



MID-ATLANTIC
— WHITETAIL SOLUTIONS, LLC —

Site 2-Dickerson, MD

Deer Management Summary 2019-2020

*Prepared for Patriot Natural Resources, by Dustin Prievo
1 February 2020*

As the 2019-2020 Maryland Regulated Hunting Season comes to a close and a new hunting season is on the horizon, *the Mid-Atlantic Whitetail Solutions, LLC (MAWS)* would like to share with the Montgomery County Department of Environmental Protection, Recycling and Resource Management Division, the results of deer management efforts performed on the future Site 2 Landfill properties, in Dickerson, Maryland during Year 10 of the management effort.

Thorough analysis of the deer population, overall wildlife habitat and compromise of all those affected by this property, helps us determine the measure of success of this program. The use of our hunter harvest records, trail cameras and observation logs all provide us with information to aide in our program in making future decisions on best practices for the determined goals of Montgomery County Department of Environmental Protection, Division of Solid Waste Services and MAWS combined.

Changes for 2019-2020

New Name & Entity

Moving into 2019 the formerly known Patriot Whitetail Removal Team (PWRT) had begun to work under a new identity, the Mid-Atlantic Whitetail Solutions, LLC (MAWS). For the 2019-2020 season, we continued to operate under the direction of Patriot Natural Resource and their authority from the County. Ultimately there were no other changes as far as hunters, their qualifications, the rules and regulations, goals and personnel remained the same.

MAWS is owned and operated by Mr. Dustin Prievo, who was a PWRT member since 2015 and the PWRT coordinator since 2017. New hunters have been added to the MAWS roster. Those hunters, however, have not yet been added to this specific property until determined to prove themselves to the integrity of the program through field training, observation and trials through other properties. New members will not be permitted to the Dickerson Site 2 property until deemed a member in good standing and have a minimum of 3 years in the program. This will ensure the integrity and trust of our program and brand moving forward.



New Operating License

Up until 2019, MAWS (as the PWRT) had operated under a Letter of Authority (LOA) permit from MD DNR. This LOA permitted our members to hunt and provide management efforts 365 days a year with the ability to remove deer with a weapon that was not in season (i.e. Use a shotgun year-round including during the non-hunting season). At the end of 2018 DNR informed the County that the LOA permit program will no longer continue. This had a big impact on the program, so DNR, the County, its tenant farmers, and MAWS discussed options. With our goal to keep the cost to the County at zero, our only option was to apply for a Deer Management Permit (DMP) for crop damage. This permit essentially allows our hunters to remove antlerless deer only, outside of the normal hunting season. The number of deer allowed was capped at 20 deer throughout the year. However, the permit was not issued until shortly after the start of the hunting season in the fall of 2019 with an expiration of February 29, 2020.

This led to a delay in the management program that normally begins in the summer and goes throughout the hunting season. Because the DMP has a much lower deer removal limit –DNR expects hunters to use their individual licenses and personal tags to remove deer in addition to the LMP- the program experienced another delay, while the County developed permission forms for individual team members to use their own licenses to remove deer. We recommend getting this done earlier this year so there is no delay.

Hunting season begins around the first week of September, so not having a signed permission form and no DMP initially impacted our program's progress. To compensate for the delay, team members spent additional time on the property and moved from other properties to focus on Dickerson Site 2. Luckily, we have that option and we were able to have a pretty successful year overall, although the risk of doing this could increase the hunting pressure which could have a negative impact by pushing deer off the property.

**[Hunting pressure, if not coordinated correctly, can push deer to neighboring properties where they feel safe. They will bed (sleep/reside) here and during the evening (at night during non-hunting hours), come back to the property to feed. Ultimately increased hunting pressure can have a negative impact on the property which is why it is important to perform these management efforts as methodical as possible.]*

Moving forward our goal is to obtain the DMP permit in the Spring/Summer so we can get an earlier start on the management program on the property.



Pre-Hunting Efforts

Posted Signs & Property Security

Members performed a “workday” on July 23rd from 8am to 4pm, walking the property line checking and hanging “posted” signs. Additional signs were hung, visible for the general public, to convey our purpose and ensure restriction to the general public. The signs were added along both Wasche and Martinsburg Rd. MAWS also continued to utilize an interlocking cable system at 4 different locations. This system is communicated to the leasing farmers and those needing access to the property, but not to the general public.

Trail cameras

Baited cameras were placed out in early August to provide an idea of the amount and type of deer on the property. This also gives an idea of where we need to focus our management efforts. We did not perform a complete trail camera analysis due to the cost in both time and money, however, we continued to run 12 trail cameras on the property from August 2019 to February 2020.



We found a significant lower age structure in bucks as well as lower deer densities all together. This was not to be unexpected as last year’s report stated our belief of deer being affected with Epizootic hemorrhagic disease (EHD). (Please see last year’s report under Herd Analysis for further explanation).

As September began, we removed all of the trail cameras and changed them over to a cellular camera system. These new cellular cameras take a photo when activated by motion and every hour send an email with any photos to our email account.

This helps us monitor the property hourly for both the deer, wildlife and trespassers. The added benefit is it decreases our activity on the property while not hunting, as hunting pressure and additional unnatural activity can have a negative effect on the deer herd. Overall, we see the new cellular camera system being EXTREMELY beneficial for the years to come as it will help keep us more in tune with the deer herd and also put less pressure



MID-ATLANTIC — WHITETAIL SOLUTIONS, LLC —

on the deer as well. This investment was particular for Dickerson Site 2 and cost MAWS well over \$2500, not including bait, batteries and SD cards required to operate them.

Property Analysis

Habitat Analysis

Bi-Annually, we walk the property to analyze the landscape and assess how much food is on the property in the form of browse and natural food sources for deer and other wildlife. An INCREASE in native browse, grasses and forbs will help DECREASE stress on the agricultural crop field. Increase in native browse can only happen with increased sunlight to the forest floor by opening the forest canopy, removing invasive species, decreasing the deer densities and through prescribed fire.

As the property becomes overpopulated, the native species become obsolete and deer look to invasive species and farmers crops as their primary food source. Our priority will continue to be to decrease and maintain the deer herd densities, focusing on female does. Additionally, we recommend looking at creating a habitat plan to bring back some of the native species that were lost years ago when there was an extreme overpopulation. Bringing this back can balance the natural habitat, put less stress on the farming crop and can all be done while effectively keeping the deer herd in check through our hunting management efforts.



Figure 1-Multiflora Rose: A non-native invasive plant with browse completed by deer. This indicates that the native forage is limited on the property.

Prime foraging areas are those that are hard to walk through while prime bedding areas for deer are similar. Foraging areas are found sporadically on the property, however, we believe when there was an overpopulation (before the management program took place) of deer, and they destroyed the understory and native grasses and forbs in the southern woodlot between the pond and the Wasche Rd/Hunter Rd intersection. Although this may not be a priority at this time, as the years progress, we suggest opening the forest canopy through a frill-treatment.

Frill treatment is done through girdling or hinge cutting, depending on the location on the property. Each have their benefits. This would allow sunlight to hit the forest floor and help bring back the early successional forest that was destroyed by the previously overpopulated deer herd. Benefits of this would be that deer would use this in supplement to their current food sources, ultimately decreasing the stress on the farmer's crop while also providing a habitat for other animals such as ground nesting birds, rabbits and other small game.

We recommend doing this in conjunction with a forester who could potentially provide a timber management plan. This plan could bring back early successional forest while



also providing the landowner with income opportunities, if there is any timber value on the property.

In 2020 we will conduct a more in-depth habitat analysis, if interested, and will provide additional information on invasive species, hardwoods and more. The more we can be in tune with the property, the better our deer management efforts can be overall.

Herd Analysis

As mentioned above in the Trail Camera section, we have seen a slight decline in deer densities. While our goal is to decrease deer densities, we want this to be done in conjunction with the habitat available. The fewer numbers in deer will surely impact on the total harvest numbers for the year.



Figure 2-Random trail camera photos showing the age class of a few bucks on the property.

Currently there is a very scalable relationship between the number of does and bucks on the property, nearing a ratio of one to two does to every buck. There are several young bucks (1.5-2.5 years old) as well as mature bucks (3.5 years old plus) on the property. We did find several dead mature bucks last year that we believe had died from EHD. One in particular was at least 6.5 years old and was found late February while walking the property completing a late season deer herd observation log. Our goal is to ensure that there are several deer across all age groups to keep the herd healthy, thus, we focus on only harvesting mature deer in our program.

Mature does will continue to be our priority. Our practice on all other properties is two does before any buck for each hunter. On Dickerson Site 2, we require a total of 5 does before a buck is harvested. The buck must be a minimum of 3.5 years old or have at least 130" (Boone and Crockett Scoring system) measurement or greater. In 2018 we only removed one buck from the property and this year we removed two bucks. This was partly due to the doe restriction requirement, but mostly due to the hunters targeting does over bucks and additionally only targeting very mature bucks, which are extremely difficult to find, see, and harvest. Ultimately, that is what separates MAWS from many other hunting groups. There were several opportunities for our members to harvest bucks on the property (See Figure 3), but few that fit the proper age class. As bucks become older, they become even more difficult to harvest keeping the number of bucks removed from the property every year very low in comparison to the number of does.



MID-ATLANTIC

— WHITETAIL SOLUTIONS, LLC —

Overall, the deer herd numbers have declined, but the amount of native habitat available also continues to decline. We have seen deer continue to come to the property at night and bed on neighboring properties making them difficult to harvest at times. Through spring and summer, deer will continue to look to the farming crop as their main food source until habitat management is conducted. In the fall, there continues to be a good acorn crop which helps slightly, however, we highly recommend looking into opening up some of the forest canopy and conducting a prescribed fire in the southeast part of the property to grow back the understory that was destroyed years ago from an overpopulated deer herd. This will help tremendously bring back the native species on the property and help with the overall habitat combined.



Figure 3 Bucks like this, appear to be "big" to the untrained eye or have "many points" but ultimately this is still a young deer and would not be targeted by our program. This buck was passed up several times during the hunting season by our hunters.



Hunting Efforts

Hunting Strategies

MAWS put a combined effort of over 300 hours of hunting on the Dickerson Site 2 property from September 2019 to January 31st, 2020. In total, 22 deer were harvested. Deer Management Permit #15148 had 11 of the 20 available tags filled while hunters supplemented and filled 11 of their own personal tags on the property as well.

Through the online observation logs, members reported zero issues on the property, however, relic hunters were along the roadways. In addition we found one of the residents, for one of the Site 2 tenant farmers, had been driving on the property often with his UTV. This issue was handled after speaking with the tenant farmer who then spoke with his housing tenant. Since then, there is no longer an issue.



Figure 4-Image of hundreds of geese in a field eating Winter Wheat crop on Dickerson Site 2

Members also reported seeing several coyotes on the property as well as an abundance of geese (See Figure 4). There is an increase in fox observations while also an increase in wild turkey observations. Our efforts are focused on whitetail deer currently, but with the continual increase in the amount of geese on both the pond and fields, MAWS would recommend keeping an eye on any complaints from the farming tenants in regards to their winter wheat crop being destroyed from the increase number of geese on the property.



MID-ATLANTIC — WHITETAIL SOLUTIONS, LLC —

Most female deer possess reproductive potential by 1.5 years of age, with older deer accounting for the highest reproductive potential, often bearing twins, and in some cases triplets. Therefore, the targeting of this upper age structure in a population will further expand on this *effort vs. result* equation. Harvesting 3 deer of lower reproductive potential is not as effective as harvesting 3 deer with a high reproductive potential, although the exact same amount of effort is expended in both cases. Of the 20 does harvested, 85% were 2.5 years old or older while 15% were at least 1.5 years old but younger than 2.5 years old. This was our best year at harvesting does of the upper age class and the fewest fawn and yearling does killed on the property since the inception of the program.

Hunting Results:

MAWS has maintained its volunteer hunting group for use with large- and small-scale management efforts on properties that demand both discretion and production. MAWS was utilized on this property with great success, as can be seen from the results annually.

MAWS has successfully removed 22 white-tailed deer from the property between the short span of September 2019 and January 31st, 2020. Of the 22 deer, 91% were does (female). Since 2010 Patriot NR/Mid-Atlantic Whitetail Solutions, LLC has removed a total of 615 deer.

Additionally, zero Button Bucks (Fawn Male Deer) were harvested, which is nearly unheard of in a management group and we are very excited to present this information. As for all bucks on the property, the following two bucks were harvested on Dickerson Site 2 in the 2019-2020 hunting season: (See Figure 5 & 6). Bucks, of course, are not the intended target of this program, however, mature bucks consume more than other bucks. They are also responsible for damage to young trees through rubbing, are a part of the reproduction process and play a role in the social hierarchy of the deer herd. It is equally important to control the mature bucks from a management perspective as it is to control the does for any habitat management program.

2019-2020 PWRT Results (Site 2)
Dickerson Property (~850 acres) – 22 whitetail deer removed
[20 Does – 0 BB – 2 Bucks – 0 fetus’] 91% Does – 0% BB – 9% Bucks
Population reduction equivalent for 2020 = 59 deer removed *based on targeting of reproductive age of mature does*
33 actual tons of forage saved (Average Deer consumes 1.5 tons per year)
Economic loss reduction of \$12,342 in actual crop damage saved (\$374 per ton 2018 US Average)



MID-ATLANTIC
— WHITETAIL SOLUTIONS, LLC —



Figure 5-Member Thayer Seely with his December 1st Shotgun Buck Harvested from the Dickerson Site 2 Property in 2019. [Weight-146lbs | Age-3.5 | Score: 118 2/8”



Figure 6 – Member Dustin Priervo with his December 11th, Shotgun buck, harvested from the Dickerson Site 2 Property in 2019. [Weight-165lbs | Age-5.5+ | Score: 134 7/8”]



Hunting Overview

The QDMA uses scientific research to develop a strategy that covers the harvesting of antlerless deer as well as managing the age structure of the herd. MAWS adapted these strategies to not only reduce deer numbers, but to also restore the population dynamics to a fashion in which the herd itself is healthy, sustainable and can regulate itself. Looking at the dynamics of the property as well as the density of the deer herd on Dickerson Site 2, it is safe to say there is a healthy deer herd living on site with only slight overpopulation and social stress at this time. This is reflected through our analysis of every deer we remove from the property as well as our observation of the habitat in the wooded areas and neighboring properties. Our analysis consists of weighing every deer, aging them through tooth wear and replacement, checking the lactation status in does to indicate fawn recruitment and additionally scoring bucks, which helps us judge their health as well. Our observation of the habitat consists of walking the property and tracking heavily browsed areas, increase of invasive species, decrease of native species, locating and tracking bedding areas and also monitoring the annual acorn yield.

What we found was pockets of areas held more deer than others and they were often not as spaced out throughout the property as to be expected. Our goal next year will be to decrease our presence inside the wooded areas and focus on hunting the field edges more to ensure we do not push deer off the property through increased hunting pressure.

Hours spent hunting were recorded for each successful outing from our MAWS members. On average, it took 14.2 hours for each deer harvested. As we move forward this number should continue to increase and plateau as long as no drastic changes occur like the delay from changing the permit process and subsequent delay in distributing permission forms or another EHD outbreak. As suspected, the loss of the LOA and lower deer densities exponentially increased the number of hours hunted per deer harvested.

Having harvested 20 does and 2 bucks, we have continued to assist with crop protection for the farmers. On average a deer consumes 1.5 ton per year. With 22 deer harvested, that amounts to roughly 33 actual tons of forage saved, though we suspect the deer being removed were larger than average deer, thus, in the whole, more forage was saved. In talking with the farming lease holders, they continue to be happy with the progress of the program.

Notable Events:

MAWS donated *over 30 deer to feed the hungry (from all properties) and will continue to take part in the program to help our communities and those in need.*

September 23rd, 2019- In an attempt to minimize trespassing and poaching, which ultimately increases the safety and security of the property, we dispersed several trail cameras and posted signs along the property border. On the Southern border one of our trail cameras caught 4 individuals trespassing. One individual was from



MID-ATLANTIC — WHITETAIL SOLUTIONS, LLC —

Frederick, MD who appeared to have a metal detector and was relic hunting. He was made aware of the findings but was not contacted directly. Additionally, 3 teenagers were found running through the property as well. One of these kids is believed to be the same one we had issues with last year with ATVs running through the fields. They too were made aware through public forum that they had been under surveillance. This information was passed along to the County. We advised to let us monitor the situation to see if the “scare” would be enough to keep them off the property and it seems to have worked.

October 1st, 2019 -While walking the property with a County representative on the Southern border of the property, we found two baited trail cameras that did not belong to anyone from MAWS. A note was left. MAWS was contacted by the owner who lives on Wasche Rd on a property adjacent to Dickerson Site 2 MAWS met with the individual and conveyed the importance of not crossing property lines, especially to hunt. Our goal was to create a positive relationship so no push for trespassing citations was done. However, local police as well as the Department of Natural Resources police were made aware of the situation.

January 21, 2020- This date we found that there is a substantial beaver problem arising on the property. The problem begins around the large pond on the property and is beginning to be an issue throughout the property altogether. Below are images of the damage they have already created. If this problem is not taken care of, you will find that a great number of trees will be damaged but more importantly the flooding that is associated with beavers will become a huge issue for both the farmers and the property altogether.



Figure 7 Beaver Damage - Aged Tree Damage



MID-ATLANTIC
— WHITETAIL SOLUTIONS, LLC —



Figure 8 Beaver Damage-Fresh Tree Damage



Figure 9 Beaver Damage-Large Tree Damage



MID-ATLANTIC
— WHITETAIL SOLUTIONS, LLC —



Figure 10 Beaver Damage-Flooding Occurring on Southwest of Pond



Figure 11 Beaver Damage-Flooding Beginning in Fields



MID-ATLANTIC
— WHITETAIL SOLUTIONS, LLC —



Figure 12 Beavers on Trail Camera near Pond



MID-ATLANTIC — WHITETAIL SOLUTIONS, LLC —

Trespassing & Poaching Recommendations for 2020-2021

MAWS has maintained a steady presence on the property throughout the management effort, including members who are County Police Officers and neighbors. We are regularly inspecting the portions of the property visible from the road for poachers, spotlighting, and anything out of the ordinary.

MAWS has also continued to work proactively with DNR officers to catch trespassers and poachers. Our goal for 2019 was to increase our communication with law enforcement and DNR Officers with which we successfully built a very good relationship.



Figure 13 - Department of Natural Resources uses a Robotic Deer Decoy to catch poachers hunting from the road and trespassing.

With that in mind, we had an issue with a neighboring property across the street on Wasche Road that we also manage. That issue brought us to the discussion with the DNR officers recommending we work with them to establish a Police Deer Decoy program on the property. This comes with no cost to the County, is performed 100% by the Department of Natural Resources, and is a program that helps minimize road poaching, which is still occurring in the area every year. Road poaching can be dangerous to neighbors, employees and anyone on or near the property. This effort could really help establish and create a message that poaching will not be allowed on the property and we highly recommend this program.



Overall Experience:

MAWS considers this ongoing deer management effort very successful. We are at a healthy deer herd where we will continue to see a plateau in deer harvest numbers as the future unfolds. However, as we continue to target does, the ratio of bucks to does will continue to get closer to 1:1. As the ratio gets closer to 1:1 there will be a greater need to remove a greater number of the more mature bucks.. Having deer in all age classes makes for a healthier deer herd and creates a balance in the habitat for all wildlife combined.

A healthy number of deer were removed from the property, immediately reducing the economic damage suffered to agricultural crops, and hopefully, easing the concerns of the property's farmers as they look towards their future agricultural investments with the property. As we rebranded the name to MAWS, we have increased our measures of data collection by adding weigh scales and jawbone extraction and are obtaining more information from our members which helps us make better management decisions.

Our goal as we move forward will be to monitor the habitat and the deer herd densities to ensure that there is a balance. We will continue to monitor the property for trespassing and poaching and ensure the safety of the community, the tenants, our members and the County employees. The integrity of the program falls heavily on experience and commitment to the program and MAWS has the experience and dedication to keep this program successful.

Goals for 2020-2021 (Year 11)

- Year 11 Harvest Goal=40-45 Deer
- Obtain Deer Management Permit ASAP
- Obtain Hunting Permission Forms by August
- Decrease deer hunting pressure by zoning off areas as "Do Not Enter" areas for hunters, thus allowing deer to reside on the property, making harvesting them easier and low impact (Rather than the deer living off the property and only coming onto the property at night to eat the crop)
- Decrease presence and pressure by limiting entry and access and the use of cellular trail cameras only.
- Harvested deer will be kept by MAWS members or donated to Montgomery County Deer Donation Program cold-box in Poolesville, MD where MAWS has donated over 510 deer to feed the hungry
- Continue to have an educated group and program of members with the mission in mind of the landowner as well as the goal to create an entirely sustainable and healthy wildlife habitat.

The Mid-Atlantic Whitetail Solutions, LLC would like to thank the Montgomery County Department of Environmental Protection, Recycling & Resource Management Division, and the County's local residential advisory group, and all other interested parties for allowing us the opportunity to assist in the deer management efforts during the 2019-2020 hunting season. This type of program takes a great deal of time to see results and since the beginning of the program, 11 years ago, we have worked to get to where we are today. There is a great deal of room for improvement as far as habitat management goes, however, we stand strongly that the members in this organization have completed a respectable amount of work and effort to make the entire habitat, animal population and human population sustainable.