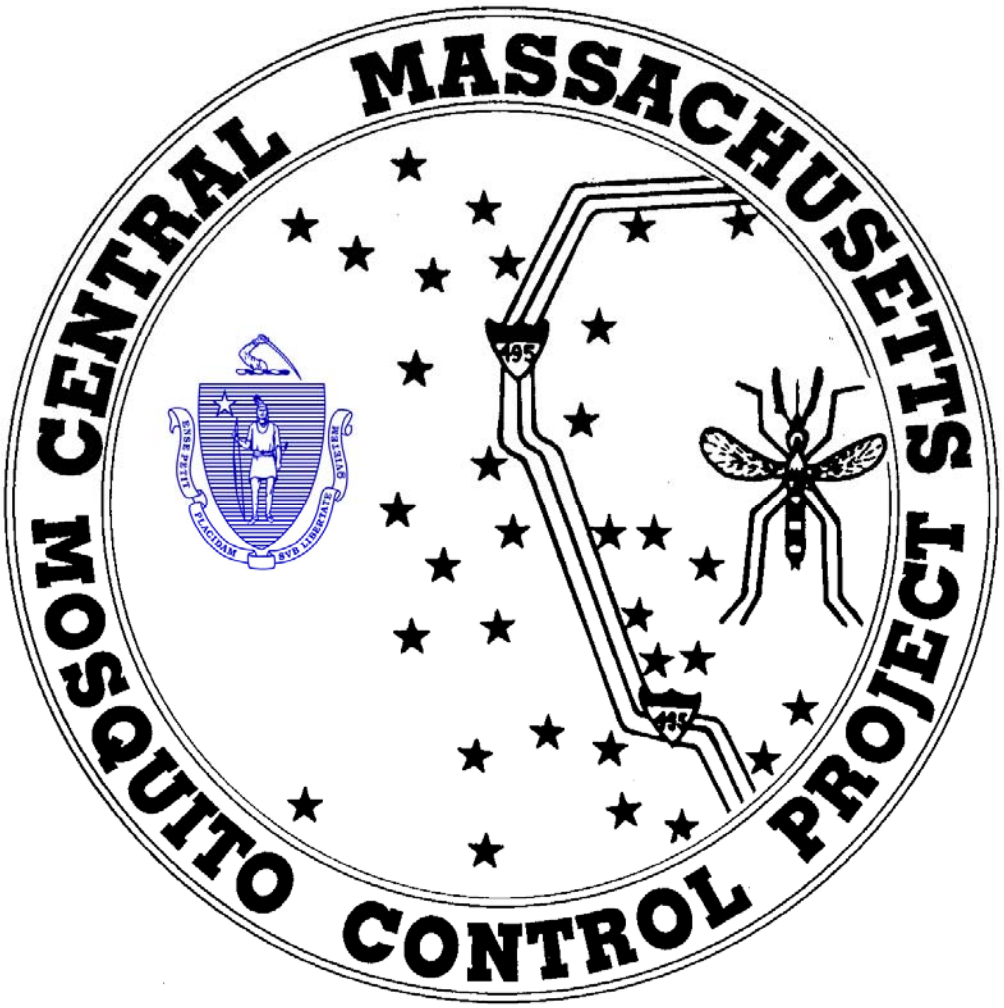
CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #32
Aug. 4-10, 2019

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Central Mass. Mosquito Control Project
Weekly Report- 8/4/19-8/10/19
EPI Week #32

Cumulative Surveillance Summary

Target Species	*Ae. vex*	*Cq. per*	*Cs. mel*	*Oc. can*	*Culex*	All Species
No. Pools	111	734	223	257	731	3578
Total Specimens	586	149827	1543	4401	12786	175273
No. Pools WNV +	0	0	0	0	2†	2†
No. Pools EEE +	0	4†	0	0	0	4†

†Pool of WNV+ *Culex* species collected in Worcester on 7/26/19
†Pool of WNV+ *Culex* species collected in Stow on 7/31/19
†Pool of EEE+ *Coquillettidia perturbans* collected in Southborough on 7/31/19
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†Pool of EEE+ *Coquillettidia perturbans* collected in Westborough on 8/2/19
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Weather Summary (Northborough, MA): The weather for this particular week averaged 72.14°F with a recorded high temperature of 88.80°F and a recorded low temperature of 53.20°F. For this week there was a total of 1.77 inches of rain observed. Compared to the previous week, it was approximately 4.75°F cooler on average, and rained about 1.55 inches more. There has been 1.78 inches of rain accumulated in August, after 5.20 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	+503.3%	+16.70%	Natick, Chelmsford
Coquillettidia perturbans	-84.89%	+271.7%	Wilmington, Hudson
Culiseta melanura	-6.060%	+562.7%	Wilmington, Gardner
Ochlerotatus canadensis	-65.00%	+136.1%	Acton, Webster
Culex Species	+15.04%	-55.66%	Worcester, Wilmington
All Species	-78.17%	+129.5%	Wilmington, Natick

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

General narrative: The temperatures for EPI week 32 averaged approximately 4.75°F cooler than the previous week, with 1.77 inches of precipitation observed. *Aedes vexans* and *Culex* experienced increases this surveillance week, while all other target species decreased. *Coquillettidia perturbans* was once again the most abundant mosquito species for the week, followed by *Culex*. All target species have been collected in higher numbers this year compared to last, except for *Culex*. Four pools of *Coquillettidia perturbans* from EPI week 31 tested positive for Eastern Equine encephalitis, with one pool of *Culex* testing positive for West Nile virus. Twenty-five egg papers, containing 941

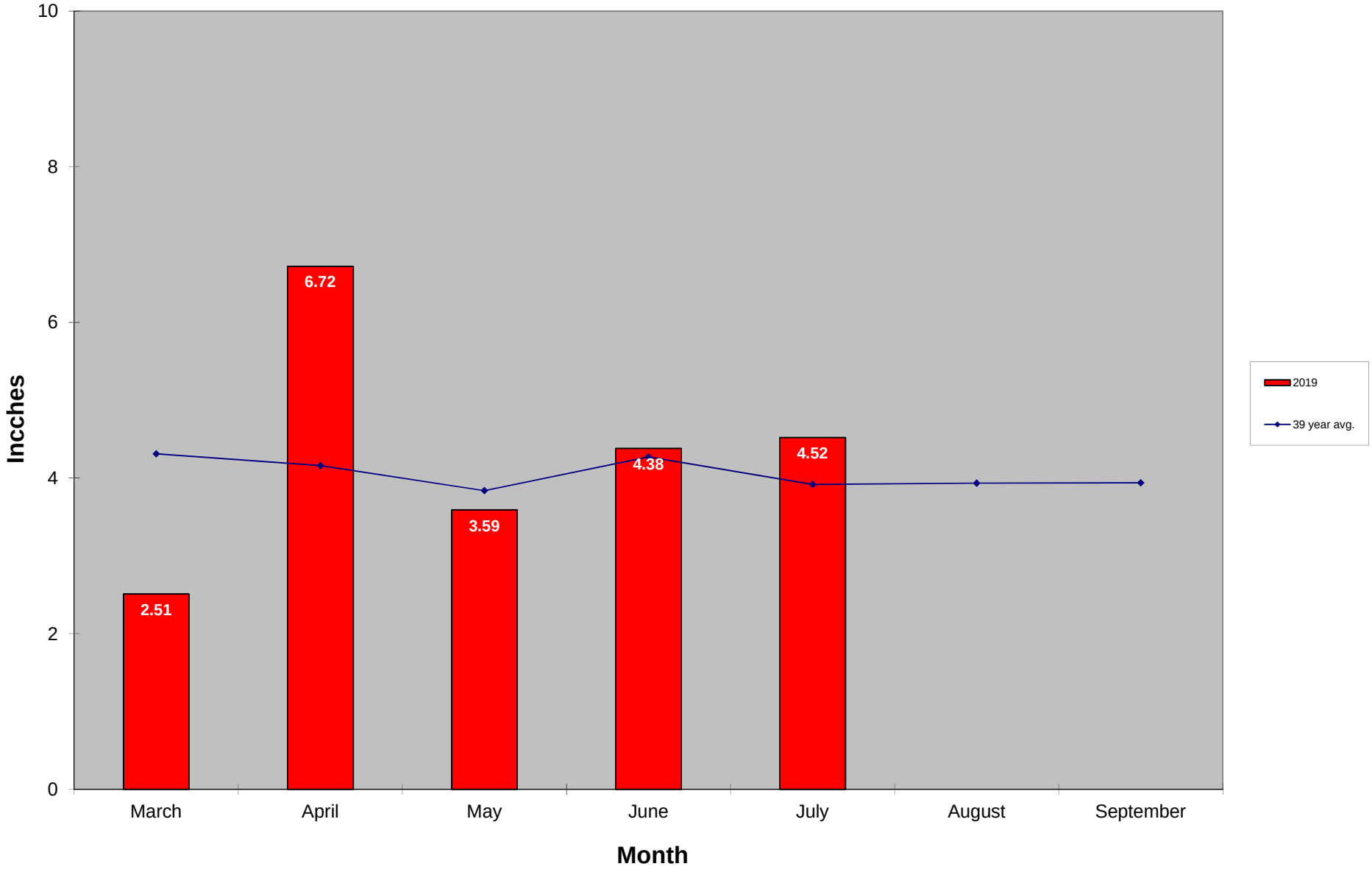
eggs, were collected for *Aedes albopictus* surveillance during EPI week 32. No confirmations of this invasive species in 2019 to date.

Service requests are 58.8% greater than the 16 year average (9,122 vs. 14,493) but 7.5% lower than 2018 numbers (15,585 vs. 14,493). Service requests increased 34% from Epi week 31 to 32 (672 vs. 901). 695 service requests were closed out in EPI week 32; 13,509 have been closed to date from a total of 14,651 received (8.4% open). Work crews have been performing catch basins treatments in all member communities for *Culex* control. 9.904 catch basins were treated in Epi week 32, bringing the total for the year to 103,363 basins treated for *Culex* control.

***Aedes albopictus* Surveillance Data**

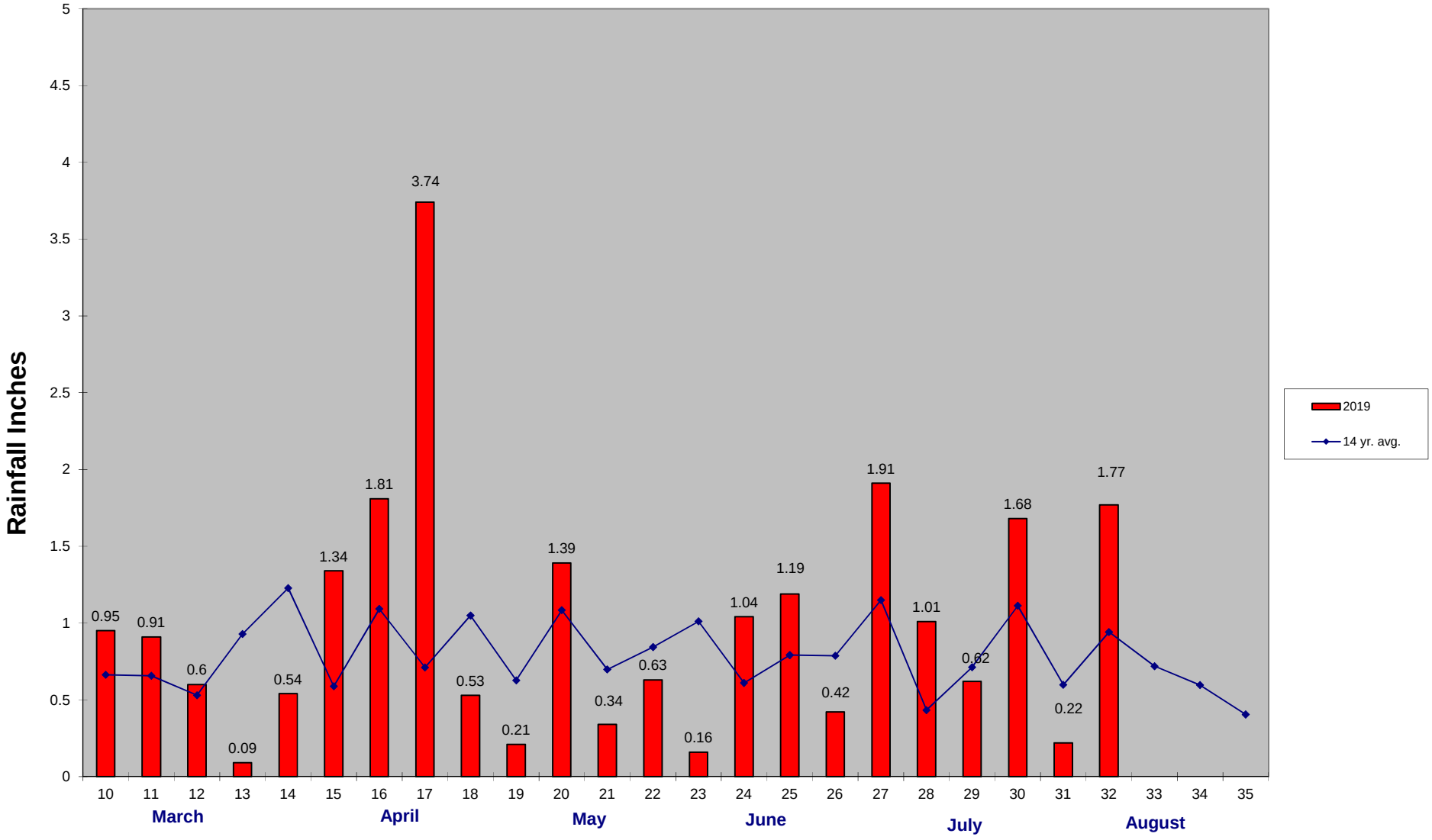
	# Ovitraps	**# Eggs**
EPI Week #22	31	4
EPI Week #23	21	221
EPI Week #24	33	530
EPI Week #25	37	1294
EPI Week #26	37	1100
EPI Week #27	-	-
EPI Week #28	35	3527
EPI Week #29	35	1481
EPI Week #30	35	1946
EPI Week #31	35	2373
EPI Week #32	25	941

2019 Mass. Rainfall Data vs. 39 Year Average*

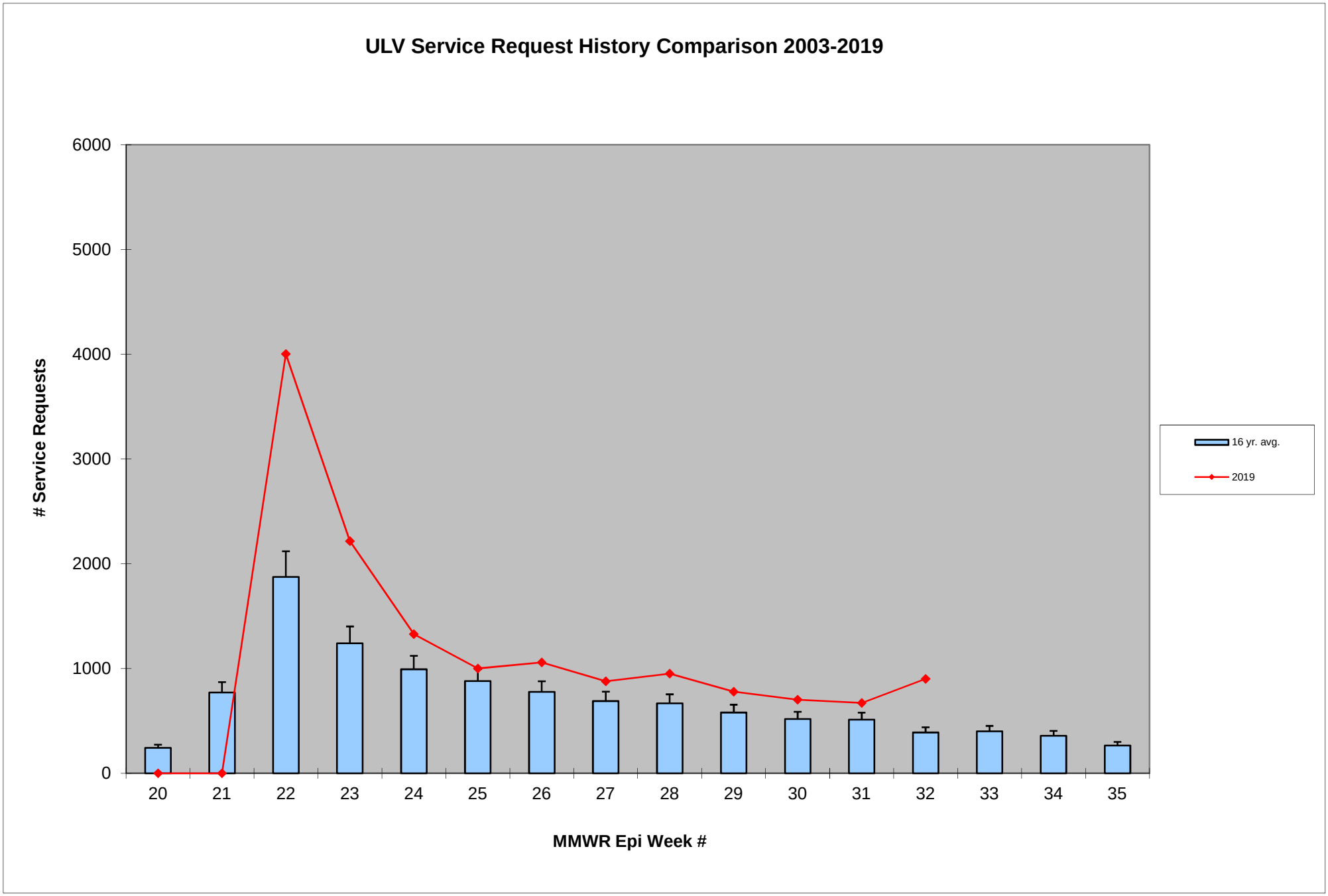


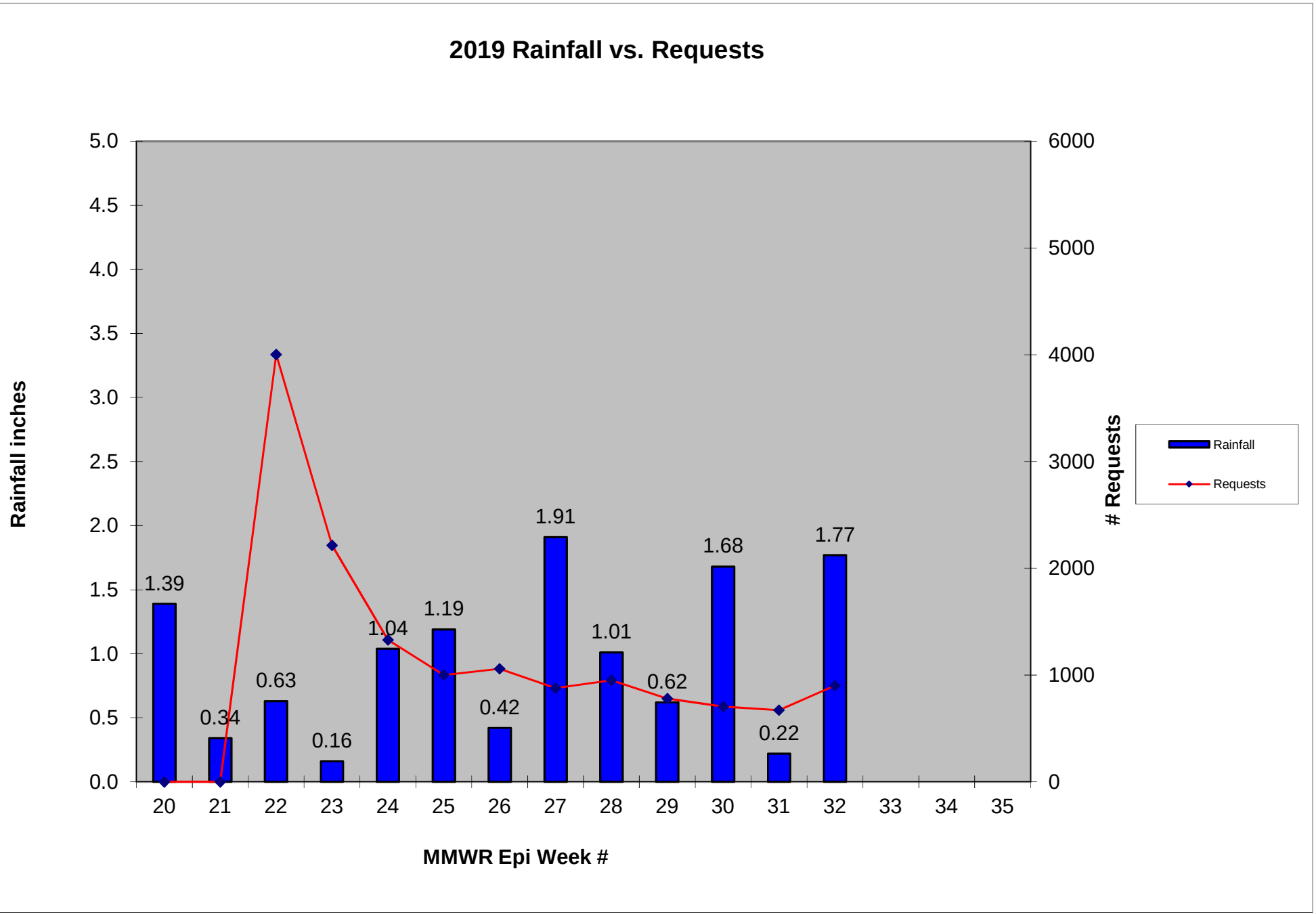
*source: http://www.nrcc.cornell.edu/regional/tables/tables.html

2019 CMMCP Weekly Rainfall vs. 14 Year Average*



*source: CMMCP weather station Northborough, MA


ULV Service Request History Comparison 2003-2019
Service Requests
6000
5000
4000
3000
2000
1000
0
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
MMWR Epi Week #
16 yr. avg.
2019


2019 Rainfall vs. Requests
Rainfall inches
Requests
MMWR Epi Week #
Rainfall
Requests
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
6000
5000
4000
3000
2000
1000
0
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
1.39
0.34
0.63
0.16
1.04
1.19
0.42
1.91
1.01
0.62
1.68
0.22
1.77