

# CMMCP WEEKLY SURVEILLANCE REPORT



**EPI week #33**  
**Aug. 13-19, 2023**

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**Central Mass. Mosquito Control Project**  
**Weekly Report- 8/13/23-8/19/23**  
**EPI Week #33**

**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>	300	450	35	335	815	3973
<b>Total Specimens</b>	4096	22776	100	6069	22824	70440
<b>No. Pools WNV +</b>	0	0	0	0	4 <sup>†</sup>	4 <sup>†</sup>
<b>No. Pools EEE +</b>	0	0	0	0	0	0

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

<sup>†</sup>Pool of WNV+ *Culex* collected in Worcester on 7/20/23

<sup>†</sup>Pool of WNV+ *Culex* collected in Chelmsford on 8/10/23

<sup>†</sup>Pool of WNV+ *Culex* collected in Northbridge on 8/10/23

**Weather Summary (Northborough, MA):** The weather for this particular week averaged 70.10°F with a recorded high temperature of 89.40°F and a recorded low temperature of only 58.60°F. For this week there was also a total of 2.77 inches of rain observed. Compared to the previous week, it was approximately 1.43°F cooler on average, and rained about 0.76 inches more. There has been 4.80 inches of rain accumulated in August, after 9.98 inches for the month of July.

**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>	-64.30%	+4378%	Ayer, Dracut
<i>Coquillettidia perturbans</i>	-53.10%	-46.15%	Dracut
<i>Culiseta melanura</i>	+00.00%	-87.91%	Ayer
<i>Ochlerotatus canadensis</i>	-30.96%	+372.3%	Ayer, Tewksbury, Southborough
<i>Culex</i> Species	-22.91%	+612.1%	Dracut, Wilmington
All Species	-37.32%	+54.79%	Dracut, Southborough

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

**General narrative:**

The temperatures for EPI week 33 averaged approximately 1.43°F cooler than the previous week, with 2.77 inches of precipitation observed. Overall surveillance trap collections decreased this period compared to the last, with all target species decreasing. *Coquillettidia perturbans* and *Culiseta melanura* remain at lower levels compared to this point last season. *Culex* has remained the most abundant target mosquito, followed again by *Coquillettidia perturbans*. *Aedes albopictus* surveillance using ovitraps has continued, with 5,246 eggs previously collected in EPI week 32. Supplemental control measures continue to be taken in response to the collection of *Aedes albopictus* eggs

and adult specimens in Ayer. Two mosquito pools submitted to MDPH in EPI week 32 tested positive for West Nile virus. Both of these *Culex* pools were collected 8/10/23, one from Chelmsford and the other from Northbridge.

*Ae. albopictus* egg collections:

Epi week#	# eggs Collected	Epi week#	# eggs Collected
23	0	32	5,246
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	7,049	40	
	<b>TOTAL</b>	<b>38,320</b>	
<b>9 ATM detections to date</b>			

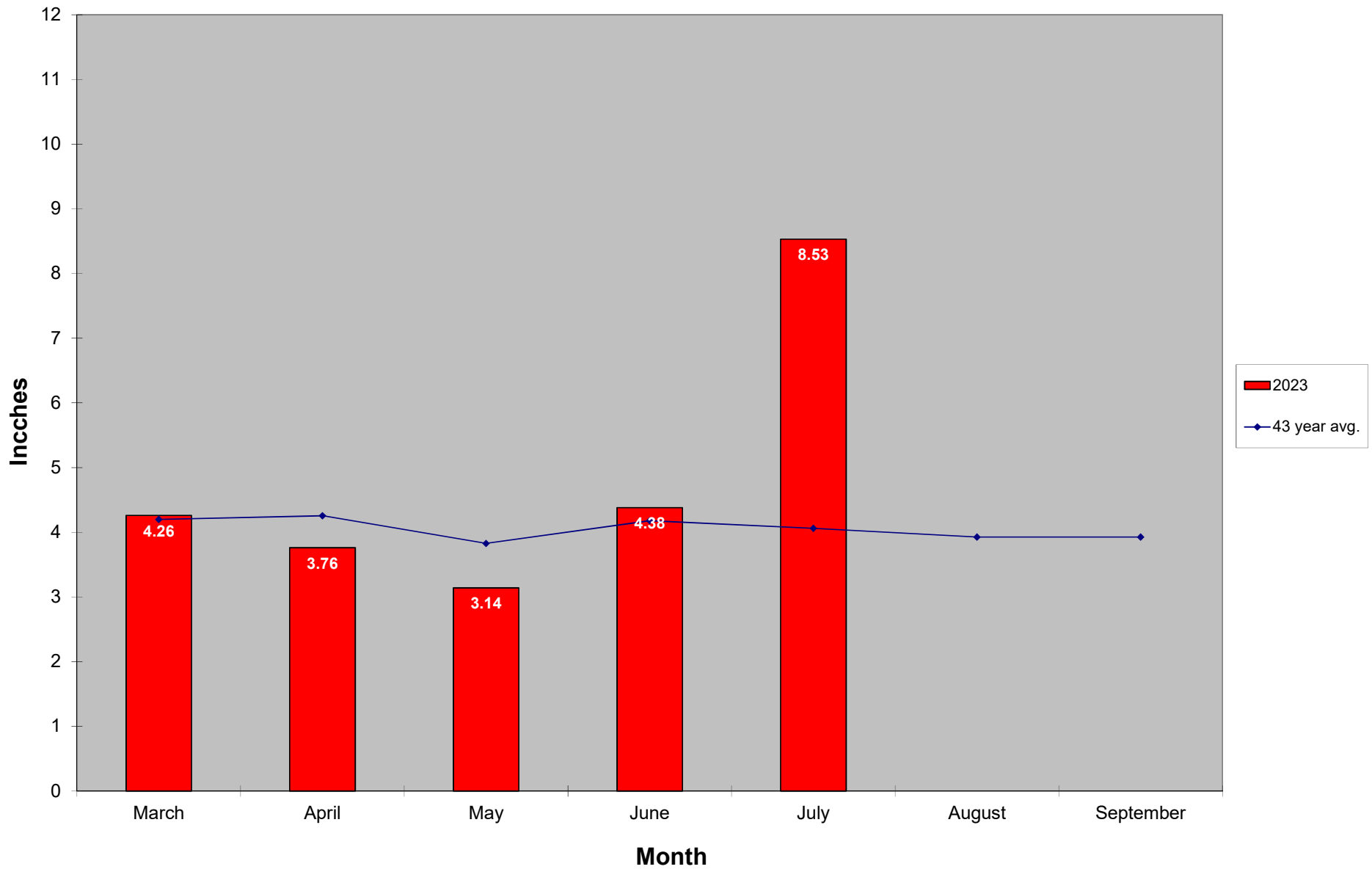
**Operational notes:**

Service requests are 9% below the 20-year average and a 3.7% decrease over 2022 numbers to date. Request numbers increased 4.4% from the week prior. Work crews began performing catch basins treatments for *Culex* control on May 22. 3,143 basins were treated in Epi week 33, with 84,701 catch basins treated to date intended to suppress *Culex* populations and lower risk of transmission from WNV by this species.

West Nile Virus was confirmed in Chelmsford and Northbridge, after consultation with local health officials these affected areas were ULV sprayed. This brings our total to date to 4 WNV confirmation, all in *Culex*.

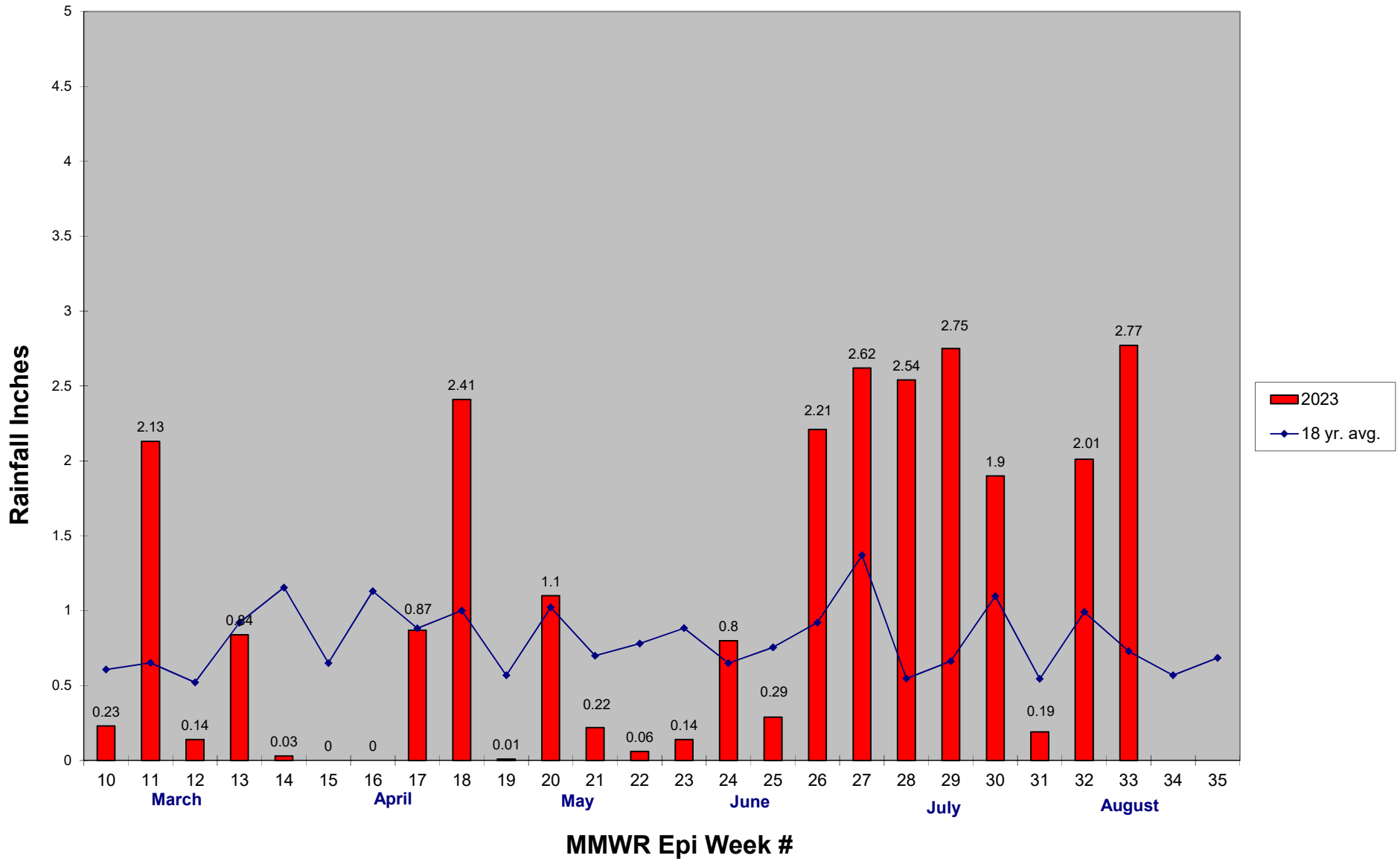
*Ae. albopictus* continues to be found in Ayer but the numbers may have peaked. We will continue surveillance and control efforts as long as possible.

### 2023 Mass. Rainfall Data vs. 43 Year Average\*



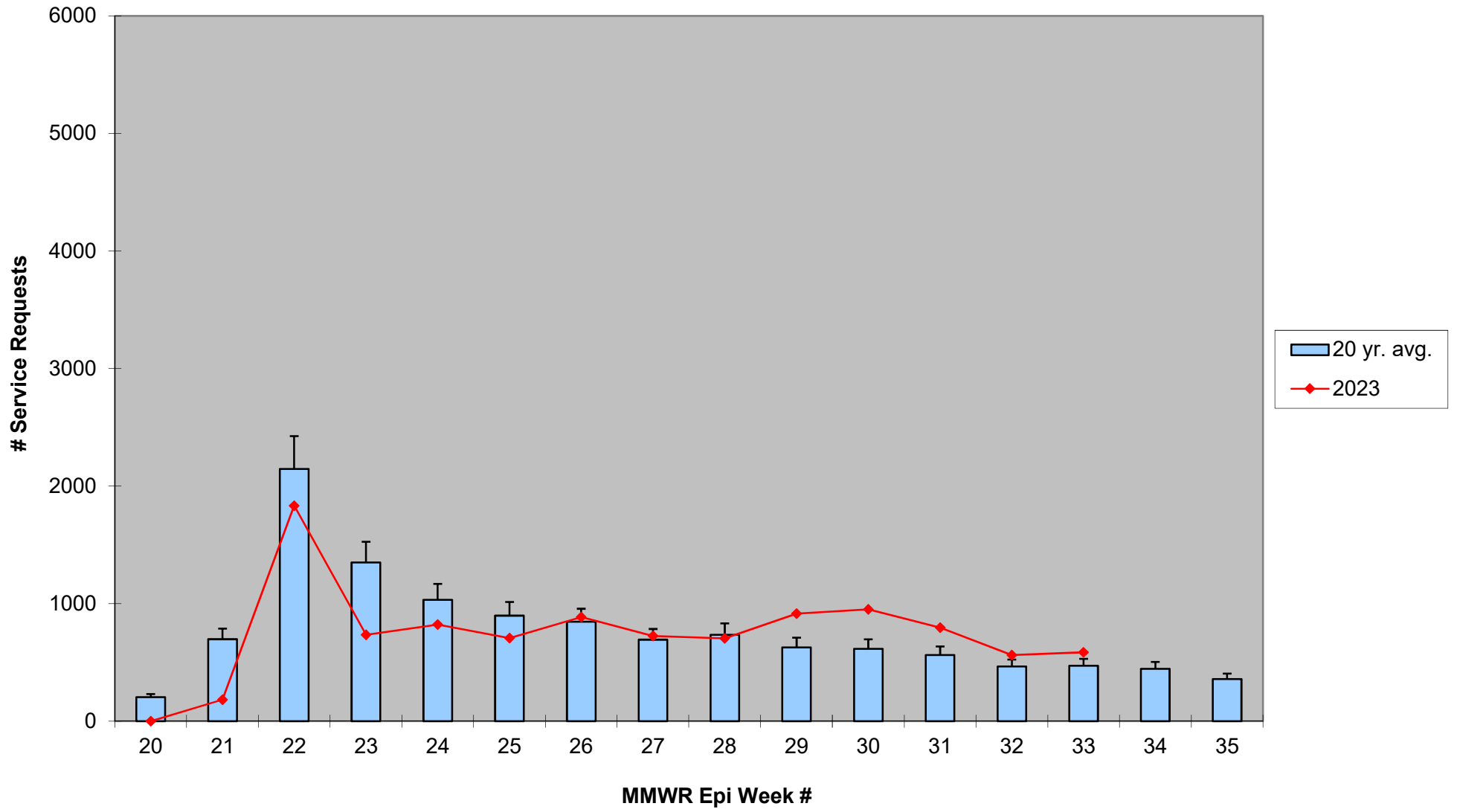
\*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

### 2023 CMMCP Weekly Rainfall vs. 18 Year Average\*

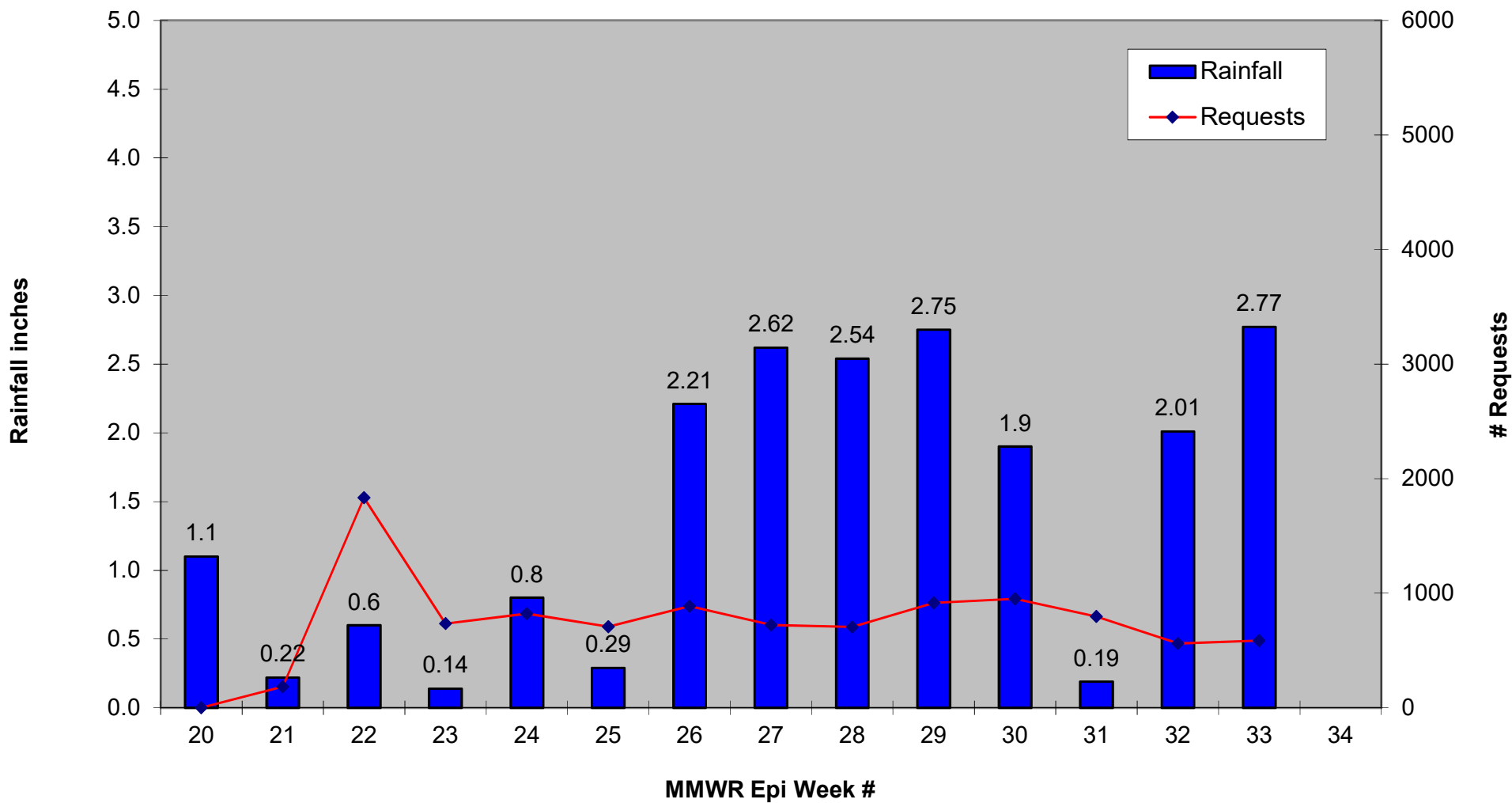


\*source: CMMCP weather station Northborough, MA

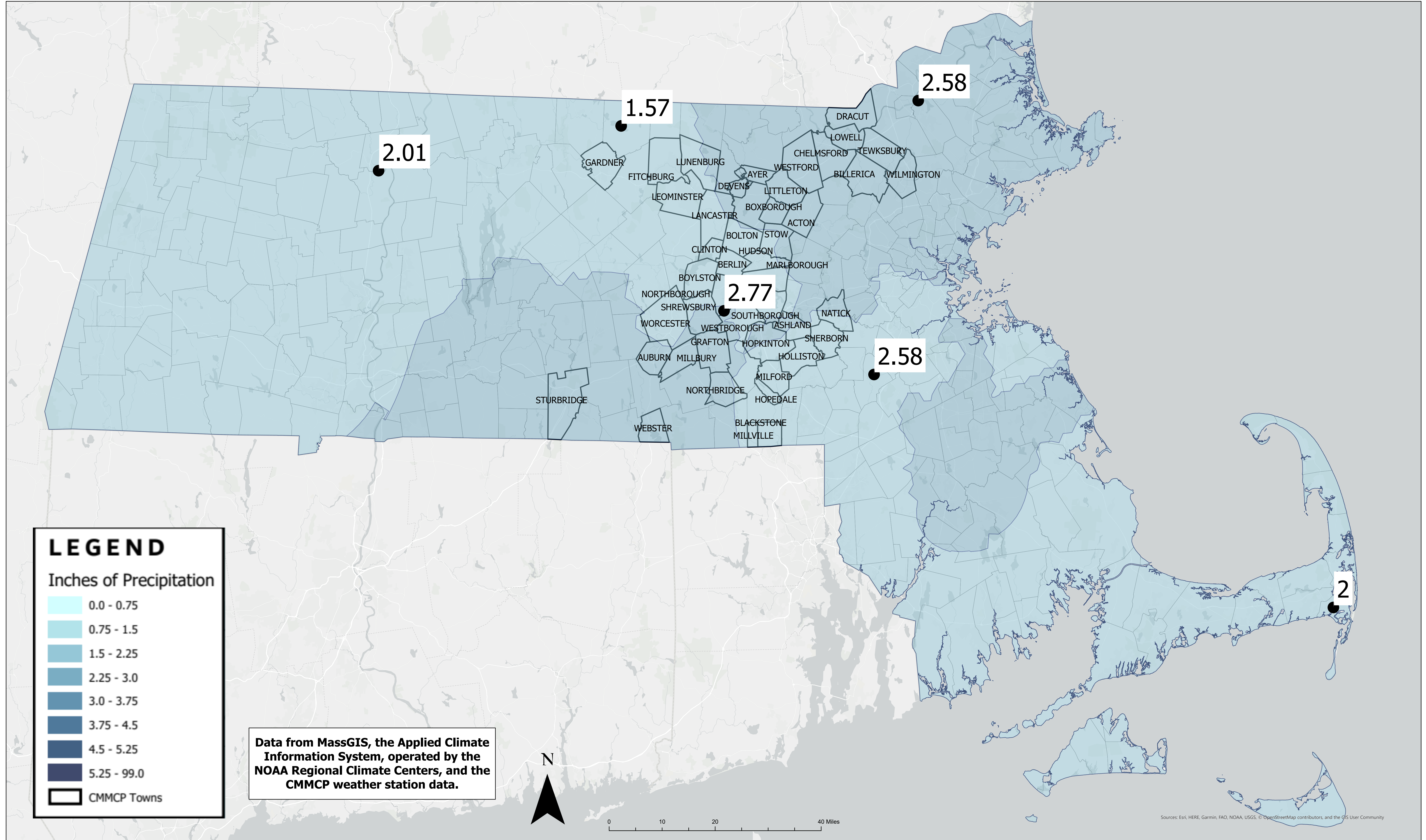
### ULV Service Request History 2003-2023



### 2023 Rainfall vs. Requests



# Precipitation in CMMCP Towns for EPI Week 33 (8/12-8/19/2023)



2.01

1.57

2.58

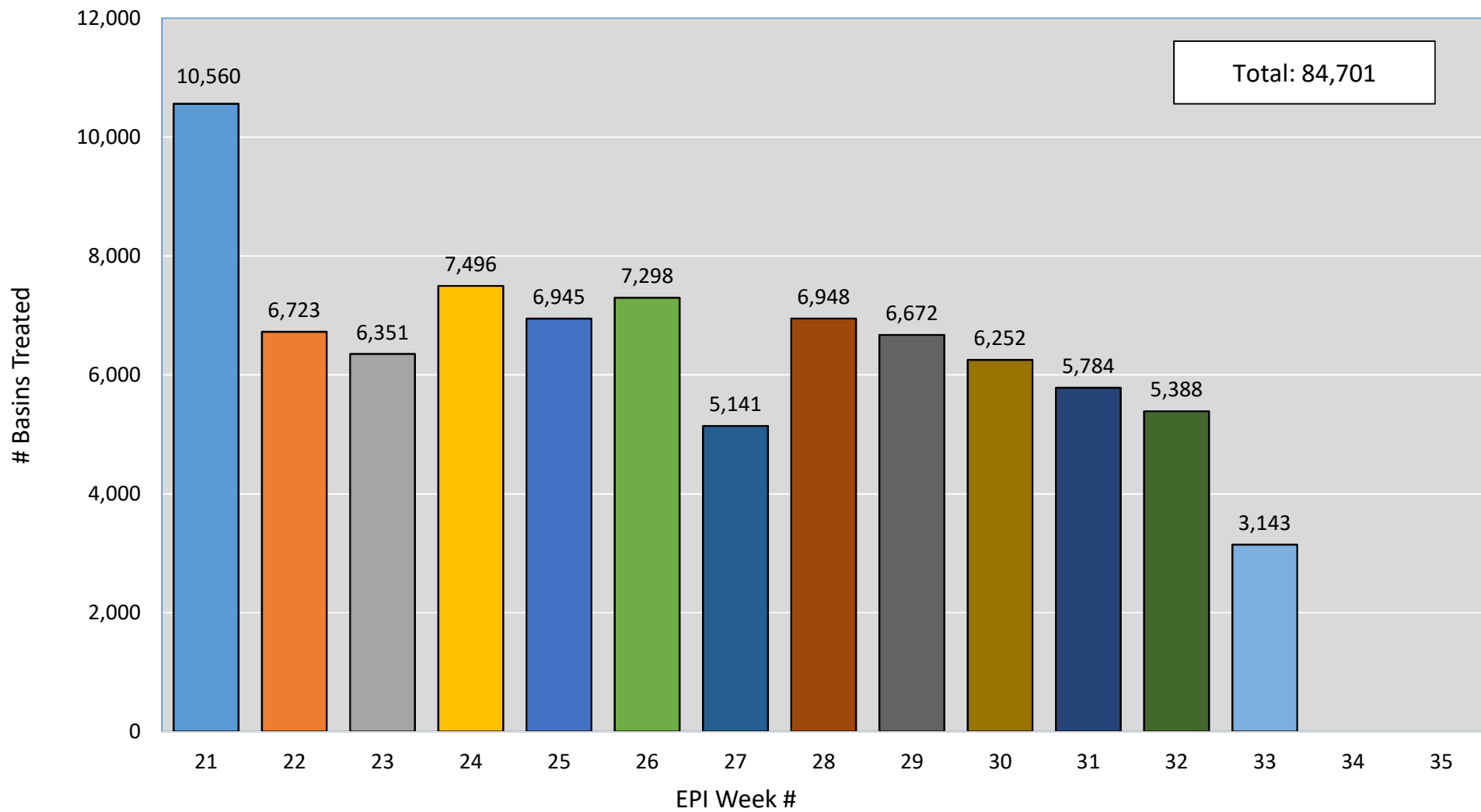
2.77

2.58

2



### 2023 Catch Basins Treated



2023 basins treated vs. 5 yr. avg.

