

Introduction

The objective of the Deer Management and Education Plan (DMEP or Plan) as created by the DeWitt Neighborhood Deer Committee (DNDC) is to safely and effectively reduce the deer population, revitalize native plants, decrease property damage and decrease the tick population within the Plan designated areas. The reduction will address the following issues:

- Landscaping damage & economic impact
- Frequent deer-vehicular incidents
- Impacts on forest vegetation and native plants, including erosion and stormwater runoff
- Increased deer/human/pet interaction
- High tick population
- Increased exposure to Lyme disease in both residents and pets

The plan will focus on reduction of these impacts by reducing the deer population within the designated project areas.

The DMEP will serve as a document officials, residents, and program participants can turn to for general guidance, rationales for management decisions, and answers to procedural questions.

The goal of this program will be to reduce the impacts of deer through population control. Decreased landscape plant damage, deer-vehicle incidents, property damage and a resurgence of native plants will be determining factors in measuring the success of the program. Additionally, the program hopes to reduce tick density and exposure to Lyme disease and other tick-borne illnesses.

The DNDC recognizes that the process of managing the deer population and associated impacts within the designated boundaries is a long-term project that will utilize adaptive management and sound science to accommodate changing conditions and lessons learned.

Background

Although the DNDC has been meeting since May 2017, some members have been involved in efforts to address the deer population in DeWitt for several years. Previous efforts include involvement in the DeWitt Deer Task Force and gathering signatures in support of deer population control in DeWitt.

April 29, 2017- Public Forum at Jamesville DeWitt Middle School

This meeting was put together and hosted by the Town of DeWitt and Cornell Cooperative Extension. It consisted of a panel presentation, Q&A session, and comment session. The expert panel consisted of: Courtney LaMere, Region 7 Big Game Biologist, NYS DEC; Brian Underwood, Adjunct Associate Professor and Research Wildlife Biologist, USGS Research Station at SUNY ESF; Paul Curtis, Extension Wildlife Specialist, Department of Natural Resources, Cornell University; and Nick Piedmonte, M.S. candidate, SUNY ESF, Tick Ecology.

May 22, 2017- DNDC Meeting

This was the first neighborhood group meeting. With the help of Cornell Cooperative Extension (CCE), we discussed how a community based deer process could work and shared concerns about the current environment in our neighborhood. The DNDC talked about going door to door for signatures in support of a culling and the possibility of doing a tick drag. The CCE gave an overview of their involvement as well as the DEC and USDA. We decided we would work toward having a DMEP to the DEC in the fall.

June 19, 2017- DNDC Meeting

During this meeting the DNDC reviewed a timeline for a culling and where we stood on each phase of that timeline. The DNDC decided to move forward with the DMEP and to plan for a public meeting in August or September. We also reviewed and discussed Pamela Hunter's survey results and the status of the DMEPs of the two neighboring Syracuse groups. The DNDC decided we would continue to get signatures of support and would attend the next Town of DeWitt Board meeting to ask for their support of a DMEP.

June 26, 2017- Presentation of petitions to DeWitt Town Board

Olivia Green and Amanda Slisz, both of the DNDC, addressed the DeWitt Town Board, expressed the concerns of the group, and presented over 400 signatures in favor of a culling. 50+ community members came to the meeting to stand and be counted in show of their support for a culling in the Town of DeWitt. The Board allowed community members to speak. All spoke in favor of a culling. The Board said they would support a DMEP.

July 6, 2017- DNDC meeting with deer researchers

DNDC members met with Brian Underwood and graduate student to discuss deer abundance research in DeWitt. The discussion included current deer population densities and prospective boundaries for the DMEP, as well as an overview of deer impact in our area and the effectiveness of various deer management techniques. Deer behavior (e.g., habitat range and spread, breeding patterns) was also discussed in the context of population management.

July 11, 2017- DNDC meeting

Updates on the Town of DeWitt Board meeting, meeting with Brian Underwood, and the tick drag were discussed. A review of the Syracuse Eastside Neighbors (SEN) DMEP was completed. The DNDC discussed the boundaries for our Plan, considering the suggested 4 to 5 square kilometers from Brian Underwood and the zip code break out from Pamela Hunter's survey. It was decided it would be good to go with as large of an area as possible to provide multiple bait sites and to be adjacent to the SEN management area to cover as much of the deer population as feasible. We agreed it would benefit all of us to work in conjunction with other groups like SEN for both public education as well as our own continuing education on the DMEP process. The DNDC decided to plan for a public meeting on our own DMEP in September and to attend the DeWitt Town Board meeting in late September to present this Plan. We also had a discussion about how to inform the residents in the area of the DMEP of the public meeting in September.

July 20, 2017 - Brian Underwood Community Deer Talk at Holy Cross Church

An educational event for the community to learn about deer, their impacts, and management options.

July 20, 2017 - Senator John DeFrancisco Tick and Lyme Press Conference at Ryder Park

DNDC members attended the press conference in show of support for deer management in DeWitt.

August 9, 2017 Tick Drag

Cornell Cooperative Extension and volunteers conducted a tick drag at several properties in and adjacent to the management area. Ticks will be analyzed by the health department for pathogens.

August 21, 2017 - DNDC Meeting

Discussion included recent interpretation of updated guidance on NYS Environmental Conservation Laws in reference to the issuance of deer damage permits and its impact on the DMEP. The five updated activities which would preclude some of our deer management proposals will be submitted to the NYS legislature in a bill that would allow exceptions to be made for approved DMEPs. This bill is being sponsored by Senator DeFrancisco and will be brought before the legislature in January 2018. It is our hope we would be able to move forward with our plans in January or February 2018.

Additional discussion of Syracuse University's desire to become part of our DMEP area, allowing the use of Drumlins property for bait and cull options. It was determined that this location would not be affected by the recent changes made by the USDA Wildlife Services, mentioned above. A bait and culling, if approved, could happen in December 2017 at the Drumlins location.

There was an update on the public education meeting that was held July 20, 2017, review of the date and location for a meeting with our DMEP area residents and discussion of how to inform them of the DNDC DMEP and how to publicise this meeting. We also discussed how the DNDC DMEP would be sustained financially in the coming years.

September 6, 2017- DeWitt Advisory Conservation Commission Meeting

DNDC member briefed the DACC on the DMEP and opportunities for public input into the process.

September 11, 2017 DNDC Meeting at DeWitt Town Hall

DNDC members met with DeWitt town staff, Supervisor, Board Member (Rigney), Syracuse Common Councilor (Maroun), Cornell Cooperative Extension (Cross, Ferrare), and DEC Big Game Biologist (LaMere) to gather feedback on the DMEP, discuss the process for submitting the DMEP to the Town Board, budgeting, permitting, meaningful public participation, and timelines. Discussion included emphasizing educational components of DMEP in upcoming opportunities for public participation and how to capture public comments at the public information session so the Town Board can consider them later. Feedback on the management area was provided. Options for lethal deer controls were discussed (professional sharpshooting contractors, private agents on private property, legal setbacks and other restrictions).

September 14, 2017 - Deer Management Meeting, Holy Cross Church, DeWitt

DNDC members met with the Syracuse Neighbors group; Mark Barlow- St Mary's Cemetery Director; Justin Gansowski - District Supervisor USDA, APHIS, Wildlife Services; Courtney LaMere - Region 7 Wildlife Biologist NYS DEC; Daniel Glavin - Oakwood Cemetery Director; Jed Schneider - Asst VP Facilities and Planning LeMoyne College; Brian Underwood - Research Biologist Patuxent Wildlife Research Center SUNY ESF; and Nader Maroun - Syracuse Common Council 5th District. The purpose of this meeting was to have the three large landowners, LeMoyne College, St Mary's Cemetery and Oakwood Cemetery, hear from the experts and allow them to get information they could use in deciding to let the Syracuse and/or the DeWitt group(s) move forward with deer management on their properties.

September 19, 2017 - Public Meeting on the DNDC DMEP at Jamesville DeWitt Middle School

70 people were in attendance for the presentation of the DNDC DMEP. The plan was presented by Amanda Slisz and Olivia Green. Audrey Mitchell spoke on her journey with Lyme Disease, Amanda covered personal tick protection and ways to decrease tick population in your yard, Jacob Dillon, ESF grad student working with Brian Underwood, made a presentation on the local deer statistics and the methodologies behind them. A 45 minute question and answer period was held at the end. Written comments were collected to submit to the Town Board.

September 25, 2017 - Presentation of the DNDC DMEP to the DeWitt Town Board

Description of Deer Management Areas

See attached maps of project areas

Deer Management area (DMAs) are defined by attached map and encompassed by these borders;

East Genesee at the 481 south on ramp, following 481 to the DeWitt/Syracuse border, straight thru the quarry and Syracuse university property (following the DeWitt /Syracuse border) to where Nottingham Rd and Tecumseh Rd intersect, Tecumseh Rd and the DeWitt portions of Bradford Dr, Scott Ave, Bradford Heights Rd, Cross Rd, Standish Dr, Bradford Pkwy, and the DeWitt portion of Kimber Rd, St Mary's Cemetery over to the DeWitt side of East Genesee, East Genesee back to the 481 south on ramp

Identification of Methods for Assessing Impacts on Forest Vegetation

Assessing Vegetation Impacts from Deer (AVID) is a protocol developed at Cornell University's Department of Natural Resources. This easy to conduct annual protocol can be implemented on larger natural areas by volunteers trained by CCE staff to collect field data to track tree, shrub, and wildflower response to deer browsing over time. This knowledge will help guide deer management on the local and state level. Natural area parcels are likely to be located in or around the defined project areas but not in residential neighborhoods. This method would be added in a future management plan when capacity allows. For more information on AVID, please visit <http://wildlifecontrol.info/research/deer-forest-impacts-project/> and <http://wildlifecontrol.info/wp-content/uploads/2016/11/AVID.Regeneration.Protocol-10-18-2016.pdf>

Identification of Methods for Tick Management

While reducing exposure to ticks and tick-borne illnesses is a major interest of DNDC, the neighbors realize that managing the deer population is only one piece of the puzzle where tick population numbers are concerned. Deer play an important role in spreading ticks to new areas, but small mammals are the reservoir for Lyme disease. These methods are meant to help measure tick population and pathology in the area, demonstrate the impact deer management has on the tick population, and most importantly, teach homeowners how to limit their exposure and reduce the chances of contracting disease.

o Tick Drags

- Tick drags will be performed bi-annually with CCE and trained local residents to determine population numbers. A tick drag involves capture of ticks by dragging a white sheet across an area susceptible to ticks. Captured ticks may be tested for Lyme disease and other tick borne illness. Drags will be performed in areas with landowner's permission and will take place on one day in the fall and one day in the spring. Successful drags are conducted on days without rain and temperatures above 45 degrees. Including tick drags in the DMEP will allow monitoring of population numbers.

o Landscaping

- Recognize "tick zones" – areas with forest and brush where deer, rodents and ticks are common. Utilize landscaping methods such as 3 ft. barriers of wood chip or rock to separate the "tick zone" from the lawn. Maintain a 9 ft. barrier of lawn between the wood chips and areas such as patios, gardens and play sets. Move children's play area away from wooded areas and place on wood chips or sand. Mow lawns often and remove brush. Avoid creating conditions that ticks favor such as ground cover, leaf litter, and dark and humid spaces. Creation of "tick safe zones" will help reduce resident's exposure. This is a viable solution and we encourage residents to practice preventative landscaping wherever possible.

o Personal Protection

- When outdoors, wear light colored clothes, long pants, long sleeves and socks. Tuck in shirts and tuck pant legs into boots or socks. Use repellent containing 20-30% concentration of DEET on clothes and bare skin. Apply repellents to children by applying to your hands first and then applying to children's skin. Apply repellents containing Permethrin to clothing only, not bare skin. This is a viable solution, and residents should learn personal protection.
- Learn to properly check for ticks and how to properly remove ticks.

o Public Education

- Cornell Cooperative Extension of Onondaga County can present public education workshops on measures to reduce exposure to ticks and tick bites through personal protective approaches and landscaping methods. Additionally, residents will be trained as volunteers to participate in "Tick Drags".

- o **Damminix© Tick Tubes**

- Damminix© Tick Tubes are biodegradable, cardboard tubes filled with permethrin treated cotton balls. Mice collect the cotton to build their nests. Deer ticks that feed on mice in the spring and the fall are exposed to permethrin and killed. These tubes are available locally and provide an environmentally friendly, easy to use option. This is a viable supplement and may be a part of the DMEP.

The DNDC will continue to support education of neighbors and explore practical ways to reduce exposure to ticks and tick-borne illness in the neighborhood.

Consideration of Non-Lethal and Lethal Methods for Deer Management

Non-Lethal Methods

- o **Fencing**

- Fencing prohibits deer movement via physical barrier. To be effective, fencing must be a minimum of 10 feet in height and not possess any openings. This option is not feasible due to the large geographic area of the designated DMEP area and installation and maintenance costs. In addition, the Town of DeWitt zoning does not allow fences of this height.
- Models indicate that fencing along the I-481 corridor may be an effective method of limiting the movement of deer populations from Jamesville to DeWitt. This approach may be considered in the future as funds allow.

- o **Habitat Alteration**

- The practice of habitat alteration as a method of white-tailed deer population control would involve altering the vegetative landscape within the DMEP designated area to reduce or eliminate species that deer use for forage and/or shelter. Although residents are encouraged to practice preventative landscaping, this method is not feasible due to the size of the designated DMEP area and the extensive habitat alteration that this would entail.

- o **Capture and Relocate**

- The practice of capture and relocate as a method of white-tailed deer population reduction would involve reducing the deer herd within the DMEP designated area by capturing deer and moving them elsewhere. This option is not viable as the NYSDEC prohibits the trapping of deer except under special permit for scientific purposes. Additionally, survival of relocated deer has proven to be poor; up to three-quarters of relocated deer don't survive the first year after release.

- o **Fertility Control**

- Immunocontraception and sterilization techniques have been employed by some municipalities in an effort to reduce white-tailed deer populations. These techniques have not proven effective in controlling wild free-ranging populations of deer nor tick populations.

A research permit is required from DEC in order to conduct a fertility control program, and research permits are not granted without an accompanying lethal management program.

- Communities that have engaged in fertility control only programs have found it inadequate for reducing deer numbers and associated impacts. Although deer reproduction is reduced, deer remain on the landscape until they die from other causes (deer-vehicle collision) or old age. Several of these communities have added lethal methods to management plans in successive years. Additionally, fertility control programs are costly and require handling and tagging of all animals in the program.

Fertility control methods also do not address herbivory or the spread of ticks and tick borne diseases.

Lethal Methods

o Predator Control

- The introduction of large mammalian predators would generate safety concerns from residents. And furthermore, the town does not contain suitable habitat.

o Parasite or Disease Introduction

- The risks and uncertainties associated with parasite or disease introduction make it an impractical option for deer population control.

o Poison

- Currently there are no toxins, poisons, or lethal baits registered for deer control.

o Traditional Hunting

- Traditional hunting utilizes firearms and archery methods to shoot and kill the white-tailed deer. Sportsmen and women must adhere to hunting regulations and seasons as set by the NYS DEC and pass an education course prior to purchasing hunting license(s). Traditional hunting is a viable option in areas where it can be performed legally and safely, which is not the case in the majority of DeWitt.

o Controlled Hunt

- Controlled hunting involves tailoring hunts to meet a variety of local conditions. Controlled hunts are limited to the open hunting season using individual's carcass tags and do not call for the use of bait. Local municipalities that have conducted deer management activities report greater success culling deer post hunting season over bait, when deer group and have fewer food resources. Controlled hunts may be a viable option in situations where it can be performed legally and safely.

- o **NYSDEC DMAP Program**

- Under the deer management assistance program (DMAP) the NYSDEC issues a special permit and determined number of deer tags to a landowner or resource manager, or a group of landowners or resource managers whose property is in need of site specific deer management efforts. DMAP is for use during the hunting season and would be used in conjunction with a controlled hunt or traditional hunting. This is a viable option and could be a supplement to our plan.

- o **Managed Bait and Shoot (Culling)**

- The bait and shoot technique involves baiting deer to strategic locations where a shooter could then kill the deer. This option is useful within the DMEP designated area where there is not enough land available for traditional hunting methods to be employed. Local municipalities that have performed deer management activities report greater success culling deer post hunting season over bait, when deer have fewer food resources. Controlling the selection of sites through a managed bait and shoot culling process will provide a measure of safety to our residents and their property. Adhering to a managed bait and shoot culling process as outlined in the DMEP, as well as NYS and Town rules ensures the quick and humane cull of deer and allows for the best outcome of the plan and the best chance for success.

The DNDC will continue to search and explore any practical deer management supplement that will help work towards this program's success.

Managed Bait and Shoot (Culling) Procedures

This is the preferred method. Wildlife Manage Services will be used for initial bait and shoot procedures. Professionals will use rifles with sound suppressors for culling. NYS DEC will issue all tags directly to USDA Wildlife Services. Private agents may also be permitted to bait and cull on private land in the future, but for the purposes of the initial bait and cull we will use USDA Wildlife Services and follow the protocol outlined below.

Dates and Times

- USDA Wildlife Services will operate 24 hour shooting. Exact times cannot be predicted in advance as it is dependent on wind direction, participation schedules, and weather. Bait stations will be established 1-3 weeks prior to shooting.

Safety Considerations

- Protecting the safety of property owners, property, pets, other wildlife, bystanders, and participants is of the highest priority of all culling activities.

Establishment of Bait Stations and Stand Locations

- Bait Stations and Stand Locations will be determined by the USDA Wildlife Services
- It is the right of each landowner to restrict the number of individuals on their property, the times and dates participants are allowed on properties, stand locations, baiting

locations and access routes. The agreement to use properties can be terminated by landowners at any time.

Tracking, Field Dressing and Processing of Deer

- It is understood that despite all precautions and skill, deer may be wounded, may not expire immediately, may expire on neighboring properties, or may not be found. Every effort possible will be made, including the possible use of trained dogs, to recover all animals or assure that they suffered only a superficial wound that will quickly heal.
- When possible, participants will have pre-authorization to retrieve deer from adjoining properties. All participants will have the names and phone numbers of neighbors should they need to be contacted regarding deer retrieval. In most instances landowners/neighbors will not notice activities or deer harvest because it happens quickly and quietly.
- Participants may use flashlights to track deer after they are shot or when traveling to/from trees stands; therefore, property owners may notice slow moving lights. In very rare circumstances, tracking operations may continue the following morning with better light. In the event a deer is wounded and mobile, or has expired on a property that the participant does not have pre-approved access into, the Onondaga County Sheriff's Department or the Town of DeWitt's police department will be contacted to assist in locating and/or collecting the deer.
- Once a deer is recovered, it is to be removed discretely and field dressed and taken directly to be processed.
- All harvested deer will be consumed by landowners or participants or donated to local food banks and pantries.

Program Review Activities

- The DNDC will meet regularly during the program to review activities and determine if the program should continue or be terminated. DNDC will provide regular updates to the NYS DEC.

Public Notification and Citizen Input

The view of citizens, businesses, and interest groups are valuable and will continue to help shape the DMEP. The development, implementation, and review of this program are to be transparent and will involve citizen input at every step. The public is encouraged to attend and participate at DNDC meetings and public information meetings.

Success Measurement Procedures

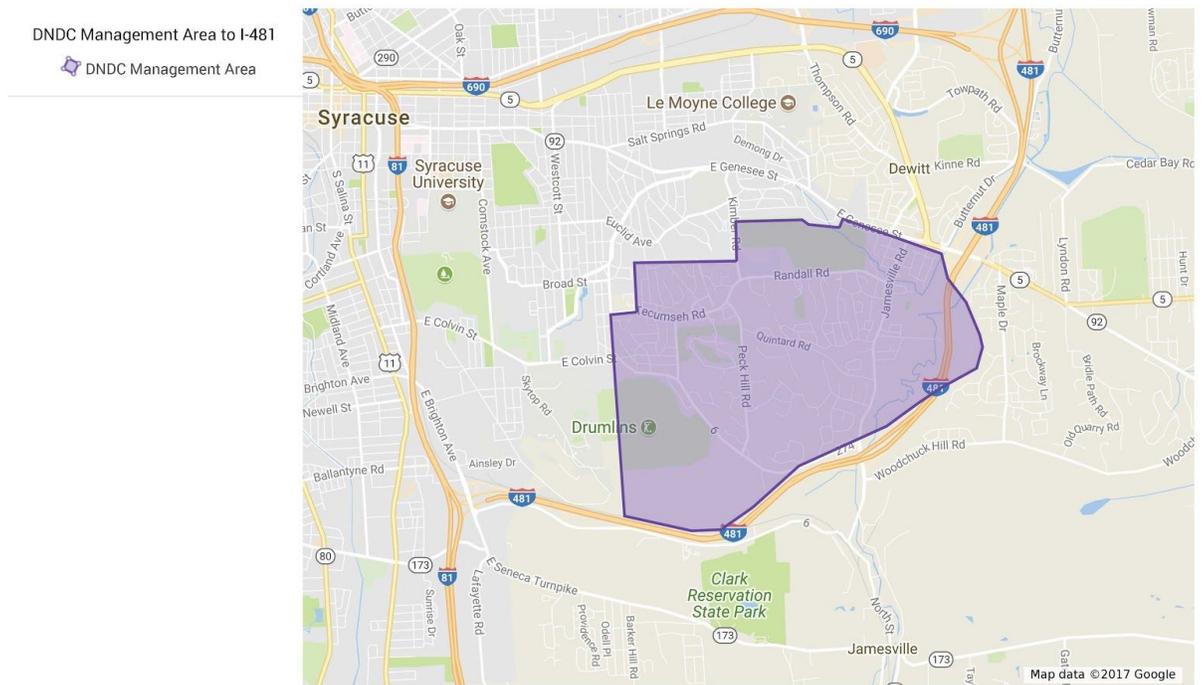
In order to measure the success of tick and deer population control several methods will be implemented.

- Annual surveys will be implemented to determine impact on deer-vehicle incidents, property damage, and native plant damage.
- AVID Protocol performed annually to assess impacts on forest vegetation.

- Tick drags will be performed bi-annually in areas with landowner's permission and will take place on one day in the fall and one day in the spring.
- Captured ticks will continue to be tested for Lyme disease and other tick borne illness.

The DMEP will be reviewed and amended annually to adjust for these findings and add or subject management areas.

DNDC Management Area



DNDC Management Area

DNDC Management Area to I-481

 DNDC Management Area

