Vermont Fish and Wildlife Board Meeting Minutes

Wednesday, May 20, 2020

The Vermont Fish and Wildlife Board held a meeting beginning at 5:00 p.m. on Wednesday, May 20, 2020 via video conference. The ZOOM video meeting ID was: 862-4916-6257.

Board Members in Attendance: Tim Biebel (Board Chair), Brian Bailey, Wendy Butler, Mike Kolsun, Marty Van Buren, Johanna Laggis, Dennis Mewes, Nancy Mathews, Bryan McCarthy, Mike Bancroft, Jay Sweeny, and David Fielding.

Department Staff in Attendance: Louis Porter, Commissioner; Mark Scott, Wildlife Director; Col. Jason Batchelder, Law Enforcement Director; Catherine Gjessing, General Counsel; Will Duane, Executive Assistant; Adam Miller, Big Game Project Leader; Nick Fortin, Deer and Moose Project Leader; Dr. Katy Gieder, Department Research Coordinator and Biometrician, Chris Bernier, Turkey Project Leader, John Hall, Outreach Specialist, and Chris Ingram, Outreach Specialist;

Members of the Public Calling in: One member of the public joined the meeting via ZOOM

The Meeting was Called to Order by the Chair at 5:01 PM

<u>Introduction of New Board Member:</u> Commissioner Porter introduced Nancy Matthews, Dean of the Rubenstein School of Environment and Natural Resources at the University of Vermont. Dean Matthews takes the Chittenden County seat on the Board previously held by Cheryl Sullivan. Dean Matthews has been the Dean of the Rubenstein School at UVM since 2014. She brings a wide array of environmental expertise to the Board, she stated that she is excited and eager to get to work.

Approval of Previous Meeting Minutes (April 22, 2020)

Motion: Bryan McCarthy moved to approve the previous meeting minutes. Marty Van Buren seconded the motion.

Vote: 11-0 voice vote to approve the April 22nd meeting minutes. Nancy Matthews abstained from the vote.

Public Comments (Limited to 2 minutes per speaker)

No members of the public chose to speak to the Board

2020 Antlerless Deer Hunting Muzzleloader Permits, Archery Antlerless Deer Hunting, Youth Deer Hunting Weekend, and Novice Season—Final Procedural Vote

Wildlife Director Scott summarized the annual permit setting process, and fall antlerless hunting season for archery and youth deer hunting weekend, and the current stage of that process. Each year the Fish and Wildlife Board sets the number of muzzleloader season antlerless deer permits by WMU issued statewide. The Department holds 5 public hearings to collect public input on the proposal. Typically these hearings are held regionally and in-person. Under the limitations of the COVID-19 pandemic the hearings were held electronically with great success. One common public comment was appreciation for the electronic format and its ability to reach a wide audience. There was high attendance from the public, as well as Board members and Department staff at all 5 hearings.

In summary:

- On April 22nd the Board, in a straw vote, unanimously approved the Department's recommendation (Attached to these minutes) of:
 - o 23,000 antlerless permits in 19 of the 23 Wildlife Management Units, for the 2020 muzzleloader seasons;
 - These permits would be valid for the four-day season at the end of October, and the annual December muzzleloader season;
 - o Archery antlerless hunting statewide; and
 - o Taking either sex deer during the youth weekend and novice season.
- This recommendation acknowledges that harvesting antlerless deer is an important tool in managing Vermont's buck-age structure.
- During the public comment period the Department received:
 - o 42 voicemail comments on the proposal
 - o 54 email comments on the proposal.
 - o Almost 100 different comments and questions during the five public hearings. Which were attended online by a total of around 363 participants.
- Department staff compiled the comments and created a document responding to each hearing. (Attached to these minutes)
- Habitat quality, the health of the herd, and posting/access to land were the primary concerns and comments from the public.
- The Department recommends that the Board approve the proposal unchanged from the April 2020 presentation.

Brian Bailey stated that he heard from the public that keeping online meetings in the future would be greatly appreciated. Mark Scott and Commissioner Porter said that an electronic format would likely be a part of meetings in the future.

<u>Motion</u>: Wendy Butler moved to approve the Department's recommendation for the 2020 antlerless deer hunting muzzleloader permits, archery antlerless deer hunting, youth deer hunting weekend, and novice season. Mike Kolsun seconded the motion.

<u>Vote:</u> 12-0 roll call vote to approve the recommendation.

Commissioner Porter summarized the current status of reporting turkey and big game in Vermont. The Department had already been working on a system for successful hunters to report turkeys online when the COVID-19 pandemic arrived here in March 2020. This system, which was originally intended for use in 2021 was completed ahead of schedule and went online for the youth turkey weekend at the end of April. The reporting thus far has been successful, with some minor technical issues that were quickly resolved.

The Board and the Department worked together to pass an emergency rule in April to waive the requirement that successful turkey hunters display the carcass of turkeys when reporting. The requirement to display a turkey carcass could have been met by uploading a photo to the online reporting system. Though many online reports do contain photos, the Department and Board were concerned that not everyone would be able to meet the requirement and upload a photo. The emergency rule, which lasts for 180 days, removed the *display* requirement of the report so that successful hunters would not be penalized if they had technical issues and could not upload a photo.

In mid-May, the Governor lifted some restrictions on commercial operations thus check-stations were allowed to open if they chose to do so. The bulk of the current reports are still coming in online.

Because there is potential for cases of COVID-19 to spike again, the Department is asking the Board to amend the general big game reporting rule to allow successful hunters the option to report turkeys online into the future, starting as early as this fall. This would avoid the need to pass an emergency rule if strict social distancing, or other emergency requirements, are necessary in the future. There are some additional turkey specific changes.

Director Scott noted that there has been positive feedback on the online reporting so far. Younger hunters seem to have been more successful than older hunters at uploading photos as part of their reports. The proposed rule changes will give the Commissioner the tools to provide for hunting in a safe manner if there is a resurgence of COVID-19 or some similar emergency.

The Department also recommends that the Board grant the Commissioner the authority to allow electronic reporting for deer and bear. This authority would be used in an emergency situation like a spike in COVID-19 cases. Moose will still always be required to be checked in-person by Department biological staff. Smaller numbers of moose are harvested each year and if necessary, Department staff will establish safe protocols to obtain biological information and samples. The Department will consult with the Board before any such changes to the reporting requirements for deer and/or bear.

Mark introduced department turkey project leader biologist Chris Bernier to present information on turkey populations, regulations, and general background. Mark then asked department General Counsel Catherine Gjessing tol walk us through the rule change language. For turkey, the Department proposes allowing electronic reporting, an expansion of the allowable shot size (specifically to allow shot size #2 and smaller), the creation of a novice season or weekend like in the current deer season.

Chris Bernier discussed the reintroduction of turkeys and turkey hunting in Vermont, population trends, hunting trends, turkey management strategies, and the Department's role in bringing turkey populations back in the state. Of note: turkey populations are generally robust statewide, there is high public satisfaction with turkey populations, four or the five largest harvests have occurred in

the last 10 years. The presentation will be posted on the Department's website, the slides are attached to these minutes.

Department General Counsel Catherine Gjessing presented the proposed changes and walked through the specific amendments to the rules. The proposed changes are attached to these minutes.

The First rule change is to the big game reporting rule at 10 V.S.A. App. § 2. The proposed amendment would give the Commissioner the authority to authorize a person who takes big game (except moose) to report it electronically, or as otherwise specified, and is required to exhibit the carcass only if requested by a state game warden.

Attorney Gjessing noted that the rule proposal authorizes the Commissioner to allow electronic reporting for bear and deer but not for moose. The reporting requirements for deer and turkey are set forth in this big game reporting rule at 10 App. §2. Black bear and moose have specific reporting provisions in their individual species rules (App. §§7 and 33). As drafted the rule allows for the continued electronic reporting for turkeys, and potential electronic reporting of deer and black bear. Moose reporting requires several biological collection provisions that need to be done in person, so the Department does not recommend making a change for moose.

The second proposed change is to the turkey rule at 10 V.S.A App. § 22.

- 1) In the section on definitions, there are two housekeeping provisions to remove unnecessary definitions as well as the addition of two new definitions for Novice and Youth. These additions are consistent with the recent similar changes made to the deer rules.
- 2) Section 6.2 is amended to allow shot size 2 or smaller to be used and possessed.
- 3) Section 7 is adjusted to clarify the shooting hours for the youth weekend and by adding statutory language regarding age and licensing, and the requirement that a youth hunter be accompanied by an unarmed, licensed adult. This is similar to language that was recently incorporated into the deer rules.
- 4) Section 8 is added to create turkey novice season similar to the novice season established under the deer rule.

Attorney Gjessing noted that the Law enforcement division participated in and approved the proposed changes as drafted.

Motion: Mike Kolsun moved to approve all of the rule changes as proposed. Brian Bailey seconded the motion.

Discussion: The Board Chair asked if there were concerns or questions with the individual changes. Board Members were given opportunities to ask questions for each proposed change. Vote

Wendy Butler requested that the new Section 8.1 in 10 V.S.A App §22 be changed from Novice *Season* to Novice *Weekend*.

Vote: 12-0 roll call vote to approve the proposed changes with the modification suggested by Wendy Butler.

The Board Chair and the Commissioner thanked Chris Bernier and Catherine Gjessing for their presentations.

Director Scott and Attorney Gjessing outlined the next steps for the proposed rule changes. The proposed rules will be submitted to the Secretary of State and the Interagency Committee on Administrative rules. The Department will schedule up to two public hearings to solicit comments and will then report back to the Board for a second vote. Finally, the rule will be filed with the Legislative Committee on Administrative Rules. There will then be a final Board vote prior to it going into effect.

Commissioner's Update

- Department field staff are now back working in the field. There are some restrictions while working, but staff are excited to get back to this important work.
- The fate of conservation camps is still unknown, but the Department is still hopeful and we're working on ways to make camps work at some capacity. (note: as of May 22nd 2020 GMCC were cancelled for 2020).
- The antlerless deer permit deadline is August 12th
- The Department is looking forward to the opening up of restrictions around outdoor recreation. We're grateful for the emphasis on outdoor recreation and wildlife-based recreation established by Governor Scott and Secretary Moore.
- We are still certifying hunter education students online. We're planning to put in an age restriction for participants. This will likely be around 12 years. We are tracking the people who took online hunter education to see if any data trends emerge.
- For a time the Legislature was only moving forward on COVID related bills and on budget bills. They are now expanding their operations and may take up bills related to fish and wildlife and the Department. Bills that may move forward include H.617 which grants no-cost licenses to Abenaki citizens. This comes with a likely financial hit to the Department but it's an important recognition of historic wrongs and is at least a gesture in the right direction. The Department's omnibus bill is likely to not move.
- The Legislature is planning to pass a partial budget for the first quarter of FY 2021, with an additional budget bill to follow in time. We are confident that the Department will be able to fulfill its mission even at a reduced budget rate.
- Resident fishing license purchases have been up significantly this year. This may be new
 anglers or returning anglers. We're working on ways to make those angling experiences as
 great as possible and on how to retain those anglers in the future. Conversely, we've seen a
 decrease in the number of non-resident hunter and angler license due to the current pandemic
 restrictions.
- The federal Recovering America's Wildlife Act is unlikely to move given all of the revenue and spending implications of the current pandemic. There is also a federal proposal that could adjust our match requirements to draw down federal funds. Our congressional delegation is supportive, and it would be welcome.

The Meeting was Adjourned at 7:37

The mission of the Vermont Fish and Wildlife Department is the conservation of all species of fish, wildlife and plants and their habitats for the people of Vermont.

Attachment 1

Fish and Wildlife Board Virtual Meeting Agenda

Wednesday, May 20, 2019

Please note the meeting will begin at 5:00 p.m.

The Vermont Fish and Wildlife Board will hold a meeting beginning at 5:00 p.m. on Wednesday, May 20, 2020 via ZOOM video conference. Conference Call audio may be joined by calling: <u>1 929 436 2866</u> and entering the meeting ID: <u>862 4916 6257</u>.

Agenda:

- 1) Approval of Previous Meeting Minutes
- 2) Public Comments (Limited to 2 minutes per speaker)
- 3) 2020 Antlerless Deer Hunting Muzzleloader Permits, Archery Antlerless Deer Hunting, and Youth Deer Hunting Weekend—Final Procedural Vote
- 4) Department Proposal on Turkey Rule Updates
 - a. Electronic Reporting of Big Game
 - b. Expansion of Turkey Shot Size
 - c. Novice Turkey Season
- 5) Potential First Vote on Turkey Rule
- 6) Commissioner's Update
- 7) Roundtable Discussion

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Attachment 2

2020 Antlerless Harvest and Youth Season Recommendation

to the Vermont Fish and Wildlife Board



Vermont Fish and Wildlife Department Agency of Natural Resources 1 National Life Drive, Davis 2 Montpelier, VT 05620-3208 802-828-1000

Summary of Key Points

- New deer density and physical condition objectives have been established for each WMU in the 2020-2030 Big Game Management Plan.
- New hunting regulations that will take effect in 2020 are expected to result in an increased
 antlerless harvest during the archery season and higher fill rates on antlerless permits. These
 new tools allow the Department to increase the antlerless harvest in certain WMUs to achieve
 population objectives.
- The winter of 2020 was relatively easy for deer throughout Vermont. However, minimal population growth is expected due to lingering effects of the more-severe winter of 2019. Both fawn and yearling age classes appeared to be smaller (fewer deer) than usual in 2019.
- Yearling antler beam diameters, fawn weights, and other physical condition metrics are declining or are below optimal levels in many areas, indicating that deer have exceeded the level their habitat can support long-term.
- Deer populations in 10 WMUs are projected to be above their respective upper population objectives in 2019. The recommended permit allocations are intended to reduce deer populations in these WMUs (78% of permits would be in these units).
- Populations in all other WMUs will be close to their respective population objectives and the recommended permit allocations are intended to stabilize populations and provide increased antlerless harvest opportunities.
- The recommended permit allocations are expected to result in the harvest of 6,385 antlerless deer during the antlerless (early muzzleloader) and December muzzleloader seasons. This would result in an estimated total harvest from all seasons of approximately 10,147 antlerless deer.
- The recommended antierless harvest is conservative due to uncertainty about the effects of new hunting regulations. Ultimately, even greater antierless harvests will be necessary in many WMUs to achieve density objectives.

Executive Summary

The Vermont Fish and Wildlife Department estimates there will be approximately 143,000 white-tailed deer on the Vermont landscape prior to the start of the 2020 deer hunting seasons. This represents an increase of 2 percent from the retrospective 2019 pre-hunt estimate. Deer populations in 10 Wildlife Management Units (WMU) are expected to be above their respective density objectives established in the 2020-2030 Big Game Management Plan. All other WMUs will have deer densities close to their respective density objectives. Deer are not evenly distributed across Vermont. As a result, harvest management strategies that account for regional differences in deer density are essential to the health and proper management of Vermont's deer herd.

For deer to be healthy and productive, deer populations must be kept below the carrying capacity of the habitat through the regulated harvest of antlerless deer. Biological information collected annually by the Department, including reproductive data, fawn and yearling body weights, and yearling antler size, indicate that deer populations have exceeded the level the habitat can support long-term in some parts of Vermont. Deer populations must be reduced below the limits of their habitat or physical condition will continue to decline, habitat damage will increase, and populations will become unstable and susceptible to substantial winter mortality.

The winter of 2020 was relatively easy for deer throughout Vermont. However, lingering effects of the more severe winter of 2019 – primarily reduced fawn recruitment – are expected to limit deer population growth in most of Vermont. Importantly, this means deer densities in several WMUs will continue to be above objectives.

To achieve established density objectives, the Department recommends the harvest of 10,147 antlerless deer during the 2020 hunting seasons. The Department recommends that antlerless harvest be authorized during the archery and youth/novice seasons in all WMUs. After accounting for expected archery and youth/novice season harvests, the Department recommends that 6,385 antlerless deer be harvested, by permit, during the antlerless-only muzzleloader season in late October and the December muzzleloader season. Achieving this harvest requires the issuance of 23,000 WMU-specific antlerless permits distributed among 19 of Vermont's 21 WMUs. The recommendation of 23,000 permits is the same as the total number allotted in 2019. Most of the permits (18,000; 78 percent) are recommended for 10 WMUs where deer density will be above respective density objectives in 2020. Permit recommendations in these WMUs are intended to reduce deer densities.

New deer hunting regulations in 2020 are expected to have a substantial effect on antlerless deer harvests. This was an important reason behind several of these changes and will help the Department better manage overabundant deer in parts of Vermont. The total recommended antlerless harvest for 2020 is a substantial increase over recent antlerless harvests; however, recent antlerless harvests were limited by an inability to distribute more antlerless permits in some areas, so they did not represent desired harvest levels. Importantly, this recommendation is conservative due to uncertainty about the exact effects of the new regulations. Ultimately, even greater antlerless harvests may be necessary in many WMUs to achieve density objectives, particularly if winter severity continues to be low.

Three online public hearings were held April 13, 15, and 16, 2020 to gather hunters' comments on the deer herd. A summary of comments on the status of the deer herd is provided in Appendix B. Two additional online public hearings will be held in May, 2020.

2020 Muzzleloader Antlerless Harvest Recommendation

Pursuant to 10 V.S.A. §§4081, 4082 and 4084, and Appendix Chapter 1 §2c, hereafter is the Department's 2020 antlerless harvest and youth season recommendation. Based on population estimates, a harvest of 10,147 antlerless deer is recommended during the 2020 hunting seasons. This includes 3,762 antlerless deer harvested during the archery, youth, and novice seasons, and 6,385 antlerless deer harvested, by permit, during the antlerless (October muzzleloader) and December muzzleloader seasons. Adult females are typically 84 percent of the total antlerless deer harvest, so harvesting this number of antlerless deer would yield approximately 8,505 adult does.

Population Status

The 2019 deer hunting seasons saw a buck harvest 2 percent higher than the previous 3-year average and the highest in the past 17 years (see 2019 Vermont White-tailed Deer Harvest Report for more information). Ten WMUs had retrospective population estimates in 2019 that exceeded their respective population objectives established in the 2020-2030 Big Game Management Plan. The winter of 2020 was relatively easy for deer throughout the state and population increases are expected. However, lag effects of the relatively severe 2019 winter are expected to limit population growth.

Winter Severity 2020

The Department has long recognized the influence that winter weather can have on Vermont's deer herd and has been collecting winter severity data since 1970. Between December 1 and April 15, volunteers record one winter severity index (WSI) point for each day with at least 18 inches of snow on the ground, and one point for each day the temperature reaches 0°F or below. These data have proven useful to describe deer population dynamics; however, how well deer survive winter depends largely on three factors: 1) body condition of deer during late-autumn as winter begins, 2) availability of quality deer wintering habitats, and 3) the timing of snow in the fall and snowmelt in spring. Snow cover that remains late into spring can cause significant negative impacts by delaying spring green up and, consequently, reducing fawn survival.

The winter of 2020 was relatively easy for deer, with a state-wide average WSI of 22 points (Figure 1). This was considerably lower than the 30-year average of 45. Abundant mast crops in 2019 should have allowed deer to be in good condition entering the winter. Outside of the Northeast Kingdom, snow depths only exceeded 18 inches for very brief periods, if at all (Figure 2). Lack of any substantial snow cover across much of the state for much of the winter allowed deer to utilize habitats outside of traditional wintering areas and access the best available foods. As a result, overwinter mortality was minimal.

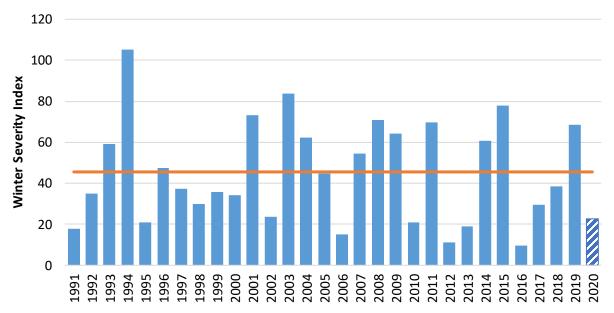


Figure 1. Statewide winter severity index (WSI), 1991–2020. The horizontal line shows the 30-year average WSI of 45.

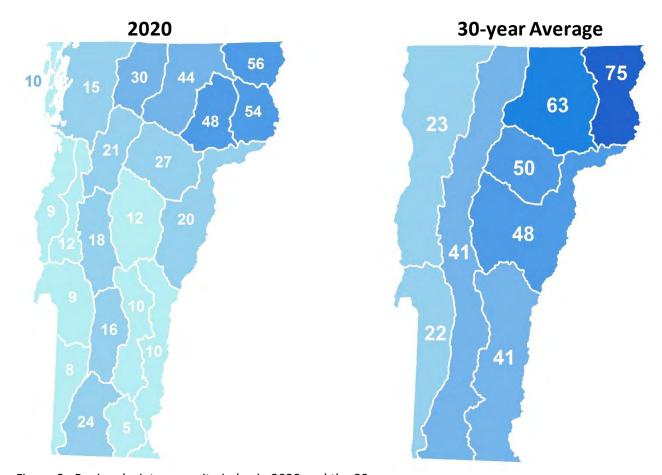


Figure 2. Regional winter severity index in 2020 and the 30-year average.

Population Health

Biological information collected annually by the Department, including reproductive data, fawn and yearling body weights, and yearling antler size, indicate that deer populations have exceeded the level the habitat can support long-term in some parts of Vermont (Figure 3, see Appendix A for individual WMU information). In many cases, this does not appear to be a new problem. Instead, this appears to be a subtle but chronic problem that may have occurred for decades in some areas but has only recently been detected through increased or improved data collection and analyses. Further, declines in measures like yearling antler beam diameter have been slow (Figure 3); therefore, it takes many years of data to separate the trend from normal annual variation.

Health concerns are most pronounced in central Vermont but are evident in most parts of the state (see Appendix A for more detail). In most cases, the Department believes the primary driver of declining physical condition is not a recent increase in deer abundance, but rather a slow, steady decline in the quality of deer habitat. Deer abundance has been relatively stable during the past 15 years, and, arguably, the past 30 years. However, Vermont's forests are aging and the amount of young forest (less than 20 years old), which provides critical forage for deer, is declining. Other factors, including hunter access to private land, proliferation of invasive plants, and climate change are also important, and make the problem and any solutions more complex. The simple result, however, is that the habitat cannot support the number of deer it used to, and it is likely that carrying capacity will continue to decline. Deer populations must be reduced below the limits of their habitat or physical condition will continue to decline, habitat damage will increase, and populations will become unstable and susceptible to substantial winter mortality.

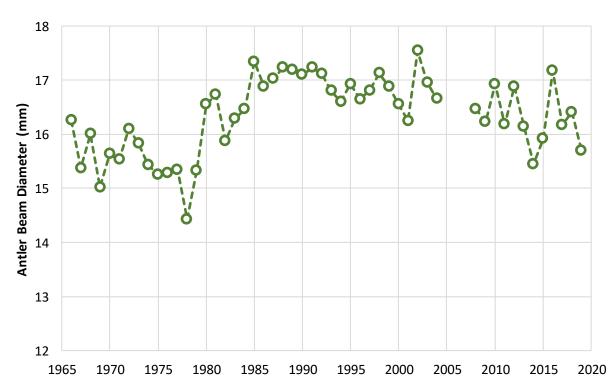


Figure 3. Antler beam diameter of yearling bucks in Vermont, 1965–2019. Data are from deer examined at biological check stations.

Population Projections and Management Objectives

Data collected from harvested deer and roadkill suggest that both the fawn and yearling age classes were relatively small in 2019. Severe winters can have significant impact on young deer and fawns born the following spring. However, they typically have less impact on adult deer, which is why the 2019 buck harvest actually increased. Due to the antler restriction, most of the buck harvest is 2 and 3-year old bucks. Both of those age classes were relatively large due to the string of mild winters from 2016-2018.

Although the winter of 2020 was relatively easy for deer, reduced recruitment due to the winter of 2019 and, to a lesser extent, increased antlerless harvests in recent years, will result in minimal population growth in most areas. Importantly, deer densities remain above population objectives in several WMUs and recent management efforts have been ineffective at reducing those populations. To provide healthy habitats and thereby keep deer healthy and productive, deer densities must be kept at established objectives (Figure 5). Maintaining a healthy deer herd is the best way to mitigate the potential effects of winter weather and provide a stable population over the long term.

Total antierless harvest in 2019 (6,492) was 5 percent less than expected (6,839) given the number of antierless permits distributed. This was primarily due to lower than expected permit fill rates during the muzzleloader season. Archery and youth season antierless harvests were 1 percent less than expected.

Based on analysis of herd demographic data, hunter effort and sighting rate data, 2019 and 2020 winter severity information, and 2019 estimated deer populations at the WMU level, the Department expects the statewide deer population to increase 2 percent from the 2019 retrospective estimate of 140,000 deer to approximately 143,000 deer (Figure 4). Importantly, 10 WMUs will have deer densities that exceed their respective population objectives, and the Department's objective is to reduce deer densities in those areas (Figures 5 and 6). Other WMUs will have deer densities that are within 2 deer per square mile of their population objective and the intent is to stabilize those populations at or near their current level.

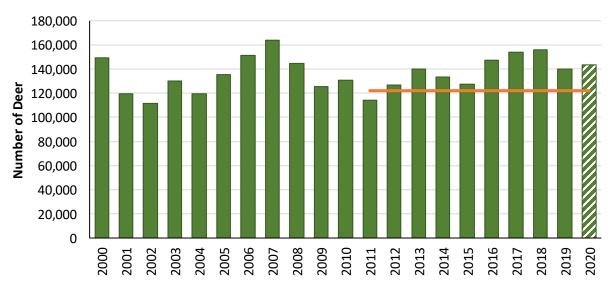


Figure 4. Statewide pre-hunt deer population estimates, 2000–2020. Population estimates are based on VT-DOEPOP, Sex-Age-Kill, Reconstruction, MARK-removal, and roadkill-based modeling. The horizontal orange line represents the sum of WMU-specific population objectives established in the 2020–2030 Big Game Management Plan.

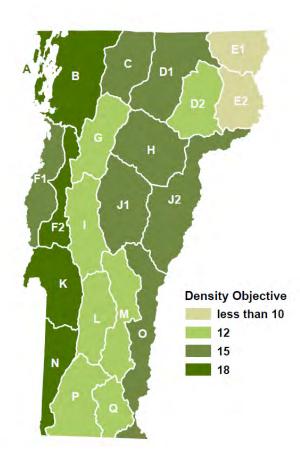


Figure 5. Deer density objectives by wildlife management unit. Deer densities are deer per square mile of habitat.



Figure 6. Desired change in the deer population, by wildlife management unit, to reach density objectives.

New Hunting Regulations

Several changes to deer hunting regulations will take effect in 2020 and are expected to have a substantial impact on antierless deer harvests.

The archery season was lengthened from 37 days to 60 days and crossbows will be legal for all archery hunters. Bag limits have also been liberalized, allowing archers to now harvest up to 4 deer with a bow. However, experience from Vermont and other states indicates the primary factor limiting the archery harvest is the number of hunters, not the length of the season or the bag limit. Crossbow adoption among younger hunters is likely to be slow and will have only a minor impact on the harvest from slightly higher success rates. The recruitment of new archery hunters, or reactivation of former hunters, will have a greater impact on the harvest, but is likely to occur over several years, not all at once. As such, the Department is predicting a 10% increase in the archery antlerless harvest in 2020, above and beyond any changes in the deer population, as a result of the new hunting regulations.

The new novice season will allow new, first-time adult hunters to hunt during the youth weekend and therefore harvest antierless deer. However, participation in this season is expected to be limited (perhaps 200 people) and have no impact on the total harvest during the youth/novice season. Youth season will also be two weeks earlier this year, but that is not expected to have any impact on the harvest.

The new antlerless muzzleloader season in late October is expected to significantly increase antlerless permit fill rates. This season will give hunters 4 additional days to fill their antlerless permit. Importantly, those 4 days are prior to the rifle season, when weather is more favorable, deer haven't been pushed around and learned to avoid hunters, and more hunters will have not yet harvested a deer. As a result, the Department is predicting that fill rates will increase by a factor of 1.75. For example, a WMU that previously had a 20 percent fill rate will now have a 35 percent fill rate (see Table 1). This puts fill rates in most WMUs at levels that are comparable to success rates during youth season. Many people will predict much higher fill rates, but rates exceeding 50 percent are unrealistic. Deer hunting in Vermont is still difficult, muzzleloaders still have limitations, and some hunters will never try to fill their permit.

Collectively, all of the changes to deer hunting regulations that will take effect this year are unprecedented. As such, there are no examples from other states to look to for guidance for the suite of changes that are taking effect at the same time. The predicted effects of these regulation changes are based on the Department's knowledge of Vermont's deer population, deer hunters, and the effects of previous, less substantial changes to hunting regulations. The current status of the deer population, with densities exceeding objectives and concerns about low or declining physical condition in many areas, precludes taking a more conservative approach to antlerless harvests at this time. However, this recommendation is conservative, as the proposed antlerless harvests will take 2-4 years in most cases to achieve WMU-specific density objectives. Even if antlerless harvests do exceed expectations, they will only move populations toward objective levels quicker. Importantly, deer management will continue to be adaptive and harvests will be adjusted in the future as we gain information on the actual effects of the regulation changes.

Antlerless Harvest and Buck Age Structure Management

Antlerless harvests are an important tool for managing buck age structure and the overall buck hunting experience. The 2018 Big Game Survey found that 74% of Vermont hunters are interested in managing for older, larger deer. Further, the most important drivers of hunter satisfaction, after "just going deer hunting," were "harvesting an older, larger-antlered buck" and "the amount of buck sign in the woods." Providing additional antlerless harvest opportunities helps to reduce hunting pressure on bucks, allowing more bucks to survive to older ages. Increased antlerless harvests are also necessary to achieve a more balanced buck-to-doe ratio. Perhaps most importantly, a healthy deer population produces healthier, larger-antlered, larger-bodied bucks.

Ultimately, the Department would like to maintain the buck population at its current level. It may seem counterintuitive that this can be done with fewer does in the population, but age structure and birth rate data clearly indicate that it is possible. When does are in better physical condition they give birth to more fawns, and, more importantly, are able to raise more of those fawns to adulthood. This means that fewer, healthier does can recruit more deer into the population than a larger number of less-healthy does on over-browsed habitat. If the physical condition of deer can be improved, recruitment of fawns to adulthood will improve. Since half of fawns are male, this would allow the buck population to remain at its current level, or even increase, despite fewer does on the landscape.

Antlerless Harvest Recommendation

Archery Season

The Department believes it is appropriate to have all WMUs open to the taking of antlerless deer during the 2020 archery season. Antlerless harvest in archery season is a key component in deer population management in Vermont. Archery hunters tend to distribute their hunting effort and, as a result, harvest in areas with higher deer numbers. Therefore, archery harvest has a low impact in areas with fewer deer. Importantly, archery harvest allows hunters to better regulate local deer herds in areas with high deer densities, particularly areas where firearm hunting is limited.

Youth and Novice Season

The Department is strongly committed to recruiting new hunters into Vermont's deer hunting heritage. Based on this commitment and the importance of harvesting an adequate number of female deer each year, the Department recommends that the youth and novice season bag limit be one deer of either sex in all WMUs. This will provide these hunters additional opportunity to harvest a deer and the opportunity to help properly manage Vermont's deer herd. The Department also recommends that hunters during this season be able to take any buck, regardless of antler characteristics. It is critical that spike-antlered bucks be taken during this season so the Department can track their prevalence in the population (for population modeling) and obtain important biological information (e.g., weight, antler measurements) from this portion of the yearling buck population. This is the primary reason Department biologists examine deer during this season each year. This will have no impact on buck age structure management in WMUs that still have an antler restriction, as the buck harvest during this season is less than 10 percent (8 percent in 2019) of the overall buck harvest.

Antlerless Permits

Antlerless permits are recommended for 19 of the state's 21 WMUs in 2020. These permits may be filled during the early antlerless-only muzzleloader season in late October or during the December muzzleloader season. The Department recommends that a total of 23,000 antlerless permits be issued (the same number approved for distribution in 2019). An increase in antlerless permits is recommended in 7 WMUs, and a decrease in antlerless permits is recommended for 5 WMUs (Figure 7). These recommendations account for new, WMU-specific deer density and physical condition objectives established in the 2020-2030 Big Game Management Plan (see Appendix A for additional detail). They also represent an increased effort to reduce deer populations in parts of Vermont by taking advantage of new deer hunting regulations. This permit allocation is expected to result in the harvest of an additional 6,385 antlerless deer above those harvested during the archery and youth/novice seasons. Harvesting this number of antlerless deer should yield approximately 5,428 adult female deer (85 percent of muzzleloader antlerless deer are adult does).

The total recommended antlerless harvest represents a substantial increase over recent antlerless harvests. However, recent antlerless harvests were limited by an inability to distribute more antlerless permits in some areas, so they did not represent desired harvest levels. This recommendation takes advantage of new hunting regulations to achieve antlerless harvests that will be more effective at achieving WMU-specific deer density objectives. However, this recommendation is conservative due to uncertainty about the effects of the new regulations. Ultimately, even greater antlerless harvests will be necessary in many WMUs to achieve density objectives, particularly if winter severity continues to be low.

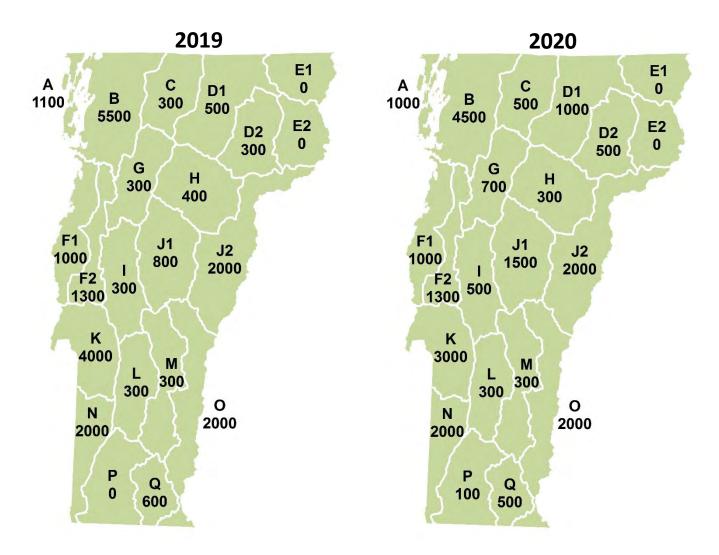


Figure 7. Antlerless permit allocations by wildlife management unit for 2019 and 2020 (proposed).

Table 1. Estimated deer densities, predicted antlerless deer harvest during the 2020 archery, youth, and muzzleloader seasons, and actual 2019 antlerless harvest by wildlife management unit.

									20	19	2020		
	Deer per mi ²			Early Antlerless		Muzzleloader Antlerless			2020	Recommended		Total	% of Doe
							Fill		Total	& (Actual)		Adult	Population
WMU	Objective	2019	2020	Archery	Youth	Permits	Rate	Harvest	Antlerless	Antle	erless	Doesa	Harvested
Α	18	33	33	102	17	1000	22%	219	339	219 ^b	(238)	286	26%
В	18	27	26	531	146	4500	25%	1135	1813	1361 ^b	(1435)	1519	20%
C	15	16	17	164	65	500	44%	218	446	276	(286)	370	11%
D1	15	18	19	250	104	1000	41%	408	762	486	(481)	632	12%
D2	12	13	14	97	37	500	34%	171	306	185	(198)	254	10%
E1	<10	7	7	12	8	0		0	19	23	(19)	15	1%
E2	<10	6	7	9	4	0		0	12	24	(12)	10	1%
F1	15	18	18	114	25	1000	24%	244	382	278 ^b	(257)	321	11%
F2	18	21	21	105	26	1300	25%	319	450	323 ^b	(273)	379	13%
G	12	15	16	115	22	700	30%	208	345	204	(166)	290	9%
Н	15	13	14	204	44	300	29%	87	335	293	(306)	278	8%
I	12	12	14	90	15	500	29%	145	249	163	(137)	209	7%
J1	15	20	21	208	38	1500	38%	568	814	395	(377)	686	12%
J2	15	19	19	273	76	2000	32%	639	989	716	(669)	829	12%
K	18	24	24	178	48	3000	23%	701	928	778 ^b	(537)	782	15%
L	12	11	12	66	18	300	35%	105	189	117	(120)	158	8%
M	12	12	13	48	9	300	30%	91	148	113	(87)	124	4%
N	18	21	21	93	31	2000	22%	446	570	418 ^b	(272)	480	14%
0	15	16	17	168	40	2000	27%	534	741	570	(417)	624	14%
P	12	10	11	68	24	100	35%	35	127	88	(82)	104	4%
Q	12	12	13	69	4	500	22%	110	184	133 ^b	(123)	155	11%
STATE				2961	801	23000	28%	6385	10147	7157 ^b	(6492)	8505	12%

^a Adult does (1+ year old) are typically 85% of the archery and muzzleloader antlerless harvest and 70% of the youth season antlerless harvest.

^b Recommended antlerless harvest in 2019 was limited by inability to distribute additional antlerless permits.

Table 2. Muzzleloader antlerless permit history by WMU, 2010–2019, and recommended permit allocation for 2020. Numbers in parentheses are the number actually distributed.

WMU	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Α	950	550	650	900	900	900	1100	1100	1100	1100	1000
								(843)	(720)	(939)	
В	5000	3200	3600	3400	3800	3350	5500	5500	5500	5500	4500
С	500	0	0	400	400	100	350	700	800	300	500
D1 ^a	1100	175	250	450	850	100	300	500	1200	500	1000
D2 ^a	500	0	0	100	0	0	100	300	800	300	500
E1 ^a	0	0	0	0	0	0	0	0	0	0	0
E2 ^a	0	0	0	0	0	0	0	0	0	0	0
F1	1100	450	525	250	175	0	200	1200 (917)	1000 (900)	1000	1000
F2	1700	425	575	450	275	0	700	1500 (1297)	1300	1300	1300
G	200	0	0	100	200	100	300	300	300	300	700
H _p	800	225	300	150	550	100	750	900	1100	400	300
ı	200	0	0	50	0	0	0	300	300	300	500
J1	1000	275	400	100	150	0	300	750	1200	800	1500
J2 ^c	1750	775	1150	950	1000	400	1500	1750	2500	2000	2000
K ^d	4700 (3672)	1400	2000	3900	5000 (4403)	2250	4100 (3569)	4100 (2505)	4000 (2446)	4000 (2440)	3000
L	200	0	0	100	0	0	0	300	300	300	300
M ^e	300	0	0	0	0	0	200	300	300	300	300
N	2900 (2030)	1425	1975	2100	3000 (2123)	1850	2100 (1835)	2100 (1588)	2000 (1487)	2000 (1462)	2000
O ^f	1950	675	750	750	750	500	1200	2000	2600 (2300)	2000	2000
Р	0	0	0	0	0	0	0	0	0	0	100
Qª	750	0	250	200	0	0	250	900 (692)	700 (604)	600	500
STATE	25600	9575	12425	14350	17050	9650	18950	24500	27000	23000	23000

^a WMU boundary changed in 2014.

^b Permit totals prior to 2014 are for former WMU H1.

^c Permit totals prior to 2014 are for former WMUs H2 and J2.

 $^{^{\}rm d}$ Permit totals prior to 2014 are for former WMUs K1 and K2.

^e Permit totals prior to 2014 are for former WMUs M1 and O1.

f Permit totals prior to 2014 are for former WMUs M2 and O2. A portion of WMU Q was also added to this unit in 2014.

Table 3. Muzzleloader antlerless permit fill rate by WMU, 2010–2019.

WMU	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	5-Yr Avg
Α	12%	14%	11%	10%	11%	9%	10%	12%	19%	13%	13%
В	16%	16%	13%	13%	14%	12%	15%	13%	19%	14%	14%
С	28%			26%	22%	20%	29%	19%	33%	24%	25%
D1*	24%	27%	22%	26%	22%	10%	25%	28%	29%	24%	23%
D2*	23%			21%			18%	18%	21%	21%	20%
E*											
F1	11%	18%	13%	12%	13%		15%	11%	16%	13%	14%
F2	11%	12%	15%	13%	12%		14%	11%	19%	12%	14%
G	30%			35%	16%	7%	20%	16%	28%	14%	17%
H*	19%	24%	20%	18%	19%	12%	16%	17%	20%	18%	17%
I	20%			24%				11%	24%	15%	17%
J1	16%	23%	16%	22%	12%		23%	19%	26%	19%	22%
J2*	18%	19%	16%	22%	22%	16%	20%	16%	23%	17%	18%
K	14%	16%	10%	11%	10%	10%	13%	12%	18%	14%	13%
L	16%			23%				14%	31%	15%	20%
M	15%						18%	15%	24%	13%	17%
N	14%	13%	11%	11%	11%	9%	13%	12%	18%	11%	13%
O*	13%	19%	15%	16%	23%	15%	15%	15%	20%	11%	15%
Р											
Q*	8%		14%	12%			11%	12%	18%	10%	13%
STATE	16%	16%	15%	18%	16%	11%	15%	14%	21%	14%	15%

^{*}WMU boundary changed in 2014.

Public Meeting Comments

Three online public hearings were held April 13, 15, and 16, 2020 to gather hunters' comments on the deer herd. Approximately 200 members of the public participated in these hearings. A summary of comments on the status of the deer herd is provided in Appendix B. Two additional online public hearings will be held in May, 2020.

Appendix A: Explanation of Management Recommendations by WMU

Deer densities, habitat conditions, and winter severity can vary substantially from one part of Vermont to another. Additionally, these factors and the effects of historical deer densities have resulted in deer in some regions being in better physical condition than others. This results in variable deer population dynamics across the state; therefore, deer management prescriptions are made at the WMU level rather than statewide.

The Department is aware that deer densities (and other factors) vary within each WMU, sometimes substantially. Unfortunately, managing deer at a smaller scale than a WMU is not currently feasible given the structure of hunting regulations and the Department's ability to collect enough data. However, hunters generally do a good job of targeting areas of higher deer density within a WMU if they have sufficient access.

Description of data provided for each WMU

Area of deer habitat: Deer habitat is all land that is not developed.

Management Objective: The desired change in the deer population (Increase, Decrease, Stabilize)

Recommended Antierless Harvest: The total recommended antierless harvest for 2020 across all seasons. The number of adult does (≥1 year old) expected to be harvested as a result (85% of archery and muzzleloader antierless harvest, 70% of youth/novice antierless harvest) is also shown, as is the percentage of the WMU's doe population that this would represent.

Deer Density: Estimated pre-hunt deer density over the past 9 years based on retrospective population modelling and the projected density in fall 2020. The density objective established in the 2020-2030 Big Game Management Plan is shown and represented by a red line in the figure. The shaded green area shows ±2 deer per square mile – the range in which the management objective will be to stabilize.

Harvest: The total buck and antlerless deer harvests during all seasons during the past 10 years

Yearling Antler Beam Diameter/Yearling Male Weight/Fawn Weight: These physical condition metrics are from deer examined by biologists at check stations and are shown for the past 10 years. The average for the most recent 3 years is shown, as well as the minimum acceptable level established in the 2020-2030 Big Game Management Plan. The red shaded area in the figures represents levels below the established minimum.

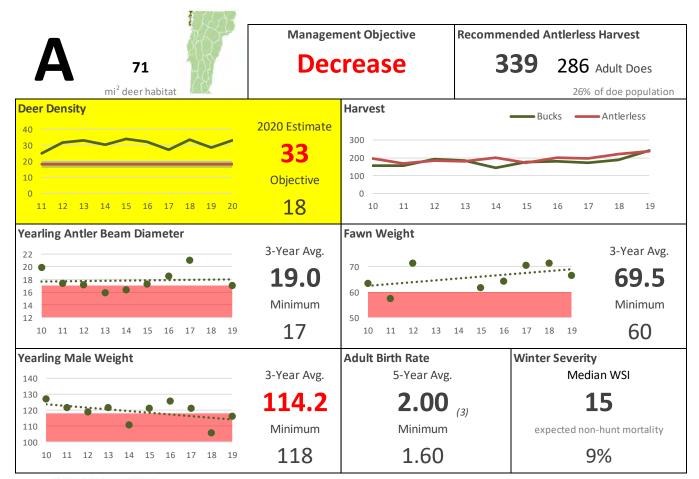
Adult Birth Rate: The average adult birth rate (fetuses per doe) over the past 5 years based on examinations of incidentally killed deer during February-May. Sample size is shown in parentheses. The minimum acceptable level established in the 2020-2030 Big Game Management Plan is also shown.

Winter Severity: The median winter severity index in that WMU or region over the past 30 years and the expected adult doe mortality outside of the hunting seasons based on that winter severity.

Red Numbers: Numbers are red when they do not meet the objectives established in the 2020-2030 Big Game Management Plan.

Yellow Highlight: Boxes are highlighted yellow when they are significant considerations for the management recommendation, potentially superseding other data.

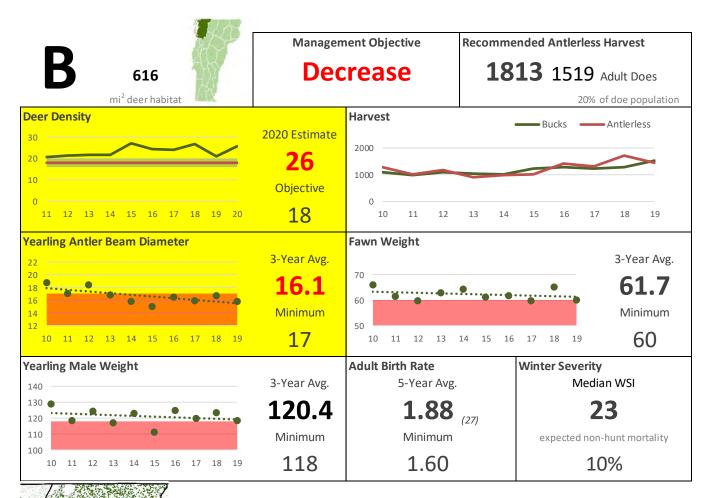
WMU Map: The map shows the distribution of the 2019 deer harvest in the WMU. Each dot represents a deer harvested in the underlying town, not the exact location of harvest





Wildlife Management Unit A encompasses the Champlain Islands (Grand Isle County). Winters here are among the least severe anywhere in Vermont and the habitat is relatively productive due to an abundance of agriculture. Despite high population density, physical condition of deer in this region remains good, presumably due to the abundance of agricultural habitat.

The abundant agriculture and other open land means only 46% of the habitat is forested. As a result, the estimated density of 33 deer per square mile of habitat equates to 71 deer per square mile of forest. This density of deer is having significant impacts on forest ecosystems. The health of these ecosystems is the primary management concern in this region.

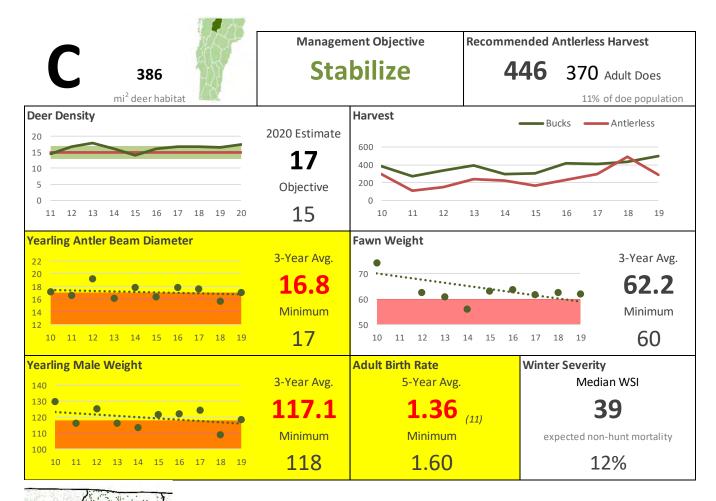


Wildlife Management Unit B encompasses the Champlain Valley north of the Winooski River. Severe winters are rare in this region and the habitat is relatively productive, with an ideal mix of forest and fields.

Physical condition of deer in this region is declining, and, although some metrics are not yet at concerning levels, this indicates that deer densities have exceeded the level that the habitat can support long-term. This is further supported by widespread and often substantial evidence of deer impacts to forest ecosystems.

Deer density in this WMU has been above management objective for many years and recent antlerless harvests have been insufficient to reduce those densities. As such, greater antlerless harvests are recommended until density is reduced to objective.

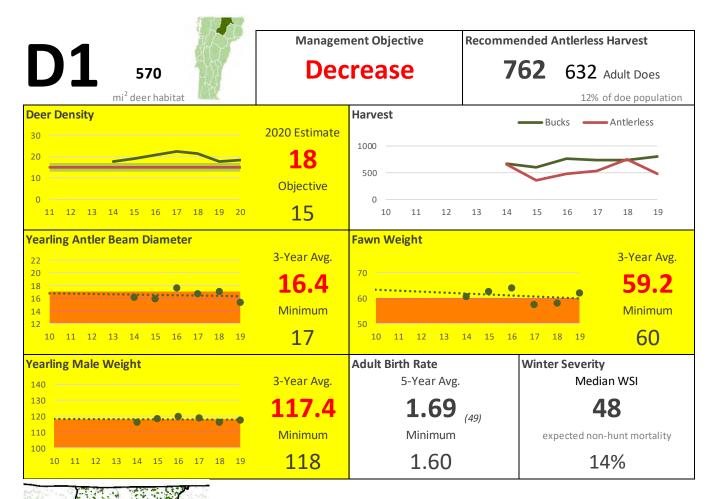
Hunter density is high in this part of the state and those hunters appear willing to harvest additional antlerless deer if given the opportunity. However, limited hunter access to private land is a significant management challenge in this WMU.



Wildlife Management Unit C encompasses the northernmost portion of the Green Mountains, from Johnson to the Canadian border. The westernmost portion of the WMU consists of lower elevation farmland similar to WMU B and has notably higher deer densities than higher elevation portions of the WMU.

Physical condition of deer in this WMU is moderately poor and suggests that density has been near or slightly above the level the habitat can support for many years. This is presumably driven primarily by higher density in the western portion of the WMU.

Deer density has remained relatively stable in this WMU over the past 10 years, and importantly has been above the current objective of 15 deer/mi² (albeit only slightly) since 2016. Recent antlerless harvests have been insufficient to reduce the deer population in this WMU, so the current recommendation represents a slight increase intended to bring the density closer to the objective.



Wildlife Management Unit D1 is in the northern Vermont piedmont biophysical region. Deer habitat in this WMU is fairly productive, with a mix of forest and fields. Winters in this region tend to be more severe than much of the rest of the state, which limits the density of deer that can be supported long term.

Physical condition of deer in this WMU is concerning, particularly given the amount of agriculture and general quality of habitat and the relative severity of winters. Clearly the population has been overabundant for many years.

Past antlerless harvests have been insufficient to reduce deer density in this WMU, so a greater antlerless harvest is recommended. Increased antlerless harvests will need to continue, regardless of winter severity, until deer density reaches the objective.

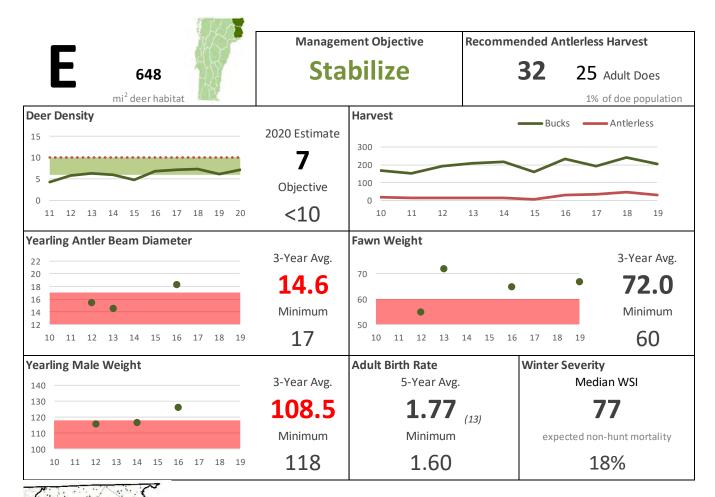




Wildlife Management Unit D2 is located in the Northeast Kingdom. Higher elevation portions of the unit are heavily forested while lower elevations, particularly along the Passumpsic river valley, include more open land and agriculture. As a result, deer density is higher in lower elevation areas in the southeastern part of the unit.

Winters in this WMU are often severe, which limits deer density, particularly in the higher elevation areas, and helps keep deer in good physical condition. However, several of the lower elevation towns (e.g., Burke, Lyndon, St. Johnsbury) have seen record or near-record harvests in recent years, suggesting the deer population in this part of the WMU is growing.

The antlerless harvest recommendation is intended to maintain the population at 12 deer/mi² by allowing for slightly increased antlerless harvests, which will be concentrated in the lower elevation, higher density parts of the WMU. The Department will also be considering an expanded archery zone around St. Johnsbury to further increase antlerless harvests in this area where complaints about deer damage to gardens and landscaping are common.

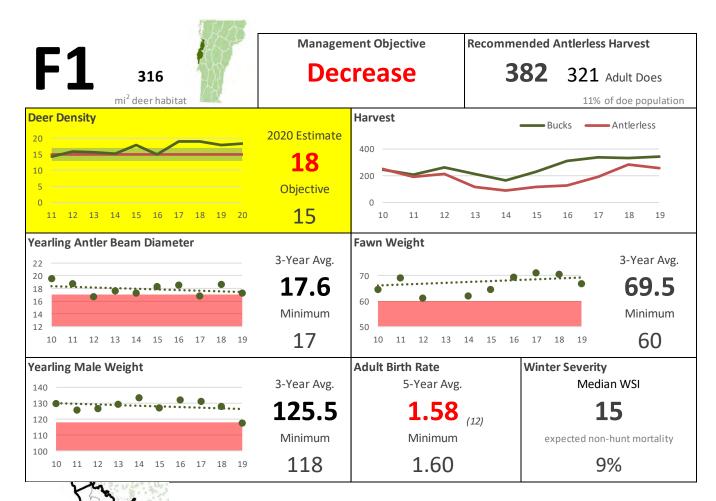


Wildlife Management Units E1 and E2 are located in the northeast corner of Vermont in the northeast highlands biophysical region. This region regularly experiences severe winters which limit deer density.

These WMUs are heavily forested, but young forest is abundant due to widespread commercial timber harvesting. As a result, summer deer habitat is relatively high quality. It is the quantity and quality of winter habitat, specifically mature softwood cover, that limits deer abundance in this region.

Additionally, deer in this region must coexist with a relatively abundant moose population. Because they largely compete for the same resources at certain times of year, the densities of both species must be considered in management decisions. The current density objective in these WMUs considers both the relationship between deer and moose and the limited quantity and quality of current deer winter habitat. Maintaining deer density below 10/mi² helps minimize the risk of brainworm infection in moose and allows deer winter habitats to improve.

Deer density remains well below the 10/mi² threshold but has been slowly increasing over the past 10 years. If this trend continues it will soon be necessary to increase the antlerless harvest in this region. The current antlerless recommendation simply represents additional harvest opportunity provided to archery and youth/novice hunters and will have no effect on the population.



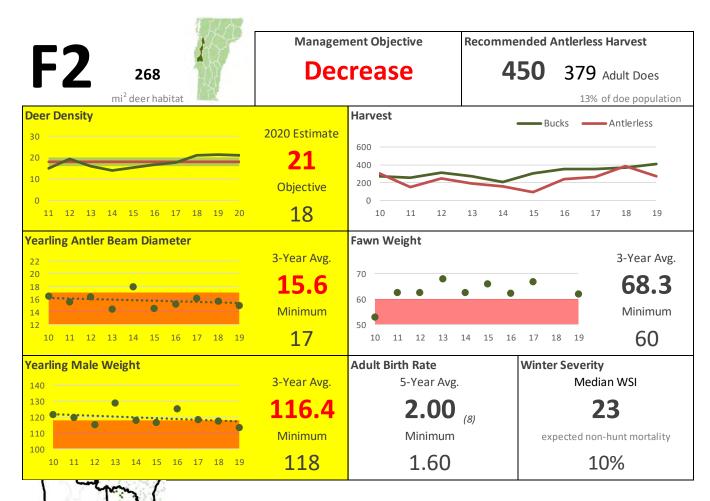
Wildlife Management Unit F1 is in the southern Champlain Valley, from Burlington south through the heavily agricultural regions of Addison County. Winters are relatively easy for deer in this part of Vermont and the abundance of agriculture results in excellent deer habitat. This is reflected in the physical condition of the deer, which is consistently among the best in the state.

The abundance of agriculture and otherwise open land results in only 33% of this WMU being forested. The current density of 18 deer/mi² of habitat therefore equates to 56 deer/mi² of forest. High densities like this have caused widespread and significant impacts to forest ecosystems, including many of the uncommon natural communities that are found in this region.

Deer density has increased notably during the past 5 years, with many towns having record or near-record harvests each year. The recent increase in antlerless harvest may have helped to slow this increase, and possibly stabilize the population, but harvests have been insufficient to reduce deer density toward the objective. The recommended antlerless harvest represents a substantial increase over recent years but will still take several years to reduce the density to the objective. Consistently higher antlerless harvests will be necessary to maintain the population at the

objective level.

Limited hunter access to private land is a significant management challenge in this WMU.



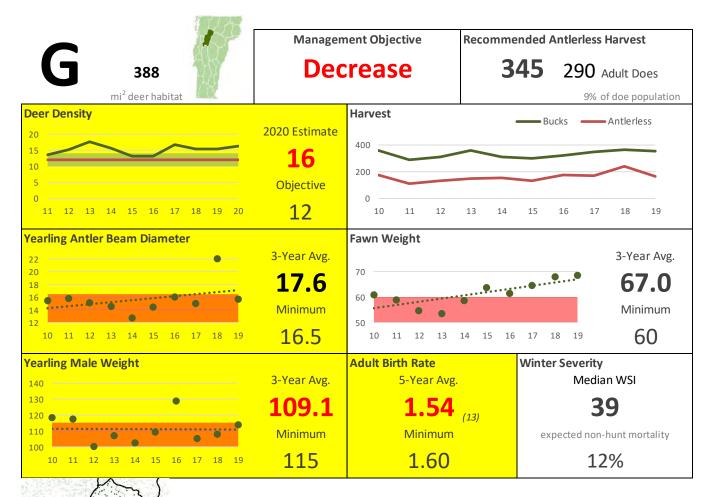
Wildlife Management Unit F2 is located in the southern Champlain Valley in the foothills of the Green Mountains. Winters here are relatively easy for deer and the habitat is generally good with a mix of forest and field.

Considering the prevalence of agriculture and mild winters, the poor condition of yearling bucks is particularly concerning. This suggests that deer density has exceed the level the habitat can support. Indeed, deer impacts to forest ecosystems are common in this WMU.

Deer density has increased notably over the past 5 years and many towns in this WMU have experienced record or near record harvests in the past 2 year. The recent increase in the antlerless harvest may have helped to slow this trend but has been insufficient to reduce the population toward the objective.

The current antlerless harvest recommendation is a notable increase from recent years but will still take several years to reduce density to the objective level. Consistently higher antlerless harvests will be necessary to maintain density at objective in this WMU.

Limited hunter access to private land is a significant management challenge in this WMU.

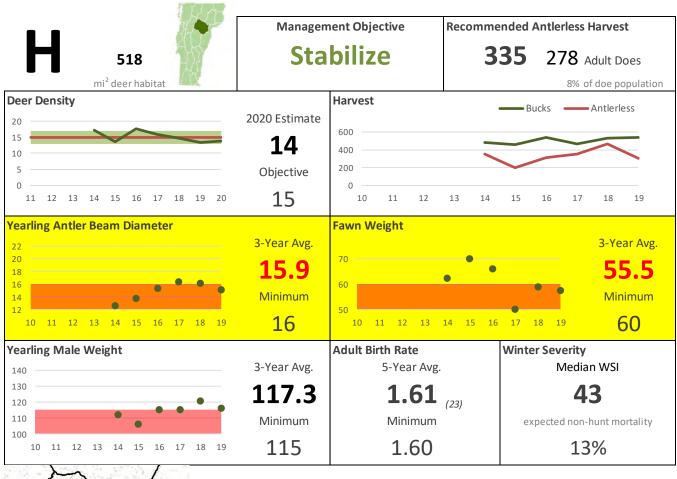


Wildlife Management Unit G is in the northern Green Mountains from the Appalachian Gap (Rte 17) north to Johnson. This area is heavily forested and mountainous, and includes both Camel's Hump and Mount Mansfield. Deer habitat is very poor due to the unproductive mountain terrain and very limited young forest habitat. Winters here can occasionally be severe, but are often more moderate at lower elevations where deer typically spend the winter.

Deer density in this unit is low at higher elevations, but moderate to high at lower elevations, particularly on the western edge of the unit. The poor physical condition of deer clearly indicates that density has exceeded what the habitat can support,

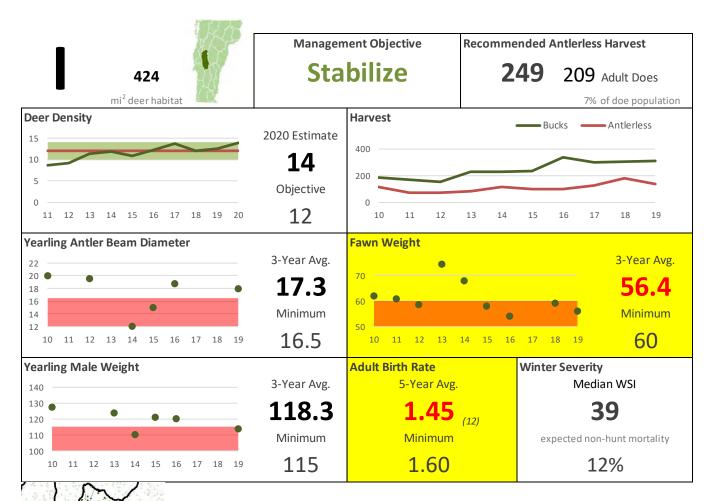
likely for many years. This was the primary basis for reducing the population objective in this unit from 13-18 deer/mi2 to 12 deer/mi2.

Past antlerless harvests have had no apparent effect on the deer population in this WMU. The recommended antlerless harvest represents a substantial increase and reflects a change in management approach due to new density and physical condition objectives.



Wildlife Management Unit H is located in north-central Vermont, from Stowe east to Groton and Barre-Montpelier north to Hardwick. Habitat quality for deer varies considerably in this unit, and that is reflected in local deer densities. Lower elevation areas closer to Montpelier and Barre have more agriculture and open land and easier winters, resulting in relatively high deer density. The remainder of the WMU is higher elevation (including the Worcester and Groton ranges) and heavily forested. Winters are more severe in these areas and habitat quality is generally poor. As a result, deer density is lower.

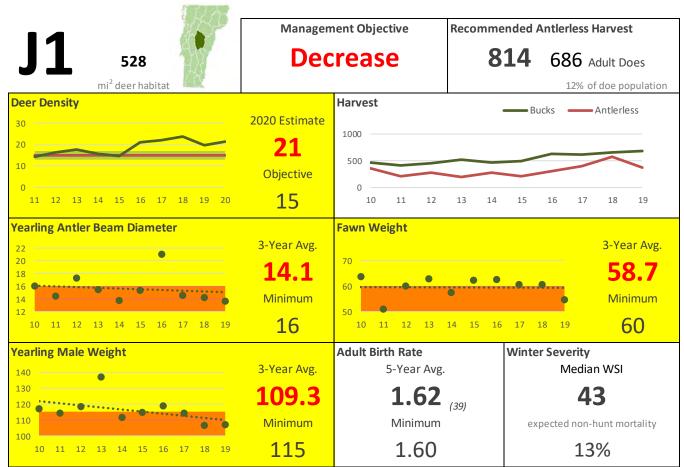
Physical condition of deer in this WMU is generally mediocre, and yearling antler beam diameters and fawn weight are concerning. These are presumably related to historical overabundance of deer and declining habitat quality, and the current overall density of deer in this WMU should be sustainable. However, it will be important in the future to increase antlerless harvest in the Barre-Montpelier area where deer are overabundant. The Department will be considering an expanded archery zone to address this concern. Deer density should not be allowed to increase anywhere in this WMU until physical condition improves.

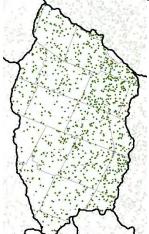


Wildlife Management Unit I is located in the central Green Mountains, from Route 4 in Killington north to the Appalachian Gap (Rte 17). Deer habitat is generally poor due to the unproductive mountain terrain and very limited young forest habitat. Winters here can occasionally be severe but are often more moderate at lower elevations where deer typically spend the winter.

Deer density in this unit is low at higher elevations, but can be moderate to high at lower elevations, particularly on the western edge of the unit. The birth rate and fawn weights are concerning, but sample sizes are limited. Importantly, the deer population in this unit has grown little over the past 10 years, despite very limited antlerless harvest. This indicates that habitat quality is the primary factor limiting population growth and supports maintaining deer density at the current level.

Since the population has been growing with past antlerless harvests, increased antlerless harvest is recommended to stabilize density at the current level.



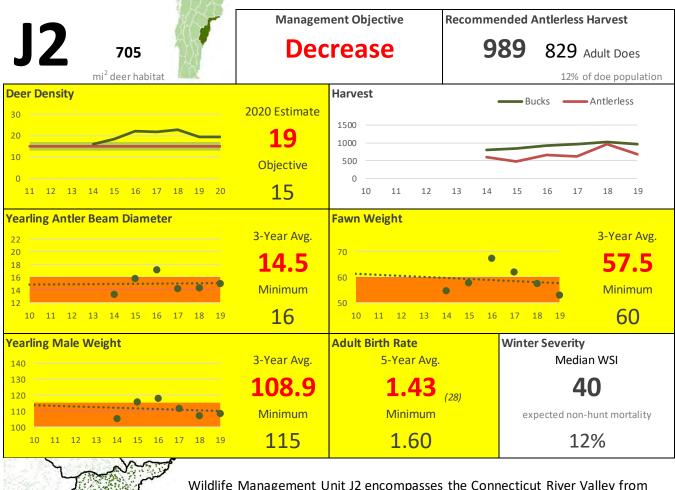


Wildlife Management Unit J1 is located in central Vermont. It encompasses the area from route 100 east to route 110 in Tunbridge and Chelsea, and from route 2 south to Bethel. Habitat quality for deer varies considerably in this unit, and that is reflected in local deer densities. Eastern parts of the WMU are hilly with an almost ideal mix of forest and field resulting in relatively high deer density. Conversely, the western half of the WMU is more mountainous and heavily forested. Habitat quality is poorer and, as a result, deer density is lower.

Physical condition of deer in this WMU is poor. This is presumably related to historical overabundance of deer and declining habitat quality, as these metrics have been low for many years. Clearly, deer density in this unit has exceed the level the habitat can support long-term. To improve the health of deer in this WMU, deer density must be reduced.

The recommended antierless harvest is a substantial increase over recent years but is necessary to reduce the population. It will take approximately 5 years at this higher harvest level to reduce deer density to the objective.

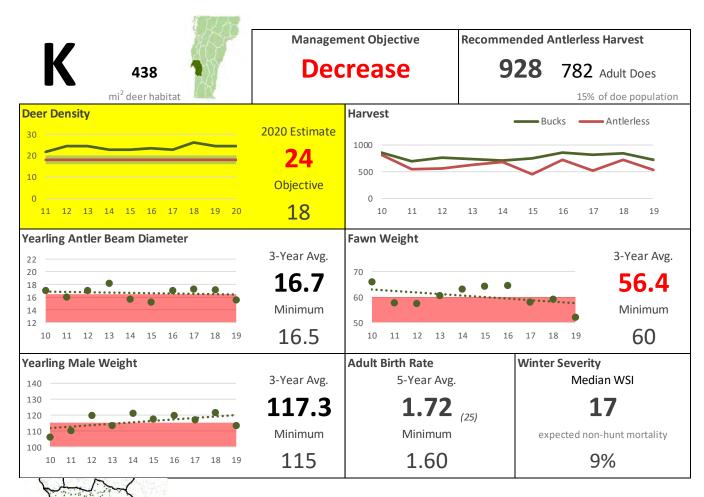
It will also be important in the future to increase antlerless harvest in the Barre-Montpelier area where deer are overabundant and conflicts are more likely. The Department will be considering an expanded archery zone to address this concern.



Wildlife Management Unit J2 encompasses the Connecticut River Valley from Lunenburg to White River Junction. Winters can occasionally be severe but are typically moderate to easy. The habitat contains a desirable mix of forest and field but forest habitats are very poor quality due to a lack of young forest and historical overabundance of deer and resultant chronic overbrowsing.

Physical condition of deer in this WMU is poor. This is presumably related to historical overabundance of deer and declining habitat quality, as these metrics have been low for many years. Clearly, deer density has exceeded the level the habitat can support long-term. To improve the health of deer in this WMU, deer density must be reduced.

The recommended antierless harvest is a notable increase over recent years but is necessary to reduce the population. It will take approximately 4 years at this higher harvest level to reduce deer density to the objective.

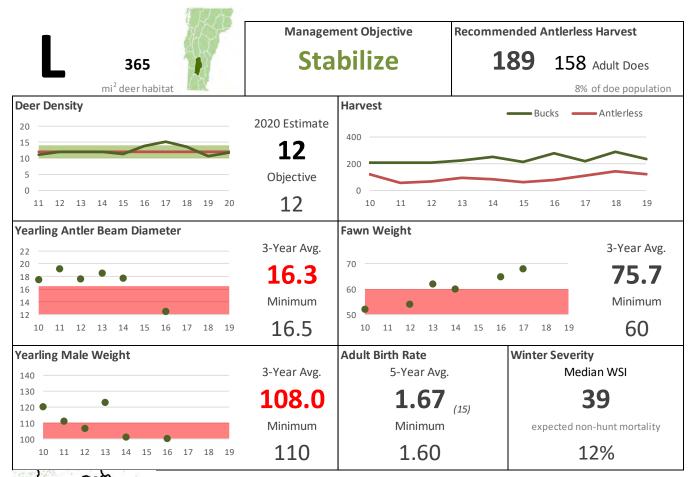


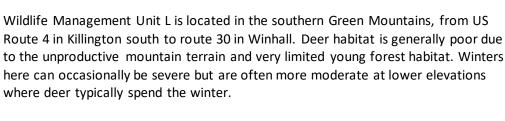
Wildlife Management Unit K is located in the Western Foothills biophysical region, encompassing areas west of US Route 7 from Brandon south through Rutland to Danby. This region has relatively easy winters and habitat with a good mix of forest and field. Importantly, oak is abundant and widespread and is an important factor in maintaining decent physical condition of deer despite chronic overabundance.

Deer browse damage to forest regeneration is ubiquitous throughout the WMU and has been occurring for decades in many areas. Chronic overabundance of deer has significantly impacted forest ecosystems and contributed to the proliferation of invasive species.

The Department has previously been unable to increase antlerless harvests in this WMU due to the inability to distribute additional antlerless permits. If all permits are distributed this year and the recommended harvest is achieved, it will take at least 5 years at this harvest level to reduce deer density to the objective.

Limited hunter access to private land is a significant management challenge in this WMU.

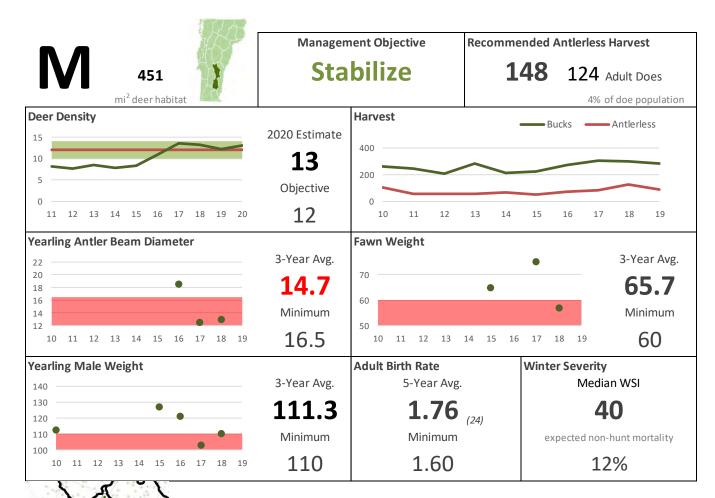




Deer density in this unit is low at higher elevations, but can be moderate to high at lower elevations on the western edge of the unit, particularly closer to Rutland.

Yearling antler beam diameter and weight are both below desired levels, but sample sizes have been limited. Importantly, the population has not grown over the past 10 years despite very limited antlerless harvests. This suggests that habitat quality is the primary factor limiting deer density in this WMU

The recommended antlerless harvest is intended to maintain the population at its current level. It is a slight increase over recent antlerless harvests which will help address higher deer densities along the western edge of the unit and provide additional antlerless harvest opportunities.

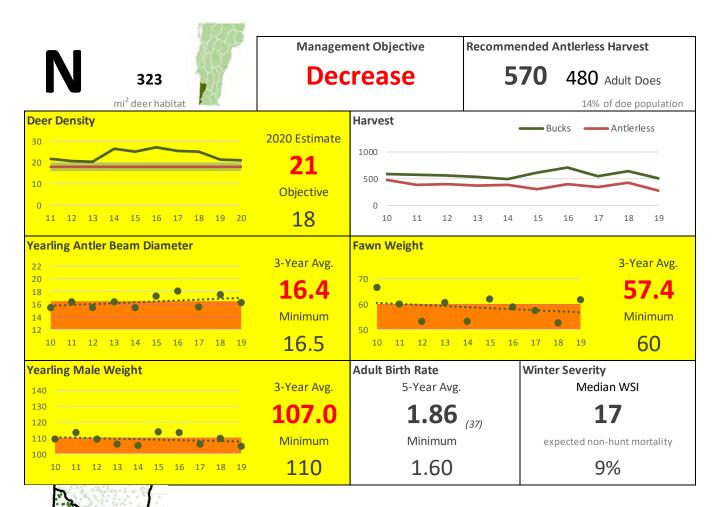


Wildlife Management Unit M is located in the eastern foothills biophysical region from Stockbridge south to Townshend. Deer habitat is generally poor due to the heavily forested, unproductive mountain terrain and limited young forest. Winters here can occasionally be severe but are often more moderate at lower elevations where deer typically spend the winter.

Deer density in this unit is variable, but generally low.

Yearling antler beam diameter is below desired levels, but sample sizes have been very low. Physical condition of deer is not currently concerning, and the current density of deer should be sustainable. The population increased in 2016 and 2017 following exceptionally easy winters but has otherwise been stable for many years despite very minimal antlerless harvests. This suggest that habitat is the primary factor limiting deer density.

The recommended antierless harvest is intended to maintain the population at its current level. It is a slight increase over recent antierless harvests which will provide additional antierless harvest opportunities with little or no effect on the population.



Wildlife Management Unit N in the southwest corner of Vermont, including parts of the Taconic Mountains and Vermont Valley biophysical regions. This region has easy winters, productive soils, and habitat with a good mix of forest and field.

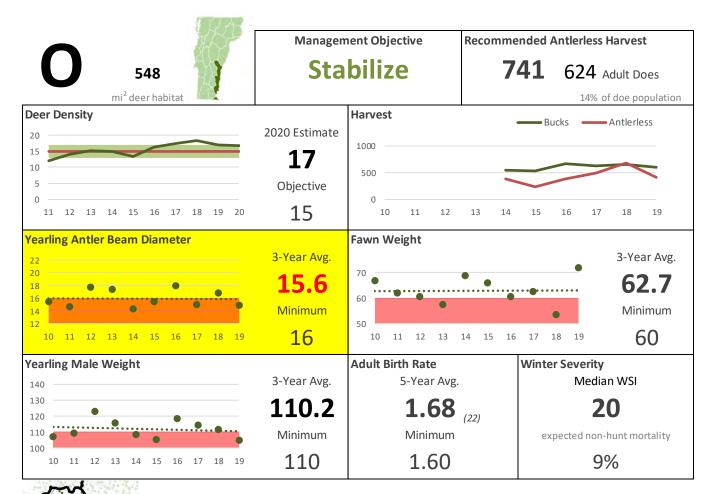
Deer browse damage to forest regeneration is ubiquitous throughout the WMU and has been occurring for decades in most areas. Chronic overabundance of deer has significantly impacted forest ecosystems and contributed to the proliferation of invasive species. Importantly, oak is abundant and widespread and is likely an important factor in maintaining good birth rates as it allows does to be in good condition during the breeding period.

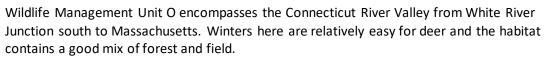
Physical condition of deer is concerning, particularly given the productivity of the soils and abundance of oak. Presumably, this related to chronic overabundance and declining amounts of young forest. Deer densities must be reduced in this region to improve the health of the deer and the forest ecosystems.

The Department has previously been unable to increase antlerless harvests in this WMU due to the inability to distribute additional antlerless permits. If all permits are distributed this year and the recommended harvest is achieved, it will take

approximately 5 years at this harvest level to reduce deer density to the objective.

Limited hunter access to private land is a significant management challenge in this WMU.



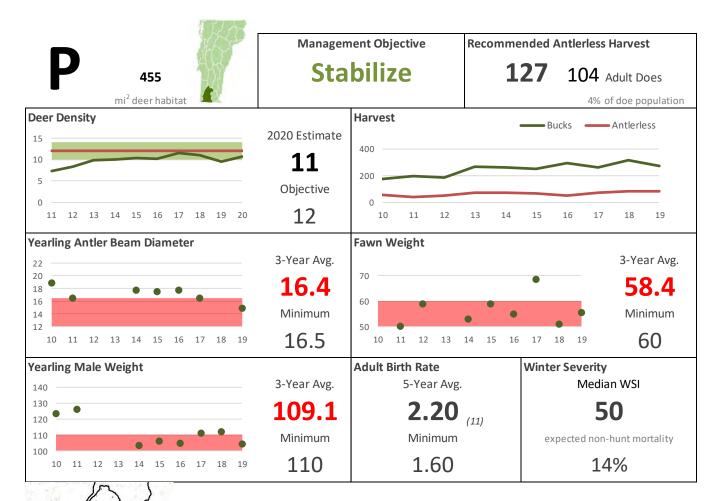


Deer browse damage to forest regeneration is common throughout the WMU and has been occurring for decades in many areas. Chronic overabundance of deer has significantly impacted forest ecosystems and contributed to the proliferation of invasive species. This, combined with declining amounts of young forest, has contributed to the generally poor quality of forest habitats.

Physical condition of deer is mediocre in this WMU, hovering at or slightly above minimum acceptable levels. This provides additional evidence that deer densities have been at or above the level the habitat can support for many years.

Recent antlerless harvests have helped stabilized deer density but have been insufficient to reduce the population. The recommended antlerless harvest is a moderate increase over recent years and is intended to bring the density closer to the objective.

Deer density does vary within this unit due to both habitat quality and hunter access to private land. Limited hunter access to private land is a substantial management challenge.



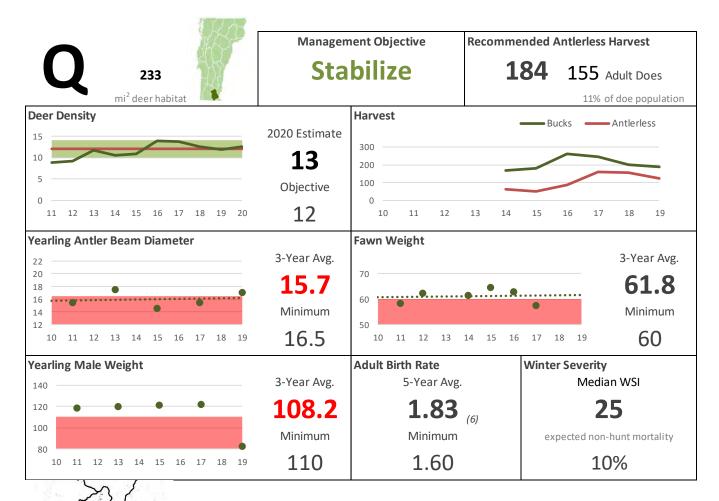
Wildlife Management Unit P in the southern Green Mountains, from the Massachusetts border north to Winhall. This high elevation, mountainous, heavily forested unit contains some of the poorest quality deer habitat in the state. Winters are often severe, particularly at higher elevations. However, many deer can migrate to lower elevation areas along the southern and western edge of the unit where winters are much more moderate.

Physical condition of deer in this unit is moderately concerning, with several metrics currently below minimum acceptable levels. However, sample sizes have been small, which limits inference from these data. Importantly, deer density over the past 10

years has hovered around 10 deer/mi² will very minimal antlerless harvest (archery and youth only, no antlerless permits), suggesting that habitat quality is the primary factor limiting deer density.

A lower deer density objective may be appropriate in this WMU, but deer impacts to forest ecosystems are uncommon and the Department is hopeful that increased timber harvesting on National Forest lands will improve habitat quality and allow for some population growth.

Notably, deer harvests have been steadily increasing near Bennington and in towns along the Massachusetts border. Some of these towns had near-record harvests in 2019. Given this trend, the Department would like to increase antlerless harvest opportunity in these areas by allocating a small number of antlerless permits. Most of these permits are likely to go to landowners, which will increase the likelihood that deer are harvested from areas of higher deer density.



Wildlife Management Unit Q is located in the eastern foothills biophysical region from Massachusetts north to Townshend. Habitat quality is relatively poor in this small, heavily forested WMU, primarily due to a lack of young forest habitat. Winters here are relatively easy for deer. Generally, deer density is highest near Brattleboro and lower to the north and west as elevation increases.

Yearling antler beam diameter and weight are currently below minimum acceptable levels, but samples sizes have been very low which limits inference from these data.

Recent antierless harvests appear to have stabilized deer density at the objective. The recommended antierless harvest is similar to recent years and is intended to maintain the density at the current level.

Evidence of deer damage to forest ecosystems is common near Brattleboro. Unfortunately, deer harvest is limited by the town's firearm discharge ordinance. As a result, the Department will be considering an expanded archery zone to reduce deer impacts in this area.

Attachment 3

Voicemails Related to the Proposed 2020 Deer Season / Antlerless Allocations.

Voicemails are listed in chronological order

4/16/20, 11:16 AM

Hi, my name is Henry Robear. I live in Colchester, Vermont. My comment on the film that I seen about the deer hunting coming this fall; I don't agree with the one buck limit. It kind of takes two seasons out if you kill one with a bow, then you're all done with rifle season, no muzzleloader season. That just does not make any sense to me whatsoever. I hunt mostly in Grand Isle County. I see several spikehorns every year, some trying to breed does. I think you have to get back to the old way of doing business and be real. We're never going to have the deer like they have in, Kansas. Thank you.

4/16/20, 3:47 PM

Hi, this is Bob Starsky. I live in Shrewsbury Vermont and I've hunted for many, many years. I'm seventy-three years old and I've look at the proposed calendars and it seems like you're looking to do some things with managing the deer that seemed to be okay. However, I don't know with a bow. I've hunted with rifle and a traditional muzzleloader in the past and I'm wondering why you can't consider having a traditional muzzleloader season. I don't know if that would include in-lines or maybe just a flintlock, or a cap lock rifle. Maybe even one week in October, like the second week of the month of October, to give the muzzleloader hunters a chance to hunt when the weather was relatively good. The weather in December for muzzleloader, especially if you're hunting with traditional where you can get your powder wet pretty easily is brutally cold, usually with snow, and to have one mild week. I think to even limit it with, you know, maybe only antlerless for one week I think with all the weeks you have in archery. I think one week of additional muzzleloader would be certainly beneficial for the hunters and encourage people to get into that phase of hunting and make for good sport and also to help meet the guidelines of managing the deer herd. Thank you very much. Bye

4/16/20, 7:50 PM

Yes, this is Douglas Bent. I live in Braintree, Vermont and I believe there should be a one-deer limit for the entire season. I agree with your early muzzleloader hunt and also your youth season and your archery season, the length of it. I think that's all a good idea, but I do believe it only should be one deer per season and if you have areas where there's extra deer then have that by a lottery or something like that. But anyways, I think you have a very good handle on it, except I think it should be just a one deer. Okay. Thank you very much. Bye.

4/16/20, 8:11 PM

Yes, good evening. I apologize, my name is Bruce Spaulding and I was hoping to be able to talk on my computer here at your live session, but for some reason my computer is not functioning properly because I wanted to talk to Mark Scott because I've known him for fifty years. And the reason I'm calling is Mark probably remembered, I'm sure he will, I came back from Colorado about in eighty three or four, I brought back the Operation Game Thief idea from Colorado and that was myself and Eddie Demar Witman and we met with Commissionser Steve Wright I believe and we got that program started in 1985. It was officially started and what I want to know is I got a certificate here

and it's an executive department proclamation and Madeleine Kunin signed it and I'd like to have that given to the right people to have it on their wall because it's when we made the program work. I went through two commissioners before Steve and I finally got him to believe in it. And I'm really proud of what we did and I just wanted you to know that I want to send that to someone. I really appreciate what the fish and wildlife have done for me. I taught hunter safety for about eighteen years, and I love it when the kids come back to me in their forties and fifties and "do you know Mr. Spaulding if it wasn't for you I probably wouldn't have done this" and it gives me a great pride and great satisfaction to have contributed to this great organization, which is also made me sane through the years with the number of years with the harvest I've done. I've hunted with Don Polland and Larry Benoit and different people like that. So I come from good stock, and I just wanted to thank you and congratulate you in all things that you do. Tell him I apologize for my inadequacy on the technology and like I say he can call me back. I'd like to mail this proclamation. It's framed and a nice frame signed by Governor Kunin. I think it should be on the wall somewhere down there in Waterbury, Montpelier, wherever you want to put it. Thank you very much, and thank you for allowing me to talk, bye-bye.

4/16/20, 8:33 PM

Hi, my name is Dave Zenica from Essex Junction. I watched two of the three Zoom sessions over the past week and I have a question. I didn't want to take more time on the Zoom session. Last year, Nick Fortin said we took 16,550 deer. 10,058 of those deer were bucks which was the second-highest total since 2002. My question is why are we trying to tweak the deer herd because it's deemed unhealthy or, if not unhealthy, we want to improve the health of it, by taking more doe. I guess I don't get that if we've had such a great buck kill, with good antlers, it seems like if things are going well, don't mess with it. And I'm just not sure as to the answer of how this will improve the health of the deer or what is unhealthy about the deer herd right now. The second point is an expanded archery season will happen sometime in the near future. I would recommend strongly some kind of a committee with a head that would deal with public landowner education, maybe a format like zooming for landowners or something, because it's going to take a lot of education, because landowners will now have people hunting on their land from mid-September until mid-December potentially. That's a lot of infiltration of people and they may be opposed to that; just having people around all the time. So something to think about, but you guys are doing a great job and I support your expertise and professionalism. Thank you.

4/18/20, 8:05 PM

Hi, my name is Mark Reilly. I live in Pomfret Vermont and I want to show my support for both the moose regulations and deer regulations as they were proposed. I appreciate the work of the department has done with both of these sectors and look forward to hunting them this fall. Thank you, bye-bye.

4/19/20, 8:13 AM

Hey, good morning. My name is Angela Dunbar Prince. I'm a Vermonter, lifelong. I currently live in the town of Woodstock and my partner and I am also own land in Chelsea, Vermont. I'm calling in regards to the moose hunt this year. I am opposed to all moose hunts. All of it. I never think a moose should be killed. There's never been a problem in my lifetime with a moose. I've never hit a moose. I've never had a problem with moose being invasive and I have been a lifelong avid hiker. I have them through the state from one side of the other. The moose are beautiful and wonderful creatures that deserve to have protection and not to be killed especially not when there's any kind of

connection to a company called Safari Club International that has provided the Vermont Fish and Wildlife moose study with \$50,000. That is hideous. I'm disgusted by that. Please do not kill our moose. Thank you. Also, I don't like shooting deer just to make money for the State of Vermont either. That is not okay. It's not a money-maker. Those are animals that deserve to live here. They don't deserve to be killed just so you can make a buck. There's got to be another way to make some business in this state. Thank you.

4/19/20, 7:59 PM

Hi, this is Travis Wilson from Chelsea Vermont. Lifetime Vermont resident, born and raised. I oppose the moose hunt. I think that we do a very terrible job here. I'm a bowhunter for deer and I think we do a really bad job in wildlife management. Um, I think we are killing the herd off for money. It seems like the state can never make enough money here, there, and everywhere and you know, just because moose, you know, are being killed off by ticks doesn't mean that we should interfere with nature. Once again, it's all we ever do is interfere with nature. So I'm against the moose hunt and I believe it should be one deer a year per person and no spike hunting. You know, I don't agree with spike hunting. And youth season, they shouldn't be shooting young yearling deer. They should learn how to shoot like we used to. Spike horns are bigger deer because that's the best reason, the best way to manage the population, and have good huntable animals and bring people to hunt here and vacation here to hunt. You know, where you got actually good racks. A lot of Vermonters I know now hunt out of state because they say they can't even find a good-sized deer around here anymore. Thank you very much. Bye.

5/11/20, 5:42 PM

This is Robert Moffat down in Bennington, Vermont. I think what we need to do on the deer herd if you're going to make any changes where we save our bucks, change it so instead of getting two or three bucks a year that a hunter can only get one buck and he can get two or three doe and that's it, with a maximum of three dear. I'm from Bennington. Have a good day. Bye.

<u>5/12/20, 7:27 AM</u>

Hi, my name is James Williams. I live in the town of Stamford, Vermont in zone P. I just got a very strong concern about opening up an antlerless deer permit for muzzleloader season in our zone. A lot of people live in Massachusetts right on the Mass/Vermont border and know if they sit just down below our zone; our deer, their deer, anyone's deer, don't know state lines. They go down and fill their tags. We are overrun with does down in this area. And if we do apply for zone N, well, half of zone N from Mass border all the way up is posted. You cannot get into it and, where you can get into, it's all orange or all hunters, and everybody's got their spot. I'm not asking to open up the whole zone, but, at least closer to the state that allows does being taken or antlerless deer being taken. Again, I have thousands and thousands of pictures of deer and a lot of them are all does that just travel straight down into Mass. And it's not the same herd because I get 10 o'clock here, 10 o'clock there, 9 o'clock, so forth and so forth, and it's different cameras spread out over a big area. That is my concern. I do own property that is adjacent with Massachusetts and I see it all the time. I have hope that State of Vermont can do something about opening up the zone to at least the borders. And most of the borders on zone P are publicly owned by private citizens that are in the same boat I'm in. Thank you very much.

5/13/20, 7:12 AM

Hi, Jim Williams from Stamford Vermont. I left a comment yesterday about antlerless deer along the Mass state border and I quoted "thousands of deer". Well, it is thousands of pictures throughout the summer, along the border line of my property, going into Mass. Same times, different times, different deer, seven cameras, all different times of the day, going down and back, mostly antlerless deer. They do not know the state boundaries. So, hunters in Mass do sit down, while respective, legally, off the state, and wait for the antierless deer to come down during muzzleloader, and, of course, they shoot them. I'm just proposing to get somewhere along the Mass state line / Vermont opened up for muzzleloader antierless deer permits, because we have an abundance of them down here. And the antler restriction, going back to spikes, eww, bad idea. The quality of buck has improved tremendously in this area and surrounding areas due to that restriction. Maybe follow Mass's rule on antlerless deer where you can use it either archery, rifle, or muzzleloader and you're done. That'd be great. The point restrictions...please keep that intact. I mean, our bucks have just gotten bigger and bigger and better. You say they're not pushed in this area because other hunters won't hunt this area because they're going elsewhere to hunt and I'd just like see antlerless deer permits be opened up for at least, you know, not the whole zone P because it's huge. Along the borders would be great and, again, going back to zone N from Mass all the way up to Bennington, it's mostly posted. You can't hunt it, and if you can find a spot to hunt, hunters have already got it. So, I just want to clarify it up that it's not thousands of deer, it's thousands of pictures throughout the whole year. Thank you very much. Bye.

Attachment 4

From: Craig Armstrong <dedhamhunter@gmail.com>

Sent: Monday, May 18, 2020 6:06 AM

To: ANR - FW Public Comment <ANR.FWPublicComment@vermont.gov>

Subject: Deer question

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Sorry I Missed the deadline but I hope you consider my comments. I am an out of state hunter with property in Tunbridge Vermont. I used to have several friends hunt with me but since the deer herd went down the tubes in the late 90's I've been hunting alone. The herd started to come back a few years ago but last year and it looks like this year also it is going the other direction. Since I hunt bow and gun, a one buck limit really bums me out and guarantees none of my buddies will fork out the money for a license now. I'd rather see a 3 point restriction. In my opinion the spike restriction failed and trying to increase the buck to doe ratio has just led to a smaller herd. Back in the late 80's and early 90's Vermont was fun to hunt and we passed up small bucks because we knew we would see larger ones. It seems to me the Vermont deer managers are trying to manage the herd from a computer and not getting out in the field to see what is going on. I will not shoot a doe up in Vermont because in my area we just don't have enough deer. A one buck limit is no way to get out of state hunters up to Vermont. Do any of you deer hunt?

_Craig Armstrong

----Original Message----

From: Mandyraelenz <vermontragdolls@yahoo.com>

Sent: Saturday, May 16, 2020 8:30 AM

To: ANR - FW Public Comment < ANR.FWPublicComment@vermont.gov>

Subject: Deer proposals

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

I have hunted WMU's I snd G for the last 30 years. I have read about and listened to the deer hunting proposals that we have been discussing for the state of Vermont. I agree with most of the proposals. Extending archery season like most states do and allowing more opportunity I think is great. Early antlerless season is good, however I don't think the use of antlerless permits should be allowed during late muzzleloader season for the taking of does that have presumably already been bred. I believe more antlerless deer will be taken during archery season with the much longer season along with the one buck rule. The one buck rule will mostly affect archery hunters and they will choose to let the small buck walk and be more likely to take the antlerless deer, so they can still hunt rifle season.

The data shows that are deer are in poor shape and you recommend dropping the deer density, however I am concerned about the way #DATA has been collected. I believe it has been collected during youth season so as to get measurements on yearling deer?? I think wildlife management units I and G have low participation in the youth hunt simply because of the habitat being poor and rough wooded terrain that requires a different style of hunting versus sitting on an agricultural field edge. I am wondering if you get enough deer to get an accurate set of data??? As your own graph for G shows that our measurements fluctuate quite a bit. In fact it shows that the deer have a higher minimum beam diameter and larger fawn weights then recommended at this time, as well as a steady increase in the overall harvest numbers. Why would we recommend taking more antlerless deer?

Our personal observations have shown a great difference in our deer since the inception of APR. Hunters have been harvesting heavier deer with larger antlers on a consistent basis in our area since the inception of APR!!! we have been seeing good numbers of deer and they seem to look healthy and Hunter satisfaction has been high. Deer rut activity is seen more often than ever before!

Lastly, studies and personal observations show our habitat is very poor with an aging forest. I am wondering if that is because of low food sources, poor bedding, or mainly poor wintering areas? If it has to do with food sources, what effect has the increased bear population had on that? Given the ever increasing issues of beer and human conflict, should we focus on reducing bear numbers to help the deer habitat?

Chip Lenz

From: Metcalf, Matt

To: ANR - FW Public Comment

Subject: deer-moose comment-question

Date: Friday, May 15, 2020 5:08:27 PM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Great idea to move the season to an earlier date, however if you don't do something about the lack of access to the land it won't matter, the deer know where to go when they are pressured

Sent from my iPhone

From: Allan Thompson

To: ANR - FW Public Comment

Subject: Comments on antierless deer season

Date: Thursday, May 14, 2020 10:06:42 AM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

I would like to write to lend my support to the 2020 antlerless harvest and youth season recommendations as written.

These efforts will increase opportunity and deer take.

- I like the opportunity for myself, for my kids (crossbows eventually), and other that will seek to engage or reengage because of these new initiatives to strengthen hunting within the culture. Longer, more opportunities (seasons) allows me and my family to integrate hunting more frequently into our day-day rather than through limited seasons and opportunities.
- I like the potential to take more deer and more antlerless deer for myself (I prefer eating doe) and to reduce browse impacts.

If anything the recommendations are getting a bit complicated.

What I would prefer is to expand the hunting seasons more, alleviate the different seasons and From October to December; allow all implements, all hunters, and impose bag limits within those months. If we spread this out, I think we're more likely to achieve population targets, simplify seasons and improve hunting from a cultural perspective by integrating hunting more casually than limiting to specific seasons and implements. I don't think you get a slaughter and I don't think we'd be creating more pressure on deer. potentially the opposite because you'd have the same amount of hunters, spread out more in space and time.

Recognizing there may be a time to pull these actions back if deer numbers begin to decline just reduce # of deer take (e.g<4) rather than the opportunities. I'd be happy with 1-2 deer (antler or antlerless) per year but having as long as I can to do so.

Thank you for your consideration.

__

Allan Thompson Certified Wildlife Biologist Licensed Forester 224 Michigan Ave Waterbury VT 05676 802-244-8131 From: Nick Neverisky

To: <u>ANR - FW Public Comment</u> **Subject:** Deer hearing comments

Date: Tuesday, May 12, 2020 7:44:50 PM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Thanks for outlining the plan! I trust department biologists and ecologists - if this is a good move for the deer and the ecosystem, I'm in favor.

I also appreciate the potential for recruiting new hunters via the regulation changes. Sounds like there will be an overall increase in hunting opportunities and that's great.

One person commented about giving landowners incentives to manage their land to better support wildlife. Sounds like a program like that already exists - and that sounds great. I wonder if there are opportunities to tie those incentives in with other management objectives that could be met at the same time? I'm thinking primarily of carbon sequestration.

From: Bruno Pouliot

To:ANR - FW Public CommentSubject:deer-moose comment-questionDate:Monday, May 11, 2020 4:18:12 PM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Sounds like the Department has a good plan. I live in Canaan VT and I'm a meat hunter and it was good to hear that the antler restriction is being changed in unit E.

Bruno

Sent from my iPhone

From: Henry Robare

To: ANR - FW Public Comment
Subject: deer-moose comment-question
Date: Monday, May 11, 2020 9:13:44 AM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

My comment on deer health, I hunt exclusively in grand isle county. We have lots of deer and lots and lots of spike bucks which I and my partners have wittiness trying to mount doe and with some success. This will certainly lead to bad health. I also believe that the one buck is ridiculous way to control the heard. I take a buck with bow that's the end of my fall hunt unless I'm an advocate for taking doe. Apparently the department is looking to the hunter to thin the doe population and as it looks are leaning to the bow hunters. A regular muzzle week for doe and buck at the last week of October instead of cold weather December will accomplish your goal and I'm sure you know that but must be getting push back.

The youth season another farce a 6 year old killing a deer doesn't even know the meaning of life. Hasn't spent anytime in woods seeing wildlife and the beauty of the outdoors. I think the age needs to be at least 12 and hopefully his or her parents have thought them the meaning of life and what it means to end a life and why,I am 72 and hunted starting fallowing my Dad at 8 with a BB gun. I have had tremendous pleasure and more than my share of success in the wild.

Sincerely Henry Robare Sent from my iPhone From: Penny Harris

To: ANR - FW Public Comment

Subject: deer-moose comment-question

Date: Monday, May 11, 2020 9:03:45 AM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

In reference to the changes in the month of October: all through the video and Fish and Wildlife references, not once did they mention how landowners might feel about all of the changes. After all, it is private property the majority of Vermont's hunters use. Private property owners should play a role in this decision too.

I know, personally, being a large property owner, that if the October changes go through we will be posting our property; something we have never done in the 30+ years we have granted permission for hunters to use our land. We are not hunters, but we understand how important it is to the state, and to the hunters, to allow them access to our land.

Please think about how this would affect private land being posted. Respect for our rights as landowners would go a long way. Thank you for listening.

Penelope Harris Cambridge, Vermont From: <u>Steven Hamilton</u>

To: ANR - FW Public Comment
Subject: deer-moose comment-question
Date: Monday, May 11, 2020 7:29:21 AM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

I do agree with your new regulations for Deer! I would also ask you seriously consider dropping antler less season altogether in the Mount Tabor area. I have hunted the mountain for over 40 years and we seriously need all the Doe in that area to bring the herd back there. It has been a very slow, and certainly not steady in getting the herd back to healthy numbers there. In my opinion if you were to stop Doe season for at least two years in that area it would do a great service to that particular herd. They are just not returning at any good rate, and basically seem to only hold steady, which if you are actually someone who does hunt from Peru side all through to Danby side, you would see this to be the case. Without the logging that used to give the herd a great boost every year it has been in mostly a decline since those operations have stopped. Please strongly consider banning any taking of Antlerless deer on that mountain, and the state could greatly benefit by bringing back a region that used to be great buck hunting, while drawing many out of state hunters bringing a good bit of money spent in that area,

Sent from my iPhone

From: Penny Harris

To: ANR - FW Public Comment

Subject: deer-moose comment-question

Date: Thursday, April 30, 2020 7:50:57 AM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Hi,

Thank you for allowing us to voice our opinions. Mine focuses on the extra rifle seasons allowed at the end of October. I know Fish and Wildlife has been wanting to open up October for hunting for quite some time. I was opposed to it in the beginning and I am opposed to it now.

I am a large property owner in Cambridge. We are not hunters, but have allowed hunting on our property, specifically rifle and muzzleloader in November and December, turkey season and other archery seasons. Hunting in October should be off the table. We will absolutely not allow hunting on our property during October, and will post our property if this gets passed. We spend a lot of time outdoors in our woods during foliage season. We already give up our woods in November and December, and I think it's a bit selfish to ask us to give up more time in our woods for hunters. Fish and Wildlife needs to rethink this action. Our friends and neighbors open their lands for hunting, but all are opposed to an October hunting season for the same reasons as mine. They will consider posting property as well.

Please reconsider this idea. It could bode negatively for more land being posted in Vermont. Consider opening up an end of October season on plentiful state lands, but not private property.

Thank you, Penelope and Frank Harris Cambridge, Vermont From: Dr. Marc Bouchard

To: ANR - FW Public Comment

Subject: deer-moose comment-question

Date: Wednesday, April 22, 2020 10:55:00 PM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Dear ANR official,

My name is Marc Bouchard, I live in Newport Vermont. I hunt for deer both in the Northeast Kingdom and also 20 minutes across the border in Quebec Canada. Over there a legal buck now has to have 3 points on one side. This new rule took effect 3 years ago. You are also only allowed one deer per year. If you catch a doe during bow season, you are done. The hunting has gotten so much better in Quebec because of these rules. I would recommend Vermont follow their example of what is a legal buck instead of allowing hunters to harvest spike horns. Perhaps one deer a year is too restrictive for Vermont, personally I think max of 2, at least for the northeast would lead to better hunting. I do not think this part of the state has an overabundance of deer. In Quebec baiting for deer is legal, on that I do not think Vermont should follow.

To sum up, I think it is a mistake to allow the harvesting of spike horns. And in the NEK we should decrease the number of deer per year to two.

Thank you for reading.

Kindly submitted,

Marc Bouchard 62 Lakewood Dr, Newport, VT 05855 802-999-6112 From: jeremy martin

To: <u>ANR - FW Public Comment</u>
Subject: Deer Management

Date: Tuesday, April 21, 2020 9:27:11 PM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Folks,

To many of us deer hunting is an integral part of our lives and heritage. I Just wanted to say thank you for the incredibly comprehensive and well thought out deer management plan. Every part of it is spot on! Much appreciated, Jeremy Martin

From: Kyle DeLaBruere

To: <u>ANR - FW Public Comment</u> **Subject:** deer-moose comment

Date: Tuesday, April 21, 2020 4:52:28 PM

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Good Afternoon,

I am writing to say that I am in favor of all the new deer rules, regulations, and seasons. Thank you for implementing change.

Kyle DeLaBruere

Sent from my Sprint Samsung Galaxy S10e.

Attachment 5

Deer Online Public Hearings Comments, Questions & Responses

May 11, 2020

Comment: I commend the Department on the deer proposal. It hits all the notes I hoped it would and makes sense.

Question: You can't ask people to clear cut their land, and that is true, but does Vermont have options to improve habitat on national forest land or can we incentivize landowners to manage their land? The Green Mountain National Forest is managed by the US Forest Service. The Department works closely with them, but management of national forest lands are ultimately up to them. The GMNF has proposed habitat improvement projects in several areas of the forest, which, if implemented, would greatly improve habitat for deer and many other species.

For private landowners, the Department facilitates participation in the USDA Natural Resources Conservation Service's Environmental Quality Incentives Program (EQIP) which provides funding to private landowners to improve habitat quality on their land. The program funds a variety of habitat improvement projects, including mast tree release, invasive species management, and early successional habitat creation.

The <u>Use Value Appraisal</u> (UVA; also called "current use" or "land use") program also requires some timber management on enrolled forestland.

While these programs are helpful, they only reach a small portion of Vermont's private land. Ultimately, broad increases in timber harvesting will require healthy timber markets, particularly for the low-grade wood that dominates much of our current forests.

Comment: I agree that there is declining health in the Vermont deer herd. Compared with other new England states nobody seems to come to Vermont to hunt big deer. It seems like our only option is to make the harvest higher.

Question: Specifically for J1 and J2, how can we accomplish harvest / density goals with so much posted property? How do we accomplish that given that there is little state land in J1 and J2? Limited hunter access to private land is a significant deer management challenge in many parts of Vermont. Thankfully, most landowners that post their land do allow hunting, and most posted land does get hunted – although probably not as much as it should. The Department attempts to educate landowners on the value of hunting and has developed a Landowner-Hunter Connection program to match interested landowners with hunters.

The Department is hopeful that some of the new regulation changes will help with this issue. Specifically, the longer archery season and the early, antierless-only muzzleloader season will result in

most does being harvested prior to the rifle season, when the higher hunting pressure pushes many deer on to un-hunted properties. Since most private properties in Vermont are smaller than a typical deer's home range, most deer are accessible to hunters at some point. Nonetheless, this will continue to be a significant management challenge.

Comment: I like the proposal as presented, especially the early muzzleloader season. I don't see a lot of deer where I hunt. Last year I wasn't seeing many deer and then saw 5 deer at night; so, there are deer out there. I am concerned about deer quality and the antler beam diameter is a concern for me.

Comment: What [the other commenter] said really resonates with me. There is lots of posted property and fragmented land and deer are not in great condition. Much of the posted property is not posted properly. Much of the poor deer conditions may be related to large landowners who post large sections of property.

Question: Does the Department provide education to the public and private landowners on how to properly post your land and why you should keep your land open to hunting?

Yes. The Department's website has information on <u>Private Land and Public Access</u> and <u>What Posting Means</u>. The Department has also recently hosted a number of landowner seminars in different areas of the state attempting to educate landowners on the importance of keeping your land open to hunting and addressing some of the public concerns and misconceptions about landowner abilities and authority with allowing your property to be open for hunting.

Comment: The Department's proposal seems to be all in line with what needs to be done. I hunt in the Calais and Averill area. Calais is heavily populated with deer, and deer are not as big as they were. I see smaller bucks and smaller racks. It's not like what they were about ten years ago. 2019 was a tough winter. I saw a lot of deer and good buck sign in the Averill area. They are cutting a lot heavily and that is helping the deer. The Department proposal is right on the money and I hope it is supported. I also support the zoom meeting and believe it will get more people involved. I can't always drive to the in-person hearings and would like to see this as an option in the future.

Comment: I live in Highgate but hunt the Granville area. I'm concerned about the tick population and the number of them proliferating.

Question: Is the Department taking into account how those tick numbers will impact deer numbers like they have moose?

The winter tick, which is affecting the moose population in the Northeast Kingdom, does not impact the deer population. Deer often carry winter ticks, but due to their habitual grooming practices they don't carry enough ticks to cause health impacts. Moose are poor groomers, which is why they can carry tens of thousands of winter ticks. Additional information on moose and winter ticks is available here.

It is also important to note that winter ticks are native to Vermont. Although they are benefitting from shorter winters, the primary reason their numbers have increased is because moose were overabundant. The ticks that people are most familiar with – the black-legged tick (also called deer tick) and American dog tick – have expanded their range and increased in abundance in recent years

presumably due to climate change. While these ticks can transmit diseases to humans, they do not affect the health of deer or moose or any other wildlife species.

Comment: I live in Myrtle Beach now but am a former resident of Georgia, VT and hope to come up and hunt. I like the proposal, especially the early muzzleloader proposal. I also think the zoom meeting method for the meeting is a great addition...for former Vermonters especially.

Question: What are the dates for the muzzleloader season?

The early, antierless-only muzzleloader season will run from Thursday, October 29 through Sunday, November 1. The December muzzleloader season will be December 5-13.

Comment: I love the data presented in this meeting. I don't like that the youth weekend rules are different than the regular rifle season. It's confusing for youth and adults and I would like to see the same rules as for adults – for example the need to get permission is a mistake. Also, the dates for youth weekend match up with the NH youth weekend and reduces youth participation in each state. Vermont also needs to start thinking about a campaign for early successional habitat. Since it's important for a wide variety of species, promote the importance of early successional habitat, not just habitat improvements for deer.

Question: I'd like to know more about hunting does in the Bloomfield area.

Hunting for antlerless deer in the Bloomfield area (WMUs E1 and E2) is proposed to be allowed during the archery and youth/novice seasons only. The Department recommended zero antlerless permits for these WMUs in 2020, so antlerless deer could not be harvested during either of the muzzleloader seasons.

Comment: I get periodic emails from the Department (it's currently heavy on the fishing side). As we get closer to deer season the Department should consider supply a link to the deer information on the periodic emails that go out from the Department to the public. The Department does a lot of reports and it would be good to share as many as possible.

Question: Some might cringe when I say this but has there been any thought to getting more people involved, has there been a thought to split antlerless permits and have some rifle antlerless permits? It would help someone like my wife who recently got into hunting and help her have a chance to harvest a deer during the rifle season, and it's easier than taking a buck. Another scenario might be that someone doesn't have time for a novice season, and it might attract hunters from out of state. I'm sure some people would be concerned about taking too many deer and slaughtering the deer herd.

The Department considered allowing the harvest of antlerless deer with rifles during development of the deer regulation changes. Allowing the use of rifles would provide many additional hunters with an opportunity to harvest an antlerless deer. However, there continues to be substantial opposition among Vermont's hunters to harvesting antlerless deer with rifles, so the Department decided not to recommend that approach at this time. If the Department is unable to reach antlerless harvest objectives under the new regulations, we will consider options for allowing the use of rifles.

Comment: I commend the Department for doing this zoom meeting. I'm elderly and don't like to drive at night so this works well for me. I have a property in the NE corner of Chittenden County, Westford, WMU B and I'm not seeing the same thing as the rest of the WMU is seeing. I'm seeing a decrease in the fawn population and seeing an increase in the coyote population. I also think the game wardens are doing a great job. They are friendly and they are handling things well.

Question: Is there any study on the interaction of fawn mortality and coyotes?

No specific studies have been conducted in Vermont, but fawn mortality in white-tailed deer has been studied a lot throughout North America over the past 20-30 years. These studies have shown that about half of fawns will die during the first couple months of their life. This is true in areas with or without predators. The difference is whether most of them die of starvation or predation. In other words, fawn predation is compensatory – that is, it does not add to total mortality but instead replaces other causes.

Comment: I hunt WMU's N, L, and P and I would like to see more logging on the national forest and private land. Summer logging would be a priority. I haven't heard anyone talk about deer wintering areas and how many bona fide deer wintering areas are left in the state. If we get a wicked hard winter, deer wintering areas are important. With regards to landowner access, private landowners don't own the wildlife and the Department should be able to get involved in managing deer wintering areas there on posted land for the wildlife.

Comment: I've talked with many hunters and they are not happy. They would like to keep the 2 buck limit and as a result of landowners not liking the new seasons they going to post their land. People like to drive around and look at deer and this won't happen. You'll see more road hunting. My game warden does a good job and told me that he has seen more poaching than he ever has. For additional information on why the Department reduced the buck bag limit from 2 to 1, please refer to the <u>Deer Regulation Changes FAQs</u>.

Question: Why does Vermont make it so hard to post your land? Out west if you get on the wrong property you get in serious trouble. Why is VT so backwards?

Comment: The Department is doing a great job with this hearing and I can't imagine doing this in an auditorium. The Department is doing a great job but it is hard to get new people involved in hunting and fishing. I appreciate all the Department's been doing to communicate the change to a 4 deer limit.

Question: Is the four deer limit a revenue thing or something to make game wardens not as effective as they were 4 or 5 years ago?

No. The Department does not make deer management decisions based on money. The handful of hunters that may buy an additional archery tag or antlerless permit because of this change will have no effect on the Department's budget. Rumors of a big buck in an area would likely have a greater impact on license sales and revenue. This change also will not influence the effectiveness of wardens.

Increasing the annual bag limit from 3 deer to 4 is intended to allow a few effective hunters, who are interested in harvesting additional antierless deer, to do so in the areas where it is most needed. While this change will only have a small impact on the overall deer harvest, the Department does not see a need to limit individual hunters willing to harvest more antierless deer when more deer need to be harvested in some areas.

This change is also intended to work with the new Expanded Archery Zones in developed areas around Vermont's major cities and towns. While none of these zones have been established yet, the Department is currently working on this. The increased bag limit will encourage additional archery antlerless harvest in these areas. For more additional information please refer to the Deer Regulation Changes FAQs.

Comment: The Department thinks that they're going to lose money from this new proposal. Something doesn't add up here.

Question: How are you going to be losing money? In WMU G you are increasing the number of doe tags. How are you going to lose money?

The Department expects to lose revenue primarily due to reduced muzzleloader license sales because of the one buck limit. Although the recommended number of antlerless permits is higher in some WMUs, it is lower in others. The total number of recommended permits is exactly the same as 2019.

May 12, 2020

Comment: I like the Zoom meeting and am definitely concerned about the health of the deer herd, specifically the decline in antler beam diameter. I'm open to doing antlerless harvest if it means bigger, better bucks. I would recommend an increase on habitat improvement on state lands such as food plots.

Comment: Thank you for doing this meeting.

Question: Will there be another discussion on improving habitat through a future Zoom meeting? Nothing is currently planned, but it's a great idea. Department staff regularly give presentations about improving wildlife habitat on private land.

Are there other means for the Department to do habitat work through non-dedicated funds? The Department attempts to utilize all available funding and resources to conduct habitat-related work.

A summary of management activities on the Department's wildlife management areas in 2019 is available <u>here</u>.

The majority of the Wildlife Division's staff and budget are focused on lands and habitat work.

It is also important to keep in mind that the Department's wildlife management areas represent only a small fraction of Vermont. Further, many of those WMAs contain sensitive wildlife habitats or areas that are otherwise not appropriate for active management. Landscape level change in habitat quality will require significant work on private land because 85% of Vermont is privately owned. The Department has committed significant resources to improving habitat on private land, but we can only do so much.

Is there any consideration on changing the antler point restrictions to 3 points per side?

This was considered during development of the regulation changes. There are few places in Vermont where such a restriction could be appropriate, and most hunters currently oppose this option. For more information on this and many other options that were considered, please see the Comprehensive Deer Management Evaluation Final Report.

Comment: Thank you. Habitat is a big issue and the deer herd needs help. It seems like state land plans don't include enough plans for cutting and there is never enough cutting done to meet the plan. Also, regarding the novice deer hunting season, I would like to see the novice season eligibility for novice hunters extended for more than a 1 year time period because it can be hard to harvest a deer on your first year hunting. This would be important for recruiting hunters.

Comment: Thanks for saving me the drive by offering the Zoom meeting. I'm concerned about the health of the deer herd and have faith in the Department for all of the recommendations and proposed changes. I hunt in Milton and recently there was a large clear cut that was done. It's showing bigger deer (20-30 lbs. larger on average) and is improving deer health in the area.

Question: Is there a way the Department can incentivize private landowners to manage their lands to improve habitat?

Yes. The Department facilitate landowner participation in the <u>Environmental Quality Incentives</u>

<u>Program</u>. This federal program provides funding to conduct habitat improvement projects on private land.

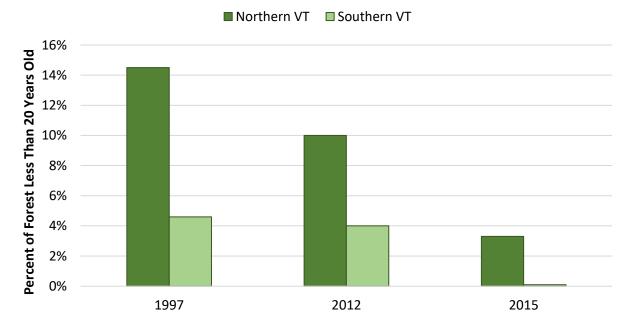
Comment: I support the proposed changes and think it will improve the deer herd and lead to more opportunity. I want the October muzzleloader season to be longer than 4 days. Also, I'm a crossbow hunter and think that the new changes are good for hunter recruitment and meat hunters.

Comment: Habitat is the main reason for the deer herd decline, which is clear from Nick Fortin's presentation. The Department website is very difficult to navigate especially when it comes to WMA information. The WMA information is also outdated, and I would like to see deer-specific information for WMA's (i.e. apple tree release, specific work projects, etc.).

A summary of habitat work on WMAs in 2019 is available here.

Question: Does the Department have any measurements or qualitative metrics for habitat?

Directly measuring the quality of deer habitat over large areas is extremely difficult and not particularly useful because habitat quality changes over time. However, there is some information available that provides useful insights about habitat quality. A very useful tool for assessing habitat quality at the statewide or regional level is the US Forest Service's Forest Inventory and Analysis (FIA) data. These data come from forest inventory plots throughout Vermont that are measured regularly by USFS staff. The most important metric that comes from this is the percentage of young forest (less than 20 years old). Young forest habitat provides substantially more food for deer than older forests, and the quality of deer habitat in forested areas is directly related to the availability of young forest habitat. The chart below shows the decline in young forest habitat in Vermont, based on these FIA data.



Department staff also spend significant time in the field every year, both for work and recreation, and can make subjective assessments of habitat quality in more specific areas based on those observations.

Ultimately, the most effective way to monitor habitat quality for deer is to monitor the physical condition and productivity of the deer themselves. When deer density exceeds the limits of the habitat, there is less food and other resources available for each deer, which causes the condition of deer to decline. While this doesn't tell us exactly how many deer the habitat can support, it does tell us if the current density of deer is more or less than the current limits of the habitat.

How close is the Department to hitting their target harvest from numbers of permits issued?

The table below shows the recommended, expected, and actual antierless harvests during 2007-2019. All else being equal, harvests can and do vary year-to-year due to weather conditions during the hunting seasons, or other factors which cannot be predicted.

	ANTLERLESS PERMITS		TOTAL ANTLERLESS HARVEST (ALL SEASONS)			DIFFERENCE FROM	
YEAR	RECOMMENDED	DISTRIBUTED	RECOMMENDED	EXPECTED ^a	ACTUAL	RECOMMENDED	EXPECTED
2007	11050	11050	5380	5380	5536	156 (+3%)	156 (+3%)
2008	22050	20736	7662	7408	7499	-163 (-2%)	91 (+1%)
2009	23900	22275	8099	7746	7197	-902 (-11%)	-549 (-7%)
2010	25200	23704	8141	7875	7068	-1073 (-13%)	-807 (-10%)
2011	9575	9575	5224	5224	4758	-466 (-9%)	-466 (-9%)
2012	12425	12425	5317	5317	5592	275 (+5%)	275 (+5%)
2013	14400	14400	5802	5802	5276	-526 (-9%)	-526 (-9%)
2014	17250	15776	5979	5782	5636	-343 (-6%)	-146 (-3%)
2015	9250	9650			4417		
2016	19150	18154	6606	6472	6225	-381 (-6%)	-247 (-4%)
2017	24900 ^b	21442	7434 ^b	7009	6507	-927 (-12%)	-502 (-7%)
2018	26400 ^b	24057	7374 ^b	7122	8983	1609 (+22%)	1861 (+26%)
2019	23200 ^b	20741	7157 ^b	6839	6492	-665 (-9%)	-347 (-5%)

^a Expected antlerless harvest is based on the number of antlerless permits actually distributed.

Note that we have only met or exceeded the recommended antlerless harvest 3 times in the last 13 years. Only once, in 2018, did we exceed the recommended harvest by more than 5%. Importantly, the Department would have recommended more antlerless permits in some WMUs in 2018, if there was any chance of actually distributing them. So, this higher harvest was desirable, even though it was unexpected. Conditions in 2018 were highly unusual, with deep snow statewide and nearly nonexistent mast crops. The muzzleloader harvest that year shattered all previous records.

Comment: Regarding the health of the deer herd, early on when discussing antler point restrictions there was concern with selecting certain antlered bucks skewing the genetics pool.

Question: Is there still a concern with antler point restrictions affecting the gene pool in Vermont's deer herd?

Yes. This was part of the reason for changes to the antler restriction and buck bag limit. Please see the Comprehensive Deer Management Evaluation Final Report for more information.

^b Antlerless permit and total antlerless harvest recommendations in these years were limited by the inability to distribute more antlerless permits in some WMUs. Desired antlerless harvests would have been higher.

Comment: I've been hunting for 3 years and have not yet been successful in harvesting a deer. I would also like to see the novice hunting season offered for more than one year.

Comment: I'm concerned that there are too many changes happening and the changes are too aggressive. I think the Department should see what happens with the new deer regulation changes first before being so aggressive with issuing antlerless permits. I think there is plenty of time to work on the health of the deer herd and the Department would be better served if they backed off and saw what the deer changes do and then issue more antlerless permits if needed.

Attachment 6

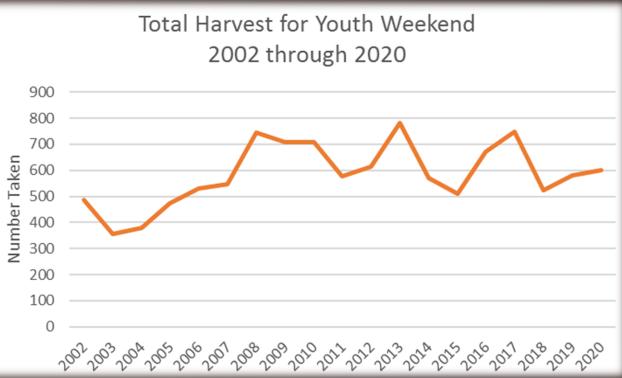
Wild Turkey Management

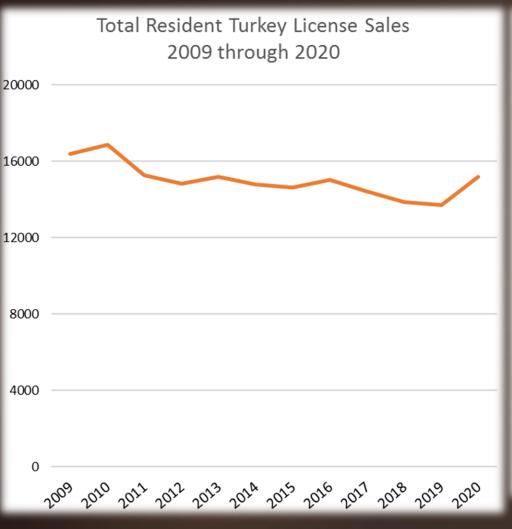
An update on the current season, a review of proposed regulation changes and a timeline for the future

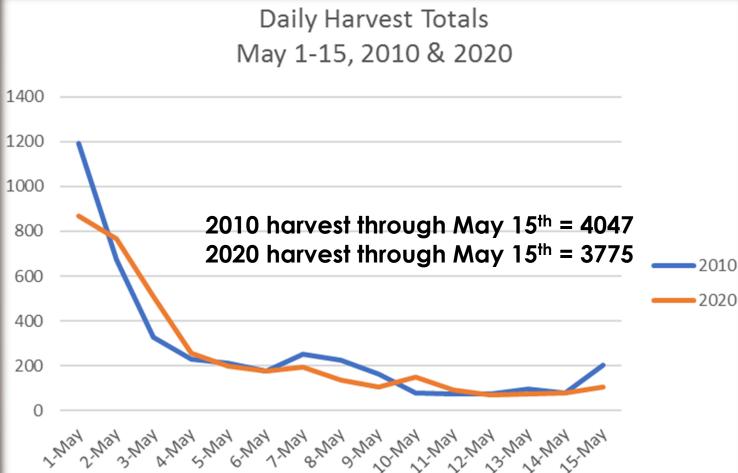


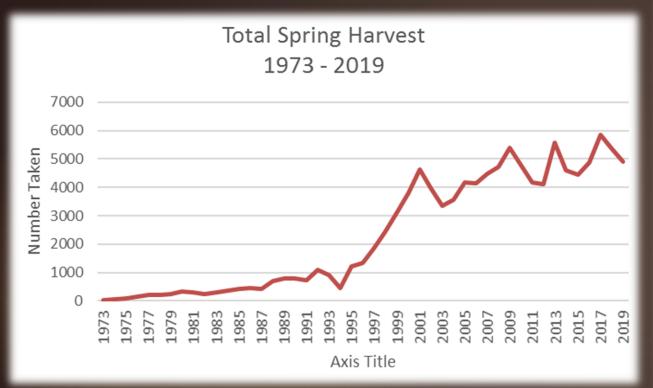


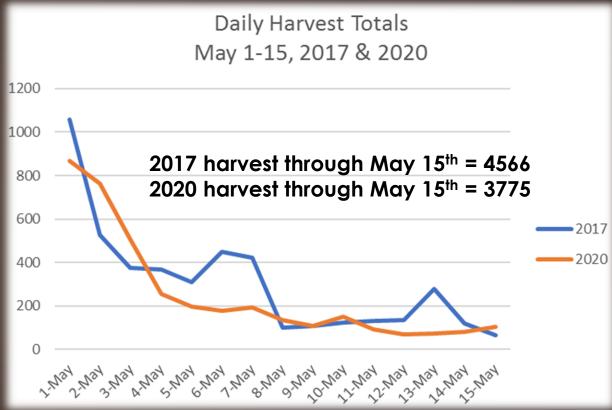




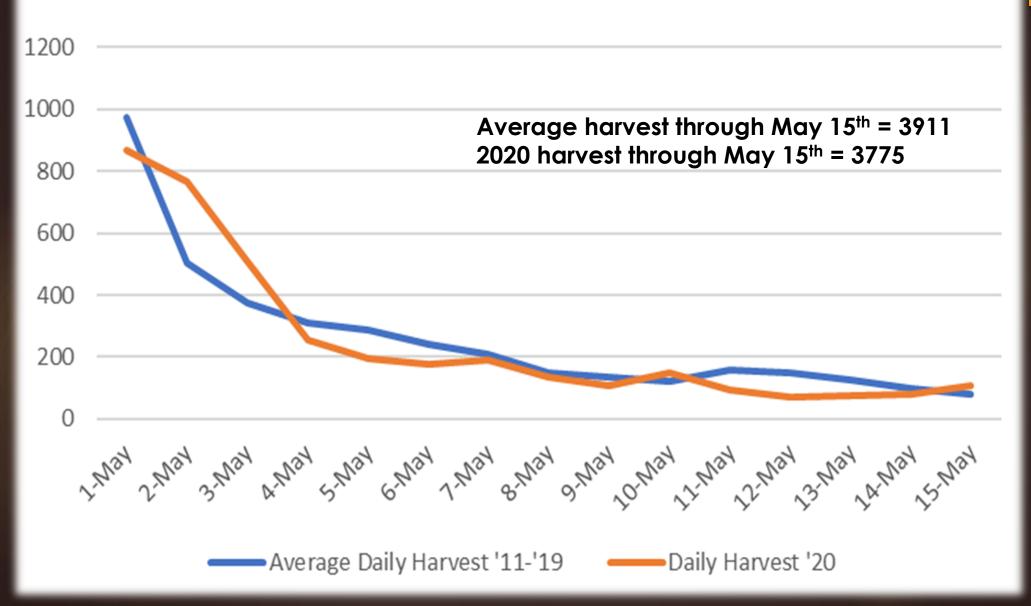




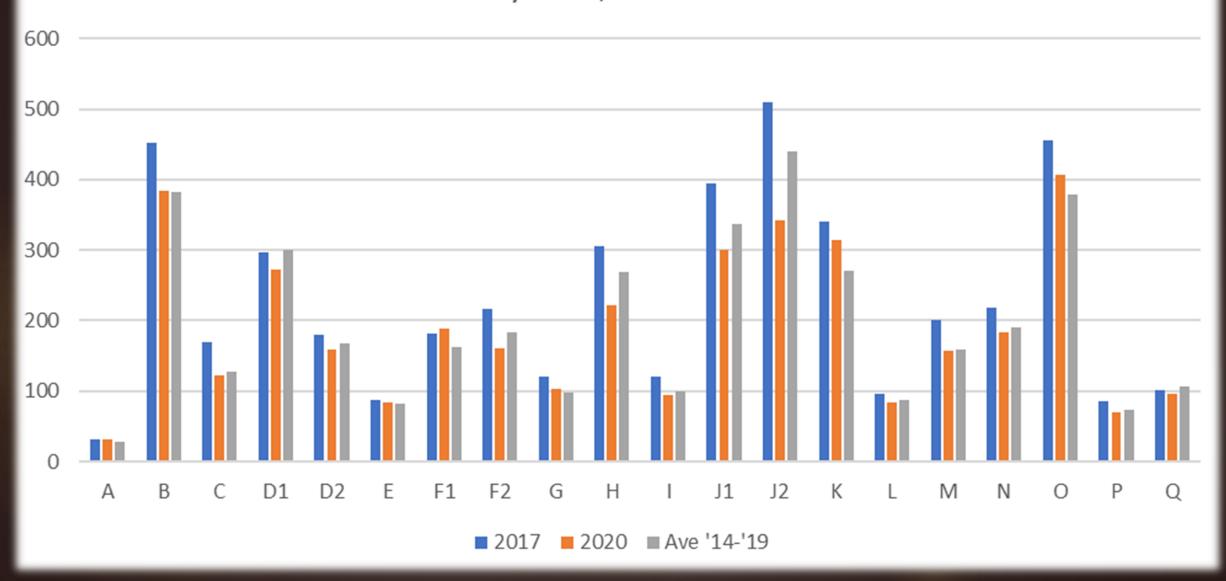




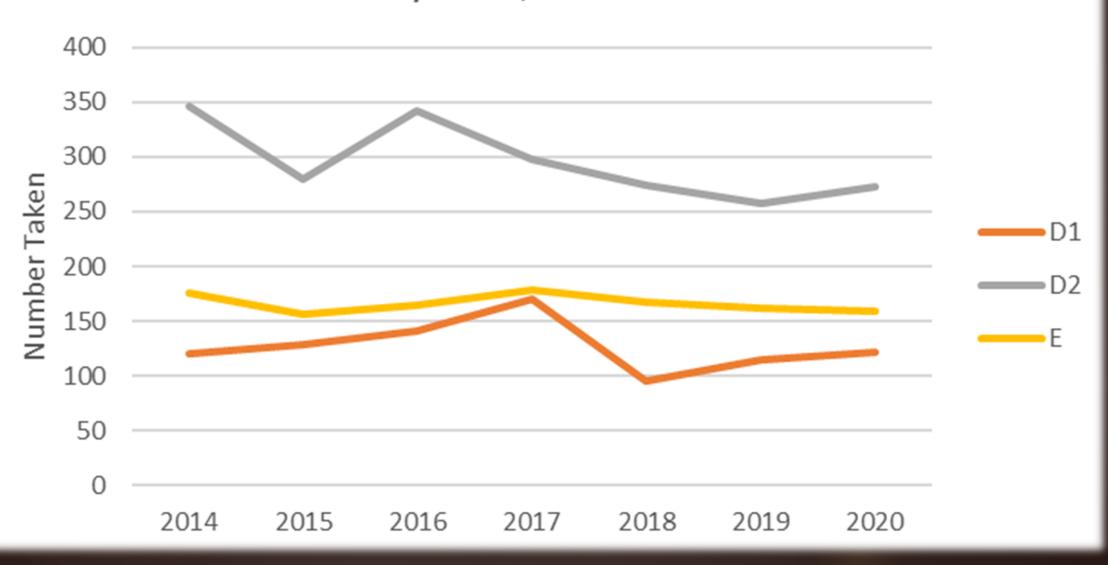
Comparison of Daily Harvest Totals Ave 2011-2019 & 2020



Turkey Harvest Comparison per WMU May 1-15, 2014-2020



Spring Harvest Trends WMUs D1, D2 & E May 1-15, 2014-2020





Online Harvest Reporting Option



Big Game Reporting Stations Click on the map for a listings of Big Game Reporting Stations Click here for a list of the Big Game Reporting Station: by County Legend 123 Big Game Reporting Station Youth Bio Check Station

Benefits of online reporting

- Hunter convenience
- Increases hunting opportunity
- Easily accessible live data
- Improves data quality

Important considerations

- Maintain reporting options
- Database structure
- Other species applicability

VERMONT TURKEY HARVEST REPORTING

Please complete this within 48 hours of your turkey harvest.

A clear picture of the turkey in its entirety with any prominent features visible, while optional, is requested (i.e. beard, spurs, etc.)

Fields with * are required fields.

onservation *	st First Name		Middle Name Addr 2	(Click the search icon to autofill your contact information below. NOTE: Updates to your contact information must be made through the online licensing system.)					
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ng#*	Tag Number		Mentored License?						
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Shot Size Liberalization / Simplification



Benefits of shot size liberalization

Comes in line with advances in modern shot technology

- Increased options for hunters
- Promotes non-lead alternatives
- Increases effectiveness of smaller gauges
- Appeals to a variety of hunters
- Simplifies regulations





Novice Turkey Weekend

- 53% hunter support
- Recognizes turkeys as a valuable species for hunter recruitment initiatives
- Will result in relatively few additional birds being harvested
- Regulatory framework already exists (i.e. deer novice season)



DRAFT Big Game Management Plan 2020-2030



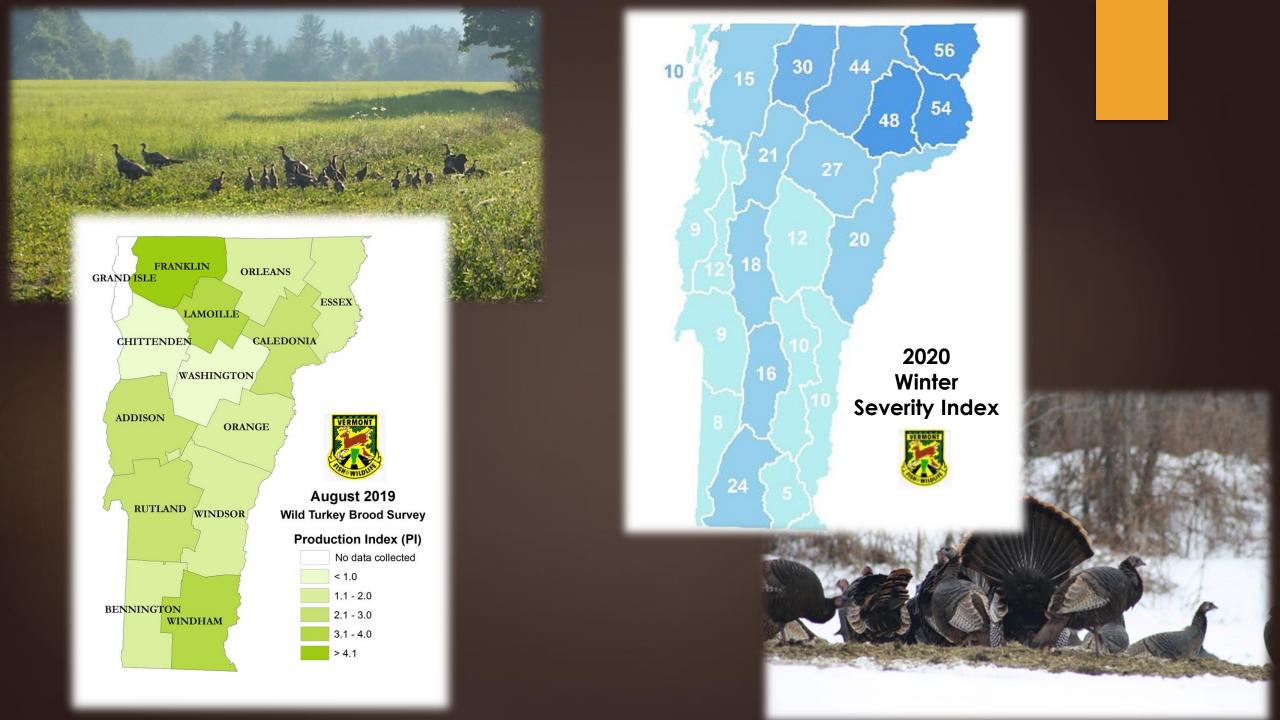
Comments can be submitted electronically to: ANR.FWPublicComment@vermont.gov

or by mail to:

Vermont Department of Fish and Wildlife, One National Life Drive, Montpelier, Vermont

05620.

≅he department would like to receive public comment until Saturday, May 30, 2020.



Objectives Moving Forward

To develop and implement a decision-making system for managing the fall harvest that:

- Safeguards the health and sustainability of Vermont's turkey population
- Provides the data needed to more confidently assess regional population trends
- Simplifies and strengthens the process for implementing a regional management approach
- Maintains current levels of hunter satisfaction
- Maximizes opportunities for hunting

Data Needs

Hunter effort per WMU (CPUE)

- Online survey taking advantage of new online reporting platform
- Email blast surveys to licensed hunters
- Partner with the NWTF to survey membership
- Analyze license data to estimate number of hunters per WMU

Harvest-independent population trend

- Strengthening brood survey data
- Winter flock survey
- Hunter sighting surveys

Nuisance/damage complaint data

Online complaint reporting form

Public opinion data

Survey conducted as part of 10-year Big game Planning process

Data Collection / Regulatory Timeline

3-year adaptive management approach

- 2020 Identify objectives, finalize metrics and implement new data collection methods (i.e. winter flock, hunter effort, targeted surveys)
- 2021 Data collection
- ▶ 2022 Data collection
- 2023 Data collection / analysis, propose further potential regulatory changes
- 2024 2026 Continued eval. of changes, propose further regulatory changes (3-year cycle)



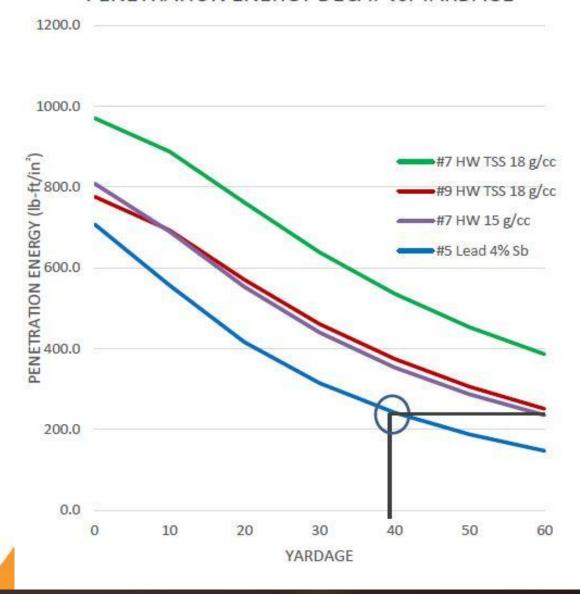
www.gun-shots.net

Lead Shot Sizes

Shot Number	Diameter (in)	Diameter (mm)	Pellets in a 10z load	
12	.05	1.3	2300	
9	.079	2.01	585	
8.5	.085	2.16	470	
8	.089	2.26	410	
7-5	.094	2.39	350	
6	.109	2.77	225	
5	.120	3.05	170	
4	.129	3.28	135	
2	.148	3.76	90	
ВВ	.18	4.57	50	
4 Buck	.24	6.10	21	
3 Buck	.25	6.35	19	
2 Buck	.27	6.86	15	
ı Buck	.30	7.62	11	
o Buck	.32	8.13	9	
oo Buck .33		8.38	8	
000 Buck	.36	9.14	6.2	

VELOCITY DECAY vs. YARDAGE 1400 1000 VELOCITY (fps) #7 HW TSS 18 g/cc #9 HW TSS 18 g/cc 400 #7 HW 15 g/cc #5 Lead 4% Sb 200 0 10 30 50 60 0 20 YARDAGE

PENETRATION ENERGY DECAY vs. YARDAGE



Attachment 7

10 App. V.S.A. § 2. Report, big game

- (a) A person taking big game, as defined by 10 V.S.A. § 4001(31), pursuant to the seasons provided by law or regulation of the Fish and Wildlife Board, shall within 48 hours report the taking and exhibit the carcass to the nearest game warden, official Fish and Wildlife Department Reporting Station, or to a person designated by the Commissioner to receive the reports.
- (b) Notwithstanding the reporting requirements of subsection (a) of this section and of 10 App. V.S.A. § 7 subsection 8.3; the Commissioner may authorize any person who takes big game:
 - i. to report electronically or as otherwise specified, and
 - ii. to exhibit the big game carcass only if requested by a state game warden.
- (c) No big game carcass shall be transported out of the State without first being reported as required herein.
- (d) The Commissioner shall pay to the authorized agent a fee of \$1.00 for each report taken on species where reports are required by law.

Attachment 8

Title 10 V.S.A. App. § 22

TITLE 10 APPENDIX CHAPTER 1. GAME Subchapter 1. General Provisions

§ 22. Turkey Seasons

1.0 Authority

- 1.1 This rule is adopted pursuant to 10 V.S.A. § 4081(a). In adopting this rule, the Fish and Wildlife Board is following the policy established by the General Assembly that the protection, propagation, control, management, and conservation of fish, wildlife and fur-bearing animals in this State is in the interest of the public welfare and that the safeguarding of this valuable resource for the people of the State requires a constant and continual vigilance.
- 1.2 In accordance with 10 V.S.A. § 4082, this rule is designed to maintain the best health, population and utilization levels of the turkey flock.
- 1.3 In accordance with 10 V.S.A. § 4084, this rule establishes daily, season and possession limits for game, territorial limits; to prescribe the manner and means of taking; to establish territorial limits for the taking of turkeys; and to establish restrictions on taking based upon sex, maturity or other physical distinction.
- 2.0 Purpose The purpose of this regulation is to establish seasons for the taking of turkeys, to establish open Wildlife Management Units (WMUs) for the taking of turkeys, to establish methods of taking turkeys and to establish limits on the number of turkeys to be taken.
- 3.0 Definitions
- 3.1 "Commissioner" means the Commissioner of the Vermont Fish and Wildlife Department.
- 3.2 "Crossbow" means a device consisting of a bow mounted to a rigid stock for discharging bolts or arrows and having a mechanical means to hold and release the drawn string, which must be fired from the shoulder. A bolt means a short projectile for a crossbow that resembles an arrow and has a head that measures no less than 7/8 inch at its widest point. A crossbow shall have a minimum pull of 125 pounds, a working mechanical safety and a stock no less than 23 inches in length.
- 3.3 "Department" means the Vermont Fish and Wildlife Department.
- 3.4 "Legal means" means the taking of a turkey by shotgun, crossbow, or archery equipment in conformance with Section 6 of this rule.
- 3.4 "Novice" means a person who obtained their first hunting license within the past 12 months and is 16 years of age or older.

- 3.6 "Permit" means a document issued by the Department authorizing the taking of a turkey.
- 3.5 "Wildlife Management Unit" (WMU) means one of 21 geographical areas in Vermont for which big game regulations may vary.
- 3.6 "Youth" means a person who is 15 years of age or younger.
- 4.0 Spring Season
- 4.1 Dates: May 1, through May 31, inclusive.
- 4.2 Shooting hours: One-half hour before sunrise to twelve noon.
- 4.3 Legal turkey: Only wild turkeys with beard(s).
- 4.4 Bag Limit: Two bearded wild turkeys per person per season.
- 4.5 Open WMUs: Open statewide
- 5.0 Fall Season.
- 5.1 Dates and Open WMU's.
- (a) Bow and Arrow, and crossbow only:
- i. Dates: From the 1st Saturday in October to the beginning of the shotgun/bow and arrow/crossbow season.
- ii. Open WMUs: Open Statewide
- (b) Shotgun/Bow & Arrow/Crossbow Season
- i. Dates: Nine consecutive days beginning 21 days prior to the regular deer season, inclusive.
- ii. Open WMUs: B, D, G, H, I, J, L, M, O, P, and Q and their respective subunits:.
- (c) Shotgun/Bow & Arrow/Crossbow Season
- i. Dates: For 16 consecutive days beginning 21 days prior to the regular deer season, inclusive.
- ii. Open WMUs: subunits: WMUs F, K, and N and their respective subunits:.
- 5.2 Shooting hours: One-half hour before sunrise to one-half hour after sunset.

- 5.3 Legal Turkey: Any wild turkey.
- 5.4 Bag limit: One turkey per person.
- 6.0 Legal Method of Taking:
- 6.1 Only a shotgun, crossbow, or bow and arrow may be used.
- 6.2 Only number 2 or smaller sizethrough number 8 shot shall be used or possessed.
- 6.3 An arrowhead must be at least 7/8th of an inch in width and have two or more cutting edges.
- 6.4 Rifles shall not be used or carried by any person while hunting turkeys. A person taking a turkey with a crossbow or bow and arrow may carry a handgun in accordance with 10 V.S.A. § 4252(b), however, that person may not use the handgun to take turkey.
- 6.5 No person shall use dogs in the spring, nor electronic calling devices, bait, live decoys, or participate in cooperative drives during either season.
- 6.6 Any person wishing to hunt turkey with a crossbow or bow and arrow must hold proof of having held an archery license or a certificate of satisfactory completion of a bowhunter education course from Vermont or another state or province of Canada which is approved by the Commissioner.
- 6.7 Unless it is uncocked, a person shall not possess or transport a crossbow in or on a motor vehicle, motorboat, airplane, snowmobile, or other motor-propelled vehicle except as permitted in accordance with 10 V.S.A. § 4705.
- 7.0 Youth Turkey Hunting Weekend
- 7.1 Youth turkey hunting weekend shall be the Saturday and Sunday prior to opening day of spring turkey season on May 1. <u>Legal shooting hours shall be one half hour before sunrise until 5 p.m.</u>
- 7.2 Legal Turkey: Only bearded turkeys may be taken.
- 7.3 Bag limit: One bearded turkey per youth. A youth may also hunt during the spring season and take two bearded turkeys during that season.
- 7.4 Season: One half hour before sunrise until 5 p.m. To participate in the youth turkey hunt, a qualified youth must be 15 years of age or younger and have a valid Vermont hunting and turkey license and a youth turkey hunting weekend license.

- 7.5 The youth must be accompanied by an unarmed adult who holds a valid Vermont hunting license and who is 18 years of age or older. An adult accompanying a youth under this section shall accompany no more than two young people at one time. As used in this section, "accompany," "accompanied," or "accompanying" means direct control and supervision, including the ability to see and communicate with the youth hunter without the aid of artificial devices such as radios or binoculars, except for medically necessary devices such as hearing aids or eyeglasses.
- 7.6 No youth shall hunt under this section on privately owned land without first obtaining the permission of the owner or occupant.
- 8.0 Novice Turkey Hunting Weekend Season
- 8.1 Novice Season: This season shall be concurrent with the Youth Turkey Hunting Weekend as prescribed in 10 V.S.A. § 4908 and section 7.1 of this rule.
- 8.2 Limit: One bearded turkey per novice. A novice may also hunt during the spring season and take two bearded turkeys during that season.
- 8.3 To participate in the novice turkey hunting weekend, a qualified person must have a valid Vermont hunting and turkey license and a novice turkey hunting weekend license and follow the requirements of youth turkey hunting weekend.
- 8.4 The novice must be accompanied by an unarmed adult who holds a valid Vermont hunting license and who is 18 years of age or older. An adult accompanying a novice under this section shall accompany no more than two novice hunters at one time. As used in this section, "accompany," "accompanied," or "accompanying" means direct control and supervision, including the ability to see and communicate with the novice hunter without the aid of artificial devices such as radios or binoculars, except for medically necessary devices such as hearing aids or eyeglasses.
- 8.5 No novice shall hunt under this section on privately owned land without first obtaining the permission of the owner or occupant.