

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #39
Sept. 27 – Oct. 3, 2015

Frank Cornine, *Field Biologist*
Curtis Best, *Staff Entomologist*
Todd Duval, *Field Biologist*
Tim McGlinchy, *Director of Operations*
Tim Deschamps, *Executive Director*

Central Mass. Mosquito Control Project
Weekly Report- 9/27/15-10/3/15
EPI Week #39

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	283	614	177	231	1017	4124
Total Specimens	2455	35542	1214	4821	18015	75808
No. Pools WNV +	0	0	0	0	9 [†]	9 [†]
No. Pools EEE +	0	0	0	0	1 [†]	1 [†]

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Hudson on 8/27/15

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Lowell on 9/4/15

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Millbury on 9/9/15

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Millville on 9/10/15

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Millbury on 9/17/15

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Natick on 9/17/15

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Sherborn on 9/17/15

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Northbridge on 9/18/15

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Wilmington on 9/22/15

[†]Pool of EEE+ *Culex pipiens/restuans* complex collected in Northbridge on 9/25/15

Weather Summary (Northborough, MA): The weather for EPI Week 39 averaged 58.4°F with a recorded high temperature of 84.1°F and a recorded low temperature of only 36.4°F. There were 2.18 inches of precipitation observed this week. Compared to the previous week, it was approximately 0.3°F cooler on average, and rained about 2.17 inches more. There was 3.72 inches of rain accumulated in September, after 1.45 inches for the month of August.

CMMCP Mosquito Summary*-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
<i>Aedes vexans</i>	+00.00%	+00.00%	Natick, Auburn
<i>Coquilleltidia perturbans</i>	-33.33%	+100.0%	Webster
<i>Culiseta melanura</i>	+11.76%	+171.4%	Westborough, Tewksbury
<i>Ochlerotatus canadensis</i>	+00.00%	+00.00%	N/A
<i>Culex</i> Species	+33.33%	+300.0%	Wilmington, Shrewsbury
All Species	+00.00%	+76.47%	Natick, Auburn

The predominant mosquito for the week was *Culex spp.*
followed by *Aedes vexans*.

*Seasonal numbers may contribute to these comparisons being not as significant as they appear

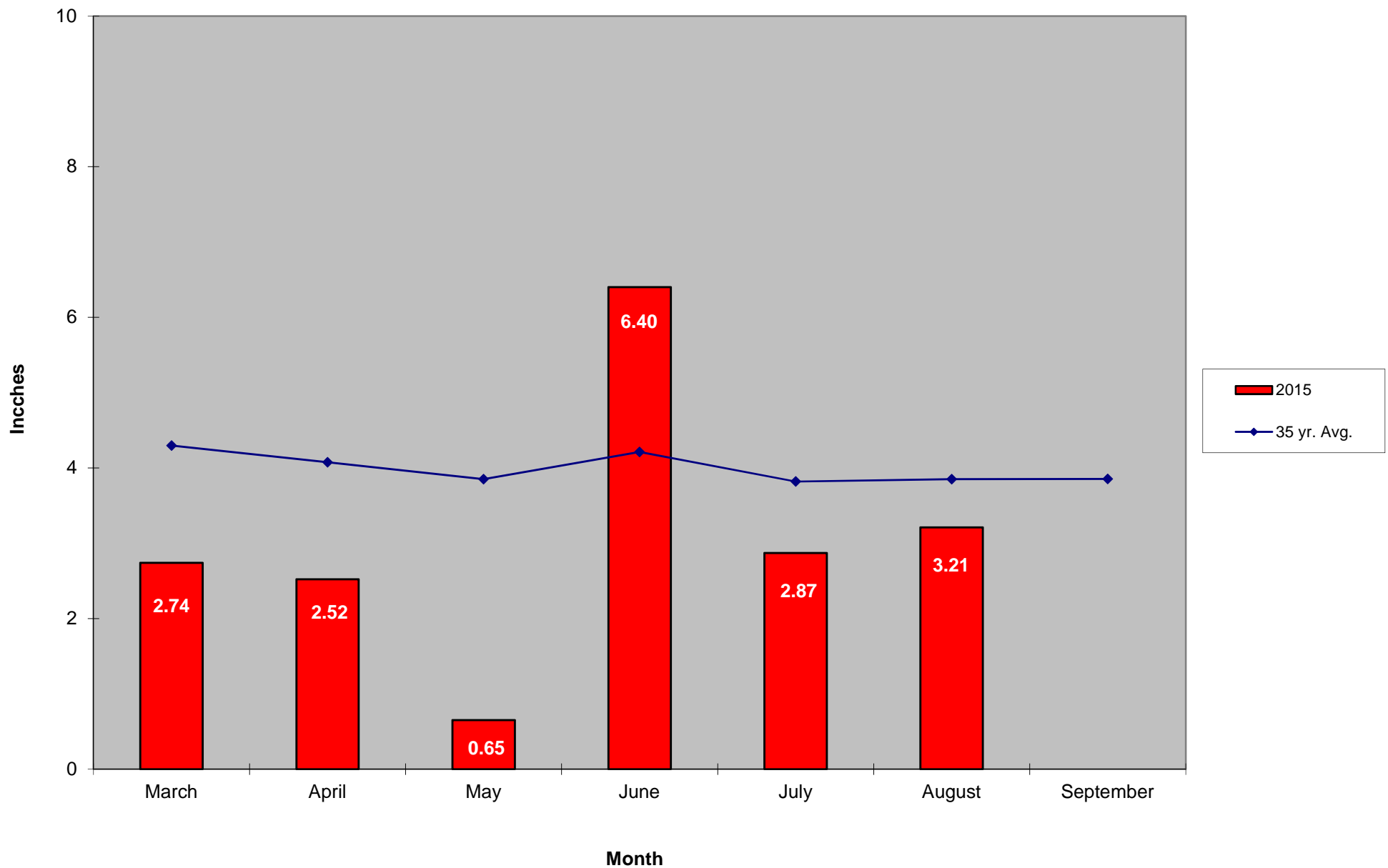
General narrative:

The temperatures for EPI Week 39 dropped approximately 0.3°F from the previous week, with 2.18 inches of precipitation observed. Overall collection numbers remained steady from EPI Week 38 at the historical surveillance trap sites. Of the target species, *Culiseta melanura* and *Culex* species experienced slight increases from the previous week, while *Coquillettidia perturbans* decreased. *Culex* spp. was the most abundant mosquito in the CMMCP service area with *Aedes vexans* second. Collection numbers will continue to decrease as we approach the end of the season.

1 WNV positive and 1 EEE positive were recorded in Epi week #39, both in *Culex* spp. The Northbridge EEE isolation resulted in a wide area spray on Oct. 1 after discussion with the BOH. Additional surveillance will continue to determine if additional isolations are recorded, as well as population numbers. The isolation in Wilmington also resulted in some adulticiding in the area WNV was found after consultation with the BOH.

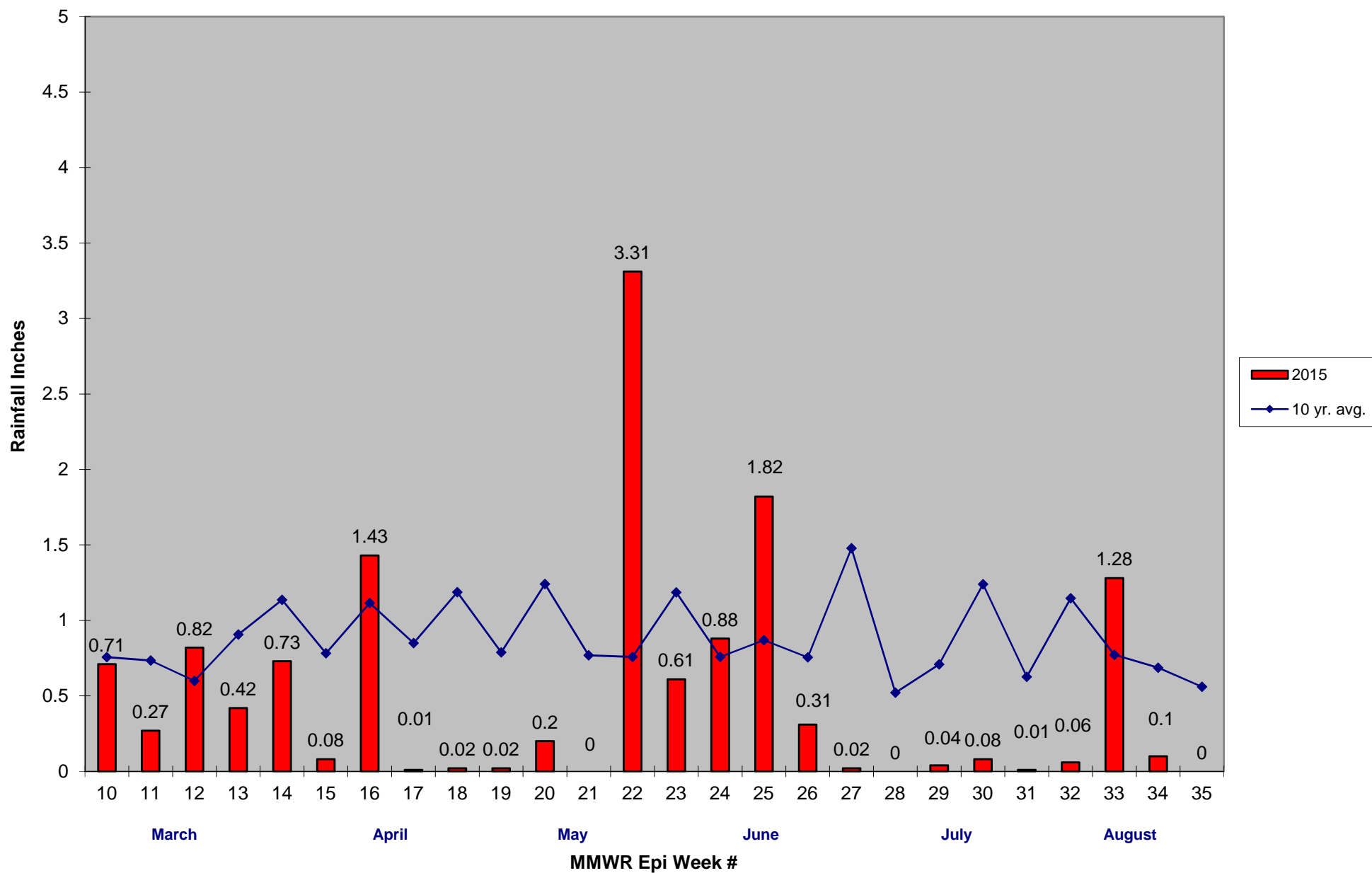
For the year we received 173% more service requests than average; 15,477 requests compared to the 12 year average of 8,901. 15,561 service calls have been completed despite weather conditions earlier in the season that cancelled or postponed operations. Catch basin treatments have ended in all member communities as a preemptive control for *Culex* and West Nile Virus – final tally for 2015 is 84,902, a 28% increase from 2014. Our tire collection and ditch maintenance programs are now operating full time.

2015 Mass. Rainfall Data vs. 35 Year Average*



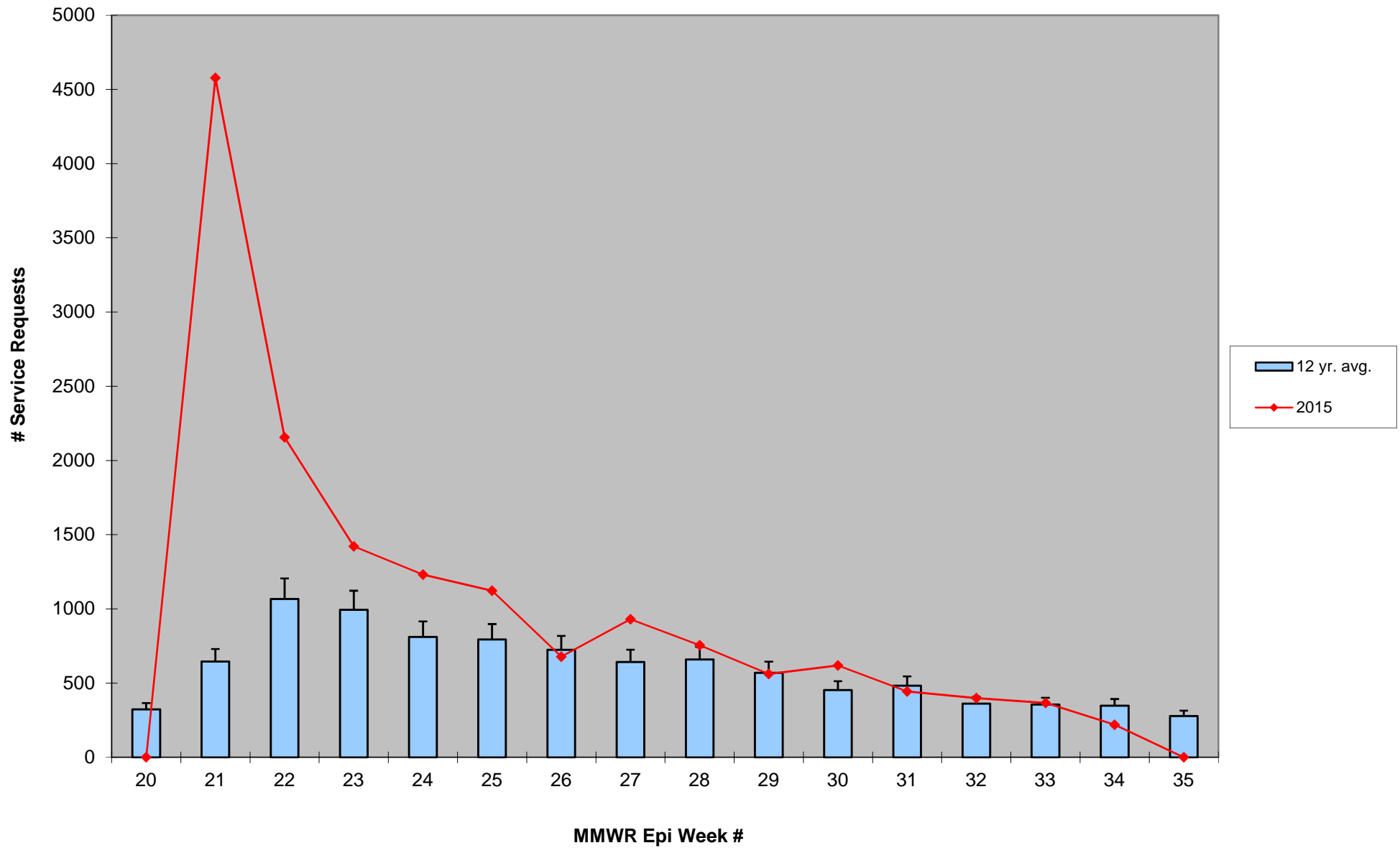
*Source: http://www.nrcc.cornell.edu/page_summaries.html

2015 CMMCP Weekly Rainfall vs. 10 Year Average*



*Source: CMMCP weather station - Northborough, MA 01532

ULV Service Request History Comparison 2003-2015



Error bars show approx. number of requests if we had 40 communities over the 12 year average

2015 Rainfall vs. Requests

