

# CMMCP WEEKLY SURVEILLANCE REPORT



**EPI week #38**  
**Sept. 20-26, 2015**

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**Central Mass. Mosquito Control Project**  
**Weekly Report- 9/20/15-9/26/15**  
**EPI Week #38**

**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
<b>No. Pools</b>	250	603	150	230	315	3831
<b>Total Specimens</b>	2219	35527	11131	4818	17882	77415
<b>No. Pools WNV +</b>	0	0	0	0	8 <sup>†</sup>	8 <sup>†</sup>
<b>No. Pools EEE +</b>	0	0	0	0	0	0

<sup>†</sup>Pool of WNV+ *Culex pipiens/restuans* complex collected in Hudson on 8/27/15

<sup>†</sup>Pool of WNV+ *Culex pipiens/restuans* complex collected in Lowell on 9/4/15

<sup>†</sup>Pool of WNV+ *Culex pipiens/restuans* complex collected in Millbury on 9/9/15

<sup>†</sup>Pool of WNV+ *Culex pipiens/restuans* complex collected in Millville on 9/10/15

<sup>†</sup>Pool of WNV+ *Culex pipiens/restuans* complex collected in Millbury on 9/17/15

<sup>†</sup>Pool of WNV+ *Culex pipiens/restuans* complex collected in Natick on 9/17/15

<sup>†</sup>Pool of WNV+ *Culex pipiens/restuans* complex collected in Sherborn on 9/17/15

<sup>†</sup>Pool of WNV+ *Culex pipiens/restuans* complex collected in Northbridge on 9/18/15

**Weather Summary (Northborough, MA):** The weather for EPI Week 38 averaged 57.3°F with a recorded high temperature of 77.2°F and a recorded low temperature of only 42.5°F. There were 0.01 inches of precipitation observed this week. Compared to the previous week, it was approximately 10.3°F cooler on average, and rained about 0.29 inches less. There has been 1.84 inches of rain accumulated in September, after 1.45 inches for the month of August.

**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>	+152.00%	+00.00%	Wilmington
<i>Coquillettidia perturbans</i>	+19.00%	+00.0%	Sturbridge
<i>Culiseta melanura</i>	+97.0%	+678.00%	Tewksbury
<i>Ochlerotatus canadensis</i>	+50.00%	+00.00%	
<i>Culex</i> Species	-56.00%	-4.0%	Ashland, Natick, Tewksbury
All Species	+172.7%	+20.00%	

The predominant mosquito for the week was *Aedes vexans*  
followed by *Culex spp.*

\*Seasonal numbers may contribute to these comparisons being not as significant as they appear

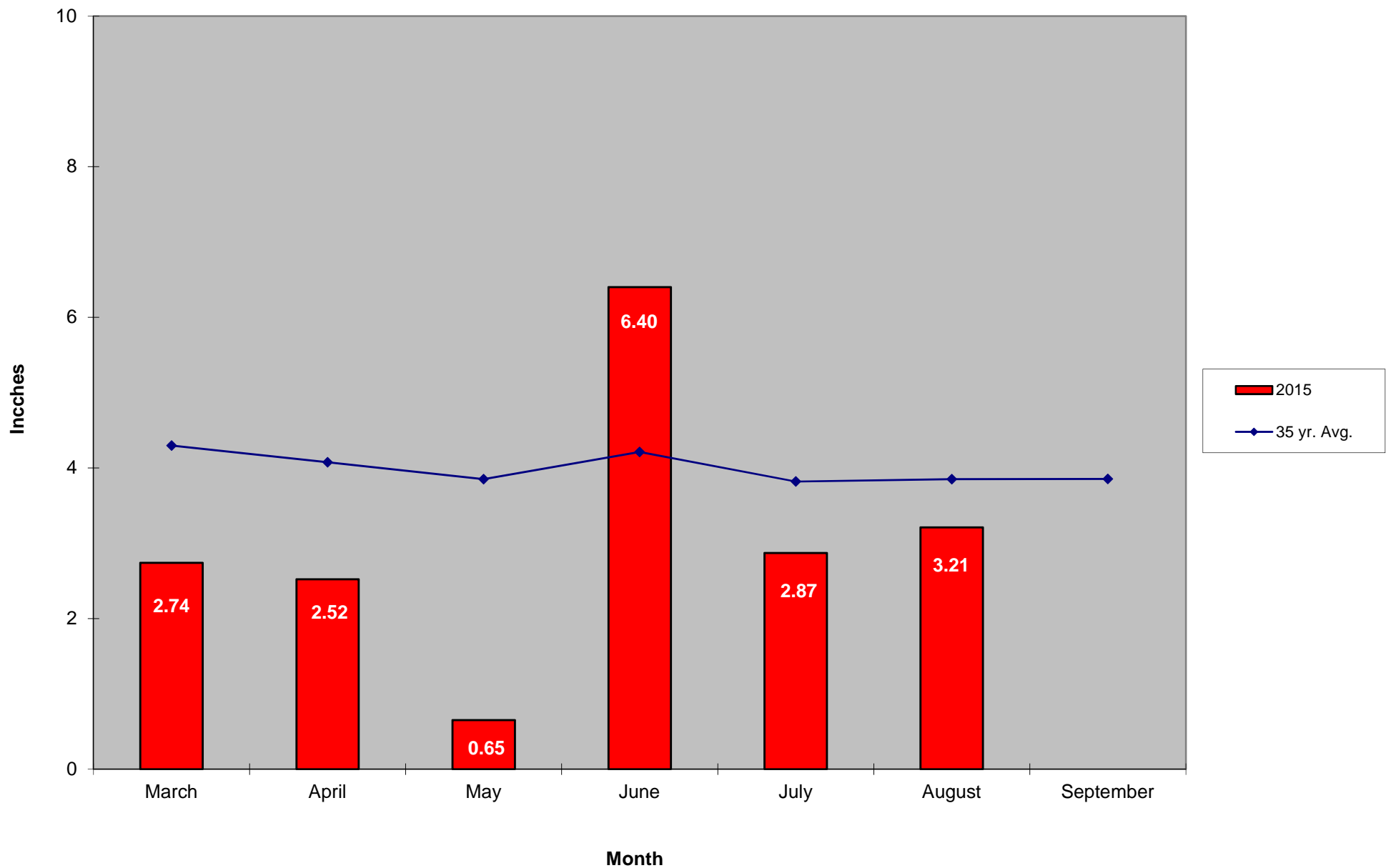
## **General narrative:**

The temperatures for EPI Week 38 dropped approximately 10°F from the previous week, with negligible precipitation observed. Overall collection numbers increased by approximately 200% from EPI Week 37 at the historical surveillance trap sites, due in part to the previous week's rainfall and a late season increase in *Cs. melanura* and *Ae. vexans*. Other target species continued to decline. *Aedes vexans* was the most abundant species in the CMMCP service area with *Culex spp.* a distant second.

4 West Nile Virus positives were recorded in Epi week #38; one each in Millbury, Natick, Northbridge and Sherborn. The isolation in Millbury was at the same site WNV was found in Epi week 37, and the collection was made 12 hours before we performed a vector control operation in the area – no additional spraying was necessary, and we will still monitor virus activity in the area. Natick & Sherborn sent out press releases urging personal protection measures, but Northbridge did request a vector control operation. Adulticiding was performed in a half mile radius around the WNV+ trap on Sept. 24. Looking ahead a week or two it is doubtful that adulticiding operations will be feasible the rest of the season.

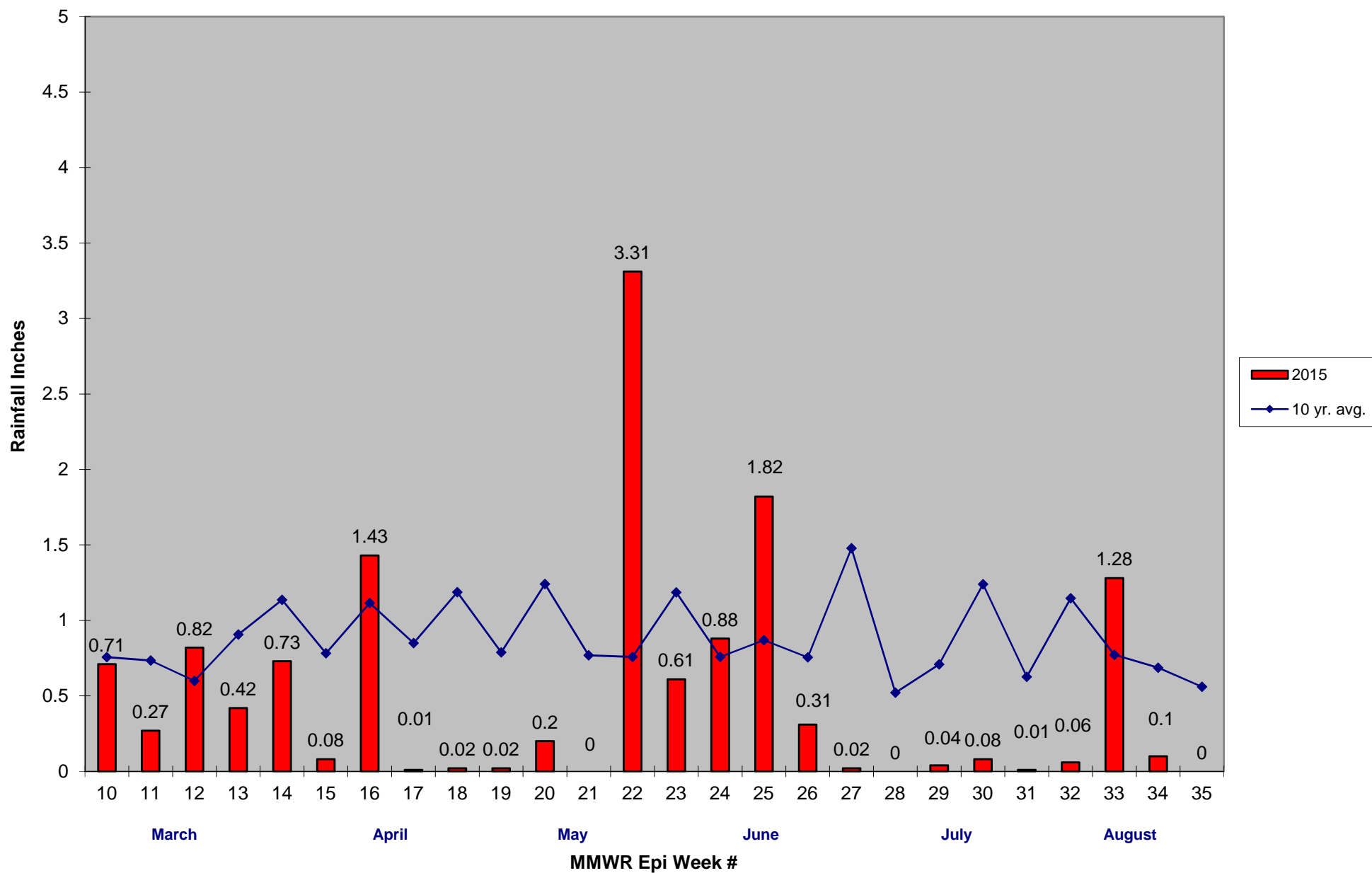
For the year we received 173% more service requests than average; 15,477 requests compared to the 12 year average of 8,901. 15,561 service calls have been completed despite weather conditions earlier in the season that cancelled or postponed operations. Catch basin treatments have ended in all member communities as a preemptive control for *Culex* and West Nile Virus – final tally for 2015 is 84,902, a 28% increase from 2014. Our tire collection and ditch maintenance programs are now operating full time.

### 2015 Mass. Rainfall Data vs. 35 Year Average\*



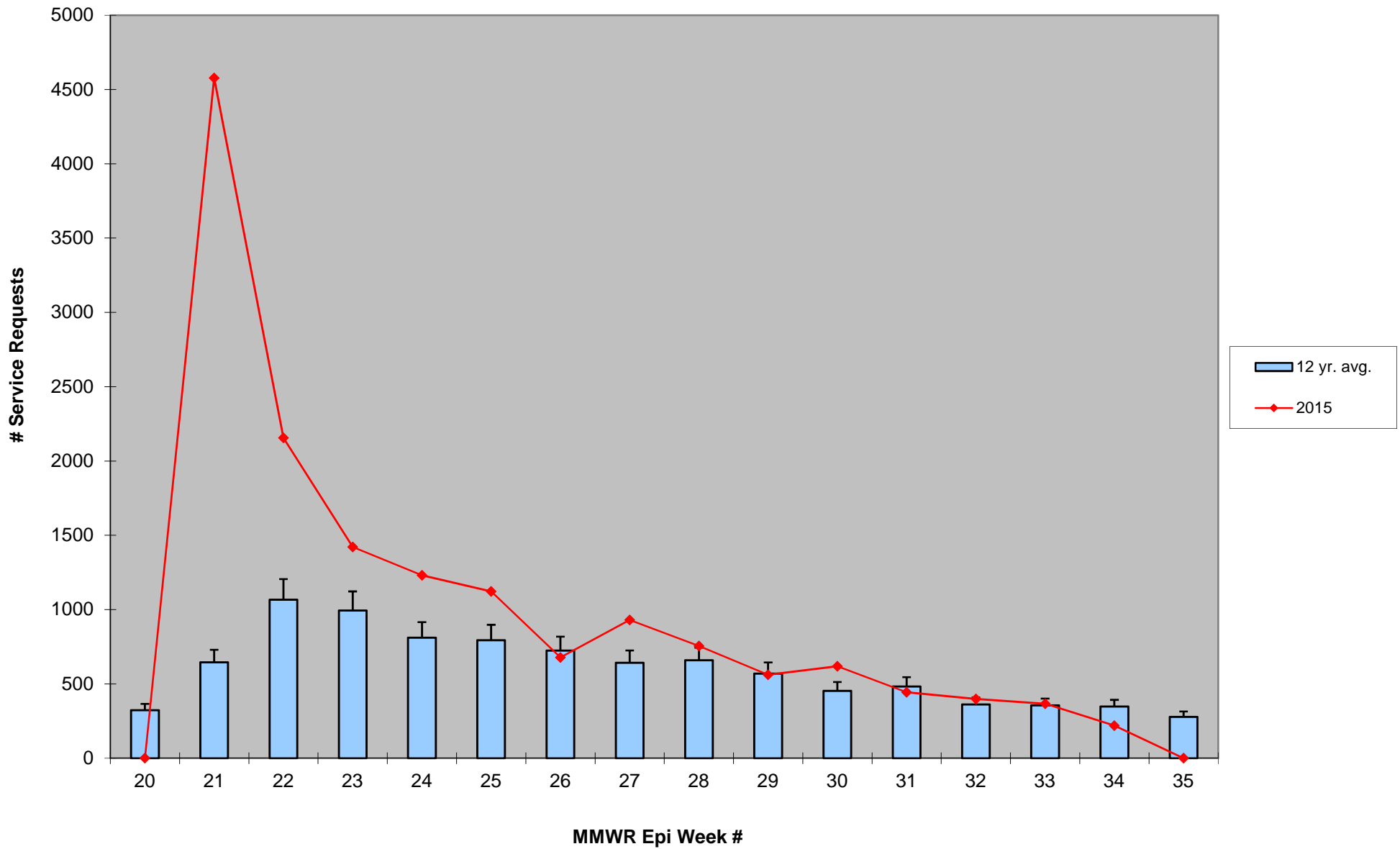
\*Source: [http://www.nrcc.cornell.edu/page\\_summaries.html](http://www.nrcc.cornell.edu/page_summaries.html)

## 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

