

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #27
June 29 – July 5, 2014

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Central Mass. Mosquito Control Project
Weekly Report- 6/29/14-7/5/14
EPI Week #27

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	1	23	22	22	246	490
Total Specimens	1	1037	118	199	3623	5632
No. Pools WNV +	0	0	0	0	0	0
No. Pools EEE +	0	0	0	0	0	0

Weather Summary (Northborough, MA): The weather for this particular week averaged 74.53°F with a recorded high temperature of 92.8°F and a recorded low temperature of only 57.3°F. For this week there was also a total of 1.56 inches of rain observed. Compared to the previous week, it was approximately 4.93°F warmer on average, and rained about 1.29 inches more. There has been 1.56 inches of rain accumulated in July, while the total rainfall for the month of June was 1.46 inches. For the year we have received 79% more requests than average; 9,544 requests to date compared to the 11 year average of 5,322. Requests were 54% more than the 2013 totals for the same time frame, 6,181 in 2013 against 9,544 in 2014. Service requests decreased 19% from EPI week 26 to Epi week 27 for 2014 (1,164 vs. 977).

CMMCP Mosquito Summary*-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
<i>Aedes vexans</i>	+00.00%	-100.0%	N/A
<i>Coquillettidia perturbans</i>	+113.1%	+84.59%	Webster, Tewksbury
<i>Culiseta melanura</i>	+90.00%	+58.33%	Tewksbury
<i>Ochlerotatus canadensis</i>	-50.00%	-66.67%	Webster
<i>Culex</i> Species	+272.7%	+64.00%	Hudson, Shrewsbury, Acton
All Species	+87.40%	+38.07%	Webster

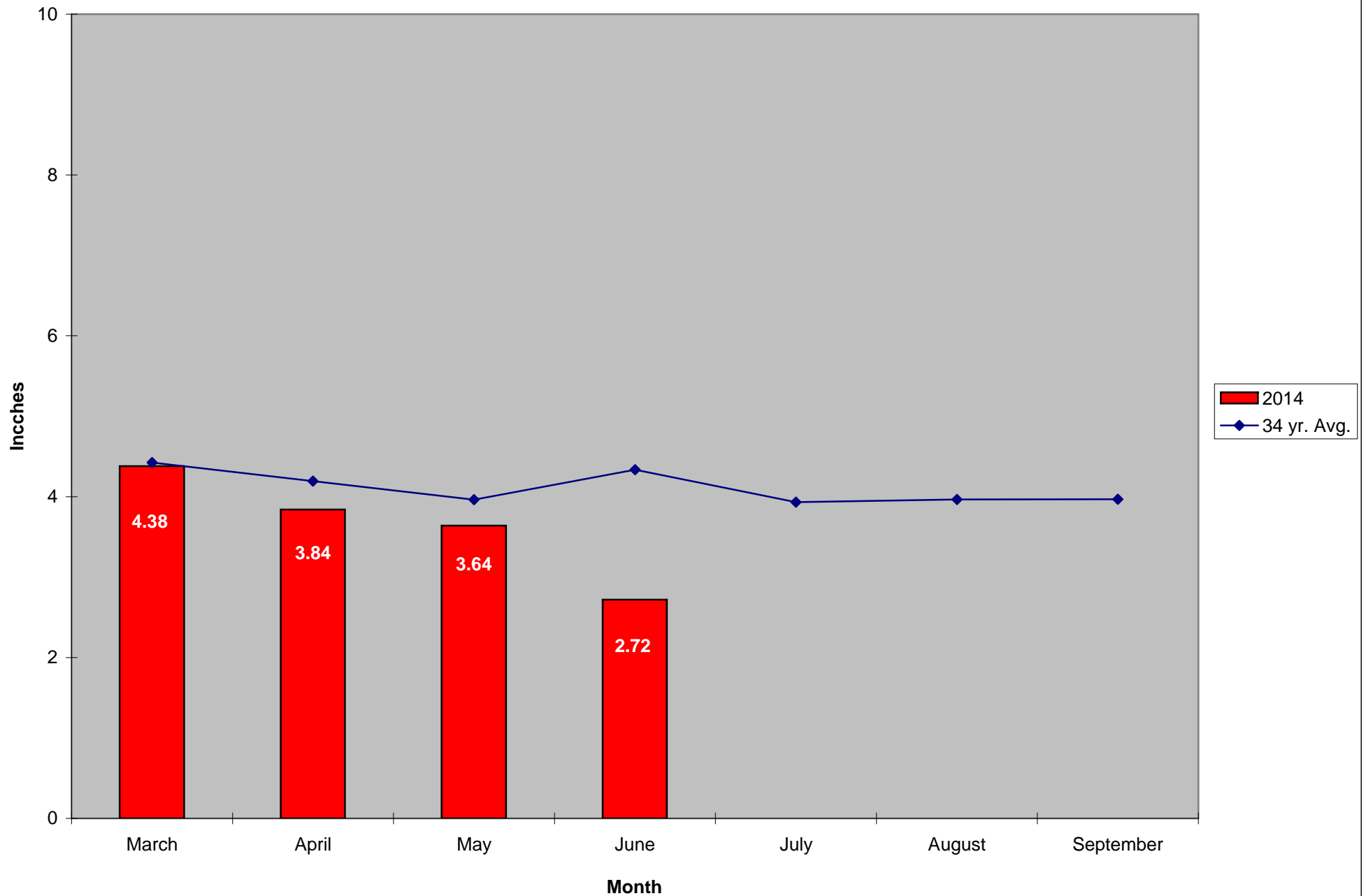
The predominant mosquito for the week was *Coquillettidia perturbans*, followed by *Culex*.

General narrative:

There was an increase in temperature during EPI week 27, as well as a significant increase in rainfall. This week was approximately five degrees hotter on average with over an inch and a half of rain observed. The accumulated rainfall was more than the entire month of June experienced. As anticipated, *Coquillettidia perturbans* continues to experience the greatest increase at the CMMCP historical trap sites. *Culiseta melanura* and *Culex* mosquitoes are also showing increases at these sites. Continued reduction

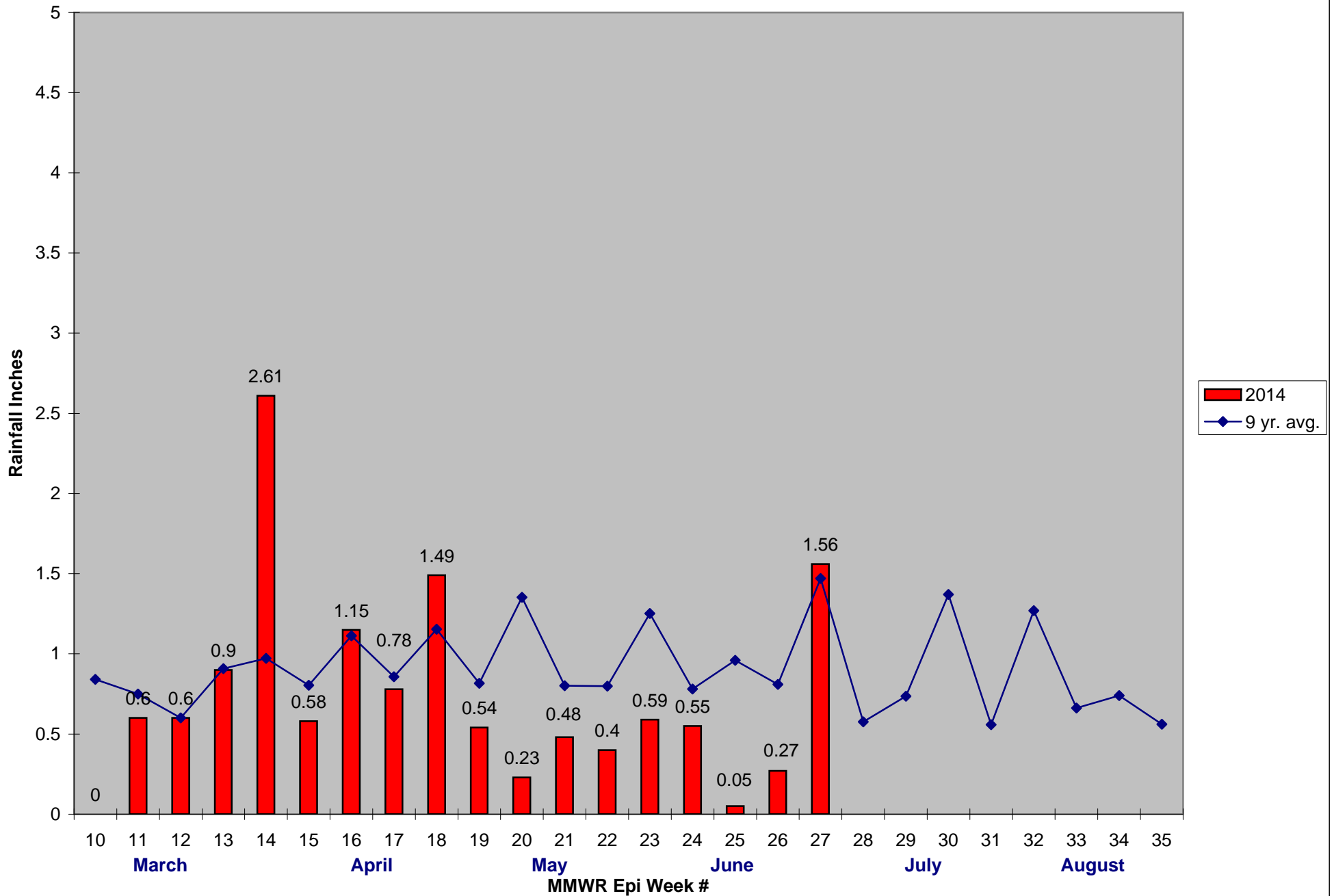
of *Ochlerotatus canadensis* was observed, and there still has not been an *Aedes vexans* specimens collected at one of the historical trap sites. Once again, the additional *Cq. perturbans* caused the overall collection numbers at the historical sites to significantly increase. Of our target species, only *Ae.vexans* and *Oc. canadensis* are present in lower levels than during the 2013 EPI week 27. At the historical CDC trap locations, *Cq. perturbans* was again the predominant species followed by *Culex*. The significant rainfall experienced during EPI week 27 may eventually result in an emergence of *Ae.vexans* and similar mosquito species.

2014 Mass. Rainfall Data vs. 34 Year Average*



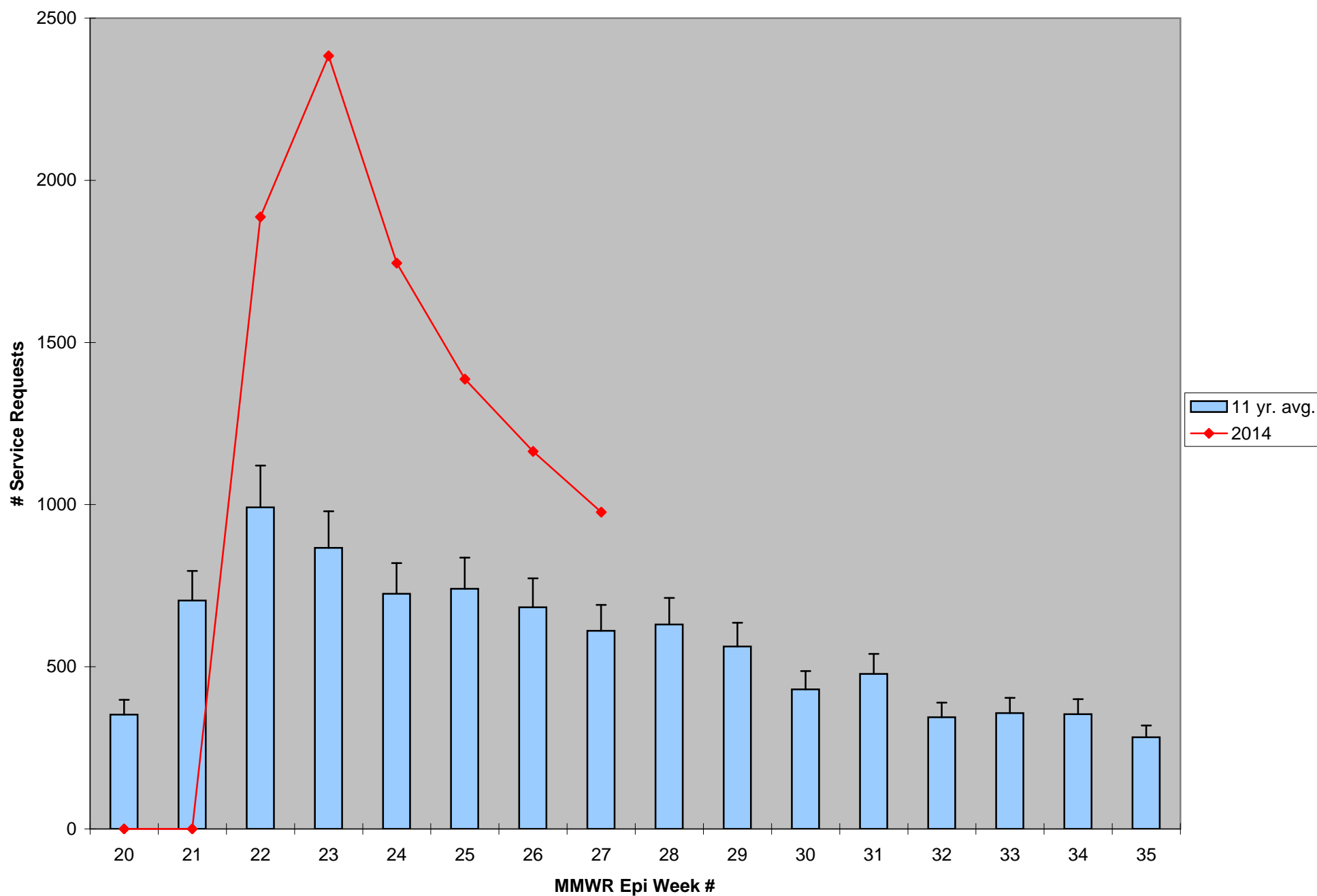
*Source: Northeast Regional Climate Center: http://www.nrcc.cornell.edu/page_summaries.html

2014 CMMCP Weekly Rainfall vs. 9 Year Average*



*Source: CMMCP Weather Station - Northborough, MA

ULV Service Request History Comparison 2003-2014



Error bars show approx. number of requests if we had 40 cities and towns over the 10 year average

2014 Rainfall vs. Requests

