

The Whitetail Deer of Lake Monticello  
A Report by the Lake Monticello Owners Association  
Wildlife Management Committee  
December 2008

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### **Past Wildlife Management Committee Members**

Greg Meade (Chair) Harvey Perkinson (Secretary), Glenn Bredder, and Jerry Passer

### **2008 LMOA Board of Directors**

Leighton Cumming (President), Ed Seroskie (Vice President), Scott Meiss (Treasurer), John Platt (Secretary), Don Fickes (WMC Liaison), Ray Gott, and Mike Harrison

### **LMOA Staff**

Tom Boisvert (Chief of Police), John Korhonen (General Manager), and Peggy Alexander (Communications Manager)

### **Community Members** (who attended WMC meetings and assisted in our research)

Adrian Miller, Allen Morehart, Cam White, Burt Marks, Don Raab, Donna and Randall Watkins, Glenn Bredder, Joe and Helena Arouca, Jerry Passer, Lee Martinson, Laura Lanza, Nancy Avers, Nora Byrd, Marty Mait, Ron Ritter, and Page Gifford

### **United States Department of Agriculture**

Jennifer Cromwell, Assistant State Director, USDA/APHIS/Wildlife Services

### **Virginia Department of Game and Inland Fisheries (VDGIF)**

Brian Moyer, District Biologist, VDGIF  
Nelson LaFon, Deer Project Coordinator, VDGIF

### **Community Members**

A special thanks to all those community members who took the time to submit wildlife incident reports or emails expressing their views and ideas on community wildlife issues.

**We also are indebted to the individuals and organizations highlighted in the body of the report that provided us with research information, answered our questions, and shared their opinions and ideas on effective deer management strategies with us. Thanks!!!**

## Introduction

Lake Monticello is a private 3,500-acre community divided into 12 sections containing 4,601 lots. At this time, there are approximately 11,000 residents residing in nearly 4,100 single-family homes and 15 condominium units. Nine sections of the community are within the gated area, with access through five gates. The community is 15 miles east of Charlottesville, Virginia, situated around a 350-acre manmade lake (fed by some 200 springs) with 22.5 miles of shoreline.

Due to easily accessible cultivated and natural plants, combined with an abundance of water and suitable cover, Lake Monticello's rural wooded environment attracts whitetail deer in considerable numbers. Some of these deer actually reside in the community on undeveloped wooded lots or reserved areas, suitable developed lots (offering some cover), and on fringe wooded lots still within the community boundary. Others live on nearby and/or adjacent private land, often crossing highways 600, 618, and 53 to enter and leave the Lake Monticello Owners Association (LMOA) community. Our community has been a protected deer habitat for many years and it is understandable that the deer would find it a good place to live.

In recent years the persistent presence of whitetail deer in and about our community has caused certain problems and concerns among some residents. Specifically, significant damage to many garden and decorative or ornamental plants has occurred in certain LMOA sections. Some residents have experienced or fear the possibility of deer/car collisions resulting in property damage and personal injury. Other residents have contracted Lyme disease or expressed concern over the possibility of an outbreak of Lyme disease, since whitetail deer have been identified as one of the many animal transporters of a certain tick that hosts (carries) the Lyme disease.

On the positive side, many residents find great pleasure in viewing whitetail deer. Regardless of some plant destruction that may occur these residents are none-the-less protective and appreciative of these beautiful, graceful, and usually very docile wild animals. Some residents strongly support the rules that protect deer and prohibit hunting in our community.

The LMOA Board of Directors (BOD), facing an increasing demand to address these whitetail deer concerns, in the summer of 2005, asked the USDA to conduct a deer count and it was completed in the fall of 2005. In January of 2006 the LMOA Board of Directors voted 4 to 2 against any culling of deer based on the fact that it was unclear if the number of deer had reached a point where action was necessary. Resident concerns continued and in the spring of 2006 the LMOA BOD established the LMOA Wildlife Management Committee (WMC) to study and report on the matter. The initial committee consisted of 5 members and the committee began work in August 2006. Since then, the committee, despite efforts to research possible deer management strategies toward recommendations to the LMOA BOD, has experienced turnover and passionate debates about how best to address resident concerns about deer.

This report represents a sincere effort on the part of the current WMC members to objectively review past reports and studies, to solicit and analyze current research from public and private organizations on how other communities have addressed their deer problems, and to formulate well thought out recommendations for the LMOA Board of Directors. The WMC has held open meetings, encouraged active resident involvement, and listened to and considered the views and

concerns of LMOA residents. We have reviewed wildlife incident reports and pro and con emails on deer herd reduction strategies from residents. We have encouraged residents to participate in the WMC meetings and to assist us in doing our research work. Several residents have stepped forward to help our committee. This has been a challenging task as the possibility of killing deer is an understandably highly controversial subject. This has made doing an objective and unbiased analysis of all deer management options very difficult. We have tried to listen to and respect all committee member viewpoints while still doing an objective cost benefit analysis of the issues and options. In this report we have purposely limited the expression of personal member beliefs to the member survey section while keeping the research and deer control strategies sections as objective and fact based as possible. In the recommendations section, we have listed unanimous and majority recommendations and identified the areas where we could not reach consensus.

**While there is no executive summary, one can look at the following documents for a quick summary of our research and analysis efforts:**

- **Deer Control/Management Strategies Table Attachment – This is a summary of deer management strategies including cost estimates, pros and cons, effectiveness, etc.**
- **WMC Member Survey Page 24 An anonymous committee member survey**
- **Final Recommendations Page 25 Unanimous and majority recommendations**

In addition to this report the WMC also has other research and educational information in an electronic file maintained by the chair of the committee. There is also a file with printed information on other deer control research, issues, and management approaches.

## Research Efforts

The WMC has done extensive research on deer management and control strategies over the last several years as well as working with the United States Department of Agriculture (USDA) and the Virginia Department of Game and Inland Fisheries (VDGIF). This report attempts to summarize these research efforts and build on their conclusions and recommendations. Some of the most objective research information on deer management efforts we have found comes from Cornell University. The reason we liked the Cornell reports was that they made no recommendations or espoused any position on how best to manage deer herds. They produced two excellent reports:

**2000 Managing White- Tailed Deer in Suburban Environments, A Technical Guide by the Cornell Cooperative Extension (<http://wildlifedamagegroup.unl.edu/deer.html>)** done in collaboration with the Wildlife Society, Wildlife Damage Management Working Group, and the Northeast Wildlife Damage Research and Outreach Cooperative. This report documented how 10 northeast communities approached deer damage in their communities and how they went about making community decisions.

**2004 Community - Based Deer Management, A Practitioners Guide (<http://wildlifecontrol.info/pubs/Documents/Deer/DeerGuide.pdf>),** was done in collaboration with the Northeast Wildlife Damage Management Research and Outreach Cooperative. They researched and documented the pros and cons of different deer management approaches.

Another comprehensive report is a **March 2008 Evaluation of Deer Management Options Report by the New England Chapter of the Wildlife Society and the Northeast Deer Technical Committee.** ([http://www.dnr.state.md.us/Wildlife/2008\\_Deer\\_Mgmt\\_Options.pdf](http://www.dnr.state.md.us/Wildlife/2008_Deer_Mgmt_Options.pdf)). This report has up to date pros and cons on various deer management approaches.

The WMC contacted the communities in the 2000 Cornell Study to see how their selected deer management choices had turned out and what recommendations they might share with us as we attempt to make community consensus decisions. These communities were very helpful and understood the challenges a community faces when confronted with resident concerns about deer and their impact on their communities. The following is a short summary of each of these contacts:

**Bedford, Massachusetts** Page 22 of the 2000 Cornell Report  
**James Hicks, Chief of Police, Bedford Police Department**

Their town, a mix of residential and commercial areas with large areas of designated open space, forested open space, abundant landscaping plantings, and hunting restrictions, was an ideal deer environment and the size of their deer herd was increasing. In 1993 they were having significant deer/car collisions and crop and landscape damage and their police chief contacted the Mass. Dept. of Fisheries and Wildlife (DFW) for help. The DFW did a study and recommended a deer reduction program. They did community education and surveyed their residents who voted against deer reduction. They still have a deer problem with numerous deer/car accidents but have not done any herd reduction to date and still have a town ordinance against hunting. Their police chief believes they will have to do deer reduction at some point but their community is against it at present.

**Monhegan, Maine** 600 acre island Page 25 Lee Kantar

**Lee Kantar, State of Maine, Deer and Moose Biologist Inland Fisheries & Wildlife Website**  
<http://www.maine.gov/ifw/wildlife/species/plans/mammals/index.htm> Email: [lee.kantar@maine.gov](mailto:lee.kantar@maine.gov)

Monhegan Island is an island in southern Maine located approximately 10 miles off of the mainland. Deer were introduced here in the 1950's at the request of island residents. Deer hunters controlled numbers for the most part until the late 80's to 90's. At the same time there was an increase in garden damage, damage to natural habitat, and the rise of lyme disease as a threat to human health. To accommodate a study on controlling lyme disease, the island stopped hunting deer for a couple of years while Maine Medical undertook a study on the island using Ivermectin bait to treat deer and reduce lyme disease by breaking the tick life cycle. Monhegan deer showed reduced productivity, and were underweight and undernourished, and were poor conditioned animals. By 1996 the islanders voted to have MDIFW facilitate a reduction in deer numbers. 2 years later the islanders voted to completely rid the island of deer. They still do not have deer. They have a document outlining how this situation transpired and how they addressed it if we need it.

**Gettysburg National Military Park** 6000 acres Page 27

**Katie Lawhon, Public Relations Director**  
**Wildlife Management Division Chief, Jim Johnson**

They were having damage to historical crops and monuments. They did an Environmental Impact Study and decided to do a shoot. They were delayed by several lawsuits. Lawsuits alleged they had not checked other less lethal deer management options, and it held them up for about one year. Their courts found in favor of Gettysburg. Sharp - shooting was chosen and they have had a very successful on - going deer reduction program since 1995. Park staff are used and they must qualify on a range. They used USDA for awhile but the costs kept going up. They went back to the use of park staff to do the work. They also investigated contraception but found it too expensive. Forest undergrowth has returned and damage to crops and monuments has been reduced. They do annual shoots with a goal of maintaining no more than 25 deer per square mile.

**Montgomery County, Md.** 900,000 residents Page 30

**George Timko, Assistant Deer Project Leader Maryland DNR, Wildlife & Heritage Service,**

Farmers initiated a study in 1994 due to crop damage concerns. State of Maryland Department of Natural Resources (DNR), Wildlife & Heritage Service, does allow "Deer Cooperators" businesses licensed by DNR to resolve deer problems in Maryland but you need DNR approval and a license. Deer Cooperators are businesses that provide deer control assistance. They are licensed by DNR to use lethal deer management techniques to help resolve deer problems. The Urban Deer Biologist can be contacted at (301) 948 - 8243 and can supply communities with a list of Deer Cooperators, which they can contract with for help in resolving deer problems. Their deer reduction program has been successful in reducing crop and landscape damage.

**Mumford Cove, Conn** Page 33 Mumford Cove is in the Town of Groton, Conn.

**Sue Southerland**

In 1991 they did a study with help from the Humane Society and explored shoots and contraceptives. The original reason they started to control deer was the high incident rate of Lyme disease amongst residents. Plus deer were starving, having eaten all vegetation, thereby destroying habitat for other animals. Bow and arrow hunting by pre-screened hunters was the selected method for suburban areas. Hunting is done carefully in selected areas during the hunting season and residents can still enjoy hiking and biking in the woods. Tree stands are used and they are not easily visible. There is no cost to the community as hunters use the meat or give it to Hunters for the Hungry. Any excess deer taken by the state Department of Environmental Protection (DEP) is given to soup kitchens. Many volunteer bow hunters work at the nearby submarine base. They prefer bow hunting due to no noise and less liability. The State DEP culls in Blunt Point Park by sharp - shooting. The program is still working very well as they remove about 12 deer in their community annually and the DEP removes more in the large state park next to them. The goal that seems to work to control Lyme disease is to have no more than 10 deer per

square mile.

**Governor's Land, Virginia** Page 36 Gated community

**Steve Hein, Homeowner's Association**

In 1993 they were having many car collisions with deer and significant destruction of landscaping. Residents requested reduction of the deer herd. They used local employees to do an archery shoot. They have been doing bow hunting to annually reduce the number of deer for 15 years. They started using their own employees when it was a more open community with fewer homes and then hired someone to do it. As the costs for contracting it out went up, they went to Deer Management Services, a local LLC organization that uses licensed bow hunters (residents and friends) who do the hunting at no cost to the community. The program is moderately successful and they have taken an average of 26 deer per year over the last 4 years.

**Irondequoit, New York** (Near Rochester) Page 37

**Officer Russ Stein is the head of their bow hunting program.**

Russ said that they tried contraceptives before he came and he was told it was too expensive and did not work. He and another officer manage their deer management project. Their community is bordered on three sides by water and Rochester on the other side but deer still swim to their community. After trying contraceptives they went to using a bait and shoot approach using swat teams at night but opponents complained. Their motivation to cull was based on a serious overpopulation problem with over 200 car accidents a year (now down to 43 per year) and state wildlife officials telling them their deer herd was not healthy. They also had deer crashing through picture windows. They/he now gives bow hunters a one day test and each hunter must notify him of any deer kills and they record statistics on the deer killed. They kill about 56 per year and charge each hunter a \$25 processing fee. The only other costs are staff time. The hunters also sign a liability waiver to protect the community. They hunt in designated public areas and on private land where they have permission. He estimates their recovery rate at about 65% and said anyone who promises 100% recovery is probably not being accurate.

**North Haven, New York** Page 40 1980's 3 square miles and 750 residents

**Suffolk County Executive Steve Levy**

Issued deer shooting permits after dealing with 2 lawsuits against shooting deer that were dismissed Long Island Suffolk County Web Site

**Cayuga Heights, New York** Page 43 2 sq.miles/850 homes 90's study

**Mayor Jim Gilmore**

He is the new mayor and said that his community did a sterilization program where they trapped 50 does and sterilized them at a cost of about \$50,000 (privately funded) for a one time program. It

was ineffective as new deer migrated into the community. They are working on having their police department, whose chief is a trained sharp - shooter and trainer, do it while on duty outside of the hunting season via a nuisance permit. They have budgeted \$50,000 for 08 – 09 and are close to making a commitment to an ongoing culling approach. They found a shoot by their officers a less controversial approach than bow hunting. They have also decided to do a community mailing with their plan so that all residents will have a chance to voice their opinions.

The original reason for considering deer reduction was too many deer and safety reasons such as car/deer accidents, deer ticks spreading, coyote entering the community, pet safety, kids and pets getting into deer scat, and chronic wasting disease amongst an unnaturally large deer herd. They think they have around 200 plus or minus deer versus the 60 typically considered the maximum expected by the Department of Environmental Control (DEC) for 1.25 square miles of land. They are still looking both at culling and sterilization. Culling thus far is generally considered to be the most effective and if culling occurs, they are targeting culling 25 to 50 deer per year until the herd reaches the 50 - 60 max recommended by DEC. Up in the Adirondacks there's as few as 15 per square mile in the "wild".

**Union County, New Jersey** 2000 acres Page 45

### **Dan Bernier Deer Management**

In 1994 they were having car accidents, lyme disease concerns, landscaping damage, and the loss of forest underbrush. They decided on a shoot by their police and reduce the herd from 50 – 100 per year Cost is \$56,000 per year.

In addition to the Cornell Study communities we also contacted some local Virginia communities.

### **Wintergreen Nelson County**

#### **Wintergreen Police Chief, Stan Olaf, and Sgt. Clark**

Chief Olaf and Sgt Clark attended a LMOA Board Work Session last spring (2008) with Jennifer Cromwell from the USDA, Brian Moyer, a biologist with Virginia Department of Game and Inland Fisheries (VDGIF), WMC members, and LMOA residents. Chief Olaf confirmed that special permits are required and that they also got additional permission from the residents who live near to the areas they hunt the deer in. When a resident did not want hunting done they would avoid that area. They use special infrared 308 sniper rifles and hunt from the fall to the spring between 9 pm and 6 am about 3 times a week. They have observed their deer group and have selected specific sites on a map to do the hunting where there is appropriate background structure to stop errant shots. They use two - man teams with night vision goggles and scopes. They hunt from vehicles as well as on foot. They use specially trained Wintergreen policeman and they not only do the hunting, they also harvest, clean, and transport the deer to Hunters for the Hungry. They see such "spot removal" hunts as an ongoing need/expense at Wintergreen. Annual costs are significant and include paying the police staff \$50 per hour and they usually work in two - man teams. Additional costs include special suppressed - sound rifles, vehicles, and processing

equipment. It should be noted that Wintergreen has a much larger community, with more undeveloped areas, and many more deer. They mentioned that they have been doing the hunts for 6 years and that Lynchburg has been doing it for 20 years.

### **Glenmore Country Club Shadwell, Virginia**

#### **Tim Thomas Golf Course Superintendent**

Six or seven years ago Mr. Frank Kessler, owner and developer of Glenmore, contacted the Virginia Department of Game and Inland Fisheries about deer damage to landscaping. They did a study of the deer and recommended a deer reduction plan. Mr. Kessler contacted some friends with bow hunting experience and began a deer reduction program. He coordinated the hunting to make sure it was done safely. There were also fewer homes at the time which made culling easier. They had a permit from VDGIF for year round hunting and it seemed to work for a while. They also educated their residents on deer resistant plantings. Nothing seems to work all the time so they vary what they plant on the golf course and in the community. Since Mr. Kessler's death, Glenmore has let the permits lapse and is not doing any culling at this time.

### **Lynchburg, Virginia**

#### **Larry Faust, Animal Warden**

About 14 years ago, they contacted the Virginia Department of Game and Inland Fisheries (VDGIF) and they did a pilot deer reduction program. Their concerns included motor accidents with deer and garden and landscaping damage. They hired part time wildlife specialists that do the hunting and have a special permit that allows them to do it year round. They only go on property where they have permission to do so. They do bow hunting during the day and use special rifles at night. They remove about 1200 deer per year. Bow hunting removes about 200 deer per year and the rest are culled by rifle. The wildlife specialists are part time with no benefits and are paid \$14.75 per hour. They work about 20 weeks a year and do 4 nights a week for about 5 hours each night. They donate the deer to the Hunters for the Hungry program. He thinks the program has been very successful and is worthwhile. He also has a power point that they use for education purposes and would be willing to come up and do a presentation if that would be helpful. They have only had one negative incident in 14 years and that was when a wounded deer died on private property and the specialist did not have permission to recover it and the owner got upset. They are more careful now and only go on a property to retrieve deer if they have permission.

There is additional research information on other communities in Prevention and Education Section page 16 and in the Birth Control Contraceptives/Sterilization section starting on page 18.

While the Cornell Studies did not make specific recommendations, several important points from the reports and our other research contacts are worth mentioning:

- Communities should carefully consider all aspects of a deer management approach before they act. Several communities acted quickly and had to change approaches later at a higher cost to their communities.
- Communities that took the time to survey and educate their community members before they acted had fewer law suits and delaying tactics than communities that acted unilaterally.
- All culling approaches have significant direct and indirect costs involved and must be seen as multi year projects.
- Given the right environmental conditions, deer herds can increase significantly in a short time and can cause significant damage unless addressed through an active prevention/education and/or deer reduction program.
- Several communities warned us about not waiting too long to address an increasing deer population as the impact can be significant in terms of personal injury, damage, and costs.
- There seems to be successful examples of preventive/education, contraceptive, and lethal approaches.
- You will never satisfy everyone and at times local governing bodies must act in the best interests of the majority of their citizens.
- Significant national research has been done on deer management issues and solutions and taking some time to do the research can save communities time and money.
- Biological and cultural carrying capacity varies based on specific community characteristics and is a difficult assessment to make precisely.
- Setting specific deer management goals and objectives *before* a community acts is very important to determine the ongoing success or failure of the program.
- The Virginia Department of Game and Inland Fisheries has assisted other Virginia communities in developing successful deer reduction strategies and plans.

### Herd Population/Carrying Capacity

Considerable disagreement exists within our community with respect to the actual whitetail deer population. In the fall of 2005, in an effort to estimate the herd size on LMOA property, the LMOA Board of Directors entered into an agreement with the United States Department of Agriculture (USDA) to perform a study. As part of this study, a deer survey was performed by the USDA over a three night period (November 28<sup>th</sup>, November 29<sup>th</sup>, and December 7<sup>th</sup>, 2005) which resulted in an estimate of 635 deer within the 3150 acre Lake Monticello development. The estimate is considered high and inaccurate by many, as daily and seasonal movement of the deer were not considered in this estimate. The extrapolation method or formula that was used has been challenged by several community members with experience with deer counts.

The final USDA report also stated that “deer densities varied within the development, with some sections having much higher deer densities than others”. In addition, the report stated “It is very important to keep in mind that this estimate is only an index to what is going on in the population and is not an absolute count of all deer on the property”. Deer survey results are useful in providing trend data rather than actual deer population counts. The cost of the USDA study was reportedly \$3,400. Most experts in assessing the size of deer herds warn that deer estimates are usually underestimates of the actual number of deer in a community.

An additional survey count was done by Brian D. Moyer, District Wildlife Biologist, of the Virginia Department of Game and Inland Fisheries (VDGIF) in the fall of 2007 at no cost to the community. With the help of the WMC, a three night survey was done on September 13<sup>th</sup>, 25<sup>th</sup>, and October 11<sup>th</sup>, 2007. The goals of the survey were:

- To develop a survey method that is relatively short (approximately 2 hours) and easily repeatable so that Lake Monticello staff or volunteers can conduct the survey in the future if necessary.
- To develop an understanding of the density and concentrations of deer at Lake Monticello.
- To assess the overall health of the deer population in general terms by looking at doe and fawn ratios.
- 

Averages of 22 deer per survey night (32, 21, and 13) were observed. Deer density and concentration estimates were not possible due to the fact that spotlight surveys, like this one, assume that deer are distributed randomly and evenly on the property. The survey showed the deer population in the Lake Monticello community is clustered in relatively small family groups with the vast majority of deer concentrated in the southern portion of the development along the golf course and lake. Observations indicated that the deer were healthy. From a reproductive standpoint, approximately 40% of the antler-less deer that were observed were identified as young deer. This indicates that the population may be stable but is likely growing. The results of this survey could not be compared to the 2005 deer count due to different methodologies. However, the VDGIF does recommend that we use the average number of deer (22) that were observed in the 2007 survey as an index to compare at the same time of the year, along the same route, with similar methods with future survey counts. This entire October 26, 2007 VDGIF report along with the USDA report is available on the LMOA website, in the LMOA library under "reports", and in the reading files.

Determining the size and impact of a deer herd on a community is called establishing the carrying capacity. The biological carrying capacity is based on the health of the deer population and environmental conditions and if there is sufficient food, cover, and habitat to support a certain number of deer without it leading to unhealthy deer and disease. There is also something called cultural carrying capacity that is based on the tolerance a community has for deer. Cultural carrying capacity issues include: community opinions against or for the killing of deer, concerns about damage to plants and landscaping, lyme disease, accidents, budget issues, and local and state laws and regulations. Estimating a community's biological carrying capacity is based on the following factors:

- Available food that is desirable and accessible
- Water supply and accessibility
- Appropriate cover for protection and birthing
- Intra and Inter-specific competition (competition among deer and competition of deer with other resident or transient species)

Indicators that biological carrying capacity is challenged include:

- Deteriorating or poor physical appearance of subjects
- Natality (birth) rate progressively exceeding falling, yielding a net zero recruitment at BCC; this mortality (death) rate, which changes the young:old ratio.
- Primary and secondary food choices nearly eliminated....evidence of tertiary and non-preferred food sources being utilized
- Intra-specific agitation/uncharacteristic behavior

According to the VDGI's Brian Moyer, "all indications are that the Lake Monticello deer herd may be stable but is likely to grow" as long as there is available food, water, space, and cover. Since some deer may never leave the development, but others come and go, it is possible we will see an apparent increase or decrease in the number of deer throughout any given year. There was a member suggestion that there are many reasons why our deer herds move from the time of the year, crowding, disturbances from dogs and humans, hunting, weather, loss of cover, etc. It is also obvious to those of us that have lived here for many years that we have many more deer in our yards, streets, and on the golf course than ever before. Despite a lack of definite proof that our deer population is growing or the establishment of a clear biological or cultural carrying capacity number, the WMC acknowledges that deer are causing significant damage to some resident plantings and that it is fair to assume that our deer herd will continue to increase without expanded prevention and/or deer reduction activities. Our research has shown us that different environments have very different carrying capacity ratios. *The WMC was unable to reach consensus on whether our community had exceeded its biological and cultural carrying capacity and whether an active deer reduction program was warranted at this time.*

The WMC has undertaken a "mapping" approach to identifying areas in our community where deer damage is occurring. An electronic map has been developed that lists all email and incident reports the WMC has received. This map and approach should help us now and in the future in identifying the size and impact of our deer population. If we decided to do annual deer counts, the "hot spots" we have identified can be used to do these annual counts. Comparing annual counts will help us determine the size of our deer population and if it is increasing over several years.

## Lyme Disease

Statistics of confirmed Lyme disease cases reported by providers and labs over the past 9 years within the Thomas Jefferson Health District (TJHD) were obtained from the **TJHD Epidemiologist, Roger Crewz**, who himself is a resident of Lake Monticello.

Ehrlichiosis is a newly recognized bacterial disease that is also spread by ticks. Most infections are mild or without symptoms, but some can be severe and life-threatening. Other related diseases include babesiosis, tularemia (rabbit fever), and Rocky Mountain Spotted Fever.

The TJHD includes the counties of Albemarle, Fluvanna, Greene, Louisa, and Nelson. During the years 1998 through 2006 inclusive, 92 cases of Lyme disease were confirmed. The Center for

Disease Control statistics show that lyme disease in Virginia is increasing. Recent statistics on reported cases in Virginia: 2003/195, 2004/216, 2005/274, 2006/357, 2007/850.

Based on a conversation with Mr. Crewz, and reports by Jennifer Cromwell and Mark Robb of the USDA Animal and Plant Health Inspection Service – Wildlife Services Unit, the unanimous opinion is that there is no impending threat of an outbreak of Lyme disease within the Lake Monticello community at this time due solely to the presence of deer in our community. These professionals, along with information from the Fund Facts pamphlet, also emphasized that a large number of other animals exist that transport the 'deer tick' including the white-footed mouse, gray squirrel, skunk, opossum, foxes, rabbits, 49 bird species, and a variety of other animals. Hence, deer alone should not automatically be considered the 'culprit' should a case of Lyme disease be identified in the future.

In conclusion, the USDA has determined adequate and convincing evidence does not exist to suggest that deer within Lake Monticello are the sole cause of any transport and subsequent transmittal of tick-borne wildlife-related diseases.

While there does not seem to be sufficient evidence to say that Lyme disease or the others are a major issue in our community at this time, incidents of these diseases are increasing in Virginia. Additionally, there are lake residents that have contracted these diseases and have suffered with them. Ron Ritter also shared a moving article from Yankee Magazine that chronicles the impact of Lyme disease on several unsuspecting victims. It is clear that the WMC should include information on the prevention and treatment of these diseases in our community education and prevention efforts and continue to track the incidents and impact of these diseases.

### Deer/Vehicle Collisions

Officers of the LMOA Police Department, including Chief Tom Boisvert, and numerous residents within the community have been interviewed regarding deer/vehicle collisions with the road network of Lake Monticello. Chief Boisvert has stated that no deer/car collisions within our community of a serious nature have been reported for many years, although he and other individuals interviewed acknowledged there have been near misses and actual deer/car contacts have occurred but with no reportable damage or personal injury resulting. Our 25 mile per hour speed limit is seen as a primary reason for no serious accidents involving deer.

Deer/vehicle collisions of a more serious nature do occur on surrounding highways, including state routes 600, 618, and 53. These incidents are typically investigated and reported by the Virginia State Police, with periodic reports published in the Fluvanna Review by the Sheriff's Department for all of Fluvanna County. A perusal of these reports from September 2006 to June 2007 shows no major increase in collisions except during the rutting and hunting period each year. Sheriff Reports for Fluvanna County over the last few years: 2005/66, 2006/172, 2007/150, and 2008 (Jan – June)/50. It is important to point out that some accidents are reported to the state police and are not included in the Sheriff's reports.

Jennifer Cromwell with the USDA shared a report **2006 Deer – Vehicle Collisions Metropolitan Washington Council of Governments** that addresses their collective attempts to address increasing deer vehicle accidents in their area. It discusses causes and possible solutions. There is helpful information on collecting data from deer vehicle accidents as well as research on what works and what does not. They estimate that each deer vehicle collisions cost between \$2,000 – 2,500 per accident not to mention physical injuries and occasional deaths. Most localities are using deer reduction programs in conjunction with public education, wildlife crossings and fencing approaches. This report and the Cornell studies are in the WMC electronic file.

The WMC also has information on highway reflectors that some communities have installed. These reflectors reflect light from a vehicle's headlights and stop deer from crossing. Some emit special lights that also deter deer. Different types are used in 12 states now, and the Fund Facts pamphlet mentions that the Minnesota Department of Transportation saw a 50-97% decrease in 38 locations across the state in deer/vehicle collisions. However, research in the use of these reflectors in Virginia has not shown them to be effective. The WMC has additional information on various approaches to roadside crossing deterrents.

In conclusion, while there is at present not sufficient evidence to show that deer/car collisions have reached a point where it would justify immediate deer reduction action, it is recommended that the WMC track local accident reports and include this data in determining if our deer population has reached a point where damages to property, persons, and habitat warrant the use of more active deer reduction approaches. It is also important that lake residents report all deer vehicle accidents within the lake to the LMOA police and that statistics on dead deer are documented and shared with the WMC.

### Plant/Garden Destruction

The WMC fully agrees that certain areas of the LM community, more densely populated with deer, do experience greater losses of decorative planting and garden crops.

It is obvious that our deer population is regularly feeding on some resident gardens and ornamental plants. It is also true that, despite resident efforts to spray and protect their plants, deer are relentless in their search for food. Some damage is also blamed on the deer but is actually done by other animals such as rabbits, squirrels, voles, moles, etc. It is also clear that regardless of any possible deer herd reduction or control strategies; the surviving deer will continue to live in and around our community and will feed on unprotected garden and ornamental plants.

In conclusion, the WMC is collecting and organizing information on deer repellants, effective screens or fencing, and a list of plants, shrubs, and trees that are known to be highly resistant to, and generally avoided by deer. While nothing seems to work all the time, there are effective means to minimize the damage. Once we have finalized our research we will have this information available for residents and hope to have it posted on the LMOA web site for easy access. We also envision the WMC conducting and coordinating seminars, workshops, guest lecture

appearances, brochures, etc. to provide our residents with up to date information on effective prevention approaches to wildlife issues.

## Deer Control/Management Strategies

As mentioned The WMC has done extensive research on white tail deer issues and various deer control/management strategies. We have gotten information from state and federal public agencies, non governmental advocacy organizations, local communities, and other wildlife experts. The challenge was that some of these organizations have strong opinions on what the best solutions or strategies for managing deer herds are. It was difficult to determine if the information and perspectives they shared with us were objective and based on science versus organizational missions. As you will see there are often opposing viewpoints on the success or failure of these methods. The WMC has attempted to research and share all current viewpoints toward clarifying which methods might be most appropriate for our community. It is obvious to the WMC that continued research should be done as new approaches and deer management strategies are developed. The following section provides information on the various deer control approaches:

*There is a Deer Control/Management Strategies Table attachment to this report that describes the various deer control/management options and outlines the costs and pros and cons of each strategy. There is also a contacts page at the end of the report that lists the contact information for the public and private organizations we have cited in this report.*

## Prevention and Education

Prevention experts have stated that any problem we have at Lake Monticello with deer can be normally managed through prevention and education. Many experts, including **Ed Clark, Director of the Virginia Wildlife Center**, state that whenever you use lethal means to resolve a conflict between humans and wildlife it usually does not work. Hunting does not always solve the deer situation, because when you kill deer it produces a vacuum and more deer move in to fill this vacuum. Also, after killing deer, the remaining does are healthier due to less competition for food, and so will produce more fawns. Brian Moyer of the VDGIF said that though hunting is sometimes the cheapest solution, it is not always appropriate for every lot or neighborhood.

In someone's yard one deer can cause as much damage as several and you can't kill every deer in open communities like Lake Monticello. It seems to be a habitat problem. As long as you have plants deer like to eat, they will come. Communities, that don't want deer in their community, need to evolve away from landscapes full of plants that deer prefer, to more rugged landscapes with plants that are more deer resistant. If one chooses to have plants deer like, then the use of repellents, netting and fences may be helpful. Luckily, for communities like ours, there is a good toolbox of options for property owners. Many residents report success with the use of these prevention methods.

There are prevention and education experts, like **Stephanie Boyles, Wildlife Scientist, HSUS**, who help communities solve conflict with wildlife through prevention and education. She has

offered to work with us. The only cost is paying for her transportation from Tidewater, and providing her lodging. Some of the communities who are using Stephanie Boyles' expertise on non-lethal deer management methods are: Solon Ohio; Conservation Commission, Fairfield CT; Deer Task Force, Ridgefield, CT; Health Dept Forum, Nantucket MA; Westchester County Deer Forum, White Plains NY; County Executive's Staff: Essex County NJ; Town Council, Pepper Pike, OH; Legislative Meeting in Hartford, CT.

Two communities which have voted against lethal means to control the deer population are:

- **Walton Hills, Ohio.** Walton Hills Council members opposed allowing lethal solutions (bow-hunting) within their community.
- **Stonehouse Homeowners Association, Williamsburg, Virginia.** After a presentation by the VDGIF the community decided against lethal culling and in favor of the use of netting, repellents and plantings that are less favorable to deer. The residents that reported the most landscape damage had plantings that are known to be highly attractive to deer.

The WMC, regardless of the final LMOA BOD decisions about deer control strategies, is in agreement that an active prevention and education program would be helpful. The WMC would develop a series of tri-fold brochures to be distributed to each resident with varying topics on living with deer. These would be similar to the materials used in the "Lake Health" educational program. Additionally the use of the LMOA Website, PowerPoint presentations, and our television channel could assist the WMC in its educational efforts.

These and other educational materials would include information on:

- Plants that deer prefer and warnings not to plant these.
- Plants that deer are less likely to eat
- Placement of plants
- Commercially available deer repellents
- Home made deer repellents and plant treatments
- Barriers: netting, tubing, fencing. LMOA has already loosened fencing restrictions and we would encourage them to consider further modifications including the possibility of waiving Environmental Control Committee (ECC) fees for deer proof fencing.
- Education regarding Lyme disease and other transmitted diseases.
- General suggestions for how to deter the deer – such as the fact that you must use more than one method of repellent and must switch methods occasionally as deer acclimate to the use of only one approach.
- Information on companies like Nature Technologies that provide a package deal for landowners who want to contract out the work. Nature Technologies uses a multi-faceted approach --- motion sensors which emit high frequency sounds, repellents, and predator odors - which together provide an ever-changing "landscape of fear" which convinces deer to browse elsewhere. If homeowners want to use this approach, they can look at [www.NatureTechnologies.com](http://www.NatureTechnologies.com). This can be an expensive system, but is very effective and

might be perfect for the homeowner who wants the freedom to plant what ever they want without worrying about deer eating the plants.

Prevention and education efforts are clearly the most inexpensive approach to deer management. Based on prior LMOA educational programs (i.e. lake health and recycling) the cost of printing an 8 ½" x 11" flyer by our regular outside printer last fall was \$300 for 5000 copies, double sided, and one color ink on colored paper, folded. The cost of delivery to each mailbox cubby is \$170. Three trifold brochures would be about \$1500 and deliveries would be \$510. Stipends and possible transportation costs for speakers are estimated at \$ 2000. Total cost estimate for the first year prevention and education would be approximately \$4,500 – 5,000. Funding might also be augmented with money from outside sponsors.

## Birth Control - Contraception/Sterilization

Contraception, though currently available only in experimental settings, can offer a humane non-lethal solution to conflicts between people and deer in certain urban and suburban areas as well as a solution to some local problems of animal overabundance (e.g., where small populations are truly closed).

It has been successfully used in National Park Service lands such as the **Fire Island National Seashore** where it had a 95% success rate. It was also used this winter on 60 Elk in Yellowstone Park. It has also been done successfully in **Fripp Island**, a South Carolina gated community. The program was supported by the SC Department of Natural Resources which is the same as our Virginia Dept. of Game and Inland Fisheries. Fripp Island in South Carolina, with more deer than our community, engaged Tufts University to make a presentation on contraceptives. While their community initially favored a deer kill, they changed their minds after the presentation and used the contraceptive approach. They have been doing this since 2006 and are very pleased with the results. Fripp Island was the first community in South Carolina to be approved for the use of contraceptives. It should be pointed out that both of these communities are islands and present a more closed environment than Lake Monticello.

The VDGIF has also supported contraceptive research at **Conservation Research Center (CRC) in Front Royal, Virginia**, a fenced, closed deer population that is using a combination of culling and contraceptives.

Surgical sterilization of does was successfully used in **Highland Park, Illinois**. Highland Park is a 12.5 square mile area, bordered by Lake Michigan on one side and open on three. Sterilization controlled the deer population at the goal of five deer per square mile, down from an average of 8 per square mile. Once Highland Park reached their goal capacity they only needed to sterilize six does per year to maintain the population level. It provided a safe humane form of sterilization using tubal ligation. The ability to capture, chemically immobilize and perform surgery on wild deer, under field conditions was highly successful.

Contraception has been used successfully for at least 20 years in numerous species by **Jay Kirkpatrick, Director of the Science and Conservation Center**, a non profit research arm of the

**Zoological Garden of Montana.** The marker dart (Porzine Zona Pellucida/PZP) can be shot into the deer from as far away as 50 yards. Darting of the deer must be redone every couple years so it does not matter if you shoot the same deer. It is protein based which means it does not pass into the food chain and would not effect humans. Kirkpatrick says that since the contraceptives are protein based, if someone ate the deer meat, the protein would be broken down in the stomach by our amino acids and be harmless. It has no effect on the fertility of dogs and cats. Since it is protein based there is no danger to our lake.

Birth control can be used in a non-contained community like Lake Monticello because most does stay within a half to one and a half mile area their entire lives unless threatened or facing a lack of food. Deer are territorial and usually don't go into each other's territory. They live in matriarchal family groups.

The VDGIF feels that the efficacy of birth control would be questionable in a non-contained community like Lake Monticello where ingress and egress of deer is not impeded.. Although does generally stay within a half to one and a half mile area their entire lives unless threatened or facing a lack of food, deer home ranges overlap extensively and are very elastic, particularly in highly-productive populations typical of the Southeast. They live in matriarchal family groups: mature does often evict yearling male offspring but generally tolerate female offspring. The VDGIF warns that contraception is not an effective solution for truly free-ranging deer populations.

At this time PZP ([http://www.pzpinfo.org/pzp\\_faqs.html](http://www.pzpinfo.org/pzp_faqs.html) ) does not have FDA approval and thus is labeled experimental because its uses are built around scientific studies. However, it is known to be safe and has been used for a quarter of a century. This PZP information site answers most of the frequently asked questions regarding contraception. The Humane Society of the United States (HSUS) is doing research on contraceptives and may be willing to assist us in determining if our community is appropriate for the use of contraceptives.

Gona-Con® ( [http://aphisweb.aphis.usda.gov/lpa/pubs/fsheet\\_faq\\_notice/faq\\_wsgonacondeer.pdf](http://aphisweb.aphis.usda.gov/lpa/pubs/fsheet_faq_notice/faq_wsgonacondeer.pdf)) is a new contraceptive that was developed by the USDA. It has been approved by the FDA and is expected to be on the market with EPA approval in about a year. They are not offering this in any communities now as they have completed the research process. Their focus is getting the final drug approval. The advantage to Gona-Con® is that lasts longer than a year. GonaCon™ will not replace other management tools and its use alone cannot rapidly reduce overabundant deer populations to healthy levels. Instead, the NWRC considers GonaCon™ a new tool that could be used in conjunction with other wildlife management methods. In the Maryland field study, for example, the deer herd was culled and then contraception was implemented to maintain a specified population level.

Spayvac® (<http://www.querycat.com/faq/9deff08eec3192d0a26cbf7b867de318> ) is another contraceptive that is in the research stage and it is a single dose vaccine.

**Pros:**

- All scientific evidence shows that contraceptives are safe and generally 90% effective in individually treated animals.

- It is a non lethal and more humane method to reduce deer herds. VDGIF feels this may be debatable since research by Bill McShea at CRC suggests that bucks wore themselves out during the rut because PZP-induced does never stopped cycling.
- Improvements in the contraceptives are resulting in their effects lasting several years and reducing the need to re-immunize annually. Culling through lethal methods has to be done annually.
- Contraceptives address the real problem of the deer, which is reproduction, rather than the symptoms, which are overpopulation. Culling the herd can lead to increased reproduction if the deer population reaches a point where it has slowed its reproductive rate. Does that had one fawn may have 2 the next year as part of a natural compensation process to maintain the size of the deer group. Brian Moyer/VDGIF says that there is no evidence that this is the case in our area. Contraceptives can reduce reproduction, therefore treating the problem, not just the symptoms.
- This solution would be more likely to satisfy both groups of people – it would reduce the herd for the people who want fewer deer, but it would be done in a way that would be less likely to offend people who enjoy the deer and feel protective of them. However, there may be residents that that may be opposed to any human interference with the deer reproduction process.
- Sterilization – is one time permanent solution. To maintain the herd size very limited numbers of does would need to be sterilized each year.
- The HSUS will pay the salary of the people who are working in the field as they are gathering data for their research.
- The residents of most of the communities offer housing and meals for the HSUS staff while they are on site, thus reducing costs.

#### Cons:

- It has a less immediate effect than lethal methods. In a long-lived species like deer, which may live 8-12 years in the wild, the current standing density of deer and their negative impacts would not be reduced appreciably for several years, even with 100% effective contraception.
- Some communities who have tried it found it not to be effective and had to go to other methods to cull the deer.
- The cost of the program includes vaccines, darts, rifles, and training and compensation for the personnel who do the dart shooting. We could reduce that cost if we used LMOA personnel. See Deer Control/Management Strategies for more specific cost information.
- Federally approved contraceptive vaccines currently only last one year and needs to be repeated. Newer vaccines, once approved, may last 2- 3 years.
- At this point some of the contraceptive vaccines are awaiting final EPA approval and they all require a separate state (VDGIF) approval process before they can be used with wildlife populations.
- No Virginia community has been approved for the use of contraceptives or sterilization and the approval process will most likely take at least several months.

The LMOA BOD has passed a resolution requesting that the WMC arrange for a presentation on contraceptives. We have contacted two experts on contraceptives, **Rick Naugle, from the**

**Human Society of the United States (HSUS) and Jay Kirkpatrick, Director of the Science and Conservation Center**, a non profit research arm of the **Zoological Garden of Montana**. There are others such as **Kevin Sullivan – USDA Director in Maryland** who is involved in Gonacon registration; **Dr. Tony DiNicola of White Buffalo, Conn.** who has extensive experience with both contraception and culling; and **Dr. Bob Warren of the University of Georgia**.

The HSUS approach would involve a visit by Rick Naugle to see if our community could be approved as a HSUS research study site and if their approach would be feasible here. Their approach involves tranquilizing a specific number of does, hand injecting the vaccine, and tagging the ear of the treated deer. After the first year the deer do not need to be captured or tranquilized as the deer can be vaccinated via a dart. The vaccine is time released and only needs to be done every 2 to 3 years.

Jay Kirkpatrick's approach would involve the training of LMOA police (or other approved personnel) at their site in Montana in the use of the darts and vaccines. Deer would be darted with red dye marker darts. This method must be done annually for the first 3 years and then can be done every 2 to 3 years.

Sterilization of deer is more complicated and costly. The deer must be captured via traps and then are anesthetized and surgically sterilized using tubal ligation. Castration, while supposedly less expensive than sterilization, was discussed but not researched.

Both contraceptive approaches would require approval by the VDGIF. An application for use of contraceptives or sterilization must go to Robert Ellis, Wildlife Division Director of VDGIF. It should include the name of the drug, how it will be administered, how many deer will be darted, and our projected goal. At this point no residential communities in Virginia have applied to use these drugs.

PZP Info Sheet

[http://www.pzpinfo.org/pzp\\_faqs.html](http://www.pzpinfo.org/pzp_faqs.html)

Gonacon Info Sheet

[http://aphisweb.aphis.usda.gov/lpa/pubs/fsheet\\_faq\\_notice/faq\\_wsgonacondeer.pdf](http://aphisweb.aphis.usda.gov/lpa/pubs/fsheet_faq_notice/faq_wsgonacondeer.pdf)

Spayvac Info Sheet

<http://www.querycat.com/faq/9deff08eec3192d0a26cbf7b867de318>

Virginia Department of Game and Inland Fisheries Website

<http://www.dgif.virginia.gov/wildlife/deer/evaluation-of-deer-management-options.pdf>

## Trapping and Relocation

This approach is labor intensive, difficult to manage, and very expensive. Pennsylvania and New York have estimated that the cost per relocated deer is \$1,500 - \$2000. It is also often not a very humane manner with some deer dying from the trauma, tranquilizing, and release procedures.

Additionally, Virginia has no place that can readily accept relocated animals and it is illegal to transport deer across county lines.

## Deer - Proof Fencing

The WMC has significant research information on fencing options. Fencing the entire community with deer proof fencing would cost from \$275,000 to \$470,000. Fencing the entire community with a living white pine tree fence approach would cost \$190,000. Individual fencing options (living wall trees/or/bushes included) would cost between \$ 1,000/5,000 to 5,000/10,000 depending on building the fence by the owner him/herself or by hiring a professional and also on the size of the lot. If LMOA decided to consider this option there are numerous fencing companies that would be glad to do a more precise assessment of our needs and the actual costs of the fencing and installation. If individual home owners want more information on fencing options, the WMC has contact information for several fencing companies. There have been some reports that deer can jump fences and we would need 8 – 10 foot fences but these claims have been disputed by the fencing companies and such incidents are seen as isolated and infrequent.

There is another fencing option which may be used to help determine what natural habitat and undergrowth we're really losing to deer and also help preserve areas from future deer browsing. It's called "exclosures". Basically, you fence out the deer from natural areas in patches (the size is flexible and various sizes and can be erected depending on the amount of open space). This is similar to what some suggest as an option for individual home owners (high wire mesh with 45 degree section at top), but applied to the truly natural areas within the community. These are fencing units which can be relocated every few years so that no portion of the wooded area needs to be permanently blocked off or left open to deer. Of course, small wildlife would still have access to the area, but deer would be blocked. This is an option for the community which would have up-front expense, but limited future expense.

## Electric Fences

Some have suggested that residents can use electric fences similar to those used with pets to deter deer from entering their properties. Others suggest that the deer can easily jump such fences. Also since you can not put collars on the deer, the electric fences would need to shock on contact and would have many associated liability concerns. LMOA rules on fencing were recently relaxed to allow special fencing for gardens and landscaping. At this point, the WMC does not think this is a good option.

## Legal Hunting

Annual licensed hunting of deer is a common solution to deer overpopulation problems. States base their deer kill limits on estimated deer populations in order to maintain a healthy deer population for both the hunters and citizens who simply like having them around. It is estimated that Fluvanna County hunting outside the Lake Monticello community is already helping manage our deer population although there is no way to accurately assess the impact. WMC members are split on this option.

## Herd Reduction/Licensed “Shoots”

In some communities, paid sharpshooters are hired to hunt (high powered rifles, muzzle loading, or bow hunting weapons) the deer within a community under supervised conditions and requirements. As with any kill method, there are some possibly undesirable outcomes. Wounded deer can travel many miles as they bleed. They often clot and stop bleeding so that tracking becomes difficult, leaving the deer and residents in a potentially undesirable situation. The VDGIF feels that this statement is the exception rather than the rule and that they see very few incidents where this happens. Fund Facts/Hunting Fact Sheet #2 states that scientific studies has shown that bow hunting yields more than a 50% crippling rate. However, several bow hunters and bow hunting organizations dispute this crippling rate and state that their recovery rate is much higher. A Northern Virginia bow hunting organization claims to have a 100% recovery rate over the last 3 years and attributes this success to highly trained hunters, careful site selection, and a commitment to avoid inhumane outcomes. Other than prevention, bow hunting is the most inexpensive approach with no direct costs to LMOA as the hunters are not paid, are responsible for all equipment and site costs, and do the recovery themselves. This approach involves little or no liability to us as the hunters are licensed and have insurance. Licensed shoots using rifles are more expensive and can involve some liability since we are hiring them. Such hunts can also be intrusive and would have to be repeated over several years if not on an ongoing basis like at Wintergreen, Lynchburg, and Roanoke.

While it is indisputable that hunting removes some animals from the population, it does not keep deer populations at a continually reduced level, and would have to be repeated year after year. Surviving deer have less competition for food and so have increased nutritional health, which means they have higher productivity, lower neonatal mortality, increased conception rates, and increased pregnancy in yearlings. They are also more likely to have twins rather than single fawns, and are more likely to reproduce at a younger age, thus helping the population grow even faster. Since hunting may cause the reproduction rates of a deer population to double or triple, hunting may not be the only solution to the problem. See Deer Control Strategies Table for additional information on costs and other pros and cons.

The WMC has information on several bow hunting individuals and organizations. The USDA and VDGIF have information on licensed sharp - shooters and organizations that do organized shoots. LMOA also has a proposal from the USDA detailing costs and agreements if they were asked to do a one time five day controlled shoot at the Lake. There is also an organization in Georgia, Quality Deer Management Association, ([qdma.org](http://qdma.org)) that contracts with communities to conduct hunts. There are chapters in Virginia.

## Limit Deer Access to Food Sources

As mentioned there are many deer deterrents such as fences and screens, repellants, and deer resistant plants. Educated residents can minimize deer destruction of their plants by smart planting and using recommended products and resources. However, as has been stated, there

do not seem to be any deterrent methods that work every time. Some have suggested that residents who feed the deer be fined. Effective 9/1/08 feeding deer is illegal in Virginia. This regulation does not restrict the planting of crops such as corn and soybeans, wildlife food plots, and backyard or schoolyard habitats. It is intended to curb the artificial feeding of deer that leads to negative consequences.

## Food Plots

It has been suggested that we explore “food plots” as a solution. These food plots would be positioned on the perimeter of community and are based on the belief that if our deer get adequate food they might not need to eat garden and ornamental plants. The theory is that if the food is positioned on the border or outside, our deer will be attracted to these plots and not need to seek food inside our community. Others suggest using food plots in the reserved areas to attract deer for shoots.

## WMC Member Survey

The survey questions below were answered by the 6 current WMC members to solicit their personal opinions about the various deer control/management options and to formulate recommendations for the LMOA BOD. We did this anonymously to protect members from undeserved community scorn. As mentioned in the introduction, some WMC members, just like our community members, have strong opinions on these issues. One member has said they would never support the killing of deer under any circumstance. Obviously, such strong opinions and beliefs have made it hard to reach consensus on recommendations. We also attempted to survey WMC members on what lethal approach they would recommend if the LMOA BOD decided to do a shoot. Unfortunately the responses were so varied that there was no consensus on which lethal deer control strategies might be best.

Do you believe that you have reviewed sufficient research data on LMOA deer issues, impacts, and existing deer control strategies to make dome initial recommendations to the BOD? Yes 6  
No 0

Should we have a presentation on contraceptives? Yes 4 No 2

Should we have a presentation on prevention and education methods?  
Yes 6 No 0

Should we have a presentation on bow hunting? Yes 5 No 1

Do you believe that the WMC should embark on a prevention and community education program addressing all aspects of deer prevention approaches from deterrents, deer resistant plantings, roadside lights and noise equipment, fencing, netting, educating residents about feeding deer, etc,  
Yes 6 No 0

Do you believe our LMOA deer herd is increasing? Yes 4 Not Sure 2

Do you believe our deer carrying capacity (biological and cultural) is exceeding what our community can handle? Yes 3 No 2 Not Sure 1

Do you believe the LMOA BOD should share the WMC Deer Report and Deer Control Strategies table outlining our research and conclusions with the community and then do a *community survey* before any herd reduction actions are taken? Yes 5 One blank

Do you believe we should do annual deer counts with help from the VDGIF?  
Yes 6 No 0

Do you believe that active deer reduction action should be taken now?  
Yes 3 No 3

## Summary and Recommendations

It is obvious from our research that many other communities in Virginia, and across the country, have and are addressing whitetail deer issues in their communities. Proponents of prevention and education contend that if you limit access to plants and other food sources that deer like to eat, a natural selection process will limit herd growth. Proponents of contraception contend that it is a more humane and effective method to manage herd growth. Proponents of an active annual herd reduction program using lethal means contend that at some point, left alone, deer herds can increase significantly in a short time and the problems associated with deer, landscape and habitat damage, car accidents, lyme and other infectious diseases, will also increase resulting in unwanted costs and injury. All of these beliefs are true and all of the deer management approaches discussed in this report are being successfully implemented in a variety of communities. It is also clear that this is not a static issue and that changes in deer population can occur quickly and need to be assessed on an ongoing basis by communities with an active deer population. We also found that communities that took their time to carefully assess their specific deer herd concerns, did the research on effective deer management options, and surveyed their residents before acting, had less community complaints and delaying lawsuits. We have done the research on deer management options and the associated costs. The challenge now seems to be to educate and survey our residents and decide which deer management approaches best fit our community values, and how to proceed in the best interests of all community members.

Locally, opponents of implementing a lethal deer reduction program contend that we have not exceeded our biological carrying capacity and that we should try other prevention and more humane approaches to deer management before using lethal methods. They point to the significant annual costs of lethal deer management programs. They believe that we can successfully learn to live with our deer population and enjoy having deer in our community. They also believe that we need to more precisely measure our deer population to verify that our deer herd is actually increasing before we act. Proponents of implementing a lethal deer reduction program as soon as possible contend that it is obvious that our deer herd is increasing and that it is time to act to prevent the damage and injuries that other communities have experienced. They

believe that contraception, while more humane than some of the options, is expensive, not always effective, and will take too much time to get approval and have an impact.

While acknowledging that deer are obviously doing damage to some resident landscaping and gardens and seem to be more frequently seen on our roads, golf course, and in certain neighborhoods than in the past, the WMC, an advisory committee staffed by community volunteers, was unable to reach consensus on whether our community has actually exceeded its biological and/or cultural carrying capacity and whether an active deer reduction program is warranted at this time. ***However, a majority of the WMC members do believe that further study and ongoing assessments of the impact of deer on our community are necessary and that the recommendations that follow should be completed before any lethal deer reduction program is initiated.***

### Unanimous WMC Recommendations

- The WMC, with funding from the LMOA BOD should initiate a prevention and wildlife education program as soon as possible. To include:
  - ✓ Educational brochures on how best to minimize damage and health concerns
  - ✓ LMOA web site suggestions on prevention strategies and resources
  - ✓ Handouts for prospective residents outlining our current deer policies
  - ✓ Educational presentations to Lake groups and organizations

The WMC has extensive prevention and education information that can be shared with community members and will continue to research proven prevention strategies.

- The WMC, with LMOA support, should arrange for a professional presentation on up to date prevention and education approaches.
- The WMC in conjunction with the VDGIF should do annual deer counts and evaluation of the health of our deer herd. The new LMOA form being used to collect statistics on dead deer found in our community can also assist us in assessing the health of our deer herd.
- The LMOA BOD should share this WMC Deer Report with the community, posting it on our web site and making it available in the reading file.
- The WMC should do a presentation to the BOD on the outcomes of our study and to answer board and/or resident questions about our study and research efforts. The WMC chair will do the presentation.
- The LMOA BOD should do a community survey to solicit and quantify community sentiment on the killing of deer in our community before any such action is taken. The WMC recommends that LMOA consult with experts in the field of community surveys to insure that a survey is done in a professional and effective manner. One of the members of the WMC has an account with a web based survey organization, Survey Monkey, and

an internet community survey, reaching a majority of our residents, could be done at no cost to the community. The VDGIF has shared a parent survey they have used.

- Before any deer reduction is undertaken, specific goals, methods, costs, and measures of success of a proposed deer reduction program should be developed in collaboration with the VDGIF.

### **Majority WMC Recommendations**

- The WMC in collaboration with the LMOA should arrange a presentation on bow hunting. We have several bow hunting contacts that would be willing to do such a presentation.
- The WMC in collaboration with the LMOA should arrange for a presentation on contraceptives. This has already been approved by the LMOA BOD and will be arranged by the WMC.

**Sincerely,**

**The Wildlife Management Committee**

### Contact Information

Public Agencies:

#### **United States Department of Agriculture (USDA)**

Jennifer Cromwell from the USDA (804) 739 – 7739 [jennifer.s.cromwell@aphis.usda.gov](mailto:jennifer.s.cromwell@aphis.usda.gov)

#### **Virginia Department of Game and Inland Fisheries (VDGIF)**

Brian Moyer, District Biologist (804) 367 – 9489 [brian.moyer@dgif.virginia.gov](mailto:brian.moyer@dgif.virginia.gov)  
<http://www.dgif.virginia.gov/wildlife/deer/>

Nelson W. Lafon, Deer Project Coordinator (540) 248 - 9295 [Nelson.Lafon@dgif.virginia.gov](mailto:Nelson.Lafon@dgif.virginia.gov)

#### **Thomas Jefferson Health Department (TJHD)**

Roger Crewz (434) 972 6200

Non Governmental Organizations:

**Science and Conservation Center, a non profit research arm of the Zoological Garden of Montana**

Jay Kirkpatrick, Director, (406) 652 – 9719

**Humane Society of the United States (HSUS)**

Rick Naugle (202) 452 - 1100 (240) 344 -1675 [RNAugle@hsus.org](mailto:RNAugle@hsus.org)

Stephanie Boyles [sboyles@hsus.org](mailto:sboyles@hsus.org) [JHadidian@hsus.org](mailto:JHadidian@hsus.org)

[http://www.hsus.org/wildlife/urban\\_wildlife\\_our\\_wild\\_neighbors/humane\\_backyard/](http://www.hsus.org/wildlife/urban_wildlife_our_wild_neighbors/humane_backyard/)

**The Fund for Animals**

Fund Facts Hunting Fact Sheet # 2 and Fund Fact Sheet #7 “Living with Deer”

<http://www.peopleandwildlife.org.uk/crmanuals/Wildlife%20Factsheet7.pdf>

**The Wildlife Center of Virginia**

Ed Clark (540) 942 – 9453 [wildlife@wildlifecenter.org](mailto:wildlife@wildlifecenter.org)

If you want to contact us:

Lake Monticello Owners Association  
41 Ashlawn Boulevard  
Lake Monticello, Virginia 22963

(434) 589 – 8263 [www.lmoa.org](http://www.lmoa.org)

They will connect you to the current chair of the Wildlife Management Committee.

We appreciate the help we have received from public and private organizations and other communities and hope our research and report can save other communities time and money as they begin to address their deer management issues.