

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #40
Oct. 4 – 10, 2015

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Central Mass. Mosquito Control Project
Weekly Report- 10/4/15-10/10/15
EPI Week #40

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	298	615	187	232	1027	4244
Total Specimens	2527	35543	1237	4823	18055	76060
No. Pools WNV +	0	0	1 [†]	0	9 [†]	10 [†]
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

[†]Pool of WNV+ *Culiseta melanura* collected in Westborough on 9/30/15

Weather Summary (Northborough, MA): The weather for EPI Week 40 averaged 55.6°F with a recorded high temperature of 70.2°F and a recorded low temperature of only 40.5°F. There were 0.23 inches of precipitation observed this week. Compared to the previous week, it was approximately 2.8°F cooler on average, and rained about 1.95 inches less. There has been 0.53 inches of rain accumulated in October, after 3.72 inches for the month of September.

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%	Lancaster, Westborough
<i>Coquillettidia perturbans</i>	-100.0%	-100.0%	Southborough
<i>Culiseta melanura</i>	-36.84%	-58.62%	Tewksbury, Wilmington
<i>Ochlerotatus canadensis</i>	+00.00%	+00.00%	Southborough
<i>Culex</i> Species	-100.0%	-100.0%	Shrewsbury, Millbury
All Species	-56.67%	-61.76%	Lancaster, Westborough

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

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

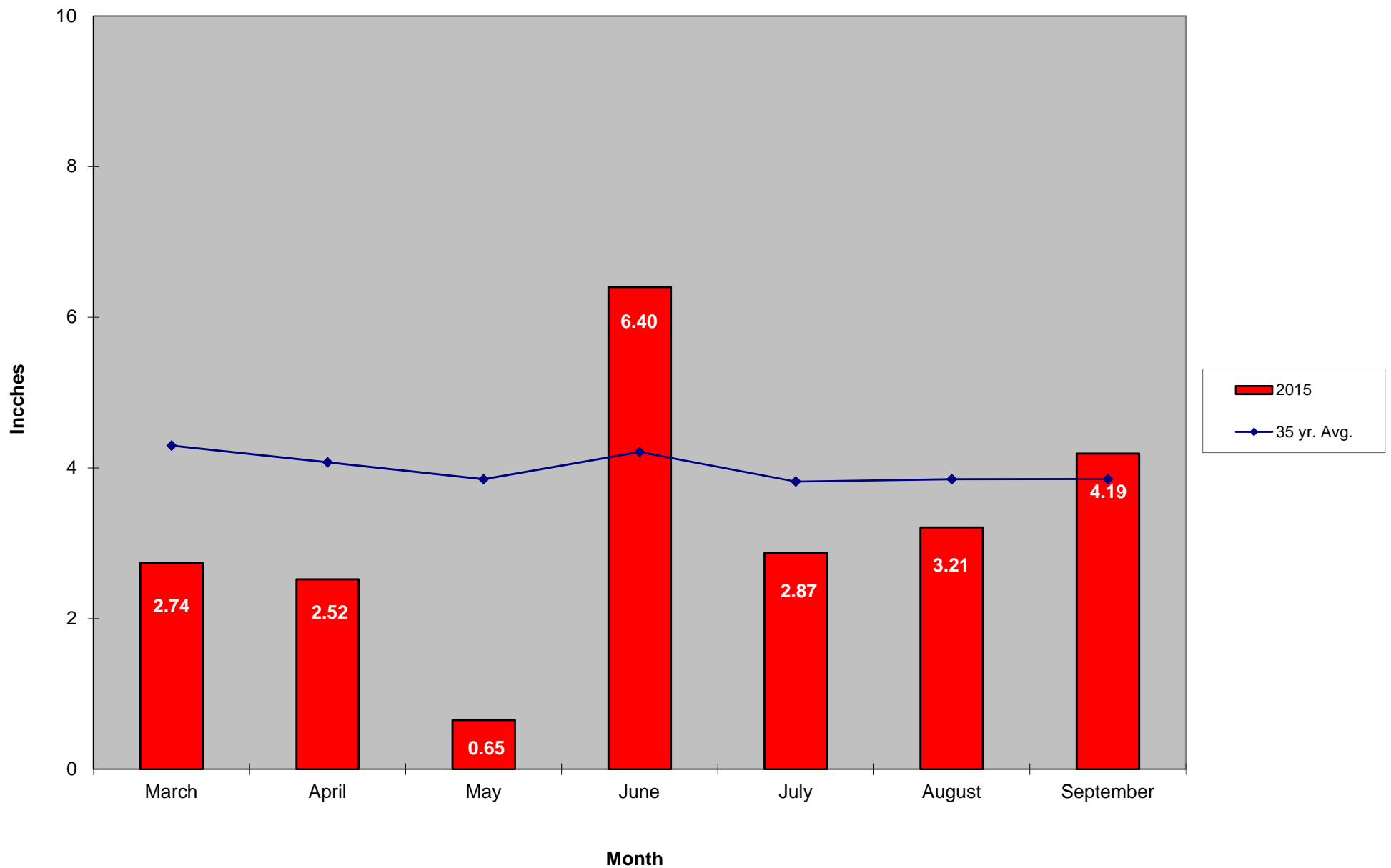
General narrative:

The temperatures for EPI Week 40 dropped approximately 2.8°F from the previous week, with only 0.23 inches of precipitation observed. Overall collection numbers experienced a decrease of almost 57% from EPI Week 39 at the historical surveillance trap sites. All target species experienced either a decrease or remained steady from the previous week. *Aedes vexans* was the most abundant mosquito in the CMMCP service area with *Culex* spp. second. This week the CMMCP Surveillance Program conducted the final collections for the 2015 mosquito season. The local mosquito populations will continue to decrease, but the threat of mosquito-borne disease will remain until the area experiences a hard frost.

1 WNV positive was recorded in Epi week #40 in *Cs. melanura* in Westboro. The local Board of Health put out public notices and no adulticide interventions were made due to weather conditions (low temps).

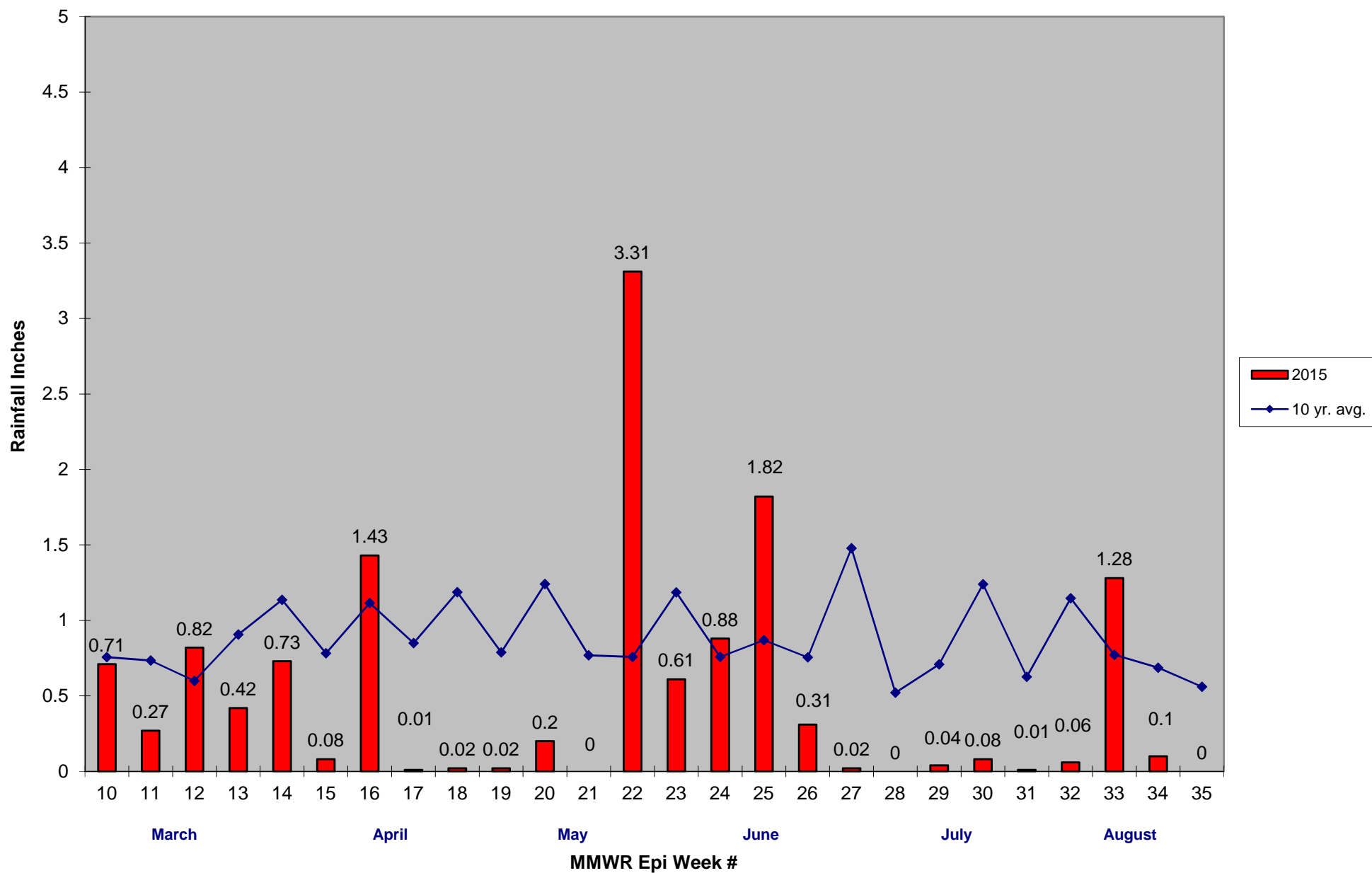
For the year we received 173% more service requests than average; 15,477 requests compared to the 12 year average of 8,901. 15,561 service calls have been completed despite weather conditions earlier in the season that cancelled or postponed operations. Catch basin treatments have ended in all member 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*



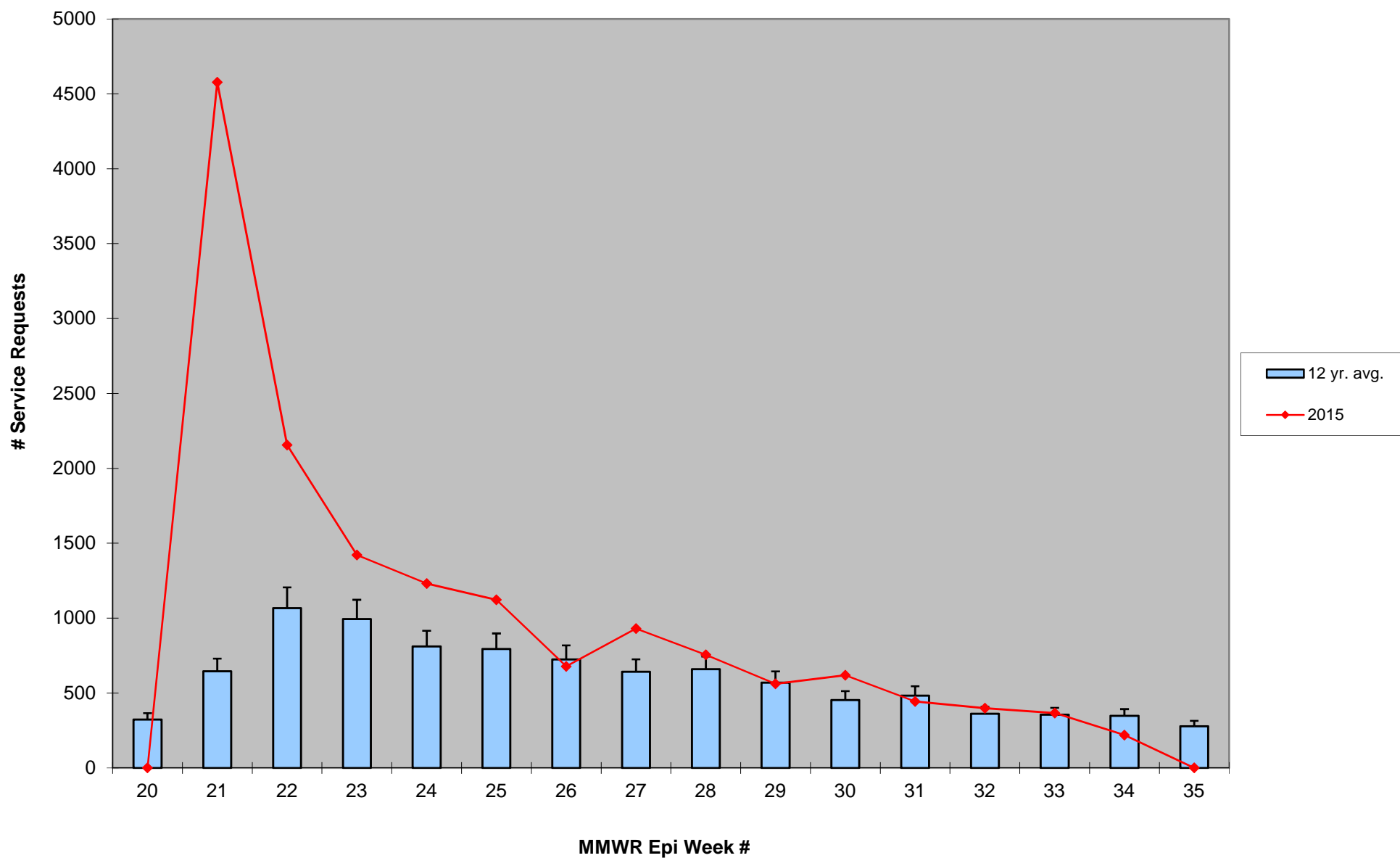
*Source: http://www.nrcc.cornell.edu/page_summaries.html

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

