

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #30
July 23-29, 2023

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**Central Mass. Mosquito Control Project
Weekly Report- 7/23/23-7/29/23
EPI Week #30**

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	209	308	30	247	532	2679
Total Specimens	2955	17361	89	5034	14096	48513
No. Pools WNV +	0	0	0	0	2 [†]	2 [†]
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

Weather Summary (Northborough, MA): The weather for this particular week averaged 75.70°F with a recorded high temperature of 93.90°F and a recorded low temperature of only 59.10°F. For this week there was also a total of 1.90 inches of rain observed. Compared to the previous week, it was approximately 1.24°F warmer on average, and rained about 0.85 inches less. There has been 9.81 inches of rain accumulated in July, after 3.50 inches for the month of June.

CMMCP Mosquito Summary-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
<i>Aedes vexans</i>	+25.00%	+4095%	Blackstone, Grafton
<i>Coquillettidia perturbans</i>	+26.77%	-57.40%	Stow, Marlborough, Lowell
<i>Culiseta melanura</i>	+1000%	-89.74%	Gardner
<i>Ochlerotatus canadensis</i>	+2.03%	+275.8%	Boxborough, Stow, Dracut
<i>Culex</i> Species	+12.34%	+428.5%	Westborough, Acton, Wilmington
All Species	+21.81%	+17.25%	Stow, Lowell, Westborough

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

General narrative:

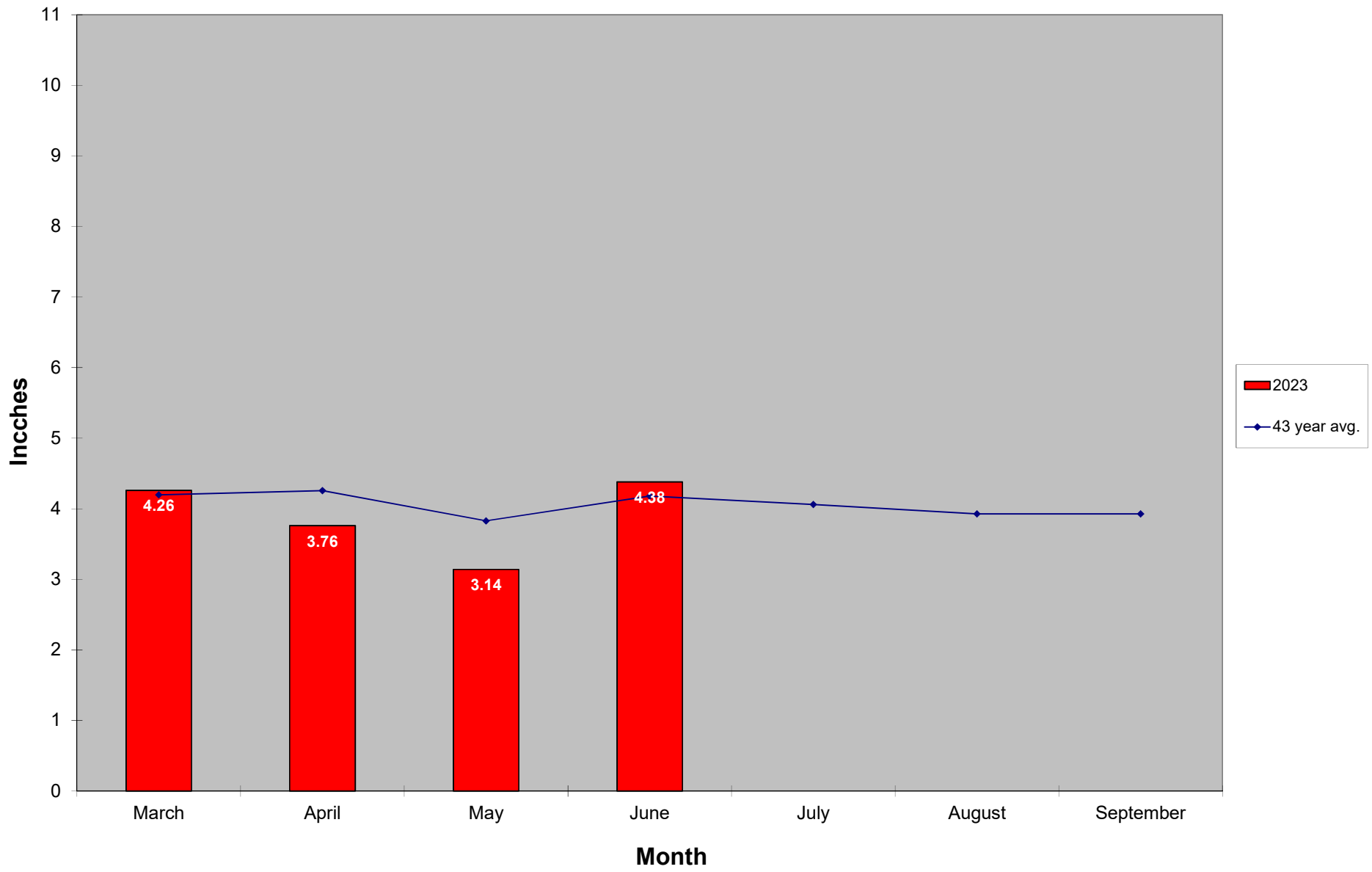
The temperatures for EPI week 30 averaged approximately 1.24°F warmer than the previous week, with 1.90 inches of precipitation observed. Overall surveillance trap collections increased this period compared to the last with all target species increasing. Only *Coquillettidia perturbans* and *Culiseta melanura* are currently at lower levels compared to this point last season. *Coquillettidia perturbans* remains the most abundant mosquito, still followed by *Culex*. A single adult *Aedes albopictus* specimen was collected using a BG Sentinel trap in Ayer. Supplemental control measures have been taken in response to this finding. One mosquito pool submitted to MDPH in EPI week 29 tested positive for West Nile virus, a collection of *Culex* from Worcester. This was the second pool of *Culex* to test positive for West Nile virus from that particular site in Worcester.

Operational notes:

Service requests are 16.3% below the 20-year average and a 16.5% decrease over 2022 numbers to date. Request numbers increased 3.9% from the week prior. Work crews began performing catch basins treatments for *Culex* control on May 22. 6,252 basins were treated in Epi week 30, with 70,386 catch basins treated to date intended to suppress *Culex* populations and lower risk of transmission from WNV by this species.

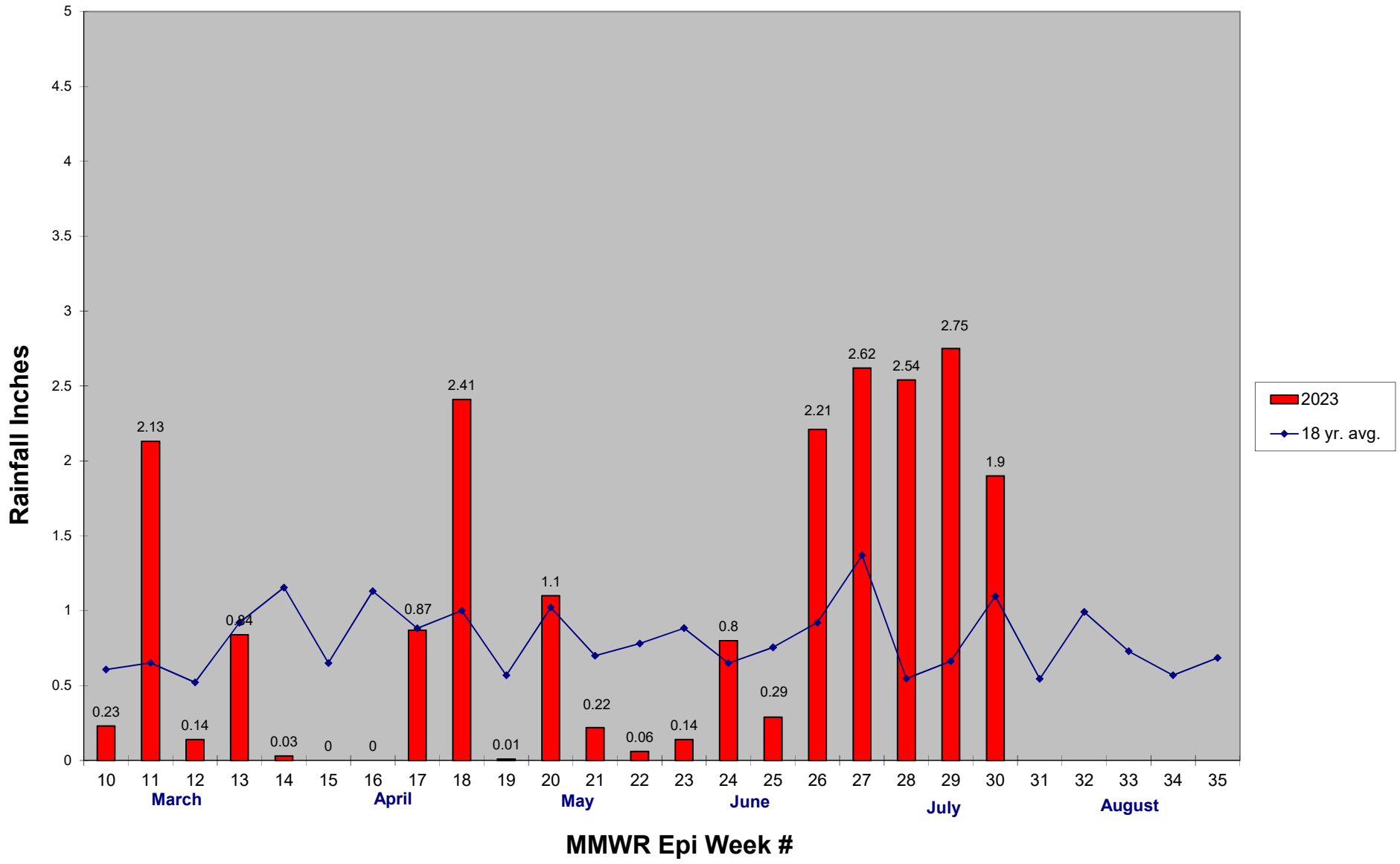
With the confirmation on July 25 of WNV in the Burncoat section of Worcester again, CMMCP coordinated with local health officials and the area received ULV spraying on July 27, 2023 after sunset. With the continued confirmations of *Aedes albopictus* (ATM) in Ayer, we ULV sprayed the area on July 20, 24 and 31 and will follow up with barrier spraying in early August. Field crews scouted the area on July 21 and noted several areas of larval activity that were treated with Bti. Additional ovitraps as well as light traps are being deployed in the area to determine if we have a possible established colony. Larval control will be repeated as necessary.

2023 Mass. Rainfall Data vs. 43 Year Average*



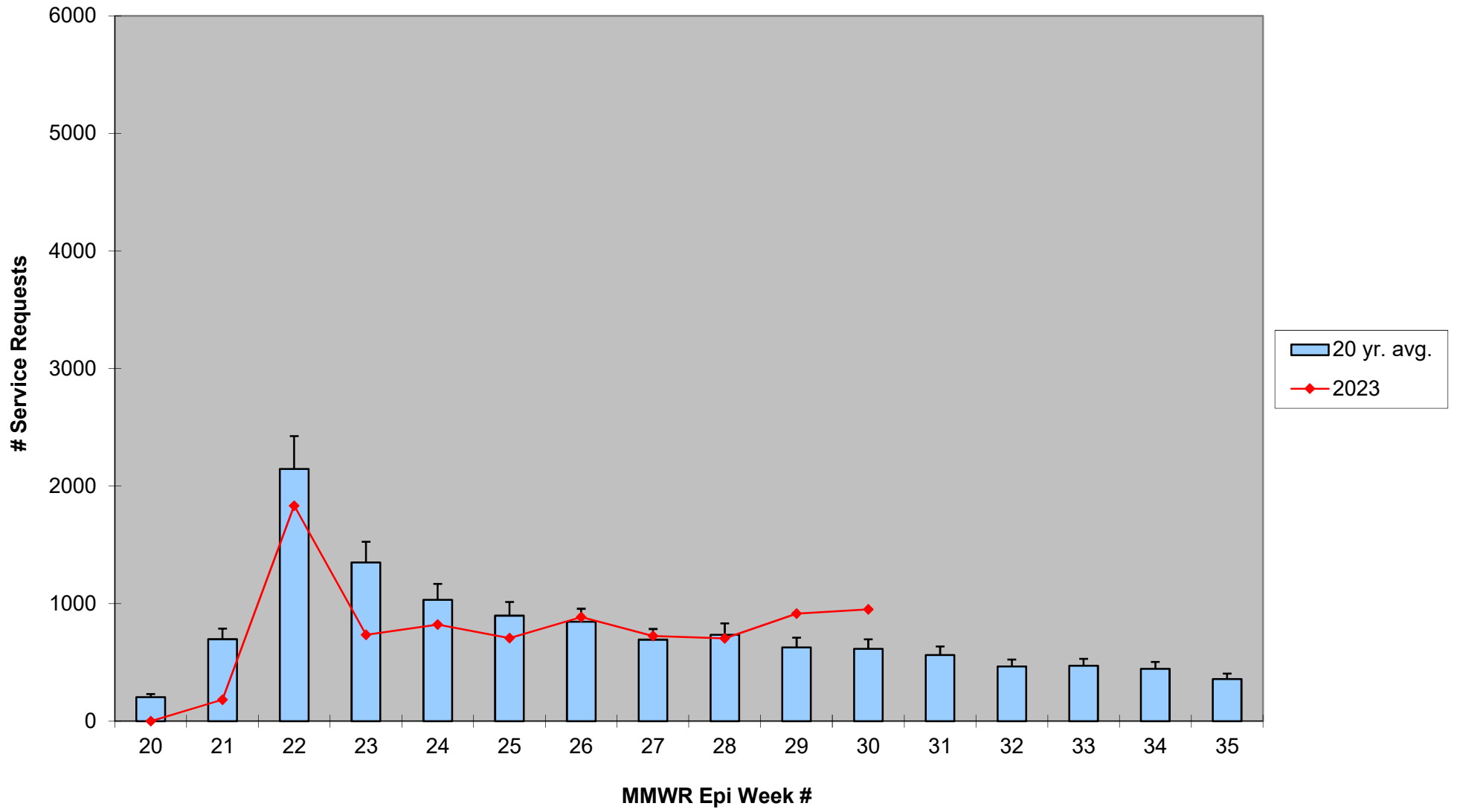
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2023 CMMCP Weekly Rainfall vs. 18 Year Average*

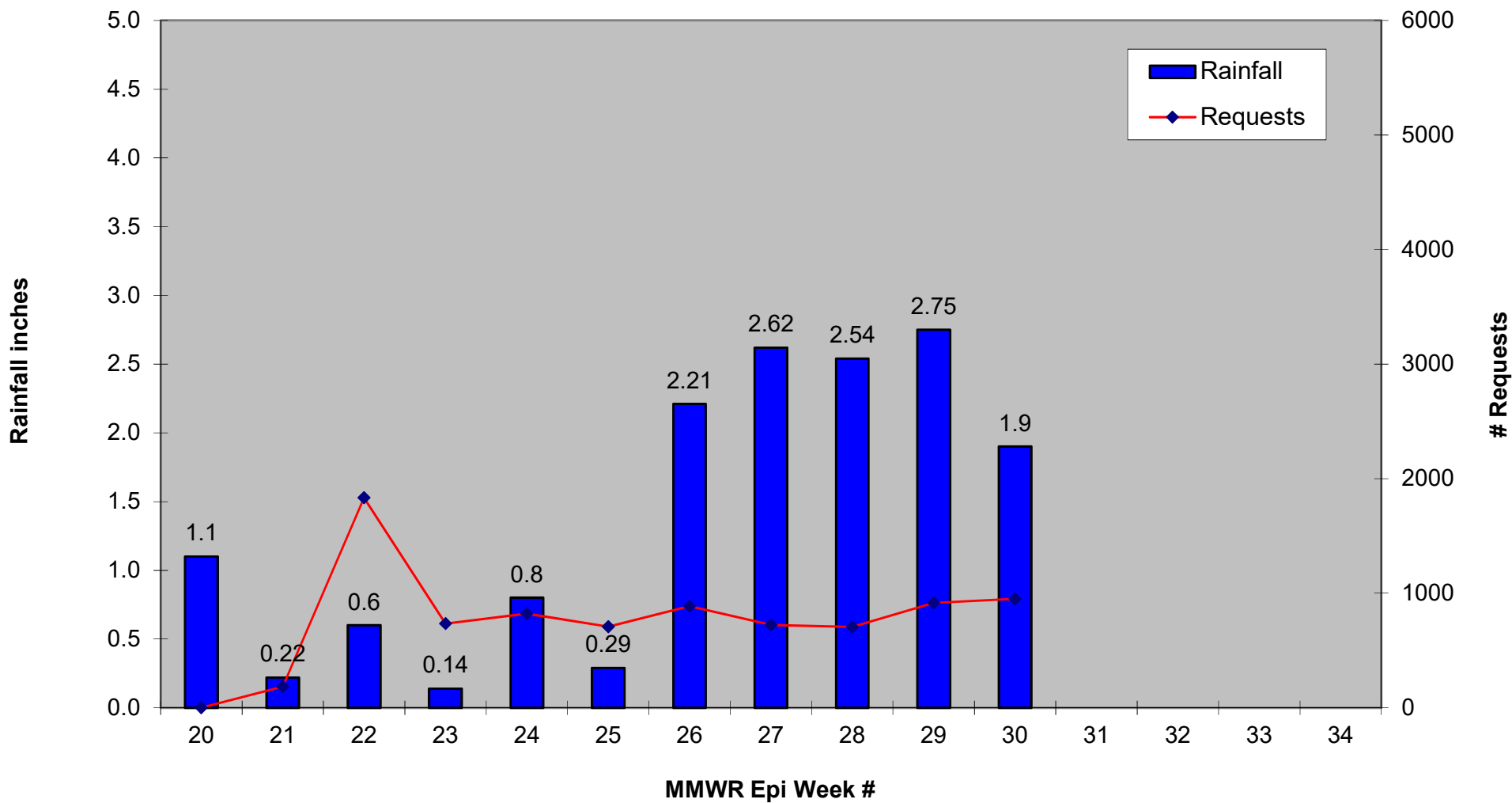


*source: CMMCP weather station Northborough, MA

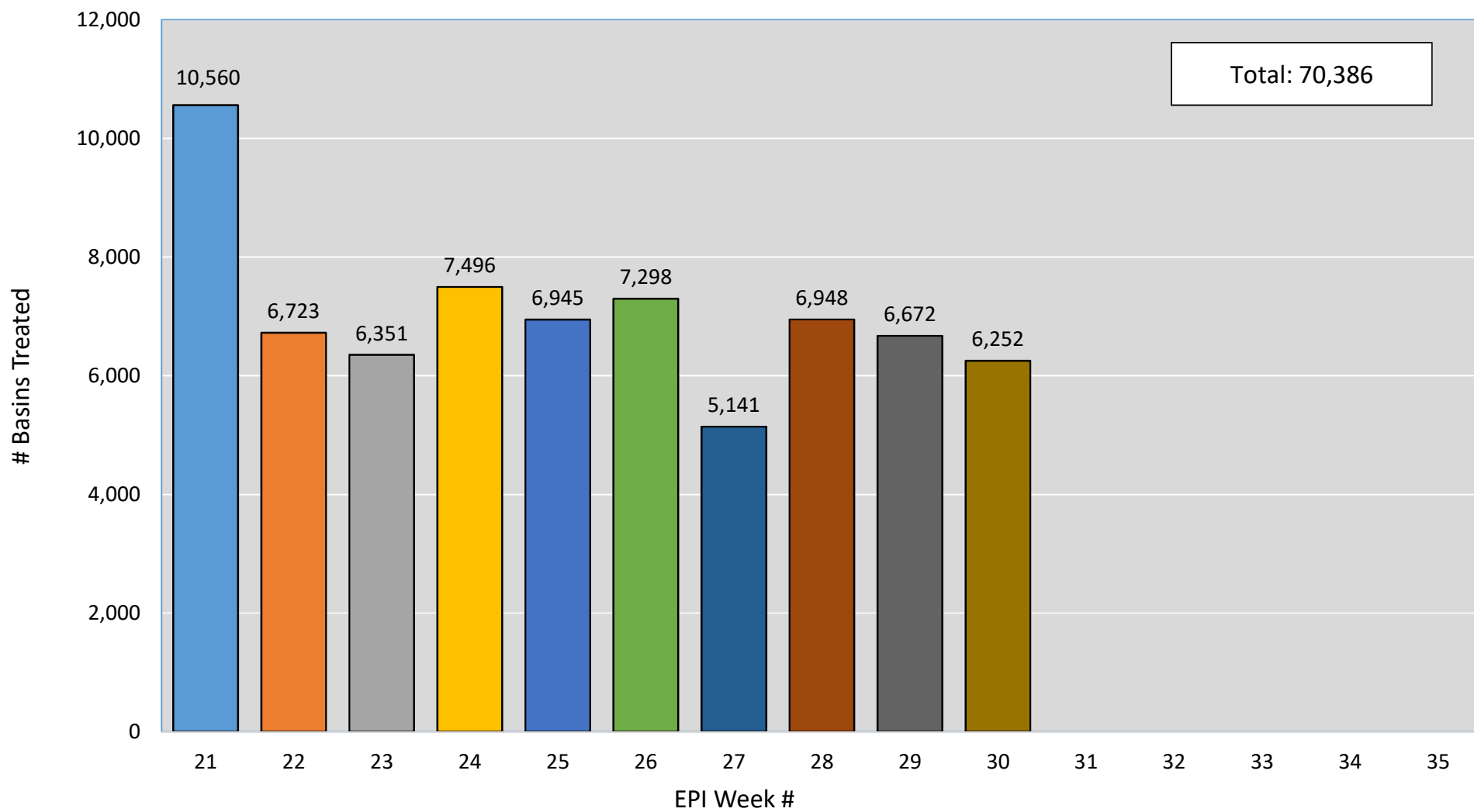
ULV Service Request History 2003-2023



2023 Rainfall vs. Requests



2023 Catch Basins Treated



2023 basins treated vs. 5 yr. avg.

