

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #36
Sept. 3-9, 2017

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Central Mass. Mosquito Control Project
Weekly Report- 9/3/17-9/9/17
EPI Week #36

Cumulative Surveillance Summary

Target Species	<i>Ae. vex</i>	<i>Cq. per</i>	<i>Cs. mel</i>	<i>Oc. can</i>	<i>Culex</i>	All Species
No. Pools	80	371	68	200	970	3363
Total Specimens	350	17431	199	3435	17104	46772
No. Pools WNV +	0	0	0	0	14 [†]	14 [†]
No. Pools EEE +	0	0	0	0	0	0

[†]Pool of WNV+ *Culex* species collected in Milford on 7/27/17

[†]Pool of WNV+ *Culex* species collected in Ashland on 7/27/17

[†]Pool of WNV+ *Culex* species collected in Chelmsford on 8/1/17

[†]Pool of WNV+ *Culex* species collected in Millbury on 8/4/17

[†]Pool of WNV+ *Culex* species collected in Webster on 8/8/17

[†]Pool of WNV+ *Culex* species collected in Sturbridge on 8/8/17

[†]Pool of WNV+ *Culex* species collected in Millbury on 8/11/17

[†]Pool of WNV+ *Culex* species collected in Billerica on 8/15/17

[†]Pool of WNV+ *Culex* species collected in Milford on 8/17/17

[†]Pool of WNV+ *Culex* species collected in Fitchburg on 8/22/17

[†]Pool of WNV+ *Culex* species collected in Leominster on 8/22/17

[†]Pool of WNV+ *Culex* species collected in Dracut on 8/25/17

[†]Pool of WNV+ *Culex* species collected in Acton on 8/31/17

[†]Pool of WNV+ *Culex* species collected in Natick on 8/31/17

Weather Summary (Northborough, MA): The weather for this particular week averaged 63.36°F with a recorded high temperature of 87.40°F and a recorded low temperature of only 48.90°F. For this week there was also a total of 1.80 inches of rain observed. Compared to the previous week, it was approximately 3.45°F warmer on average, and rained about 1.77 inches more. There has been 1.80 inches of rain accumulated in September, after 1.15 inches for the month of August.

CMMCP Mosquito Summary-

Target Species	Δ From Last Week*	Δ From Last Year	Predominant Trap Site(s)
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<i>Aedes vexans</i>	+50.00%	-52.62%	Ayer, Hopedale
<i>Coquillettidia perturbans</i>	+00.00%	-65.25%	Westborough, Hopedale, Devens
<i>Culiseta melanura</i>	+200.0%	-69.24%	Gardner
<i>Ochlerotatus canadensis</i>	+00.00%	-34.51%	Hopedale
<i>Culex</i> Species	-43.67%	+40.05%	Chelmsford, Lowell
All Species	-13.58%	-39.29%	Hopedale, Chelmsford

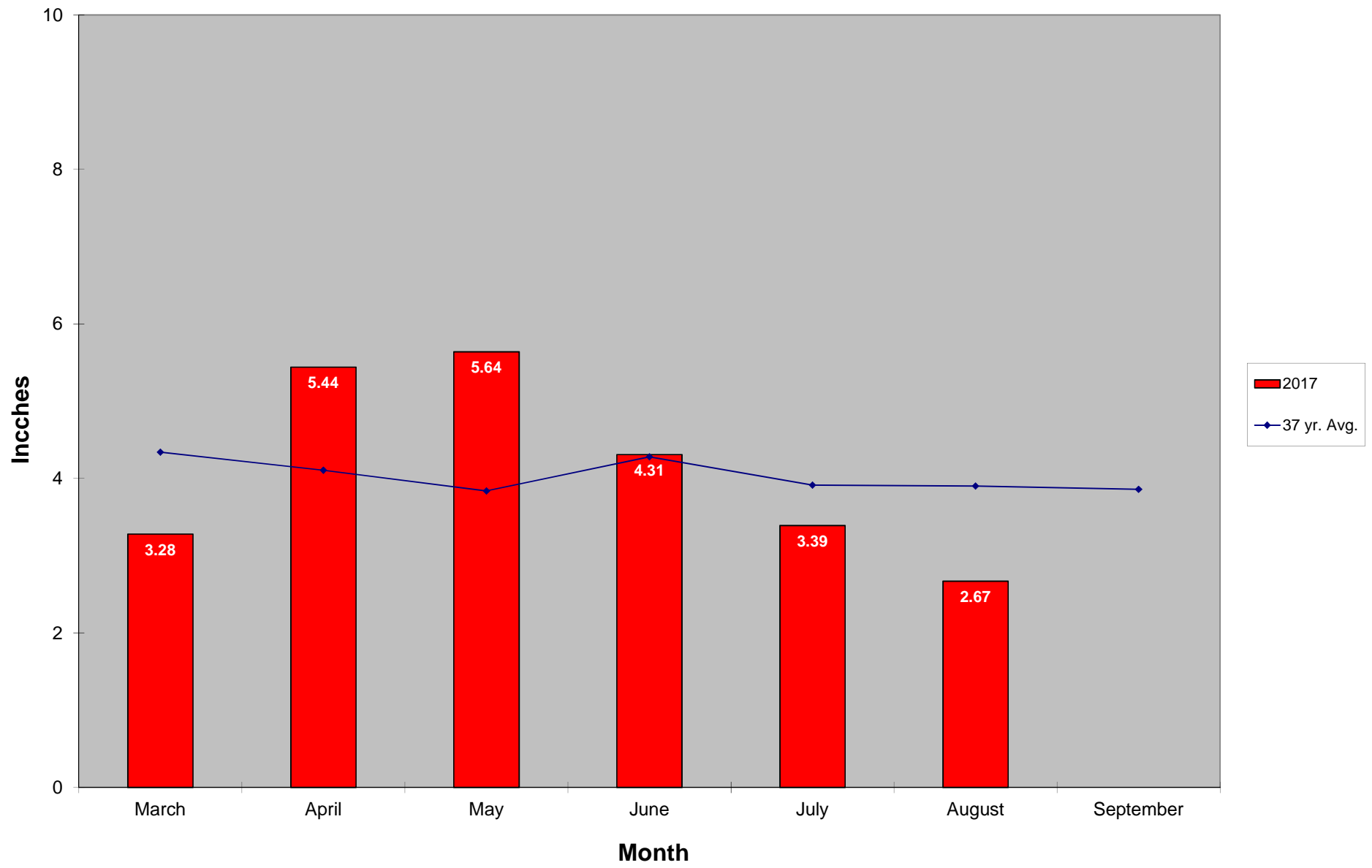
The predominant mosquito for the week was *Culex*,
followed by *Ochlerotatus japonicus*.

*Low late season numbers may contribute to these comparisons being not as significant as they appear

Epi week 36 narrative: The temperatures for EPI week 36 averaged approximately 3.45 degrees warmer than the previous week, with 1.80 inches of precipitation observed. Overall collection numbers decreased by 13.58% from EPI week 35. The only target mosquito that were collected in lower numbers from the prior surveillance period was *Culex*. To this point in the season, *Culex* remains the only target mosquito that has been collected in higher numbers compared to 2016. *Culex* is still the most abundant mosquito in the CMMCP service area, followed by *Ochlerotatus japonicus* this week. Two additional mosquito pools collected in EPI week 35 were determined to be WNV positive. These collections were all *Culex* mosquitoes, sourced from the towns of Acton and Natick. EPI week 36 also saw CMMCP ovitraps produce 163 mosquito eggs, which will be used for *Aedes albopictus* surveillance.

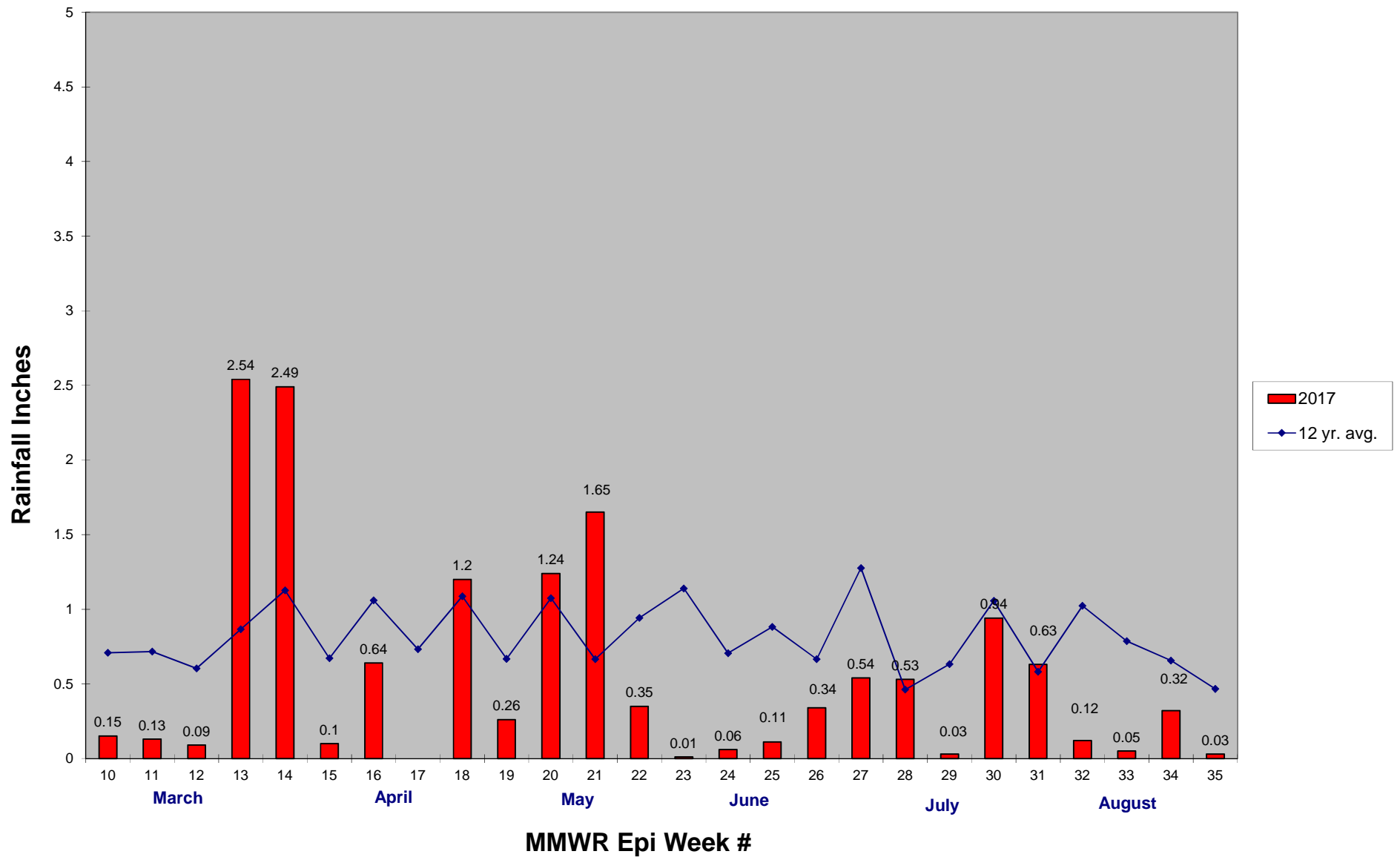
For the year, we received 175% more service requests than the 14 year average (16,108 in 2017 v. 9,185 14 yr. avg.), and 5.4% more than 2016 (16,108 in 2017 v. 15,281 in 2016). The standard adulticiding program has ended due to lower nighttime temperatures, declining mosquito populations and fewer service requests. Vector spraying was done September 7 after consultation with the LBOH in Acton and Natick after confirmation of WNV in *Culex*. Monitoring continues at the sites where *Ae. albopictus* was identified.

2017 Mass. Rainfall Data vs. 37 Year Average*



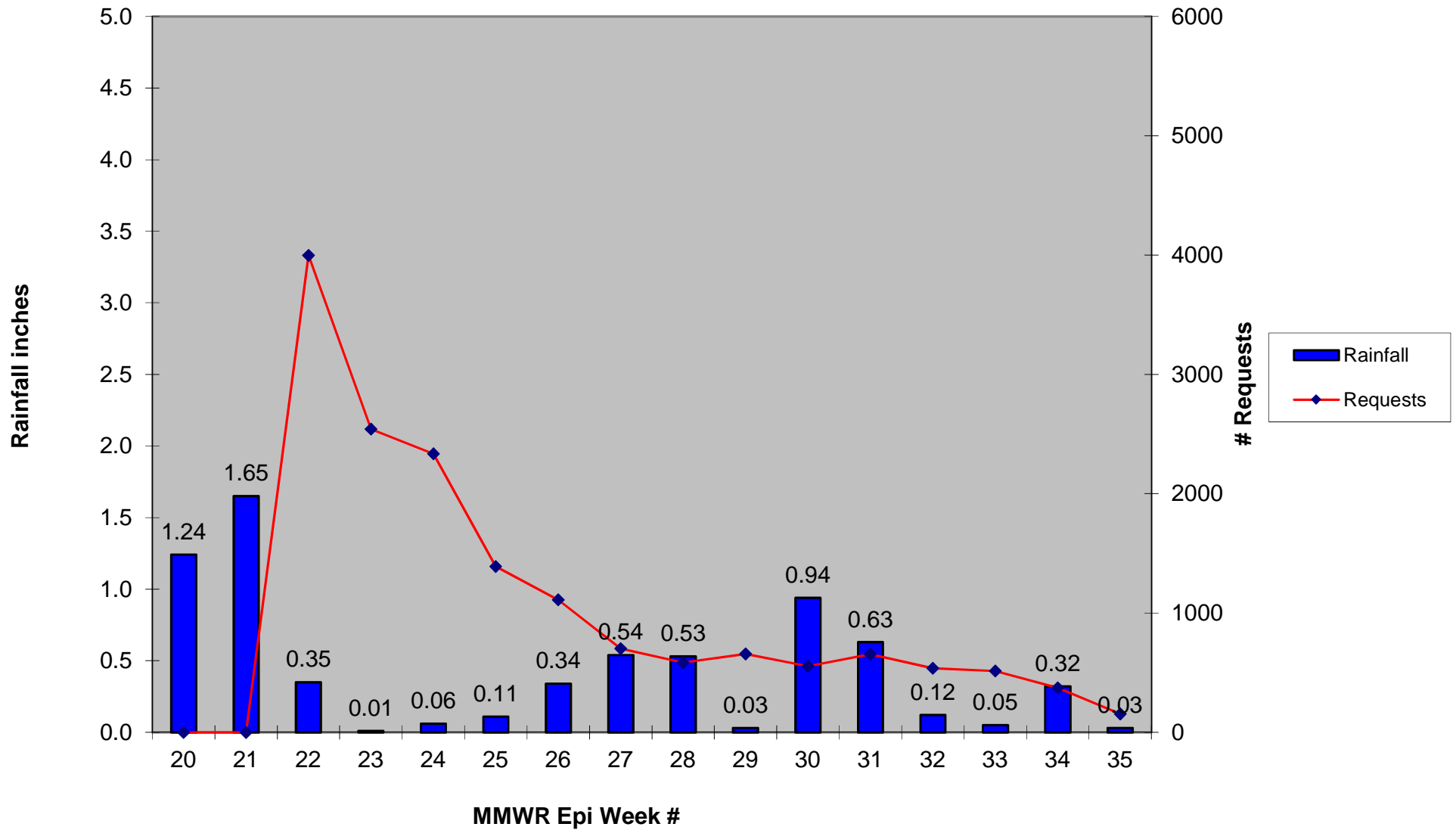
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2017 CMMCP Weekly Rainfall vs. 12 Year Average*

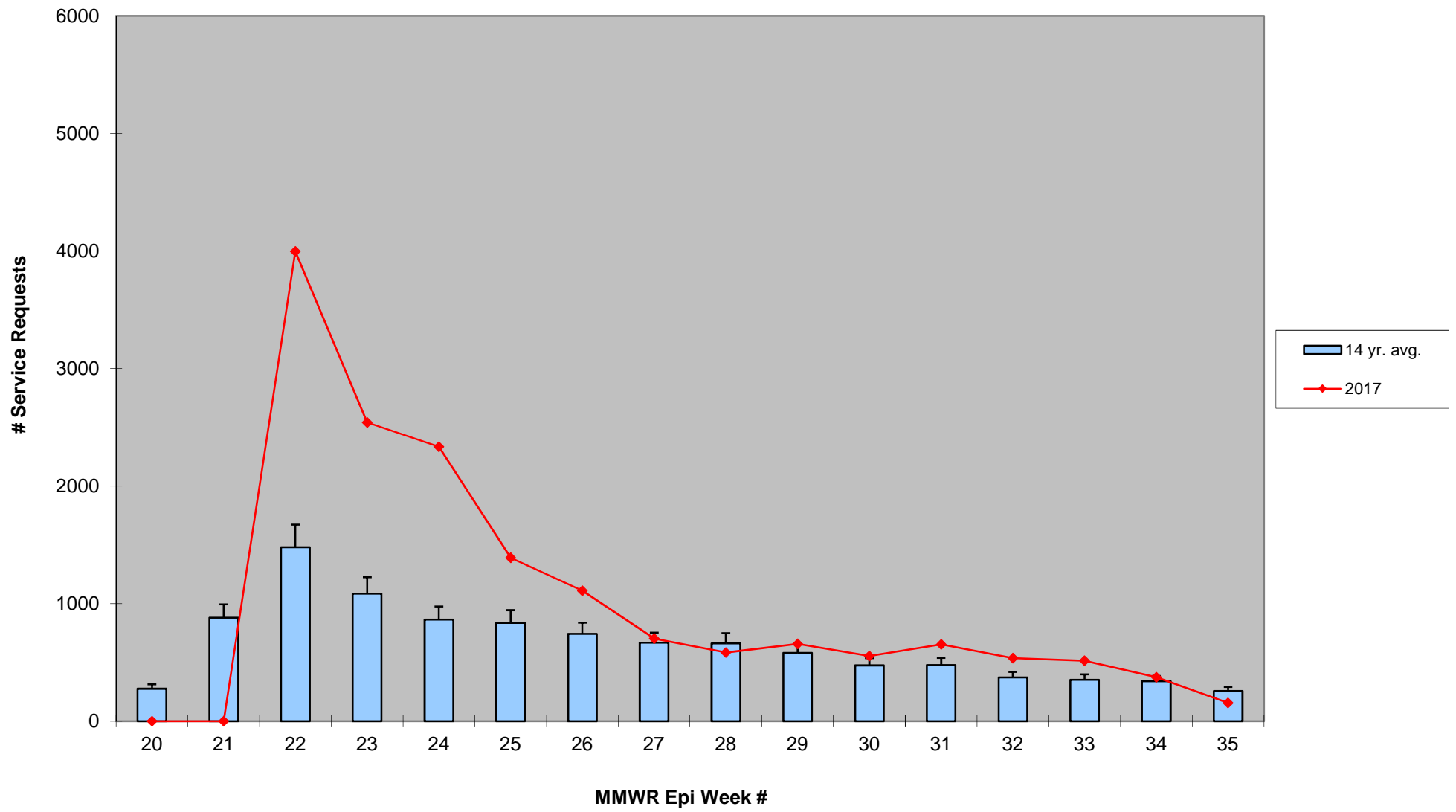


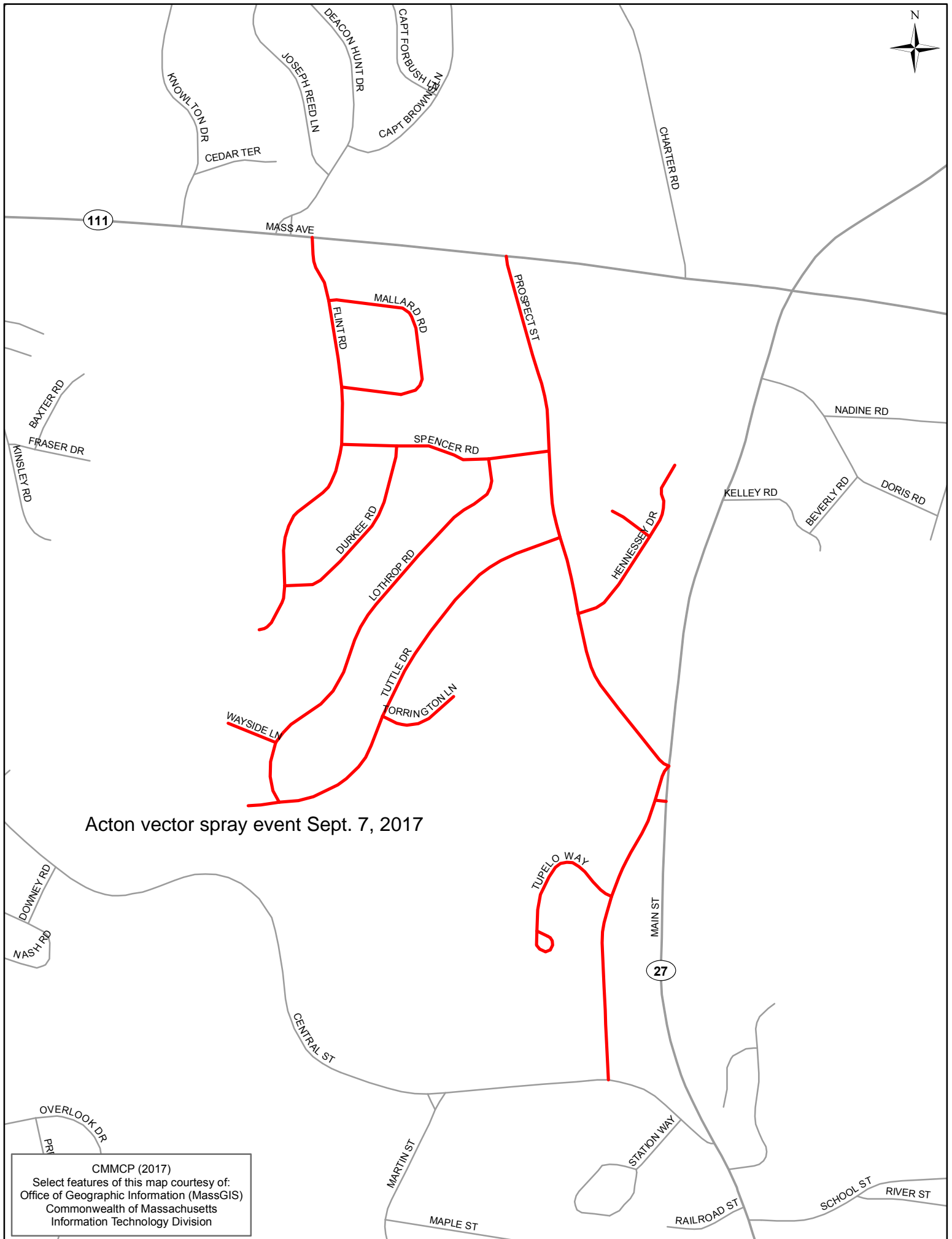
*source: CMMCP weather station Northborough, MA

2017 Rainfall vs. Requests



ULV Service Request History Comparison 2003-2017

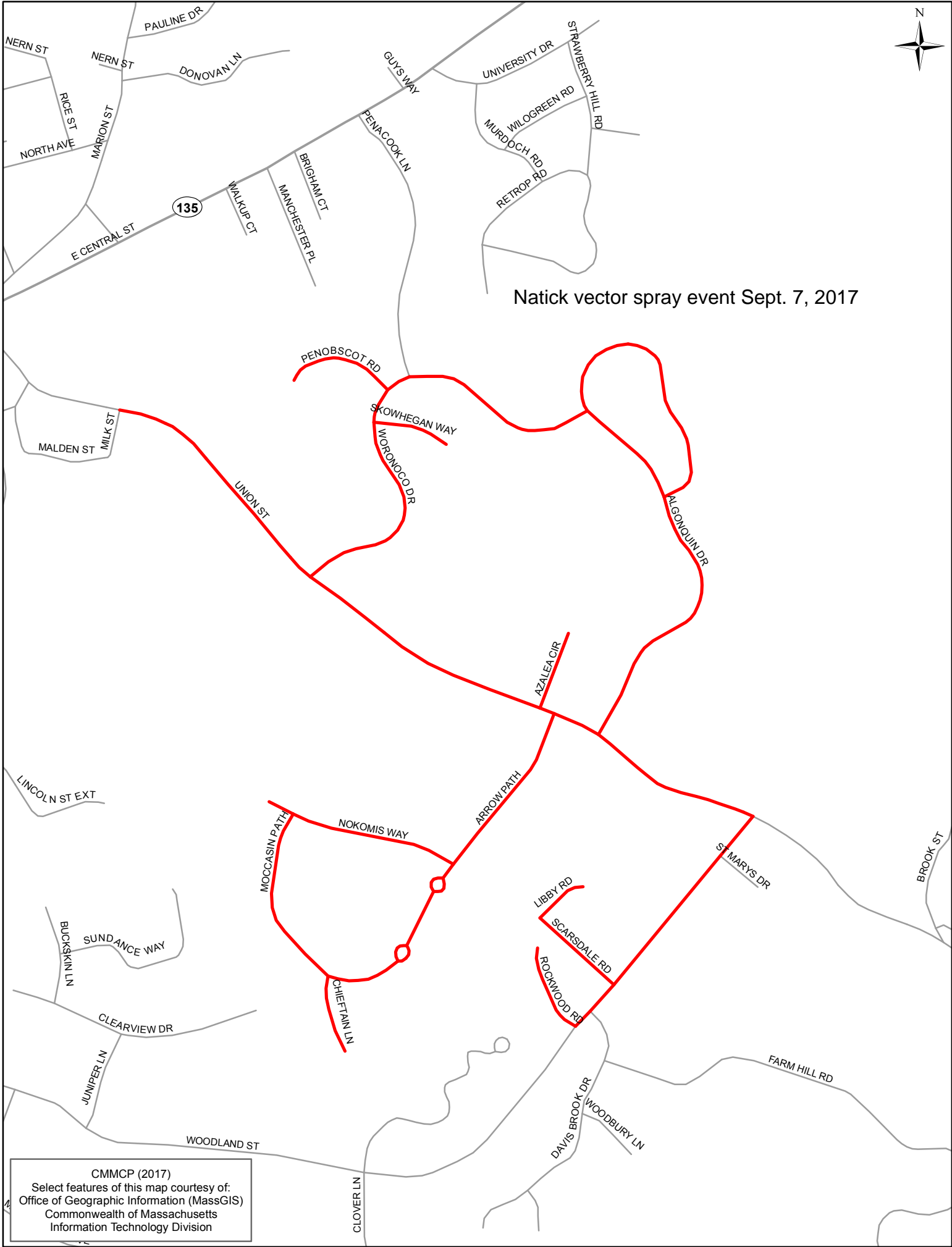




Acton vector spray event Sept. 7, 2017



Natick vector spray event Sept. 7, 2017



CMMCP (2017)
Select features of this map courtesy of:
Office of Geographic Information (MassGIS)
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