## Grapevine Lake 2022-2023 Deer Season

United States Corps of Engineers Grapevine Lake

#### **Purpose**

Deer Permits for United States Army Corps of Engineers (USACE) Wildlife Management Area (WMA) on the west side of Grapevine Lake are issued through a fair application process to which each hunter has an equal chance to be drawn. The requirement to have a permit helps protect the wildlife from being over harvested and preserves it for future generations to come.

Hunter surveys are issued to all permit holders to get a better understanding of how the hunting season went as far as hunter satisfaction and harvest numbers. These surveys help shape the future of the Grapevine Lake hunting seasons. Hunters who fail to submit a survey by the established deadline are disqualified for the next season.

#### **Deer Permit Background**

In the 2022-2023 season, 256 hunters were issued permits to deer hunt in the WMA managed by the USACE on Grapevine Lake. At the end of deer season all the deer hunting permit holders are required to fill out and return a survey that helps guide the decisions we make for future hunting seasons. If a permit holder fails to return a survey at the end of the season, they become ineligible to be drawn for the following season. If a group application includes one ineligible hunter the entire application is ineligible and thrown out. This past season, there were 920 total applicants. 47 applications included ineligible hunters, of these hunters were disqualified due to offenses such as submitting multiple applications or failure to submit a survey if drawn in a past season. The total number of disqualified hunters was 113. This left a total of 807 eligible hunters, which made the probability to get drawn 32% for the 2021-2022 season.

The survey was 11 questions long and included a variety of questions ranging from the number of times going hunting to asking if the hunters had any suggestions for future hunting seasons.

#### **Survey Data Results**

Of the 256 permit holders, 120 returned surveys. 7% of these permit holders did not hunt, which left us with 112 surveys from people who hunted. The success rate of these hunters was 24%. The rough estimate of doe to buck ratio based on these hunters' responses was 1.88 does per buck. There was a total of 35 deer killed, 19 bucks and 16 does, by 27 different hunters.

Question 1: How many times did you go hunting this season?

Question 1 includes responses from every permit holder who submitted a survey (120). This question showed even distributed responses across the board with an increasing trend as the number of times increased. The answer that was recorded the most was 10+ times with 49 responses. The response that was chosen the least amount was 0 with 8 responses. (Figure 1)

#### Question 2: How many hours did you spend hunting on a typical day?

Question 2 only includes responses from the permit holders who hunted at least one day (112 hunters). This question shows us that 62% of the time, hunters hunt between 3 and 5 hours. The responses from three hours and going longer than that includes 94.5% of responses. It can also be assumed that most hunters who chose the 6+ hours response hunted all day. This leaves only 5.4% of hunters who hunt less than 3 hours on a typical day. (Figure 2) The data from Question 2 in 2021-2022 very closely reflects the data from 2020-2021.

#### Question 3: Which days of the week did you hunt the most?

Question 3 included responses from 112 hunters. It was answered by the hunters choosing one of the seven days of the week, a combination of weekends and weekdays, combination of weekend days, or a combination of weekdays. This question showed us that 75.9% of hunters hunted a combination of days with a combination of weekends and weekdays being the most selected option with a total of 37.5%. Saturday was chosen the most out of any singular day and had 11 hunters that chose Saturday as the day which they hunted the most. Overall, we can see that most hunters did not hunt one day more than all others, however weekends most likely receive more hunting pressure. (Figure 3)

#### Question 4: What time of day did you go hunting the most?

Question 4 had 5 response options which included Mornings, Middle of the Day, Evenings, Mornings and Evenings, and All times of the Day. Mornings and Evenings was the option chosen the most by hunters being chosen by 37% of hunters (41), with another 28% (31) choosing the mornings response. 89% of hunters chose a response that included hunting the mornings, and 71% of hunters chose a response that included evenings. Only .9% of hunters chose middle of the day as their response, and only 25.9% of hunters chose a response that included the middle of the day. (Figure 4)

#### Question 5: How many other hunters do you typically see while hunting?

62.5% of hunters recorded seeing 0-1 other hunters while hunting. No hunters recorded typically seeing 7+ other hunters while hunting. The most common response was 0-1 other hunter, 70 hunters chose this response. The second most common response chose by hunters was 2-3 other hunters seen, this response was recorded 41 times. 99.1% of hunters seen 3 or less hunters on a typical day. 1 response stated they seen 4-6 hunters. (Figure 5)

#### Question 6: How many deer did you harvest this season?

Roughly 24% of the hunters found success in the 2022-2023 Grapevine Lake Deer Season. 19 hunters killed one deer and 8 hunters killed two deer. 84 hunters (75.7%) did not harvest a deer. This information also tells us that 35 deer were killed throughout the season, by 27 different hunters. (Figure 6)

#### Question 7: If you killed deer, what was/were the sex(es)?

Question 7 only contains answers from the hunters who found success during the season (27 hunters). There were 35 deer harvested during the season. 19 of these deer were bucks and 16 were does.

#### Question 8: How many bucks did you see while hunting?

The most common response to question 8 was 0 bucks seen, with 22 hunters (20%) reporting this. Just over 80% of hunters reported seeing at least 1 buck, this is up 10% from last year. 2 and 3 bucks seen were the second most common responses chosen with 19 hunters (17%) each reporting this. 0-4 bucks seen make up for nearly 80% of the hunters' responses. Another response that stands out is 10 hunters reported seeing 10+ bucks while hunting. (Figure 7)

#### Question 9: How many does did you see while hunting?

The most common response to question 9 was 10+ does seen, with 41 hunters (36.6%) reporting this (up roughly 15% from last year). The second most common response was 0 does seen, with 15 hunters (13%) reporting this. 9 does seen had the least number of responses with 1 response. (Figure 8)

Question 10: Please rate, on a scale of 1 to 5, your overall satisfaction with your hunting experience this season. 1 = horrible, 5 = spectacular.

The most common response to question 10 was 5 with 46 responses. 4 was the next highest satisfaction level chosen, with 43 responses (38.39%). The Least common response was 1, the lowest satisfaction level. Hunters recorded this response 0 times. The top two satisfaction levels accounted for 79.46% of the hunters whereas the Lowest two satisfaction levels accounted for 3.57% of the hunters. (Figure 9) Satisfaction levels appear to have risen from 21-22 to 22-23.

# Question 11: How can the Corps of Engineers improve your overall hunting experience at Grapevine Lake?

Only 60 of the 112 hunters left suggestions on their survey. With these suggestions being open-ended answers, they were categorized or summarized to fit them in alike categories so we could attempt to see if there were any trends of people thinking along the same lines as one another. Once this was done, it was clear there was 1 common answer that stood out more than the others. The most common general response was the hunters suggesting to improve/add places to access the hunting area more effectively. 28 of the responses were able to be fit in this category which is roughly 47% of those who left responses. A couple other of the more common suggestions include Mowing trails or prescribed burns to make the property easier to navigate, (6 votes) and eliminating personal non-hunting recreation from the hunting lands. (4 votes). (Figure 10)

#### **Key take-aways**

47% of permit holders returned surveys (120), this is a 10% decrease from last year and is about even with the 2020-2021 season. Ideally, we would like many more surveys come the end of each season. One factor that could have affected the survey returned percentage this year is hunters were not handed a survey when they picked up their permit, instead they were expected to find the survey online at the end of the season. Of these permit holders, the harvest success rate was roughly 24%, which is up 5% from last year's.

Saturdays appeared to be the day when the Grapevine Lake WMA was visited the most, so if you are looking to stay away from other hunters you would either need to try to get to a more remote area of our WMA or try to hunt during the week if possible. However, I would like to re-word this question from next year's survey to attempt to get more specific answers. Based on question 5, There does not appear to be too many hunters in the WMA, as most hunters typically saw 3 or less other hunters while hunting (Figure 5).

There were many deer seen by hunters through the deer season. Question 9 of the survey shows us a trend that many hunters had either seen none to hardly any does, or they saw 10 or more (Figure 8). Question 8 showed the number of bucks seen by hunters and this showed more of a decreasing trend with the highest value being hunters seeing none to hardly any bucks and decreasing with the number of bucks seen (Figure 7). With the answers to these two questions, we were able to get a rough estimate of the buck to doe Ratio which was 1:1.88. This is an extremely rough estimate due to the different factors that play into the numbers we received. According to Texas Parks and Wildlife Department (TPWD), the ideal buck to doe ratio is around 1:1.

Question 9 shows us that over 79% of the hunters were satisfied with their experience, and another 17% that were neither satisfied nor dissatisfied. This tells us that there isn't too much that needs to be changed at this time. Question 10 showed us that the most common suggestion to improve satisfaction is to add more and/or different access points or parking areas to the property. There are no current plans to add these areas due to a lack of resources including funding and proper location although there are possible opportunities for this in the future.

#### **Upcoming Season**

As of now the upcoming season is planned to be ran very similar to this pervious season. We plan to run the application process in July for a period of 1 month, the drawing will take place and late August. The current plan is for the dispersal of permits will slightly change this year. Hunters who are drawn will now be emailed their permits instead of having to pick it up at our project office.

Lastly, not everyone who gets a permit is able to hunt. However, the returned survey is still valuable information to us. Remember, if a permit holder fails to submit a survey by the deadline, they will be ineligible for our future drawings.

### **Data Charts and Graphs**



Figure 1: Data chart from Question 1 of the 2022-2023 deer hunter survey.



Figure 2: Data chart from Question 2 of the 2022-2023 deer hunter survey.

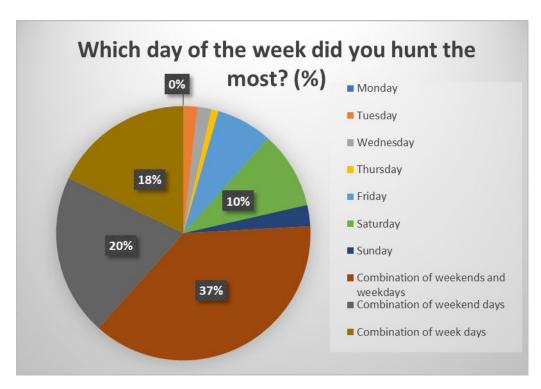


Figure 3: Pie chart from Question 3 of the 2022-2023 deer hunter survey.

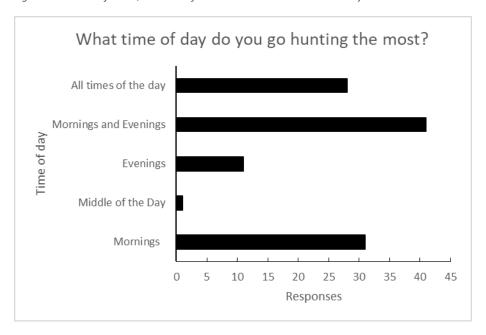


Figure 4: Data chart from Question 4 of the 2022-2023 deer hunter survey.

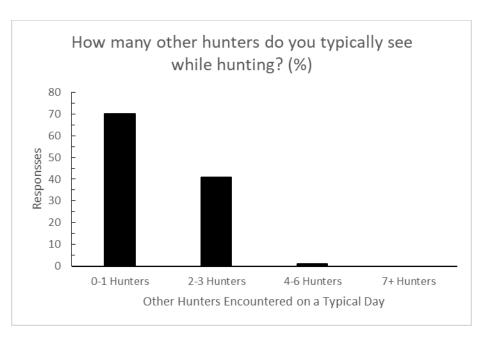


Figure 5: Data chart from Question 5 of the 2022-2023 deer hunter survey.

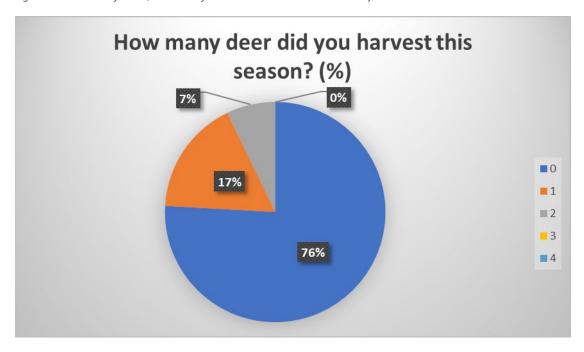


Figure 6: Pie chart from Question 6 of the 2022-2023 deer hunter survey.

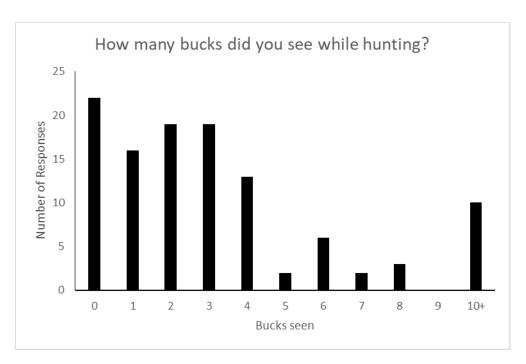


Figure 7: Data chart from Question 8 of the 2022-2023 deer hunter survey.

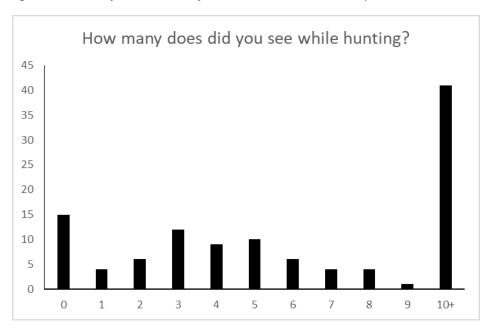


Figure 8: Data chart from Question 9 of the 2022-2023 deer hunter survey.

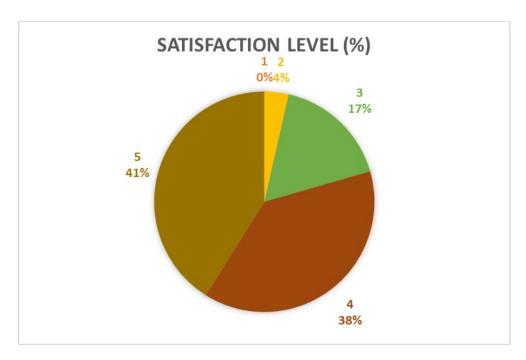


Figure 9: Pie chart from Question 6 of the 2022-2023 deer hunter survey. Satisfaction Levels with 1 being the lowest and 5 being the highest.

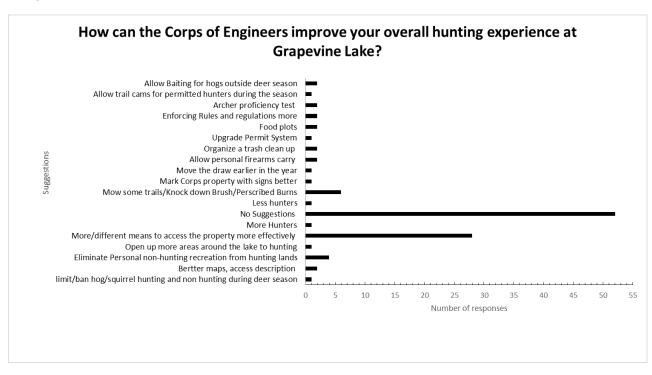


Figure 10: Data chart from Question 8 of the 2022-2023 deer hunter survey