9%	7.9%	3.6%	1.3%	3.00
300-series permit areas	1199	9.9%	11.3%	16.5%	37.1%	12.5%	8.6%	4.1%	3.73
									t = 11.010***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 117.726^{***}$ V = 0.238
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = a lot fewer deer; 2 = moderately fewer deer; 3 = slightly fewer deer, 4 = about the same number of deer; 5 = slightly more deer; 6 = moderately more deer; 7 = many more deer.

Table 3-2: Opinion of deer population in the area you hunt most often.

Hunting region	n	Much too low	Moderately too low	Slightly too low	About right	Slightly too high	Moderately too high	Much too high	Mean
Southeast deer permit areas combined	2072	6.4%	11.8%	22.5%	45.2%	7.4%	4.8%	2.0%	3.58
CWD zone	871	10.8%	19.5%	21.4%	39.3%	4.8%	3.2%	1.0%	3.22
300-series permit areas	1198	6.0%	11.1%	22.6%	45.7%	7.6%	4.9%	2.1%	3.61
									t = 7.017***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 56.883^{***}$ V = 0.166
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = much too low; 2 = moderately too low; 3 = slightly too low, 4 = about right; 5 = slightly too high; 6 = moderately too high; 7 = much too high.

Section 4: Involvement in Deer Hunting in Minnesota

Involvement in Deer Hunting

Respondents were asked to respond to 16 items addressing their involvement in deer hunting using the scale: 1 = strongly disagree to 5 = strongly agree. Fifteen of the items were derived from Kyle et al. (2007). Results for items addressing deer hunting involvement presented in Tables 4-1 to 4-17. Respondents agreed most strongly that: (a) I contribute to deer management through hunting, (b) Deer hunting is one of the most enjoyable things I do, (c) I enjoy discussing deer hunting with my friends, and (d) Deer hunting provides me with the opportunity to be with friends. There was less agreement that: (a) A lot of my life is organized around deer hunting and (b) Deer hunting has a central role in my life. There were no statistically significant differences between hunters in the CWD management zone and those in the 300-series permit areas in items used to gauge their involvement with deer hunting. Based on the five factors described by Kyle et al. (2007), hunters agreed most strongly with attraction to deer hunting ($M = 3.90$), followed by social bonding ($M = 3.87$), identity affirmation ($M = 3.57$), identity expression ($M = 3.41$), then centrality ($M = 3.28$).

Section 4: Involvement in Deer Hunting in Minnesota

Table 4-1: Mean results: Involvement in deer hunting in Minnesota.

Involvement item	Southeast deer permit areas combined	CWD Zone Mean	300-series permit area Mean
Deer hunting is one of the most enjoyable things I do.	4.14	4.17	4.14
Deer hunting provides me with the opportunity to be with friends.	4.09	4.11	4.09
To change my preference from deer hunting to another recreation activity would require major rethinking.	3.72	3.71	3.72
A lot of my life is organized around deer hunting.	3.07	3.01	3.07
Deer hunting has a central role in my life.	3.09	3.04	3.10
Most of my friends are in some way connected with deer hunting.	3.42	3.41	3.42
When I am deer hunting, others see me the way I want them to see me.	3.61	3.56	3.61
I identify with the people and image associated with deer hunting.	3.54	3.51	3.54
Deer hunting is one of the most satisfying things I do.	3.61	3.63	3.61
Participating in deer hunting says a lot about who I am.	3.41	3.40	3.41
Deer hunting is very important to me.	3.94	3.91	3.94
You can tell a lot about a person when you see them deer hunting.	3.22	3.26	3.22
When I am deer hunting I can really be myself.	3.65	3.66	3.65
I enjoy discussing deer hunting with my friends.	4.11	4.12	4.11
When I am deer hunting, I don't have to be concerned about what other people think of me.	3.55	3.51	3.56
I contribute to deer management through hunting.	4.18	4.17	4.18

[1] Mean based on scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

Table 4-2: Involvement in deer hunting: Agreement/disagreement that… Deer hunting is one of the most enjoyable things I do.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2076	0.6%	2.4%	17.5%	41.3%	38.2%	4.14
CWD zone	873	0.2%	2.5%	17.0%	40.3%	40.0%	4.17
300-series permit areas	1200	0.6%	2.4%	17.6%	41.3%	38.1%	4.14
							t = 0.924 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p < 0.01, ***p < 0.001
[3] $\chi^2 = 2.191$ n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Section 4: Involvement in Deer Hunting in Minnesota

Table 4-3: Involvement in deer hunting: Agreement/disagreement that… Deer hunting provides me with the opportunity to be with friends.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2070	1.6%	3.7%	15.5%	41.7%	37.4%	4.09
CWD zone	869	1.3%	3.6%	15.3%	42.2%	37.6%	4.11
300-series permit areas	1197	1.7%	3.8%	15.5%	41.7%	37.3%	4.09
							t = 0.531 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 0.665$ n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-4: Involvement in deer hunting: Agreement/disagreement that… To change my preference from deer hunting to another recreation activity would require major rethinking.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2067	3.6%	10.7%	26.3%	28.7%	30.7%	3.72
CWD zone	870	2.1%	12.5%	26.7%	30.2%	28.5%	3.71
300-series permit areas	1195	3.8%	10.5%	26.3%	28.5%	30.9%	3.72
							t = 0.335 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 7.966$ n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-5: Involvement in deer hunting: Agreement/disagreement that… A lot of my life is organized around deer hunting.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2067	7.5%	24.3%	35.2%	20.1%	12.9%	3.07
CWD zone	871	7.5%	26.4%	34.2%	21.2%	10.7%	3.01
300-series permit areas	1195	7.5%	24.1%	35.3%	20.0%	13.1%	3.07
							t = 1.147 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 3.986$ n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

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Table 4-6: Involvement in deer hunting: Agreement/disagreement that… Deer hunting has a central role in my life.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2055	8.2%	23.5%	31.9%	23.7%	12.6%	3.09
CWD zone	864	9.7%	22.3%	32.4%	24.9%	10.6%	3.04
300-series permit areas	1188	8.1%	23.6%	31.9%	23.7%	12.8%	3.10
							t = 1.005 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 4.157$ n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-7: Involvement in deer hunting: Agreement/disagreement that… Most of my friends are in some way connected with deer hunting.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2067	4.0%	17.6%	25.0%	39.0%	14.4%	3.42
CWD zone	868	3.1%	18.4%	25.9%	39.5%	13.0%	3.41
300-series permit areas	1195	4.1%	17.5%	24.9%	39.0%	14.5%	3.42
							t = 0.291 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 2.586$ n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-8: Involvement in deer hunting: Agreement/disagreement that… When I am deer hunting, others see me the way I want them to see me.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2060	2.2%	5.6%	38.6%	36.3%	17.3%	3.61
CWD zone	858	2.7%	6.9%	38.3%	36.0%	16.1%	3.56
300-series permit areas	1192	2.2%	5.5%	38.7%	36.3%	17.4%	3.61
							t = 1.289 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 2.706$ n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

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Table 4-9: Involvement in deer hunting: Agreement/disagreement that… I identify with the people and image associated with deer hunting.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2054	2.8%	8.0%	35.2%	40.7%	13.4%	3.54
CWD zone	868	2.5%	9.4%	35.8%	39.3%	12.9%	3.51
300-series permit areas	1187	2.8%	7.8%	35.1%	40.8%	13.5%	3.54
							t = 0.916 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 2.115 n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-10: Involvement in deer hunting: Agreement/disagreement that… Deer hunting is one of the most satisfying things I do.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2061	3.1%	10.1%	29.6%	37.2%	20.0%	3.61
CWD zone	866	2.8%	11.8%	27.6%	35.8%	22.1%	3.63
300-series permit areas	1192	3.1%	10.0%	29.8%	37.3%	19.8%	3.61
							t = 0.405 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 4.075 n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-11: Involvement in deer hunting: Agreement/disagreement that… Participating in deer hunting says a lot about who I am.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2060	3.8%	12.9%	35.7%	33.8%	13.8%	3.41
CWD zone	860	3.8%	13.3%	34.8%	35.3%	12.8%	3.40
300-series permit areas	1192	3.8%	12.8%	35.8%	33.6%	13.9%	3.41
							t = 0.248 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 1.133 n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

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Table 4-12: Involvement in deer hunting: Agreement/disagreement that… Deer hunting is very important to me.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2063	1.4%	4.7%	21.2%	44.0%	28.7%	3.94
CWD zone	865	1.2%	5.2%	22.1%	44.4%	27.2%	3.91
300-series permit areas	1193	1.4%	4.6%	21.1%	44.0%	28.8%	3.94
							t = 0.750 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 1.364 n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-13: Involvement in deer hunting: Agreement/disagreement that… You can tell a lot about a person when you see them deer hunting.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2062	5.1%	14.9%	41.5%	29.7%	8.9%	3.22
CWD zone	867	5.1%	14.9%	39.0%	31.1%	9.9%	3.26
300-series permit areas	1192	5.1%	14.8%	41.7%	29.5%	8.8%	3.22
							t = 0.884 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 2.010 n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-14: Involvement in deer hunting: Agreement/disagreement that… When I am deer hunting I can really be myself.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2056	2.4%	5.1%	36.1%	37.7%	18.7%	3.65
CWD zone	860	1.7%	5.1%	34.4%	42.6%	16.2%	3.66
300-series permit areas	1189	2.4%	5.0%	36.2%	37.3%	18.9%	3.65
							t = 0.251 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 7.173 n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

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Table 4-15: Involvement in deer hunting: Agreement/disagreement that… I enjoy discussing deer hunting with my friends.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2056	0.3%	1.9%	13.5%	55.6%	28.7%	4.11
CWD zone	869	0.6%	1.4%	13.0%	56.0%	29.0%	4.12
300-series permit areas	1188	0.3%	1.9%	13.6%	55.6%	28.7%	4.11
							t = 0.308 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 2.404 n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-16: Involvement in deer hunting: Agreement/disagreement that… When I am deer hunting, I don't have to be concerned about what other people think of me.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2049	4.1%	10.1%	31.0%	35.7%	19.0%	3.55
CWD zone	866	5.5%	11.2%	28.5%	36.4%	18.4%	3.51
300-series permit areas	1184	4.0%	10.1%	31.3%	35.6%	19.1%	3.56
							t = 1.064 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 4.751 n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Table 4-17: Involvement in deer hunting: Agreement/disagreement that… I contribute to deer management through hunting.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2062	0.6%	1.0%	13.0%	50.6%	34.7%	4.18
CWD zone	870	0.6%	0.5%	13.4%	52.8%	32.8%	4.17
300-series permit areas	1192	0.6%	1.1%	13.0%	50.4%	34.9%	4.18
							t = 0.397 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 3.718 n.s.
[4] Mean based on the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree, 5 = strongly agree.

Section 5: Deer Populations and Management Strategies in Southeastern Minnesota

Management Strategies in Southeastern Minnesota

Respondents were asked to indicate their level of support for use of six management strategies outside of the CWD management zone, using the scale 1 = strongly oppose, 2 = oppose, 3 = undecided, 4 = support, and 5 = strongly support (Tables 5-1 to 5-7). Respondents reported the most support for allowing buck cross-tagging and combining the 3A and 3B deer seasons, and the strongest opposition to delaying the firearms deer season until December (Table 5-1). Support or opposition to the management strategies was similar between hunters in the CWD management zone and those from the 300-series permit areas, except for support/opposition to the 4-point to one side antler point restriction. Hunters from the CWD management zone were slightly opposed to this restriction, while hunters from the 300-series permit areas were slightly supportive (Table 5-2).

Preference for Deer Harvest

Study participants were asked two questions to get at their likelihood of harvesting more deer in future seasons. First, hunters were asked to indicate how many deer they would like to harvest during the next year's (2019) deer season (Table 5-8). There was no significant difference in the average number of deer preferred for harvest, with hunters from the CWD preferring 1.67 deer and hunters from the 300-series permit areas preferring 1.75 deer. Next, hunters were asked to indicate the likelihood of increasing their desired harvest by one deer in 2019, using the scale 1 = very unlikely to 7 = very likely. About half of the respondents from the CWD management zone indicated that they would be likely to increase their harvest, with 35% unlikely. About half of the respondents from outside the CWD management zone indicated that they would be likely to increase their harvest, with 31% unlikely. The mean for hunters in the CWD management zone was 4.20, with a mean of 4.31 for hunters outside the zone. There was no statistically significant difference in the pattern of response or means between the research strata.

Feelings about Reducing Deer Densities to Control the Spread of CWD

Study participants were asked to indicate their feelings about reducing deer densities to control the spread of CWD. Response was on 7-point scales anchored by the following terms: foolish/wise, worthless/valuable, and bad/good (Tables 5-10 to 5-13). About 46% of respondents from the CWD management zone felt that reducing deer densities was wise, with 40% feeling that it was foolish (Table 5-11). About 45% of respondents from outside the CWD management zone felt that reducing deer densities was wise, with 34% feeling that it was foolish. About 46% of respondents from the CWD management zone felt that reducing deer densities was valuable, with 42% feeling that it was worthless (Table 5-12). About 41% of respondents from outside the CWD management zone felt that reducing deer densities was valuable, with 34% feeling that it was worthless. About 42% of respondents from the CWD management zone felt that reducing deer densities was good, with 38% feeling that it was bad (Table 5-13). About 43% of respondents from outside the CWD management zone felt that reducing deer densities was good, with 32% feeling that it was bad.

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Table 5-1: Mean results: Support and opposition for regulations outside the CWD management zone.

Possible regulations	Southeast deer permit areas combined	CWD Zone Mean[1,2]	300-series Permit Areas Mean
Eliminate the 4-point to one side antler point restriction.	3.13	2.89	3.15
Allow buck cross-tagging.	3.24	3.16	3.25
Combine the 3A and 3B deer seasons. The 3A and 3B deer seasons would be combined into a single, 16-day season where both 3A and 3B hunters could participate.	2.99	3.10	2.98
Delay the firearms deer season one week. The season would open the Saturday closest to November 15th.	2.64	2.75	2.64
Delay the firearms deer season until late November. The season would open the Saturday closest to November 20th.	2.18	2.28	2.18
Delay the firearms deer season until December.	1.68	1.76	1.67

[1] Mean based on scale: 1=strongly oppose, 2=slightly oppose, 3=neither, 4=slightly support, 5=strongly support.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

Table 5-2: Possible regulations outside the CWD management zone: Support/opposition to… Eliminating the 4-point to one side antler point restriction.

Hunting region	N	Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support	Mean
Southeast deer permit areas combined	2058	29.4%	12.6%	9.0%	13.6%	35.5%	3.13
CWD zone	864	30.8%	17.0%	12.0%	13.0%	27.2%	2.89
300-series permit areas	1190	29.2%	12.2%	8.7%	13.6%	36.2%	3.15
							t = 3.614***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 26.702$*** V = 0.114
[4] Mean based on the following scale: 1=strongly oppose, 2=slightly oppose, 3=neither, 4=slightly support, 5=strongly support.

Table 5-3: Possible regulations outside the CWD management zone: Support/opposition to… Allowing buck cross-tagging.

Hunting region	N	Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support	Mean
Southeast deer permit areas combined	1993	17.7%	10.3%	25.7%	22.5%	23.8%	3.24
CWD zone	848	18.6%	12.5%	24.8%	22.1%	22.1%	3.16
300-series permit areas	1151	17.6%	10.1%	25.8%	22.5%	24.0%	3.25
							t = 1.384 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 3.882$ n.s.
[4] Mean based on the following scale: 1=strongly oppose, 2=slightly oppose, 3=neither, 4=slightly support, 5=strongly support.

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Table 5-4: Possible regulations outside the CWD management zone: Support/opposition to… Combining the 3A and 3B deer seasons. The 3A and 3B deer seasons would be combined into a single, 16-day season where both 3A and 3B hunters could participate.

Hunting region	N	Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support	Mean
Southeast deer permit areas combined	2059	29.3%	12.3%	15.2%	16.8%	26.4%	2.99
CWD zone	871	23.3%	14.9%	15.3%	21.2%	25.3%	3.10
300-series permit areas	1190	29.8%	12.1%	15.2%	16.4%	26.5%	2.98
							t = 1.832 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 17.638$** V = 0.093
[4] Mean based on the following scale: 1=strongly oppose, 2=slightly oppose, 3=neither, 4=slightly support, 5=strongly support.

Table 5-5: Possible regulations outside the CWD management zone: Support/opposition to… Delaying the firearms deer season one week. The season would open the Saturday closest to November 15th.

Hunting region	N	Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support	Mean
Southeast deer permit areas combined	2064	31.8%	18.5%	19.1%	14.7%	15.9%	2.64
CWD zone	870	28.2%	17.7%	21.3%	16.3%	16.6%	2.75
300-series permit areas	1193	32.1%	18.5%	18.9%	14.6%	15.8%	2.64
							t = 1.837 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 5.265$ n.s.
[4] Mean based on the following scale: 1=strongly oppose, 2=slightly oppose, 3=neither, 4=slightly support, 5=strongly support.

Table 5-6: Possible regulations outside the CWD management zone: Support/opposition to… Delaying the firearms deer season until late November. The season would open the Saturday closest to November 20th.

Hunting region	N	Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support	Mean
Southeast deer permit areas combined	2057	47.1%	17.6%	15.4%	9.5%	10.3%	2.18
CWD zone	869	42.3%	19.6%	17.0%	9.8%	11.3%	2.28
300-series permit areas	1189	47.5%	17.4%	15.3%	9.5%	10.3%	2.18
							t = 1.702 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 5.689$ n.s.
[4] Mean based on the following scale: 1=strongly oppose, 2=slightly oppose, 3=neither, 4=slightly support, 5=strongly support.

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Table 5-7: Possible regulations outside the CWD management zone: Support/opposition to… Delaying the firearms deer season until December.

Hunting region	N	Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support	Mean
Southeast deer permit areas combined	2060	68.3%	11.8%	9.3%	4.8%	5.8%	1.68
CWD zone	869	65.9%	12.0%	9.7%	5.4%	7.0%	1.76
300-series permit areas	1191	68.5%	11.8%	9.2%	4.7%	5.7%	1.67
							t = 1.542 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 2.479 n.s.
[4] Mean based on the following scale: 1=strongly oppose, 2=slightly oppose, 3=neither, 4=slightly support, 5=strongly support.

Table 5-8: Number of deer ideally harvested during next year's (2019) deer season.

Hunting region	Mean	Range
Southeast deer permit areas combined	1.74	0-10
CWD zone	1.67	0-10
300-series permit areas	1.75	0-10
	t = 1.838 n.s.	

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 5-9: Likelihood of increasing desired harvest by one deer in 2019.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2067	17.3%	8.2%	5.5%	18.0%	17.5%	14.2%	19.2%	4.30
CWD zone	863	18.7%	8.7%	7.6%	14.4%	17.8%	15.6%	17.1%	4.20
300-series permit areas	1196	17.1%	8.2%	5.4%	18.3%	17.5%	14.1%	19.4%	4.31
									t = 1.199 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] χ^2 = 11.849 n.s.
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

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Table 5-10: Mean results: Feelings about reducing deer densities to help control the spread of chronic wasting disease.

Possible regulations	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
Foolish-Wise	0.16	0.08	0.17
Worthless-Valuable	0.09	-0.08	0.10
Bad-Good	0.13	0.00	0.14

[1] Mean based on scale: -3=extremely, -2=moderately, -1=slightly, 0=neither, +1=slightly, +2=moderately, +3=extremely.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

Table 5-11: Feelings about reducing deer densities to help control the spread of chronic wasting disease: Foolish-wise

Hunting region	n	Extremely foolish	Moderately foolish	Slightly foolish	Neither	Slightly wise	Moderately wise	Extremely wise	Mean
Southeast deer permit areas combined	2032	17.0%	7.9%	9.0%	20.8%	13.0%	17.9%	14.4%	0.16
CWD zone	855	18.4%	10.9%	10.4%	14.2%	13.2%	16.7%	16.3%	0.08
300-series permit areas	1175	16.9%	7.7%	8.9%	21.4%	12.9%	18.0%	14.2%	0.17
									t = 0.933 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 23.385$** V = 0.107
[4] Mean based on the following scale: -3=extremely, -2=moderately, -1=slightly, 0=neither, +1=slightly, +2=moderately, +3=extremely.

Table 5-12: Feelings about reducing deer densities to help control the spread of chronic wasting disease: Worthless-valuable.

Hunting region	n	Extremely worthless	Moderately worthless	Slightly worthless	Neither	Slightly valuable	Moderately valuable	Extremely valuable	Mean
Southeast deer permit areas combined	2016	16.5%	9.1%	8.8%	23.1%	13.2%	15.3%	13.8%	0.09
CWD zone	846	19.5%	11.5%	11.0%	16.8%	13.2%	13.0%	15.0%	-0.08
300-series permit areas	1166	16.3%	8.9%	8.7%	23.7%	13.2%	15.5%	13.7%	0.10
									t = 1.979*

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[3] $\chi^2 = 22.720$** V = 0.106
[4] Mean based on the following scale: -3=extremely, -2=moderately, -1=slightly, 0=neither, +1=slightly, +2=moderately, +3=extremely.

Section 5: Deer Populations and Management Strategies in Southeastern Minnesota

Table 5-13: Feelings about reducing deer densities to help control the spread of chronic wasting disease: Bad-good.

Hunting region	n	Extremely bad	Moderately bad	Slightly bad	Neither	Slightly good	Moderately good	Extremely good	Mean
Southeast deer permit areas combined	2013	16.7%	8.1%	8.0%	24.4%	12.9%	16.0%	14.0%	0.13
CWD zone	846	18.9%	11.0%	7.6%	20.3%	13.0%	14.2%	15.0%	0.00
300-series permit areas	1164	16.5%	7.8%	8.0%	24.7%	12.9%	16.2%	13.9%	0.14
									t = 1.497 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

[3] $\chi^2 = 12959$* V = 0.080

[4] Mean based on the following scale: -3=extremely, -2=moderately, -1=slightly, 0=neither, +1=slightly, +2=moderately, +3=extremely.

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Section 6: Information about Chronic Wasting Disease (CWD)

Knowledge about Chronic Wasting Disease in Minnesota

Respondents were asked to indicate their knowledge about chronic wasting disease on the scale -3 = know nothing to +3 = know everything (Table 6-1). Respondents from the CWD management zone rated their knowledge significantly higher than those outside the zone. On average, respondents from the CWD management zone rated their knowledge 1.23 and respondents from the 300-series permit areas rated it 0.97.

Information Sources about Chronic Wasting Disease in Minnesota

Respondents were asked to indicate how much information they get about chronic wasting disease from different sources using the scale 1 = none to 7 = a lot (Tables 6-2 to 6-16). On average, respondents got the most information from the Minnesota DNR hunting regulations and Minnesota DNR news releases, and the least amount of information from the Minnesota Board of Animal Health (Table 6-2). Compared to hunters from the 300-series permit areas, hunters from the CWD management zone got significantly more information from: (a) family and friends (Table 6-3), (b) DNR hunting regulations (Table 6-4), (c) DNR news releases (Table 6-6), (d) DNR staff (Table 6-8), (e) the DNR web page (Table 6-10), (f) DNR public meetings (Table 6-12), and (g) the Minnesota DNR "Deer Notes" (Table 6-14).

Minnesota Department of Natural Resources Information about Chronic Wasting Disease

Respondents were asked to respond to 10 statements about information about chronic wasting disease provided by the Minnesota Department of Natural Resources using the scale 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree (Tables 6-17 to 6-27). On average, respondents were slightly in agreement with all of the statements. Respondents from the CWD management zone agreed slightly more that they trusted the Minnesota DNR to: (a) provide them with enough information to decide what actions to take regarding CWD, and (b) provide truthful information about the number of CWD-positive deer discovered in Minnesota.

Section 6: Information about Chronic Wasting Disease (CWD)

Table 6-1: Knowledge about chronic wasting disease.

Hunting region	n	Know nothing						Know everything	Mean
Southeast deer permit areas combined	1931	1.6%	2.5%	7.0%	15.1%	38.2%	29.0%	6.5%	4.99
CWD zone	818	0.2%	2.9%	3.3%	11.4%	37.3%	38.6%	6.2%	5.23
300-series permit areas	1116	1.7%	2.5%	7.3%	15.4%	38.3%	28.2%	6.5%	4.97
									t = 4.973***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 44.756$*** V = 0.152
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: -3=know nothing to +3=know everything.

Table 6-2: Mean results: Information sources about chronic wasting disease (CWD).

Information source	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
Family and friends	3.58	3.86	3.56
Minnesota DNR hunting regulations	4.52	4.85	4.49
Online social media	3.26	3.32	3.25
Minnesota DNR news releases	4.01	4.37	3.98
Online sportsmen's blogs and web sites	2.89	2.96	2.89
Minnesota DNR staff	2.59	3.13	2.55
Sportsmen's magazines and newspapers	3.57	3.55	3.57
Minnesota DNR web page	3.26	3.83	3.21
Local newspapers	3.34	3.47	3.33
Minnesota DNR public meetings	2.01	2.43	1.98
Statewide newspapers	2.69	2.69	2.69
Minnesota DNR "Deer Notes"	2.24	2.44	2.22
Local TV programs	2.87	2.77	2.87
Minnesota Board of Animal Health	1.76	1.80	1.75

[1] Mean based on scale: 1=none to 7=a lot.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

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Table 6-3: Information sources about chronic wasting disease (CWD): Family and friends.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2050	16.2%	16.3%	13.3%	22.9%	16.3%	8.6%	6.4%	3.58
CWD zone	856	10.7%	13.2%	15.5%	23.9%	19.9%	10.0%	6.7%	3.86
300-series permit areas	1186	16.6%	16.5%	13.2%	22.8%	16.0%	8.5%	6.4%	3.56
									t = 3.813***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 23.480$** V = 0.107
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

Table 6-4: Information sources about chronic wasting disease (CWD): Minnesota DNR hunting regulations.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2055	5.7%	6.6%	13.3%	21.1%	21.9%	20.1%	11.2%	4.52
CWD zone	863	3.0%	5.4%	9.2%	20.2%	24.6%	23.3%	14.4%	4.85
300-series permit areas	1188	6.0%	6.7%	13.6%	21.1%	21.7%	19.9%	10.9%	4.49
									t = 5.096***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 28.654$*** V = 0.118
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

Table 6-5: Information sources about chronic wasting disease (CWD): Online social media.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2045	29.5%	12.1%	12.5%	16.5%	13.8%	10.1%	5.6%	3.26
CWD zone	854	29.5%	11.7%	10.8%	16.0%	15.1%	10.5%	6.3%	3.32
300-series permit areas	1183	29.5%	12.1%	12.6%	16.6%	13.7%	10.1%	5.5%	3.25
									t = 0.845 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 2.921$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

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Table 6-6: Information sources about chronic wasting disease (CWD): Minnesota DNR news releases.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2029	14.6%	9.3%	13.2%	19.4%	19.4%	15.3%	8.7%	4.01
CWD zone	853	9.6%	8.3%	11.5%	19.0%	21.5%	17.8%	12.3%	4.37
300-series permit areas	1173	15.0%	9.4%	13.4%	19.4%	19.3%	15.1%	8.4%	3.98
									t = 4.801***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 24.128$*** V = 0.109
[3] n.s. = not significant, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$
[4] Mean based on the following scale: 1=none to 7=a lot.

Table 6-7: Information sources about chronic wasting disease (CWD): Online sportsmen's blogs and web sites.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2041	39.1%	13.0%	10.0%	13.6%	10.9%	8.3%	5.1%	2.89
CWD zone	848	37.1%	11.4%	12.1%	14.0%	12.1%	9.4%	3.7%	2.96
300-series permit areas	1181	39.3%	13.1%	9.8%	13.5%	10.8%	8.2%	5.2%	2.89
									t = 0.747 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 8.698$ n.s.
[3] n.s. = not significant, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$
[4] Mean based on the following scale: 1=none to 7=a lot.

Table 6-8: Information sources about chronic wasting disease (CWD): Minnesota DNR staff.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2046	43.0%	14.7%	11.2%	13.9%	8.4%	5.9%	2.9%	2.59
CWD zone	849	32.5%	14.7%	10.4%	13.9%	12.4%	10.2%	5.9%	3.13
300-series permit areas	1184	43.8%	14.7%	11.3%	13.9%	8.1%	5.6%	2.6%	2.55
									t = 6.853***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 53.329$*** V = 0.162
[3] n.s. = not significant, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$
[4] Mean based on the following scale: 1=none to 7=a lot.

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Table 6-9: Information sources about chronic wasting disease (CWD): Sportsmen's magazines and newspapers.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2040	24.6%	10.5%	12.1%	15.1%	18.6%	11.5%	7.5%	3.57
CWD zone	847	22.7%	12.0%	12.4%	16.8%	19.1%	10.5%	6.5%	3.55
300-series permit areas	1181	24.7%	10.4%	12.1%	15.0%	18.5%	11.6%	7.6%	3.57
									t = 0.268 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 4.570$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

Table 6-10: Information sources about chronic wasting disease (CWD): Minnesota DNR web page.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2037	30.9%	12.2%	10.9%	15.7%	12.7%	11.2%	6.4%	3.26
CWD zone	852	21.5%	9.4%	10.8%	16.9%	15.8%	15.8%	9.7%	3.83
300-series permit areas	1178	31.7%	12.5%	11.0%	15.6%	12.4%	10.8%	6.1%	3.21
									t = 6.825***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 46.067$*** V = 0.151
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

Table 6-11: Information sources about chronic wasting disease (CWD): Local newspapers.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2045	22.8%	15.0%	14.0%	19.0%	15.9%	9.2%	4.1%	3.34
CWD zone	857	17.9%	17.7%	13.1%	20.1%	17.4%	9.6%	4.3%	3.47
300-series permit areas	1183	23.2%	14.8%	14.0%	18.9%	15.7%	9.2%	4.1%	3.33
									t = 1.794 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 11.28$ V = 0.074
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

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Table 6-12: Information sources about chronic wasting disease (CWD): Minnesota DNR public meetings.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2038	61.4%	11.7%	7.5%	8.9%	5.7%	3.2%	1.5%	2.01
CWD zone	852	51.6%	11.7%	9.2%	10.6%	7.2%	6.0%	3.8%	2.43
300-series permit areas	1179	62.3%	11.7%	7.4%	8.7%	5.6%	3.0%	1.4%	1.98
									t = 5.788***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 37.900$*** V = 0.137
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

Table 6-13: Information sources about chronic wasting disease (CWD): Statewide newspapers.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2040	39.5%	14.6%	12.5%	15.1%	10.0%	6.1%	2.3%	2.69
CWD zone	852	39.0%	14.8%	12.7%	15.3%	10.7%	5.6%	2.0%	2.69
300-series permit areas	1180	39.6%	14.6%	12.5%	15.1%	9.9%	6.1%	2.3%	2.69
									t = 0.017 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 0.753$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

Table 6-14: Information sources about chronic wasting disease (CWD): Minnesota DNR "Deer Notes."

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2019	54.3%	12.5%	8.9%	12.1%	6.1%	4.1%	2.0%	2.24
CWD zone	844	48.2%	13.2%	9.5%	14.9%	6.3%	5.5%	2.5%	2.44
300-series permit areas	1168	54.8%	12.5%	8.8%	11.8%	6.1%	4.0%	2.0%	2.22
									t = 2.898**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 10.876$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

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Table 6-15: Information sources about chronic wasting disease (CWD): Local TV programs.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2046	32.0%	16.8%	14.6%	16.5%	12.2%	5.0%	2.9%	2.87
CWD zone	853	32.2%	18.9%	15.6%	15.8%	10.0%	5.0%	2.5%	2.77
300-series permit areas	1184	32.0%	16.6%	14.5%	16.6%	12.3%	5.0%	3.0%	2.87
									t = 1.293 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 4.847$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

Table 6-16: Information sources about chronic wasting disease (CWD): Minnesota Board of Animal Health.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2045	67.7%	12.6%	6.3%	7.2%	3.0%	2.0%	1.2%	1.76
CWD zone	855	66.2%	12.9%	6.4%	8.3%	3.0%	2.0%	1.2%	1.80
300-series permit areas	1183	67.9%	12.6%	6.3%	7.1%	3.0%	2.0%	1.2%	1.75
									t = 0.696 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 1.223$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=none to 7=a lot.

Section 6: Information about Chronic Wasting Disease (CWD)

Table 6-17: Mean results: Trust in Minnesota DNR related to chronic wasting disease (CWD).

I trust the Minnesota DNR to…	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
…provide me with <u>enough</u> information to decide what actions I should take regarding CWD.	3.46	3.57	3.45
…provide the <u>best available</u> information on CWD in Minnesota.	3.54	3.60	3.54
…provide <u>timely</u> information regarding CWD issues.	3.53	3.58	3.52
…provide truthful information about <u>human safety</u> issues related to CWD.	3.59	3.65	3.58
…provide truthful information about <u>deer population</u> estimates.	3.32	3.33	3.32
…provide truthful information about <u>how CWD spreads</u>.	3.56	3.62	3.56
…provide truthful information about the <u>number of CWD-positive deer</u> discovered in Minnesota.	3.74	3.91	3.73
…make <u>good deer management decisions</u> regarding CWD issues.	3.18	3.20	3.18
…follow the <u>best available science</u> in managing CWD.	3.37	3.36	3.37
…<u>properly address</u> CWD in Minnesota.	3.30	3.25	3.30

[1] Mean based on scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

Table 6-18: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… provide me with enough information to decide what actions I should take regarding CWD.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2057	5.8%	9.8%	28.6%	44.4%	11.4%	3.46
CWD zone	869	4.7%	10.1%	25.0%	43.4%	16.8%	3.57
300-series permit areas	1189	5.9%	9.8%	28.9%	44.5%	10.9%	3.45
							t = 2.771**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 17.259** V = 0.092
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

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Table 6-19: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… provide the <u>best available</u> information on CWD in Minnesota.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2048	5.1%	10.7%	25.2%	42.7%	16.2%	3.54
CWD zone	870	5.9%	10.5%	21.6%	42.1%	20.0%	3.60
300-series permit areas	1183	5.1%	10.7%	25.5%	42.8%	15.9%	3.54
							t = 1.304 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 8.698 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 6-20: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… provide <u>timely</u> information regarding CWD issues.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2025	5.1%	10.0%	27.3%	42.4%	15.3%	3.53
CWD zone	866	5.3%	10.9%	21.8%	45.0%	17.0%	3.58
300-series permit areas	1169	5.0%	9.9%	27.7%	42.2%	15.1%	3.52
							t = 1.086 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 9.325 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 6-21: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… provide truthful information about <u>human safety</u> issues related to CWD.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2041	6.2%	8.9%	25.0%	39.8%	20.1%	3.59
CWD zone	869	5.3%	8.3%	25.1%	38.7%	22.7%	3.65
300-series permit areas	1179	6.3%	9.0%	25.0%	39.9%	19.8%	3.58
							t = 1.463 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 3.189 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

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Table 6-22: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… provide truthful information about <u>deer population</u> estimates.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2044	9.5%	15.8%	24.9%	32.5%	17.2%	3.32
CWD zone	869	10.5%	15.0%	23.4%	33.9%	17.3%	3.33
300-series permit areas	1181	9.4%	15.9%	25.1%	32.4%	17.2%	3.32
							t = 0.088 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 1.828 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 6-23: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… provide truthful information about <u>how CWD spreads</u>.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2037	6.4%	9.7%	24.5%	40.1%	19.3%	3.56
CWD zone	861	6.0%	10.2%	20.3%	42.4%	21.0%	3.62
300-series permit areas	1177	6.5%	9.7%	24.8%	39.9%	19.1%	3.56
							t = 1.329 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 3.189 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 6-24: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… provide truthful information about the <u>number of CWD-positive deer</u> discovered in Minnesota.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2048	5.8%	6.4%	20.6%	42.0%	25.2%	3.74
CWD zone	869	4.5%	5.6%	15.9%	42.6%	31.4%	3.91
300-series permit areas	1181	9.4%	15.9%	25.1%	32.4%	17.2%	3.73
							t = 3.741***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 1.828 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Section 6: Information about Chronic Wasting Disease (CWD)

Table 6-25: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… make <u>good deer management decisions</u> regarding CWD issues.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2043	12.5%	15.8%	27.6%	29.1%	15.1%	3.18
CWD zone	870	14.6%	14.3%	26.1%	26.9%	18.2%	3.20
300-series permit areas	1180	12.3%	15.9%	27.7%	29.2%	14.8%	3.18
							t = 0.244 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 7.818 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 6-26: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… follow the <u>best available science</u> in managing CWD.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2047	8.5%	11.2%	32.2%	31.0%	17.1%	3.37
CWD zone	868	10.6%	11.3%	27.3%	32.7%	18.1%	3.36
300-series permit areas	1183	8.3%	11.2%	32.6%	30.9%	17.0%	3.37
							t = 0.118 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 8.466 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 6-27: Trust in Minnesota DNR related to chronic wasting disease: I trust the Minnesota DNR to… <u>properly address</u> CWD in Minnesota.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2042	10.3%	13.0%	29.5%	30.8%	16.3%	3.30
CWD zone	866	12.4%	12.9%	28.2%	30.7%	15.8%	3.25
300-series permit areas	1180	10.1%	13.1%	29.7%	30.8%	16.4%	3.30
							t = 1.045 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 2.809 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Section 7: Feelings and Concerns about Chronic Wasting Disease (CWD)

Feelings about Chronic Wasting Disease

Respondents were asked to report on three potential feelings (worry, uncertainty, and anger) about chronic wasting disease using the scale: 1 = none to 7 = a lot.

Results for these feelings are presented in Tables 7-1 to 7-4. On average, respondents felt higher levels of uncertainty, then worry, then anger (Table 7-1). The hunters from the CWD management zone rated each of the feelings higher than hunters from the 300-series permit areas did (7-2 to 7-4).

Expected Response to Chronic Wasting Disease

Respondents were asked how they would respond if CWD was found (a) "on the property you hunt," (b) in the deer permit area you hunt," and (c) "to affect human health" (Tables 7-5 to 7-7). Responses for each included: (a) "hunt deer as usual and eat deer meat," (b) "hunt deer as usual, but not eat deer meat," (c) "hunt deer as usual, but only eat deer meat after a negative CWD test," (d) "hunt deer in a different area, in Minnesota," (e) "hunt deer in a different area, outside of Minnesota," and (f) "not hunt deer at all." In each situation, a large majority of respondents selected "hunt deer as usual, but only eat deer meat after a negative CWD test. The next most commonly selected option was to "hunt deer as usual and eat deer meat." For the scenarios when CWD was found "on the property you hunt" or "in the deer permit area you hunt," nearly 70% of respondents from the CWD management zone and nearly 60% of respondents from the 300-series permit areas indicated they would eat deer meat after a negative CWD test (Table 7-5 and 7-6). In these scenarios, 20-25% of respondents from the CWD management zone and 28-32% of respondents from the 300-series permit areas indicated they would hunt deer as usual and eat deer meat (Tables 7-5 and 7-6). For the scenario when CWD was found "to affect human health," nearly 60% of respondents from both the CWD management zone and the 300-series permit areas indicated they would eat deer meat after a negative CWD test, 17-19% would hunt deer as usual but not eat deer meat, and 13-16% would not hunt deer at all (Table 7-7).

Concerns about Outcomes Related to Chronic Wasting Disease

Respondents were asked to indicate their level of concern over 16 possible outcomes of chronic wasting disease using the scale 1 = not at all concerned to 7 = extremely concerned (Tables 7-8 to 7-24). Respondents were most concerned that CWD will: (a) "spread because of deer and elk farms" (Table 7-19), and (b) "threaten the future of deer hunting for your children and grandchildren" (Table 7-14). About 30% of respondents were "extremely concerned" about these possible outcomes. Respondents were least concerned that CWD will: (a) "spread to livestock" (Table 7-16), (b) "cause your family to stop eating deer meat" (Table 7-20), and (c) "cause disease in you personally" (Table 7-24). About 20% of respondents were "not at all concerned" about these possible outcomes.

Intention to Take Personal Actions to Control Chronic Wasting Disease

Respondents were asked to indicate their likelihood of taking 11 actions to help control the spread of chronic wasting disease using the scale 1 = very unlikely to 7 = very likely (Tables 7-25 to 7-36). Respondents from both research strata were most likely to "Let the Minnesota DNR test every deer you shoot for CWD" (Table 7-26), and least likely to "Change your personal goals determining what you

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harvest when it relates to antler size in bucks" (Table 7-35). Compared to hunters from the 300-series permit areas, respondents from the CWD management zone were significantly more likely to take 9 of the 11 listed actions to help control the spread of CWD. There was no significant difference between the research strata in the likelihood of increasing the number of deer that you personally harvest (Table 7-34) or in changing personal goals related to antler size in bucks (Table 7-35).

Section 7: Feelings and Concerns about Chronic Wasting Disease (CWD)

Table 7-1: Mean results: Feelings about chronic wasting disease (CWD).

Information source	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
Worry	3.91	4.07	3.90
Uncertainty	4.08	4.34	4.06
Anger	3.23	3.44	3.21

[1] Mean based on scale: 1=none to 7=a lot.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

Table 7-2: Feelings about chronic wasting disease (CWD): Worry.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2045	16.7%	13.0%	9.4%	17.9%	19.5%	13.3%	10.2%	3.91
CWD zone	861	13.5%	13.5%	10.2%	17.5%	17.5%	15.9%	11.8%	4.07
300-series permit areas	1182	17.0%	12.9%	9.3%	17.9%	19.6%	13.1%	10.1%	3.90
									t = 2.014*

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 9.933 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on scale: 1=none to 7=a lot.

Table 7-3: Feelings about chronic wasting disease (CWD): Uncertainty.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2029	13.0%	11.0%	10.2%	22.3%	17.5%	15.8%	10.2%	4.08
CWD zone	862	10.8%	9.2%	8.7%	20.8%	20.0%	18.4%	12.2%	4.34
300-series permit areas	1172	13.2%	11.2%	10.3%	22.4%	17.3%	15.5%	10.0%	4.06
									t = 3.388**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 12.953* V = 0.080
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on scale: 1=none to 7=a lot.

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Table 7-4: Feelings about chronic wasting disease (CWD): Anger.

Hunting region	n	None						A lot	Mean
Southeast deer permit areas combined	2030	28.7%	15.9%	10.9%	17.5%	10.8%	7.5%	8.6%	3.23
CWD zone	859	24.9%	15.8%	11.2%	16.4%	11.6%	9.9%	10.1%	3.44
300-series permit areas	1173	29.1%	15.9%	10.8%	17.6%	10.7%	7.3%	8.5%	3.21
									t =2.583*

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 9.198 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on scale: 1=none to 7=a lot.

Table 7-5: What would you do if chronic wasting disease (CWD) was found on the property you hunt?

Hunting region	n	Hunt deer as usual and eat deer meat	Hunt deer as usual, but not eat deer meat	Hunt deer as usual, but only eat deer meat after a negative CWD test	Hunt deer in a different area, in Minnesota	Hunt deer in a different area, outside of Minnesota	Not hunt deer at all
Southeast deer permit areas combined	1997	27.6%	5.4%	59.9%	2.9%	0.7%	3.5%
CWD zone	846	22.9%	5.1%	69.4%	1.3%	0.0%	1.3%
300-series permit areas	1154	28.0%	5.5%	59.1%	3.0%	0.8%	3.6%

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 36.152*** V = 0.134
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 7-6: What would you do if chronic wasting disease (CWD) was found in the deer permit area you hunt?

Hunting region	n	Hunt deer as usual and eat deer meat	Hunt deer as usual, but not eat deer meat	Hunt deer as usual, but only eat deer meat after a negative CWD test	Hunt deer in a different area, in Minnesota	Hunt deer in a different area, outside of Minnesota	Not hunt deer at all
Southeast deer permit areas combined	2020	31.6%	4.5%	58.5%	2.1%	0.7%	2.5%
CWD zone	856	24.4%	4.2%	69.3%	1.2%	0.0%	0.9%
300-series permit areas	1167	32.2%	4.5%	57.6%	2.2%	0.8%	2.7%

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 38.632*** V = 0.138
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

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Table 7-7: What would you do if chronic wasting disease (CWD) was found to affect human health?

Hunting region	n	Hunt deer as usual and eat deer meat	Hunt deer as usual, but not eat deer meat	Hunt deer as usual, but only eat deer meat after a negative CWD test	Hunt deer in a different area, in Minnesota	Hunt deer in a different area, outside of Minnesota	Not hunt deer at all
Southeast deer permit areas combined	2019	4.2%	17.7%	57.6%	2.9%	1.8%	15.8%
CWD zone	845	1.7%	18.9%	60.1%	4.4%	1.8%	13.1%
300-series permit areas	1168	4.5%	17.6%	57.4%	2.8%	1.8%	16.0%

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 18.977$** V = 0.097
[3] n.s. = not significant, *p < 0.05, **p < 0.01, ***p < 0.001

Table 7-8: Mean results: Concerns about outcomes related to chronic wasting disease (CWD).

How concerned are you that CWD will…	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
…spread throughout the deer population where you hunt.	4.43	4.66	4.41
…dramatically reduce the deer population where you hunt.	4.33	4.65	4.31
…affect the health of the deer population where you hunt.	4.55	4.78	4.53
…have the potential to kill the entire deer population where you hunt.	3.94	4.06	3.93
…threaten your deer hunting opportunity.	4.53	4.70	4.52
…threaten the future of deer hunting for your children and grandchildren.	4.76	4.86	4.76
…affect the future existence of deer on the Minnesota landscape.	4.35	4.38	4.35
…spread to livestock.	3.90	3.77	3.92
…have economic impacts on businesses that depend on deer hunting.	4.12	4.08	4.12
…lead to declining land values.	3.12	3.10	3.13
…spread because of deer and elk farms.	4.78	5.06	4.76
…cause your family to stop eating deer meat.	3.87	3.80	3.88
…cause you to have concerns about eating deer meat.	4.20	4.17	4.20
…threaten your personal health or the health of my family.	4.14	4.06	4.15
…cause disease in humans.	4.11	4.08	4.11
…cause disease in you personally.	3.94	3.86	3.95

[1] Mean based on scale: 1=not at all concerned to 7=extremely concerned.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

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Table 7-9: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… spread throughout the deer population <u>where you hunt</u>.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2052	9.2%	11.4%	11.1%	16.3%	17.9%	15.3%	18.7%	4.43
CWD zone	868	7.8%	10.7%	9.6%	13.7%	18.4%	16.8%	22.9%	4.66
300-series permit areas	1186	9.4%	11.5%	11.2%	16.5%	17.9%	15.2%	18.4%	4.41
									t = 2.935**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 11.524 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-10: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… dramatically reduce the deer population <u>where you hunt</u>.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2052	11.1%	11.3%	12.3%	16.0%	15.5%	15.8%	18.1%	4.33
CWD zone	873	8.9%	9.6%	11.5%	13.2%	14.3%	19.5%	23.0%	4.65
300-series permit areas	1185	11.3%	11.4%	12.3%	16.2%	15.6%	15.5%	17.6%	4.31
									t = 3.905***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 20.067** V = 0.099
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-11: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… affect the health of the deer population <u>where you hunt</u>.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2040	8.3%	10.6%	10.9%	14.9%	18.3%	18.1%	19.0%	4.55
CWD zone	868	7.0%	9.2%	9.0%	14.9%	16.6%	20.0%	23.3%	4.78
300-series permit areas	1178	8.4%	10.7%	11.0%	14.9%	18.4%	17.9%	18.7%	4.53
									t = 2.997**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 11.640 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Section 7: Feelings and Concerns about Chronic Wasting Disease (CWD)

Table 7-12: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… have the potential to kill the entire deer population <u>where you hunt</u>.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2046	19.5%	13.8%	11.7%	13.7%	10.4%	11.2%	19.6%	3.94
CWD zone	870	20.6%	12.5%	11.6%	8.6%	11.7%	12.5%	22.4%	4.06
300-series permit areas	1182	19.5%	13.9%	11.8%	14.1%	10.3%	11.1%	19.4%	3.93
									t = 1.300 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 17.937$** V = 0.093
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-13: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… threaten your deer hunting opportunity.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2048	11.3%	9.7%	10.2%	14.2%	15.6%	16.0%	23.0%	4.53
CWD zone	871	10.1%	8.8%	9.8%	13.7%	13.3%	18.0%	26.3%	4.70
300-series permit areas	1183	11.4%	9.7%	10.2%	14.3%	15.8%	15.8%	22.7%	4.52
									t = 2.078*

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 7.649$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-14: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… threaten the future of deer hunting for your children and grandchildren.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2046	10.9%	8.2%	8.7%	12.2%	13.5%	18.6%	27.9%	4.76
CWD zone	871	10.2%	9.3%	8.4%	10.2%	11.8%	18.0%	32.0%	4.86
300-series permit areas	1182	11.0%	8.1%	8.7%	12.4%	13.6%	18.6%	27.6%	4.76
									t = 1.161 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 7.876$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

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Table 7-15: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… affect the future existence of deer on the Minnesota landscape.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2046	13.2%	13.0%	9.6%	12.8%	15.2%	14.0%	22.3%	4.35
CWD zone	871	14.1%	11.7%	9.6%	12.9%	12.6%	16.5%	22.5%	4.38
300-series permit areas	1182	13.1%	13.1%	9.6%	12.8%	15.4%	13.8%	22.3%	4.35
									t = 0.337 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 6.410 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-16: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… spread to livestock.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2026	18.1%	15.3%	11.3%	15.0%	11.3%	11.9%	17.1%	3.90
CWD zone	865	20.3%	16.4%	9.9%	14.9%	11.2%	11.4%	15.7%	3.77
300-series permit areas	1170	17.9%	15.2%	11.5%	15.0%	11.3%	12.0%	17.3%	3.92
									t = 1.481 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 3.959 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-17: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… have economic impacts on businesses that depend on deer hunting.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2041	12.6%	12.5%	11.0%	20.0%	15.6%	14.8%	13.5%	4.12
CWD zone	865	14.1%	11.3%	12.9%	16.3%	17.3%	15.4%	12.6%	4.08
300-series permit areas	1179	12.5%	12.6%	10.9%	20.4%	15.4%	14.8%	13.6%	4.12
									t = 0.500 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 9.493 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

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Table 7-18: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… lead to declining land values.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2040	30.8%	15.9%	12.6%	16.0%	8.6%	7.6%	8.5%	3.12
CWD zone	861	31.2%	18.8%	10.9%	14.2%	7.1%	8.4%	9.4%	3.10
300-series permit areas		30.8%	15.7%	12.7%	16.1%	8.7%	7.5%	8.4%	3.13
									t = 0.312 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 8.157 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-19: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… spread because of deer and elk farms.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2029	10.4%	9.9%	8.0%	13.0%	11.5%	15.2%	31.9%	4.78
CWD zone	863	9.5%	7.2%	6.1%	11.7%	11.6%	17.8%	36.0%	5.06
300-series permit areas	1172	10.5%	10.2%	8.2%	13.1%	11.5%	14.9%	31.6%	4.76
									t = 3.269**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 14.659* V = 0.085
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-20: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… cause your family to stop eating deer meat.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2044	17.8%	14.9%	10.5%	17.2%	12.7%	12.3%	14.6%	3.87
CWD zone	865	19.4%	13.5%	11.9%	17.5%	11.4%	13.1%	13.2%	3.80
300-series permit areas	1181	17.7%	15.0%	10.4%	17.2%	12.8%	12.2%	14.7%	3.88
									t = 0.872 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 4.469 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

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Table 7-21: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… cause you to have concerns about eating deer meat.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2050	14.5%	12.3%	9.8%	15.5%	14.6%	16.6%	16.7%	4.20
CWD zone	871	14.7%	12.4%	8.7%	17.8%	14.6%	15.7%	16.1%	4.17
300-series permit areas	1184	14.5%	12.2%	9.9%	15.3%	14.6%	16.7%	16.7%	4.20
									t = 0.399 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 3.098 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-22: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… threaten your personal health or the health of my family.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2048	16.8%	13.8%	9.2%	13.7%	13.0%	12.1%	21.5%	4.14
CWD zone	869	16.8%	16.2%	9.0%	13.6%	11.3%	12.7%	20.5%	4.06
300-series permit areas	1183	16.8%	13.6%	9.2%	13.7%	13.1%	12.0%	21.6%	4.15
									t = 0.895 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 4.167 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-23: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… cause disease in humans.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2046	17.5%	15.7%	7.7%	13.3%	11.7%	11.2%	22.9%	4.11
CWD zone	870	17.9%	16.0%	9.2%	11.6%	10.2%	12.1%	23.0%	4.08
300-series permit areas	1182	17.5%	15.7%	7.5%	13.5%	11.8%	11.2%	22.8%	4.11
									t = 0.297 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 4.642 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

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Table 7-24: Concerns about outcomes related to chronic wasting disease (CWD): How concerned are you that CWD will… cause disease in you personally.

Hunting region	n	Not at all concerned						Extremely concerned	Mean
Southeast deer permit areas combined	2053	21.5%	15.4%	8.4%	12.0%	9.8%	11.0%	22.0%	3.94
CWD zone	870	22.3%	16.4%	8.5%	11.1%	9.2%	12.0%	20.5%	3.86
300-series permit areas	1186	21.4%	15.3%	8.4%	12.1%	9.9%	10.9%	22.1%	3.95
									t = 0.837 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 2.350 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all concerned to 7=extremely concerned.

Table 7-25: Mean results: Likelihood of taking actions to help control the spread of chronic wasting disease (CWD).

Action	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
Let the Minnesota DNR test every deer you shoot for CWD.	5.47	6.29	5.40
Butcher and process your own deer.	5.36	5.62	5.34
Quarter your own deer near your harvest location before transporting to other areas of the state.	4.28	5.04	4.21
Stop transporting whole deer carcasses even if there is no carcass ban in your area.	3.88	4.40	3.84
Stop recreationally feeding deer.	5.18	5.55	5.15
Stop using mineral or salt blocks.	4.92	5.29	4.89
Stop using urine-based scents.	4.49	4.81	4.47
Stop using other lures, scents, or attractants.	4.40	4.67	4.37
Increase the number of deer that you personally harvest.	4.33	4.19	4.35
Change your personal goals determining what you harvest when it relates to antler size in bucks.	3.89	3.91	3.89
Dispose of whole deer carcass in a lined landfill or keep in immediate area of harvest to prevent CWD spread, even if there are no current regulations preventing such.	4.33	4.84	4.29

[1] Mean based on scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

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Table 7-26: Likelihood of taking actions to help control chronic wasting disease (CWD): Let the Minnesota DNR test every deer you shoot for CWD.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2033	6.6%	3.6%	3.5%	13.4%	11.2%	18.4%	43.3%	5.47
CWD zone	869	3.0%	2.1%	0.8%	5.1%	5.6%	12.8%	70.7%	6.29
300-series permit areas	1174	6.9%	3.7%	3.7%	14.1%	11.7%	18.8%	41.0%	5.40
									t = 12.290***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 189.825*** V = 0.305
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

Table 7-27: Likelihood of taking actions to help control chronic wasting disease (CWD): Butcher and process your own deer.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2030	9.2%	4.9%	4.4%	12.5%	7.7%	13.3%	48.0%	5.36
CWD zone	868	8.6%	4.0%	2.9%	9.6%	5.0%	16.0%	53.9%	5.62
300-series permit areas	1172	9.3%	4.9%	4.5%	12.7%	7.9%	13.1%	47.5%	5.34
									t = 3.075**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 22.783** V = 0.106
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

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Table 7-28: Likelihood of taking actions to help control chronic wasting disease (CWD): Quarter your own deer near your harvest location before transporting to other areas of the state.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2034	22.1%	7.2%	5.7%	18.8%	7.1%	10.6%	28.6%	4.28
CWD zone	865	15.7%	6.0%	3.2%	11.1%	7.2%	11.4%	45.3%	5.04
300-series permit areas	1175	22.6%	7.3%	5.9%	19.4%	7.1%	10.6%	27.1%	4.21
									t = 8.018***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 89.830*** V = 0.210
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

Table 7-29: Likelihood of taking actions to help control chronic wasting disease (CWD): Stop transporting whole deer carcasses even if there is no carcass ban in your area.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2034	21.3%	10.4%	6.7%	27.3%	6.9%	10.1%	17.4%	3.88
CWD zone	856	18.1%	6.8%	5.5%	22.3%	9.0%	10.5%	27.8%	4.40
300-series permit areas	1176	21.5%	10.7%	6.8%	27.7%	6.7%	10.0%	16.5%	3.84
									t = 5.855***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 51.660*** V = 0.159
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

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Table 7-30: Likelihood of taking actions to help control chronic wasting disease (CWD): Stop recreationally feeding deer.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2021	8.4%	3.5%	2.4%	27.8%	5.5%	9.4%	42.9%	5.18
CWD zone	847	6.1%	3.4%	1.7%	22.1%	4.3%	9.3%	53.1%	5.55
300-series permit areas	1169	8.6%	3.5%	2.5%	28.3%	5.6%	9.4%	42.0%	5.15
									t = 4.685***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 27.992*** V = 0.118
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

Table 7-31: Likelihood of taking actions to help control chronic wasting disease (CWD): Stop using mineral or salt blocks.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2025	9.9%	5.3%	3.6%	29.0%	5.7%	9.6%	36.9%	4.92
CWD zone	850	7.8%	4.4%	3.2%	24.1%	4.7%	8.4%	47.5%	5.29
300-series permit areas	1171	10.1%	5.4%	3.6%	29.4%	5.8%	9.7%	36.0%	4.89
									t = 4.441***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 27.258*** V = 0.116
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

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Table 7-32: Likelihood of taking actions to help control chronic wasting disease (CWD): Stop using urine-based scents.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2020	14.7%	5.8%	6.3%	29.4%	5.9%	8.5%	29.4%	4.49
CWD zone	849	11.4%	6.6%	5.3%	26.1%	4.8%	8.1%	37.6%	4.81
300-series permit areas	1168	15.0%	5.7%	6.3%	29.6%	6.0%	8.6%	28.8%	4.47
									t = 3.621***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 21.274** V = 0.103
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

Table 7-33: Likelihood of taking actions to help control chronic wasting disease (CWD): Stop using other lures, scents, or attractants.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2023	14.8%	6.6%	6.5%	31.2%	5.6%	8.0%	27.4%	4.40
CWD zone	856	11.9%	8.2%	6.1%	26.3%	4.6%	8.8%	34.2%	4.67
300-series permit areas	1169	15.1%	6.4%	6.5%	31.6%	5.7%	8.0%	26.8%	4.37
									t = 3.077**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 21.396** V = 0.103
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

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Table 7-34: Likelihood of taking actions to help control chronic wasting disease (CWD): Increase the number of deer that you personally harvest.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2040	13.8%	6.6%	5.9%	26.5%	17.3%	12.7%	17.1%	4.33
CWD zone	863	14.8%	9.0%	8.0%	22.4%	17.8%	12.2%	15.8%	4.19
300-series permit areas	1179	13.7%	6.4%	5.7%	26.9%	17.3%	12.7%	17.2%	4.35
									t = 1.816 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 13.786* V = 0.082
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

Table 7-35: Likelihood of taking actions to help control chronic wasting disease (CWD): Change your personal goals determining what you harvest when it relates to antler size in bucks.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2038	21.8%	7.4%	5.2%	29.8%	10.5%	11.9%	13.5%	3.89
CWD zone	861	21.3%	9.1%	6.6%	25.2%	10.8%	12.9%	14.2%	3.91
300-series permit areas	1178	21.8%	7.2%	5.1%	30.1%	10.5%	11.8%	13.4%	3.89
									t = 0.132 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 9.250 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

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Table 7-36: Likelihood of taking actions to help control chronic wasting disease (CWD): Dispose of whole deer carcass in a lined landfill or keep in immediate area of harvest to prevent CWD spread, even if there are no current regulations preventing such.

Hunting region	n	Very unlikely	Somewhat unlikely	Slightly unlikely	Undecided	Slightly likely	Somewhat likely	Very likely	Mean
Southeast deer permit areas combined	2035	15.1%	8.0%	5.5%	27.7%	9.4%	12.1%	22.2%	4.33
CWD zone	862	11.3%	6.5%	4.8%	21.9%	9.5%	12.3%	33.8%	4.84
300-series permit areas	1176	15.4%	8.2%	5.6%	28.1%	9.4%	12.1%	21.2%	4.29
									t = 5.970***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

[2] χ^2 = 46.091*** V = 0.150

[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

[4] Mean based on the following scale: 1 = very unlikely; 2 = somewhat unlikely; 3 = slightly unlikely, 4 = undecided; 5 = slightly likely; 6 = somewhat likely; 7 = very likely.

Section 8: Management and Special Regulations to Address Chronic Wasting Disease (CWD)

Existing Regulations Related to Chronic Wasting Disease

Respondents were asked to indicate if the Minnesota DNR's management of chronic wasting disease was (a) too aggressive, (b) about right, or (c) not aggressive enough (Table 8-1). Just over half of respondents from within the CWD management zone and the 300-series permit areas indicate that current management was about right, with about 30% indicating that it was too aggressive, and about 15% indicating that it was not aggressive enough.

Respondents were asked to rate their agreement with 10 statements about goals for CWD regulations using the scale 1 (strongly disagree) to 5 (strongly agree) (Tables 8-2 to 8-12). Respondents agreed most strongly that CWD regulations should (a) "be designed to limit disease spread" (Table 8-6), and (b) "not impact hunter participation" (Table 8-10). Respondents disagreed most strongly that CWD regulations should (a) "provide a financial incentive for harvest" (Table 8-11), (b) "be passive and let nature take its course" (Table 8-7), and (c) "be no different than deer hunting regulations in surrounding areas" (Table 8-5). Compared to hunters from the 300-series permit areas, hunters from the CWD management zone agreed more that CWD regulations should (a) "be designed to reduce deer densities" (Table 8-3), and (b) "take precedent over all other deer hunting regulations" (Table 8-4). Hunters from the CWD management zone, however, disagreed more strongly that CWD regulations "should provide a financial incentive for harvest" (Table 8-11).

Respondents were asked to rate their support/opposition and the effectiveness of six existing regulations in the chronic wasting disease management zone (Tables 8-13 to 8-26). Support or opposition to existing regulations were rated on the scale 1 = strongly oppose to 5 = strongly support (Tables 8-13 to 8-19). Respondents in both research strata were most supportive of mandatory CWD testing (Table 8-14) and least supportive of unlimited harvest of antlerless deer, with only one buck allowed per hunter per year (Table 8-15). On average, respondents were generally supportive of all existing regulations, but they were neutral about unlimited harvest of antlerless deer. Compared to respondents from the 300-series permit areas, respondents from the CWD management zone were significantly more supportive of (a) mandatory CWD testing (Table 8-14), (b) requirement that carcasses remain within the disease management zone until a CWD not detected result is confirmed (Table 8-17), (c) allowing the use of A or B license during any firearms season (Table 8-18), and (d) unlimited number of $2.50 disease management tags for harvest of antlerless deer (Table 8-19).

The effectiveness of existing regulations was rated on the scale 1 = not at all effective to 5 = extremely effective (Tables 8-20 to 8-26). Respondents in both research strata indicated the highest effectiveness for the requirement that carcasses remain within the disease management zone until a CWD not detected result is confirmed (Table 8-24), and the lowest effectiveness for unlimited harvest of antlerless deer, with only one buck allowed per hunter per year (Table 8-22). Compared to respondents from the 300-series permit areas, respondents from the CWD management zone felt four of the six regulations were significantly more effective, including: (a) mandatory CWD testing (Table 8-21), (b) requirement that carcasses remain within the disease management zone until a CWD not detected result is confirmed (Table 8-24), (c) allowing the use of A or B license during any firearms season (Table 8-25), and (d) unlimited number of $2.50 disease management tags for harvest of antlerless deer (Table 8-26).

Section 8: Management and Special Regulations to Address Chronic Wasting Disease (CWD)

Possible Regulations Related to Chronic Wasting Disease

Respondents were asked to rate their support or opposition to 17 possible regulations to help manage chronic wasting disease (Tables 8-27 to 8-44). Support or opposition to possible regulations was rated on the scale 1 = strongly oppose to 5 = strongly support. Respondents in both research strata were most supportive of a ban on recreational deer feeding (Table 8-31) and an expanded venison donation program (Table 8-32). Hunters from both research strata were also supportive of (a) allowing hunters to take a buck per season (archery, firearms, muzzleloader) (Table 8-30), (b) a longer youth season (Table 8-38), (c) free permits to landowners to use before the regular deer season (Table 8-40), (d) prohibiting export of all carcasses from the CWD management zone, including fawns (Table 8-41), (e) reducing free landowner license acreage requirements (Table 8-43), and (f) creating hunter/landowner database to connect hunters to landowners who allow hunting access (Table 8-44). Respondents from both strata were most opposed to professional culling (Table 8-28), and requiring hunters to take one (Table 8-34) or more (Table 8-35) antlerless deer before taking a buck. Respondents from both research strata were also opposed to: (a) allowing hunters to take unlimited bucks in the disease management zone (Table 8-29), (b) short (3-day) post-muzzleloader season hunts (Table 8-36), (c) longer early antlerless season (Table 8-37), (d) a muzzleloader weekend in October (Table 8-39), and (e) hunters having the ability to earn extra buck tags by taking multiple does (Table 8-42). Hunters from within the CWD management zone supported expanding the size of the disease management zone while hunters from the 300-series permit areas opposed this expansion (Table 8-33).

Possible Incentives to Increase Harvest

Respondents were asked to rate their support or opposition to 12 potential incentive programs (Tables 8-45 to 8-57). Support or opposition to possible regulations was rated on the scale 1 = strongly oppose to 5 = strongly support. The only action that garnered much support was an expanded venison donation program where meat is distributed to local communities (8-49). Two actions were very slightly on the support side of neutral: (a) providing hunters with an extra buck tag for killing a CWD positive buck (Table 8-55), and (b) providing a free deer license for the following year if hunter provides a CWD positive deer (Table 8-57). Respondents were neutral about providing hunters with an extra buck tag for killing any CWD positive deer (Table 8-56). Hunters from within the CWD management zone were slightly opposed to working with the legislature to develop a program to give tax breaks to landowners who allow public hunting while hunters from the 300-series permit areas were slightly supportive (Table 8-53). Respondents from both strata were opposed to the other possible actions.

Respondents were asked if they supported paying incentives to hunters and landowners who harvest CWD positive deer. About 20% of respondents indicated that they supported use of incentives (Table 8-58). If respondents supported the use of incentives, they were asked to indicate the maximum amount that should be paid to hunters and landowners, differentiated by whether the incentive was paid by a private group or the Minnesota DNR (Table 8-59). Respondents who supported the use of incentive suggested maximum payments of about $250 for a CWD positive deer.

Section 8: Management and Special Regulations to Address Chronic Wasting Disease (CWD)

Table 8-1: Opinion about Minnesota DNR's management of chronic wasting disease (CWD).

Hunting region	n	Too aggressive	About right	Not aggressive enough
Southeast deer permit areas combined	1949	28.6%	55.3%	16.2%
CWD zone	843	32.6%	52.4%	14.9%
300-series permit areas	1124	28.2%	55.5%	16.3%

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 4.517$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 8-2: Mean results: Opinions about what chronic wasting disease (CWD) regulations should do.

CWD regulations should…	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
… be designed to reduce deer densities.	3.06	3.17	3.05
… take precedent over all other deer hunting regulations.	2.96	3.14	2.94
… be no different than deer hunting regulations in surrounding areas.	2.90	2.84	2.91
…be designed to limit disease spread.	3.95	4.00	3.95
…be passive and let nature take its course.	2.67	2.76	2.66
…be as aggressive as possible in the short term (3-5 years).	3.18	3.27	3.17
…not impact local economies.	3.21	3.24	3.20
…not impact hunter participation.	3.45	3.49	3.45
…provide a financial incentive for harvest.	2.65	2.48	2.66
…provide a non-financial incentive for harvest.	3.12	3.08	3.12

[1] Mean based on scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

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**Table 8-3: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should…
be designed to reduce deer densities.**

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1968	14.2%	16.2%	33.0%	22.8%	13.9%	3.06
CWD zone	855	12.0%	15.6%	31.2%	25.8%	15.3%	3.17
300-series permit areas	1135	14.4%	16.2%	33.1%	22.6%	13.7%	3.05
							t = 2.116*

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 5.678 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

**Table 8-4: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should…
take precedent over all other deer hunting regulations.**

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1961	15.8%	17.9%	34.4%	18.6%	13.3%	2.96
CWD zone	856	12.1%	17.1%	30.8%	24.8%	15.2%	3.14
300-series permit areas	1130	16.1%	18.0%	34.7%	18.1%	13.2%	2.94
							t =3.503***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 19.576** V = 0.099
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

**Table 8-5: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should…
be no different than deer hunting regulations in surrounding areas.**

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1961	11.2%	24.6%	36.8%	17.7%	9.7%	2.90
CWD zone	857	13.3%	30.1%	28.0%	16.8%	11.8%	2.84
300-series permit areas	1130	11.1%	24.1%	37.6%	17.8%	9.5%	2.91
							t = 1.303 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 24.894*** V = 0.112
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

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Table 8-6: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should… be designed to limit disease spread.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1967	4.3%	4.2%	21.3%	32.7%	37.5%	3.95
CWD zone	855	3.7%	4.6%	19.2%	33.2%	39.3%	4.00
300-series permit areas	1134	4.3%	4.1%	21.5%	32.6%	37.4%	3.95
							t = 1.070 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 2.408 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 8-7: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should… be passive and let nature take its course.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1944	21.4%	27.4%	26.7%	12.2%	12.3%	2.67
CWD zone	853	22.5%	24.4%	22.3%	16.2%	14.7%	2.76
300-series permit areas	1120	21.3%	27.7%	27.1%	11.9%	12.1%	2.66
							t = 1.684 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 15.616** V = 0.089
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 8-8: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should… be as aggressive as possible in the short term (3-5 years).

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1970	14.3%	13.1%	32.1%	21.5%	19.0%	3.18
CWD zone	854	14.1%	13.3%	26.9%	23.2%	22.5%	3.27
300-series permit areas	1136	14.3%	13.0%	32.6%	21.3%	18.8%	3.17
							t = 1.626 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 9.327 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

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Table 8-9: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should… not impact local economies.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1965	6.5%	10.7%	50.2%	20.9%	11.7%	3.21
CWD zone	851	6.6%	10.8%	47.8%	21.3%	13.5%	3.24
300-series permit areas	1133	6.4%	10.7%	50.4%	20.9%	11.6%	3.20
							t = 0.837 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 2.194 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 8-10: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should… not impact hunter participation.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1961	5.4%	8.7%	39.0%	29.3%	17.6%	3.45
CWD zone	850	5.8%	9.3%	35.5%	29.3%	20.1%	3.49
300-series permit areas	1131	5.4%	8.7%	39.3%	29.3%	17.4%	3.45
							t = 0.839 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 4.030 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 8-11: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should… provide a financial incentive for harvest.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1965	22.6%	19.9%	36.0%	13.2%	8.4%	2.65
CWD zone	852	28.3%	20.3%	33.6%	10.3%	7.5%	2.48
300-series permit areas	1133	22.1%	19.9%	36.2%	13.4%	8.5%	2.66
							t = 3.271**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 12.999* V = 0.081
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

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Table 8-12: Opinions about chronic wasting disease (CWD) regulations: CWD regulations should… provide a non-financial incentive for harvest.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	1975	11.3%	9.0%	47.6%	20.8%	11.3%	3.12
CWD zone	855	13.5%	10.6%	42.9%	20.5%	12.5%	3.08
300-series permit areas	1139	11.2%	8.9%	48.0%	20.8%	11.2%	3.12
							t = 0.789 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 7.303 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 8-13: Mean results: Support and opposition to existing regulations in the CWD management zone.

Regulations	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
Mandatory CWD testing.	3.91	4.30	3.87
Unlimited harvest of antlerless deer, with only one buck allowed per hunter per year.	3.02	3.05	3.02
Cross-tagging and harvest of any antlered buck, with no antler point restriction in effect.	3.25	3.32	3.24
Requirement that carcasses remain within the disease management zone until a "CWD not detected" result is confirmed.	3.67	3.97	3.64
Allowing the use of A or B license during any firearms season.	3.35	3.71	3.32
Unlimited number of $2.50 disease management tags for harvest of antlerless deer.	3.24	3.45	3.23

[1] Mean based on scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

Table 8-14: Support and opposition to existing regulations in the CWD management zone: Mandatory CWD testing.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1936	4.2%	7.6%	15.8%	37.9%	34.5%	3.91
CWD zone	859	2.4%	2.9%	8.4%	34.6%	51.7%	4.30
300-series permit areas	1114	4.4%	8.0%	16.4%	38.2%	32.9%	3.87
							t = 9.436***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 94.394*** V = 0.219
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-15: Support and opposition to existing regulations in the CWD management zone: Unlimited harvest of antlerless deer, with only one buck allowed per hunter per year.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1931	15.5%	21.4%	21.4%	29.0%	12.7%	3.02
CWD zone	852	16.0%	21.6%	17.4%	31.2%	13.8%	3.05
300-series permit areas	1112	15.5%	21.4%	21.8%	28.8%	12.6%	3.02
							t = 0.641 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 6.317$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-16: Support and opposition to existing regulations in the CWD management zone: Cross-tagging and harvest of any antlered buck, with no antler point restriction in effect.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1940	18.2%	13.1%	19.6%	23.9%	25.2%	3.25
CWD zone	858	15.6%	14.7%	16.1%	29.5%	24.1%	3.32
300-series permit areas	1117	18.4%	13.0%	19.9%	23.5%	25.2%	3.24
							t = 1.204 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 14.117$** V = 0.085
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-17: Support and opposition to existing regulations in the CWD management zone: Requirement that carcasses remain within the disease management zone until a "CWD not detected" result is confirmed.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1944	6.8%	9.9%	22.3%	31.7%	29.3%	3.67
CWD zone	860	5.9%	7.3%	13.1%	31.4%	42.2%	3.97
300-series permit areas	1119	6.9%	10.1%	23.1%	31.7%	28.2%	3.64
							t = 6.065***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 58.857$*** V = 0.172
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-18: Support and opposition to existing regulations in the CWD management zone: Allowing the use of A or B license during any firearms season.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1937	14.6%	11.1%	24.2%	24.9%	25.2%	3.35
CWD zone	858	9.4%	9.1%	18.4%	27.2%	35.9%	3.71
300-series permit areas	1115	15.1%	11.3%	24.7%	24.7%	24.3%	3.32
							t = 6.526***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 46.455*** V = 0.153
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-19: Support and opposition to existing regulations in the CWD management zone: Unlimited number of $2.50 disease management tags for harvest of antlerless deer.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1945	15.0%	13.1%	25.1%	26.1%	20.7%	3.24
CWD zone	860	14.0%	12.9%	17.0%	26.2%	30.0%	3.45
300-series permit areas	1120	15.1%	13.1%	25.8%	26.1%	19.9%	3.23
							t =3.683***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 38.085*** V = 0.139
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-20: Mean results: Beliefs about the effectiveness of existing regulations in the CWD management zone.

Regulations	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
Mandatory CWD testing.	3.36	3.50	3.35
Unlimited harvest of antlerless deer, with only one buck allowed per hunter per year.	2.86	2.81	2.86
Cross-tagging and harvest of any antlered buck, with no antler point restriction in effect.	2.96	3.00	2.95
Requirement that carcasses remain within the disease management zone until a "CWD not detected" result is confirmed.	3.43	3.64	3.41
Allowing the use of A or B license during any firearms season.	2.96	3.20	2.94
Unlimited number of $2.50 disease management tags for harvest of antlerless deer.	3.09	3.23	3.08

[1] Mean based on scale: 1=not at all effective to 5=extremely effective.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

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Table 8-21: Beliefs about the effectiveness of existing regulations in the CWD management zone: Mandatory CWD testing.

Hunting region	N	Not at all effective				Extremely effective	Mean
Southeast deer permit areas combined	1887	10.7%	12.2%	28.3%	28.3%	20.6%	3.36
CWD zone	838	10.7%	12.3%	28.7%	28.2%	20.1%	3.50
300-series permit areas	1086	10.7%	12.3%	28.7%	28.2%	20.1%	3.35
							t = 2.647**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 15.916** V = 0.091
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all effective to 5=extremely effective.

Table 8-22: Beliefs about the effectiveness of existing regulations in the CWD management zone: Unlimited harvest of antlerless deer, with only one buck allowed per hunter per year.

Hunting region	N	Not at all effective				Extremely effective	Mean
Southeast deer permit areas combined	1871	15.6%	20.0%	34.8%	22.0%	7.5%	2.86
CWD zone	835	18.8%	19.2%	30.7%	24.9%	6.5%	2.81
300-series permit areas	1076	15.3%	20.1%	35.2%	21.7%	7.6%	2.86
							t = 0.956 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 9.415 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all effective to 5=extremely effective.

Table 8-23: Beliefs about the effectiveness of existing regulations in the CWD management zone: Cross-tagging and harvest of any antlered buck, with no antler point restriction in effect.

Hunting region	N	Not at all effective				Extremely effective	Mean
Southeast deer permit areas combined	1888	19.5%	13.1%	33.2%	20.3%	13.8%	2.96
CWD zone	834	19.8%	12.7%	28.2%	26.4%	12.9%	3.00
300-series permit areas	1087	19.5%	13.2%	33.7%	19.8%	13.9%	2.95
							t = 0.771 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 14.031** V = 0.085
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all effective to 5=extremely effective.

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Table 8-24: Beliefs about the effectiveness of existing regulations in the CWD management zone: Requirement that carcasses remain within the disease management zone until a "CWD not detected" result is confirmed.

Hunting region	N	Not at all effective				Extremely effective	Mean
Southeast deer permit areas combined	1888	10.4%	9.9%	29.1%	27.5%	23.2%	3.43
CWD zone	835	9.1%	9.2%	21.6%	29.0%	31.1%	3.64
300-series permit areas	1087	10.5%	9.9%	29.7%	27.4%	22.4%	3.41
							t = 3.917***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 27.191*** V = 0.119
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all effective to 5=extremely effective.

Table 8-25: Beliefs about the effectiveness of existing regulations in the CWD management zone: Allowing the use of A or B license during any firearms season.

Hunting region	N	Not at all effective				Extremely effective	Mean
Southeast deer permit areas combined	1880	19.3%	13.3%	33.4%	20.3%	13.6%	2.96
CWD zone	835	14.5%	12.7%	30.1%	23.6%	19.2%	3.20
300-series permit areas	1082	19.7%	13.4%	33.7%	20.1%	13.1%	2.94
							t = 4.507***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 23.096*** V = 0.110
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all effective to 5=extremely effective.

Table 8-26: Beliefs about the effectiveness of existing regulations in the CWD management zone: Unlimited number of $2.50 disease management tags for harvest of antlerless deer.

Hunting region	N	Not at all effective				Extremely effective	Mean
Southeast deer permit areas combined	1884	16.9%	11.0%	33.3%	24.0%	14.8%	3.09
CWD zone	837	16.0%	12.2%	25.6%	25.6%	20.7%	3.23
300-series permit areas	1084	17.0%	10.9%	33.9%	23.9%	14.3%	3.08
							t = 2.502*

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 23.676*** V = 0.111
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=not at all effective to 5=extremely effective.

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Table 8-27: Mean results: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD).

	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
Professional culling of deer in local areas after the deer season.	2.30	2.14	2.32
Allow hunters to take unlimited bucks in the disease management zone.	2.79	2.70	2.79
Allow hunters to take a buck per season (archery, firearms, muzzleloader).	3.55	3.51	3.56
Implement a ban on recreational deer feeding.	3.73	3.97	3.71
Expanded venison donation program.	3.81	3.92	3.80
Expand the size of the disease management zone.	2.93	3.23	2.90
Hunters must take one antlerless deer before taking a buck (earn-a-buck).	2.52	2.37	2.53
Hunters must take more than one antlerless deer before taking a buck.	1.96	1.80	1.98
Series of short (3-day) post-muzzleloader season hunts.	2.90	2.90	2.90
Longer early antlerless season (currently 4 days).	2.96	2.92	2.97
Longer youth season.	3.23	3.30	3.23
Muzzleloader weekend in October.	2.83	2.81	2.84
Free permits to landowners to use before the regular deer season.	3.23	3.21	3.23
Prohibit export of all carcasses from the CWD management zone, including fawns.	3.43	3.43	3.43
Hunters having the ability to earn extra buck tags by taking multiple does (2 or 3 does earns an extra buck).	2.71	2.55	2.72
Reduce free landowner license acreage requirements (currently 80 acres).	3.23	3.20	3.24
Create hunter/landowner database to connect hunters to landowners who allow hunting access.	3.44	3.36	3.45

[1] Mean based on scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

Table 8-28: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Professional culling of deer in local areas after the deer season.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1962	34.2%	24.7%	22.7%	13.7%	4.8%	2.30
CWD zone	855	41.8%	23.7%	17.8%	12.5%	4.2%	2.14
300-series permit areas	1131	33.5%	24.8%	23.1%	13.8%	4.9%	2.32
							t = 3.301**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 16.764** V = 0.092
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-29: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Allow hunters to take unlimited bucks in the disease management zone.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1972	22.0%	23.4%	20.6%	22.1%	11.9%	2.79
CWD zone	856	27.3%	21.8%	18.1%	19.0%	13.7%	2.70
300-series permit areas	1137	21.5%	23.5%	20.8%	22.3%	11.8%	2.79
							t = 1.531 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 13.155* V = 0.081
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-30: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Allow hunters to take a buck per season (archery, firearms, muzzleloader).

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1971	9.5%	9.1%	19.8%	39.8%	21.8%	3.55
CWD zone	861	9.4%	10.5%	21.3%	37.3%	21.6%	3.51
300-series permit areas	1136	9.5%	9.0%	19.6%	40.1%	21.8%	3.56
							t = 0.829 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 2.727 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-31: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Implement a ban on recreational deer feeding.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1973	7.3%	7.5%	24.3%	26.4%	34.5%	3.73
CWD zone	862	5.7%	5.2%	19.3%	26.5%	43.4%	3.97
300-series permit areas	1137	7.5%	7.7%	24.7%	26.4%	33.8%	3.71
							t = 4.726***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 25.217*** V = 0.112
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-32: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Expanded venison donation program.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1964	3.0%	2.9%	29.8%	38.5%	25.8%	3.81
CWD zone	857	2.5%	2.0%	27.8%	37.0%	30.8%	3.92
300-series permit areas	1132	3.1%	3.0%	29.9%	38.6%	25.4%	3.80
							t = 2.701**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 9.056 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-33: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Expand the size of the disease management zone.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1936	12.7%	17.9%	42.0%	18.9%	8.6%	2.93
CWD zone	842	10.0%	12.1%	35.9%	28.9%	13.2%	3.23
300-series permit areas	1116	12.9%	18.4%	42.6%	18.0%	8.2%	2.90
							t = 6.478***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 57.603*** V = 0.172
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-34: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Hunters must take one antlerless deer before taking a buck (earn-a-buck).

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1978	29.0%	23.5%	22.0%	17.6%	8.0%	2.52
CWD zone	865	33.9%	25.0%	19.2%	14.3%	7.6%	2.37
300-series permit areas	1140	28.6%	23.3%	22.2%	17.9%	8.0%	2.53
							t = 2.834**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 10.992* V = 0.074
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-35: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Hunters must take more than one antlerless deer before taking a buck.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1978	43.5%	28.8%	18.8%	5.7%	3.2%	1.96
CWD zone	863	50.4%	26.2%	17.5%	4.4%	1.5%	1.80
300-series permit areas	1140	42.9%	29.0%	18.9%	5.8%	3.3%	1.98
							t = 3.696***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 16.259** V = 0.090
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-36: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Series of short (3-day) post-muzzleloader season hunts.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1968	15.3%	16.3%	39.2%	21.5%	7.6%	2.90
CWD zone	862	17.1%	13.6%	39.9%	21.6%	7.9%	2.90
300-series permit areas	1134	15.2%	16.6%	39.2%	21.5%	7.6%	2.90
							t = 0.018 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 4.115 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-37: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Longer early antlerless season (currently 4 days).

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1965	15.7%	12.5%	40.7%	21.8%	9.2%	2.96
CWD zone	854	15.7%	14.5%	40.9%	19.9%	9.0%	2.92
300-series permit areas	1133	15.7%	12.4%	40.7%	22.0%	9.3%	2.97
							t = 0.897 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 2.743 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-38: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Longer youth season.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1965	13.4%	9.8%	33.7%	26.1%	16.9%	3.23
CWD zone	854	10.3%	8.9%	38.1%	26.1%	16.6%	3.30
300-series permit areas	1133	13.7%	9.9%	33.4%	26.1%	16.9%	3.23
							t = 1.311 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 8.100 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-39: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Muzzleloader weekend in October.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1946	220.0%	17.1%	33.4%	18.3%	11.1%	2.83
CWD zone	852	19.6%	17.3%	35.9%	17.5%	9.7%	2.81
300-series permit areas	1121	20.1%	17.1%	33.2%	18.4%	11.2%	2.84
							t = 0.544 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 2.347 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-40: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Free permits to landowners to use before the regular deer season.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1967	15.5%	12.5%	25.6%	26.8%	19.7%	3.23
CWD zone	858	16.8%	12.7%	23.3%	27.5%	19.7%	3.21
300-series permit areas	1134	15.3%	12.4%	25.8%	26.7%	19.7%	3.23
							t = 0.381 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 2.035 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-41: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Prohibit export of all carcasses from the CWD management zone, including fawns.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1971	8.1%	12.7%	29.3%	28.1%	21.9%	3.43
CWD zone	862	8.7%	13.6%	28.1%	25.3%	24.4%	3.43
300-series permit areas	1136	8.0%	12.6%	29.4%	28.3%	21.7%	3.43
							t = 0.001 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 4.212 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-42: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Hunters having the ability to earn extra buck tags by taking multiple does (2 or 3 does earns an extra buck).

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1973	24.1%	19.9%	26.4%	20.4%	9.2%	2.71
CWD zone	864	28.6%	22.0%	23.8%	17.4%	8.2%	2.55
300-series permit areas	1137	23.7%	19.7%	26.6%	20.7%	9.2%	2.72
							t = 2.984**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 10.586* V = 0.073
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-43: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Reduce free landowner license acreage requirements (currently 80 acres).

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1979	11.0%	11.2%	37.3%	24.4%	16.1%	3.23
CWD zone	861	12.2%	9.3%	40.5%	22.3%	15.7%	3.20
300-series permit areas	1141	10.9%	11.4%	37.0%	24.6%	16.1%	3.24
							t = 0.710 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 5.615 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-44: Support and opposition to possible regulations or programs to help manage chronic wasting disease (CWD): Create hunter/landowner database to connect hunters to landowners who allow hunting access.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1978	9.6%	8.0%	33.6%	26.7%	22.1%	3.44
CWD zone	863	10.5%	9.4%	34.5%	25.0%	20.5%	3.36
300-series permit areas	1140	9.5%	7.9%	33.5%	26.8%	22.3%	3.45
							t = 1.661 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 3.333$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-45: Mean results: Support and opposition to incentives.

	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
Pay landowners to allow people to hunt their property.	2.65	2.47	2.66
Pay landowners for CWD positive deer killed on their property.	2.67	2.49	2.68
Pay hunters for CWD positive deer they kill.	2.67	2.48	2.68
Expanded venison donation program where meat is distributed to local communities.	3.74	3.82	3.74
Lifetime deer hunting license for killing a CWD positive deer.	2.55	2.50	2.55
For each deer killed in the CWD zone, receive one lottery ticket for entry into a drawing to win equipment.	2.81	2.75	2.82
Pay landowners for every deer shot on their property.	2.39	2.30	2.39
Work with Legislature to develop program to give tax breaks to landowners who allow public hunting.	3.15	2.93	3.17
Financial contribution to a charity of your choice for killing a CWD positive deer.	2.63	2.58	2.64
Provide hunters with an extra buck tag for killing a CWD positive <u>buck</u>.	3.11	3.19	3.10
Provide hunters with an extra buck tag for killing <u>any</u> CWD positive deer.	2.99	3.01	2.99
Provide free deer license for the following year if hunter provides a CWD positive deer.	3.13	3.07	3.13

[1] Mean based on scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

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Table 8-46: Support and opposition to incentives: Pay landowners to allow people to hunt their property.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1971	24.2%	21.8%	26.9%	19.2%	7.8%	2.65
CWD zone	862	29.2%	22.9%	25.6%	15.9%	6.4%	2.47
300-series permit areas	1136	23.8%	21.7%	27.0%	19.5%	7.9%	2.66
							t = 3.335**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 11.473* V = 0.076
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-47: Support and opposition to incentives: Pay landowners for CWD positive deer killed on their property.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1973	23.8%	21.2%	27.9%	18.7%	8.4%	2.67
CWD zone	863	29.0%	22.1%	26.3%	15.6%	7.0%	2.49
300-series permit areas	1137	23.3%	21.1%	28.1%	19.0%	8.5%	2.68
							t = 3.334**

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 11.601* V = 0.076
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-48: Support and opposition to incentives: Pay hunters for CWD positive deer they kill.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1940	23.8%	21.8%	27.1%	18.6%	8.6%	2.67
CWD zone	858	29.5%	23.5%	24.0%	15.7%	7.2%	2.48
300-series permit areas	1117	23.3%	21.7%	27.4%	18.9%	8.8%	2.68
							t = 3.592***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 14.305** V = 0.085
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-49: Support and opposition to incentives: Expanded venison donation program where meat is distributed to local communities.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1978	4.5%	4.2%	27.2%	41.1%	23.1%	3.74
CWD zone	865	4.3%	2.9%	26.0%	40.1%	26.7%	3.82
300-series permit areas	1140	4.5%	4.3%	27.3%	41.1%	22.8%	3.74
							t = 1.899 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 6.160 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-50: Support and opposition to incentives: Lifetime deer hunting license for killing a CWD positive deer.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1970	29.1%	21.5%	25.6%	13.1%	10.8%	2.55
CWD zone	857	31.2%	21.5%	23.9%	13.5%	9.9%	2.50
300-series permit areas	1136	28.9%	21.5%	25.8%	13.0%	10.8%	2.55
							t = 0.983 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 2.019 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-51: Support and opposition to incentives: For each deer killed in the CWD zone, receive one lottery ticket for entry into a drawing to win equipment.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1971	22.5%	17.8%	26.6%	22.0%	11.1%	2.81
CWD zone	861	26.7%	17.4%	22.2%	21.6%	12.1%	2.75
300-series permit areas	1136	22.2%	17.8%	27.0%	22.0%	11.0%	2.82
							t = 1.147 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 9.334 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

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Table 8-52: Support and opposition to incentives: Pay landowners for every deer shot on their property.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1973	29.7%	26.1%	26.4%	11.8%	6.1%	2.39
CWD zone	863	34.1%	25.3%	23.3%	11.4%	6.0%	2.30
300-series permit areas	1137	29.3%	26.1%	26.6%	11.9%	6.1%	2.39
							t = 1.711 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 6.026 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-53: Support and opposition to incentives: Work with Legislature to develop program to give tax breaks to landowners who allow public hunting.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1980	16.5%	13.3%	24.5%	30.3%	15.5%	3.15
CWD zone	865	20.6%	15.7%	26.6%	24.5%	12.6%	2.93
300-series permit areas	1141	16.1%	13.1%	24.3%	30.8%	15.8%	3.17
							t = 4.107***

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 19.200** V = 0.098
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-54: Support and opposition to incentives: Financial contribution to a charity of your choice for killing a CWD positive deer.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1977	23.1%	18.2%	37.1%	15.2%	6.3%	2.63
CWD zone	865	27.2%	17.1%	33.1%	15.7%	6.9%	2.58
300-series permit areas	1139	22.7%	18.3%	37.5%	15.2%	6.2%	2.64
							t = 1.045 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 7.504 n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Section 8: Management and Special Regulations to Address Chronic Wasting Disease (CWD)

Table 8-55: Support and opposition to incentives: Provide hunters with an extra buck tag for killing a CWD positive <u>buck</u>.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1977	19.1%	12.3%	23.7%	28.5%	16.4%	3.11
CWD zone	864	19.9%	11.8%	19.8%	26.9%	21.6%	3.19
300-series permit areas	1139	19.1%	12.4%	24.1%	28.6%	15.9%	3.10
							t = 1.374 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 13.741** V = 0.083
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-56: Support and opposition to incentives: Provide hunters with an extra buck tag for killing <u>any</u> CWD positive deer.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1977	20.5%	14.0%	26.5%	24.6%	14.5%	2.99
CWD zone	864	21.5%	15.3%	21.8%	23.4%	18.1%	3.01
300-series permit areas	1139	20.4%	13.9%	26.9%	24.7%	14.2%	2.99
							t = 0.428 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 =11.067* V = 0.083
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Table 8-57: Support and opposition to incentives: Provide free deer license for the following year if hunter provides a CWD positive deer.

Hunting region	N	Strongly oppose	Oppose	Neither	Support	Strongly support	Mean
Southeast deer permit areas combined	1981	18.4%	11.7%	25.3%	28.2%	16.5%	3.13
CWD zone	865	21.3%	12.9%	22.8%	23.7%	19.3%	3.07
300-series permit areas	1142	18.1%	11.6%	25.5%	28.5%	16.3%	3.13
							t = 1.047 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] χ^2 = 11.686* V = 0.076
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly oppose, 2=oppose, 3=neither, 4=support, 5=strongly support.

Section 8: Management and Special Regulations to Address Chronic Wasting Disease (CWD)

Table 8-58: Support paying incentives to hunters and landowners who harvest CWD positive deer?

Hunting region	n	% Yes
Southeast deer permit areas combined	1955	22.2%
CWD zone	853	19.9%
300-series permit areas	1127	22.4%
		χ^2 = 1.710 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 8-59: If support paying incentives, maximum amount acceptable (up to $1000) if payed by a private group.

Hunting region	Amount paid to hunters	Amount paid to landowners
Southeast deer permit areas combined	$232.39	$258.75
CWD zone	$246.60	$265.23
300-series permit areas	$231.28	$258.24
	t = 0.489 n.s.	t = 0.207 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 8-60: If support paying incentives, maximum amount acceptable (up to $1000) if payed by the Minnesota DNR.

Hunting region	Amount paid to hunters	Amount paid to landowners
Southeast deer permit areas combined	$218.32	$277.54
CWD zone	$227.13	$252.39
300-series permit areas	$217.65	$279.50
	t = 0.315 n.s.	t = 0.514 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Section 9: Trust in the Minnesota Department of Natural Resources

Trust in the Minnesota Department of Natural Resources

Respondents were asked to rate their agreement with 11 items addressing their trust in the Minnesota Department of Natural Resources (MNDNR) using the scale 1 (strongly disagree) to 5 (strongly agree). Means and frequencies for the trust statements strategies are presented in Tables 9-1 to 9-12. On average, respondents disagreed slightly about two items related to the agency thinking and taking actions in ways similar to the respondent (Tables 9-4 and 9-5). Respondents agreed most strongly with an item about the agency having managers and biologists who are well-trained for their jobs items (Table 9-11). Differences among study samples were minimal. There were no statistically significant differences between strata in mean ratings. Where differences existed in the distribution of responses, respondents from the CWD management zone were slightly more likely to agree with items addressing trust in the MNDNR.

Section 9: Trust in the Minnesota Department of Natural Resources

Table 9-1: Mean statewide results: Trust in the Minnesota Department of Natural Resources.

The Minnesota DNR…	Southeast deer permit areas combined	CWD Zone Mean	300-series Permit Areas Mean
… shares similar values as me.	3.19	3.22	3.18
… shares similar opinions as me.	2.99	3.04	2.98
… thinks in a similar way as me.	2.90	2.92	2.90
… takes similar actions as I would.	2.88	2.87	2.88
… shares similar goals as me.	3.14	3.21	3.14
…does a good job of managing deer in Minnesota.	3.05	3.05	3.05
…is open and honest about things they do and say related to deer management.	3.03	3.12	3.02
…can be trusted to make decisions about deer management that are good for the resource.	3.01	3.06	3.00
…will make decisions about deer management in a way that is fair.	3.06	3.09	3.06
…has deer managers and biologists who are well-trained for their jobs.	3.35	3.40	3.34
…listens to deer hunters' concerns.	2.95	3.03	2.94

[1] Mean based on scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

Table 9-2: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR shares similar values as me.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2039	7.6%	13.9%	37.8%	33.7%	7.0%	3.19
CWD zone	864	7.8%	15.5%	32.3%	36.1%	8.3%	3.22
300-series permit areas	1179	8.1%	19.9%	42.2%	24.9%	4.8%	3.18
							t = 0.720 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 8.467$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

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Table 9-3: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR shares similar opinions as me.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2040	8.2%	19.9%	41.9%	25.1%	4.9%	2.99
CWD zone	863	8.7%	19.5%	37.3%	28.3%	6.3%	3.04
300-series permit areas	1179	8.1%	19.9%	42.2%	24.9%	4.8%	2.98
							t = 1.240 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 7.320$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 9-4: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR thinks in a similar way as me.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2040	9.3%	22.9%	40.7%	22.5%	4.6%	2.90
CWD zone	864	10.0%	22.3%	39.1%	22.5%	6.1%	2.92
300-series permit areas	1179	9.2%	23.0%	40.8%	22.5%	4.5%	2.90
							t = 0.546 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 3.286$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 9-5: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR takes similar actions as I would.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2040	10.4%	22.7%	39.5%	23.3%	4.1%	2.88
CWD zone	861	11.6%	23.7%	36.5%	22.3%	5.9%	2.87
300-series permit areas	1179	10.3%	22.6%	39.8%	23.4%	3.9%	2.88
							t = 0.174 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 7.041$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

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Table 9-6: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR shares similar goals as me.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2038	8.3%	15.1%	37.3%	32.8%	6.5%	3.14
CWD zone	861	8.1%	15.7%	32.4%	34.8%	8.9%	3.21
300-series permit areas	1178	8.3%	15.0%	37.7%	32.7%	6.3%	3.14
							t = 1.531 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 9.530$* V = 0.068
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 9-7: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR does a good job of managing deer in Minnesota.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2039	11.4%	17.0%	34.1%	30.1%	7.4%	3.05
CWD zone	864	11.6%	17.9%	30.9%	32.9%	6.7%	3.05
300-series permit areas	1178	11.4%	16.9%	34.4%	29.9%	7.5%	3.05
							t = 0.006 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 3.994$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 9-8: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR is open and honest about things they do and say related to deer management.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2044	11.5%	17.5%	35.7%	27.0%	8.3%	3.03
CWD zone	867	11.6%	16.7%	29.5%	32.4%	9.7%	3.12
300-series permit areas	1181	11.5%	17.6%	36.2%	26.5%	8.1%	3.02
							t = 1.901 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 14.383$** V = 0.084
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

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Table 9-9: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR can be trusted to make decisions about deer management that are good for the resource.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2040	11.6%	18.9%	34.0%	28.1%	7.4%	3.01
CWD zone	864	12.6%	16.7%	31.0%	31.1%	8.6%	3.06
300-series permit areas	1179	11.5%	19.1%	34.3%	27.8%	7.3%	3.00
							t = 1.206 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 6.599$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 9-10: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR will make decisions about deer management in a way that is fair.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2043	9.8%	17.1%	37.4%	28.6%	7.0%	3.06
CWD zone	863	10.9%	16.5%	32.4%	32.9%	7.3%	3.09
300-series permit areas	1181	9.7%	17.2%	37.8%	28.2%	7.0%	3.06
							t = 0.758 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 8.624$ n.s.
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 9-11: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR has deer managers and biologists who are well-trained for their jobs.

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2030	6.1%	7.4%	43.0%	32.9%	10.6%	3.35
CWD zone	860	6.3%	9.4%	35.1%	36.7%	12.4%	3.40
300-series permit areas	1173	6.1%	7.2%	43.6%	32.6%	10.5%	3.34
							t = 1.213 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 16.132$** V = 0.089
[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001
[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

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**Table 9-12: Trust in Minnesota Department of Natural Resources: Agreement/disagreement that…
The Minnesota DNR listens to deer hunters' concerns.**

Hunting region	N	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
Southeast deer permit areas combined	2032	14.0%	18.4%	33.7%	26.1%	7.8%	2.95
CWD zone	863	14.7%	16.9%	28.0%	31.4%	8.9%	3.03
300-series permit areas	1174	14.0%	18.6%	34.2%	25.6%	7.7%	2.94
							t = 1.603 n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

[2] $\chi^2 = 13.686$** V = 0.082

[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

[4] Mean based on the following scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

2019 Southeast Minnesota Deer Hunting

Section 10: Characteristics of Southeast Minnesota Deer Hunters

Information from the Electronic Licensing System database was used to examine the age and gender of study participants, and group membership and education were queried in the questionnaire.

Hunter Age and Gender

The mean ages of 51.7 and 50.3 years for study respondents from the CWD management zone and the 300-series permit areas respectively were higher than the age of the study samples (Table 10-1). The vast majority of respondents were male, with female hunters comprising only 6.7% of respondents from the CWD management zone and 7.6% of respondents from the 300-series permit areas (Table 10-2).

Memberships in Organized Deer Hunting Groups

Only about 10% of the respondents reported that they belonged to an organized deer hunting group (Table 10-3). Of those who reported a membership, larger proportions from both study strata reported memberships in the Minnesota Deer Hunters Association and local sportsman groups (Table 10-4). A greater proportion of respondents from the CWD management zone reported a membership in Bluffland Whitetails Association, and a greater proportion of respondents from the 300-series permit areas reported a membership in Whitetails Unlimited.

Education

About four in ten respondents from the CWD management zone (40.4%) had completed a 4-year degree or higher level of education, compared to 34.1% of respondents from the 300-series permit areas. Less than 2% from both research strata had not completed a high school degree (Table 10-5).

Late Respondents

Analysis of late respondents relative to respondents to the main survey suggest that they may be less avid hunters. Late respondents had hunted for deer for fewer years overall compared to respondents to the main survey (23.1 versus 29.0 years, t = 5.295***), and late respondents had hunted an average of 4.36 of the previous 5 years compared to 4.61 years for early respondents (t = 2.780**). Late respondents had also hunted fewer days during the 2018 season (4.7 versus 5.5 days, t = 3.437*). Finally, a greater proportion of late respondents indicated that they did not hunt during the 2018 season (4.8% versus 1.2%, χ^2 = 27.147***).

Late respondents were somewhat more likely to indicate that Minnesota DNR management was too aggressive, with 38.1% indicating that management was "too aggressive," 52.0% indicating it was "about right," and 9.8% indicating that it was "not aggressive enough," compared to respondents from the main survey where 28.6% indicated "too aggressive," 55.3% "about right," and 16.2% "not aggressive enough" (χ^2 = 14.304**). Likewise, late respondents indicated somewhat less support for more aggressive strategies for managing chronic wasting disease. Late respondents agreed less than early respondents that CWD regulations should: (a) be designed to reduced deer densities (2.84 versus 3.06, t = 2.868**), (b) take precedent over all other deer hunting regulations (2.73 versus 2.96, t = 3.019**), (c) be designed to limit disease spread (3.74 versus 3.95, t = 2.901**), and (d) be as aggressive as possible in the

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short-term (3-5 years) (2.92 versus 3.18, t = 3.236**). Late respondents agreed more than early respondents that CWD regulations should: (a) not impact local economies (3.39 versus 3.21, t = 2.637**), and (b) not impact hunter participation (3.60 versus 3.45, t = 2.284*). Despite these noted differences, there were no differences between early and late respondents in measures of satisfaction or agency trust.

Section 10: Characteristics of Southeast Minnesota Deer Hunters

Table 10-1: Age of study population and survey respondents

Residence of hunter	n	18-19	20 – 29	30 – 39	40 – 49	50 - 59	60 - 64	65 +	Mean age	Mean age of sample
Southeast deer permit areas combined	2100	1.1%	10.8%	16.2%	17.9%	22.5%	11.0%	20.6%	50.37	44.98
CWD zone	885	0.9%	7.0%	17.3%	18.2%	22.5%	11.5%	22.6%	51.68	45.19
300-series permit areas	1214	1.1%	11.1%	16.1%	17.9%	22.5%	11.0%	20.4%	50.26	44.96
									t = 2.083*	t = 0.517 n.s.

[1] Source: DNR license database

[2] $\chi^2 = 11.146$ n.s.

[3] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 10-2: Gender

Hunting region	n	% Female
Southeast deer permit areas combined	2100	7.5%
CWD zone	885	6.7%
300-series permit areas	1214	7.6%
		$\chi^2 = 0.017$ n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 10-3: Member of an organized deer hunting group?

Hunting region	n	% Yes
Southeast deer permit areas combined	2038	10.9%
CWD zone	866	9.2%
300-series permit areas	1177	11.0%
		$\chi^2 = 1.767$ n.s.

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] n.s. = not significant, *p < 0.05, **p< 0.01, ***p< 0.001

Table 10-4: If a member of an organized deer hunting group: Membership groups

Hunting region	n	MDHA[2]	BWA[2]	QDMA[2]	WU[2]	BHA[2]	LSG[2]
Southeast deer permit areas combined	1878	38.5%	14.7%	8.6%	23.1%	3.5%	35.0%
CWD zone	80	27.5%	26.3%	10.0%	12.5%	10.0%	22.5%
300-series permit areas	130	39.2%	13.8%	8.5%	23.8%	3.1%	35.4%
		$\chi^2 = 3.005$ n.s.	$\chi^2 = 5.039*$ V = 0.155	$\chi^2 = 0.142$ n.s.	$\chi^2 = 4.058*$ V = 0.139	$\chi^2 = 4.406*$ V = 0.145	$\chi^2 = 3.880*$ V = 0.136

[1] MDHA=Minnesota Deer Hunters Association, BWA=Bluffland Whitetails Association, QDMA=Quality Deer Management Association, WU=Whitetails Unlimited, BHA=Backcountry Hunters and Anglers, LSG=Local sportsmen's group.
[2] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.

Section 10: Characteristics of Southeast Minnesota Deer Hunters

Table 10-5: Highest Level of Education.

	Grade school	Some high school	High school diploma (or GED)	Some vocational or technical school	Associate's degree	Some college	4-year college degree	Some graduate school	Graduate degree
Southeast deer permit areas combined	0.7%	2.2%	17.1%	10.3%	19.9%	15.2%	23.5%	2.8%	8.3%
CWD zone	1.2%	1.1%	15.5%	6.9%	18.4%	16.6%	25.4%	3.3%	11.7%
300-series permit areas	0.7%	2.3%	17.3%	10.6%	20.0%	15.1%	23.3%	2.8%	8.0%

[1] We drew a stratified sample based on permit areas; we weighted data for combined permit areas to reflect proportions in the population.
[2] $\chi^2 = 23.601^{**}$ V = 0.108
[3] n.s. = not significant, $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

References Cited

Dillman, D. (2000). *Mail and Internet surveys: The tailored design method*. New York: John Wiley & Sons, Inc.

Kyle, G. T., Absher, J. D., Norman, W., Hammitt, W. E., & Jodice, L., (2007). A modified involvement scale. *Leisure Studies*, 26, p. 399-427.

Appendix A: Survey Instrument

SURVEY OF SOUTHEAST MINNESOTA DEER HUNTERS

A study of hunters' activities and opinions about deer populations and chronic wasting disease.

A cooperative study conducted by the University of Minnesota for the Minnesota Department of Natural Resources

Your help on this study is greatly appreciated!

Your response to this survey will help with management of deer populations related to chronic wasting disease (CWD). Thank you in advance for your time and effort.

Please return your completed questionnaire in the enclosed envelope. The envelope is self-addressed and no postage is required. Thanks!

2019 Southeast Minnesota Deer Hunting

Part I. Your Minnesota Deer Hunting Background

Please tell us about your deer hunting experience. *Please read questions carefully and answer as accurately as you can.*

Q1. **How many** years have you hunted for deer **in Minnesota?** (*If uncertain please estimate.*)

_____ Years

Q2. Of the 5 years **before the 2018 deer season, which years did you hunt deer in Minnesota?** (*Check all that apply.*)

- ❑ 2017
- ❑ 2016
- ❑ 2015
- ❑ 2014
- ❑ 2013
- ❑ I did not hunt deer during any of these years.

Q3. **Did you hunt during the 2018 firearm deer season?**

- ❑ Yes
- ❑ No (*Please skip to Question 14.*)

Q4. Which **ONE deer permit area** did you hunt **most often** during the 2018 **firearm deer season?** *(Check one.)*

❑ 338	❑ 342	❑ 345	❑ 348	❑ Other
❑ 339	❑ 343	❑ 346	❑ 349	
❑ 341	❑ 344	❑ 347	❑ 603	

Q5. How many **days** did you hunt during the **2018 firearm deer season?**

_____ Days

Q6. **During the 2018 firearm deer season, how many antlered and antlerless deer did you personally kill?**

_____ Antlered Bucks   _____ Antlerless Deer

Q7. Did you hunt or do you plan to hunt the **2018 archery or muzzleloader seasons?**

Archery: ❑ Yes   ❑ No
Muzzleloader: ❑ Yes   ❑ No

Q8. **Do you have an established place you hunt every deer season?**

- ❑ Yes. (*If yes, please skip to Question 10 on the next page.*)
- ❑ No. (*If no, please answer Question 9.*)

Q9. How easy or difficult was it to find a place to hunt during the 2018 Minnesota deer season? (*Circle one.*)

1	2	3	4	5	6	7
Very difficult	**Moderately difficult**	**Slightly difficult**	**Neither**	**Slightly easy**	**Moderately easy**	**Very easy**

2019 Southeast Minnesota Deer Hunting

Q10. How much of your <u>firearm deer hunting</u> did you do on each of the following types of land during the <u>2018 deer hunting season</u>? *(Circle one number for each item.)*

	None	Some	Most	All
Private land that I own	1	2	3	4
Private land that I lease for hunting	1	2	3	4
Private land that I do **not** own or lease	1	2	3	4
Public land*	1	2	3	4

*If you <u>only hunted public land</u>, please <u>skip to question Q13</u>.

Q11. If you <u>leased private land</u>, please check the primary <u>reason you decided to lease property for deer hunting</u>. (*If you did not lease land for hunting, skip to Question Q13.*) (*Check all that apply.*)

- ❑ I lease a parcel myself so I can manage for mature bucks.
- ❑ I am one of a group of people leasing so we can manage for mature bucks.
- ❑ I lease a parcel myself so that I have a place to hunt every year.
- ❑ I lease a parcel with friends so my group has a place to hunt every year.
- ❑ I leased because I was unable to get permission on private land.
- ❑ Other (please list):_____

Q12. If you <u>leased private land</u>, how many total <u>acres</u> of land did you <u>lease</u> during the firearm deer season?

_____ Acres   _____# of hunters on lease

Part II. Satisfaction with Your 2018 Minnesota Deer Hunting Season

Q13. How <u>satisfied or dissatisfied</u> were you with each of the following during the 2018 deer hunting season in Minnesota? (*Circle <u>one</u> response <u>for each</u>.*)

	Very dissatisfied	Moderately dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Moderately satisfied	Very satisfied
Overall deer hunting experience	1	2	3	4	5	6	7
Deer hunting harvest	1	2	3	4	5	6	7
Deer hunting regulations	1	2	3	4	5	6	7
Total number of deer seen	1	2	3	4	5	6	7
Number of bucks seen	1	2	3	4	5	6	7
Number of antlerless deer seen	1	2	3	4	5	6	7

Part III. Deer Populations in Southeastern Minnesota

Q14. Over the past 5 years, what <u>trend</u> have you seen in the <u>deer population</u> in the <u>area you hunt and the surrounding area</u>? (*Circle <u>one</u>.*)

1	2	3	4	5	6	7
A lot fewer deer	**Moderately fewer deer**	**Slightly fewer deer**	**About the same number of deer**	**Slightly more deer**	**Moderately more deer**	**Many more deer**

Q15. Do you think the deer population <u>where you hunt most often</u> is: (*Circle <u>one</u>.*)

1	2	3	4	5	6	7
Much too low	**Moderately too low**	**Slightly too low**	**About right**	**Slightly too high**	**Moderately too high**	**Much too high**

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Part IV. Involvement in Deer Hunting in Minnesota

Q16. Please indicate how much you agree or disagree with the following statements about your involvement in deer hunting in Minnesota. (*Please circle one response for each):*

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Deer hunting is one of the most enjoyable things I do.	1	2	3	4	5
Deer hunting provides me with the opportunity to be with friends.	1	2	3	4	5
To change my preference from deer hunting to another recreation activity would require major rethinking.	1	2	3	4	5
A lot of my life is organized around deer hunting.	1	2	3	4	5
Deer hunting has a central role in my life.	1	2	3	4	5
Most of my friends are in some way connected with deer hunting.	1	2	3	4	5
When I am deer hunting, others see me the way I want them to see me.	1	2	3	4	5
I identify with the people and image associated with deer hunting.	1	2	3	4	5
Deer hunting is one of the most satisfying things I do.	1	2	3	4	5
Participating in deer hunting says a lot about who I am.	1	2	3	4	5
Deer hunting is very important to me.	1	2	3	4	5
You can tell a lot about a person when you see them deer hunting.	1	2	3	4	5
When I am deer hunting I can really be myself.	1	2	3	4	5
I enjoy discussing deer hunting with my friends.	1	2	3	4	5
When I am deer hunting, I don't have to be concerned about what other people think of me.	1	2	3	4	5
I contribute to deer management through hunting.	1	2	3	4	5

Part V. Deer Populations & Management Strategies in Southeastern Minnesota

Q17. Do you oppose or support the following regulations outside the CWD management zone (deer permit area 603). (*Circle one response for each.*)

	Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support
Eliminate the 4-point to one side antler point restriction.	1	2	3	4	5
Allow buck cross-tagging.	1	2	3	4	5
Combine the 3A and 3B deer seasons. The 3A and 3B deer seasons would be combined into a single, 16-day season where both 3A and 3B hunters could participate.	1	2	3	4	5
Delay the firearms deer season one week. The season would open the Saturday closest to November 15th.	1	2	3	4	5
Delay the firearms deer season until late November. The season would open the Saturday closest to November 20th.	1	2	3	4	5
Delay the firearms deer season until December.	1	2	3	4	5
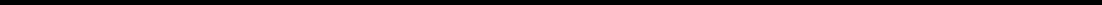
Q18. Ideally, how many deer would you like to harvest during next year's (2019) deer season?

_____ **deer**

2019 Southeast Minnesota Deer Hunting

Q19. If you had the opportunity, how likely are you to <u>increase your desired harvest by one deer</u> in 2019?

1	2	3	4	5	6	7
Very unlikely	**Somewhat unlikely**	**Slightly unlikely**	**Undecided**	**Slightly likely**	**Somewhat likely**	**Very likely**

Q20. In general, do you think <u>reducing deer densities</u> to help control the spread of chronic wasting disease is: (*Circle one number for each.*)

	Extremely	Moderately	Slightly	Neither	Slightly	Moderately	Extremely	
Foolish	-3	-2	-1	0	+1	+2	+3	**Wise**
Worthless	-3	-2	-1	0	+1	+2	+3	**Valuable**
Bad	-3	-2	-1	0	+1	+2	+3	**Good**

Part VI. Information about Chronic Wasting Disease (CWD)

Q21. Please <u>rate your knowledge</u> about chronic wasting disease (CWD). Use the scale -3 to +3, where -3 means knowing nothing about CWD and +3 means knowing everything you could possibly know about this topic. (*Circle one number.*)

Know nothing	-3	-2	-1	0	+1	+2	+3	Know everything

Q22. Please indicate how much information you get about chronic wasting disease (CWD) from the sources listed below. (*Please circle one number for each.*)

	How much information about CWD do you get from this source						
	None						A lot
Family and friends	1	2	3	4	5	6	7
Minnesota DNR hunting regulations	1	2	3	4	5	6	7
Online social media	1	2	3	4	5	6	7
Minnesota DNR news releases	1	2	3	4	5	6	7
Online sportsmen's blogs and web sites	1	2	3	4	5	6	7
Minnesota DNR staff	1	2	3	4	5	6	7
Sportsmen's magazines and newspapers	1	2	3	4	5	6	7
Minnesota DNR web page	1	2	3	4	5	6	7
Local newspapers	1	2	3	4	5	6	7
Minnesota DNR public meetings	1	2	3	4	5	6	7
Statewide newspapers	1	2	3	4	5	6	7
Minnesota DNR "Deer Notes"	1	2	3	4	5	6	7
Local TV programs	1	2	3	4	5	6	7
Minnesota Board of Animal Health	1	2	3	4	5	6	7

Q23. How much do you agree or disagree with the following statements about Minnesota DNR? (*Please circle one number for each.*)

I trust the Minnesota DNR to…	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
…provide me with <u>enough</u> information to decide what actions I should take regarding CWD.	1	2	3	4	5
…provide the <u>best available</u> information on CWD in Minnesota.	1	2	3	4	5
…provide <u>timely</u> information regarding CWD issues.	1	2	3	4	5
…provide truthful information about <u>human safety</u> issues related to CWD.	1	2	3	4	5
…provide truthful information about <u>deer population</u> estimates.	1	2	3	4	5
…provide truthful information about <u>how CWD spreads</u>.	1	2	3	4	5
…provide truthful information about the <u>number of CWD-positive deer</u> discovered in Minnesota.	1	2	3	4	5
…make <u>good deer management decisions</u> regarding CWD issues.	1	2	3	4	5
…follow the <u>best available science</u> in managing CWD.	1	2	3	4	5
…<u>properly address</u> CWD in Minnesota.	1	2	3	4	5

Part VII. Feelings about Chronic Wasting Disease (CWD)

Q24. When you think about chronic wasting disease (CWD) in southeastern Minnesota, how much of the following feelings do you experience? (*Circle one number for each feeling.*)

	None						A lot
Worry	1	2	3	4	5	6	7
Uncertainty	1	2	3	4	5	6	7
Anger	1	2	3	4	5	6	7

Part VIII. Concerns about Chronic Wasting Disease (CWD)

Q25. What would you do if chronic wasting disease (CWD) was found <u>on the property you hunt</u>? (*Check one.*)

- ❑ Hunt deer as usual and eat deer meat.
- ❑ Hunt deer as usual, but <u>not</u> eat deer meat.
- ❑ Hunt deer as usual, but only <u>eat deer meat after a negative CWD test</u>.
- ❑ Hunt deer in a different area, in Minnesota.
- ❑ Hunt deer in a different area, outside of Minnesota.
- ❑ Not hunt deer at all.

Q26. What would you do if chronic wasting disease (CWD) was found <u>in the deer permit area you hunt</u>? (*Check one.*)

- ❑ Hunt deer as usual and eat deer meat.
- ❑ Hunt deer as usual, but <u>not</u> eat deer meat.
- ❑ Hunt deer as usual, but only <u>eat deer meat after a negative CWD test</u>.
- ❑ Hunt deer in a different area, in Minnesota.
- ❑ Hunt deer in a different area, outside of Minnesota.
- ❑ Not hunt deer at all.

Q27. What would you do if chronic wasting disease (CWD) was found <u>to affect human health</u>? *(Check one.)*

- ❑ Hunt deer as usual and eat deer meat.
- ❑ Hunt deer as usual, but <u>not</u> eat deer meat.
- ❑ Hunt deer as usual, but only <u>eat deer meat after a negative CWD test</u>.
- ❑ Hunt deer in a different area, in Minnesota.
- ❑ Hunt deer in a different area, outside of Minnesota.
- ❑ Not hunt deer at all.

Q28. Please indicate how concerned you are about the following outcomes related to chronic wasting disease (CWD). *(Please circle one number for each.)*

| How concerned are you that CWD will…	Not at all concerned						Extremely concerned
…spread throughout the deer population <u>where you hunt</u>.	1	2	3	4	5	6	7
…dramatically reduce the deer population <u>where you hunt</u>.	1	2	3	4	5	6	7
…affect the health of the deer population <u>where you hunt</u>.	1	2	3	4	5	6	7
…have the potential to kill the entire deer population <u>where you hunt</u>.	1	2	3	4	5	6	7
…threaten your deer hunting opportunity.	1	2	3	4	5	6	7
…threaten the future of deer hunting for your children and grandchildren.	1	2	3	4	5	6	7
…affect the future existence of deer on the Minnesota landscape.	1	2	3	4	5	6	7
…spread to livestock.	1	2	3	4	5	6	7
…have economic impacts on businesses that depend on deer hunting.	1	2	3	4	5	6	7
…lead to declining land values.	1	2	3	4	5	6	7
…spread because of deer and elk farms.	1	2	3	4	5	6	7
…cause your family to stop eating deer meat.	1	2	3	4	5	6	7
…cause you to have concerns about eating deer meat.	1	2	3	4	5	6	7
…threaten your personal health or the health of my family.	1	2	3	4	5	6	7
…cause disease in humans.	1	2	3	4	5	6	7
…cause disease in you personally.	1	2	3	4	5	6	7

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Q29. How likely are you to do the following to help control the spread of chronic wasting disease (CWD).
(Please circle one number for each.)

	Very unlikely	Somewhat unlikely	Slightly unlikely	Neutral	Slightly likely	Somewhat likely	Very likely
Let the Minnesota DNR test every deer you shoot for CWD.	1	2	3	4	5	6	7
Butcher and process your own deer.	1	2	3	4	5	6	7
Quarter your own deer near your harvest location before transporting to other areas of the state.	1	2	3	4	5	6	7
Stop transporting whole deer carcasses even if there is no carcass ban in your area.	1	2	3	4	5	6	7
Stop recreationally feeding deer.	1	2	3	4	5	6	7
Stop using mineral or salt blocks.	1	2	3	4	5	6	7
Stop using urine-based scents.	1	2	3	4	5	6	7
Stop using other lures, scents, or attractants.	1	2	3	4	5	6	7
Increase the number of deer that you personally harvest.	1	2	3	4	5	6	7
Change your personal goals determining what you harvest when it relates to antler size in bucks.	1	2	3	4	5	6	7
Dispose of whole deer carcass in a lined landfill or keep in immediate area of harvest to prevent CWD spread, even if there are no current regulations preventing such.	1	2	3	4	5	6	7

Part IX. Management & Special Regulations to Address Chronic Wasting Disease (CWD).

Questions in this section pertain to the 2018 disease management zone, which is deer permit area 603, as shown on the map. The intent of these regulations is to reduce deer densities, limit the potential for disease transmission, and remove any additional CWD-positive deer from the landscape.

2019 Southeast Minnesota Deer Hunting
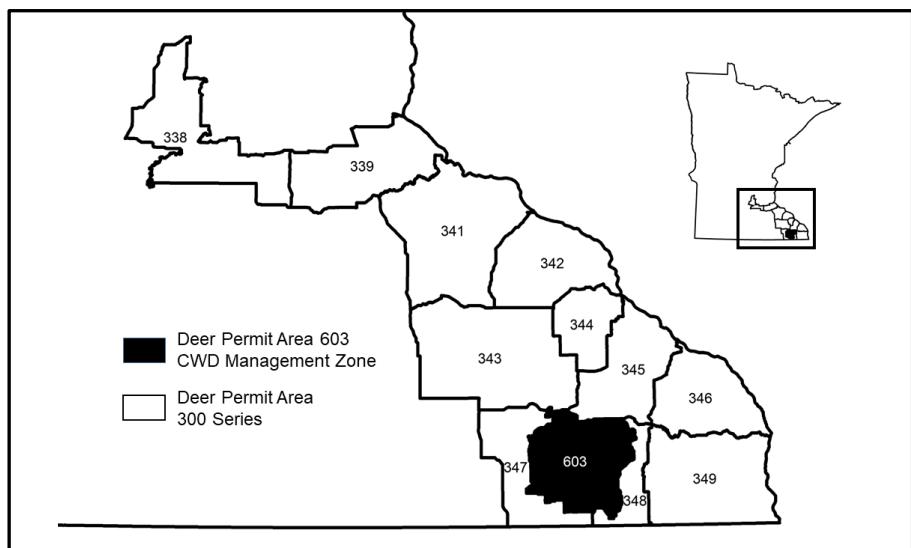
Q30. Do you think the Minnesota DNR's management of chronic wasting disease is:

- ❑ Too aggressive
- ❑ About right
- ❑ Not aggressive enough

Q31. How much do you agree or disagree with the following statements? (*Please circle one number for each.*)

CWD regulations should…	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
… be designed to reduce deer densities.	1	2	3	4	5
… take precedent over all other deer hunting regulations.	1	2	3	4	5
… be no different than deer hunting regulations in surrounding areas.	1	2	3	4	5
…be designed to limit disease spread.	1	2	3	4	5
…be passive and let nature take its course.	1	2	3	4	5
…be as aggressive as possible in the short term (3-5 years).	1	2	3	4	5
…not impact local economies.	1	2	3	4	5
…not impact hunter participation.	1	2	3	4	5
…provide a financial incentive for harvest.	1	2	3	4	5
…provide a non-financial incentive for harvest.	1	2	3	4	5

Q32. First, please indicate if you <u>oppose or support</u> these *existing* regulations <u>in the chronic wasting disease (CWD) disease management zone (deer permit area 603)</u> in Minnesota. Then, indicate how <u>effective</u> you believe the regulation is in stopping the spread of CWD. (*Circle <u>one for each</u>.*)

	How much do you <u>support or oppose</u> this regulation?					How <u>effective</u> do you believe this regulation is in reducing the transmission of CWD?				
	Strongly oppose	Oppose	Neither	Support	Strongly support	Not at all effective				Extremely effective
Mandatory CWD testing.	1	2	3	4	5	1	2	3	4	5
Unlimited harvest of antlerless deer, with only one buck allowed per hunter per year.	1	2	3	4	5	1	2	3	4	5
Cross-tagging and harvest of any antlered buck, with no antler point restriction in effect.	1	2	3	4	5	1	2	3	4	5
Requirement that carcasses remain within the disease management zone until a "CWD not detected" result is confirmed.	1	2	3	4	5	1	2	3	4	5
Allowing the use of A or B license during any firearms season.	1	2	3	4	5	1	2	3	4	5
Unlimited number of $2.50 disease management tags for harvest of antlerless deer.	1	2	3	4	5	1	2	3	4	5

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Q33. Please indicate if you <u>oppose or support</u> these *possible* special regulations or programs to help manage chronic wasting disease (CWD). (*Circle <u>one for each</u>.*)

	Strongly oppose	Oppose	Neither	Support	Strongly support
Professional culling of deer in local areas after the deer season.	1	2	3	4	5
Allow hunters to take unlimited bucks in the disease management zone.	1	2	3	4	5
Allow hunters to take a buck per season (archery, firearms, muzzleloader).	1	2	3	4	5
Implement a ban on recreational deer feeding.	1	2	3	4	5
Expanded venison donation program.	1	2	3	4	5
Expand the size of the disease management zone.	1	2	3	4	5
Hunters must take one antlerless deer before taking a buck (earn-a-buck).	1	2	3	4	5
Hunters must take more than one antlerless deer before taking a buck.	1	2	3	4	5
Series of short (3-day) post-muzzleloader season hunts.	1	2	3	4	5
Longer early antlerless season (currently 4 days).	1	2	3	4	5
Longer youth season.	1	2	3	4	5
Muzzleloader weekend in October.	1	2	3	4	5
Free permits to landowners to use before the regular deer season.	1	2	3	4	5
Prohibit export of all carcasses from the CWD management zone, including fawns.	1	2	3	4	5
Hunters having the ability to earn extra buck tags by taking multiple does (2 or 3 does earns an extra buck).	1	2	3	4	5
Reduce free landowner license acreage requirements (currently 80 acres).	1	2	3	4	5
Create hunter/landowner database to connect hunters to landowners who allow hunting access.	1	2	3	4	5

2019 Southeast Minnesota Deer Hunting

Q34. Some states are considering offering incentives that motivate landowners to provide access and hunters to harvest more deer. We would like to know how strongly you support or oppose potential incentive programs.

	Strongly oppose	Oppose	Neutral	Support	Strongly support
Pay landowners to allow people to hunt their property.	1	2	3	4	5
Pay landowners for CWD positive deer killed on their property.	1	2	3	4	5
Pay hunters for CWD positive deer they kill.	1	2	3	4	5
Expanded venison donation program where meat is distributed to local communities.	1	2	3	4	5
Lifetime deer hunting license for killing a CWD positive deer.	1	2	3	4	5
For each deer killed in the CWD zone, receive one lottery ticket for entry into a drawing to win equipment.	1	2	3	4	5
Pay landowners for every deer shot on their property.	1	2	3	4	5
Work with Legislature to develop program to give tax breaks to landowners who allow public hunting.	1	2	3	4	5
Financial contribution to a charity of your choice for killing a CWD positive deer.	1	2	3	4	5
Provide hunters with an extra buck tag for killing a CWD positive <u>buck</u>.	1	2	3	4	5
Provide hunters with an extra buck tag for killing <u>any</u> CWD positive deer.	1	2	3	4	5
Provide free deer license for the following year if hunter provides a CWD positive deer.	1	2	3	4	5

Q35. Do you support paying incentives to hunters and landowners who harvest CWD positive deer?

❑ No (*Please skip to Question 37 on the next page.*)

❑ Yes

Q36. If you support paying incentives to hunters and landowners who harvest CWD positive deer, what maximum amount is acceptable? Please indicate an amount up to $1,000 for payments made by:

A private group: Amount paid to hunter $_____   Amount paid to landowner $ _____

The Minnesota DNR: Amount paid to hunter $_____   Amount paid to landowner $ _____

2019 Southeast Minnesota Deer Hunting

Q37. How much do you agree or disagree with the following statements about the Minnesota DNR?
(*Please circle one response for each.*)

The Minnesota DNR…	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
… shares similar values as me.	1	2	3	4	5
… shares similar opinions as me.	1	2	3	4	5
… thinks in a similar way as me.	1	2	3	4	5
… takes similar actions as I would.	1	2	3	4	5
… shares similar goals as me.	1	2	3	4	5
…does a good job of managing deer in Minnesota.	1	2	3	4	5
…is open and honest about things they do and say related to deer management.	1	2	3	4	5
…can be trusted to make decisions about deer management that are good for the resource.	1	2	3	4	5
…will make decisions about deer management in a way that is fair.	1	2	3	4	5
…has deer managers and biologists who are well-trained for their jobs.	1	2	3	4	5
…listens to deer hunters' concerns.	1	2	3	4	5

Part XI. About you

Q38. Are you a member of an organized deer hunting group?
- ❑ Yes
- ❑ No (*Please skip to Question 40.*)

Q39. If yes, which group(s) do you belong to?
- ❑ Minnesota Deer Hunters Association
- ❑ Bluffland Whitetails Association
- ❑ Quality Deer Management Association
- ❑ Whitetails Unlimited
- ❑ Backcountry Hunters and Anglers
- ❑ Local Sportsman Group
- ❑ Other: _____

Q40. What is the highest level of education you have completed? *(Check one.)*
- ❑ Grade school
- ❑ Some high school
- ❑ High school diploma or GED
- ❑ Some vocational or technical school
- ❑ Vocational or technical school (associate's) degree
- ❑ Some college
- ❑ Four-year college (bachelor's) degree
- ❑ Some graduate school
- ❑ Graduate (master's or doctoral) degree

THANK YOU FOR YOUR HELP!
Please return the completed questionnaire in the enclosed self-addressed, stamped envelope.

Appendix B: Shortened Survey Instrument to Assess Nonresponse Bias

FOLLOW-UP SURVEY ON SOUTHEAST MINNESOTA DEER HUNTERS ACTIVITIES & OPINIONS ABOUT DEER POPULATIONS & CHRONIC WASTING DISEASE

Q1. Why you did not respond to our earlier survey mailings. (*Please check <u>all</u> that apply*.)

- ❑ I am not that interested in deer hunting & management.
- ❑ I do not hunt enough to provide useful input.
- ❑ I did not have time.
- ❑ The original survey was too long.
- ❑ I never received the earlier mailings.
- ❑ I misplaced my earlier mailings.

- ❑ I intended to complete it, I but did not get to it.
- ❑ Challenge of returning "snail mail" postal survey
- ❑ I returned it.
- ❑ The information and questions were too complicated.
- ❑ Concerned about how the information would be used.
- ❑ Other: _____

Q2. <u>How many</u> years have you hunted for deer <u>in Minnesota</u>? (*If uncertain please estimate*.)

_____ Years

Q3. Of the 5 years <u>before the 2018 deer season</u>, which years did you hunt deer <u>in Minnesota</u>? (*Check <u>all that apply</u>*.)

- ❑ 2017
- ❑ 2016
- ❑ 2015
- ❑ 2014
- ❑ 2013
- ❑ I did not hunt deer during any of these years.

Q4. Did you hunt during the <u>2018 firearm deer season</u>?

- ❑ Yes
- ❑ No (*Please skip to Question 8 on the back side of this page*.)

Q5. Which <u>ONE deer permit area</u> did you hunt <u>most often</u> during the 2018 <u>firearm deer season</u>? (*Check one.*)

❑ 338	❑ 342	❑ 345	❑ 348	❑ Other
❑ 339	❑ 343	❑ 346	❑ 349	
❑ 341	❑ 344	❑ 347	❑ 603	

Q6. How many <u>days</u> did you hunt during the <u>2018 firearm deer season</u>?

_____ Days

Q7. How <u>satisfied or dissatisfied</u> were you with each of the following during the 2018 deer hunting season in Minnesota? (*Circle <u>one</u> response <u>for each.</u>*)

	Very dissatisfied	Moderately dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Moderately satisfied	Very satisfied
Overall deer hunting experience	1	2	3	4	5	6	7
Deer hunting harvest	1	2	3	4	5	6	7
Deer hunting regulations	1	2	3	4	5	6	7
Total number of deer seen	1	2	3	4	5	6	7
Number of bucks seen	1	2	3	4	5	6	7
Number of antlerless deer seen	1	2	3	4	5	6	7

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Q8. Do you think the Minnesota DNR's management of chronic wasting disease is:

- ❑ Too aggressive
- ❑ About right
- ❑ Not aggressive enough

Q9. How much do you agree or disagree with the following statements? (*Please circle one number for each.*)

CWD regulations should…	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
… be designed to reduce deer densities.	1	2	3	4	5
… take precedent over all other deer hunting regulations.	1	2	3	4	5
… be no different than deer hunting regulations in surrounding areas.	1	2	3	4	5
…be designed to limit disease spread.	1	2	3	4	5
…be passive and let nature take its course.	1	2	3	4	5
…be as aggressive as possible in the short term (3-5 years).	1	2	3	4	5
…not impact local economies.	1	2	3	4	5
…not impact hunter participation.	1	2	3	4	5
…provide a financial incentive for harvest.	1	2	3	4	5
…provide a non-financial incentive for harvest.	1	2	3	4	5

Q10. How much do you agree or disagree with the following statements about the Minnesota DNR? (*Please circle one response for each.*)

The Minnesota DNR…	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
… shares similar values as me.	1	2	3	4	5
… shares similar opinions as me.	1	2	3	4	5
… thinks in a similar way as me.	1	2	3	4	5
… takes similar actions as I would.	1	2	3	4	5
… shares similar goals as me.	1	2	3	4	5
…does a good job of managing deer in Minnesota.	1	2	3	4	5
…is open and honest about things they do and say related to deer management.	1	2	3	4	5
…can be trusted to make decisions about deer management that are good for the resource.	1	2	3	4	5
…will make decisions about deer management in a way that is fair.	1	2	3	4	5
…has deer managers and biologists who are well-trained for their jobs.	1	2	3	4	5
…listens to deer hunters' concerns.	1	2	3	4	5

Please complete this questionnaire and return it in the postage-paid return envelope to:
Minnesota Cooperative Fish and Wildlife Research Unit, University of MN,
200 Hodson Hall; 1980 Folwell Avenue; St. Paul, MN 55108

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