

# CMMCP WEEKLY SURVEILLANCE REPORT



**EPI week #39**  
**Sept. 24-30, 2023**

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**Central Mass. Mosquito Control Project  
Weekly Report- 9/24/23-9/30/23  
EPI Week #39**

**Cumulative Surveillance Summary**

<b>Target Species</b>	<b><i>Ae. vex</i></b>	<b><i>Cq. per</i></b>	<b><i>Cs. mel</i></b>	<b><i>Oc. can</i></b>	<b><i>Culex</i></b>	<b>All Species</b>
<b>No. Pools</b>	466	632	73	429	1175	6047
<b>Total Specimens</b>	5957	25591	161	6686	26017	87067
<b>No. Pools WNV +</b>	0	3 <sup>†</sup>	0	0	8 <sup>†</sup>	11 <sup>†</sup>
<b>No. Pools EEE +</b>	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 54.20°F with a recorded high temperature of 71.60°F and a recorded low temperature of only 38.60°F. For this week there was also a total of 1.99 inches of rain observed. Compared to the previous week, it was approximately 5.89°F cooler on average, and rained about 0.38 inches more. There has been 6.69 inches of rain accumulated in September, after 6.49 inches for the month of August.

**CMMCP Mosquito Summary-**

<b>Target Species</b>	<b>Δ From Last Week</b>	<b>Δ From Last Year</b>	<b>Predominant Trap Site(s)</b>
<i>Aedes vexans</i>	-20.77%	+676.9%	Northborough, Devens, Lowell
<i>Coquillettidia perturbans</i>	-87.50%	-37.45%	Hopedale, Boxborough, Boylston
<i>Culiseta melanura</i>	-88.24%	-76.24%	Webster
<i>Ochlerotatus canadensis</i>	-73.08%	+422.4%	Marlborough, Natick
<i>Culex</i> Species	-51.92%	+613.8%	Lowell, Westborough
All Species	-53.90%	+86.85%	Westborough, Marlborough, Boylston

The predominant mosquito for the week was *Aedes vexans*, followed by *Culex*.

**General narrative:**

The temperatures for EPI week 39 averaged approximately 5.89°F cooler than the previous week, with 1.99 inches of precipitation observed. Overall surveillance trap collections decreased significantly this period compared to the last, with all target species

following this trend. Only *Coquillettidia perturbans* and *Culiseta melanura* remain at lower levels compared to this point last season. *Aedes vexans* is now the most abundant mosquito species, followed by *Culex*. *Aedes albopictus* surveillance using ovitraps has continued, with 2581 eggs previously collected in EPI week 38. None of the mosquito pools submitted to MDPH in EPI week 38 tested positive for mosquito-borne disease.

*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	2,581
30	5,019	39	
31	7,049	40	
	<b>TOTAL</b>	<b>57,776</b>	
<b>16 ATM detections to date</b>			

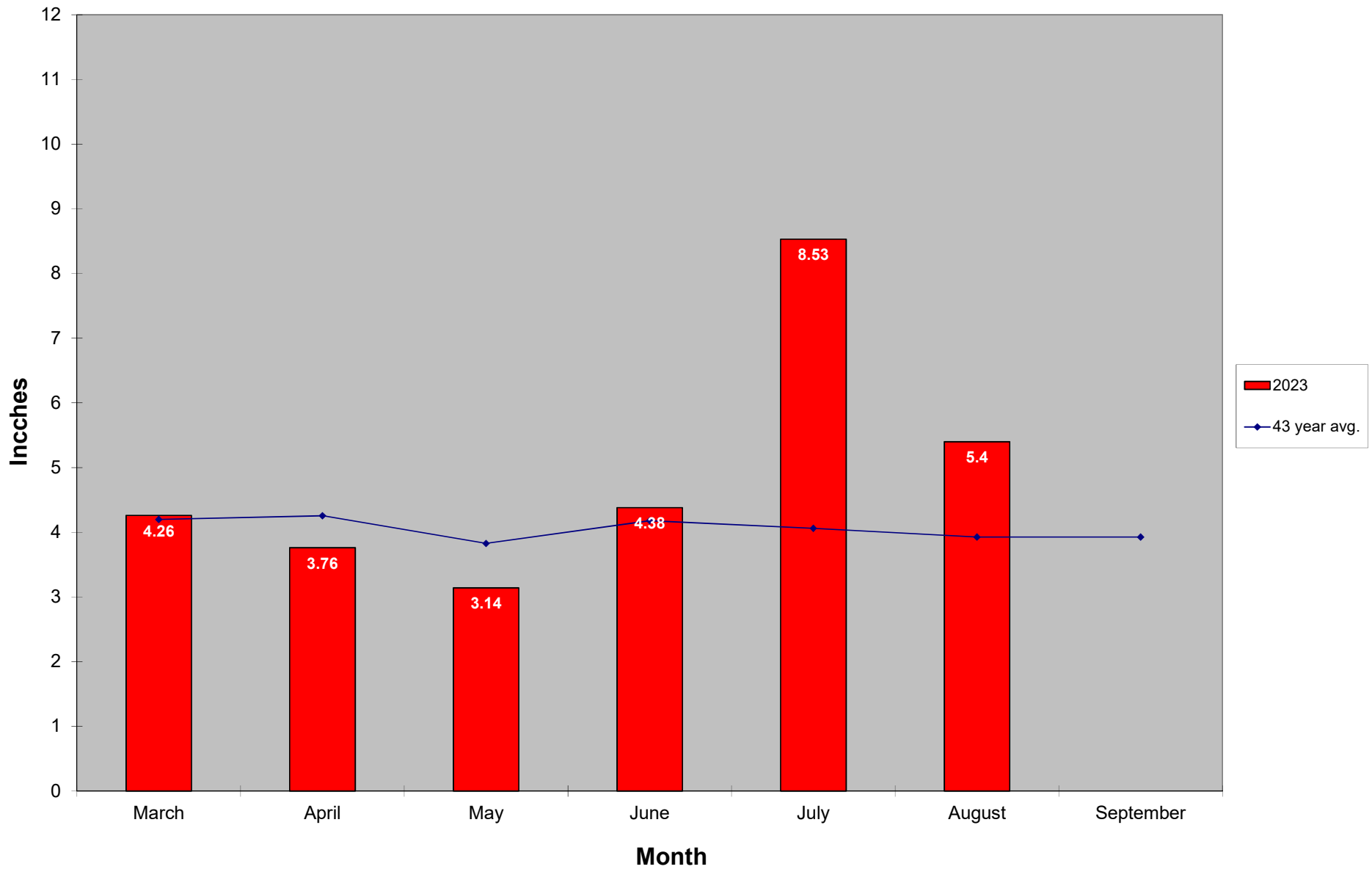
**Operational notes:**

Service requests ended the year 7.26% below the 20-year average and a 1% increase over 2022 numbers. 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.

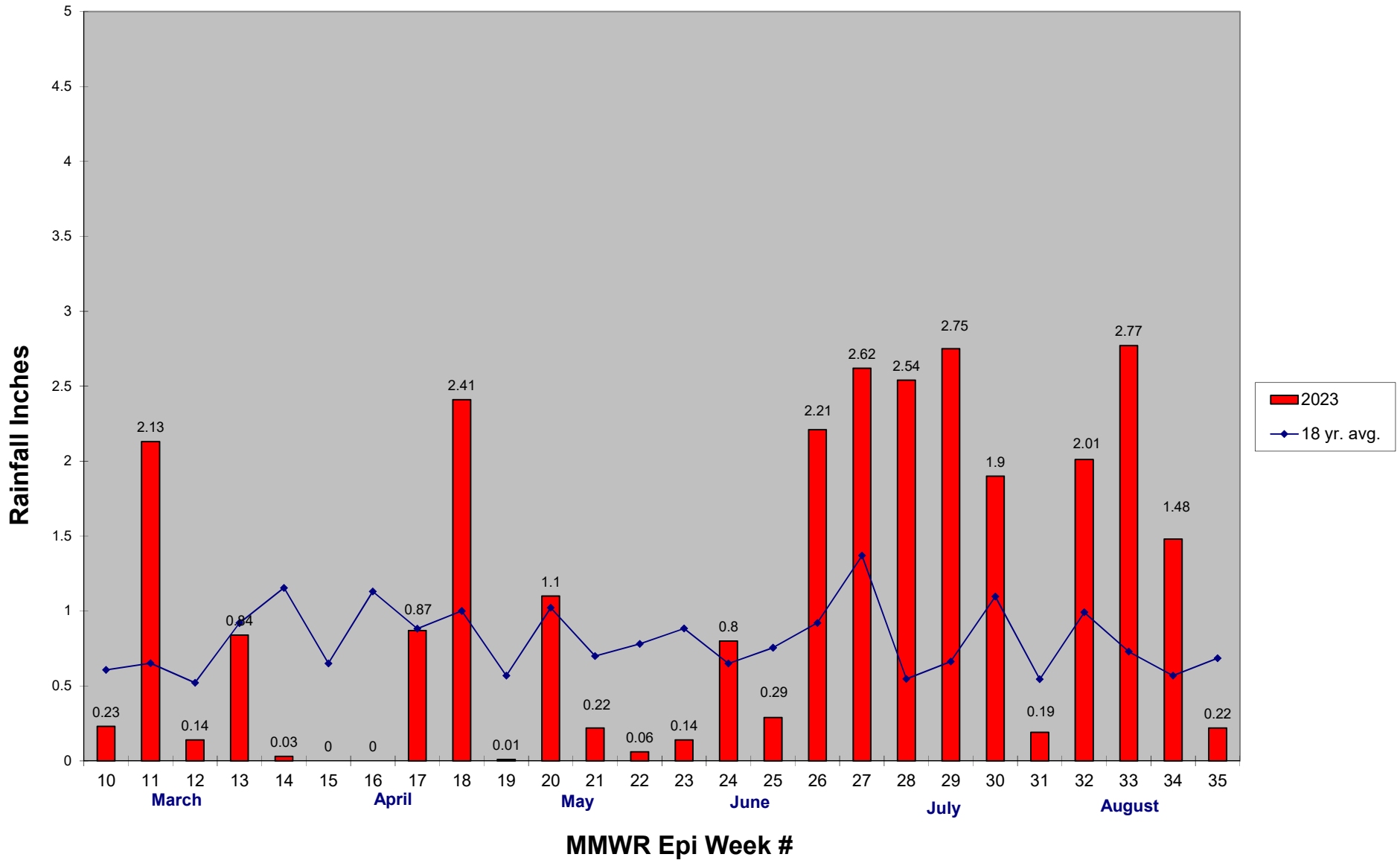
EEE pools in several non-member towns in southern Worcester county has raised the risk level to High and Moderate in this area. Additional trapping is in place in member communities and MDPH has submitted additional pools in the non-member towns for testing.

### 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\*

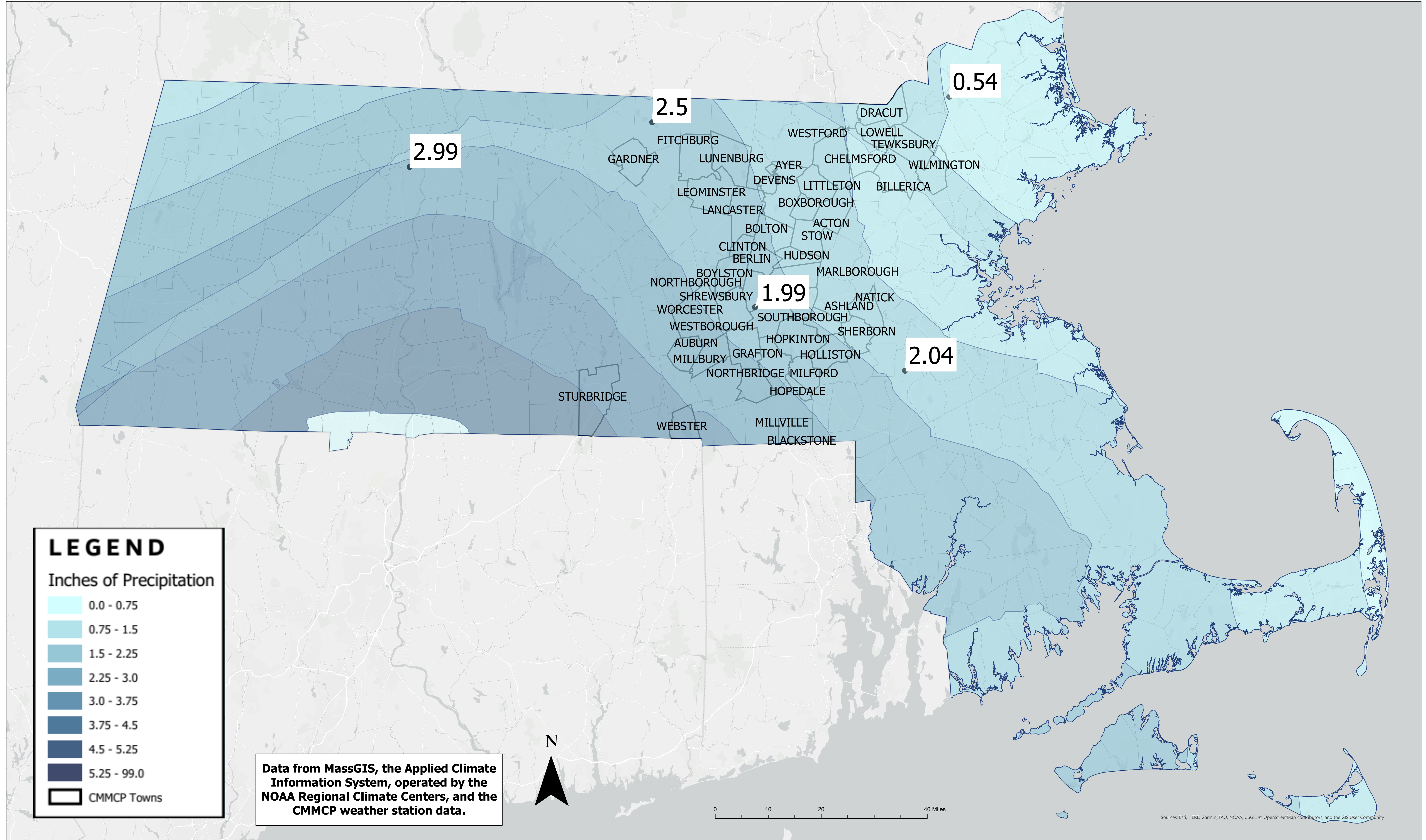


\*source: CMMCP weather station Northborough, MA



# Precipitation in CMMCP Towns

## EPI Week 39 (9/24-9/30/2023)



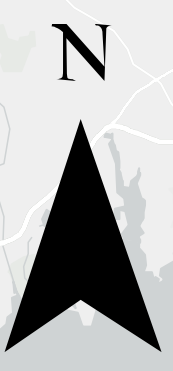
2.99

2.5

0.54

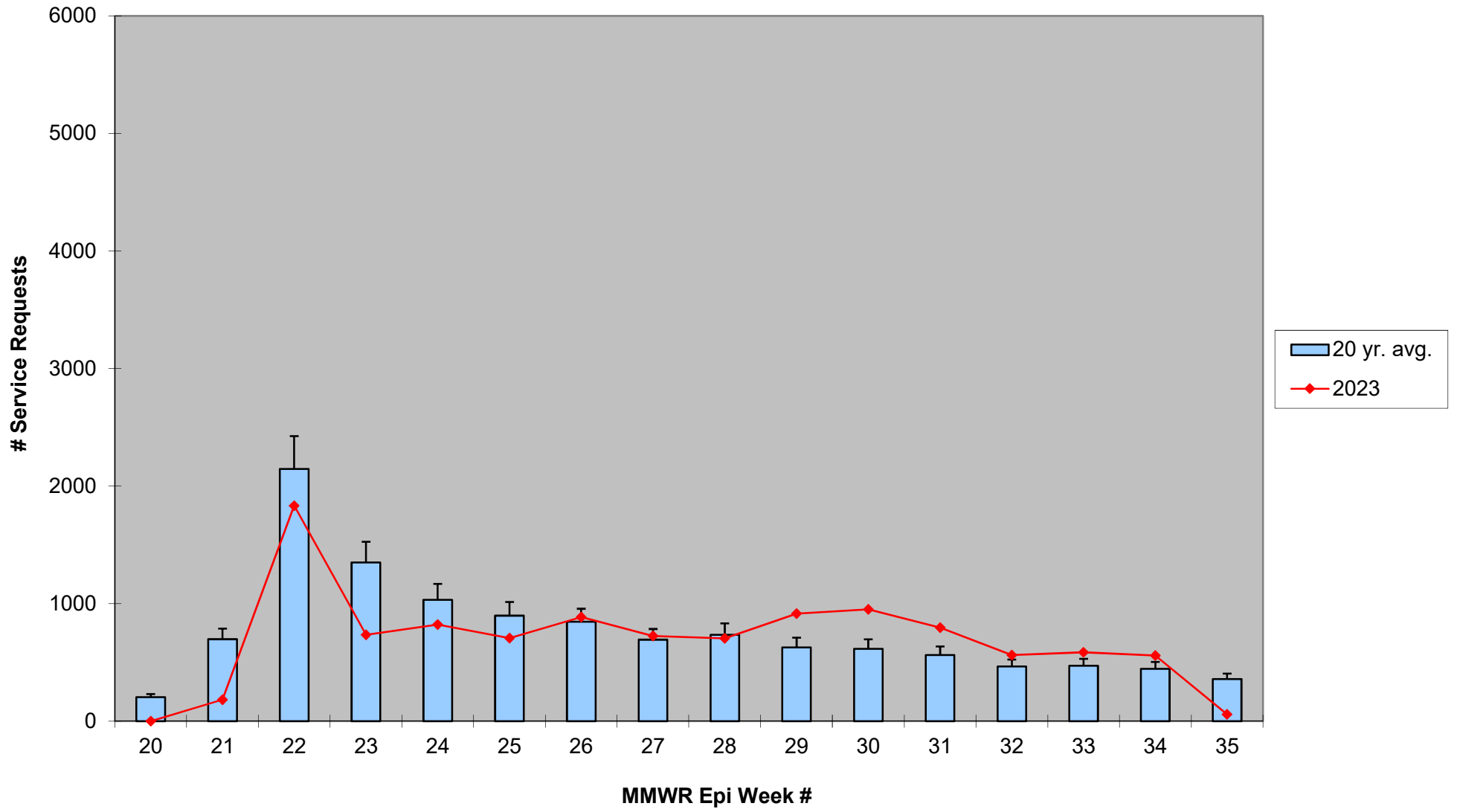
1.99

2.04

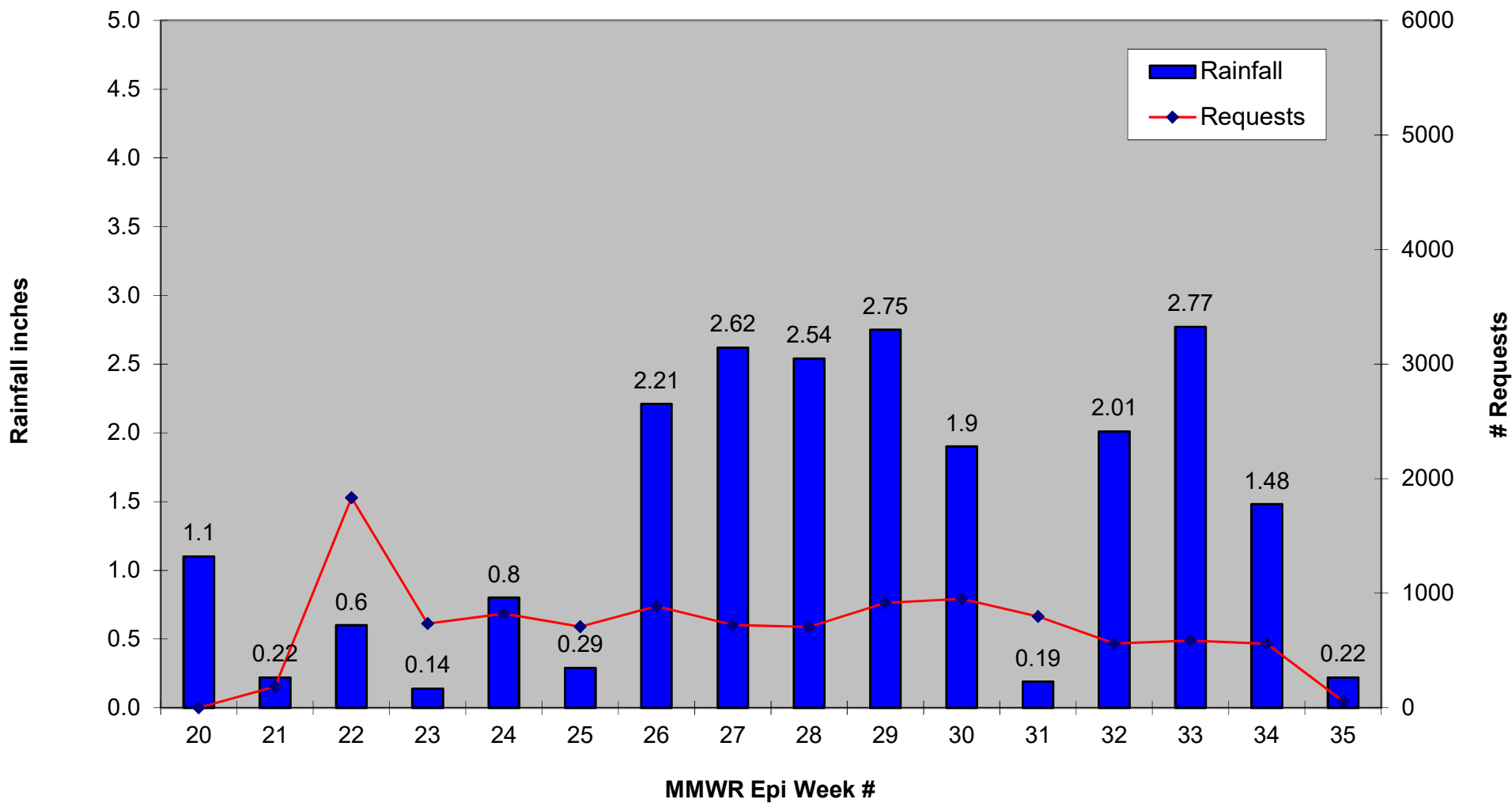




### ULV Service Request History 2003-2023

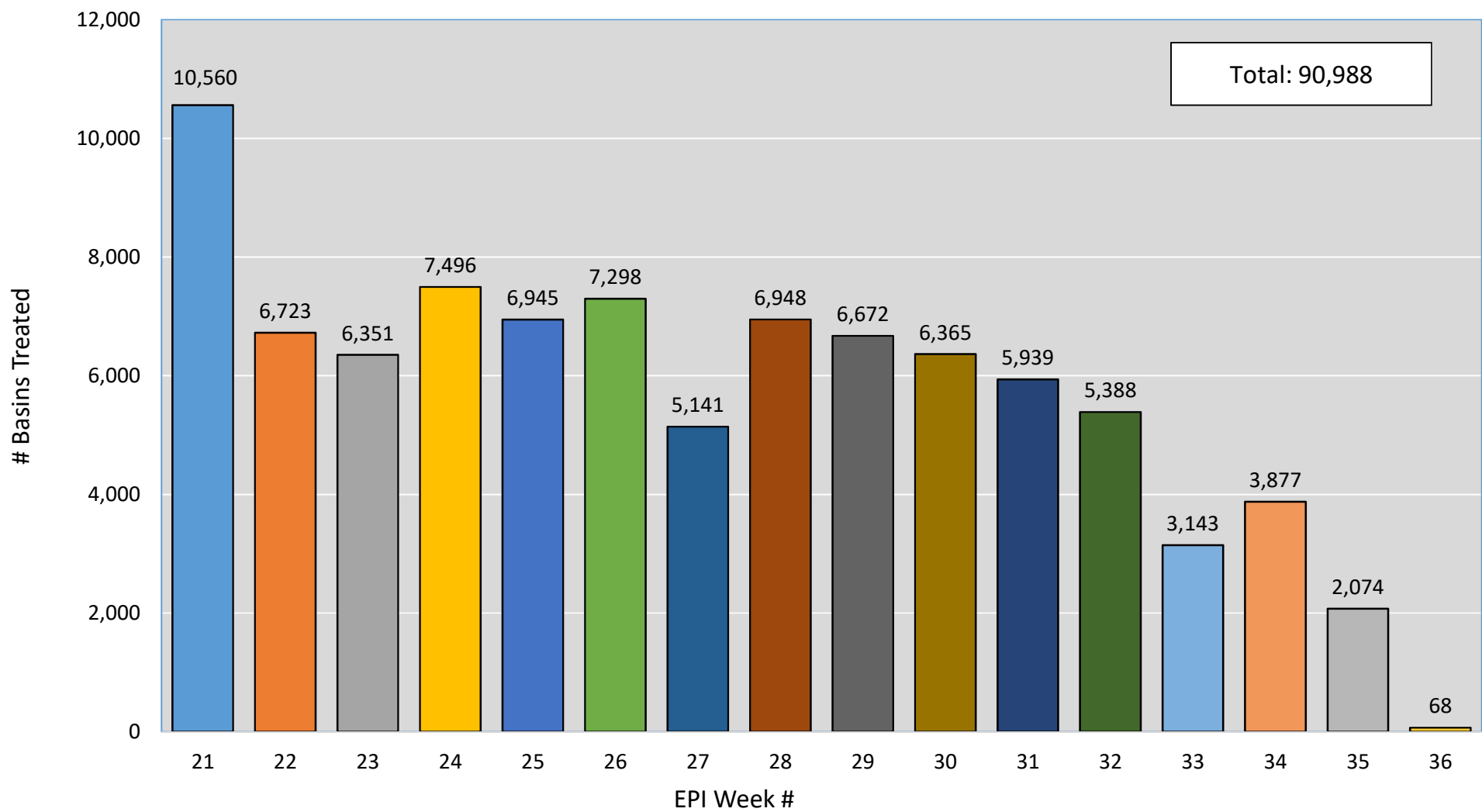


### 2023 Rainfall vs. Requests





### 2023 Catch Basins Treated



2023 basins treated vs. 5 yr. avg.

