

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #28
July 10-16, 2022

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Central Mass. Mosquito Control Project
Weekly Report- 7/10/22-7/16/22
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	24	355	95	94	279	1413
Total Specimens	54	18542	434	1075	2189	24083
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 73.31°F with a recorded high temperature of 90.40°F and a recorded low temperature of only 51.50°F. For this week there was also a total of 0.45 inches of rain observed. Compared to the previous week, it was approximately 1.60°F warmer on average, and rained about 0.21 inches more. There has been 1.13 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)
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<i>Aedes vexans</i>	+60.00%	-91.81%	Berlin, Acton
<i>Coquillettidia perturbans</i>	+2.35%	-43.64%	Lancaster, Hopedale, Milford
<i>Culiseta melanura</i>	-65.63%	+313.4%	Milford, Lancaster
<i>Ochlerotatus canadensis</i>	+0.00%	-32.82%	Lancaster, Acton, Berlin
<i>Culex</i> Species	-38.62%	+69.65%	Worcester, Boxborough, Chelmsford
All Species	-0.02%	-35.13%	Lancaster, Milford, Chelmsford

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

General narrative:

The temperatures for EPI week 28 averaged approximately 1.60°F warmer than the previous week, with 0.45 inches of precipitation observed. Surveillance traps indicate that the adult emergence of *Coquillettidia perturbans* may be nearing its peak, with collections only up approximately 2.35% compared to EPI week 27. *Culex* was the only target mosquito to experience a decrease over this past week. *Coquillettidia perturbans* was again the most abundant mosquito species for the week, still followed by *Culex*. *Aedes albopictus* surveillance using ovitraps has continued, with 6,217 eggs collected and submitted so far. All mosquito pools submitted in EPI week 27 to MDPH for arbovirus testing were negative.

Ae. albopictus egg collections:

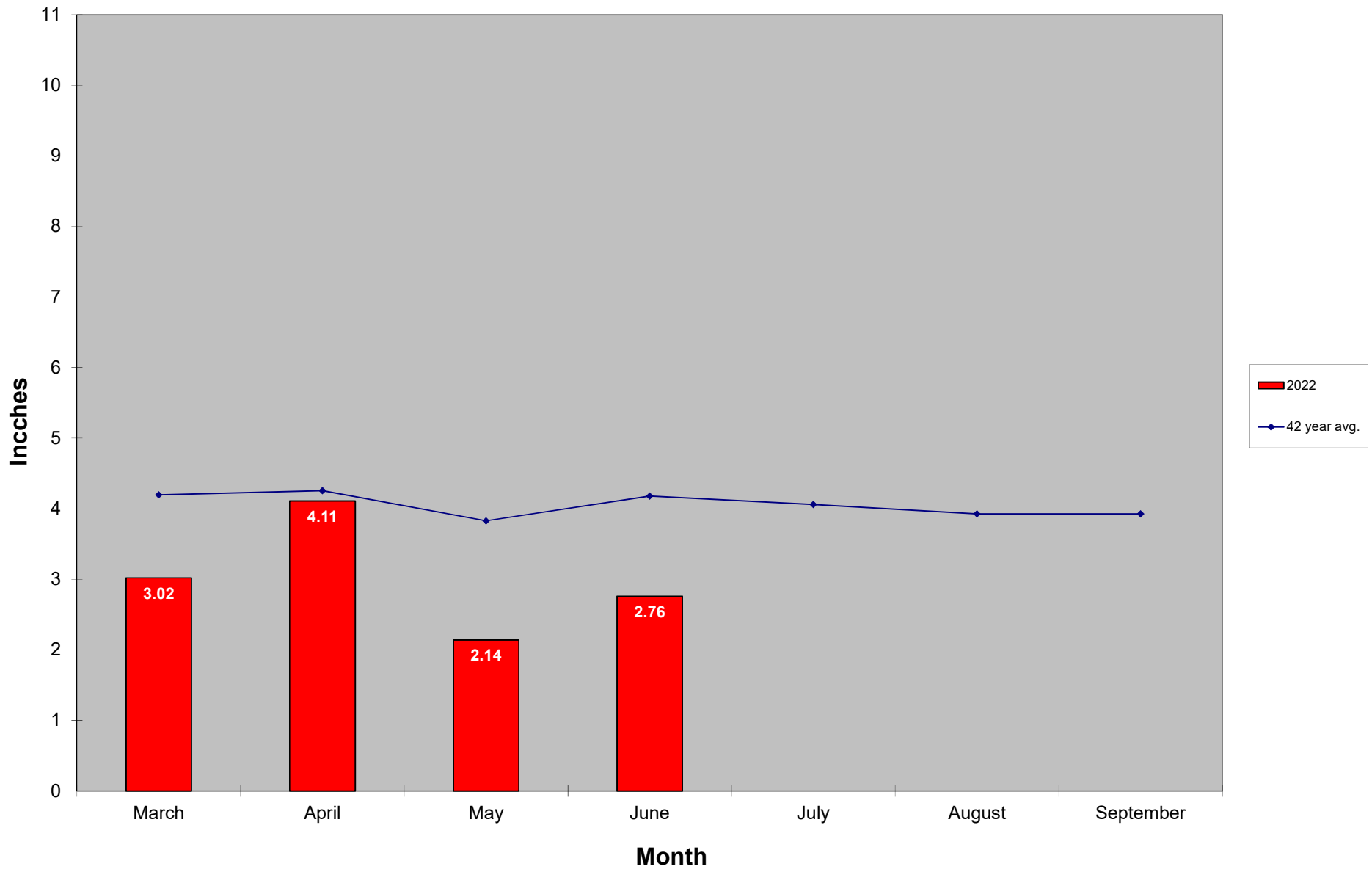
Epi week#	# eggs Collected	Epi week#	# eggs Collected
23	0	31	
24	1,016	32	
25	1,580	33	
26	621	34	
27	1,823	35	
28	1,177	36	
29		37	
30		38	
	TOTAL	6,217	
No ATM detections to date			

Operational notes:

Service requests are 3.01% above the 19-year average but a 5.9% decrease over 2021 numbers to date. We began accepting service requests on May 31 and 7,860 requests have been closed from 9,014 total (14.6% open). Average temps have stabilized as are the *Cq. perturbans* populations so service calls have continued to drop off. Work crews began performing catch basins treatments for *Culex* control on May 16. 7,276 basins were treated in Epi week 28, with 57,198 catch basins treated to date intended to suppress *Culex* populations and lower risk of transmission from WNV by this species.

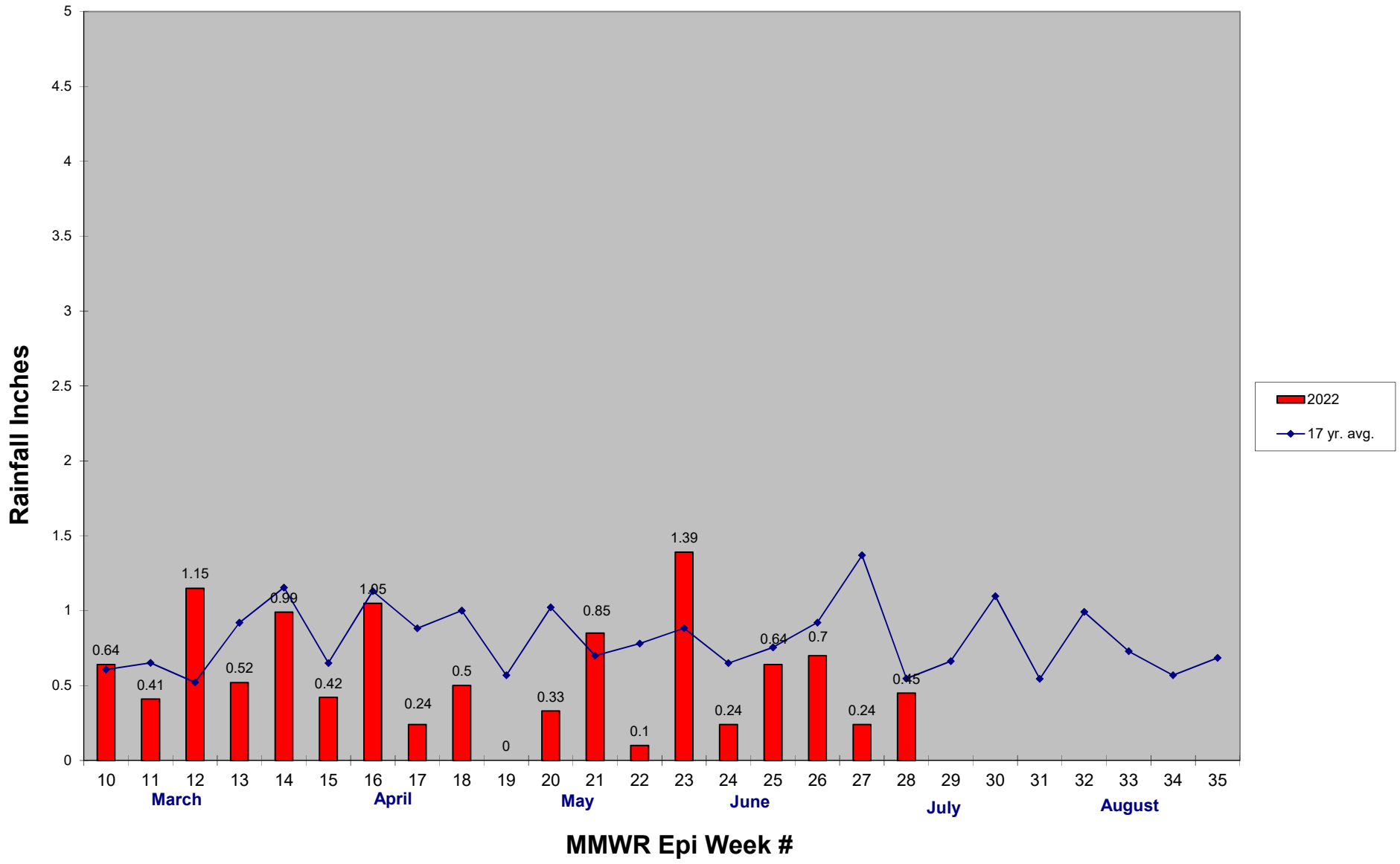
Enhanced larval control over 1,500 acres of *Cq. perturbans* habitat was done May 24 & 25 in 12-member communities designated as “Critical” risk from EEE in 2019. Data is being collected and analyzed from emergence traps in these habitats. We are also comparing and contrasting the new BG-Counter traps 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*



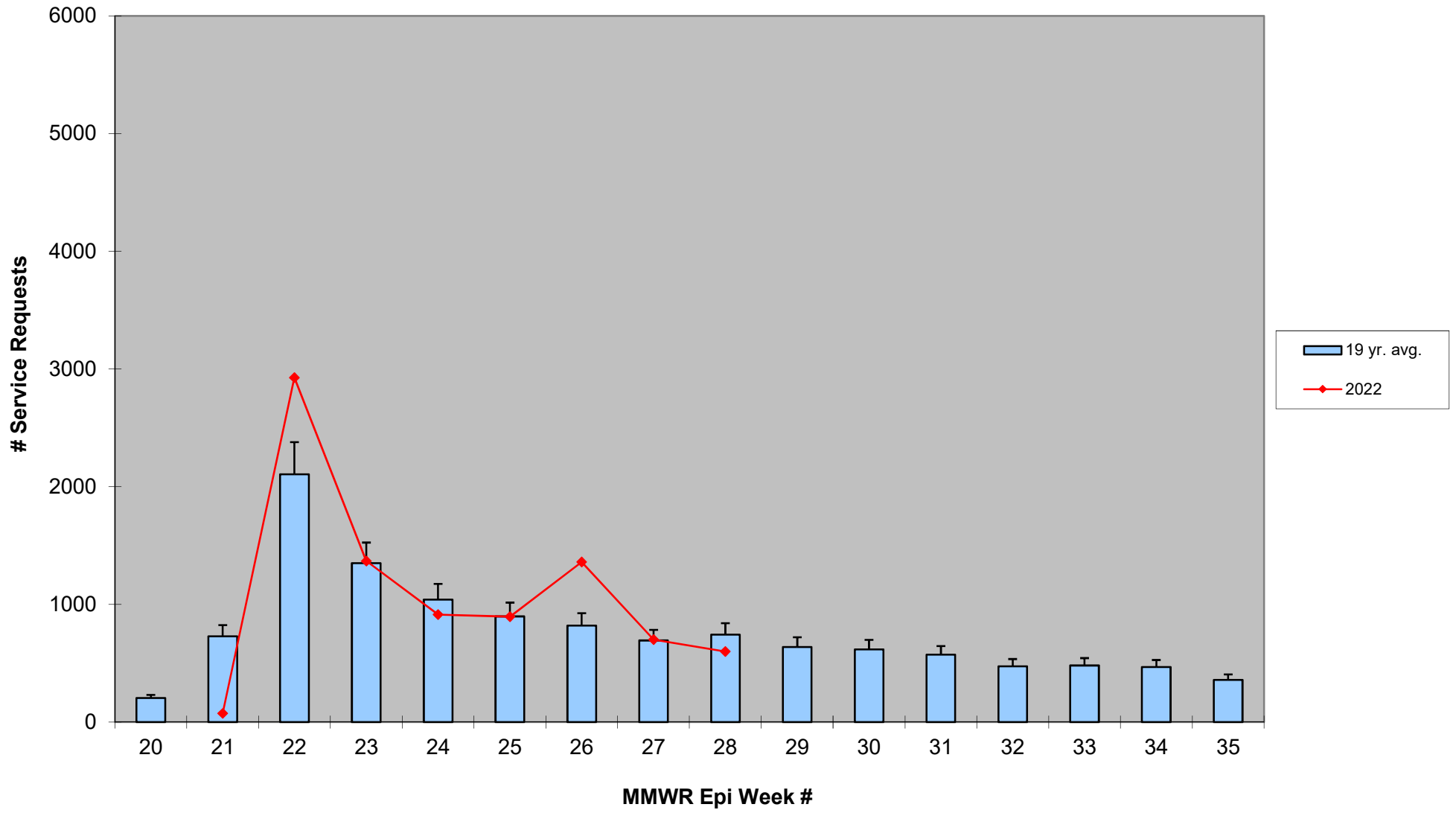
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2022 CMMCP Weekly Rainfall vs. 17 Year Average*

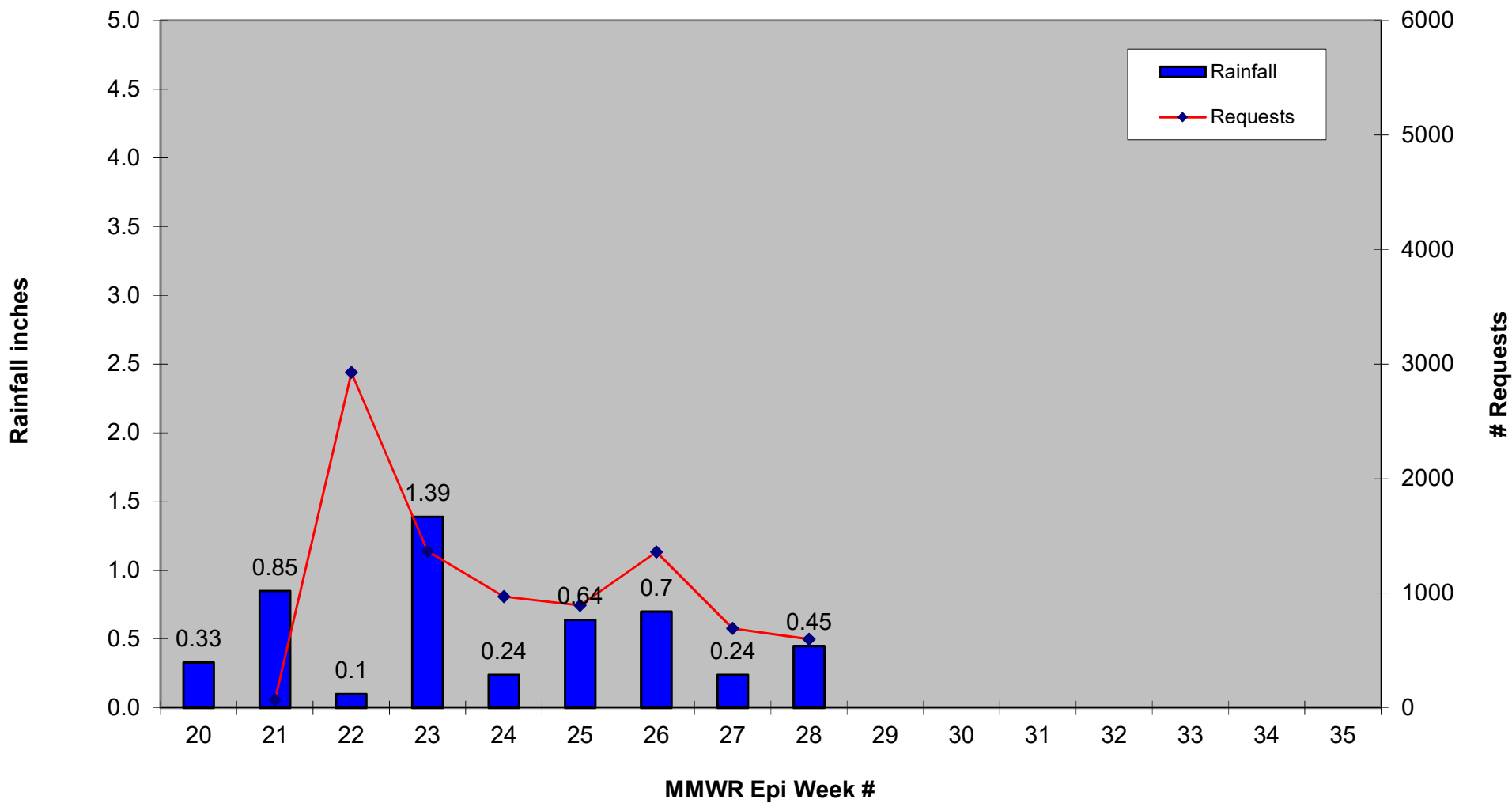


*source: CMMCP weather station Northborough, MA

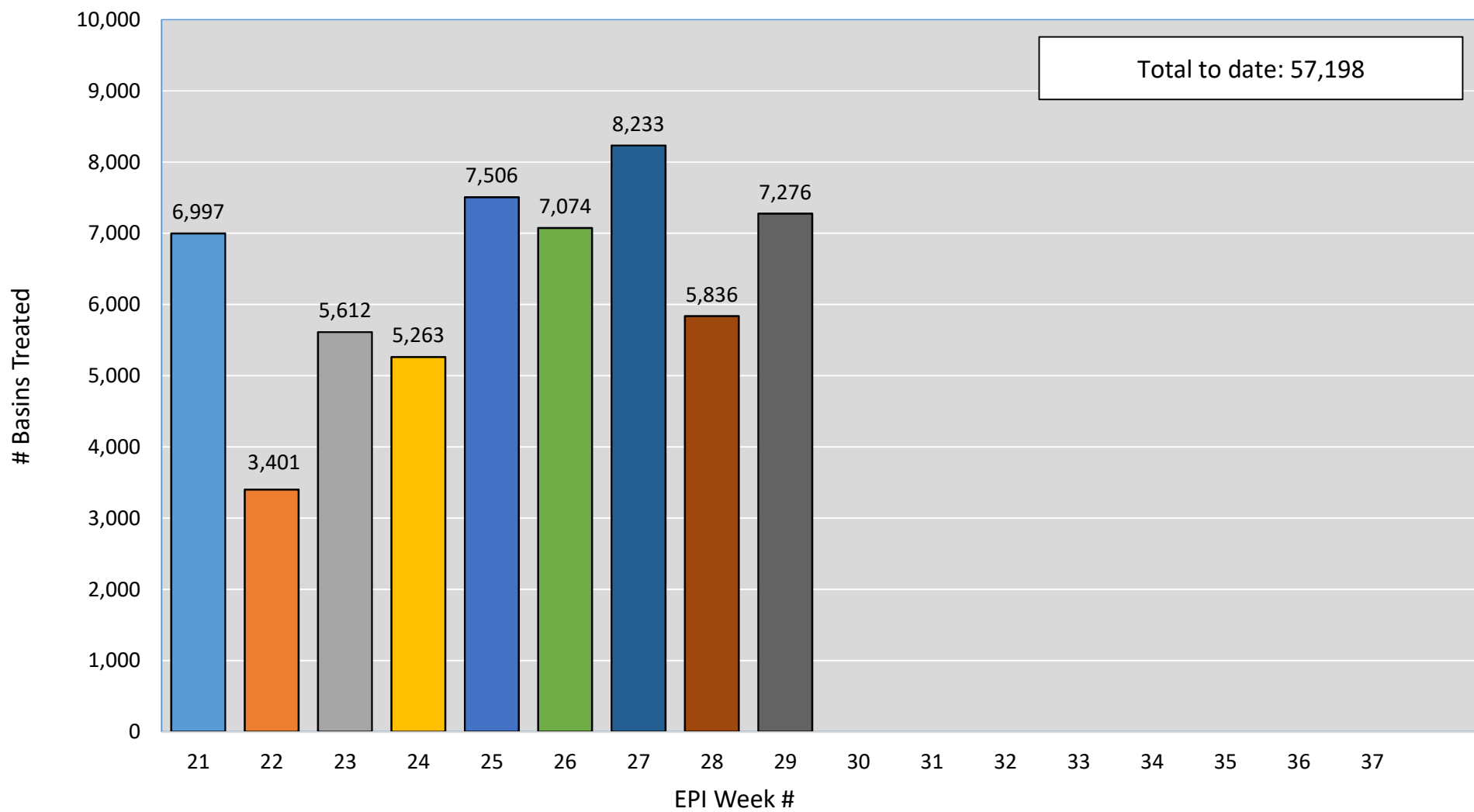
ULV Service Request History 2003-2022



2022 Rainfall vs. Requests



2022 Catch Basins Treated



2022 Mosquito Pools Submitted for Virus Testing

