

Sherwood Greens Road Improvement and Maintenance District



Annual Report 2020 - 2021

2020-2021 Sherwood Greens Prudential Committee Report

Welcome to the 2020-2021 Sherwood Greens Prudential Committee annual meeting. The Prudential Committee members for the past year (2019-2020) were Terry Hayden, Chair, Marc Shultz, Vice Chair, Dean Lagrotteria, Emily Pfeiffer, Karen Brodie, Bruce Lipton and Carl Lucas (resigned). Kathy Borden is the treasurer, and Laurie Boucher is the district clerk. Robert Moore is the district superintendent. We have one vacant position. Many thanks to each Board member for their commitment and efforts during this past year. Our discussions were often probing to ensure the Committee operated within the guidelines of our established Special Act, according to our By-Laws and within the Open Meeting and Ethics laws of the State of Massachusetts. Our overall goal has been to ensure Sherwood Greens remains a safe dwelling community for our residents and guests.

The official address for Sherwood Greens is 1439 Jacobs Ladder Road, Becket, MA, 01223. Our telephone number is 413-274-2374. Use this number to contact the District Superintendent and the Chair. This number accepts both calls and text messages (be sure to include contact details). We continue to maintain a homeowners list, which includes names, addresses, email addresses, and telephone numbers. This list is solely used for Sherwood Greens communications within the boundaries of the roles as a Road District and is never shared with anyone outside of the community by the Board. We maintain strict confidentiality and strongly encourage you to confirm your contact information is current. As a courtesy, this listing was used numerous times throughout the year to keep homeowners informed of town notices, monthly meetings and updates. We communicate using emails. However, official SGRD information is posted on our webpage under the Town of Becket website. We welcome all (as it is in your best interest) to be part of this communication network. In addition to this network, please know the Town of Becket has an online communication system for public notices, which you should sign up for if you have not done so already. To subscribe to the Town of Becket meeting agendas and public notices, please visit <http://townofbecket.org/subscriber>.

The roads have been under the management Bob Moore since late August 2019 throughout the Fall, Winter and Spring 2020. Bob worked tirelessly responding to SGRD residents, working with new vendors and monitor fiscal expenses for road related tasks. He routinely performed many everyday jobs (cutting trees, repairing structures, checking dams, ditches and culverts within SGRD). Bob's Road Report is included.

Special thanks to Ernie Lampron for his years of service to SGRD and the ongoing work he continues to perform for many of our residents. Also thank you to our former District Superintendents, Jaime Garanzuay and Thomas Rock, for their service to all of the residents in the Greens.

Attached is the Lakes Report from Bruce Lipton. New to this role, Bruce has effectively adopted the role as Manager of our four lakes. Through his commitment, Bruce is steering SGRD through the complex processes of the Conservation Committee, enlisting the expertise of a lake management vendor to renew Sherwood Greens' lake permit. You may recall SGRD was not approved to take any action to minimize intrusive plant species in our waterways last year. We are working with Ken Wagner of Water Resources Services to create and implement a plan to secure a permit from the Conservation Committee. We all benefit from maintaining the beauty and health of our four lakes (i.e., Longbow Lake (25 acres), Little Longbow Lake (3 acres), Silver Shield Lake (11 acres) and Golden Fawn Lake (3 acres)).

Emily Pfeiffer managed SGRD's Mosquito Control Program. Participating in the Berkshire Mosquito Control Program (BMCP) of the State of Massachusetts, SGRD benefitted from the State monitoring and control of identified mosquito species in the community. Please see Emily's comprehensive report.

High-speed internet service in Becket is still on the horizon. Please refer to the Town of Becket website (www.townofbecket.org) for additional information.

Attached is our monthly meeting schedule for the fiscal year 2020-2021. We welcome all to attend. The meetings are usually held at Town Hall at 9:00 a.m.

For your information, the use of firearms is permitted in the Town of Becket with the following restrictions under the laws of Massachusetts:

M.G.L. ch. 269, § 12D prohibits people from carrying loaded and unloaded (if not in a case) rifles or shotguns on public ways: "(a) Except as exempted or provided by law, no person shall carry on his person on any public way a loaded rifle or shotgun..." and "(b) Except as exempted or provided by law, no person shall carry on his person on any public way an unloaded rifle or shotgun, unless such rifle or shotgun is enclosed in a case." It is important to note that this section includes specific exceptions for law enforcement, military, and licensed hunters. See M.G.L. ch. 269, § 12D(d).

MGL Chapter 269 Section 12E: prohibits the discharge of a firearm within 500 feet of a dwelling or other building in use; exceptions

Section 12E. Whoever discharges a firearm as defined in section one hundred and twenty-one of chapter one hundred and forty, a rifle or shotgun within five hundred feet of a dwelling or other building in use, except with the consent of the owner or legal occupant thereof, shall be punished by a fine of not less than fifty nor more than one hundred dollars or by imprisonment in a jail or house of correction for not more than three months, or both. The provisions of this section shall not apply to (a) the lawful defense of life and property; (b) any law enforcement officer acting in the discharge of his duties; (c) persons using underground or indoor target or test ranges with the consent of the owner or legal occupant thereof; (d) persons using outdoor skeet, trap, target or test ranges with the consent of the owner or legal occupant of the land on which the range is established; (e) persons using shooting galleries, licensed and defined under the provisions of section fifty-six A of chapter one hundred and forty; and (f) the discharge of blank cartridges for theatrical, athletic, ceremonial, firing squad, or other purposes in accordance with section thirty-nine of chapter one hundred and forty-eight. See M.G.L. ch. 269, § 12E.

M.G.L. ch. 131, § 58 prohibits the discharge of a firearm "upon or across any state or maintained/hard surfaced highway, or within [150] feet, of any such highway..."

Chief McDonough confirmed the gun laws are enforced by the Becket Police Department, which is on duty 24 hours a day so incidents can be reported to the PD by calling 413-623-6010.

Sherwood Greens is an extraordinary place with the splendor nature's beauty to enjoy. This is our private community, and I thank you for your support. Please join us at the meetings, participate and share ideas, as well as any concerns applicable to the roads and lakes. If you come upon a situation that seems concerning, call the police immediately at the number above. It is our responsibility to be aware of and report potential problems. We appreciate any feedback and suggestions related to what could be done to make Sherwood Greens even better.

Floral bouquets are blooming, we look forward to a beautiful season of warm weather.

Respectfully Submitted,

Prudential Committee Meeting Schedule

2020- 2021

All Meetings are Held at the Becket Town Hall at 9:00 AM

July 11th

August 1st

September 5th

October 3rd

November 7th

December 5th

January 9th

February 20th

March (TBD)

April 3rd

May 1st

June 5th Annual Meeting

COMMONWEALTH OF MASSACHUSETTS

SHERWOOD GREENS ROAD IMPROVEMENT AND MAINTENANCE DISTRICT
1439 JACOBS LADDER ROAD, BECKET, MA 01223

Berkshires.

Greetings:

To the Clerk of the Sherwood Greens Road District,

In the name of the Commonwealth, you are hereby required to notify and warn the inhabitants of said District who are qualified to vote in District affairs to meet at the PRIVATE BEACH OF SHERWOOD GREENS ROAD IMPROVEMENT AND MAINTENANCE DISTRICT, on Shuttlecock between Long Bow Lane West and Long Bow Lane East, Becket, MA, on the 6th Day of June, 2020 at 9:00 o'clock A.M., *(bring personal chairs or blankets)* for the following purposes:

ANNUAL DISTRICT MEETING

Article 1: To see if the district will vote to raise and appropriate the sum of money needed for the operating budget for FY 2021 and to fix the salaries and compensation of all elected offices as follows:

1. Account	Amount
2. Lake Maintenance	\$15,900.00
3. General Road Maintenance	\$11,000.00 GRR/Tree removal/Culverts
4. Winter Road Maintenance	\$16,800.00 Fixed rate/Under contract
5. Major Road Improvements	\$15,000.00
6. Annual Maintenance cleaning, blacktop/pothole repairs	\$12,000.00 Treeline mowing, ditch
7. Mosquito Control	\$ 1,800.00
8. General Reserve Account	\$ 3,000.00
9. Superintendent's Salary	\$ 5,000.00
10. Superintendent's Expenses	\$ 600.00
11. Treasurer's Salary	\$ 3,800.00
12. Clerk's Salary	\$ 3,000.00
13. Clerk's expenses	\$ 600.00
14. District Office expenses	\$ 1,000.00
15. Insurance, Bonding and Withholding	\$ 2,000.00
16. Town Officials	\$ 2,800.00
17. Entrance Way and Beach Maintenance	\$ 2,000.00
18. Tax Collection (Billing Company)	\$ 300.00
19. Prudential Committee Expenses	\$ 300.00
20. Attorney's Fees	\$ 1,000.00

Total \$97,900.00

Prudential Committee recommends

2/3 vote required

Article 2 To entertain nominations and cast votes in the District election to fill vacancies and renewals of district officers as follows:

- 1 Member Prudential Committee, three-year term (Vacant)
- 1 Member Prudential Committee, three-year term (Renewal, Dr. Theresa Hayden)

Prudential Committee Recommends

Majority vote required

And you are further directed to serve this warrant by posting attested copies at the usual places designated by the District at least fourteen (14) days before the time of holding said meeting.

Hereof fail not, and make due return of this warrant with your doings thereon at the time and place of said meeting.

Given under our hands this 8th day of May 2020

Theresa Hayden
Theresa Hayden
Theresa Hayden
Theresa Hayden
Theresa Hayden

Members, Prudential Committee

I have served this warrant as directed above.

Attest _____
District Clerk (Date)

Becket, Massachusetts _____

	FY 2018	FY2019	FY2019	FY2020	FY2020	FY2021
					May-20	
DISCRETIONARY	BUDGET	BUDGET	SPENT	BUDGET	SPENT	PROPOSED
Major Improvements	\$ 12,000.00	\$15,000	OPERATING BUDGET	\$15,000		\$ 15,000.00
1. GRR 3Loads OAbby to Johnson			\$ 2,700.00			
2. GRR 4Loads LBLE & West Intersect			\$ 2,972.50		\$ 2,200	
3. GRR 0 Abby by L B East			\$ 2,100.00			
4. GRR 2Loads Freadmans			\$ 4,200.00			
5. GRR 4Loads Silverleaf /bottom hill			\$ 5,600.00			
Annual Maintenance	\$ 11,500.00	\$11,000		\$12,000		\$ 12,000.00
GR&R 2 loads material			\$ 1,750.00		\$ 2,200	
Roadside mowing					\$ 1,950	
Clean Ditches			\$ 4,700.00		\$ 1,445	
Patch Blacktop			\$ 500.00		\$ 500	
General Road Maintenance:	\$ 11,500.00	\$11,500		\$11,000		\$ 11,000.00
Stone Fill Miscel Roads			\$ 2,200.00			
Fall GRR			\$ 3,200.00		\$ 4,000	
Spring GRR			\$ 3,750.00		\$ 4,150	
Tree Removal/Clear Brush			\$ 3,400.00		\$ 1,150	
Culverts/MISCELL			\$ 1,250.00		\$ 2,395	
Super Expenses	\$ 600.00	\$600	\$ 39.80	\$600		\$ 600.00
Office Expenses:	\$ 1,500.00	\$3,500		\$1,000		\$ 1,000.00
Supplies			\$ 171.44		\$ 205	
Storage Unit			\$ 790.00		\$ 500	
Phone/AD			\$ 289.16		\$ 64	
Prudential Comm Expenses	\$ 300.00	\$300	\$ 81.65	\$300		\$ 300.00
Clerk Expense				\$600	\$ 468	\$ 600.00
Attorney's Fee	\$ 1,000.00	\$1,000		\$1,000	\$ 1,127	\$ 1,000.00
Insurance, Bonding,W/H	\$ 3,000.00	\$3,000		\$2,000		\$ 2,000.00
Insurance			\$ 1,109.00		\$ 1,094	
Bonds			\$ 453.00			
Withholding Tax			\$ 807.12		\$ 541	
FIXED COSTS						
Winter Road Maintenance	\$ 17,000.00	\$17,000	\$ 17,000.00	\$17,000	\$ 16,800	\$ 16,800.00
Tax Collection Expense:	\$ 300.00	\$300	\$ 268.97	\$300	\$ 140	\$ 300.00
Town of Becket Services	\$2,800.00	\$2,800	\$ 1,719.00	\$2,800	\$ 638	\$ 2,800.00
Super Salary	\$ 5,000.00	\$5,000	\$ 5,000.00	\$5,000	\$ 2,917	\$ 5,000.00
Clerk Salary	\$ 2,000.00	\$2,000	\$ 1,750.00	\$3,000	\$ 2,250	\$ 3,000.00
Treasurer Salary	\$ 3,800.00	\$3,800	\$ 3,800.00	\$3,800	\$ 1,900	\$ 3,800.00

General Reserve Account	\$ 3,000.00	\$3,000	\$ 343.12	\$3,000		\$ 3,000.00
Entrance & Beach Maintenance	\$ 2,000.00	\$2,000	\$ 600.00	\$2,000	\$ 882	\$ 2,000.00
Mosquito Control	\$ 1,800.00	\$1,800		\$1,800		\$ 1,800.00
Lake Maintenance	\$ 18,000.00	\$31,000		\$15,900		\$ 15,900.00
Solitude/WATER RESOURC			\$ 18,550.00		\$ 2,597.50	
Beaver Solutions			\$ 2,487.00		\$ 2,562.00	
Cutting						
Housatonic Testing			\$ 1,170.00		\$ 755.00	
Divers / DUES			\$ 900.00		\$ 100.00	
TOTAL OPERATING	\$ 97,100.00	\$114,600	\$ 95,651.76	\$98,100	\$ 55,529.94	\$ 97,900.00
SILVERLEAF SEC 1 CULVERT	\$ 1,550.00					
SILVERLEAF SEC 3 CULVERT	\$ 2,100.00					
INCREASE STABILIZATION				\$13,000		
Total FY 2018 and FY19	<u>\$ 100,750.00</u>	<u>\$ 114,600</u>		<u>\$ 111,100</u>		\$97,900.00

SGRD Road Superintendent Yearly Report

My name is Bob Moore. I was elected the new road superintendent in late August 2019.

Since I was elected, we said goodbye to vendor Ernie Lampron of Always Growing and thanked him for his years of service. I am now working with a new vendor, Gary J. O'Brien Property Services. Gary and I have a pleasant and professional work arrangement.

All-in-all, winter plowing went well this year. The roads were plowed and sanded early in the mornings. We had a major snowstorm in November 2019 which was challenging. We had a lot of ice during this storm and one major ice storm that took hours of work from Gary's crew and myself to overcome.

With these storms came a lot of down trees that either I or Gary took care of depending on the size. There were down wires that had to be taken care of as well. We also had issues with quite a few phone lines that came down this year.

Our entranceway had some terrible ruts. Gary came through with his excavator and smoothed them out to get us through the rest of the winter.

As Gary and I reviewed all of the roads in Sherwood Greens, we both feel after this winter that to grade, rake and roll all of our roads would be beneficial.

Respectfully Submitted,

Bob Moore

2019-2020 Annual Lakes Report

Beaver Solutions continues to monitor the 12 deceiver devices around the 4 lakes. They were informed of a new beaver dam on Little Long Bow which, under inspection, is causing no problems with inflow and outflow. However, they did have to correct a problem around the deceiver on Little Long Bow because of a tree down. They fixed the immediate problem but it could cause problems for this coming season. (We have the contract, but so far, I don't think it has been paid. Mike Callahan from Beaver Solutions knows we're good for it and is flexible about payment.)

Housatonic Basin will continue to monitor the common beach for e-coli this season unless otherwise directed by the DEP given the pandemic. The tests occur on a weekly basis from May to September. Safe levels were found each week during the 2019 season.

Lake Management

In April 2019 SGRD was denied an extension for our existing application and order of conditions so there was absolutely no treatment of any of the lakes last season. The Becket Conservation Commission (BCC) said our original 2013 application was way out of date and had insufficient data to support it.

Both Solitude Lake Management and the BCC recommended that we hire a 3rd party to gather all relevant data and begin a new application process.

To that end, SGRD engaged the services of Water Resource Services (WRS) headed by Ken Wagner to do this work. He came highly recommended by our attorney and by Housatonic Basin. His home base is Wilbraham MA, has done extensive work in our area, and is familiar with the various conservation commissions in our area.

Ken Wagner's responsibilities are to gather all relevant data and information for a successful application, help us formulate both short- and long-term plans, to shepherd us through the process, and to be our advocate before the BCC.

To date Ken Wagner has:

- Received and organized all past information from Solitude Lake Management so that he can avoid duplication
- Introduced himself to the Greens at the January 4 meeting and made a brief presentation about what he does.
- Appeared at the BCC meeting on February 25 and briefly outlined what he intends to do with SGRD in regards to the 4 lakes.
- Mapped the phragmites infestations around the lakes and other areas on March 30.
- His assessment of our lakes so far is that they are in relatively good shape over all. He doesn't see a big problem with the phragmites around the lakes because we were able to keep up with them the past few years. However, he is concerned about the phragmites that are not along the shorelines. There are a few dense and large patches that should be addressed in future.

The remainder of the field and lab work will be performed between mid-May and mid-September.

The goal for now is for WRS to complete all field work by end of September 2020 and to file the application with the BCC sometime in the fall. With the approval of the BCC we can begin treatment in May 2021 using Solitude for the actual implementation of any plan we agree on.

Sherwood Greens Road District Mosquito Control Update – June 2020 Submitted by Emily Pfeiffer

Introduction

Please see official documentation from the 2019 community meeting for the previous year's report, which thoroughly explains the Berkshire Mosquito Control project, and provides research around treatments, and the mosquitoes themselves. The goal of this report is to outline the history of this effort over the previous year, and to help all interested parties get very clear on the factual realities of the situation so that we can make an informed decision together that reflects the wishes of the majority.

Treatments in Sherwood Greens

- The community voted at the yearly meeting in 2019 to fully participate in the Berkshire Mosquito Control Program, which includes spraying as appropriate.
- Unlike the previous year, there were no diseased mosquitoes found during the 2019 season.
- The spray happens only as needed, based on mosquito populations (because more mosquitoes, especially of vector species, increases disease risk) and on results of disease testing (when mosquitoes test positive, spraying is recommended in particular).
- Early season larvicide treatments have continued, beginning in early April. They help reduce the population that is available to continue to breed over the course of the season.
- Spraying will only happen if/when traps within the Greens show either a high population of mosquitoes (which increases the likelihood of mosquito-borne illness becoming present) or trapped mosquitoes test positive for those illnesses (such as Eastern Equine Encephalitis or West Nile Virus).
- The BMCP also provides clearing of ditches to help alleviate standing water where mosquitoes breed. However, this is an additional service and we do not currently budget for it with them.

Notification of Treatments and Opting Out

- As a courtesy, Chris Horton of the BMCP, alerts Emily Pfeiffer, who sends an email via the unofficial Google group for the Greens. Please contact Emily or Terry Hayden if you are a property owner in the Greens and would like to be added to that group. This is not an official board communication.
- Any resident that does not wish to have their property sprayed, may opt out, at this link: <https://www.mass.gov/forms/request-for-exclusion-from-wide-area-application-of-pesticides>
- Any resident that wishes to expressly have their property treated at the time of any spraying, may contact Chris Horton at chris@berkshiresmosquito.org and request so.

Sherwood Greens Road District Mosquito Control Update – June 2019 Submitted by Emily Pfeiffer

Resources:

Chris Horton

Superintendent of the Berkshire County Mosquito Control Program

Matthew Osborne, MPH

Zoonotic Project Coordinator & Arbovirus Surveillance Program Manager

Division of Epidemiology and Immunization, Massachusetts Department of Public Health

Introduction

The question of whether to treat to reduce the mosquito population is a hotly contested topic within our community, and there are people who feel very strongly in opposing positions. The goal of this report is to help all interested parties get very clear on the factual realities of the situation so that we can make an informed decision together that reflects the wishes of the majority.

West Nile Positive Results within Sherwood Greens & End of Season Update

On 8/30/18 the Becket Board of Health announced that there was a positive result for West Nile Virus found in mosquitoes in Becket.

Notice came from Chris Horton shortly before that announcement that the positive result was in the Sherwood Greens community. He recommended spraying at that time. The board reviewed this report at the next meeting and voted to delay any spraying. The season came to an end.

About the Berkshire County Mosquito Control Program, and our participation in it:

1. The Massachusetts Mosquito Control Program has 12 districts in MA, and ours is the Berkshire district. Chris Horton is the superintendent of this district.
2. It is important to understand that Chris has very limited help, with just two field technicians, running the entire Berkshire region for this program. Most districts have multiple people, administrators who can answer calls and emails, and sometimes even scientists who can speak to specific questions about the treatments used. But the Berkshire district is very underfunded, we primarily have Chris, and he is the one checking the traps and doing the majority of the field work, which takes him out on the road most days and limits the amount of time he is available to communicate or even support these efforts. The funds we pay for this service are especially minimal. It is not ideal, but it's the reality, so keeping communications organized and through a single channel is very much preferred, especially considering our financial contribution to the effort. Emily Pfeiffer was designated as the official contact from the SGRD board.
3. The program uses the Integrated Mosquito Management system, which informs mosquito control methods. It is not a "willy nilly" approach, but its guidelines dictate best practices based on findings, so response adjusts to data. The system's goals are source reduction, larval control, and adult control (spray), and it includes monitoring mosquito populations for disease.
4. Most of what we know about modern practice for insecticide use comes from the 100 years or so of mosquito population management and research. This is a large and well-funded effort.
5. Until last August, there have not been positive findings for mosquito borne disease in our community, but spraying had been occurring, and the program works to keep mosquito populations in control to mitigate the risk of developing and amplifying infection in the mosquito and bird populations. This effort calls for the use of adulticides at some point.
6. Last season included larvicide treatments and did not show large breeding events, but there was a seasonal emergence of Cq. Perturbans (a particular mosquito species) that would have warranted adult control in late June or early July per the program's standards, if we had not opted out.
7. It costs \$1800 to participate each year. We are currently paid through July of 2019.
8. Sherwood Greens is the only non-town entity in Massachusetts that participates in this program.
9. The program includes trapping to monitor the mosquito population and test for diseases, and treatment that is designed to reduce the mosquito population within the community.

10. Whether or not we pay to participate, the testing would continue. This is important for research, and so that we have current data if we decide to begin again, but especially considering the activity in our area, this would not stop. It may become less frequent.
11. However, the collection and trap data for our community has been sparse. Even now, there are as many data sets for us in 2018's entire year as some areas have in a week. This is likely a factor of Chris' time being stretched so thin, and the relatively tiny size of our community vs. larger towns that participate, but it makes it harder to have complete data to evaluate.

About the pesticide used for adult spray:

1. The commercial name is Duet. It is made by Clarke, and there is extensive information about it on their website.
2. The spray is administered using an Ultra Low Volume sprayer, from a truck driving on roads. It comes out in extremely small droplets that are adequate to kill small, flying insects.
3. It is a combination of:
 - a. Prallethrin, which agitates the mosquitoes in case they are in a resting state to get them in flight so they can be hit.
 - b. Sumethrin, which is a synthetic pyrethroid. Highly effective, breaks down rapidly.
 - c. PBO (Piperonyl Butoxide) is a synergist, which keeps the chemicals a little more stable until it kills the insects.
4. The insecticide still breaks down very rapidly in sunlight, and all claims made about the product are in reference to the full, combined ingredients in their relative volumes.
5. More from the EPA on these types of pesticides:
<https://www.epa.gov/mosquitocontrol/permethrin-resmethrin-d-phenothrin-sumithrin-synthetic-pyrethroids-mosquito-control>

Testing positive for WNV in our results:

1. There has been a huge increase in West Nile activity in MA. In Matt Osborne's 15 years doing this, 2018 was the worst year he's seen. WNV has been consistent and prominent in all of the adjacent communities to Becket. Nowhere in the state had zero WNV and there was even a positive finding announced from Martha's Vineyard for the first time.
2. Each community handles it differently and there is no dictated, or even recommended, approach. Some avoid spraying at all costs and residents just manage it for themselves on their own properties. Others spray the entire town at the first positive finding. Often, communities with these differing views border each other, and their practices will affect each other.
3. To be clear, the fact that West Nile Virus was found in our community is not a surprise. It was in every surrounding community, including Otis. Lanesboro had just joined the project as well, and if more towns participate, their increased funding might improve the resources we have but for now, we just have to assume that the virus had already been here for at least a month and the positive result only came in then because the trapping and testing are not foolproof.
4. When mosquitoes are trapped, they are counted, and then they are all combined together and tested – so when there is a positive result, it is unclear whether it was one mosquito in a trap, all of them, or something in between. Subsequently, seeing a single positive doesn't mean it was just one insect and in fact, given the highly contagious nature of WNV, it almost certainly was not only one.
5. The fact that we found any positive for WNV means that it is pervasive. Of the millions flying around, we caught fewer than 100, and it tested positive.
6. There are different types of traps because there are many species of mosquitoes, and they have different habits. 14 species spread WNV but there are 2-3 main players and about 5 others related that spread it – and most of these are container breeding species. That means that the larvicide, which is effective for mainly wetland breeders, is not as effective at knocking down WNV carrying species.

7. By the time of the positive reading, larvicides would have been almost useless. That time of year, most breeding is container, not wetland. (The earlier season treatments were more for nuisance species and those that carry Eastern Equine Encephalitis.) The EEE and WNV species have different types of traps and we have historically gathered more data for the EEE ones. Last year was more even. Larvicides might still have helped, but they would have had no effect on the current adult population.
8. The good news is that container breeding species are most effectively managed by the residents themselves. Even half a cup of standing water – a small puddle in a tarp for instance – is enough to form a mosquito breeding ground for these species. Mosquitoes also don't travel far (about 200 yards in their lives) so if someone's property has a high number of mosquitoes it means they are likely breeding on that property. (It's the birds that transport the disease so far.) But note that container breeding species can also move into swampy areas with pockets of standing water (so container elimination isn't 100% effective, but it does make a big impact).
9. The virus starts from a bird, though, and then goes back and forth from birds to mosquitoes and back again – and birds can fly hundreds of miles in a day. So while a mosquito doesn't go far, the virus does.

About site selection for testing:

1. There are many factors considered, including where it's least likely to be vandalized, and where it will get the best access to the mosquito population.
2. They take samples, do test runs, and make sure it's the right type of habitat. They should also use gis and aerial mapping, and rotate if it seems necessary.
3. In our community, there is one site with 2 traps. They moved it to a location that will capture as many insects as possible. Having found a better site may be why they got a positive result.
4. Having a single site is good for year over year comparisons in data, but it is a limited set.
5. One trap is general and attracts any species that would bite a mammal by releasing carbon dioxide, which is what they're attracted to.
6. The other trap captures mainly WNV mosquitoes, which will have already bitten a mammal, and are trying to lay eggs in the trap.
7. There are also about 15-20 sites within our community that are treated with larvicide, at least 4 times each, earlier in the season. (There are 600 similar sites all around the Berkshires in participating communities, so it's impossible to hit every one whenever it rains a lot.)

The Decision – To Spray or Not to Spray

1. This is a decision we need to make as a community. There is no right answer.
2. Spray is generally effective, but the factors that limit its effectiveness are:
 - a. Mosquitoes need to be in flight and directly hit to be killed.
 - b. Trees and underbrush significantly diminish the efficacy and limit the coverage area. Best case, it goes into the treeline up to 300 feet, but it could be only 50 feet in dense cover. (In a wide open field, depending on wind and other factors, it can drift much farther.)
 - c. Spraying happens from a vehicle so without excellent road penetration, it is further limited, as in our community.
 - d. If many residents opt out, coverage will be spotty for the remaining area.
 - e. The larvicide has a good kill ratio with very little non-target activity (it's great at killing mosquitoes without killing other things) but the spray is less effective, with more risk.
 - f. When temperatures dip below 55 degrees, spraying is forbidden (mosquitoes don't fly).
3. It is an exceedingly small droplet size and only 0.4 to 0.65 ounces are used per acre of coverage, but it doesn't take much to be effective IF it hits mosquitoes in flight.
4. The risk of WNV:
 - a. Please see separate MA Dept of Public Health statement on WNV.
 - b. The virus can be very dangerous, especially in the elderly.

- c. About 1 in 150 succumb to the disease, and it can be very serious if acquired, with a 10% mortality rate for those who contract serious illness related to WNV.
 - d. Statistically, the risk was extremely high last year for acquiring WNV, and that may be repeated this year.
- 5. The harm of the spray:
 - a. It is an insecticide and it will kill insects it comes into contact with.
 - b. Some bigger insects may survive a single contact, but not cumulative.
 - c. It does degrade in sunlight, and time of day is selected to minimize impact on other types of insects, but there are non-targets affected, for sure.
 - d. At this volume, with this application method, risk to humans is not really a consideration according to official statements.

The Decision Not to Spray Last Year

The Integrated Mosquito Management program is effective in limiting (but not eliminating) the mosquito population in participating communities. It had been decided earlier in the season to delay spraying, so we did not fully participate in the program.

The reasons for the decision not to spray after the positive finding were:

1. The above items that would limit the effectiveness of the spray.
2. The trap levels were not finding massive numbers of insects in general.
3. Earlier treatments would have limited this population so that even a less effective treatment at that time might have been enough to have a significant impact, but without the earlier treatments, it would have had less impact.
4. Treating then would not eliminate the mosquito population or the threat, nor would it prevent further breeding and spreading of WNV in our community that season.
5. The season was almost over, and we knew we'd have the community gathered to consider all of the details for the annual meeting. We agreed to make the decision as a community to fully participate or not in 2019.

Other options for controlling the problem on our own properties:

1. Controlling breeding
 - a. The mosquitoes that are spreading the disease in particular, are associated with human activity. They are mainly breeding on residents' properties.
 - b. Empty anything that holds even the smallest amount of standing water and keep it empty. That is where they are breeding. A single mosquito can lay 150 eggs in a dish of water the size of an ash tray.
 - c. This will not control the adults who were already out there.
2. Controlling adults
 - a. Every resident has the option to treat their own property, if they choose. There are a number of commercially available products – but note they should not be used where they can readily enter the lakes.
 - b. The most effective way to prevent people from getting WNV from mosquitoes is to dress and treat each person appropriately. DEET is a very effective repellent, and clothing that fits loosely, and has good coverage (long legs/sleeves) is best. Clothing and shoes can also be treated with Permethrin, which is very effective (can be purchased this way or treated later).