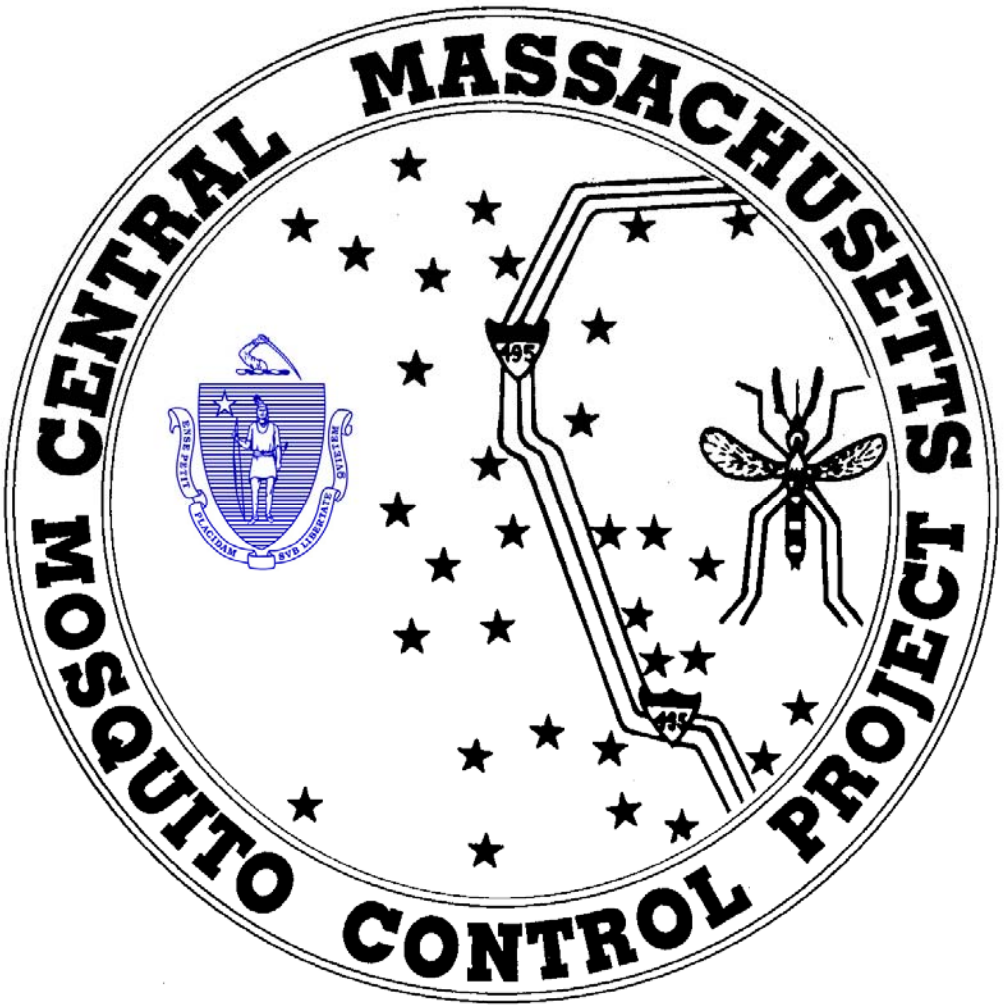
CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #32
Aug. 9-15, 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- 8/9/15-8/15/15
EPI Week #32

Cumulative Surveillance Summary

Target Species	*Ae. vex*	*Cq. per*	*Cs. mel*	*Oc. can*	*Culex*	All Species
No. Pools	135	450	120	214	621	2657
Total Specimens	910	31971	1021	4742	12161	61492
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 EPI Week 32 averaged 70.6°F with a recorded high temperature of 90.0°F and a recorded low temperature of only 55.3°F. There was only 0.06 inches of precipitation observed this week. Compared to the previous week, it was approximately 0.61°F cooler on average, and rained about 0.05 inches more. There has been 0.07 inches of rain accumulated in August, after 0.17 inches for the month of July.

CMMCP Mosquito Summary-

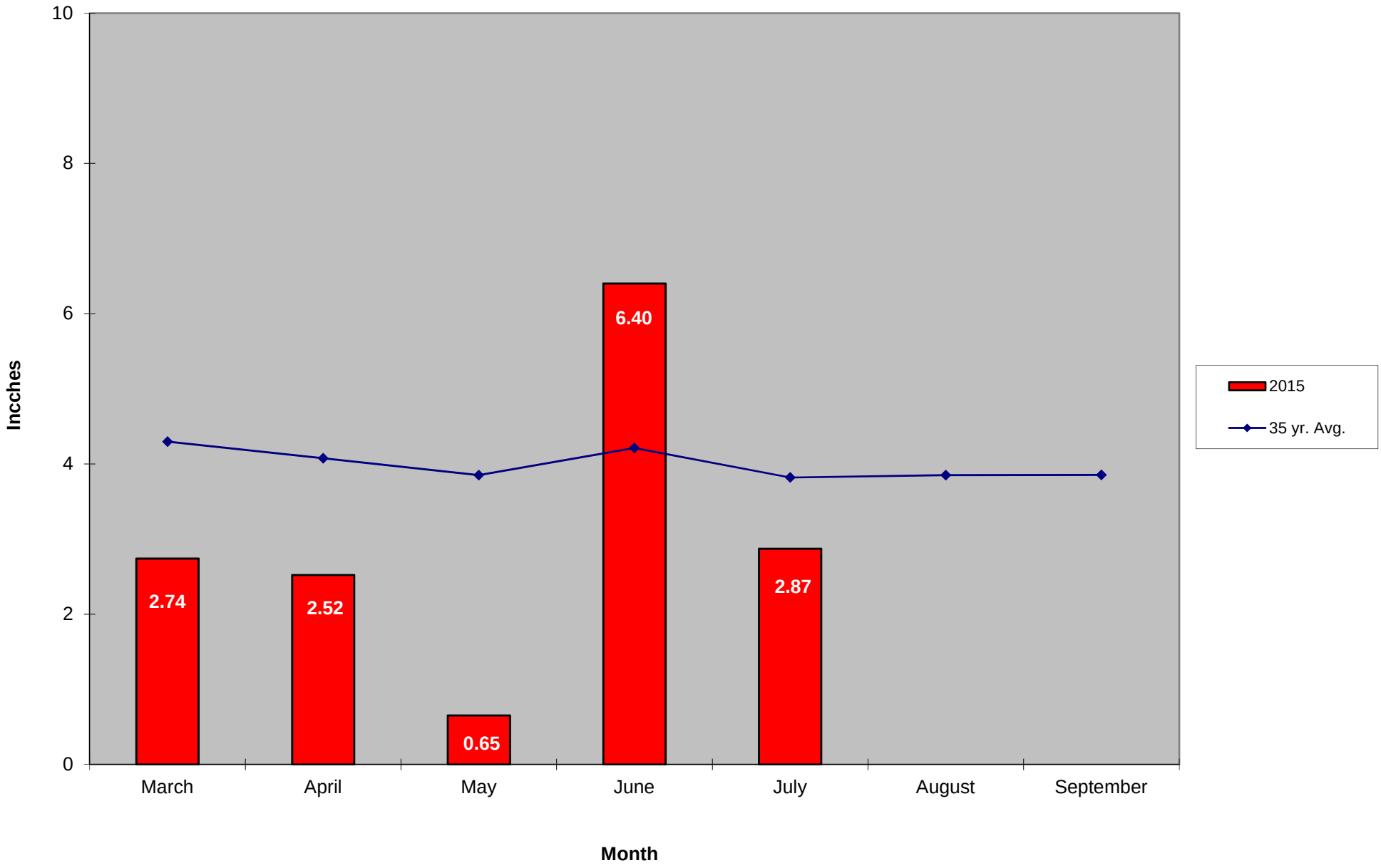
Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
Aedes vexans	+100.0%	+100.0%	Natick, Northbridge
Coquillettidia perturbans	+19.00%	+9.170%	Wilmington, Lowell
Culiseta melanura	-84.21%	-60.00%	Millville, Southborough
Ochlerotatus canadensis	+100.0%	+100.0%	Auburn, Boylston, Lowell
Culex Species	-27.27%	-6.980%	Littleton, Southborough
All Species	+2.050%	+4.910%	Wilmington, Lowell

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

General narrative: The temperatures for EPI Week 32 averaged approximately 1°F cooler than the previous week, with scattered precipitation events. Overall collection numbers increased by 2% from EPI Week 31 at the historical surveillance trap sites. Increases in *Coquillettidia perturbans*, *Aedes vexans*, and *Ochlerotatus canadensis* collections offset decreases in the *Culiseta melanura* and *Culex* spp. populations. Compared to the 2014 season, the long-term surveillance locations showed an overall increase of almost 5%. As with the weekly comparison, this was primarily due to additional *Cq. perturbans*, *Ae. vexans*, and *Oc. canadensis* specimens being collected. *Cq. perturbans* remained the most abundant species in the CMMCP service area with *Culex* spp. second. The surveillance program will continue to monitor for arbovirus as we approach the latter portion of the season, which traditionally is an elevated period for mosquito-borne disease.

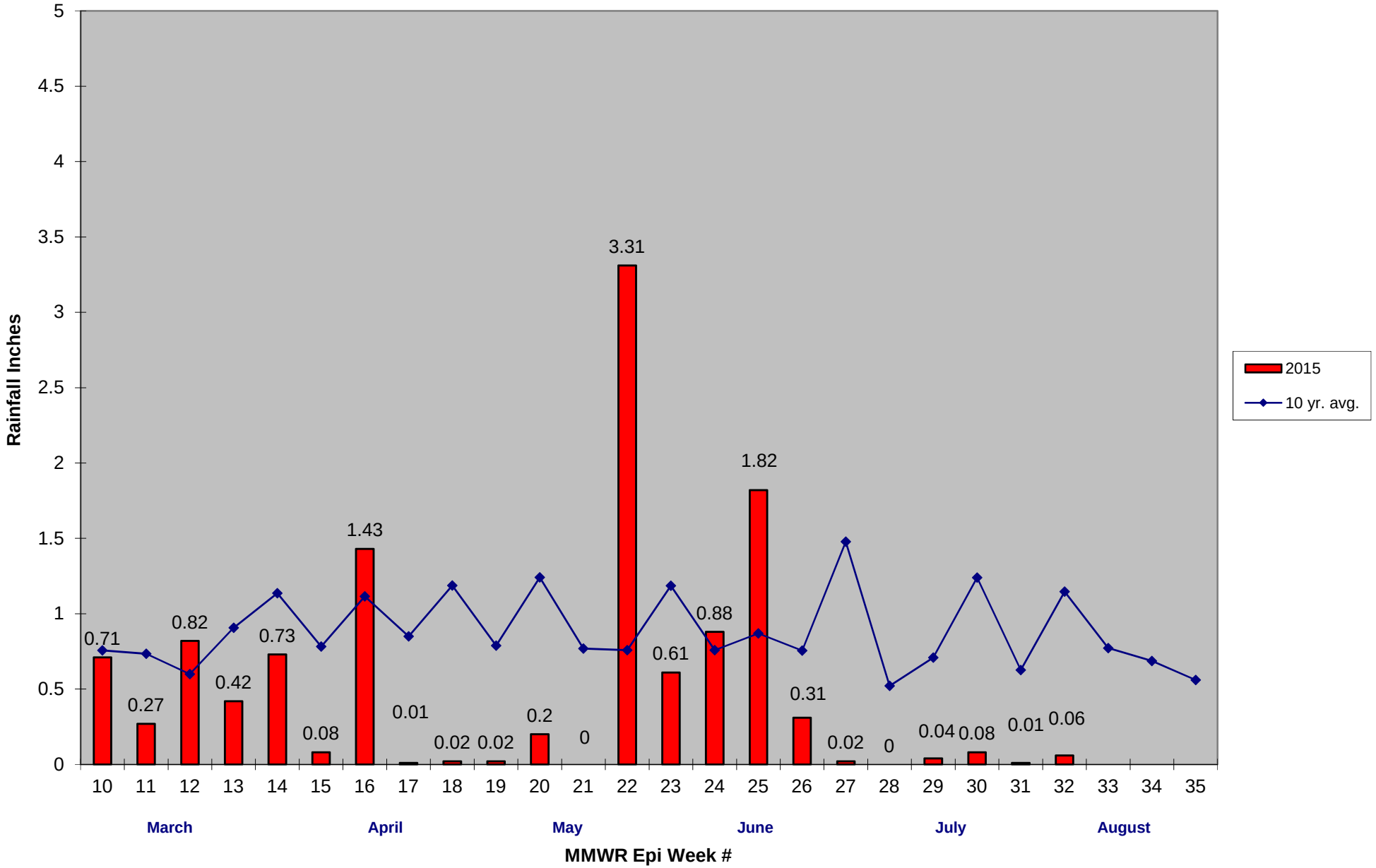
For the year we have received 181% more service requests than average; 14,892 requests to date compared to the 12 year average of 8,199. Requests were 15.06% more than the 2014 totals for the same time frame, 12,942 in 2014 against 14,892 in 2015. Service requests decreased 11.02% from EPI week 31 to Epi week 32 for 2015 (443 v. 399). 530 service calls were completed this week with minimal weather events impacting operations. To date 14,829 service calls have been completed despite weather conditions earlier in the season that cancelled or postponed operations. Catch basin treatments are underway in all member communities as a preemptive control for *Culex* and West Nile Virus.

2015 Mass. Rainfall Data vs. 35 Year Average*



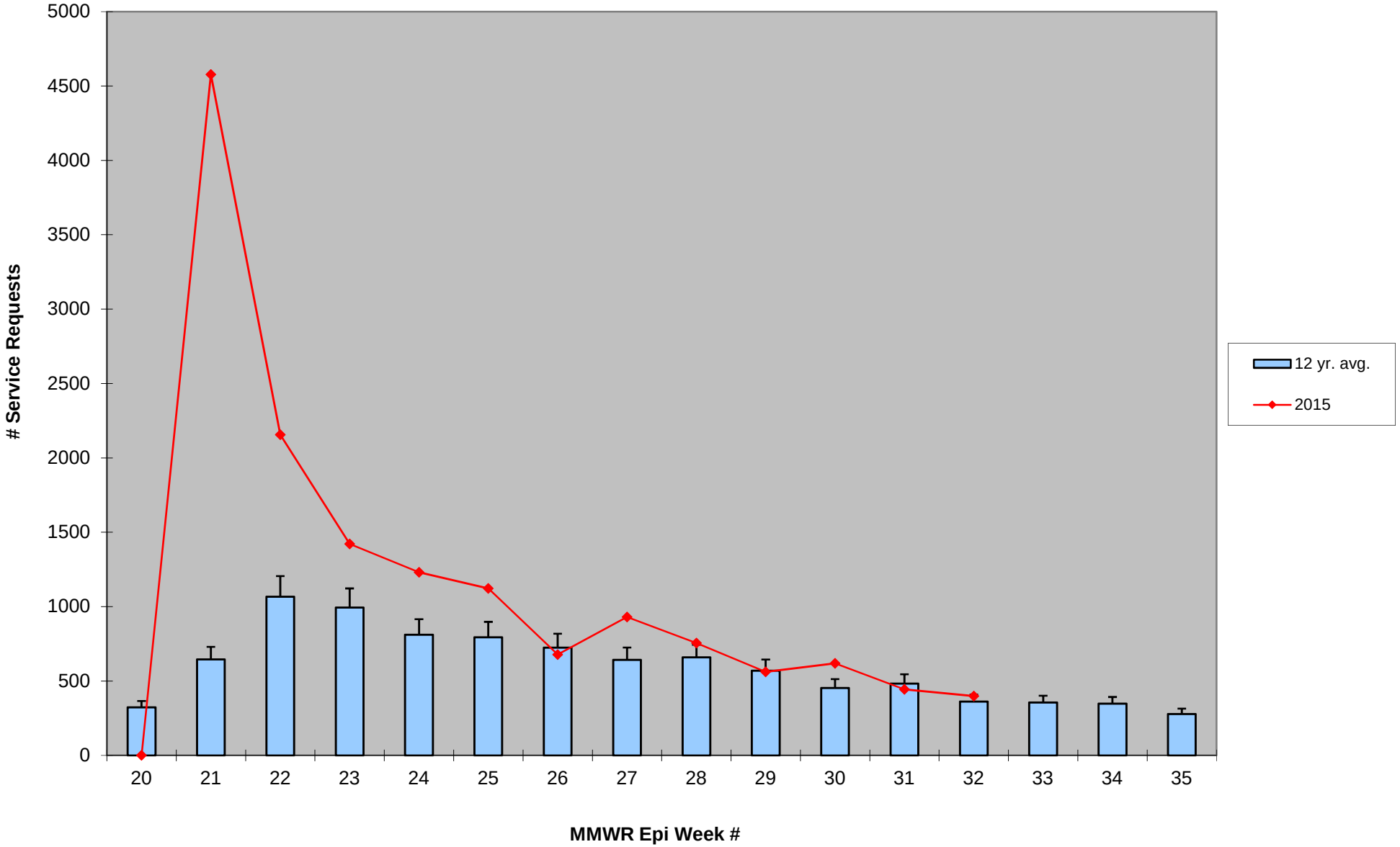
*Source: http://www.nrcc.cornell.edu/page_summaries.html

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