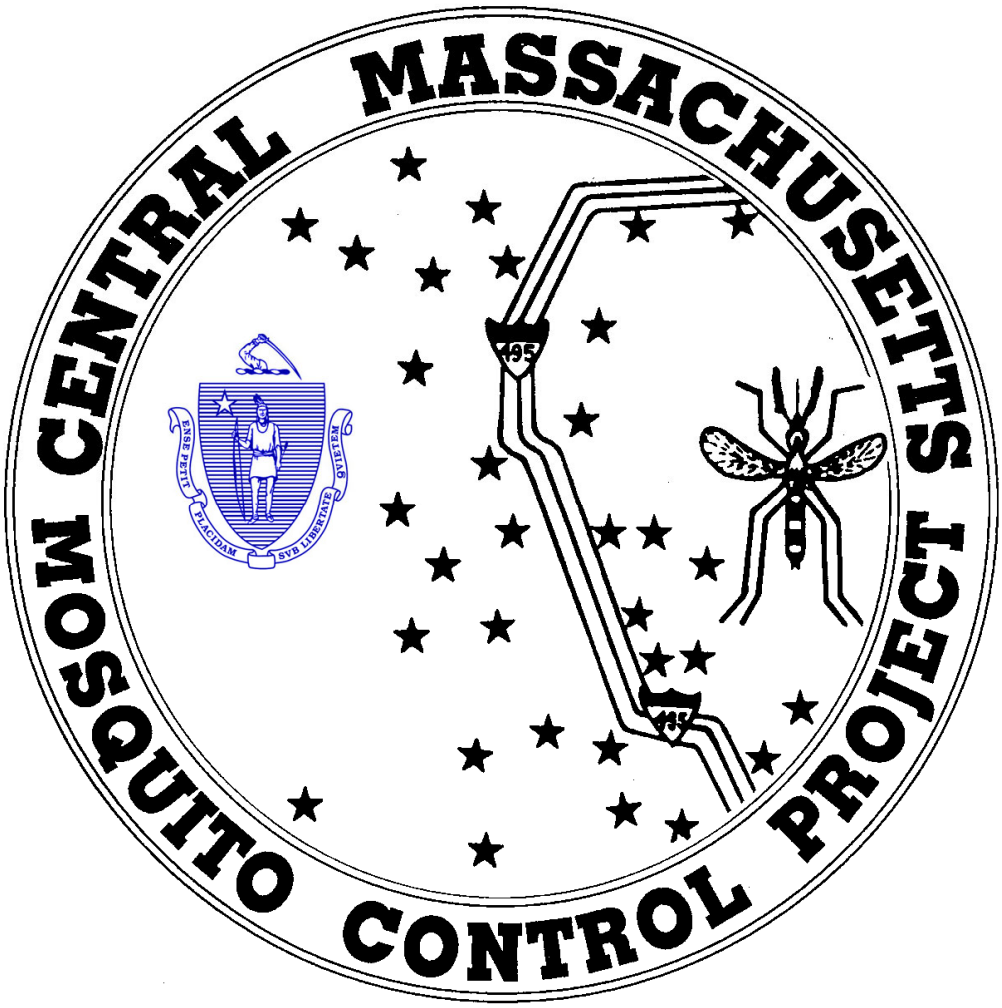
CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #26
June 26 – July 2, 2022

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Timothy Deschamps, *Executive Director*

Central Mass. Mosquito Control Project
Weekly Report- 6/26/22-7/2/22
EPI Week #26

Cumulative Surveillance Summary

Target Species	*Ae. vex*	*Cq. per*	*Cs. mel*	*Oc. can*	*Culex*	All Species
No. Pools	12	207	77	77	186	961
Total Specimens	30	7,912	362	864	1,460	15,076
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 this particular week averaged 73.09°F with a recorded high temperature of 96.90°F and a recorded low temperature of only 52.50°F. For this week there was also a total of 0.70 inches of rain observed. Compared to the previous week, it was approximately 7.02°F warmer on average, and rained about 0.06 inches more. There has been 0.44 inches of rain accumulated in July, after 2.57 inches for the month of June.

CMMCP Mosquito Summary-

Target Species	**Δ From Last Week**	**Δ From Last Year**	**Predominant Trap Site(s)**
Aedes vexans	-100.0%	-94.13%	-
Coquillettidia perturbans	+24.31%	-70.09%	Hopkinton, Littleton, Milford
Culiseta melanura	-43.33%	+498.2%	Millville, Sturbridge, Webster
Ochlerotatus canadensis	-6.63%	-34.92%	Hopedale, Littleton, Chelmsford
Culex Species	-14.24%	+188.3%	Southborough, Hudson, Boxborough
All Species	+19.69%	-62.18%	Hopkinton, Littleton, Hopedale

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

General narrative:

The temperatures for EPI week 26 averaged approximately 7.02°F warmer than the previous week, with 0.70 inches of precipitation observed. Surveillance traps indicate that the adult emergence of *Coquillettidia perturbans* has continued, with collections up almost 24% compared to EPI week 25, while all other target species were down this week. *Coquillettidia perturbans* was again the most abundant mosquito species for the week, still followed by *Culex*. Additional emergence of *Coquillettidia perturbans* may contribute to higher overall collections moving forward. *Aedes albopictus* surveillance using ovitraps has continued, with 3,217 eggs collected so far. All mosquito pools submitted in EPI week 25 to MDPH for arbovirus testing were negative.

Ae. albopictus egg collections:

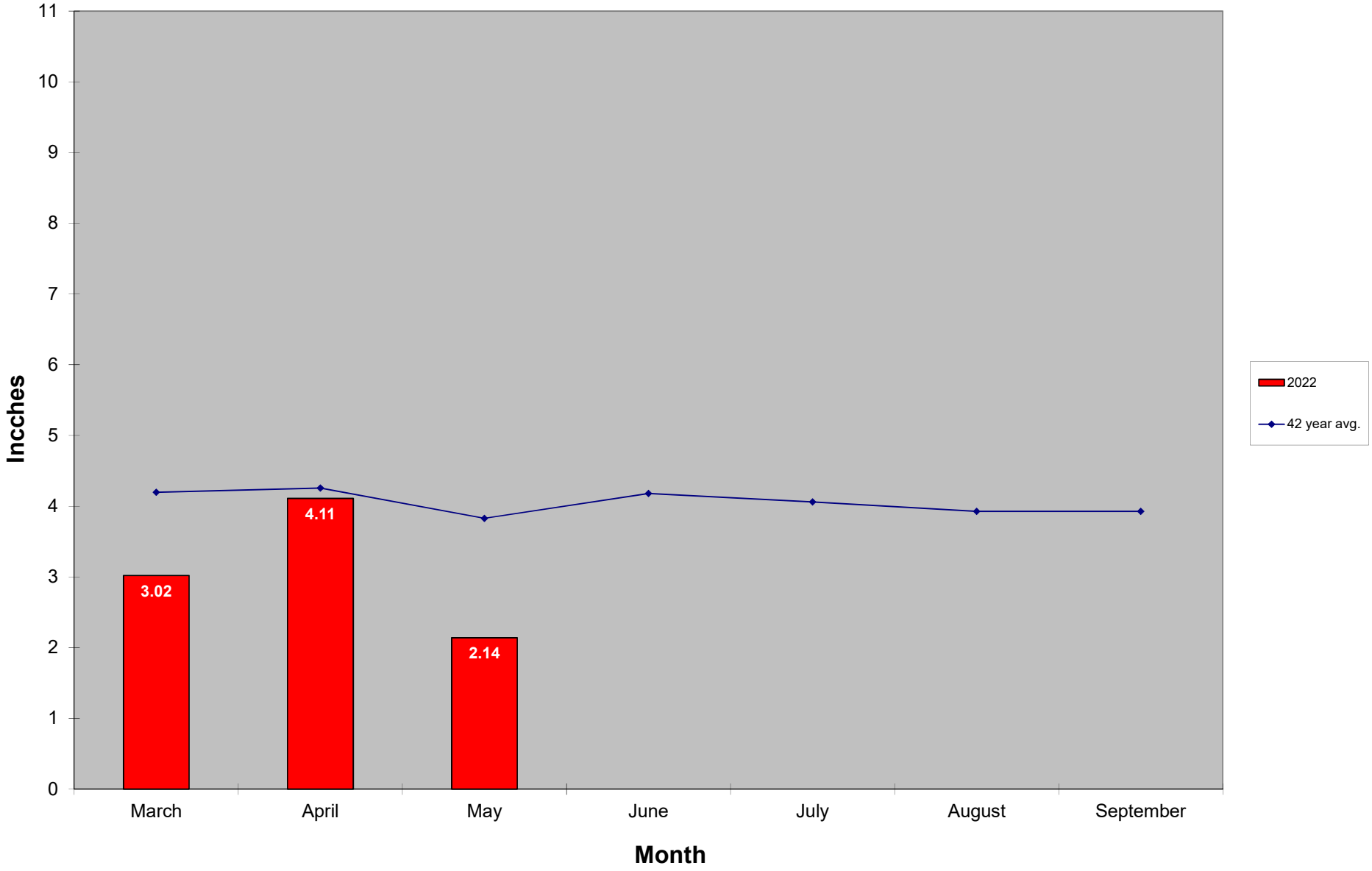
Epi week#	# eggs Collected		Epi week#	# eggs Collected
23	0		31	
24	1,016		32	
25	1,580		33	
26	621		34	
27			35	
28			36	
29			37	
30			38	
	TOTAL		**3,217**	
No ATM detections to date				

Operational notes:

Service requests are 5.5% above the 19-year average but a 8.4% decrease over 2021 numbers to date. We began accepting service requests on May 31 and 5,692 requests have been closed from 7,727 total (35.7% open). Average temps are on the increase as are *Cq. perturbans* populations so service calls have increased as expected. Work crews began performing catch basins treatments for *Culex* control on May 16. 8,233 basins were treated in Epi week 26, with 44,086 catch basins treated to date intended to suppress *Culex* populations and lower risk of transmission from WNV by this species.

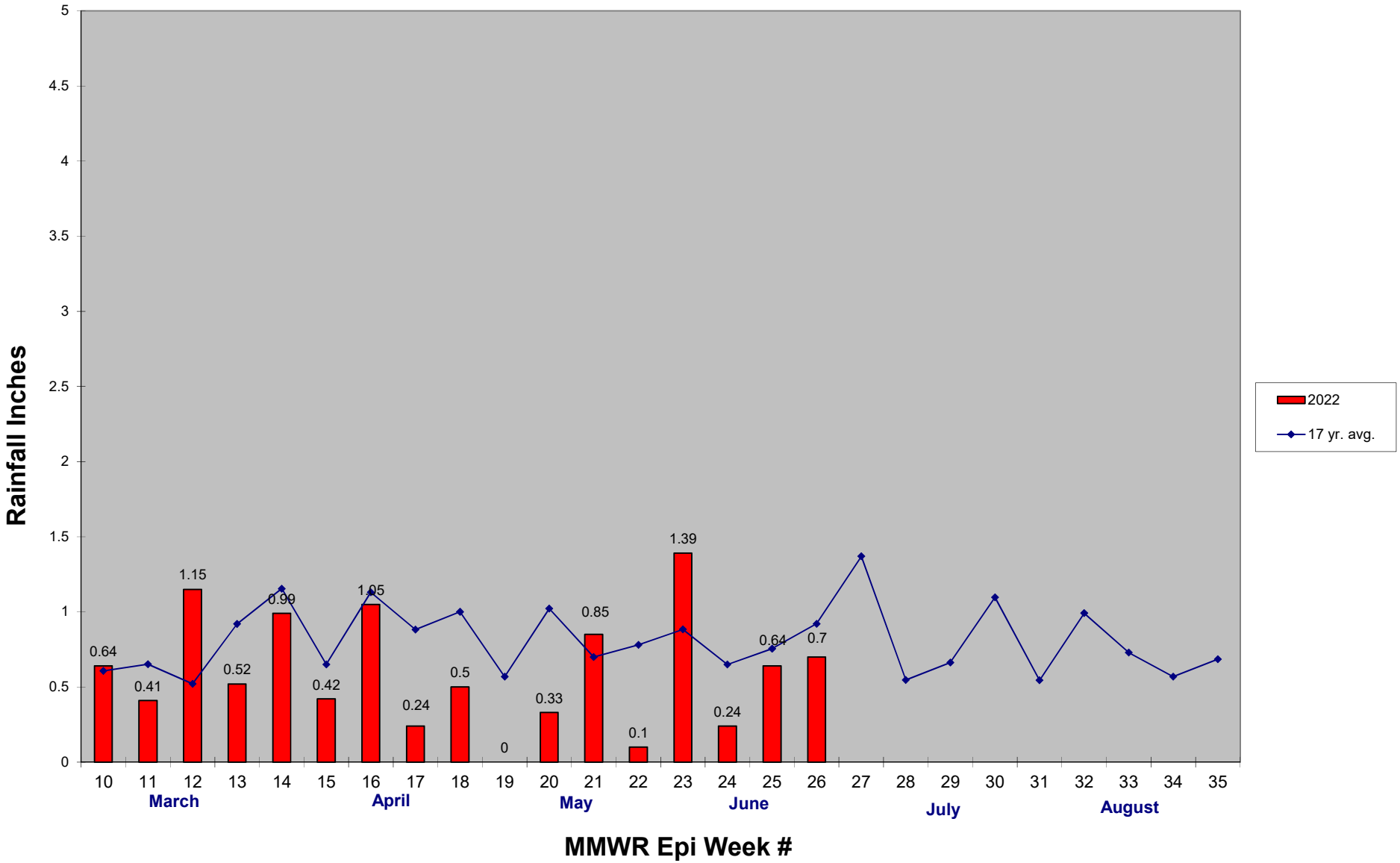
Enhanced larval control over 1,500 acres of *Cq. perturbans* habitat was done May 24 & 25 in 12-member communities designated as “Critical” risk from EEE in 2019. Data is being collected and analyzed from emergence traps in these habitats. We are also comparing and contrasting the new BG-Counter traps against our standard CDC light traps, and will run adulticide efficacy trials in house and in conjunction with Tufts School of Veterinary Medicine this summer.

2022 Mass. Rainfall Data vs. 42 Year Average*

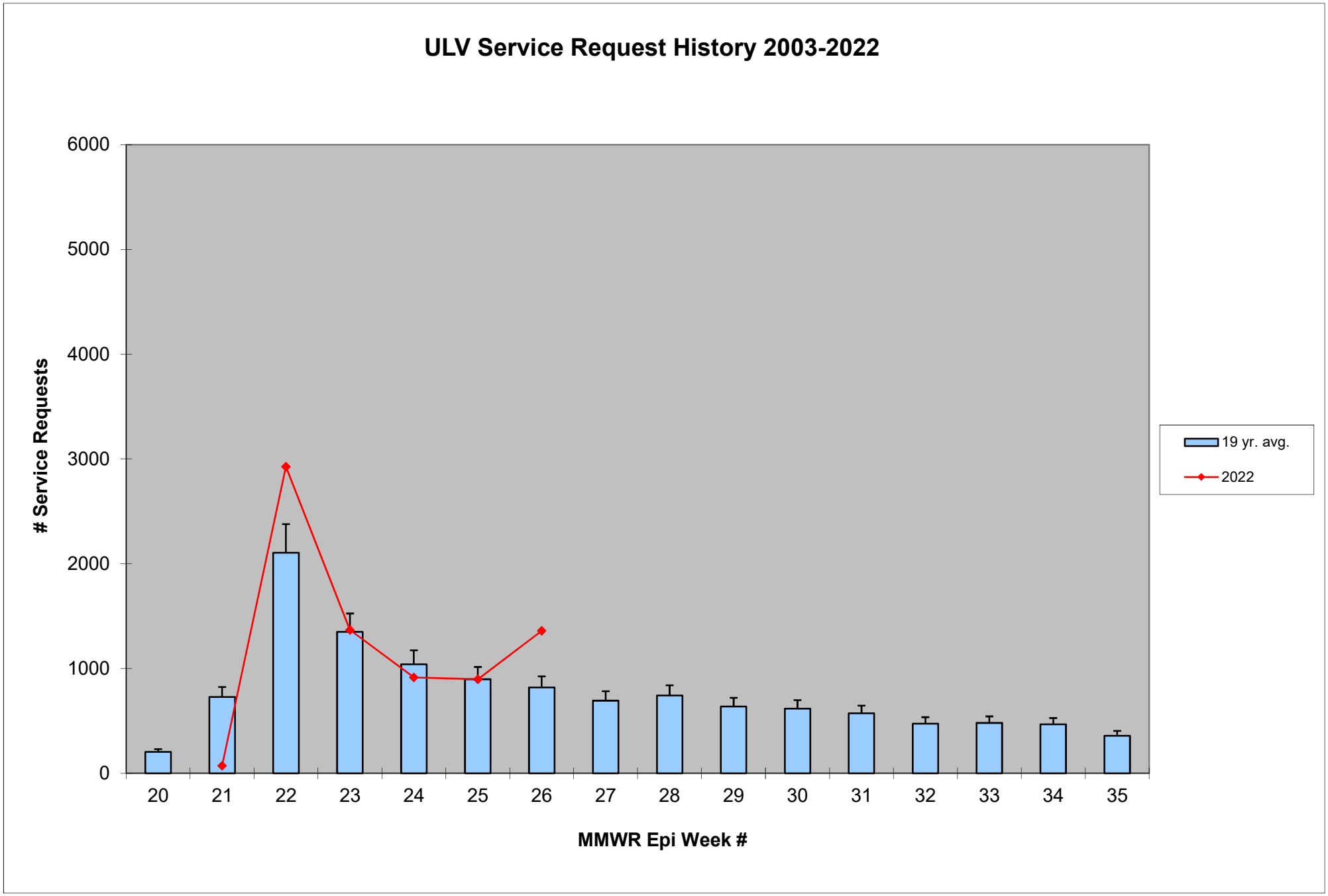


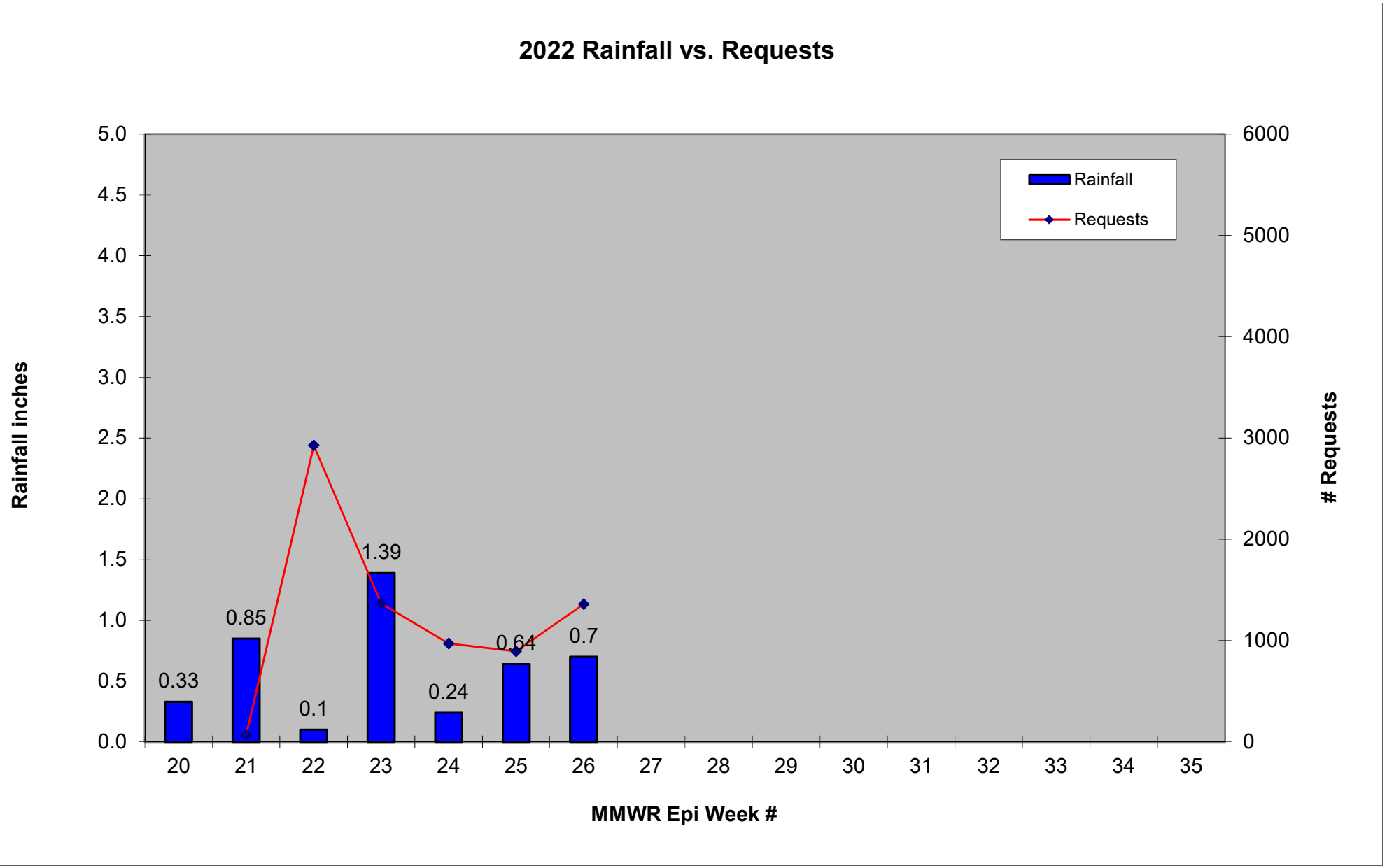
*source: http://www.nrcc.cornell.edu/regional/tables/tables.html

2022 CMMCP Weekly Rainfall vs. 17 Year Average*



*source: CMMCP weather station Northborough, MA


ULV Service Request History 2003-2022
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 #
19 yr. avg.
2022


2022 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
0.33
0.85
0.1
1.39
0.24
0.64
0.7
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35