

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #33
August 15-21, 2021

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**Central Mass. Mosquito Control Project
Weekly Report- 8/15/21-8/21/21
EPI Week #33**

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	282	704	102	295	675	3716
Total Specimens	2869	46021	281	3776	7730	71385
No. Pools WNV +	1 [†]	0	0	0	1 [†]	2 [†]
No. Pools EEE +	0	0	0	0	0	0

[†]Pool of WNV+ *Culex pipiens* collected in Worcester on 8/13/21

[†]Pool of WNV+ *Aedes vexans* collected in Worcester on 8/13/21

Weather Summary (Northborough, MA): The weather for this particular week averaged 73.21°F with a recorded high temperature of 93.70°F and a recorded low temperature of only 56.50°F. For this week there was also a total of 2.13 inches of rain observed. Compared to the previous week, it was approximately 4.20°F cooler on average, and rained about 2.01 inches more. There has been 2.91 inches of rain accumulated in August, after 9.53 inches for the month of July.

CMMCP Mosquito Summary-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
<i>Aedes vexans</i>	-80.34%	+63.33%	Hopedale, Worcester, Milford
<i>Coquillettidia perturbans</i>	-36.92%	+42.87%	Boxborough, Gardner
<i>Culiseta melanura</i>	-22.22%	-3.100%	Billerica, Tewksbury, Hudson
<i>Ochlerotatus canadensis</i>	-54.39%	+46.51%	Gardner, Stow, Westford
<i>Culex</i> Species	+36.55%	+125.9%	Millbury, Northbridge, Westford
All Species	-25.82%	+55.15%	Boxborough, Westford

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

General narrative:

The temperatures for EPI week 33 averaged approximately 4.20°F cooler than the previous week, with 2.13 inches of precipitation observed. *Culex* was the most abundant mosquito for the week, followed now by *Coquillettidia perturbans*. For target mosquitoes, only *Culex* was more abundant in EPI week 33 compared to the previous week. Overall mosquito population numbers were down in EPI week 33. Compared to the 2020 season, overall mosquito surveillance numbers are up this year, primarily due to increases in *Coquillettidia perturbans* and *Aedes vexans*. Two submitted mosquito pools from EPI week 32 tested positive for West Nile virus in Worcester, one *Aedes vexans*, the other *Culex pipiens*. ULV spraying was done in the affected area on August 18 after coordination with the Worcester Dept. of Health and the City Manager's office. *Aedes*

albopictus surveillance using ovitraps has continued, with an additional 319 eggs submitted to the Massachusetts Department of Public Health.

Ae. albopictus egg collections:

Epi week#	# eggs Collected	Epi week#	# eggs Collected
23	0	29	46
24	43	30	21
25	530	31	928
26*	512	32	546
27	399	33	319
28	362	34	
	TOTAL	3,706	
*ATM detected in Lowell			

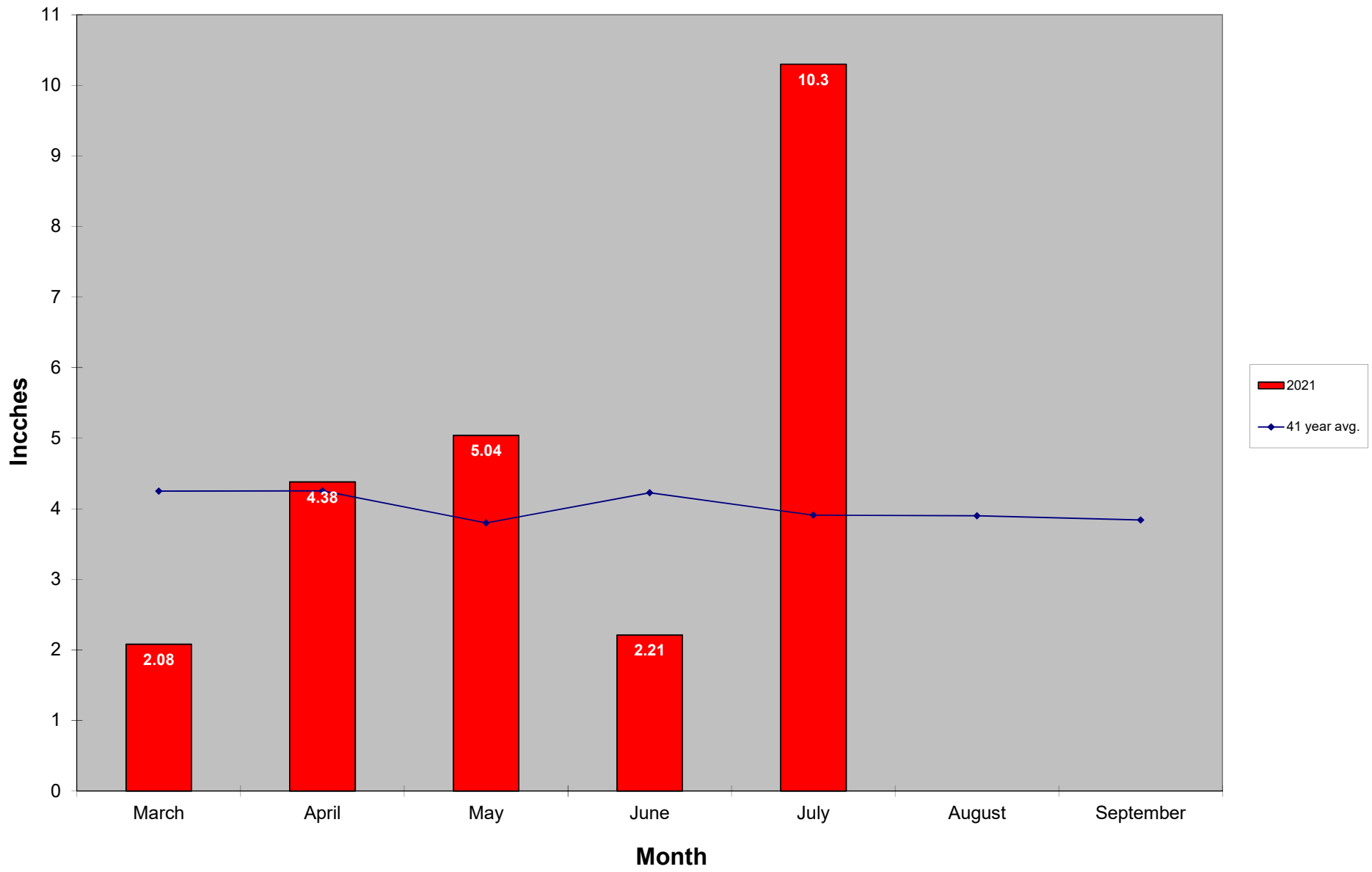
Service requests are 39.7% greater than the 18-year average but a 10.2% decrease over 2020 numbers to date. Requests decreased 77.4% from the previous week. Work crews are performing catch basins treatments for *Culex* control but seasonal staff have been switched to adult mosquito surveillance and this program is winding down for the season as *Culex* begin to enter diapause. 2,342 catch basins were treated in Epi week 33, bringing the total to 82,418 basins to date.

Two submitted mosquito pools from EPI week 32 tested positive for West Nile virus in Worcester, one *Aedes vexans*, the other *Culex pipiens*. ULV spraying was done in the affected area on August 18 after coordination with the Worcester Dept. of Health and the City Manager's office.

Our Asian Tiger Mosquito (ATM) protocols were instituted in Epi week 28 in Lowell after confirmation of a positive specimen from one of our ovitraps. To date no additional ATM has been identified in this area, and we will continue to monitor for this invasive species throughout the remainder of the season.

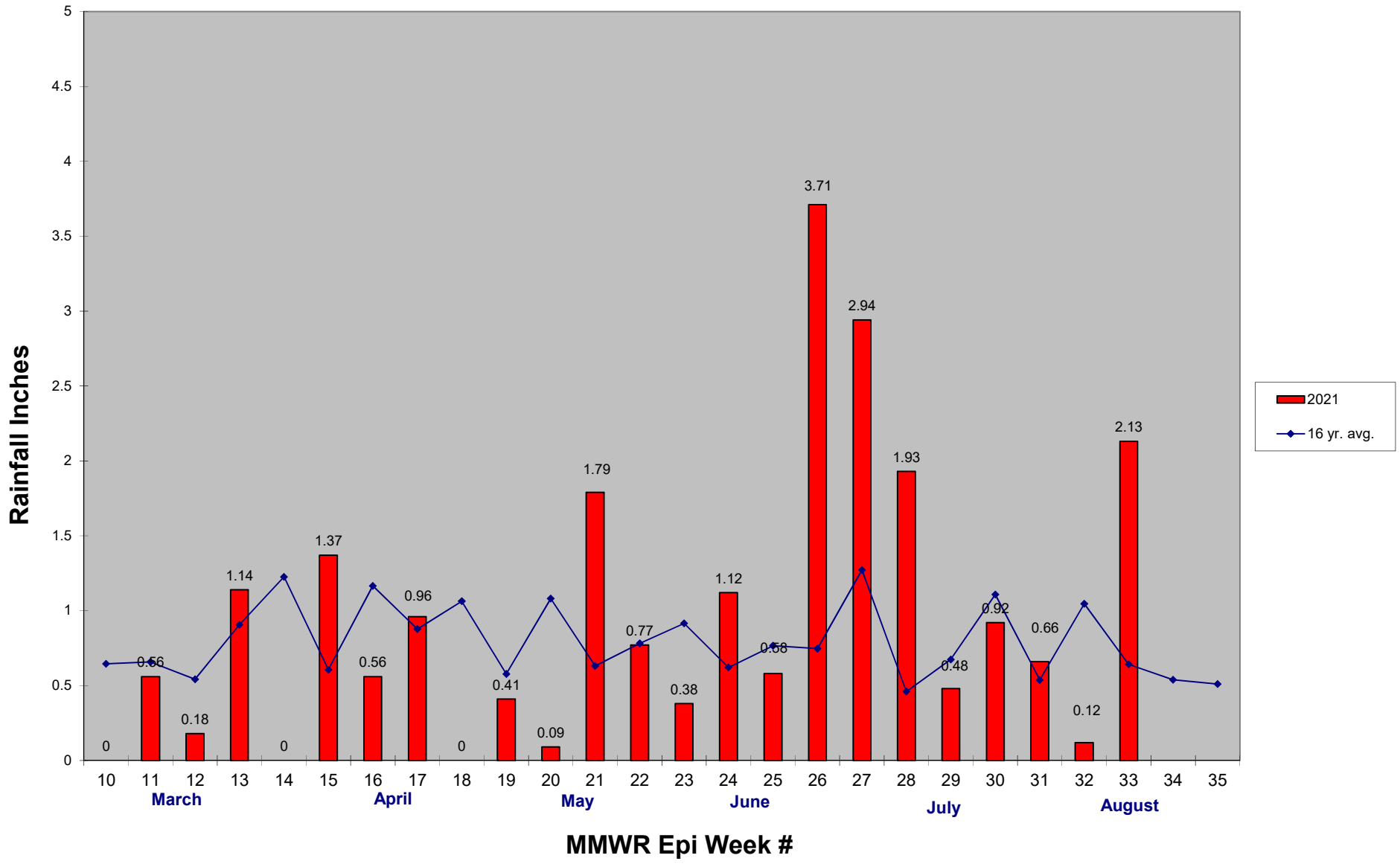
Results of the water sampling and bioassays showed that *Spinosad* is only minimally penetrating the crypts, and the control effect declines quickly inside and outside of the crypts. Data is being collected and analyzed from emergence traps in *Cq. perturbans* habitat but initial results are showing efficacy.

2021 Mass. Rainfall Data vs. 41 Year Average*



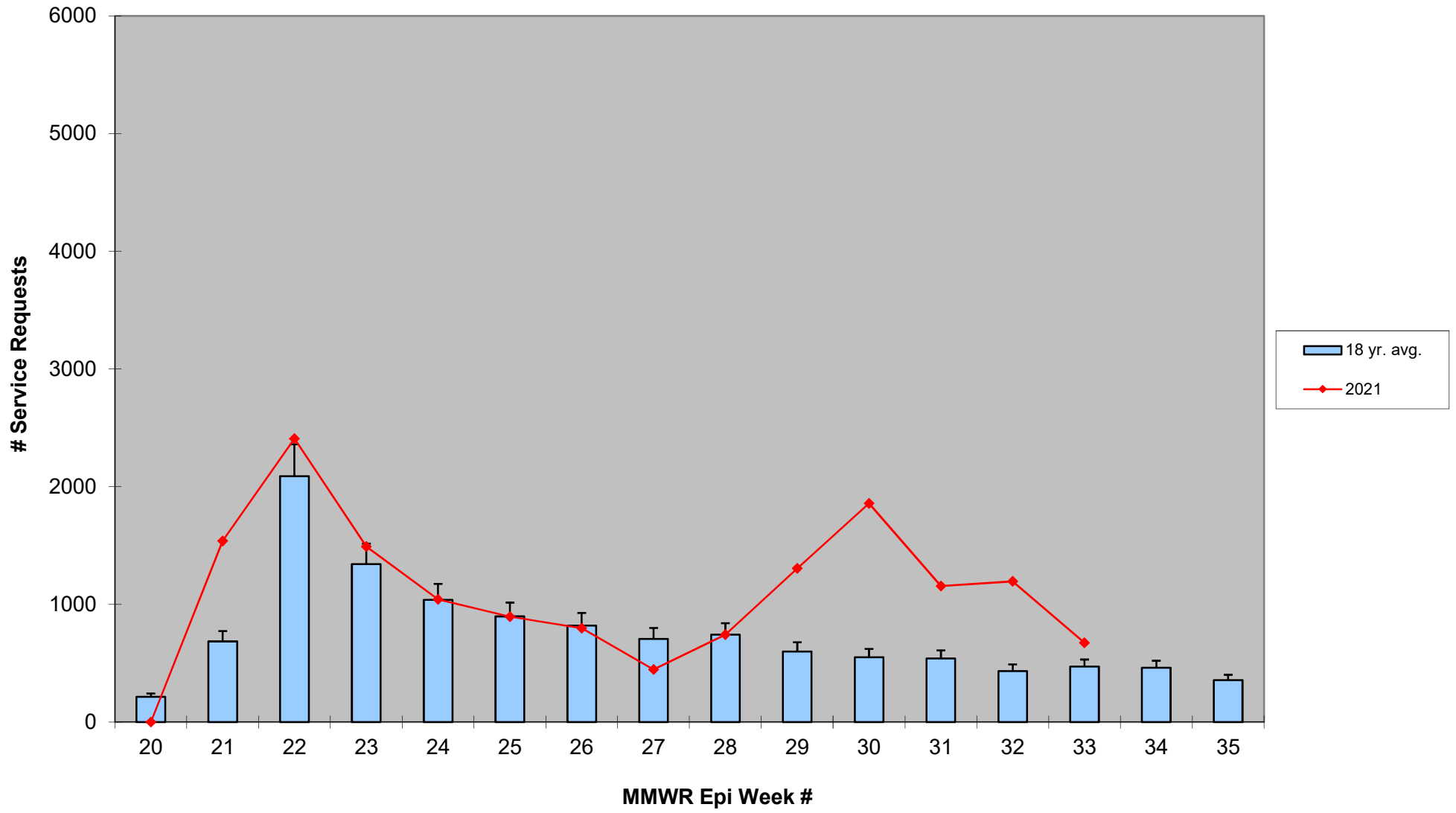
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2021 CMMCP Weekly Rainfall vs. 16 Year Average*



*source: CMMCP weather station Northborough, MA

ULV Service Request History 2003-2021



2021 Rainfall vs. Requests

