



MID-ATLANTIC
— WHITETAIL SOLUTIONS, LLC —

Landfill Site 2 - Dickerson, MD

Deer Management Summary 2023-2024

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Mid-Atlantic Whitetail Solutions LLC (MAWS) proudly submits the Annual Deer Management Report for the 2023-2024 season, marking another year of dedicated effort towards sustainable deer management and ecosystem conservation.

Key Statistics:

- **Total Deer Removed:** 28 deer, contributing to our goals of maintaining a balanced ecosystem and reducing the impact on local agriculture.
- **Total Time Afield:** 318.75 hours, reflecting our hunters' commitment and the extensive time invested in management activities.
- **Number of Total Hunts:** 93, showcasing our active engagement and continuous monitoring of the deer population throughout the season.
- **Average Hours per Hunt:** 3.42, indicating the dedicated effort and patience of our hunters in pursuing our management objectives.
- **Deer Observations:**
 - **Total Antlerless (Does) Observed:** 442
 - **Average Antlerless Deer Observed per Hunt:** 4.75
 - **Total Antlered (Bucks) Observed:** 169
 - **Average Antlered Deer Observed per Hunt:** 1.81
- **Deer Removal:**
 - **Total Does Removed:** 26
 - **Total Bucks Removed:** 2
 - **Average Hunt Hours per Deer:** 11.38, underscoring the effort-to-success ratio and informing our future strategies.
 - **Average Hunts per 1 Deer Removal:** 3.35, illustrating the effectiveness of our hunting strategies and efforts.
- **Community Contribution:**
 - **Total Deer Donated to Hungry Families:** 21, reinforcing our commitment to giving back to the community and ensuring the ethical use of harvested deer.



Pre-Hunting Efforts

As part of our comprehensive approach to deer management at Site 2, our pre-hunting preparations were extensive and meticulously planned. These efforts are foundational to our strategy, ensuring ethical and effective hunting practices while maintaining the ecological balance of the area.

Trail Cameras & Property Monitoring

Continuing our tradition of leveraging technology, we further optimized our trail camera network. The continued integration of cellular-wireless cameras has revolutionized how we monitor wildlife activity, track deer movement patterns, and safeguard against trespassing. This year, despite the challenges of operational costs, our investment in this technology has been indispensable for real-time surveillance and data



collection, enriching our understanding of the deer population and their habits. Outside of the ongoing neighbors' dogs' at large issue, we are happy to share we had very few, if any, real trespassing incidents this year. Our records indicate no recorded poaching incidents, and it seems as though both foot traffic and unknown vehicles have merely gone away. I believe not only have we made our presence and tolerance known, building quality neighbor relationships as well as having a good relationship with local law enforcement has enhanced the efforts to reducing trespassing and poaching on the property.

Trail cameras were utilized pre-season to assist with finding a local farmers' cattle that escaped. We feel fortunate to be able to assist and help the community through constant monitoring of the property while also providing an added level of monitoring protection to the county and their asset.

Scouting and Habitat Assessment

Our scouting efforts commenced earlier this season, allowing for a thorough assessment of deer habitats and movement corridors. This proactive approach facilitated targeted strategies for the hunting season, optimizing our efforts for sustainability and impact. Furthermore, our ongoing habitat analysis highlighted areas for improvement, reinforcing our commitment to habitat conservation and the promotion of biodiversity.



Signage & Property Maintenance

In the 2023-2024 season, the Mid-Atlantic Whitetail Solutions team continued its unwavering commitment to maintaining the pristine condition of Site 2, albeit with a slight reduction in the volume of trash removed compared to previous years. Despite this, our efforts remained steadfast, and we successfully collected a total of six bags of trash from the property.

During our scouting activities on August 27th, 2023, we took the opportunity to enhance property security and awareness by retaining and adding posted signs at strategic entry points and along the property borders. These signs serve as a deterrent to unauthorized access and reinforce our dedication to the safety and integrity of the property.

On this day, our team dedicated itself to a thorough cleanup operation. We patrolled the roadways adjacent to Site 2, where we managed to collect three bags of trash, demonstrating our commitment to not only the property itself but also to the surrounding environment. Additionally, our efforts extended within the property boundaries where we gathered an additional three bags of trash. This endeavor underscores our holistic approach to property management, ensuring that the natural habitat is preserved for wildlife and enjoyed responsibly by those who use it.

Although the total volume of litter removed saw a decrease, reflecting possibly a positive trend towards greater environmental respect in the vicinity of Site 2, it remains a testament to our ongoing dedication to the environment. These cleanup activities are pivotal to our conservation efforts, ensuring that Site 2 remains a beacon of natural beauty and a sanctuary for wildlife.

Our initiatives for the 2023-2024 season embody MAWS's commitment to responsible stewardship of the land, reinforcing the integral role of cleanliness and maintenance in wildlife management and conservation. As we look forward to future seasons, we continue to prioritize the well-being of the ecosystem, pledging to maintain, and whenever possible, enhance the health and beauty of Site 2 for generations to come.



Hunting Efforts

The 2023-2024 hunting season at Site 2 was characterized by a strategic and responsible approach to deer management, underpinned by a deep commitment to conservation and safety. Our hunting efforts were meticulously planned and executed to ensure sustainable population control, ethical hunting practices, and the well-being of the local ecosystem.

Utilization of Technological Advancements

Our hunting efforts were using trail cameras, strategically placed throughout the property, offering real-time insights into deer movement patterns, were very beneficial to our program. This assisted in enabling hunters to make informed decisions and reduce the impact on the herd. The anticipated introduction of thermal drone imagery was limited pre-season due to tree foliage and constrained to only be used during our post-season analysis and in season recovery efforts. [Note: The use of thermal drone imagery as a hunting aide was not used and was strictly used in the aiding of recovery of deer during deer season and then for our deer population study after the hunting season ended.]

Contribution to Community Welfare

A cornerstone of our hunting efforts this season was the continued commitment to donating harvested deer to local families in need. This initiative not only addresses food insecurity in our community but also ensures that the outcome of our management activities has a broader positive impact. The ethical use of the deer harvested from Site 2 exemplifies our holistic approach to deer management, balancing ecological responsibilities with social contributions.

Ethical Hunting Practices

Ethical considerations remained at the forefront of all hunting activities. Our team of skilled and certified hunters adhered to the highest standards of sportsmanship and respect for the animal, ensuring that all hunting was conducted in a humane and sustainable manner. The training and certification of our hunters reinforce our commitment to ethical practices, setting a model for responsible wildlife management.



Property Analysis

Our comprehensive property analysis for the 2023-2024 season at Site 2 included an in-depth review of the habitat, an evaluation of the deer herd, and the integration of new technologies to enhance our understanding and management strategies.

Habitat Improvements

This year, we collaborated with the leasing farmers to not only sustain our deer hunting efforts but also dedicated approximately 5 acres of tillable land for planting food plots and installing water stations. These water stations proved to be a cost-effective means of attracting deer to centralized areas for monitoring with trail cameras, rather than investing heavily in



Figure 1 Hunter is spreading seed of both annual and perennial food sources highly desired by whitetail.

bait. Our members planted the food plots to create highly enticing forage, diverting deer

away from the farmers' crops while providing us with strategic hunting locations. This initiative incurred around \$2500 in expenses for our team this year. However, we realized that we lacked the proper equipment to maximize effectiveness. Therefore, we aim to revisit this approach in the upcoming year, hoping for improved outcomes.



We remain committed to encouraging habitat enhancement strategies, including selective timber harvests, which offer both environmental

benefits and potential revenue sources. These practices aim to restore balance to the ecosystem, promoting a habitat that supports all resident species while mitigating the impact of previous overpopulation issues.

Wildlife Assessment

This season we saw a great increase in other wildlife utilizing the property. Geese and Turkey are plentiful, but coyotes and foxes are very abundant. Additionally, this year we found several bears utilizing the property. We have trail camera data from 2012 and 2016 showing that we have had bears on the property before and although it does not appear to be an issue, we will continue to monitor their herd size and growth. We estimate there to currently be between 3-4 separate bears on the property based on data (size and location) collected from captured photos. Additionally, using thermal drone imagery, we were able to find a bear on the property while looking for a wounded deer. Coyotes



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have exponentially grown over the years, and we have seen far more coyotes this year than any year in the past with sightings averaging 1 per 10 recorded hunts.

Deer Herd Assessment

See *Incorporation of Thermal Drone Technology* below.

Incorporation of Thermal Drone Imagery

This year marked a significant advancement in our deer management strategy with the incorporation of thermal drone imagery. This innovative approach was a first for us and proved instrumental in the recovery process of some of the deer harvested. Using the drone outside of deer recovery would provide imagery on deer locations, which we feel is unethical hunting practices, therefore we refrained from using the drone for deer population studies until after hunting season ended. There is a small window between the end of hunting season and the time that bucks begin to drop their antlers and unfortunately during this time our drone was being repaired, thus, making the timing of our deer population study occur after several bucks had already shed their antlers off, making it difficult to tell if antlerless deer were bucks or does.



Figure 2 The above photo shows "black dots" indicating deer utilizing the property in the evening hours along Martinsburg Road



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Despite this, we were still able to collect sufficient data to ascertain that a considerable number of deer reside on neighboring properties, often foraging the Site 2 property overnight. This pattern is likely a response to the increased hunting pressure over the season.

Our assessment revealed a commendable deer density of about 134 deer inhabiting the approximate 820-acre expanse of Site 2. Although this number falls below Montgomery County, Maryland's average, it corresponds to an estimated 104 deer for every square mile. Our field observations disclosed a ratio close to

4 does per buck, slightly short of our thermal drone findings, which documented around 110 antlerless and 24 antlered deer. Considering that roughly 10 antlerless deer may be mature bucks that had already shed their antlers and considering previous data on fawn counts and the typical 50/50 buck-to-doe birth ratio, we approximated that about 20-30 of the observed antlerless deer were fawns. Assuming half of these are male, we have about 15 buck fawns, 10 mature bucks without antlers, and 24 with antlers, suggesting a deer herd with a buck-to-doe ratio of about 1:2.

Ideally, a balanced herd would exhibit a buck-to-doe ratio of 1:2 to 1:1. Therefore, leveraging thermal drone insights, our observation logs, and past data, we estimate an annual introduction of roughly 30 fawns into the population, matched by our removal of approximately 30 deer each year, we can estimate a continued balanced deer herd with potential for more bucks than does in the future. With a current 1:2 buck-to-doe ratio derived from our data, our aim for the next year will continue to focus on does while still providing opportunities for bucks to be harvested with our restrictions in place. This strategy is designed not only to modestly reduce overall deer density but also to gradually adjust the buck-to-doe ratio towards a more desirable balance. We plan to reassess our approach at the conclusion of the next hunting season, adjusting our strategy as necessary to ensure the health and balance of the deer population at Site 2.



Figure 3 The Image above shows the neighboring property to the North of Site 2 and the substantial number of deer utilizing that property that will also utilize Site 2.



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Combining the data from our observation log, the insights gained through thermal imagery analysis, and the overall data evaluation, we've concluded that our efforts would be most effective if concentrated in early September. Most does were observed per hour during this period, compared to later in the season. This pattern may result from either our successful harvesting of does throughout the season or from increased deer pressure. Should it be due to increased pressure, intensifying our efforts next September could enable us to harvest more does. Conversely, if it's related to our deer harvests during the season, a more aggressive early-season harvest could lead to an even more noticeable decline in deer observations by the season's end.

Considering these findings, we aim to slightly increase our doe harvest next season to exceed 30 does. This strategic adjustment is anticipated to further enhance our deer management outcomes, ensuring a balanced and healthy deer population on and around the property.

Reflections on the Season:

The 2023-2024 deer management season at Site 2 has been a testament to the dedication of Mid-Atlantic Whitetail Solutions and its members towards responsible wildlife management and community support. Our efforts have not only focused on managing the deer population for ecological balance but also on contributing positively to local families in need.

Through meticulous planning, strategic hunts, and the generous donation of deer meat, we have once again demonstrated the value of ethical hunting practices in conservation efforts and community welfare. Our continuous observation and data collection efforts have provided us with invaluable insights into deer behavior and population dynamics, informing our management strategies and ensuring their effectiveness.

As we look forward to the next season, we remain committed to our goals of safety, sustainability, and community service. We will continue to refine our strategies, engage with the community, and work tirelessly towards a balanced ecosystem at Site 2.

Mid-Atlantic Whitetail Solutions LLC is grateful for the dedication of our members, the support of the local community, and the opportunity to contribute to meaningful conservation efforts. We are excited for the challenges and successes that the next season will bring.