

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #28
July 12-18, 2015

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Central Mass. Mosquito Control Project
Weekly Report- 7/12/15-7/18/15
EPI Week #28

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	86	246	84	180	375	1687
Total Specimens	713	20959	808	4533	7633	43338
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 28 averaged 71.9°F with a recorded high temperature of 89.2°F and a recorded low temperature of only 52.1°F. There was zero precipitation observed this week. Compared to the previous week, it was approximately 0.74°F warmer on average, and rained about 0.02 inches less. There has been 0.05 inches of rain accumulated in July, after 5.17 inches for the month of June.

CMMCP Mosquito Summary-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
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<i>Aedes vexans</i>	+2300%	+2400%	Auburn, Tewksbury
<i>Coquillettidia perturbans</i>	+174.9%	+9.890%	Wilmington, Tewksbury
<i>Culiseta melanura</i>	-58.33%	+500.0%	Millbury, Wilmington
<i>Ochlerotatus canadensis</i>	-36.36%	+6.670%	Auburn, Billerica
<i>Culex</i> Species	+1.85%	-49.07%	Holliston, Auburn
All Species	+143.7%	+11.34%	Wilmington, Tewksbury, Auburn

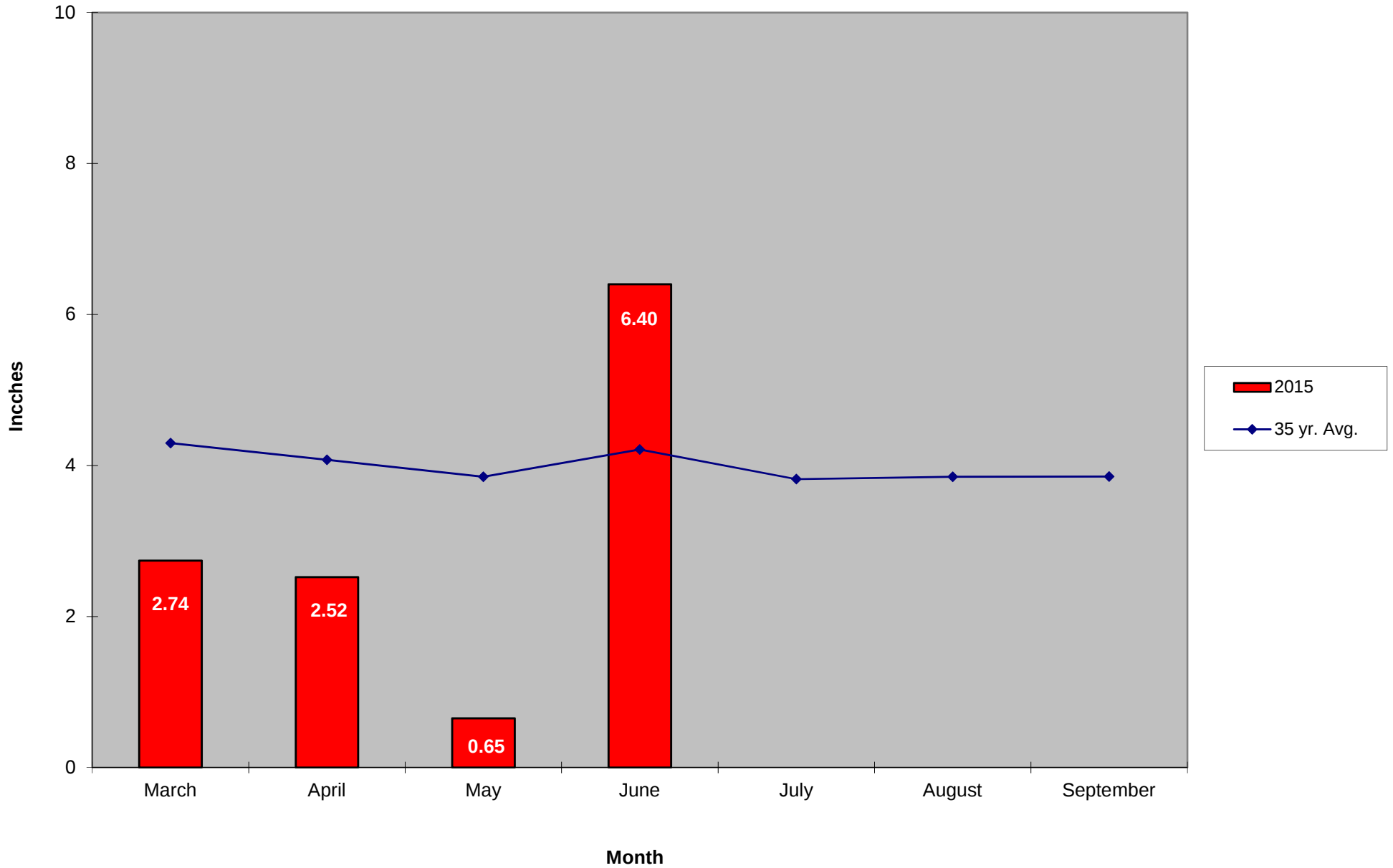
The predominant mosquito for the week was *Coquillettidia perturbans*
followed by *Culex*.

General narrative

The temperatures for EPI Week 28 averaged approximately 1 degree warmer than the previous week, with only no observed precipitation. At historical surveillance trap sites, the overall collection numbers increased by 144% over EPI week 27. This large increase was primarily due to a significant rise in the *Coquillettidia perturbans* population. EPI Week 28 also experienced elevated levels of *Aedes vexans*, which may be a result of the significant June rain events. This floodwater species is still considered low in the CMMCP service area, despite the relative spike in population. Compared to the 2014 season, the long-term surveillance locations showed an overall increase of approximately 11%. *Cq. perturbans* was once again the most abundant species in the CMMCP service area, with *Culex* spp. the second most abundant mosquito. *Cq. perturbans* will likely remain the predominant species for EPI week 29.

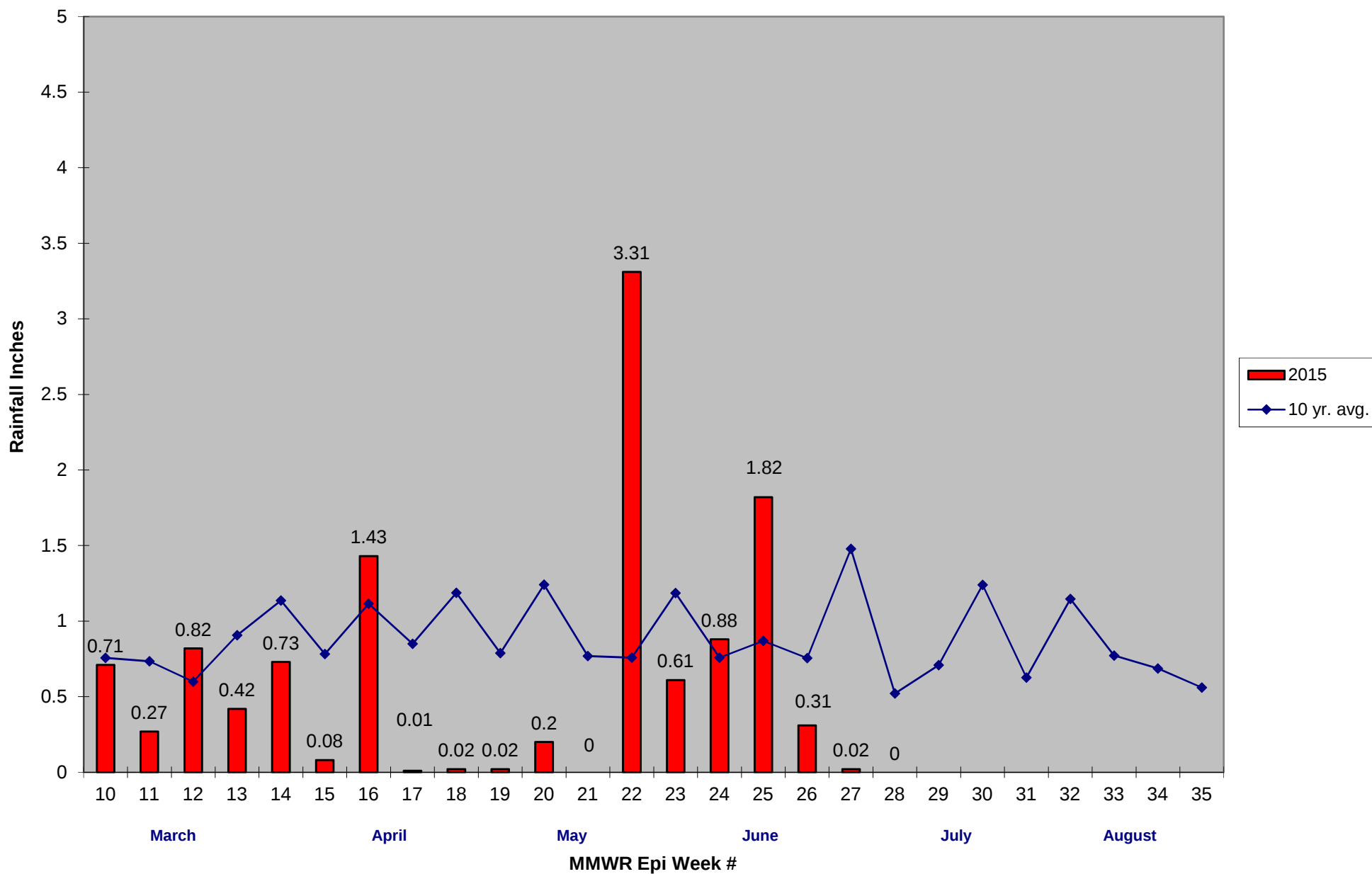
For the year we have received 203% more service requests than average; 12,871 requests to date compared to the 12 year average of 6,332. Requests were 22% more than the 2014 totals for the same time frame, 10,511 in 2014 against 12,871 in 2015. Service requests decreased 23% from EPI week 27 to Epi week 28 for 2015 (930 v.755). 1,375 service calls were completed this week with only one weather event in Natick impacting operations. To date 11,993 service calls have been completed despite weather conditions earlier in the season that cancelled or postponed operations. Catch basin treatments have restarted as a preemptive control for *Culex* and West Nile Virus.

2015 Mass. Rainfall Data vs. 35 Year Average*



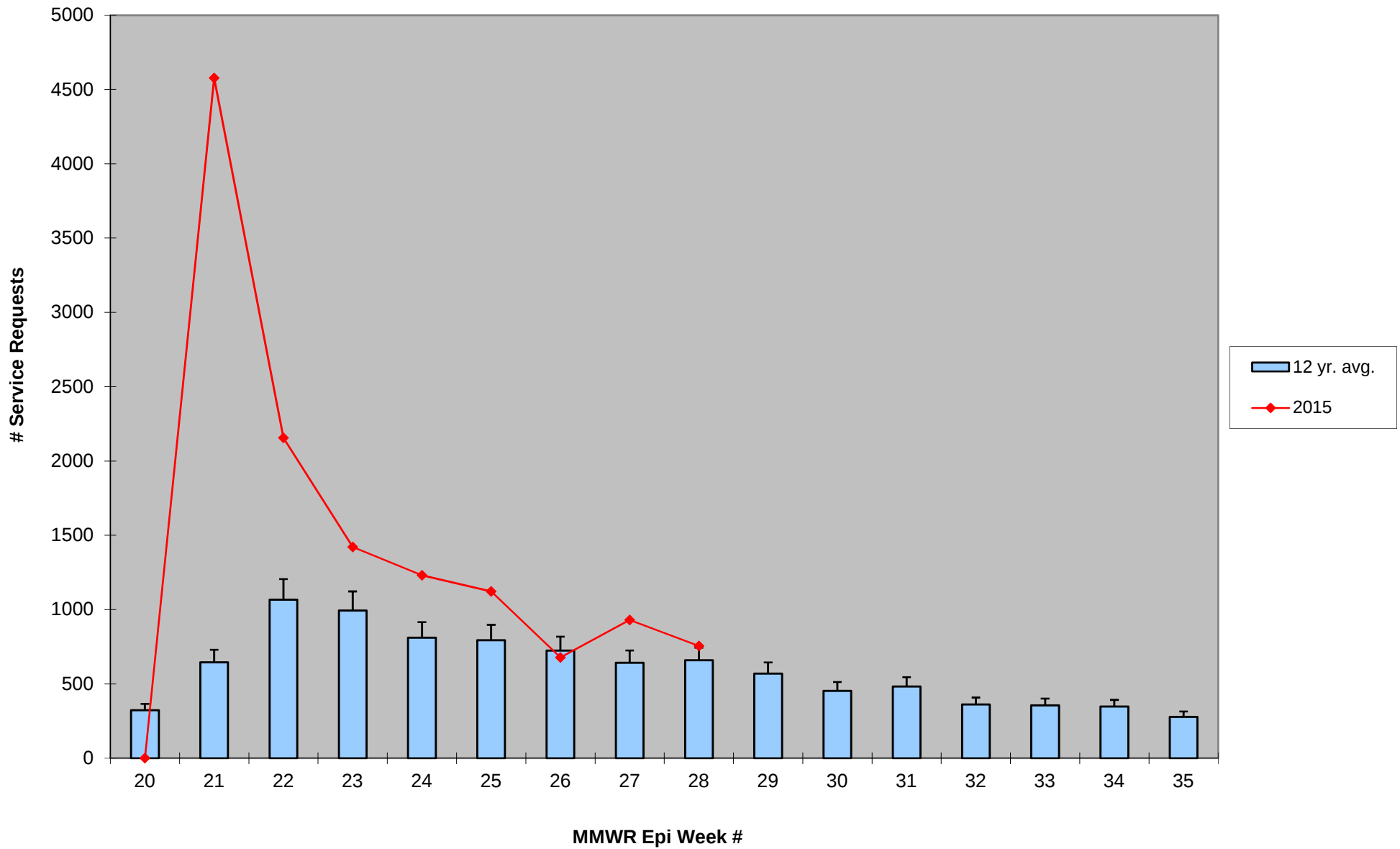
*Source: http://www.nrcc.cornell.edu/page_summaries.html

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

