

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #31
July 30 – Aug. 5, 2023

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**Central Mass. Mosquito Control Project
Weekly Report- 7/30/23-8/5/23
EPI Week #31**

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	241	370	33	280	628	3153
Total Specimens	3308	20107	98	5663	16573	56781
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 67.77°F with a recorded high temperature of 85.00°F and a recorded low temperature of only 49.70°F. For this week there was also a total of 0.19 inches of rain observed. Compared to the previous week, it was approximately 7.93°F cooler on average, and rained about 1.71 inches less. There was 9.98 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>	-24.44%	+4228%	Devens, Berlin
<i>Coquillettidia perturbans</i>	-18.90%	-51.36%	Southborough, Stow, Billerica
<i>Culiseta melanura</i>	-18.18%	-88.14%	Acton, Billerica
<i>Ochlerotatus canadensis</i>	+55.58%	+335.4%	Westford, Littleton, Wilmington
<i>Culex</i> Species	-6.36%	+495.4%	Tewksbury, Chelmsford
All Species	-10.96%	+30.74%	Southborough, Tewksbury, Littleton

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

General narrative:

The temperatures for EPI week 31 averaged approximately 7.93°F cooler than the previous week, with 0.19 inches of precipitation observed. Overall surveillance trap collections decreased this period compared to the last, with all target species decreasing except for *Ochlerotatus canadensis*. Only *Coquillettidia perturbans* and *Culiseta melanura* are remain at lower levels compared to this point last season. *Coquillettidia perturbans* remains the most abundant mosquito, still followed by *Culex*. *Aedes albopictus* surveillance using ovitraps has continued, with 5,019 eggs previously collected in EPI week 30. Supplemental control measures continue to be taken in response to the collection of *Aedes albopictus* eggs in Ayer. All mosquito pools submitted in EPI week 30 to MDPH for arbovirus testing were negative.

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	8,560	38	
30	5,019	39	
31		40	
	TOTAL	26,025	
3 ATM detections to date			

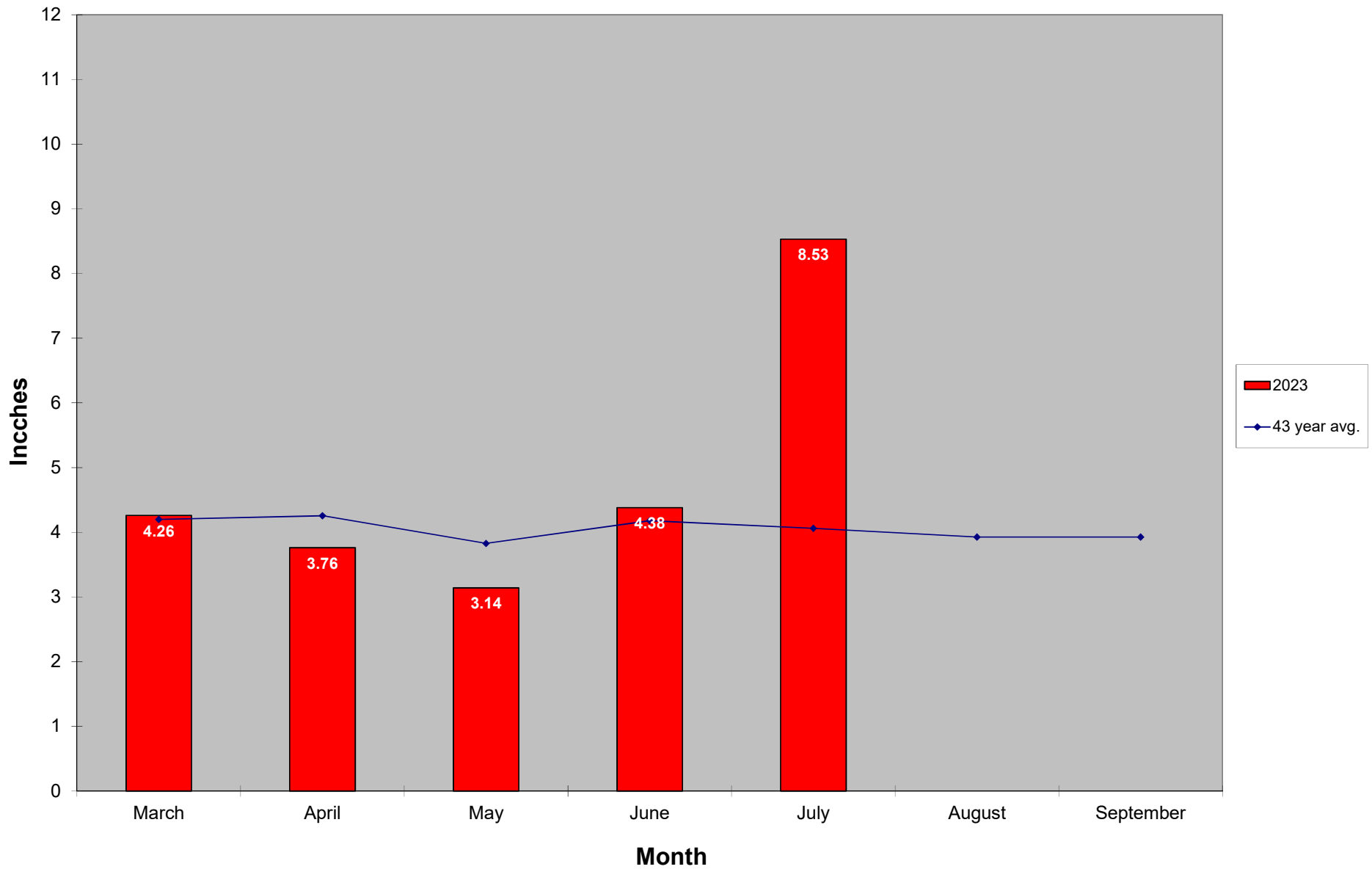
Operational notes:

Service requests are 12.4% below the 20-year average and a 10.7% decrease over 2022 numbers to date. Request numbers decreased 19.4% from the week prior. Work crews began performing catch basins treatments for *Culex* control on May 22. 5,784 basins were treated in Epi week 31, with 76,170 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. Field crews surveyed this area on August 4 and noted 4 abandoned swimming pools. 2 residents were contacted and their pools treated, the other 2 residents were pesticide exclusions and we were not able to contact them directly. Worcester public health officials were informed and we request their assistance.

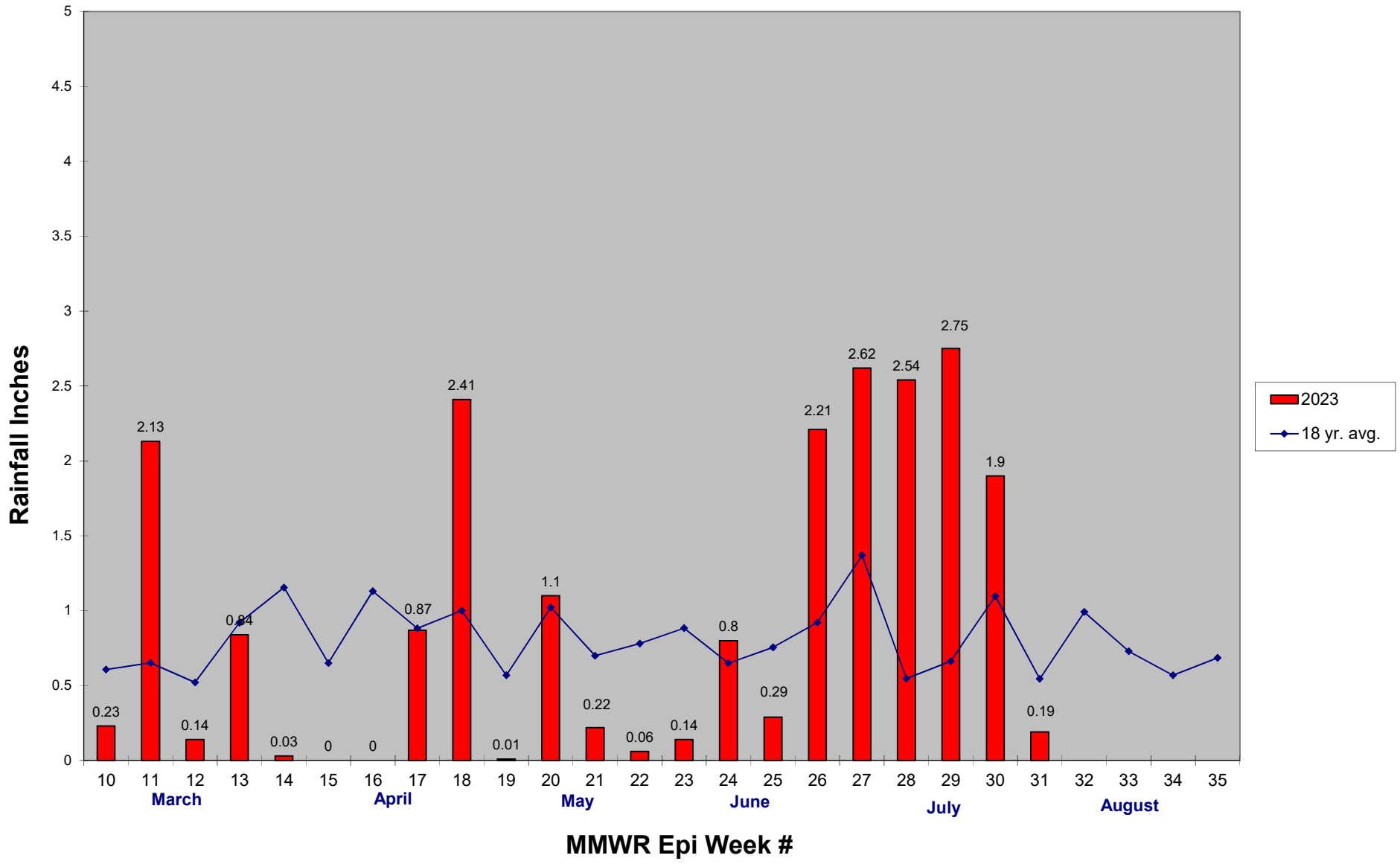
With the continued confirmations of *Aedes albopictus* (ATM) in Ayer, we ULV sprayed the area on July 20, 24 and 31 and will follow up with barrier spraying in early August. Field crews scouted the area on July 21 and noted several areas of larval activity that were treated with Bti. Additional ovitraps 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. Containers have been dumped or treated with long term Bti products. Discussions are underway internally to treat the area with our barrier sprayer using deltamethrin when weather conditions allow.

2023 Mass. Rainfall Data vs. 43 Year Average*



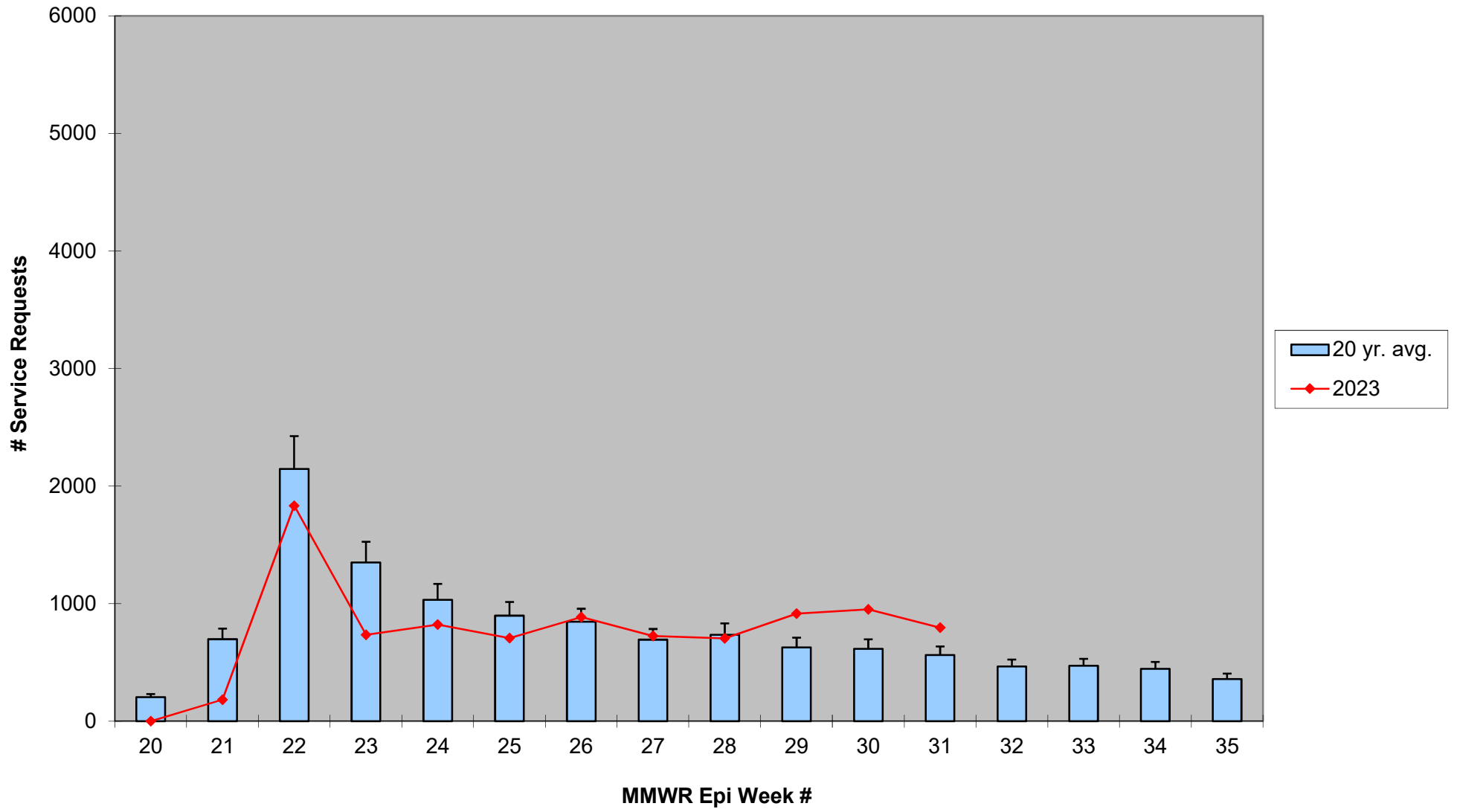
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2023 CMMCP Weekly Rainfall vs. 18 Year Average*

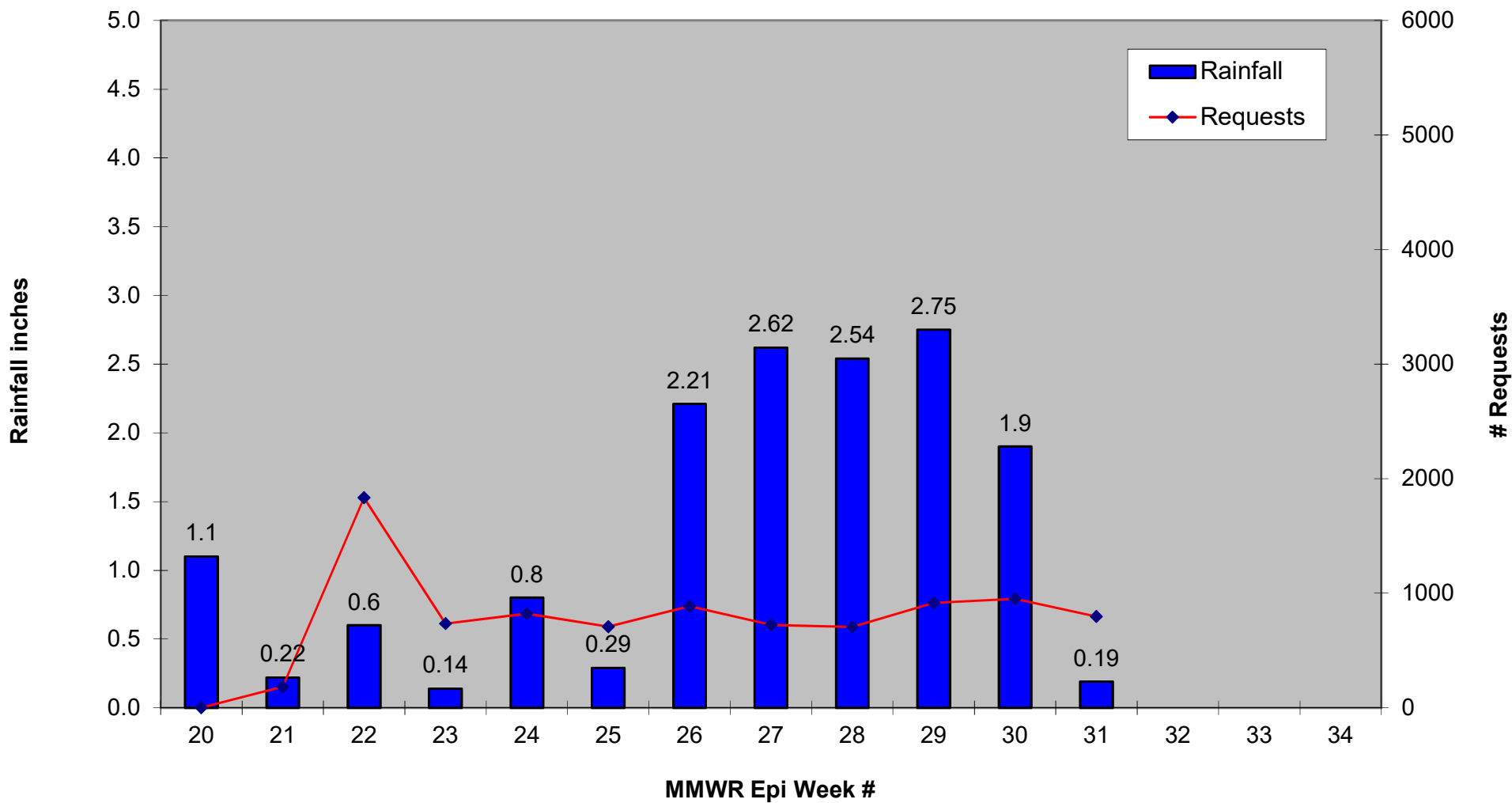


*source: CMMCP weather station Northborough, MA

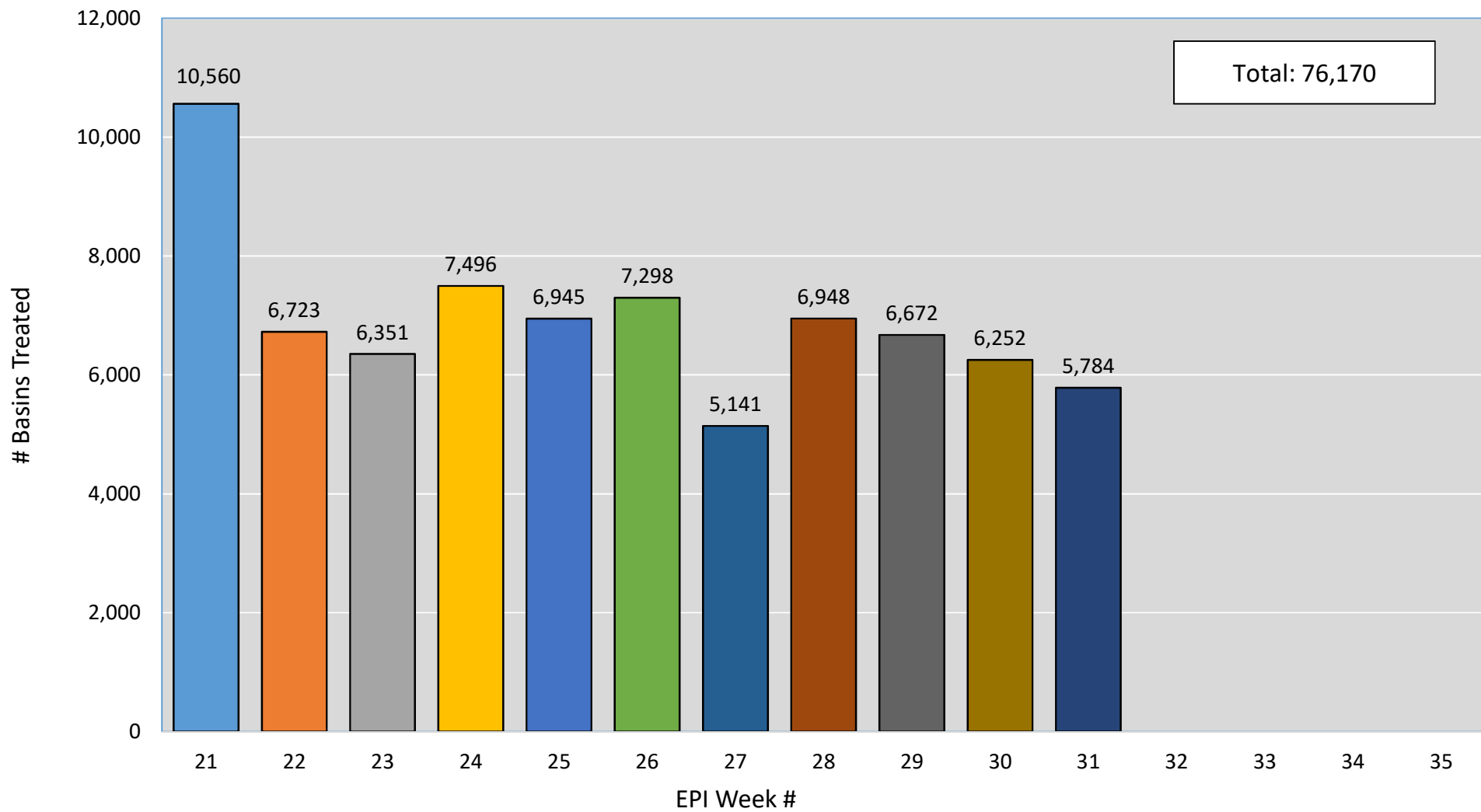
ULV Service Request History 2003-2023



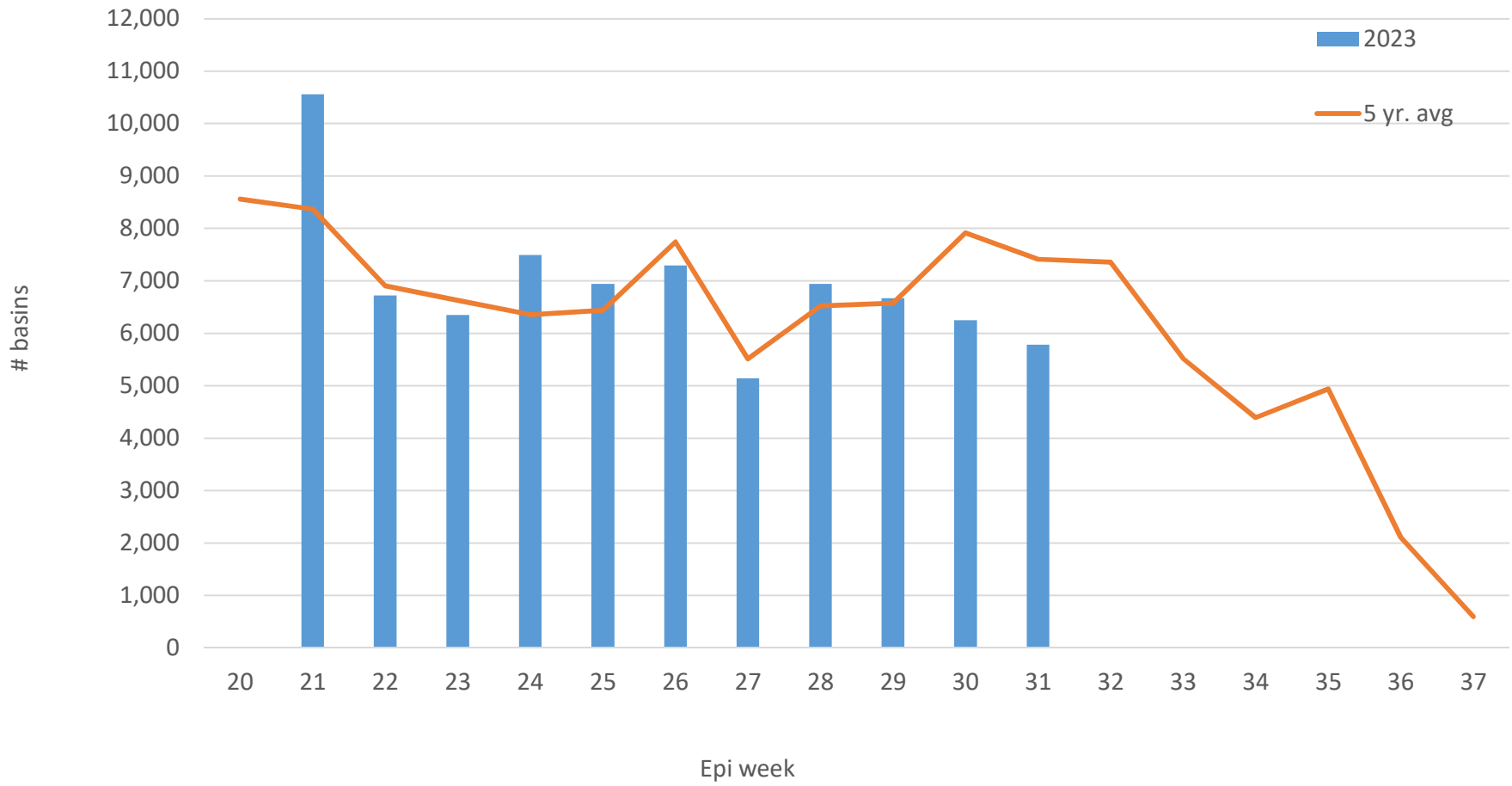
2023 Rainfall vs. Requests



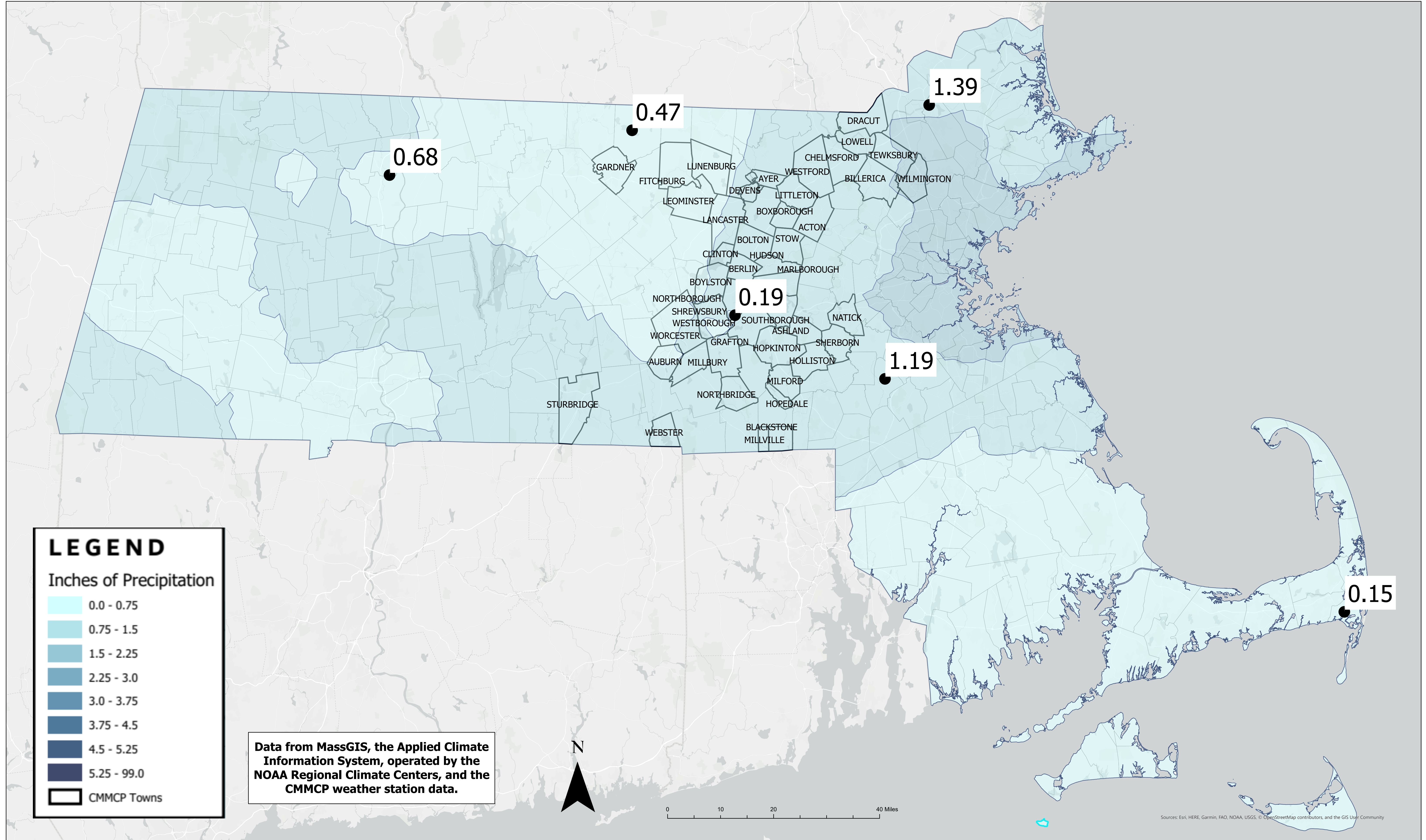
2023 Catch Basins Treated



2023 basins treated vs. 5 yr. avg.



Precipitation in CMMCP Towns for EPI Week 31 (7/30-8/5/23)



0.68

0.47

1.39

0.19

1.19

0.15