

Wild animals, or wildlife, by Vermont law, belong to the people of Vermont. Conserving and managing Vermont's wildlife resources on behalf of the public are obligations of the Vermont Fish & Wildlife Department. The Department has a long history of managing Vermont's big game species. This long-range management plan will help identify goals, and management objectives to insure that conservation needs of the species and the interests of the public are effectively addressed. Below is an overview of the management issues, goals and strategies for each big game species.

2010-2020 White-tailed Deer Management Issues, Goals, and Strategies

ISSUE 1. Habitat Loss and Assessment

GOAL: To monitor changes in habitat quality and quantity and perform public outreach regarding habitat management techniques, so concerned citizens may help to secure their deer herd's future.

Management Strategies

- 1.1 Update inventory of deer wintering areas for local, regional, and state habitat planning and protection efforts.
- 1.2 Stress the importance of habitat conservation with outreach efforts to various segments of the public such as farmers, educators, hunters, forest managers, and land planners.
- 1.3 Work closely with foresters and entomologists to prevent, manage, and eliminate the threat of the hemlock woolly adelgid.

ISSUE 2. Population Goals

GOALS: 1) Maintain deer densities using regional population objectives.
2) Monitor biological characteristics of habitat and deer that can change in response to deer herd size through time.
3) Adjust antlerless deer harvests to alter population levels as necessary to achieve population objectives.

Management Strategies

- 2.1 Maintain and evaluate regional population goals, established during this planning period, that are based on deer densities that recognize a lower limit that is unsatisfactory to the public and an upper limit that is ecologically unsustainable.
- 2.2 Monitor deer herd health by collecting body condition data from hunter-harvested and road-killed deer.
- 2.3 Consider establishing habitat suitability criteria to define areas of suitable deer habitat within WMUs so that consistent and reliable density estimates can be made while allowing for habitat area estimate updates as new land-cover maps become available.
- 2.4 Evaluate bowhunter surveys to better estimate regional buck:doe and fawn:doe ratios; compare fawn production estimates to autumn fawn:doe ratios to estimate summer fawn survival, and use buck:doe ratios to estimate adult doe population through reference to the unbiased buck population estimate.
- 2.5 Continue remapping and surveying deer wintering areas so that available habitat is quantified and localized winter deer density is better documented.
- 2.6 Work with foresters to develop data-driven methods for assessing localized deer overabundance problems that might lead to development of localized deer management methods. Data must provide measures of forest condition.
- 2.7 Provide outreach to landowners regarding methods that may minimize damage and encourage reduction in locally overabundant deer populations. Investigate feasibility of a formal program to connect hunters with landowners to address locally overabundant deer populations.
- 2.8 Develop strategies to maintain enough big game registration stations to make big game reporting convenient for hunters.
- 2.9 Seek statutory changes to realign boundaries of select WMUs.

ISSUE 3. Hunter Satisfaction and Antler Point Restrictions

GOAL: Employ biologically responsible, socially responsive, and adaptive management of the deer herd.

Management Strategies

- 3.1 Collect adequate yearling buck data (weights, antler beam diameter, and number of points) from the youth hunt to detect and track any changes in the buck population resulting from the current antler-point restriction (two points-on-one-antler minimum), and evaluate biologically acceptable alternatives if needed.
- 3.2 Evaluate a model assessment using genetic data to examine the likelihood of altering the genetic diversity of the buck population via the current antler restriction.
- 3.3 Inform the hunting public about deer management issues and results of antler-point restrictions and gather input concerning deer management and hunter satisfaction.

ISSUE 4. Bag Limits

GOAL: Provide suitable utilization of deer as food and provide opportunity to hunt deer in a way that maximizes potential for effective deer population management but does not overstress the heavily harvested buck population.

Management Strategies

- 4.1 Provide the public with ample opportunity to harvest white-tailed deer for food and other utilitarian purposes.
- 4.2 Advocate for an appropriate deer bag limit that allows maximum hunter opportunity while achieving deer population management strategies.

ISSUE 5. Muzzleloader and Archery Season Modifications

GOAL: Provide suitable opportunity to hunt deer in a way that maximizes the potential for effective deer population management but does not interfere with hunters during youth weekend or rifle and other fall hunting seasons.

Management Strategies

- 5.1 Evaluate feasible options to expand antlerless deer-only hunting opportunities prior to the regular rifle season. These options will include, but are not limited to, an early muzzleloader season, expanded archery season, and increases in archery bag limits.
- 5.2 During the fall and winter of 2009-2010, survey public opinion on the various management options to achieve antlerless harvest objectives prior to the rifle season and develop a proposal of recommended hunting season changes for the Vermont Fish and Wildlife Board in 2010.

ISSUE 6. Captive Deer Hunting/ Deer Farming/ Cervid Importation

GOAL: Implement new captive hunting regulations and work with other state agencies to minimize the chance of introducing and transmitting diseases via captive deer.

Management Strategies

- 6.1 Evaluate the effectiveness of the captive hunting facility regulation.
- 6.2 Work with the Agency of Agriculture, Foods, and Markets and the deer farming industry to promote and enforce disease free importation and husbandry practices.

ISSUE 7. Disease Surveillance and Management

GOAL: Monitor disease issues and respond when necessary to protect the health of wildlife and/or humans.

Management Strategies

- 7.1 Work with associated branches of government (for example, Agency of Agriculture, Department of Health) to monitor and control disease agents and deer populations where and when it is appropriate.
- 7.2 Contribute to the national Chronic Wasting Disease (CWD) surveillance effort.
- 7.3 Monitor the progress of Hemorrhagic Disease as it moves toward the Vermont border.
- 7.4 Work closely with the Agency of Agriculture to ensure dairy farms and domestic deer farms maintain their tuberculosis-free status.
- 7.5 Investigate a prohibition on the use of deer-urine-based scent lures and, if appropriate, implement a public informational effort on the justification.
- 7.6 Inform Vermonters as to the gravity of CWD and repercussions if introduced into our environment through the dissemination of Vermont's CWD Response Plan.

ISSUE 8. Locally Overabundant Deer Populations

GOAL: Promote awareness that hunting is the only practical option to reduce localized overabundant deer populations.

Management Strategies

- 8.1 Demonstrate the effectiveness of archery hunting to reduce locally overabundant deer in Vermont's suburban environments.
- 8.2 Provide communities with up-to-date and comprehensive information on deer overabundance and consider community views when deciding how to best manage deer problems in suburban, agricultural, and forested areas.

- 8.3 Encourage communication and cooperation between antlerless deer hunters and landowners that seek relief from locally overabundant deer.

ISSUE 9. Two-year Regulation Cycle

GOAL: Consider a more efficient two-year regulatory cycle that allows for annual adjustments when environmental factors deem it appropriate.

Management Strategies

- 9.1 Provide outreach to legislators, board members, and hunters to develop an understanding of the rationale behind deer management and proposed actions to improve management.
- 9.2 Evaluate the benefits and deficiencies of implementing a two-year regulation cycle for deer season recommendations.

2010-2020 Moose Management Issues, Goals, and Strategies

ISSUE 1. Regional Population Goals

GOAL: To maintain regional populations of healthy moose at or below cultural carrying capacity.

Management Strategies

- 1.1 Maintain a statewide fall post-hunt population of between 3,000 and 5,000 moose.
- 1.2 Maintain a sex ratio of between 40 to 50 bulls per 100 adults (moose of at least age-class one).
- 1.3 Maintain an adult age-class distribution of at least 25% of at least age-class four.
- 1.4 Maintain an average ovulation rate of more than 1.15 for cows age class of at least three.
- 1.5 Assess relative moose habitat condition of individual WMUs or regions of the state using forest inventory data and a GIS-based Habitat Suitability Index Model.
- 1.6 Reduce and maintain WMU E moose densities to 1.75 moose per square mile (approximately 1,000 moose post-hunt).
- 1.7 Reduce and maintain WMU D2 moose densities to 1.0 moose per square mile (approximately 600 moose post-hunt).

- 1.8 Allow slow population growth in WMUs I, L, P and Q while not exceeding one moose per square mile.
- 1.9 Stabilize moose population in other WMUs at current levels.

ISSUE 2. Moose / Human Conflicts

GOAL: To minimize motor vehicle/moose collisions and other forms of damage caused by moose.

Management Strategies

- 2.1 Develop and implement a policy for Department response to “nuisance” moose.
- 2.2 Continue to cooperate with the Vermont Agency of Transportation (VTRANS) to erect warning signs at traditional moose highway crossings.
- 2.3 Cooperate with VTRANS in implementing roadside brush-clearing projects to improve visibility at the most dangerous moose crossings, when feasible.
- 2.4 Cooperate with VTRANS to investigate the use of new technology that may help reduce moose/vehicle collisions.
- 2.5 Continue with annual press releases to remind motorists of moose hazards during seasons of increased moose movements.

ISSUE 3. Moose Hunting Opportunities

GOAL: To maximize quality moose hunting opportunity.

Management Strategies

- 3.1 Provide quality moose hunting opportunity in all WMUs where feasible.
- 3.2 Coordinate with large property owners to enhance moose hunter access.
- 3.3 Provide information to hunters on how they can share moose meat with needy households throughout Vermont.
- 3.4 Conduct outreach efforts prior to any significant reduction in total permit numbers made in response to moose population changes.
- 3.5 Provide public opportunity to harvest moose for food and other utilitarian purposes.

- 3.6 Maintain and improve hunter satisfaction by managing a preference point lottery system.
- 3.7 Propose to implement a limited special archery-only moose hunting opportunity.

ISSUE 4. Moose Viewing

GOAL: Provide safe and quality moose viewing opportunity.

Management Strategies

- 4.1 Construct at least one moose observation tower with a parking area near a state highway in the Northeast Kingdom region and investigate other locations in other regions.
- 4.2 Include moose in a guide to wildlife viewing sites on the Department’s website.

ISSUE 5. Moose Habitat

GOAL: Maintain necessary habitat to support 3,000 to 5,000 moose on a sustained basis.

Management Strategies

- 5.1 Implement field studies to investigate, measure, and monitor the degree of moose and deer browsing within selected WMUs.
- 5.2 Provide natural resource professionals and landowners with moose habitat management guidelines.

ISSUE 6. Deer-Moose Competition and Forest Impacts

GOAL: Balance the nutritional needs of regional moose and deer populations with the need for adequate forest regeneration.

Management Strategies

- 6.1 Develop a study to assess the carrying capacity for moose and deer on Vermont’s forestland.
- 6.2 Develop a decision making process that assists managers in determining the appropriate mix of moose and deer densities for a given WMU based on cultural and ecological factors.

2010-2020 Black Bear Management Issues, Goals, and Strategies

ISSUE 1. Bear Population Size and Distribution

GOAL: Identify an appropriate bear population objective that ensures the viability of a wild, free-ranging bear population, provides for hunting opportunities, and satisfies human social expectations and tolerances for nuisance bear occurrences.

Management Strategies

- 1.1 Update and re-evaluate Vermont's black bear population model to reflect the most current harvest and biological parameter data available.
- 1.2 Evaluate and develop hunting season structures that align population estimates with biological data, habitat limitations, and public satisfaction data to sustain a bear population between 4,500 and 6,000 animals.

ISSUE 2. Bear Habitat Conservation

GOAL: Maintain a no net loss of function and value of existing bear habitat.

Management Strategies

- 2.1 Maintain and enhance habitat protection efforts through Act 250, wood-to-energy harvest review, work with town and regional planning commissions, land acquisition, and other conservation methods.
- 2.2 Provide technical assistance in managing for critical bear habitat in the Use Value program.
- 2.3 Revise and update "A Landowner's Guide, Wildlife Habitat Management for Vermont Woodlands" to include habitat management recommendations for black bears.

ISSUE 3. Human/Bear Conflicts

GOAL: Minimize the overall number of negative interactions occurring between bears and humans to achieve acceptable levels of human safety and social acceptance.

Management Strategies

- 3.1 Update statewide policy for handling black bear/human conflicts.
- 3.2 Improve and disseminate outreach/education materials and messages for minimizing human/bear conflicts.
- 3.3 Monitor bear/human conflicts and explore new strategies for reducing the number of complaints from the public.
- 3.4 Use permitted houndsmen with trained bear hounds to haze bears and keep them wary of humans.

ISSUE 4. Bear Management Strategies and Season Structure

GOAL: Optimize public hunting opportunity for the utilization of bears for food and other appropriate purposes and ensure hunter satisfaction within biologically sustainable regulations.

Management Strategies

- 4.1 Hunting season management strategies and season structure will be evaluated and adjusted to maintain the population goal of 4,500 to 6,000 bears. Changes in hunting season structure will consider, when necessary, the use of season length, regionalization, or incremental changes to season bag limits to achieve population goals.
- 4.2 Work with partner organizations on issues related to bear management as they are raised throughout the management plan period and develop specific strategies to address them. Such strategies may range from legislative changes to educational efforts.

2010-2020 Turkey Management Issues, Goals, and Strategies

ISSUE 1. Turkey Population

GOAL: To adequately assess Vermont's wild turkey populations and trends.

Management Strategies

- 1.1 Annually collect and assess turkey harvest data to determine trends as well as summer/fall turkey

sighting survey data in order to direct future management decisions.

- 1.2 Conduct the public annual Internet turkey brood survey along with the Department staff summer turkey survey.
- 1.3 Continue the turkey program's investigation into the genetic variability and structure of the statewide population.
- 1.4 Evaluate new wild turkey population estimation methods and models for use in Vermont.
- 1.5 Evaluate the use of a public Internet survey to assess winter flock sightings.

ISSUE 2. Public Satisfaction with Current Population Levels

GOAL: Assess public and hunter satisfaction with current turkey population levels and management program.

Management Strategies

- 2.1 Provide statewide spring bearded-bird-only seasons (including the Youth and regular May season) and limited fall either-sex hunting seasons in WMUs that can sustain a fall harvest so as to provide for population stability.
- 2.2 Prioritize high quality spring hunting over additional fall harvest opportunity.
- 2.3 Manage fall turkey harvests through changes in fall hunting season length within WMUs depending upon stability or growth of three-year average spring harvest densities, except in WMU A Champlain Islands where inadequate forest cover exists to sustain a fall firearm harvest.

ISSUE 3. Fall Turkey Hunting

GOAL: To provide appropriate opportunity for sustainable fall hunting while maintaining current levels of high quality spring turkey hunting.

Management Strategies

- 3.1 Provide public opportunity to harvest wild turkey for food and other utilitarian purposes.
- 3.2 Facilitate healthy, abundant spring turkey populations that are stable using modest, fall hunting seasons/bag limits to control the

population. When the three-year spring average harvest density reaches the specific threshold value, liberalization of fall hunting in a WMU may be called for (initiate shotgun seasons, extend gun seasons).

- 3.3 Consider reducing the current guideline for the threshold as to when fall gun hunting opportunities could be initiated in a new WMU, from the three-year average spring harvest density of one bird per square mile, to an average harvest density of .75 bird per square mile.
- 3.4 Lengthen the current fall seven-day shotgun season to a nine-day season.
- 3.5 Expand the fall shotgun season to include WMUs H1, D1, and B with a nine-day shotgun season.
- 3.6 Expand the fall archery turkey season, coinciding with the opening of the deer archery season, to allow archery hunting statewide.
- 3.7 Investigate establishing a new separate "Fall Gun Season Only" tag.

ISSUE 4. Wild Turkey/Human Conflicts

GOAL: To minimize and manage agricultural damage and nuisance turkey incidents.

Management Strategies

- 4.1 Provide property owners with access to coordinated services of personnel trained to deal with nuisance turkey issues including wildlife biologists, game wardens, and USDA Wildlife Services staff to assist with nuisance complaints via technical guidance/assistance on techniques to minimize/discourage damage.
- 4.2 Conduct follow-up site visits to nuisance complaint sites when necessary and provide hazing equipment to help ameliorate persistent nuisance situations.
- 4.3 Solicit assistance from local volunteers through the Vermont Chapter of the National Wildlife Turkey Federation (NWTf) to help provide on-the-ground assistance to landowners via hazing and behavior modification efforts.
- 4.4 Assist USDA Wildlife Services staff with development of educational materials to inform and educate farmers about techniques for minimizing conflicts.

- 4.5 Compile and evaluate wild turkey damage complaint reports from farmers, state game wardens, biologists and wildlife service personnel to document problems, management approaches and results.
- 4.6 Develop/modify a standard set of protocols/guidelines/solutions to perceived and actual conflicts caused by wild turkeys (nuisance animals, agricultural damage).

ISSUE 5. Turkey Habitat Management and Conservation

GOAL: To encourage conservation and appropriate habitat management practices to support and sustain Vermont's wild turkey population.

Management Strategies

- 5.1 Continue efforts on wildlife management areas and other public lands to provide habitat demonstration areas to promote appropriate commercial and noncommercial vegetation management practices beneficial to turkeys and other wildlife. This includes the use of prescribed fire and other management practices to establish and maintain long-term mast production areas.
- 5.2 Provide technical information and assistance regarding turkey habitat management to private landowners and other land managers, town planning commissions via staff biologists, habitat demonstration projects, LIP and WHIP program lands, etc.
- 5.3 Update the "A Landowner's Guide, Wildlife Habitat Management for Vermont Woodlands" and make this document available on the Internet and in published copy as well.
- 5.4 Work with the NWTF regional biologists and chapter volunteers on development of the North American Wild Turkey Management Plan.
- 5.5 Work with partnering organizations on high priority projects and issues.

ISSUE 6. Perception Regarding the Interaction Between Deer and Wild Turkeys, Ruffed Grouse and Wild Turkeys, and Various Predators and Wild Turkeys

GOAL: To improve the public's knowledge, awareness, and understanding of the role of the wild turkey and its interactions within the ecosystem.

Management Strategies

- 6.1 Promote sound scientific principles regarding inter-species competition and predator-prey relationships through a variety of outreach methods including public speaking events, web-based information and links, and print and broadcast media.

ISSUE 7. Developing and Maintaining an Informed Public is Crucial to the Management Success of the Wild Turkey Project.

GOAL: To ensure continued information exchange and program acceptance by keeping the general public, state and federal agencies informed on the status of the wild turkey resource in Vermont.

Management Strategies

- 7.1 Disseminate wild turkey project information to the public/media professionals via biological reporting stations, teacher workshops, private and public landowner visits/conferences, slide/video presentations, mail correspondence, popular and technical reports, etc.
- 7.2 Use the Department's library to fill all public requests for its video production "The Wild Turkey in Vermont" as well as its wildlife study guide "The Wild Turkey Education Kit."
- 7.3 Continue involvement with standing professional committees, regulatory bodies and cooperative agreements with nongovernmental organizations to assist the Department with meeting the goals and objectives of this plan.