

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #31
July 27 – Aug. 2, 2014

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Central Mass. Mosquito Control Project
Weekly Report- 7/27/14-8/2/14
EPI Week #31

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 | 2 | 58 | 32 | 34 | 506 | 883 |
| Total Specimens | 2 | 3915 | 171 | 308 | 9082 | 14953 |
| No. Pools WNV + | 0 | 0 | 0 | 0 | 1 [†] | 1 [†] |
| No. Pools EEE + | 0 | 0 | 0 | 0 | 0 | 0 |

† Pool of WNV+ *Culex* Species collected in Clinton on 7/3/13

Weather Summary (Northborough, MA): The weather for this particular week averaged 69.63°F with a recorded high temperature of 84.3°F and a recorded low temperature of only 54.7°F. For this week there was also a total of 1.23 inches of rain observed. Compared to the previous week, it was approximately 2.8°F cooler on average, and rained about 1.16 inches more. There has been 3.26 inches of rain accumulated in July, while the total rainfall for the month of June was 1.46 inches.

Service Request Summary: For the year we have received 67% more requests than average; 12,399 requests to date compared to the 11 year average of 7,424. Requests were 22% more than the 2013 totals for the same time frame, 10,164 in 2013 against 12,399 in 2014. Service requests dropped (32%) from EPI week 30 to Epi week 31 for 2014 (706 vs. 533).

CMMCP Mosquito Summary*-

| Target Species | Δ From Last Week | Δ From Last Year | Predominant Trap Site(s) |
|----------------|---------------------|---------------------|--------------------------|
|----------------|---------------------|---------------------|--------------------------|

| | | | |
|----------------------------------|---------|---------|---------------------|
| <i>Aedes vexans</i> | +100.0% | -50.00% | Webster |
| <i>Coquillettidia perturbans</i> | +88.45% | +118.8% | Webster, Leominster |
| <i>Culiseta melanura</i> | +385.7% | +126.7% | Tewksbury |
| <i>Ochlerotatus canadensis</i> | +60.00% | -61.90% | Webster |
| <i>Culex</i> Species | +52.17% | +141.4% | Sherborn, Milford |
| All Species | +85.30% | +88.77% | Webster, Leominster |

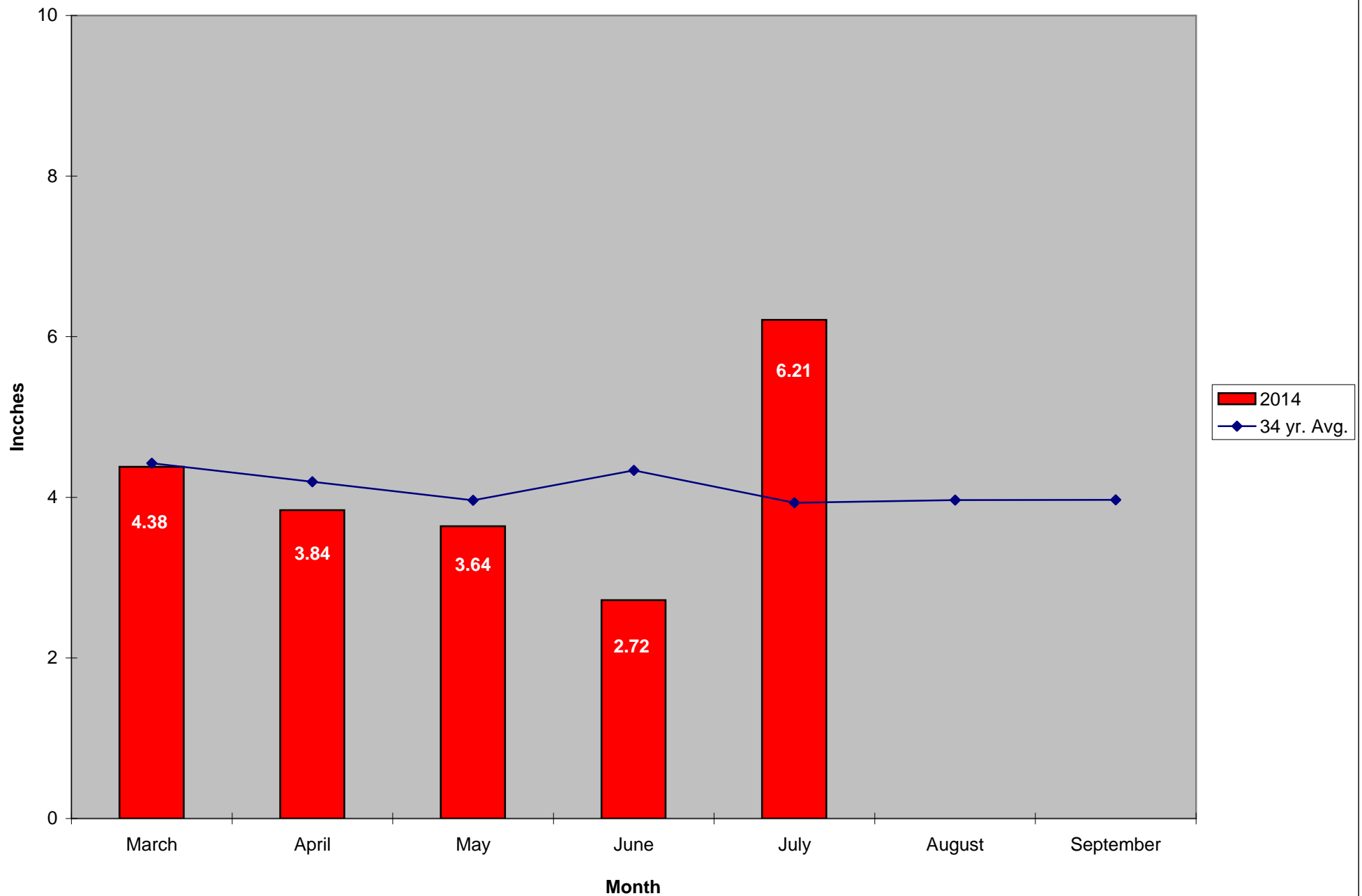
The predominant mosquito for the week was *Culex*, followed by *Coquilleltidia perturbans*.

General narrative:

There was a decrease in temperature during EPI week 31, as well as a significant increase in rainfall. This week was approximately three degrees cooler on average with almost an inch and a quarter of rain observed. All target species, *Aedes vexans*, *Coquillettidia perturbans*, *Culiseta melanura*, *Culex*, and *Ochlerotatus canadensis*,

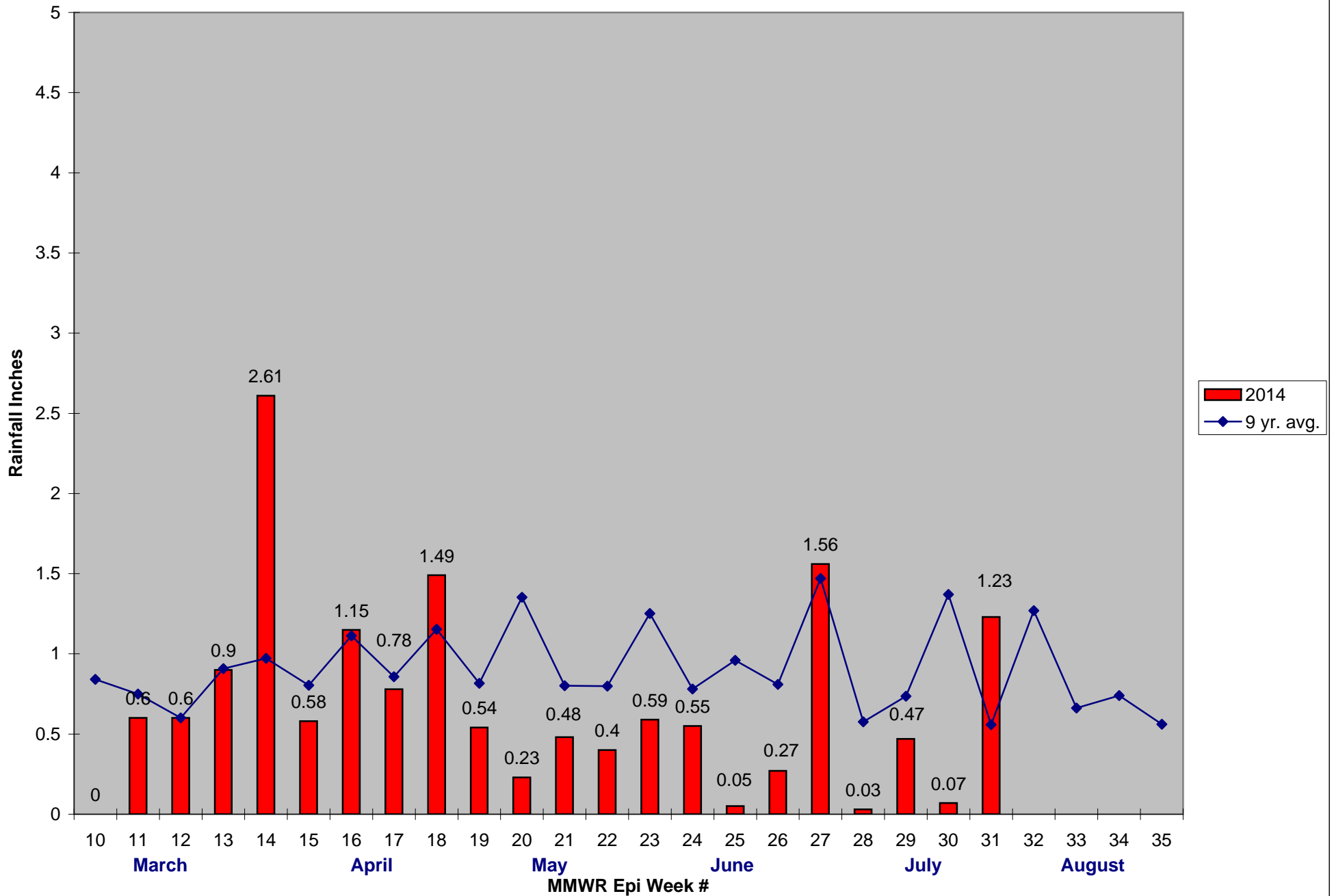
experienced increases at the historical trap sites during this period. The single *Ae. vexans* specimen collected this week was the season's first at these particular sites. The additional *Cq. perturbans* collected this week caused the overall collection numbers at the historical sites to significantly increase. Of our target species, only *Ae. vexans* and *Oc. canadensis* are present in lower levels than during the 2013 EPI week 31. At the historical CDC trap locations, *Cq. perturbans* was again the principal species followed by *Culex*, but when all trap types are taken into consideration, these two switch predominance. The significant rains this week may lead to more floodwater species, such as *Ae. vexans*, over the next couple of weeks.

2014 Mass. Rainfall Data vs. 34 Year Average*



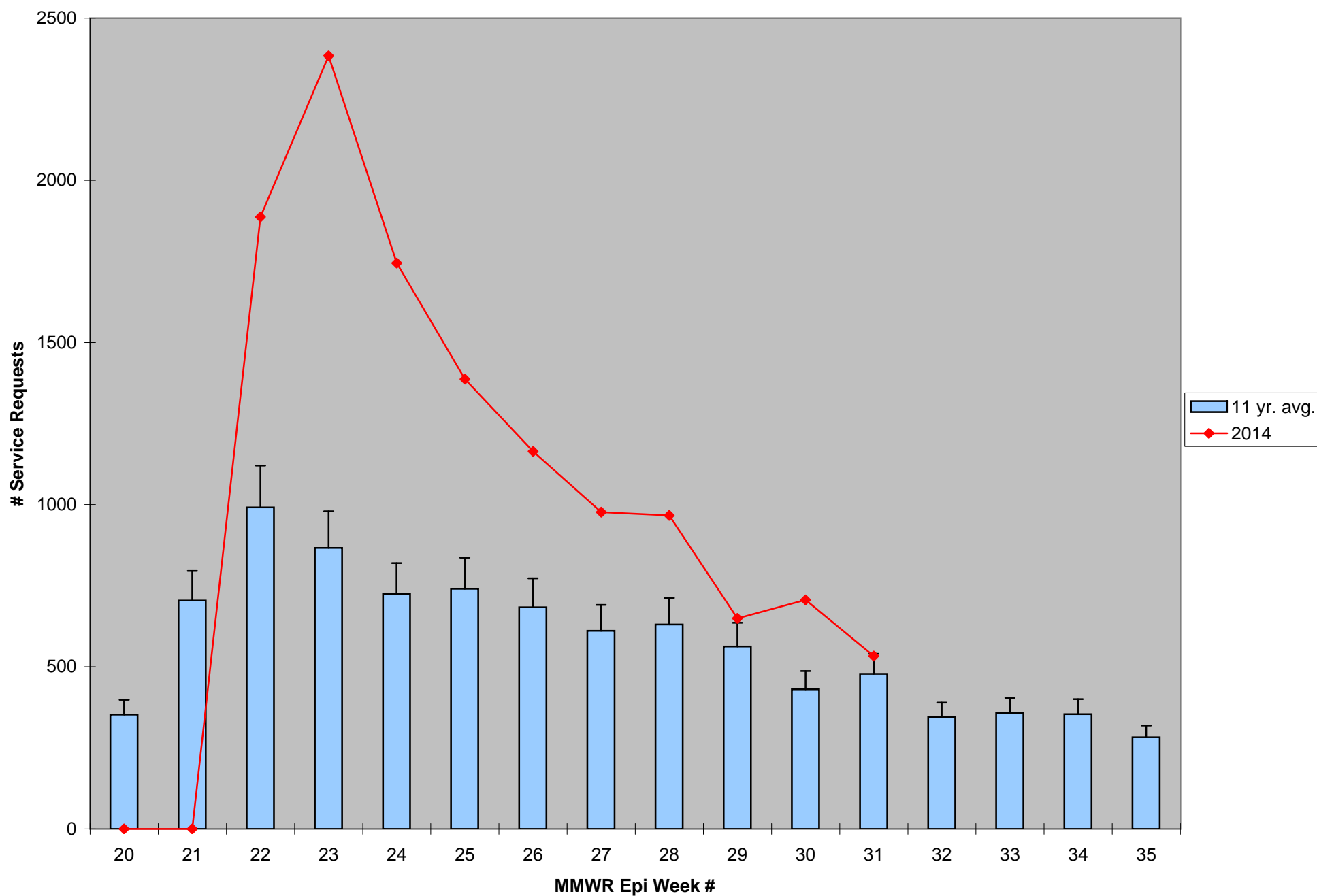
*Source: Northeast Regional Climate Center: http://www.nrcc.cornell.edu/page_summaries.html

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

