

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #39
Sept. 25 – Oct. 1, 2016

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Central Mass. Mosquito Control Project
Weekly Report- 9/25/16-10/1/16
EPI Week #39

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	75	524	33	103	674	1769
Total Specimens	1156	51025	577	4826	14031	77870
No. Pools WNV +	0	2 [†]	0	0	14 [†]	16 [†]
No. Pools EEE +	0	0	0	0	0	0

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Auburn on 8/2/16

[†]Pool of WNV+ *Coquillettidia perturbans* collected in Auburn on 8/2/16

[†]Pool of WNV+ *Coquillettidia perturbans* collected in Hopkinton on 8/5/16

[†]Pool of WNV+ *Culex pipiens/restuans* complex collected in Chelmsford on 8/16/16

[†]Pool of WNV+ *Culex* species collected in Millbury on 8/19/16

[†]Pool of WNV+ *Culex* species collected in Auburn on 8/23/16

[†]Pool of WNV+ *Culex* species collected in Westborough on 8/24/16

[†]Pool of WNV+ *Culex* species collected in Boylston on 8/25/16

[†]Pool of WNV+ *Culex* species collected in Millbury on 8/25/16

[†]Pool of WNV+ *Culex* species collected in Millbury on 8/25/16

[†]Pool of WNV+ *Culex* species collected in Millbury on 9/1/16

[†]Pool of WNV+ *Culex* species collected in Auburn on 9/7/16

[†]Pool of WNV+ *Culex* species collected in Millbury on 9/8/16

[†]Pool of WNV+ *Culex* species collected in Berlin on 9/8/16

[†]Pool of WNV+ *Culex* species collected in Auburn on 9/13/16

[†]Pool of WNV+ *Culex* species collected in Clinton on 9/15/16

Weather Summary (Northborough, MA): The weather for this particular week averaged 54.79°F with a recorded high temperature of 72.30°F and a recorded low temperature of only 35.50°F. There was 0.65 inches of precipitation observed this week. Compared to the previous week, it was approximately 8.17°F cooler on average, and rained 0.57 inches less. There has been 0.22 inches of rain accumulated in October, after 2.09 inches for the month of September.

CMMCP Mosquito Summary*-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
<i>Aedes vexans</i>	-47.73%	+2200%	Leominster, Gardner
<i>Coquillettidia perturbans</i>	-50.00%	-50.00%	Webster
<i>Culiseta melanura</i>	-100.0%	-100.0%	N/A
<i>Ochlerotatus canadensis</i>	-66.67%	+00.00%	Webster
<i>Culex</i> Species	-90.00%	-87.50%	Millbury
All Species	-67.48%	+33.33%	Millbury

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

*Low late season numbers may contribute to these comparisons being not as significant as they appear.

The temperature for EPI week 39 averaged approximately 8.17 degrees cooler than the previous week, with 0.65 inches of precipitation observed. At the CMMCP historical surveillance trap sites, the overall collection numbers decreased (-67.48%) over EPI week 38. All target species experienced reductions in population this surveillance period. The long-term surveillance locations once again showed an overall increase when compared to the 2015 season. Elevated levels of *Aedes vexans* influenced this yearly change. *Culex* species are currently the most abundant target mosquito in the CMMCP service area, with *Ae. vexans* the second most abundant species once again. This was the final week of mosquito surveillance for the 2016 season. Thirty egg papers were collected from CMMCP ovitraps this week. These produced only 14 eggs which will help gauge the presence of *Aedes albopictus* in central Massachusetts. No identifications of *Ae. albopictus* have been confirmed in 2016.

Enhanced Surveillance for *Aedes albopictus* - Ovitrap Collections

	# Ovitrap	# Egg Papers	# Eggs
EPI Week #22	15	7	0
EPI Week #23	-	-	-
EPI Week #24	5	2	49
EPI Week #25	15	6	93
EPI Week #26	17	17	19
EPI Week #27	25	19	1180
EPI Week #28	25	25	1020
EPI Week #29	10	7	62
EPI Week #30	15	12	632
EPI Week #31	15	10	524
EPI Week #32	20	19	985
EPI Week #33	10	10	147
EPI Week #34	35	33	1929
EPI Week #35	30	20	263

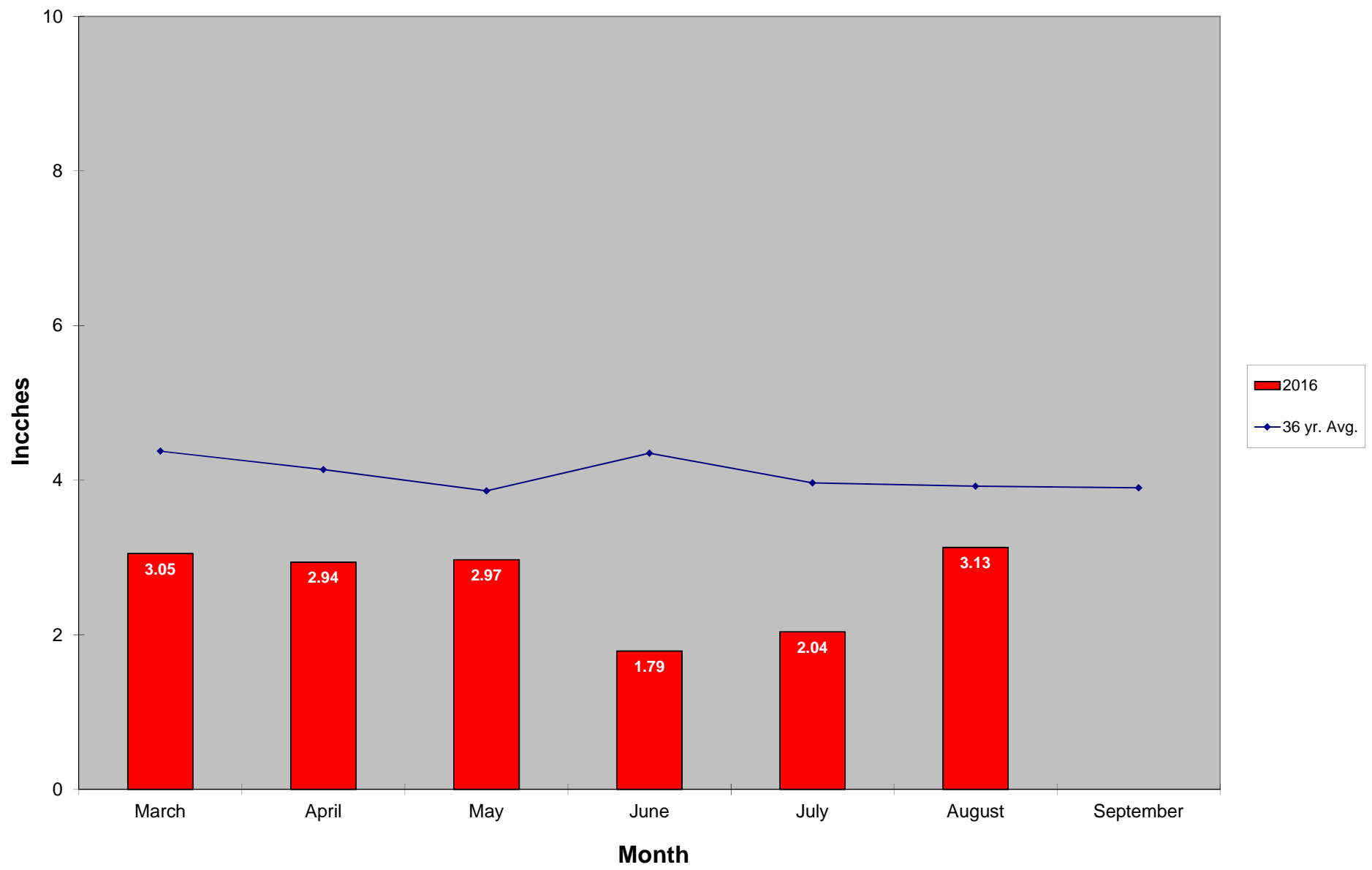
EPI Week #36	20	20	27
EPI Week #37	30	28	896
EPI Week #38	20	20	181
EPI Week #39	30	30	14
2016 Totals	337	285	8021

No virus confirmations were confirmed in Epi week 38.

For the year we received 153% more service requests than average; 15,281 requests compared to the 13 year average of 9,962. Routine adulticiding ended Sept. 1 due to decreasing service requests from residents and declining mosquito populations, but CMMCP work crews will be ready for arbovirus interventions as needed until the season ends.

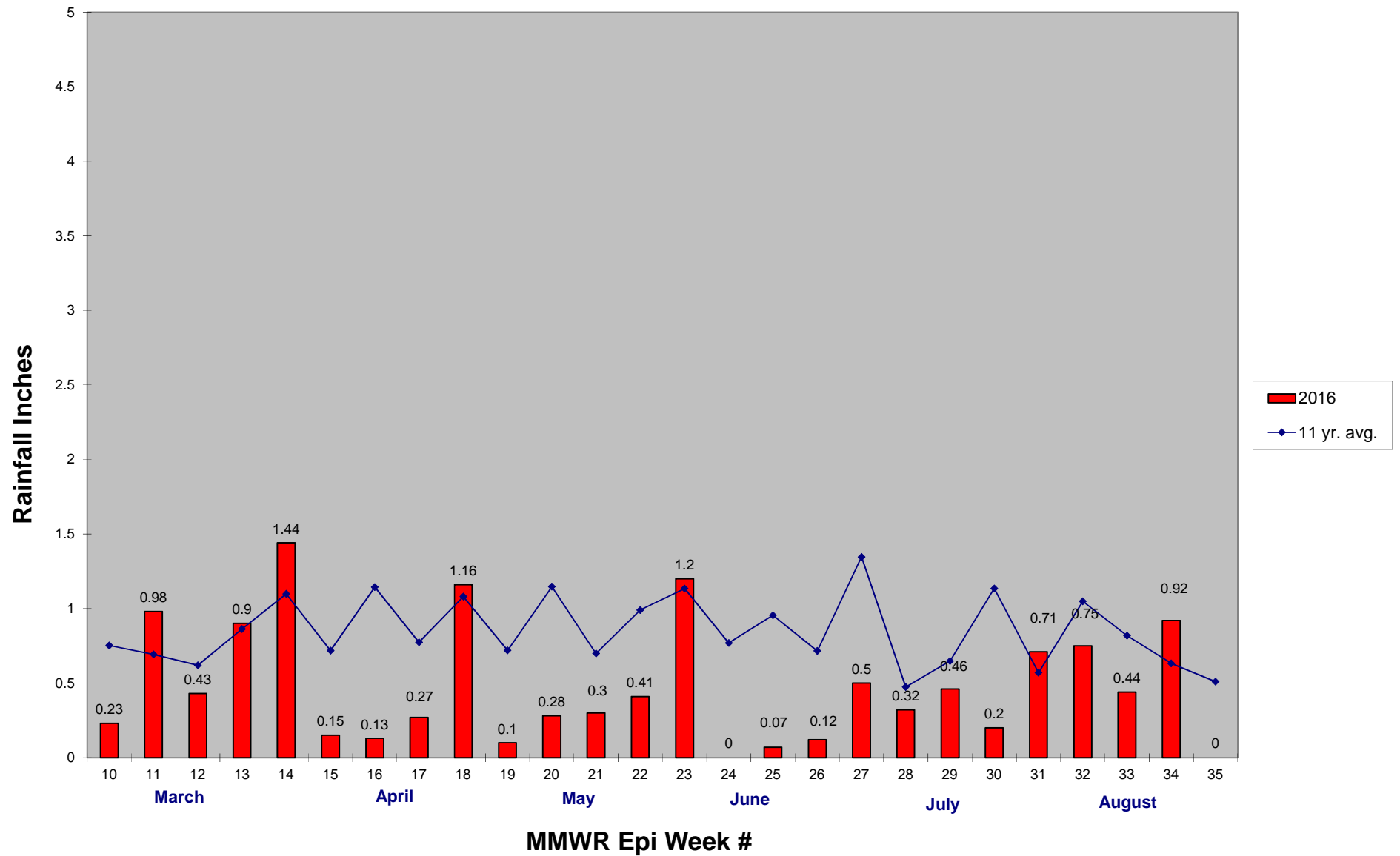
Standard catch basin treatments totaling 79,271 have ended in all member communities. Our tire program has come off hiatus and we have begun collecting tires. We have 2 large tire piles to remove along with local stakeholder assistance, plus numerous curbside pickups have been scheduled and/or completed. Standard ditch maintenance jobs are lined up in all districts and projects have begun in earnest; all scheduled low flow maintenance projects with the excavator have been completed by the ACOE deadline of October 1.

2016 Mass. Rainfall Data vs. 36 Year Average*



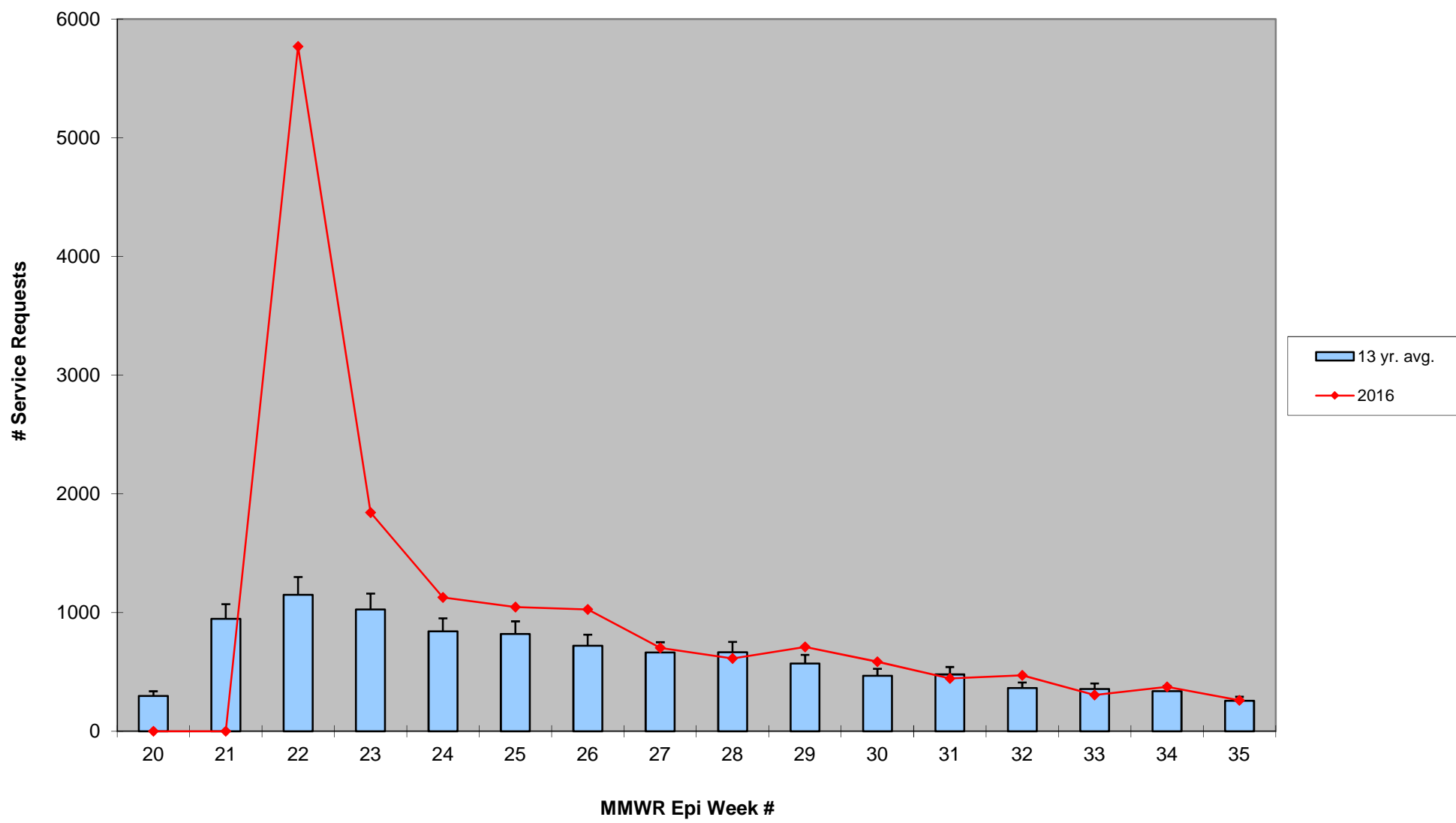
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2016 CMMCP Weekly Rainfall vs. 11 Year Average*



*source: CMMCP weather station Northborough, MA

ULV Service Request History Comparison 2003-2016



2016 Rainfall vs. Requests

