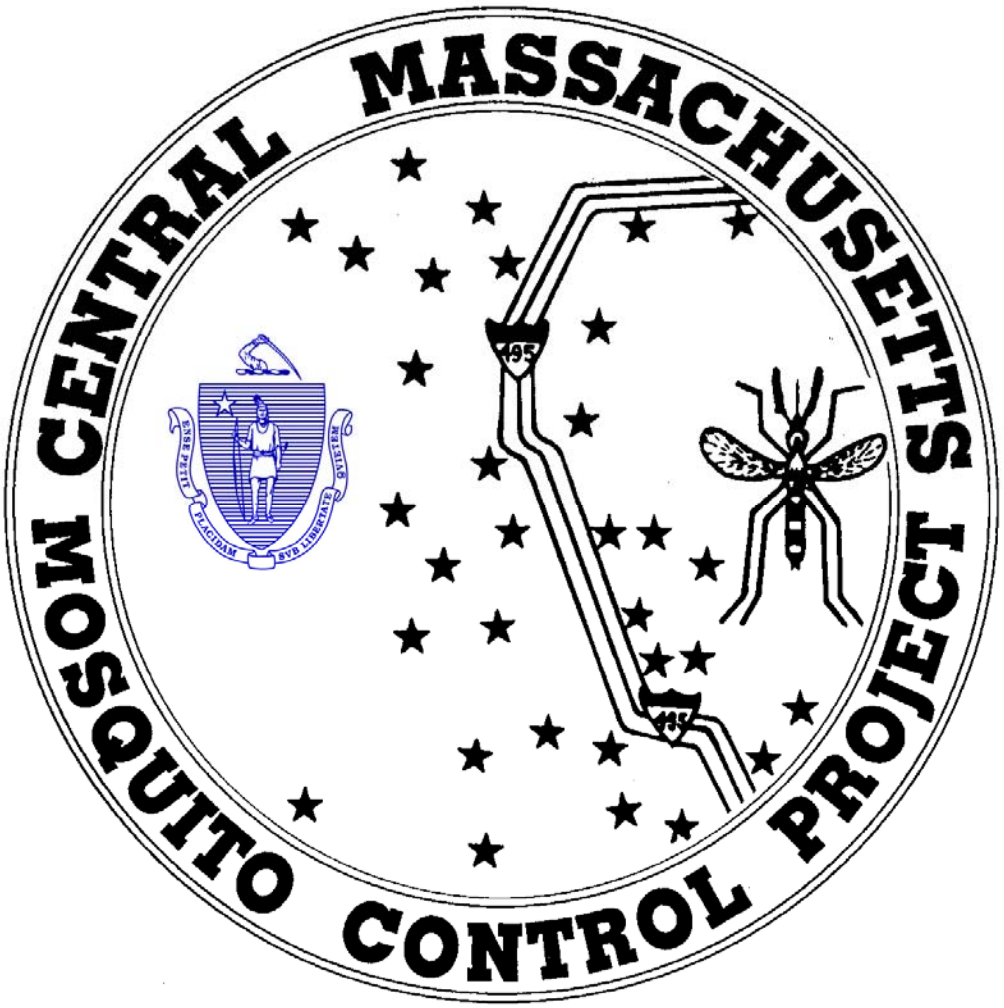
CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #25
June 21-27, 2015

Frank Cornine, *Field Biologist*
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Tim McGlinchy, *Director of Operations*
Tim Deschamps, *Executive Director*

Central Mass. Mosquito Control Project
Weekly Report- 6/21/15-6/27/15
EPI Week #25

Cumulative Surveillance Summary

Target Species	*Ae. vex*	*Cq. per*	*Cs. mel*	*Oc. can*	*Culex*	All Species
No. Pools	35	110	55	124	189	911
Total Specimens	287	4647	617	3729	2661	18564
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 70.6°F with a recorded high temperature of 87.2°F and a recorded low temperature of only 52.1°F. For this week there was also a total of 1.82 inches of rain observed. Compared to the previous week, it was approximately 5.1°F warmer on average, and rained about 0.94 inches more. There has been 4.89 inches of rain accumulated in June, after 1.97 inches for the month of May.

CMMCP Mosquito Summary-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
Aedes vexans	+700.0%	+800.0%	Billerica, Southborough
Coquillettidia perturbans	+243.2%	+479.17%	Lancaster, Billerica
Culiseta melanura	-77.48%	+400.0%	Tewksbury
Ochlerotatus canadensis	-30.09%	+79.55%	Billerica, Webster
Culex Species	-19.44%	+262.5%	Hudson, Billerica
All Species	+25.92%	+206.37%	Billerica, Lancaster

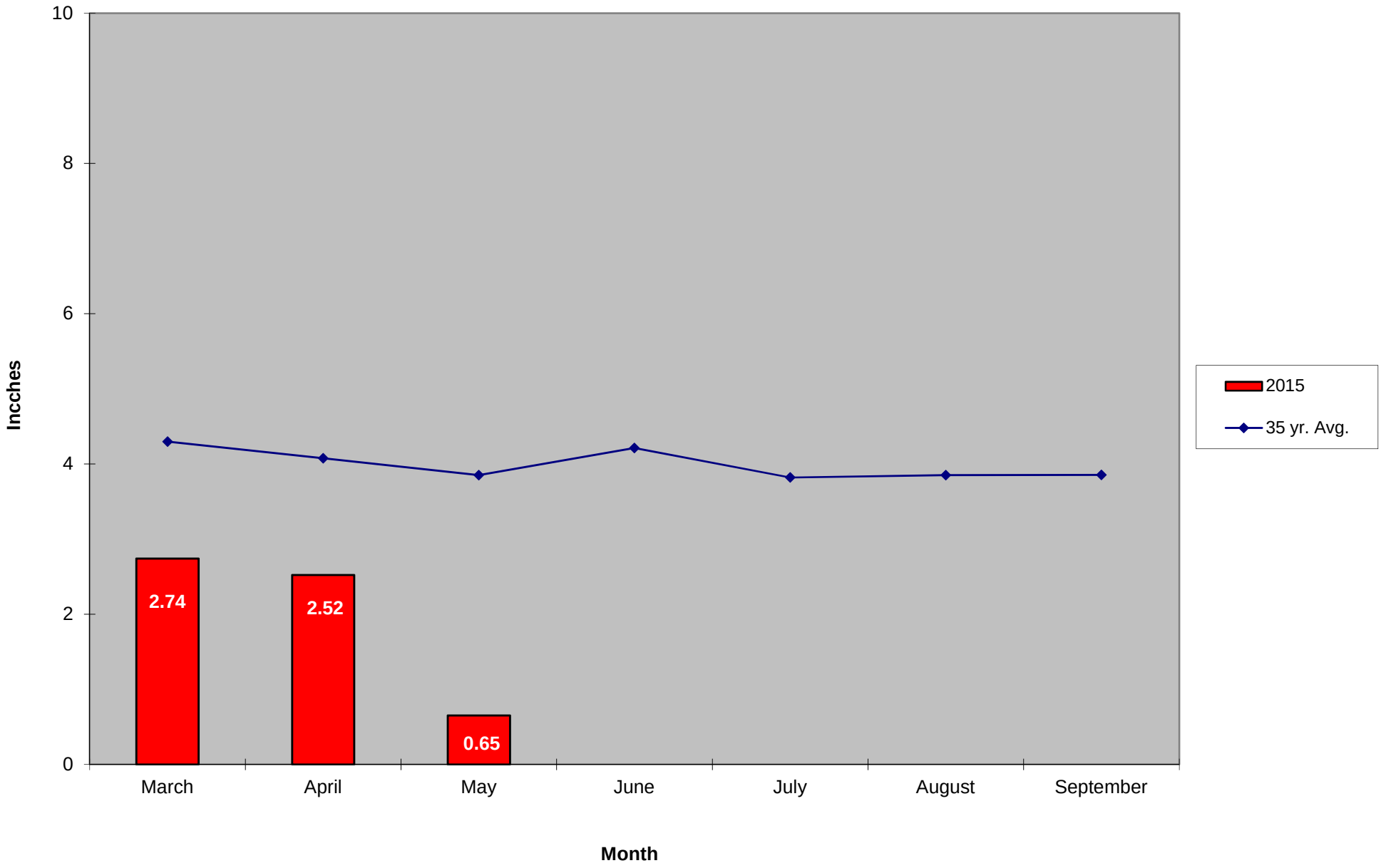
The predominant mosquito for the week was *Coquillettidia perturbans* followed by *Culex*.

General narrative:

The temperatures for EPI week 25 averaged approximately 5 degrees warmer than the previous week, with 1.82 inches of precipitation observed. Overall collection numbers were higher than EPI week 24, although only *Coquillettidia perturbans* and *Aedes vexans* exhibited increases of the target species. *Culiseta melanura*, *Ochlerotatus canadensis* and *Culex* spp. all experienced decreases from the prior collection period. *Cq. perturbans* was the most abundant species in the CMMCP service area for EPI week 25, with *Culex* spp. becoming the second most abundant mosquito. *Cq. perturbans* will likely remain a predominant species for the next several weeks. Overall collections numbers should continue to increase with further emergence of this species. The continued significant rain events will contribute to future flood water and container mosquitoes.

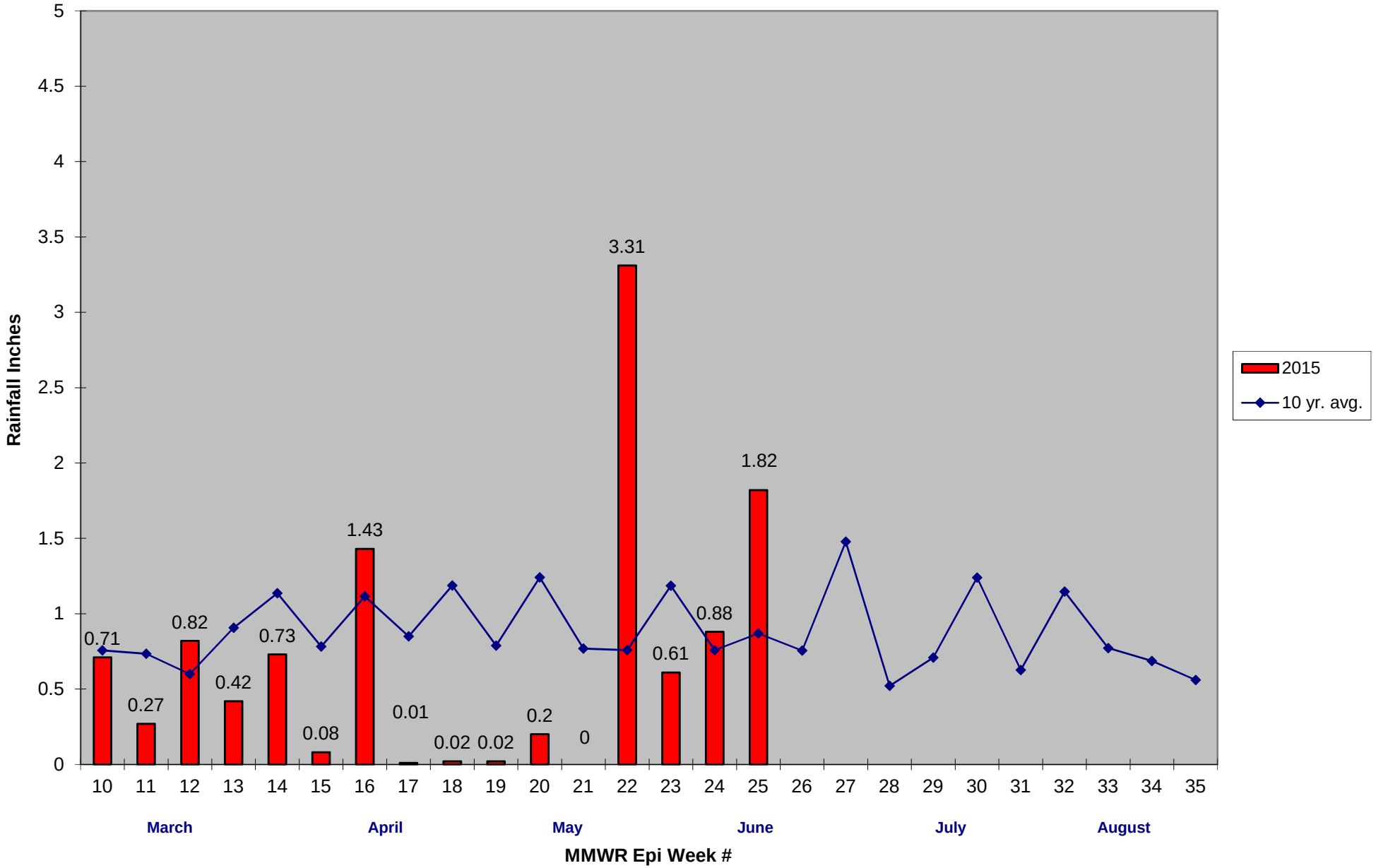
For the year we have received 244% more service requests than average; 10,508 requests to date compared to the 12 year average of 4,308. Requests were 42% more than the 2014 totals for the same time frame, 7,403 in 2014 against 10,508 in 2015. Service requests decreased 9% from EPI week 24 to Epi week 25 for 2015 (1,231 vs. 1,122). 2,203 service calls were completed this week despite scattered thunderstorms impacting operations on June 23. Additional crews were dispatched on overtime on June 26 to respond to residents requests for service. To date 7,410 service calls have been completed despite weather conditions that continue to cancel or postpone operations.

2015 Mass. Rainfall Data vs. 35 Year Average*



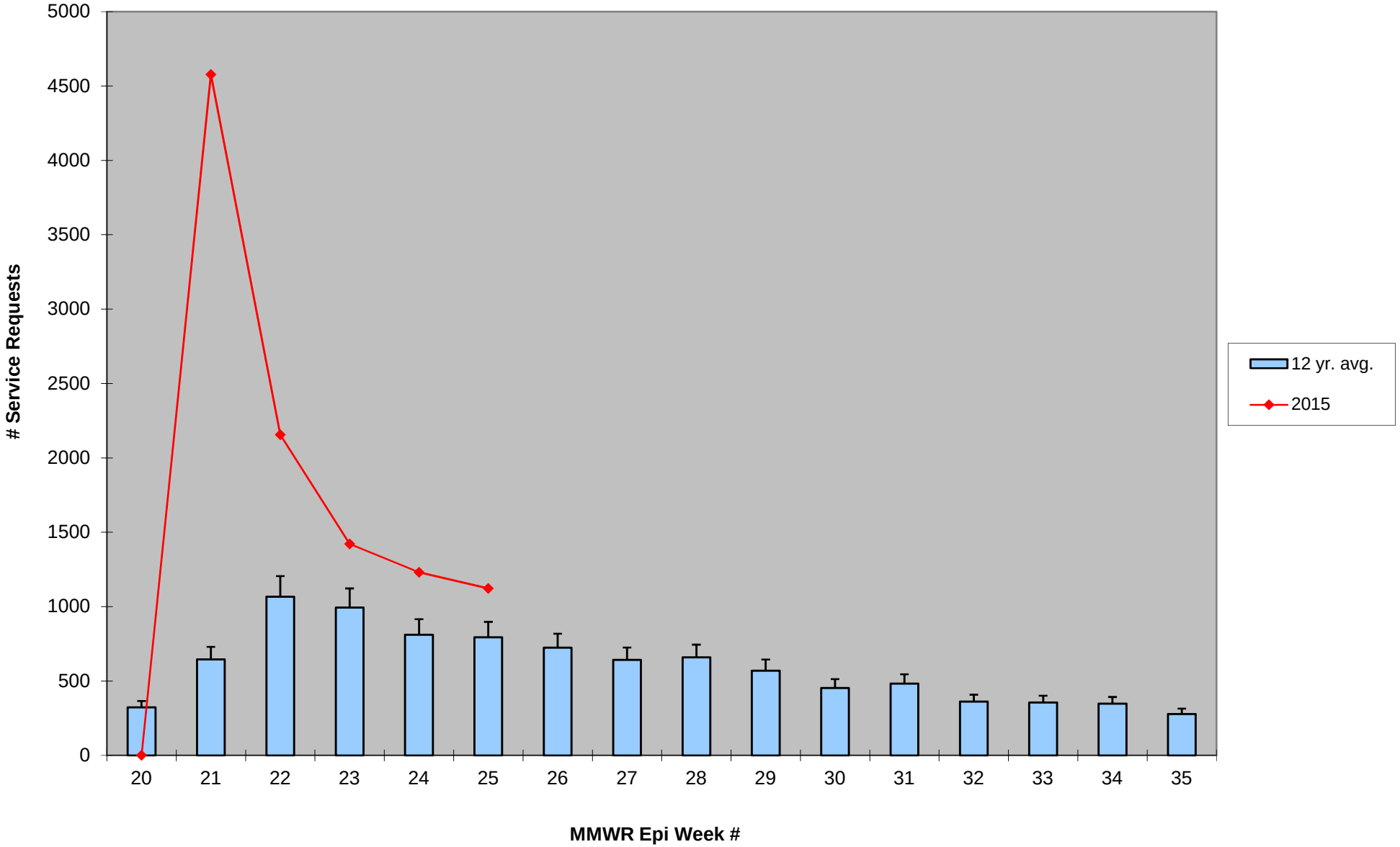
*Source: http://www.nrcc.cornell.edu/page_summaries.html

2015 CMMCP Weekly Rainfall vs. 10 Year Average*

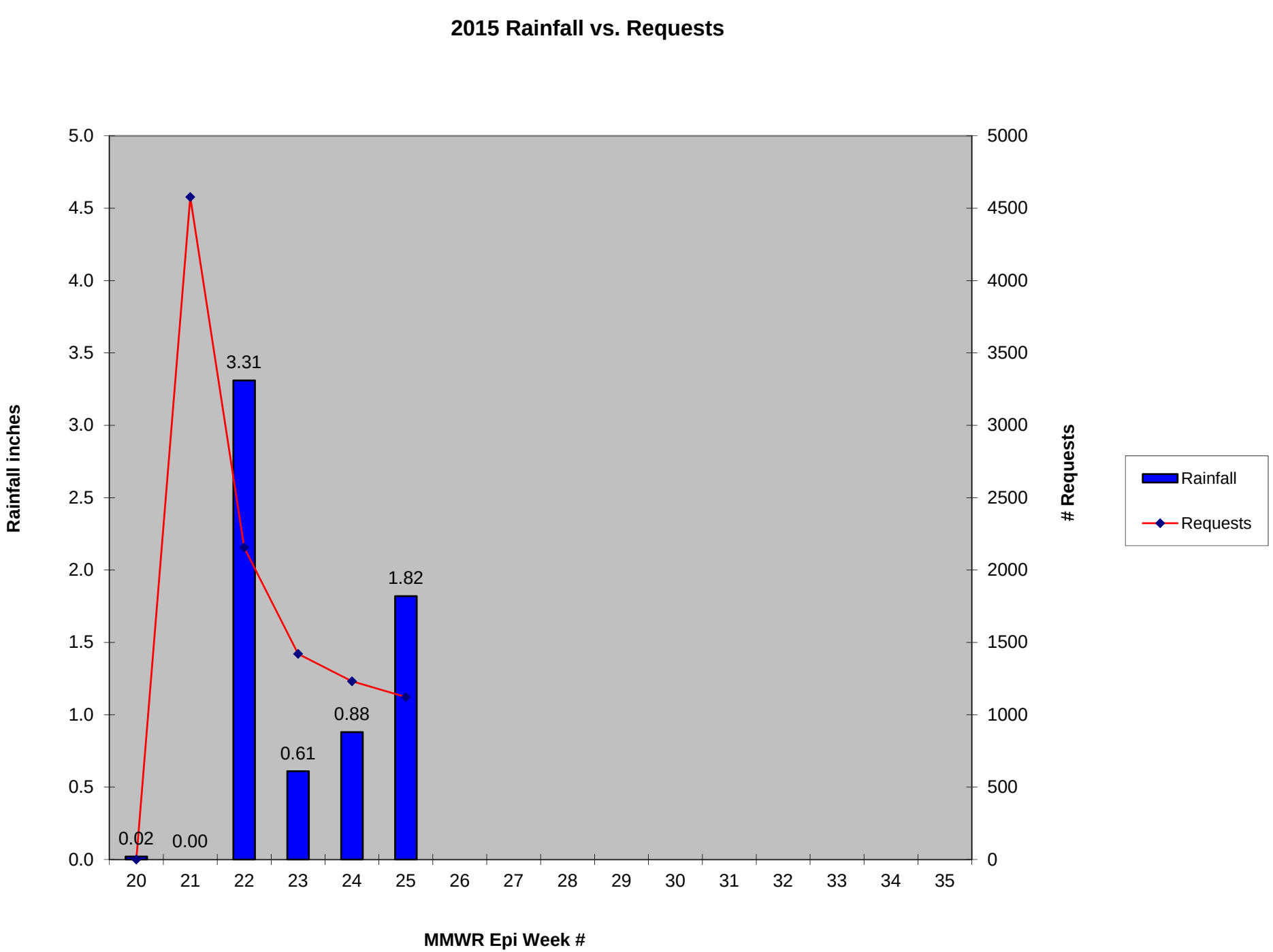


*Source: CMMCP weather station - Northborough, MA 01532

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
Rainfall inches
Requests
MMWR Epi Week #
Rainfall
Requests
0.02
0.00
3.31
0.61
0.88
1.82
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
20
21
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31
32
33
34
35