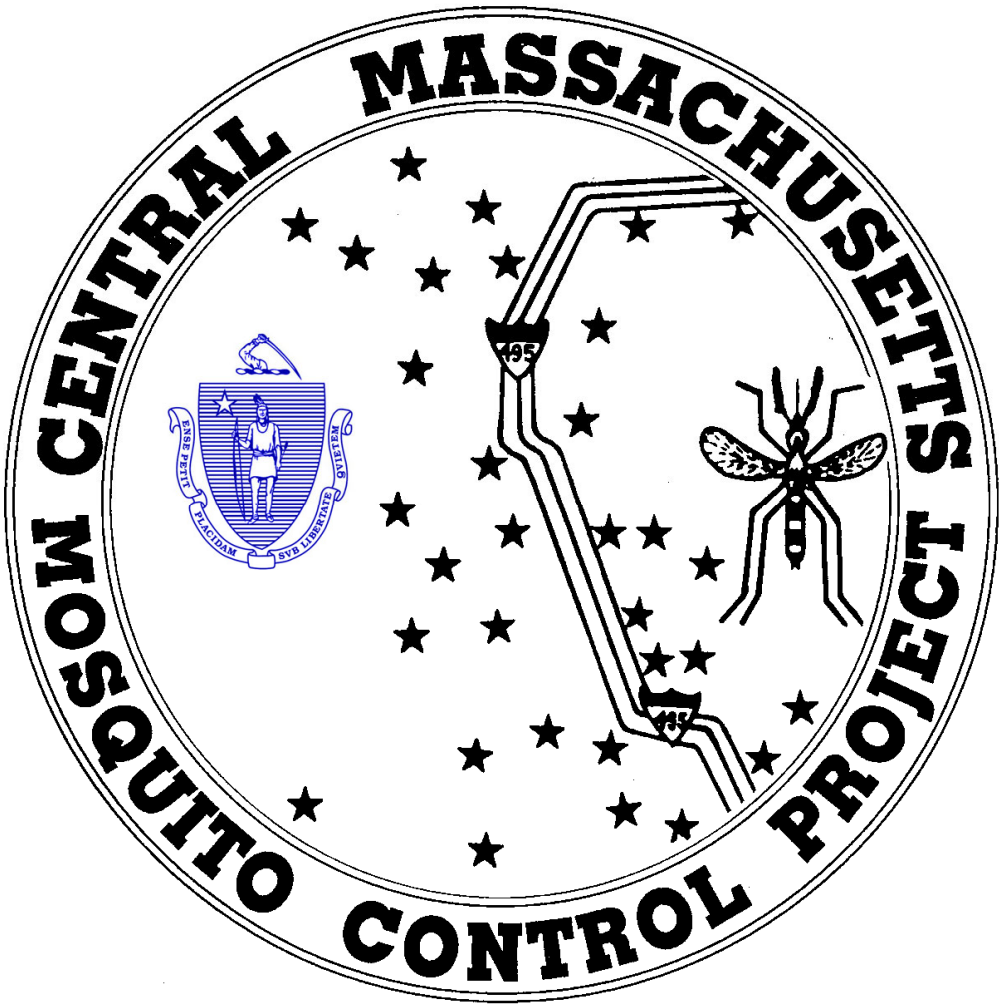
CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #28
July 9-15, 2023

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Timothy Deschamps, *Executive Director*

Central Mass. Mosquito Control Project
Weekly Report- 7/9/23-7/15/23
EPI Week #28

Cumulative Surveillance Summary

Target Species	*Ae. vex*	*Cq. per*	*Cs. mel*	*Oc. can*	*Culex*	All Species
No. Pools	147	168	29	197	351	1850
Total Specimens	2111	6369	78	4221	8744	26483
No. Pools WNV +	0	0	0	0	1†	1†
No. Pools EEE +	0	0	0	0	0	0

†Pool of WNV+ *Culex* collected in Worcester on 7/7/23

Weather Summary (Northborough, MA): The weather for this particular week averaged 75.76°F with a recorded high temperature of 94.10°F and a recorded low temperature of only 62.80°F. For this week there was also a total of 2.54 inches of rain observed. Compared to the previous week, it was approximately 0.36°F warmer on average, and rained about 0.08 inches less. There has been 5.16 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)
Aedes vexans	-3.960%	+3456%	Gardner, Ayer
Coquillettidia perturbans	+280.0%	-74.42%	Westborough, Boxborough, Ayer
Culiseta melanura	-100.0%	-92.02%	N/A
Ochlerotatus canadensis	+147.4%	+206.4%	Billerica, Gardner
Culex Species	-41.30%	+293.3%	Hopedale, Littleton, Boxborough
All Species	+24.40%	-13.39%	Westborough, Gardner, Ayer

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

General narrative:
The temperatures for EPI week 28 averaged approximately 0.36°F warmer than the previous week, with 2.54 inches of precipitation observed. Overall surveillance trap collections increased this period compared to the last, largely due to the increase in *Coquillettidia perturbans*. Despite the weekly increase, *Coquillettidia perturbans* emergence still remains much lower than in the previous year. *Culex* was again the most abundant mosquito for the week, followed still by *Coquillettidia perturbans*. Increasing temperatures and the continued emergence of *Coquillettidia perturbans* should contribute to higher collections moving forward. *Aedes albopictus* surveillance using ovitraps has continued, with 12,446 eggs collected and submitted so far. One mosquito pool submitted to MDPH in EPI week 27 tested positive for West Nile virus, a collection of *Culex* from Worcester.

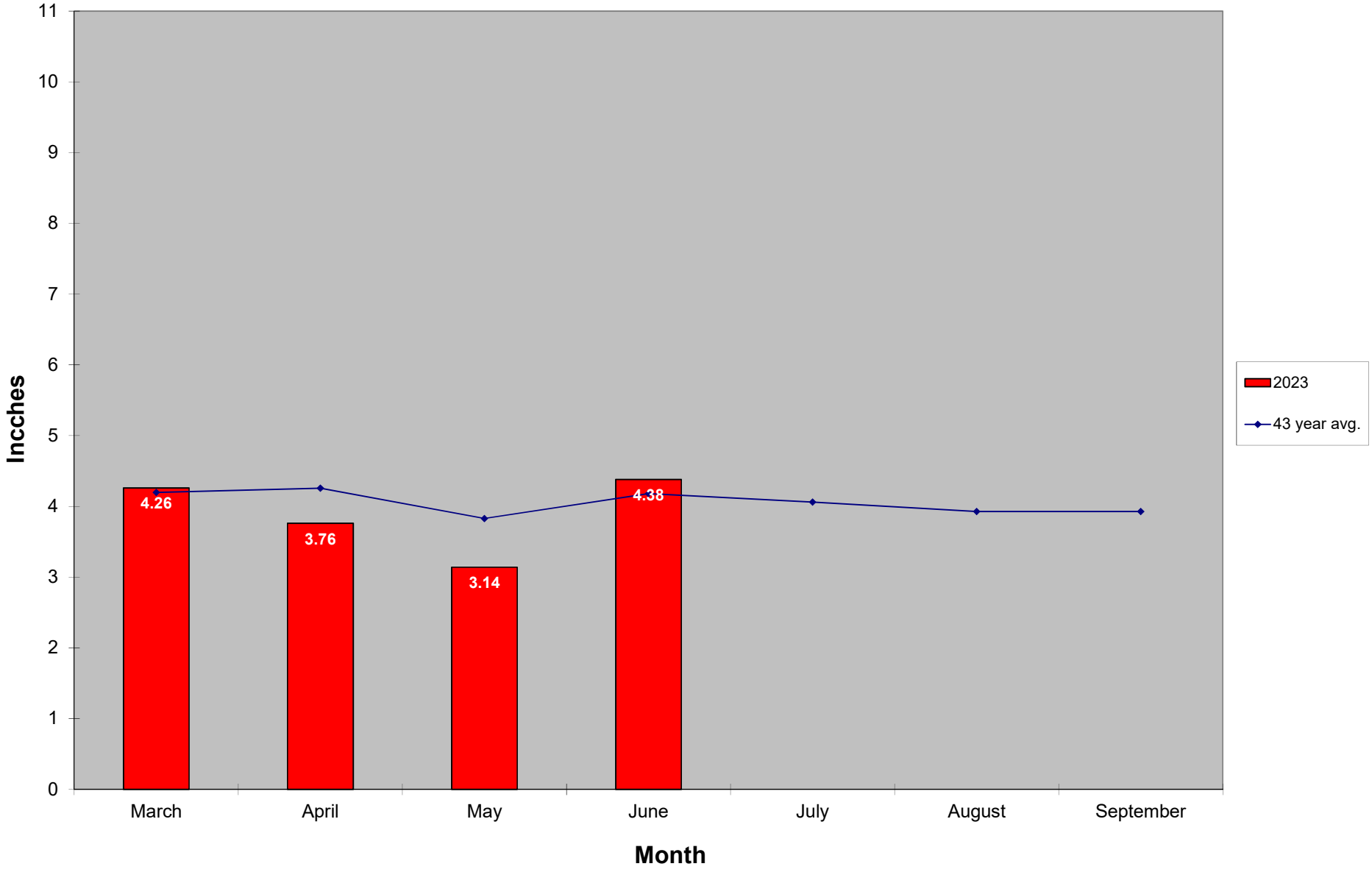
Ae. albopictus egg collections:

Epi week#	# eggs Collected		Epi week#	# eggs Collected
23	0		32	
24	0		33	
25	649		34	
26	3,306		35	
27	4,928		36	
28	3,563		37	
29			38	
30			39	
31			40	
	TOTAL		**12,446**	
No ATM detections to date				

Operational notes:
Service requests are 30.4% below the 20-year average and a 34% decrease over 2022 numbers to date. Request numbers held steady from the week prior. Work crews began performing catch basins treatments for *Culex* control on May 22. 6,948 basins were treated in Epi week 28, with 57,462 catch basins treated to date intended to suppress *Culex* populations and lower risk of transmission from WNV by this species.

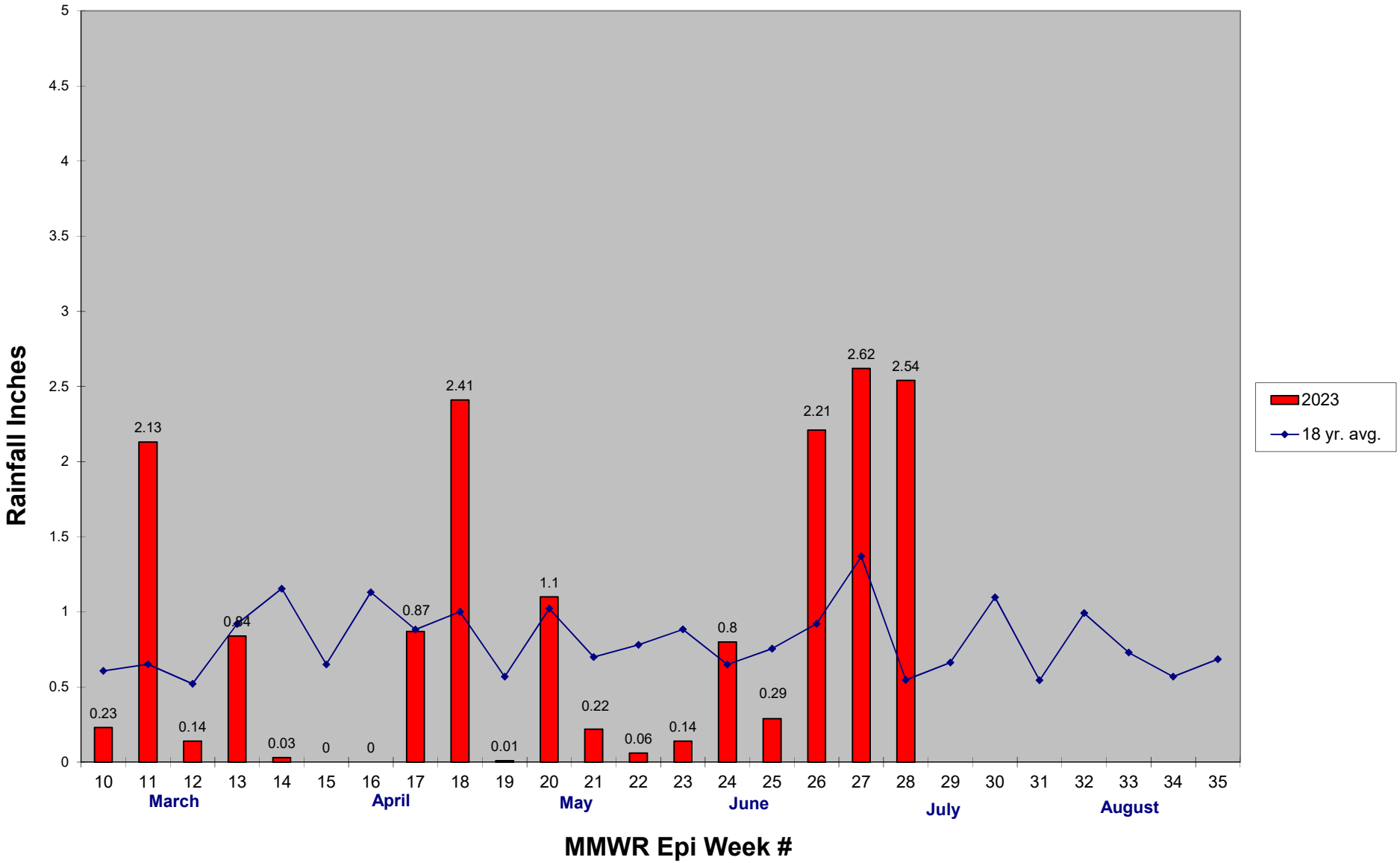
With the confirmation on July 12 of WNV in the Burncoat section of Worcester, CMMCP has coordinated with local health officials and the area will receive ULV spraying on July 18, 2023 after sunset, weather permitting. The City has sent out a press release and will perform a reverse 911 call in the affected area.

2023 Mass. Rainfall Data vs. 43 Year Average*

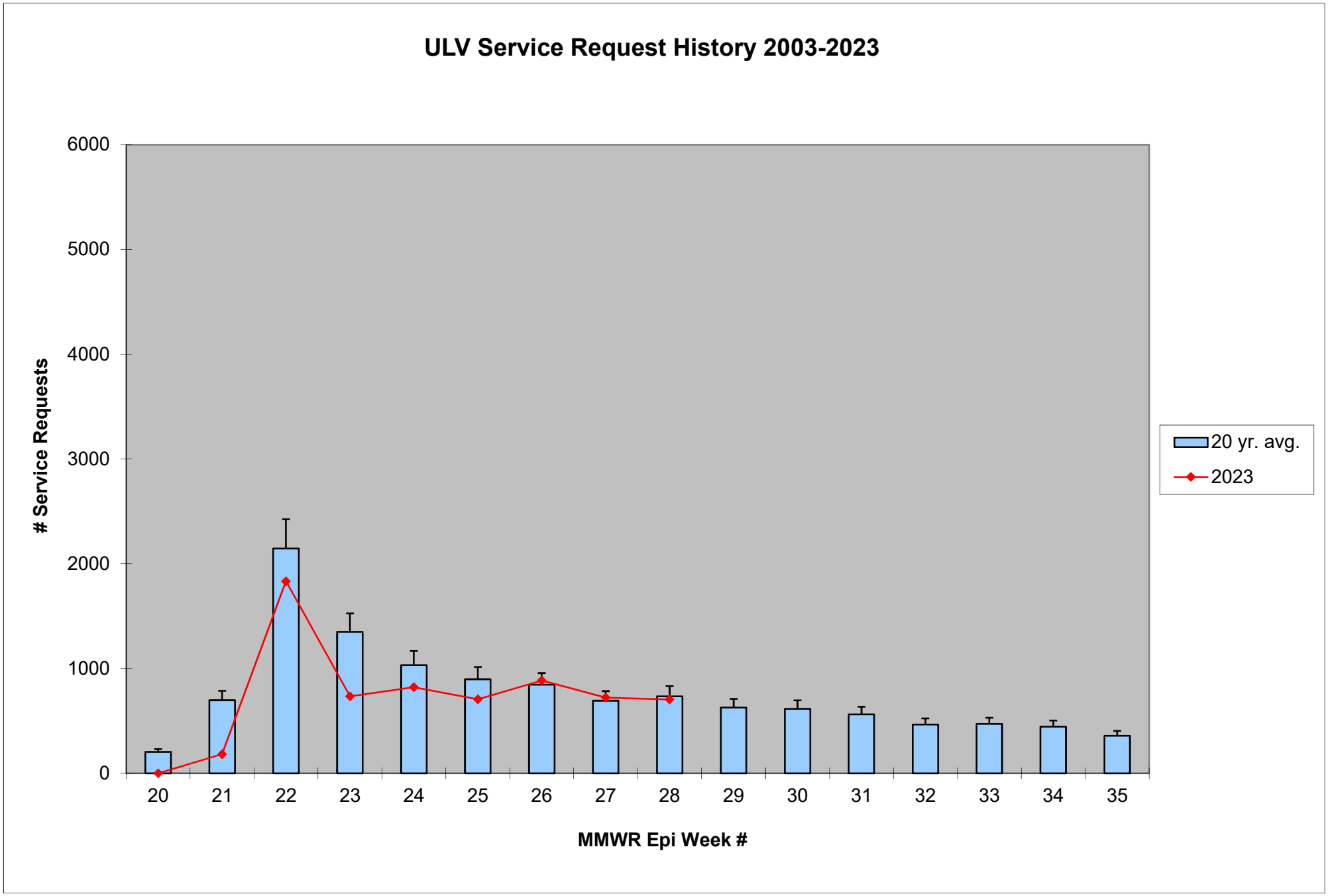


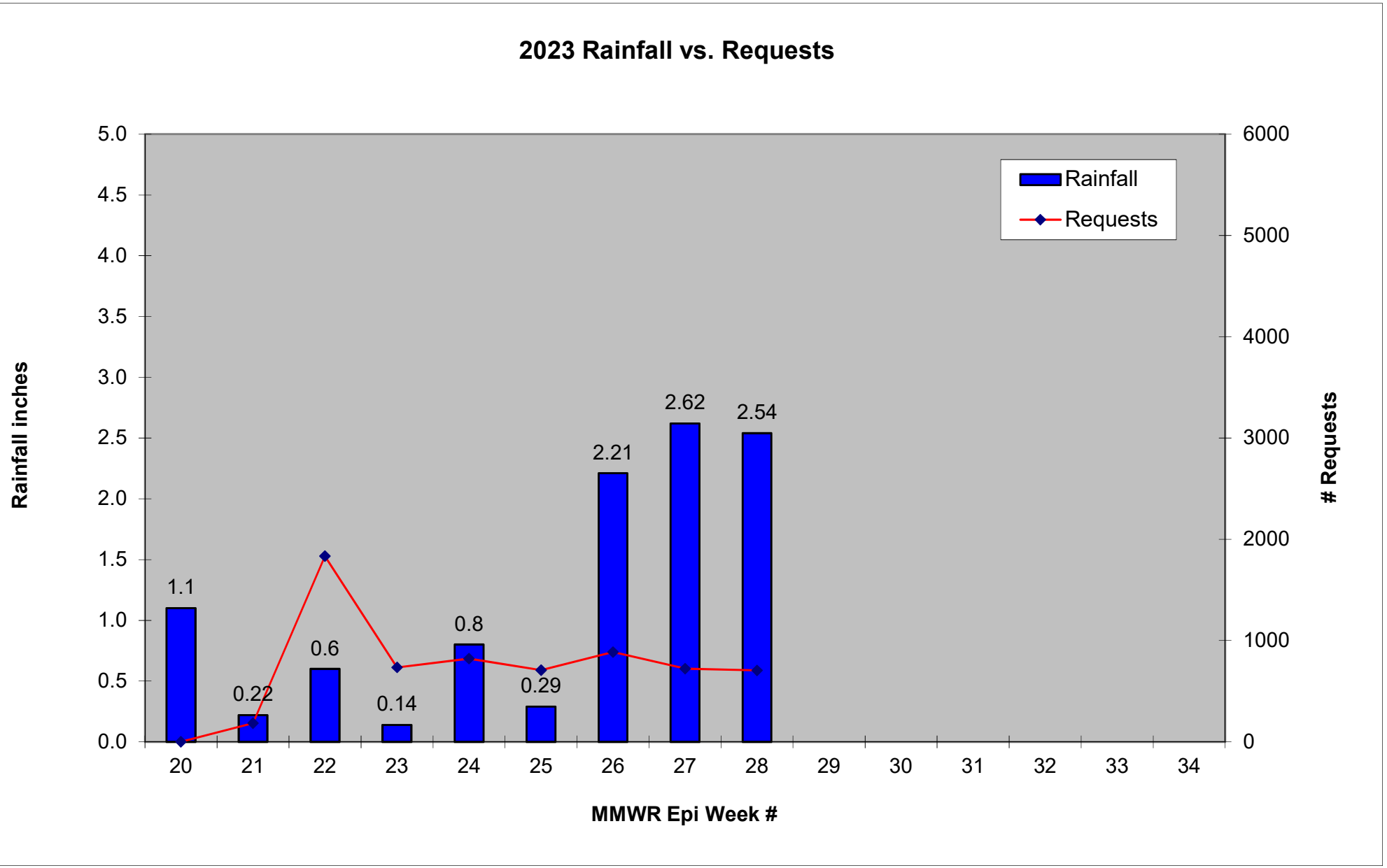
*source: http://www.nrcc.cornell.edu/regional/tables/tables.html

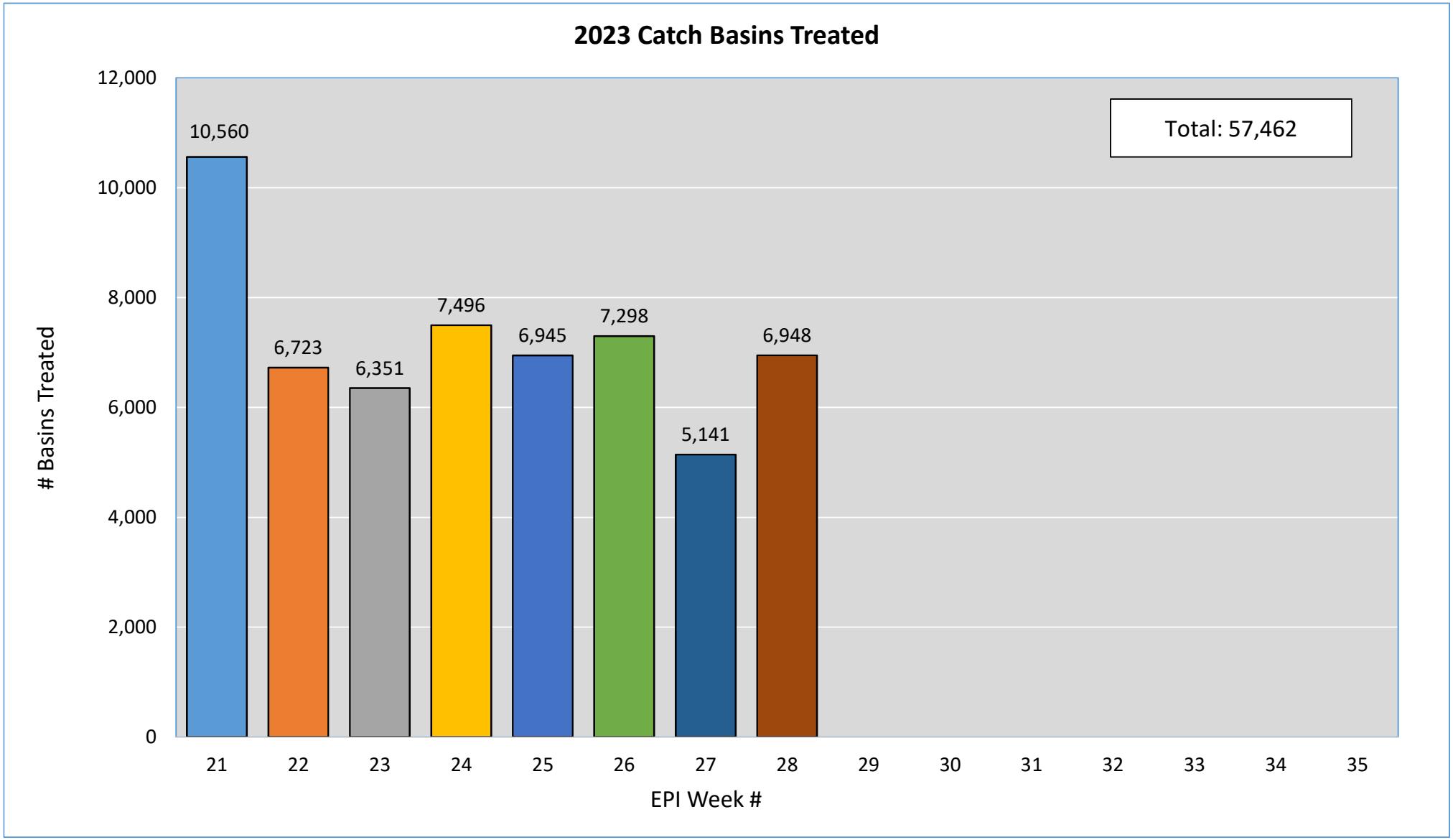
2023 CMMCP Weekly Rainfall vs. 18 Year Average*

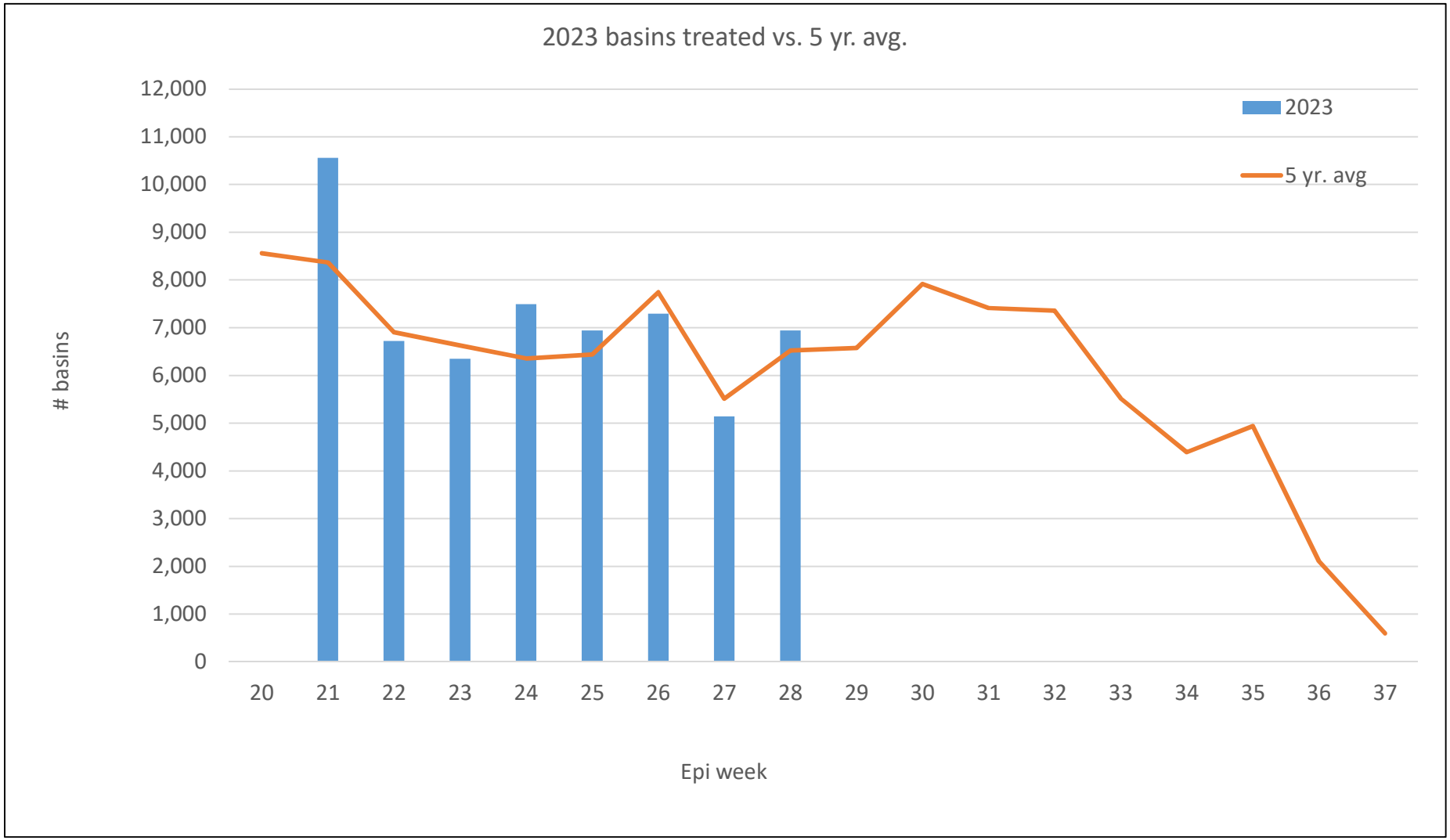


*source: CMMCP weather station Northborough, MA


ULV Service Request History 2003-2023
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 #
20 yr. avg.
2023


2023 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
1.1
0.22
0.6
0.14
0.8
0.29
2.21
2.62
2.54
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34


2023 Catch Basins Treated
12,000
10,000
8,000
6,000
4,000
2,000
0
Basins Treated
10,560
6,723
6,351
7,496
6,945
7,298
5,141
6,948
Total: 57,462
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
EPI Week #


2023 basins treated vs. 5 yr. avg.
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
basins
2023
5 yr. avg
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
Epi week