

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #38
Sept. 17-23, 2023

Frank Cornine, Staff Biologist
Curtis Best, Staff Entomologist
Timothy McGlinchy, Director of Operations
Timothy Deschamps, Executive Director

Central Mass. Mosquito Control Project
Weekly Report- 9/17/23-9/23/23
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
No. Pools	444	629	71	425	1135	5838
Total Specimens	5854	25588	159	6679	25917	86588
No. Pools WNV +	0	3 [†]	0	0	8 [†]	11 [†]
No. Pools EEE +	0	0	0	0	0	0

- †Pool of WNV+ *Culex* collected in Worcester on 7/7/23
- †Pool of WNV+ *Culex* collected in Worcester on 7/20/23
- †Pool of WNV+ *Culex* collected in Chelmsford on 8/10/23
- †Pool of WNV+ *Culex* collected in Northbridge on 8/10/23
- †Pool of WNV+ *Culex* collected in Milford on 8/16/23
- †Pool of WNV+ *Coquillettidia perturbans* collected in Lowell on 8/25/23
- †Pool of WNV+ *Coquillettidia perturbans* collected in Lowell on 8/25/23
- †Pool of WNV+ *Coquillettidia perturbans* collected in Lowell on 8/25/23
- †Pool of WNV+ *Culex* collected in Worcester on 9/1/23
- †Pool of WNV+ *Culex* collected in Ayer on 9/6/23
- †Pool of WNV+ *Culex* collected in Worcester on 9/12/23

Weather Summary (Northborough, MA): The weather for this particular week averaged 60.09°F with a recorded high temperature of 79.40°F and a recorded low temperature of only 46.10°F. For this week there was also a total of 1.61 inches of rain observed. Compared to the previous week, it was approximately 6.94°F cooler on average, and rained about 0.46 inches less. There has been 4.70 inches of rain accumulated in September, after 6.49 inches for the month of August.

CMMCP Mosquito Summary-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
<i>Aedes vexans</i>	-61.08%	+1127%	Natick, Ashland
<i>Coquillettidia perturbans</i>	-85.28%	-37.46%	Lowell, Dracut, Westford
<i>Culiseta melanura</i>	+70.00%	-76.31%	Gardner
<i>Ochlerotatus canadensis</i>	-62.86%	+421.7%	Marlborough, Billerica
<i>Culex</i> Species	-54.19%	+621.7%	Westborough, Boylston
All Species	-56.44%	+88.47%	Webster, Westborough, Natick

The predominant mosquito for the week was *Anopheles punctipennis* followed by *Culex*.

General narrative:

The temperatures for EPI week 38 averaged approximately 6.94°F cooler than the previous week, with 1.61 inches of precipitation observed. Overall surveillance trap

collections decreased significantly for the second consecutive period, with all target species decreasing except for *Culiseta melanura*. Only *Coquillettidia perturbans* and *Culiseta melanura* remain at lower levels compared to this point last season. *Anopheles punctipennis* was again the most abundant mosquito species, followed still by *Culex*. *Aedes albopictus* surveillance using ovitraps has continued, with 2,902 eggs previously collected in EPI week 37. One mosquito pool submitted to MDPH in EPI week 37 tested positive for West Nile virus. These were *Culex* specimens, collected from Worcester on 9/12/23.

Ae. albopictus egg collections:

Epi week#	# eggs Collected	Epi week#	# eggs Collected
23	0	32	5,246
24	0	33	5,177
25	649	34	3,024
26	3,306	35	2,881
27	4,928	36	2,891
28	3,563	37	2,902
29	8,560	38	
30	5,019	39	
31	7,049	40	
	TOTAL	55,195	
16 ATM detections to date			

Operational notes:

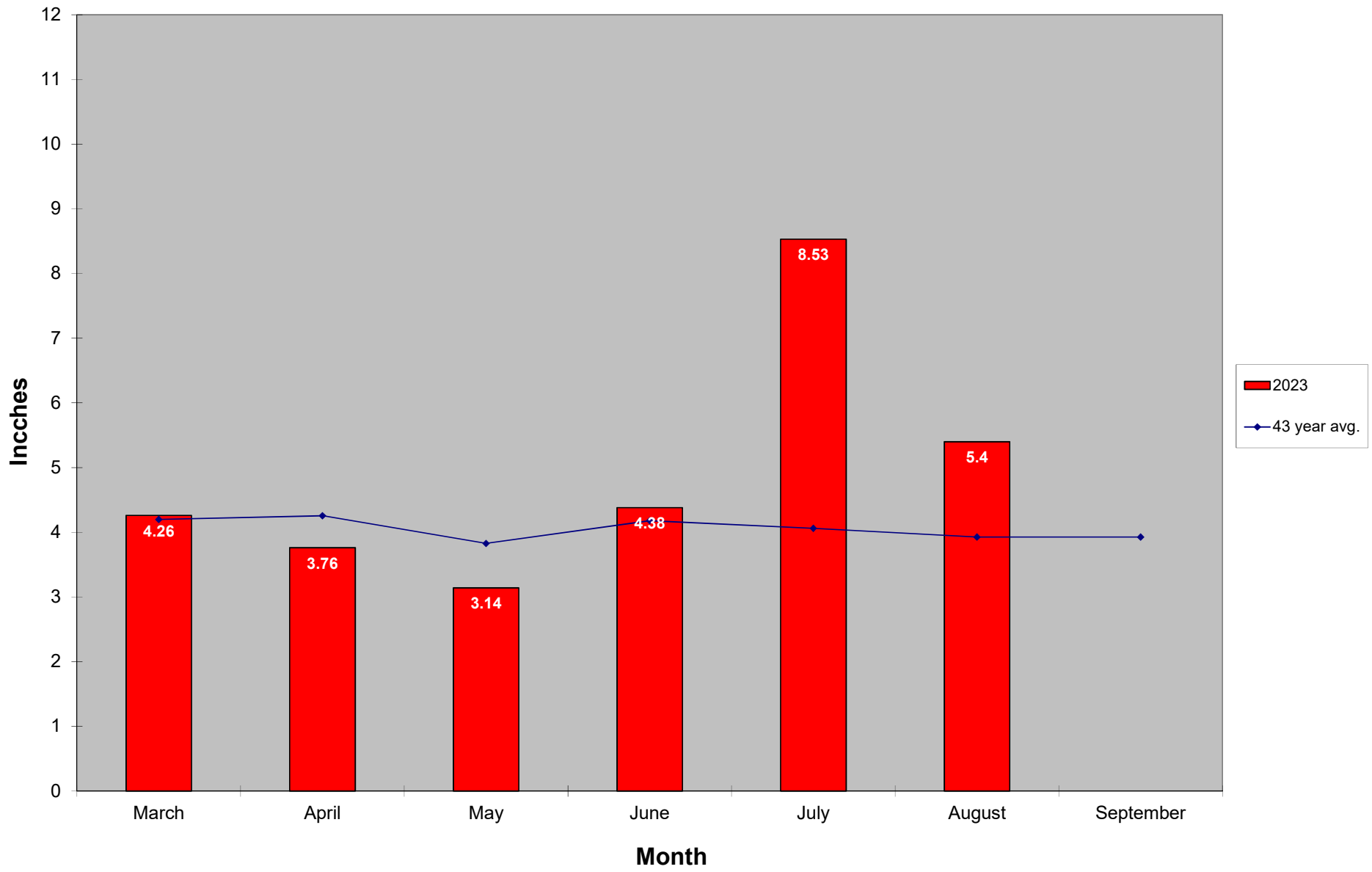
Service requests ended the year 7.26% below the 20-year average and a 1% increase over 2022 numbers. Request numbers dropped significantly from the week prior and the residential spray program ended Aug. 31. Work crews began performing catch basins treatments for *Culex* control on May 22. In total, 90,988 catch basins treated intended to suppress *Culex* populations and lower risk of transmission from WNV by this species.

Ae. albopictus continues to be found in Ayer but the numbers may have peaked. We will continue surveillance and control efforts as long as possible. Barrier spraying was done again on August 30 with several days in the forecast without rain.

EEE pools in several non-member towns in southern Worcester county has raised the risk level to High and Moderate in this area. Additional trapping is in place in member communities and MDPH has submitted additional pools in the non-member towns for

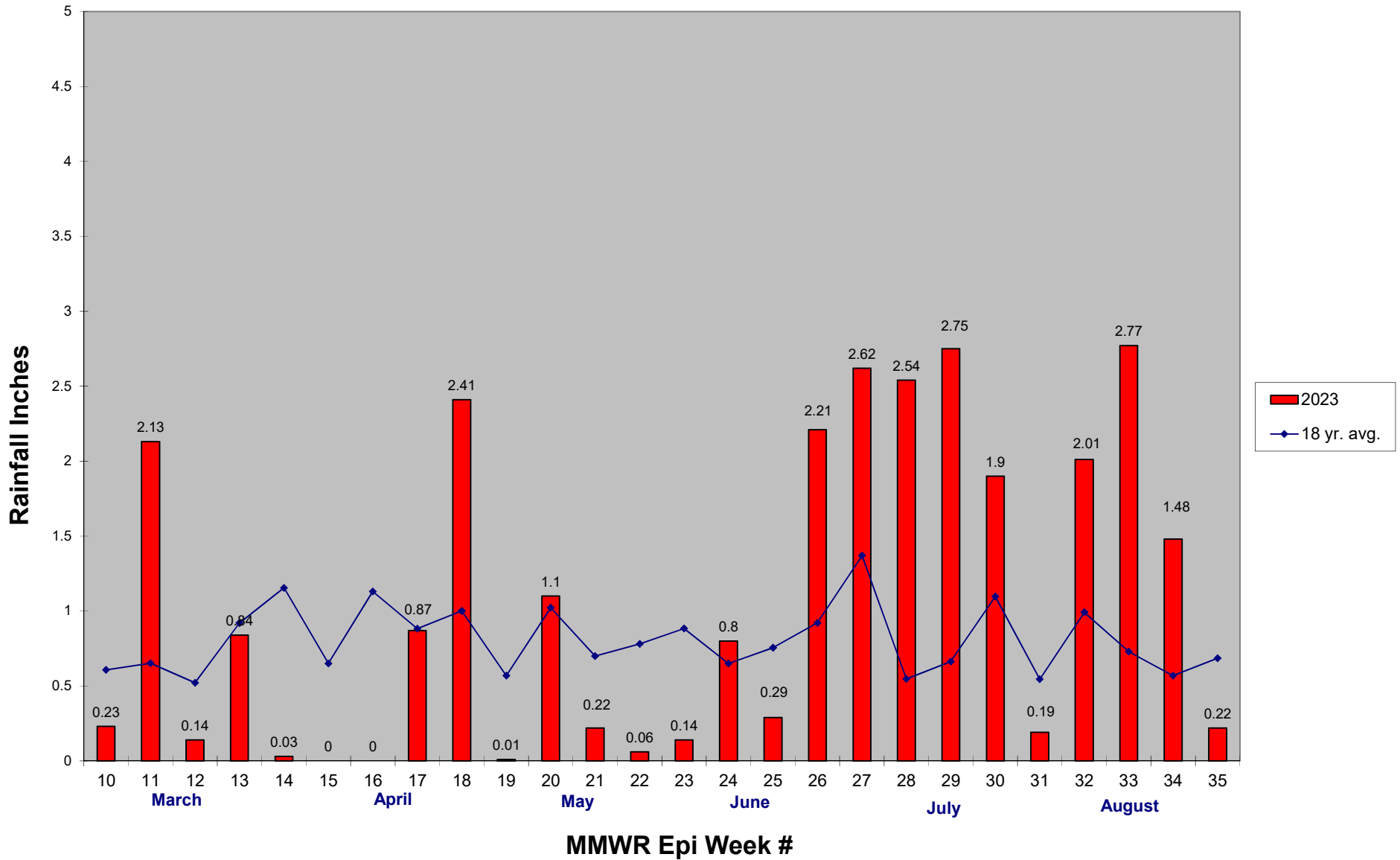
testing. Town-wide spraying was done in Sturbridge and Webster after consultation with local health officials. WNV spraying was done in Worcester in response to a positive pool of *Culex*.

2023 Mass. Rainfall Data vs. 43 Year Average*



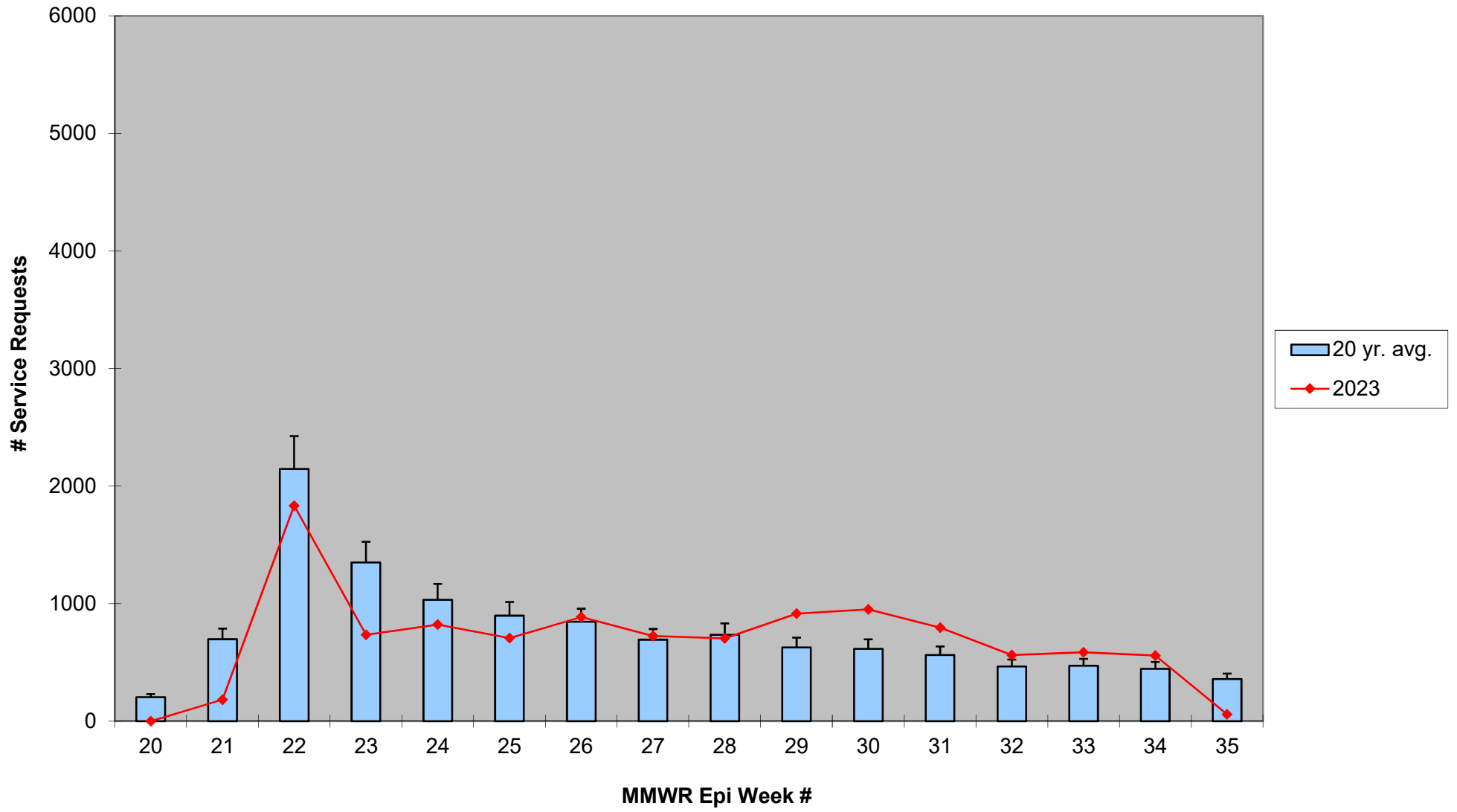
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2023 CMMCP Weekly Rainfall vs. 18 Year Average*

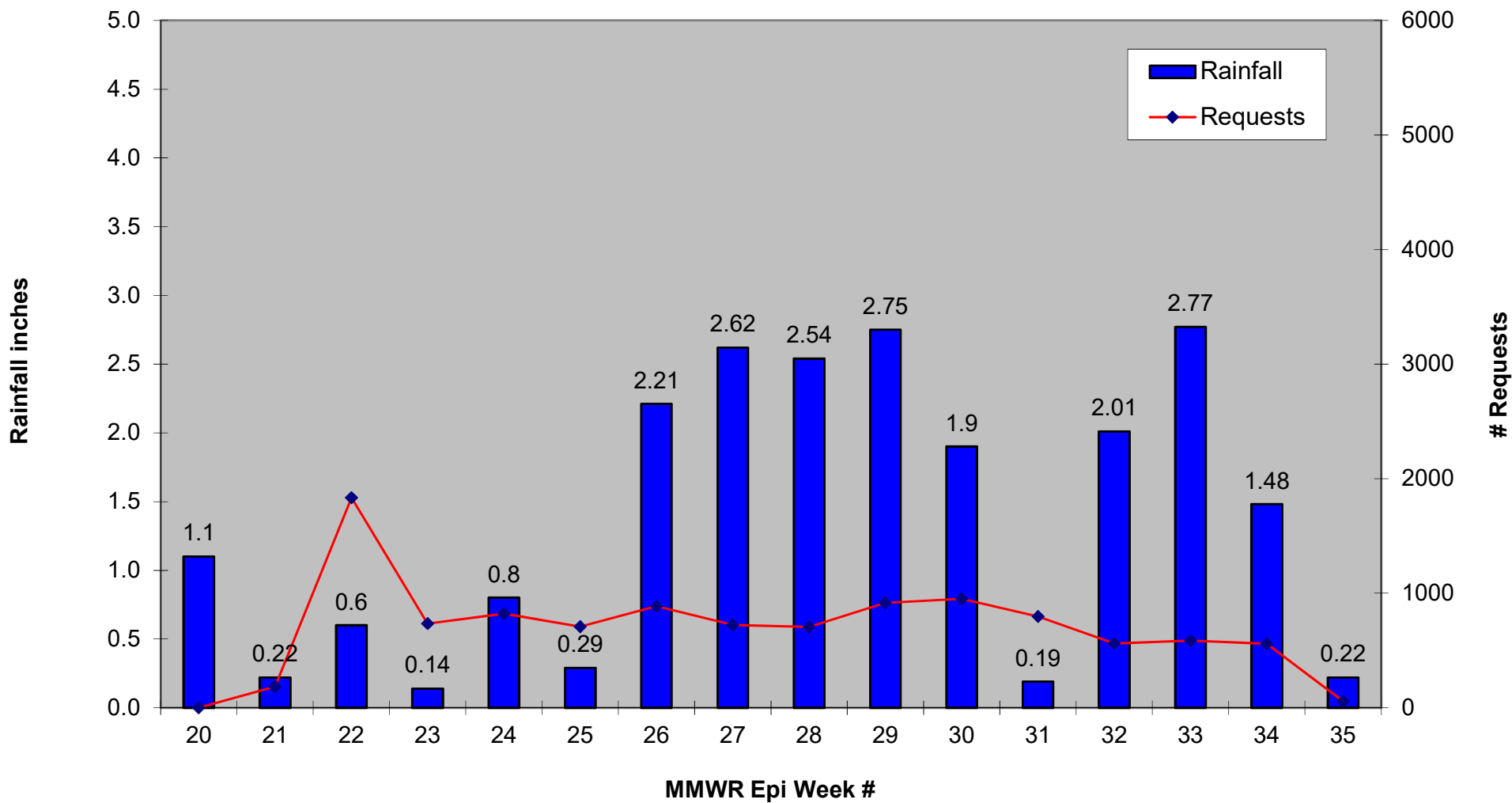


*source: CMMCP weather station Northborough, MA

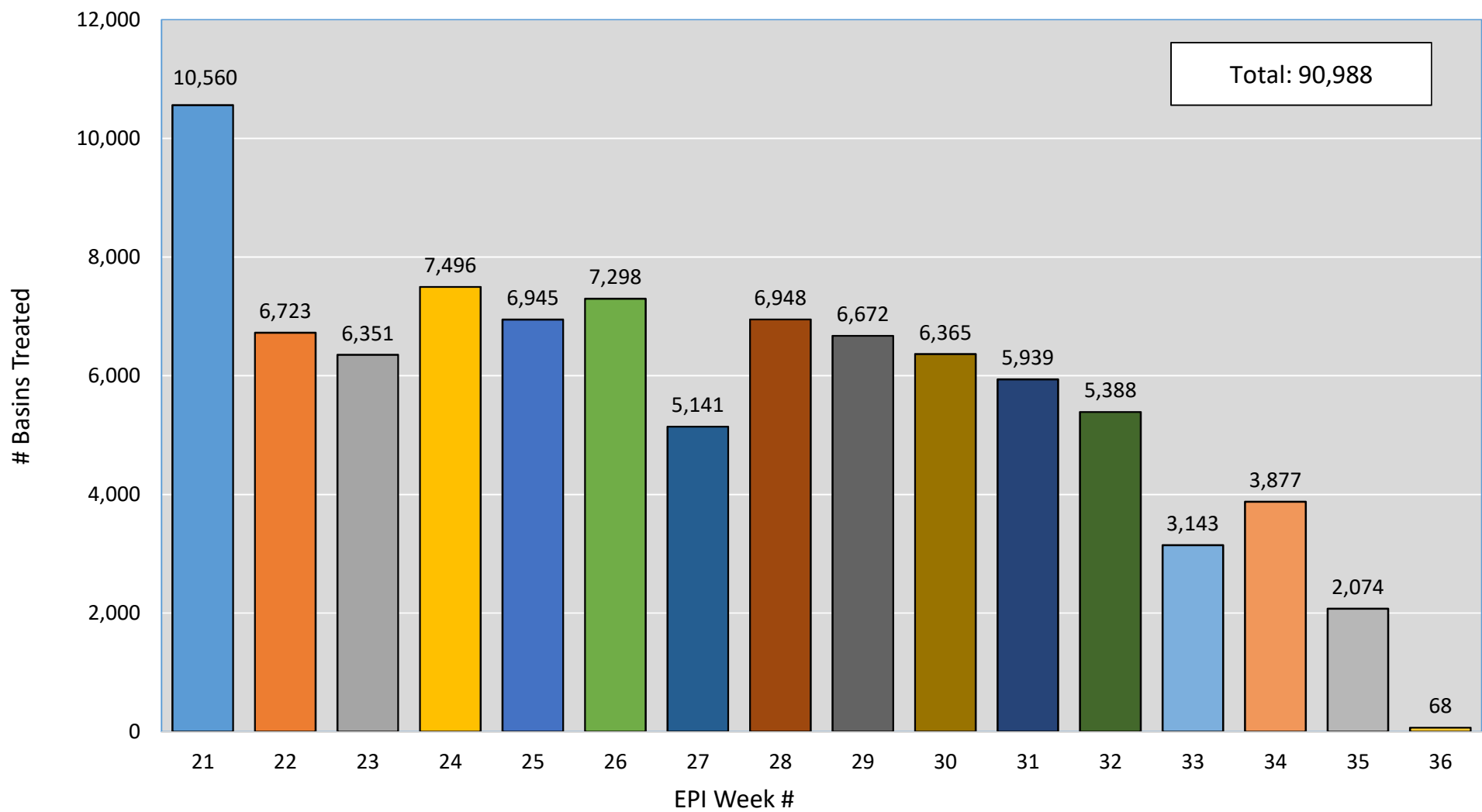
ULV Service Request History 2003-2023



2023 Rainfall vs. Requests



2023 Catch Basins Treated



2023 basins treated vs. 5 yr. avg.

