



TOWN OF BERTHOUD

JUNE 2018 MONTHLY REPORT

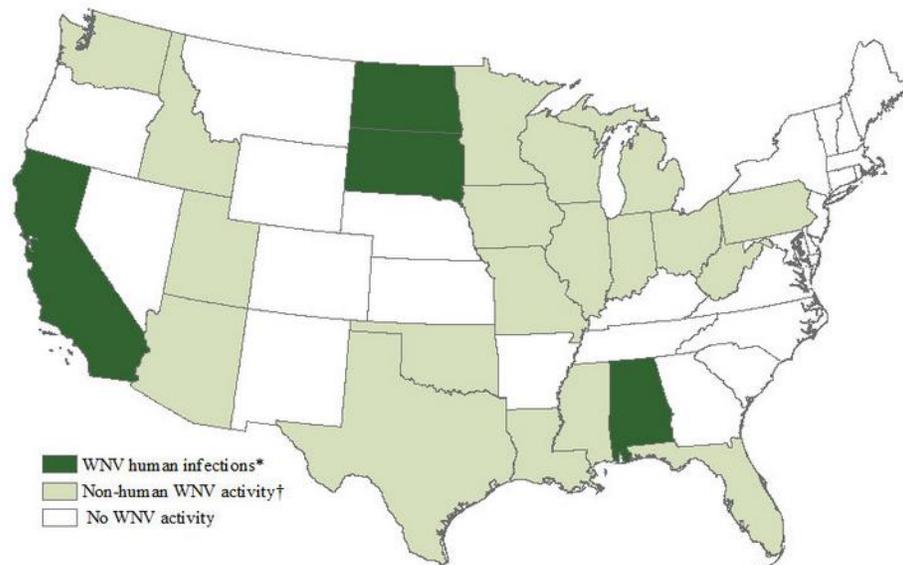
JULY 1ST, 2018

West Nile Virus Risk

Both the Colorado Department of Public Health & Environment (CDPHE) and Colorado State University began testing mosquito samples in Disease Week 24 (June 10th). As of July 1st there have been no reports of West Nile virus positive mosquitoes in the state of Colorado.

The Centers for Disease Control and Prevention currently reports human West Nile virus infections in California, North Dakota, South Dakota and Alabama. Non-human West Nile virus activity (mosquitoes, birds or sentinel animals) has been reported from Arizona, California, Florida, Idaho, Illinois, Indiana, Iowa, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Ohio, Oklahoma, Pennsylvania, Texas, Utah, Washington, West Virginia, and Wisconsin. While West Nile virus activity remains relatively low, and we have not documented viral activity in Northern Colorado, we are likely to see increased disease risk as the summer progresses and encourage personal protective measures including draining water from your property, avoiding the outdoors at dawn and dusk, defending yourself by wearing repellent and dressing appropriately.

West Nile Virus Activity by State - United States, 2018 (as of June 26, 2018)



In June 2018 Colorado State University (CSU) tested a total of 227 mosquito samples containing 3,073 mosquitoes. These samples consisted of 2,508 *Cx. tarsalis* and 565 *Cx. Papiens* collected from the Fort Collins, Loveland and Berthoud areas.

By comparison, in June of 2017 Colorado State University (CSU) tested a total of 208 mosquito samples containing 2,125 *Cx. tarsalis* and 470 *Cx. Papiens*. In 2016 CSU tested a total of 217 sample pools of mosquitoes containing 1,605 *Cx. tarsalis* mosquitoes, 681 *Cx. pipiens* mosquitoes, 4 *Cx. spp* mosquitoes.

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Wear Your Repellent!

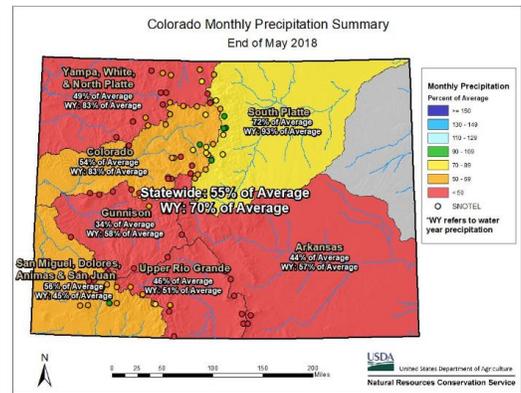
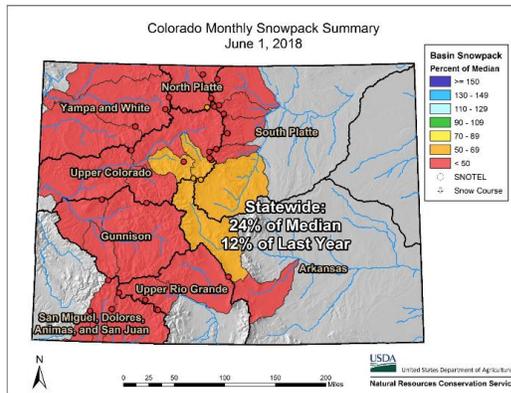
Use approved mosquito repellents containing DEET, picaridin or oil of lemon eucalyptus.

DEET products generally provide the longest protection. The other repellents work but must be applied more frequently.

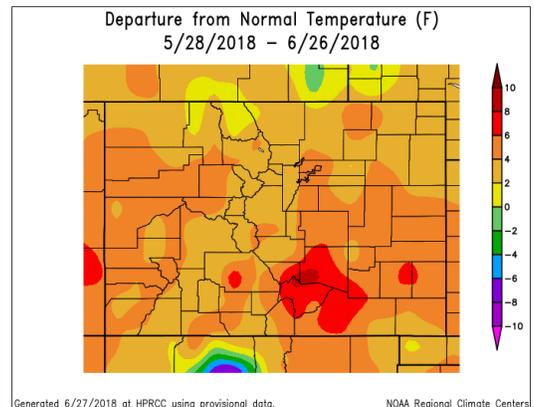
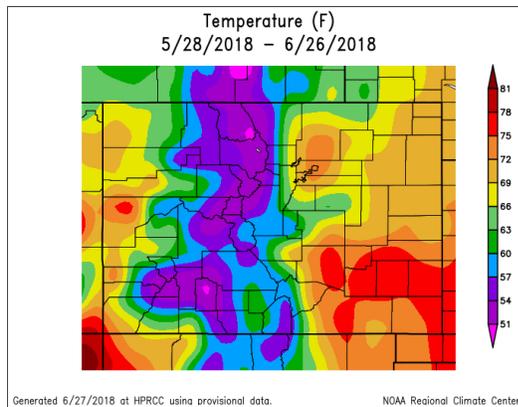
Follow the product label for correct use. Products with 10 percent or less DEET are recommended for children.

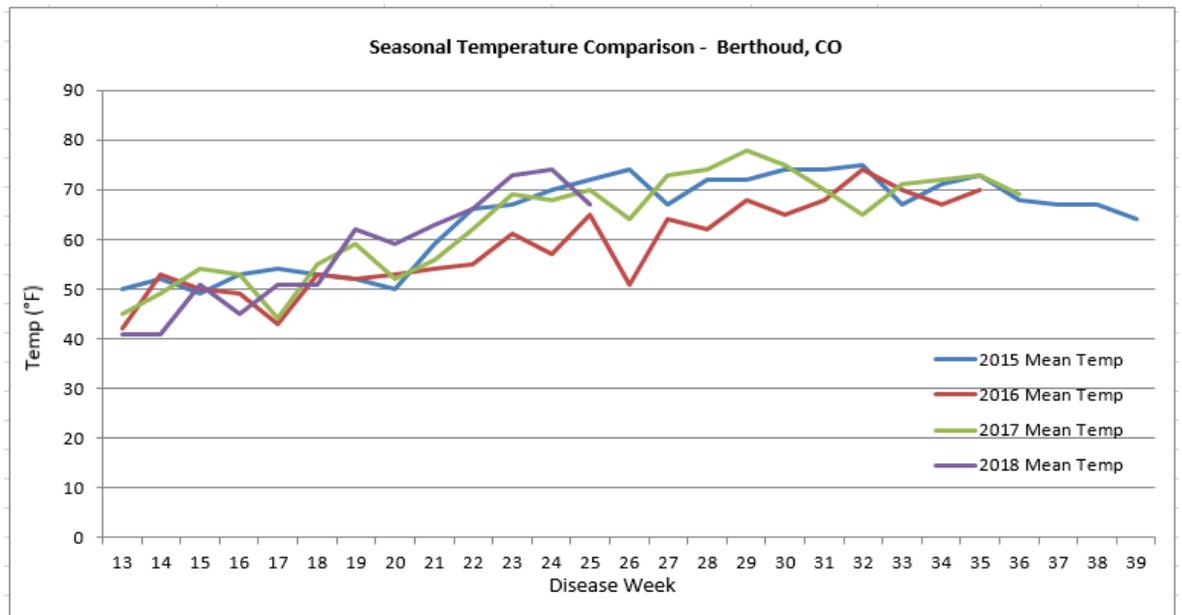
Weather

VDCI began field inspections throughout Northern Colorado in mid-April while the majority of larval production habitats were still dry. Snowmelt across Colorado's mountains accelerated rapidly during May as a result of the predominantly warm and dry weather conditions throughout the state (Colorado Water Supply Outlook Report, United States Department of Agriculture, June 2018). Snowpack levels were far below average across most of the state and as of June 1st there were only a handful of SNOTEL sites still reporting the presence of snow. While the South Platte Region, which encompasses Larimer County, reached close to normal snowpack levels the peaks melted earlier than normal by almost two weeks causing an increase in floodwater mosquito populations. As of June 1st monthly precipitation in every major water shed was far below normal with the South Platte River reaching only 72% of its monthly average. *Culex* obtained from larval sites has remained low as a percentage of all mosquitoes collected. In the early season months VDCI field technicians have focused larval site inspections on larger water bodies and mandatory sites known to produce larvae early season.



According to the High Plains Regional Climate Center the average temperature in Berthoud was 70.1 °F during the month of June which is approximately 4 degrees above average. While temperatures were higher on average throughout most of the county we did experience significant cooling and severe thunderstorms/hail in Week 25 leading to a temporary reduction in mosquito trap counts.





Larval Control Operations

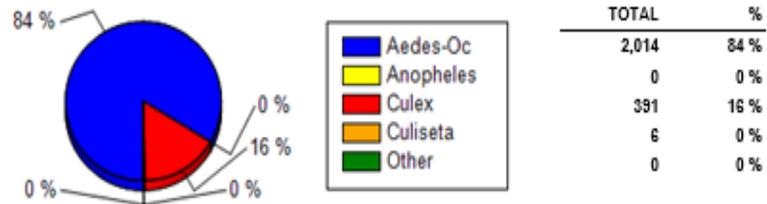
VDCI field technicians performed 204 site inspections in the month of June 2018 as part of the Town of Berthoud inspection and larviciding program. Of those 204 site inspections, 165 sites (80.9%) were wet and 85 sites were producing mosquito larvae (51.5% of the wet sites). A total of 91.6 acres were treated with 568.2 lbs of Vectobac (*Bti*) and 4.7 gallons of BVA mosquito larviciding oil to prevent these mosquito larvae from emerging as adults.

VDCI field technicians performed 135 site inspections in the month of June 2017 as part of the Town of Berthoud inspection and larviciding program. Of those 135 site inspections, 118 sites (87.4%) were wet and 61 sites were producing mosquito larvae (50.8% of the wet sites). A total of 39.9 acres were treated with 264.2 lbs of Vectobac (*Bti*) and 4 gallons of BVA mosquito larviciding oil to prevent these mosquito larvae from emerging as adults. Please note that in 2017 the Town of Berthoud expanded its larval control boundary to include a 2 mile buffer around the Town limits.

Mosquito Population Surveillance

In June of 2018, VDCI set weekly traps in Berthoud Park (LC-001), Berthoud North on Bunyan (LC-049), Berthoud West (LC-053) and Berthoud Pointe (LC-054). We collected a total of 2,411 mosquitoes. The species composition of mosquito collected included 2,014 (84%) *Aedes spp.*, 391 (16%) *Culex spp* and 6 *Culesita spp.* (<2%). There was an average of 121 mosquitoes per trap night and 20 *Culex spp.* mosquitoes per trap night collected in Berthoud during June 2018.

Trap #	Type	County	Date		As/Oc	An	Cx	Cs	Other	TOTAL
LC-001	LIGHT	Larimer	05/24/2018	Berthoud	34	0	1	0	0	35
LC-001	LIGHT	Larimer	06/06/2018	Berthoud	52	0	7	0	0	59
LC-001	LIGHT	Larimer	06/13/2018	Berthoud	43	0	13	0	0	56
LC-001	LIGHT	Larimer	06/20/2018	Berthoud	62	0	15	0	0	77
LC-001	LIGHT	Larimer	06/27/2018	Berthoud	106	0	64	0	0	170
LC-049	LIGHT	Larimer	05/24/2018	Berthoud North of Bunyan	54	0	0	0	0	54
LC-049	LIGHT	Larimer	06/06/2018	Berthoud North of Bunyan	18	0	3	0	0	21
LC-049	LIGHT	Larimer	06/13/2018	Berthoud North of Bunyan	8	0	5	1	0	14
LC-049	LIGHT	Larimer	06/20/2018	Berthoud North of Bunyan	14	0	1	0	0	15
LC-049	LIGHT	Larimer	06/27/2018	Berthoud North of Bunyan	110	0	23	0	0	133
LC-053	LIGHT	Larimer	05/24/2018	Berthoud West	84	0	5	0	0	89
LC-053	LIGHT	Larimer	06/06/2018	Berthoud West	16	0	21	0	0	37
LC-053	LIGHT	Larimer	06/13/2018	Berthoud West	47	0	46	3	0	96
LC-053	LIGHT	Larimer	06/20/2018	Berthoud West	0	0	1	0	0	1
LC-053	LIGHT	Larimer	06/28/2018	Berthoud West	83	0	23	0	0	106
LC-054	LIGHT	Larimer	05/24/2018	Berthoud Point	371	0	3	1	0	375
LC-054	LIGHT	Larimer	06/06/2018	Berthoud Point	58	0	37	0	0	95
LC-054	LIGHT	Larimer	06/13/2018	Berthoud Point	544	0	29	0	0	573
LC-054	LIGHT	Larimer	06/20/2018	Berthoud Point	47	0	8	0	0	55
LC-054	LIGHT	Larimer	06/27/2018	Berthoud Point	263	0	86	1	0	350
					2,014	0	391	6	0	2,411



Adult Mosquito Control Operations

There have been no adult mosquito control operations performed within the Town of Berthoud to date.

Public Relations

VDCI received 2 requests from residents within the Town of Berthoud for call notification and shutoff.