



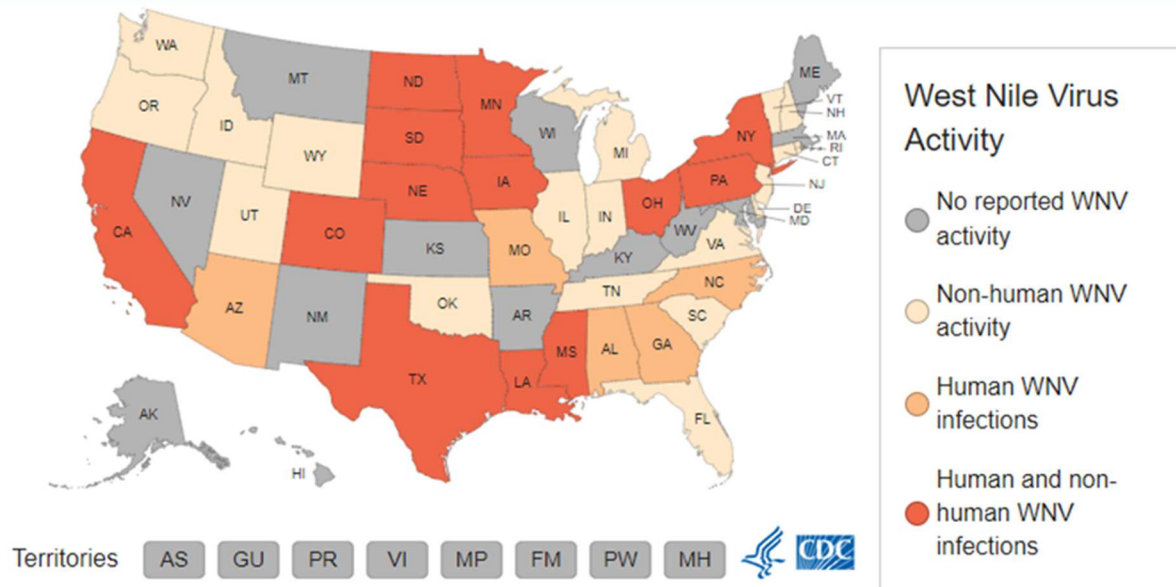
August 2022 Monthly Mosquito Management Report Town of Frederick, CO

West Nile Virus Risk

The Centers for Disease Control and Prevention (CDC) currently reports 98 human West Nile virus infections, compared to 210 in 2021, in 18 states and 6 deaths. Of these, 66 (67.3%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 32 (32.7%) were classified as non-neuroinvasive disease. Non-human West Nile virus activity (mosquitoes, birds or sentinel animals) has been reported in 37 states.

West Nile Virus Activity by State 2022

United States (as of August 23, 2022)



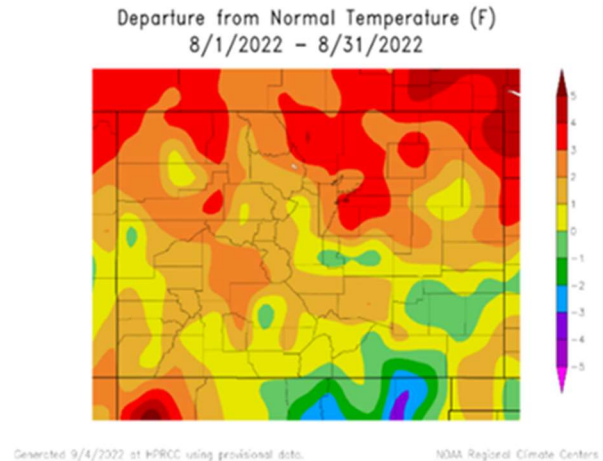
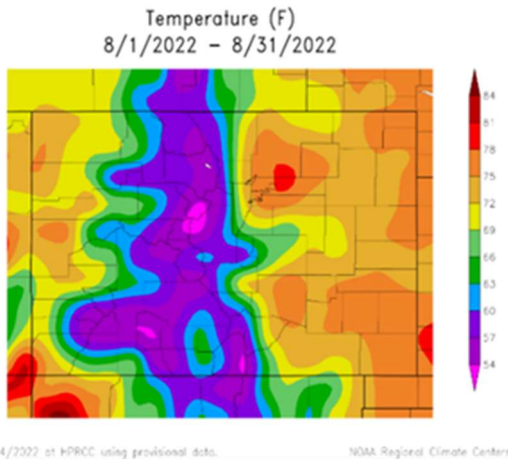
As of August 31st, The Colorado Department of Public Health & Environment (CDPHE) reports there have been West Nile virus positive mosquitoes identified in the Colorado counties of Adams (7), Boulder (48), Denver (3), Larimer (88), Mesa (6), and Weld (47). In Colorado, 39 human cases of West Nile virus infection have been reported by CDPHE in the following counties: Adams (4), Arapahoe (1), Boulder (3), Broomfield (3), Delta (5), Denver (2), Eagle (1), Fremont (1), Larimer (4), Montrose (10) and Weld (5). 22 cases are categorized as neuroinvasive with 25 cases requiring hospitalization and three (3) reported deaths.

West Nile virus activity continued to remain very high in the County, compared to last year, and we will continue to see disease risk into the fall months, as most West Nile virus human cases are identified in August and September - normal peak months. VDCI encourages continued personal protective measures including draining water from your property, avoiding the outdoors at dawn and dusk, defending yourself by wearing repellent and dressing appropriately until a killing hard frost occurs.

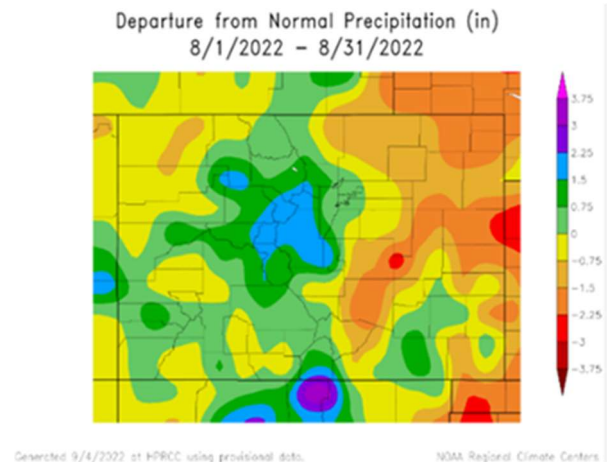
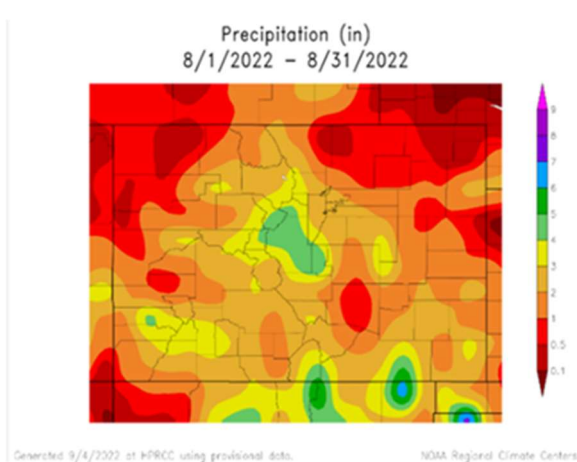
Weather

The High Plains Regional Climate Center recorded 74.1°F for the average temperature in Weld County compared to the historical average of 70.8°F, a +3.3°F departure from normal. The average high temperature was 88.5°F and a daily high of 95°F was recorded on August 12th.

Weld County saw 15 days at 90°F or above in August compared to 16 days in 2021, 22 days in 2020 and 17 days in 2019.



The High Plains Regional Climate Center recorded 2.04 inches of precipitation (0.66" last season) in Weld County compared to the historical average of 1.22 inches of precipitation for the month of August, while a normal year should be 1.95" of precipitation. A late monsoon season brought approximately 0.73 inches of rain on August 8th.



With higher than normal temperatures and higher precipitation, and the continued influx of water from the late monsoon thunderstorms caused stagnant and irrigated sites to continue being the main source of larval breeding habitats sustaining *Culex* spp. and nuisance populations in and surrounding most of the Town in August.

Larval Control Operations

VDCI field technicians performed 21 site inspections as part of the inspection and larviciding program in the Town of Frederick in August 2022. Of the 21 sites inspected, 17 were wet (81.0%) and 11 (52.4%) sites were producing mosquito larvae. Of the 0.2 acres treated in August 2022, 1.1 lbs. of Altosid XRG (s-methoprene) and 0.01 gallons of BVA mosquito larviciding oil were applied.

Adult Mosquito Population Surveillance

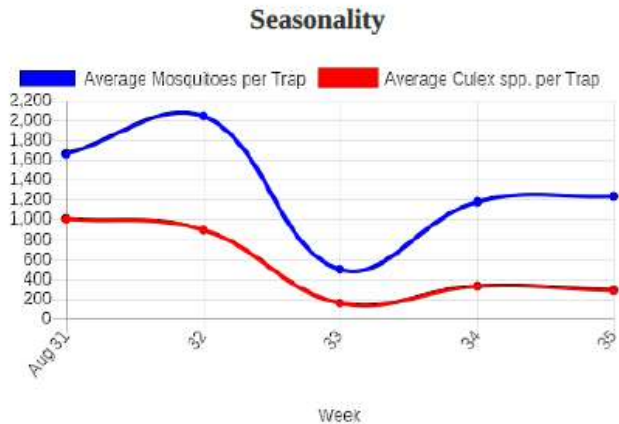
There were 30 light traps set in the Town of Frederick during August 2022. A total of 6,606 mosquitoes were collected. Of these, there were 3,901 (59.1%) *Aedes spp.*, 3 (0.0%) *Anopheles spp.*, 2,672 (40.4%) *Culex spp.* and 30 (0.5%) *Culiseta spp.* mosquitoes collected. On average there were 220.2 mosquitoes collected per trap night and 89.1 *Culex* mosquitoes per trap night.

2022 Frederick, CO Trap Composite Data

Total number of trap/nights set:	30
Total number of mosquitoes collected:	6,606.0
Average mosquitoes per trap/night:	220.2
Average Culex per trap/night:	89.1

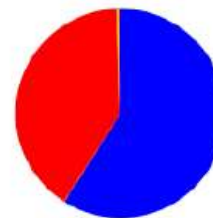
Species collected and abundance:

<i>Aedes dorsalis</i>	144.0	2.2%
<i>Aedes melanimon</i>	11.0	0.2%
<i>Aedes nigromaculis</i>	3.0	0.0%
<i>Aedes trivittatus</i>	106.0	1.6%
<i>Aedes vexans</i>	3,637.0	55.1%
<i>Anopheles freeborni</i>	3.0	0.0%
<i>Culex pipiens</i>	272.0	4.1%
<i>Culex salinarius</i>	87.0	1.3%
<i>Culex tarsalis</i>	2,313.0	35.0%
<i>Culiseta inornata</i>	30.0	0.5%



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	3,901	59.1%
<i>Anopheles</i>	3	0.0%
<i>Culex</i>	2,672	40.4%
<i>Culiseta</i>	30	0.5%
Other	0	0.0%



■	<i>Aedes-Oc</i>
■	<i>Anopheles</i>
■	<i>Culex</i>
■	<i>Culiseta</i>
■	Other

Adult Mosquito Control Operations

During the month of August 2022, 136.7 miles of roads within the Town of Frederick were fogged via ground based vehicles with Ultra Low Volume (ULV) Aqua Perm-X UL 30-30 mosquito adulticide to reduce adult mosquito populations. These applications occurred on the evenings of August 2nd, 9th, 16th, 23rd, and August 30th along 6 separate routes.