

Santa Clara County Vector Control District

Operations and Surveillance Report

July 2018



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District Mission

To detect and minimize vector-borne diseases, to abate mosquitoes, and to assist the public in resolving problems with rodents, wildlife, and insects that can cause disease, discomfort, or injury in humans in the County.

Services Provided

- Detection of the presence/prevalence of vector-borne diseases, such as plague, West Nile virus (WNV), rabies, and Lyme disease, through ongoing surveillance and testing
- Routine inspections and treatment, as necessary, of known mosquito and rodent sources
- Response to customer initiated service requests for identification, advice, and/or control measures for mosquitoes, rodents, wildlife, and miscellaneous invertebrates (ticks, yellowjackets, cockroaches, bees, fleas, flies, etc.)
- Free educational presentations for schools, homeowner associations, private businesses, civic groups, and other interested organizations
- Free informational material on all vectors and vector-borne diseases

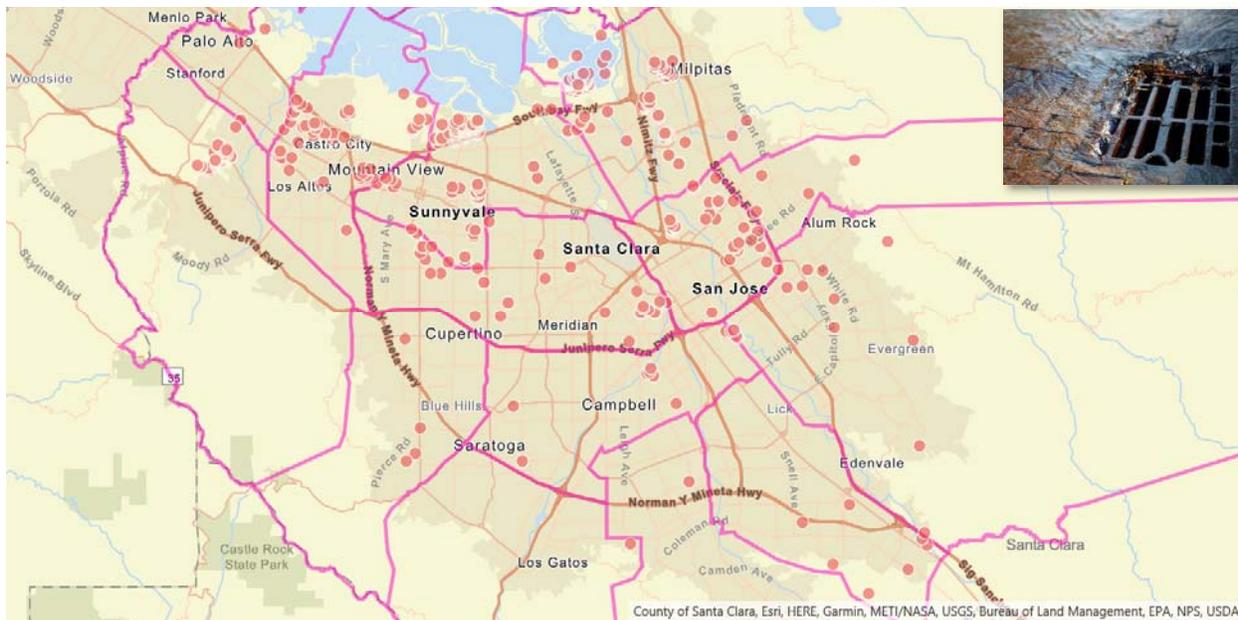
Manager's Message

Keeping Your Family Safe From Mosquitoes

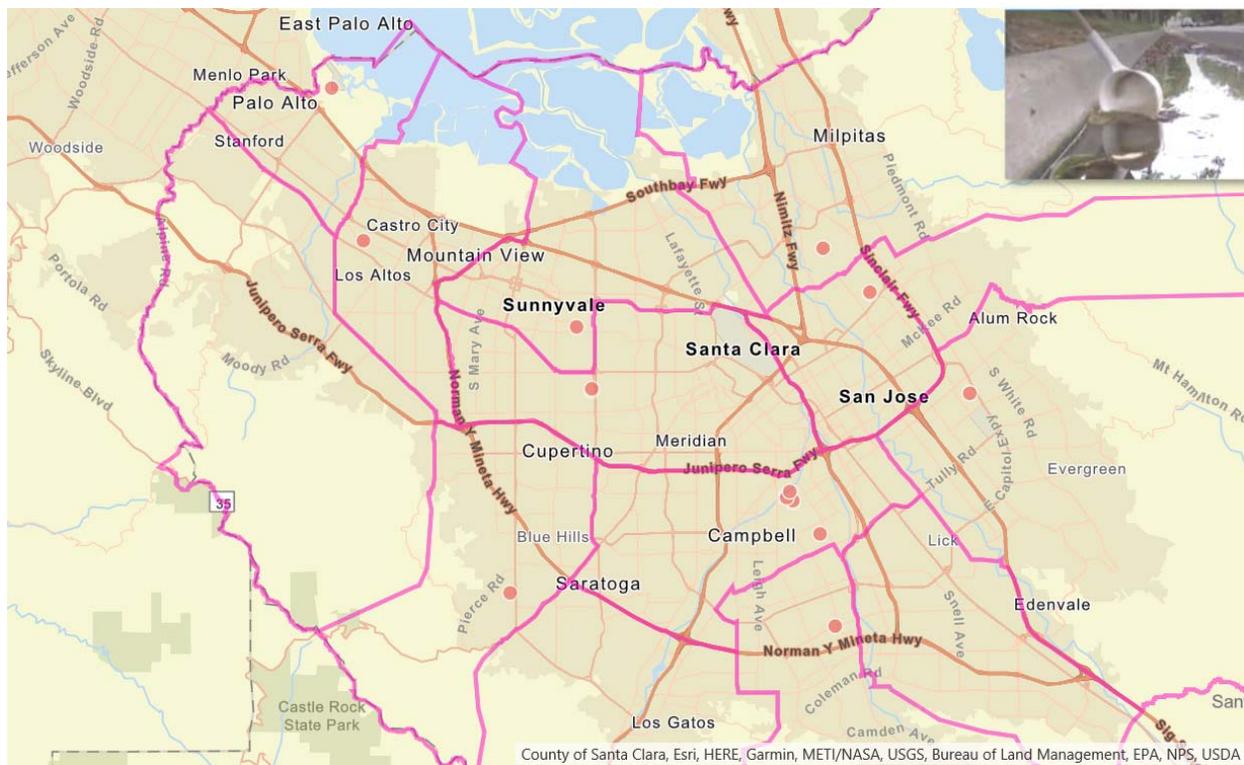
- Drain any standing water that may produce mosquitoes
- Dawn and dusk are when mosquitoes are most active
- Dress in long sleeves and pants when working outdoors
- Defend yourself using an effective insect repellent
- Door & window screens should be in good condition
- District staff are available to inspect any mosquito problem

(408) 918-4770
sccvector.org

Operations Report: Curbs and Catch Basins

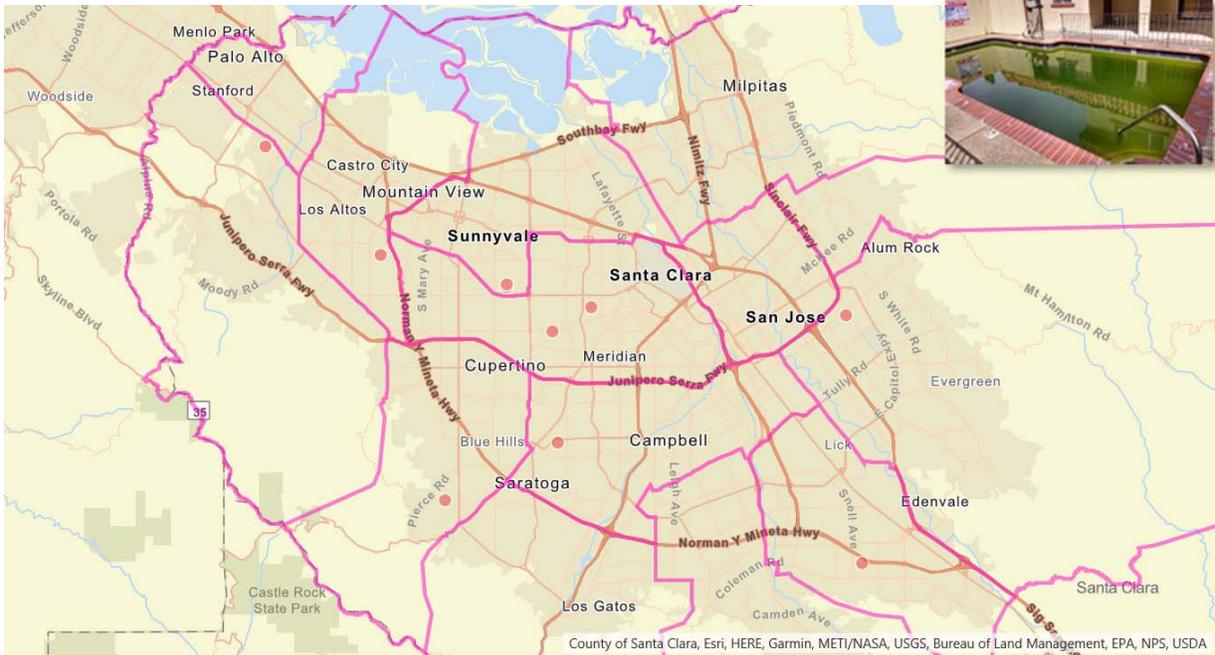


The District employs seasonal staff to check and treat mosquitoes in flooded street stormwater catch basins. These sites hold standing water due to rainfall or urban runoff from domestic water usage. **During July, our staff inspected 5,706 basins and treated 600 of them, mainly in hot zones where WNV was detected in birds or mosquitoes.**



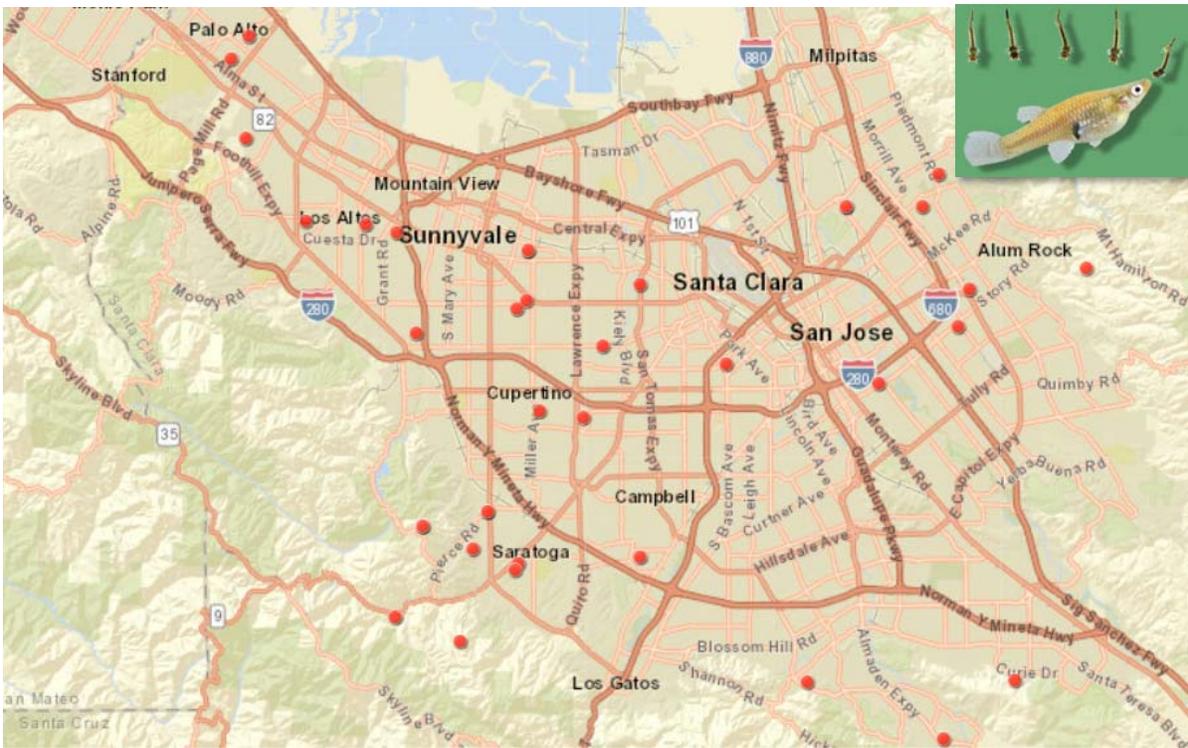
The District also employs seasonal staff to check and treat mosquitoes in flooded curbs. These sites hold standing water because of obstructions or depressions in the curbs. **Mosquito larvae were found in 27 of the inspected curbs during July and treated with pesticides.**

Operations Report: Neglected Pools



Stagnant water in neglected swimming pools can produce mosquitoes and cause a local nuisance to neighborhoods. The District inspected and treated 19 pool locations during July.

Operations Report: Mosquitofish Service Requests



The mosquitofish is a topminnow (*Gambusia affinis*) that is a natural predator of larval and pupal stage mosquitoes. District staff deliver fish for stocking backyard sites like fountains, ponds, and rain barrels. A total of 38 mosquitofish service requests were fulfilled during July.

Integrated Pest Management: Mosquitofish Facility Development

Over the years, the District has continuously improved the mosquitofish program, most recently in terms of operational sustainability by creating an in-house, fish breeding program. By installing customized tanks at the Service Yard (Gambusia Solutions, Inc.), including heating and feeding systems, the live-bearing minnow can produce over 200 babies per day. The babies are transferred to “nursery tanks” where they grow for two weeks and are eventually deployed in various backyard sites. Those locations include neglected swimming pools, fountains, rain barrels, cattle troughs, and small ponds.



West Nile Virus Surveillance: Dead Bird Program

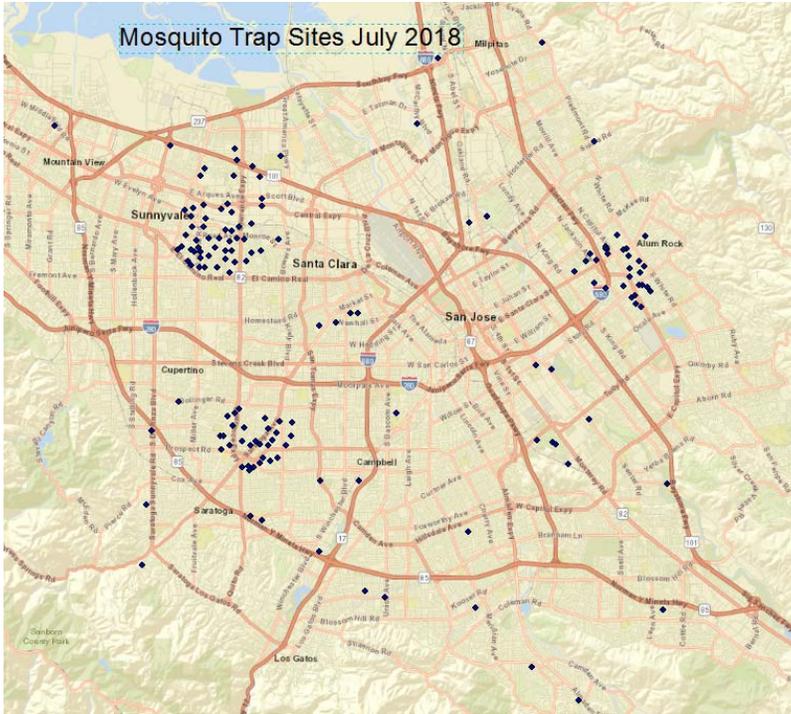
A variety of bird species were sampled during July that included positive detections for West Nile virus in American crows, “unknown songbirds”, a chickadee, and a finch. Nearly 50 percent of the birds tested were positive for West Nile virus. Operationally, the Dead Bird Program assists in targeting mosquito



trapping efforts to maximize the potential detection of infected adult mosquitoes across the County. The public is crucial to the program’s success and the department has likely received tens of thousands of calls directly or through the California West Nile Dead bird Hotline. (See westnile.ca.gov for details.)

Bird Species	No. of WNV Negative	No. of WNV Positive
American Crow	9	14
Black Phoebe	1	0
California Scrub-Jay	1	0
Chestnut-Backed Chickadee	0	1
Cooper’s Hawk	1	0
Finch	0	1
Goldfinch	1	0
Nuttall’s Woodpecker	1	0
Owl	1	0
Sparrow	5	0
Unknown Songbird	2	4
Total	22	20

Carbon Dioxide Baited Traps



Sampling for arthropod-borne virus (Arbovirus) via dead birds is continuous throughout the year, but mosquito trapping is primarily from April through October when mosquitoes are most active. In July, mosquito trappings targeted the cities of Sunnyvale, Santa Clara, and San Jose.

Mosquito Species	Number of Females
<i>Aedes dorsalis</i>	1
<i>Aedes washinoi</i>	1
<i>Anopheles franciscanus</i>	3
<i>Anopheles freeborni</i>	1
<i>Culex pipiens</i>	124
<i>Culex tarsalis</i>	59
<i>Culiseta incidens</i>	21
<i>Culiseta inornata</i>	2
Grand Total	212

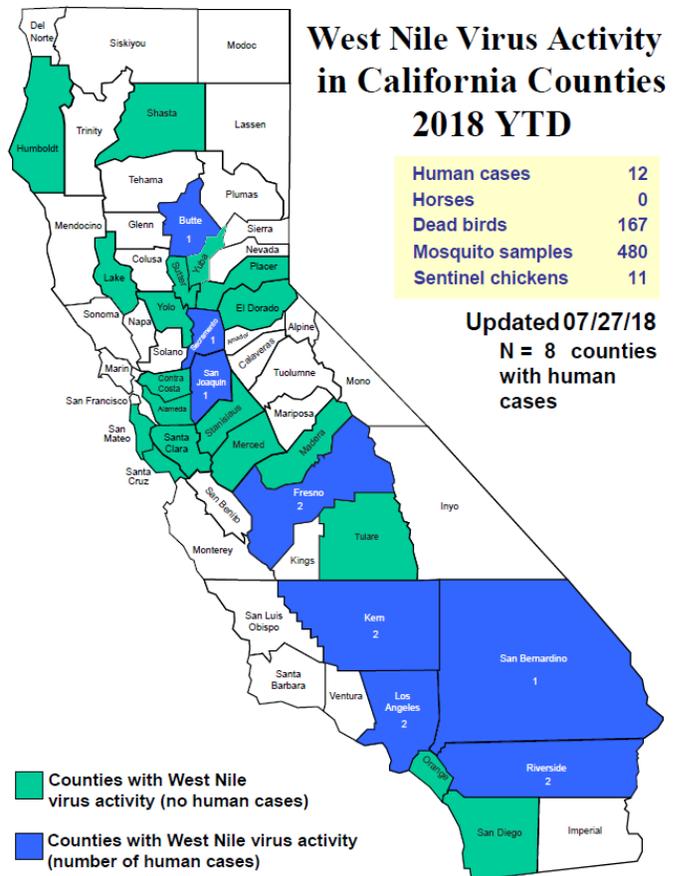
West Nile Virus Update

Statewide

As of July 27, 167 dead birds have tested positive for West Nile virus (WNV) in California (see map at right). At this time last year, 115 positive birds had been reported in 27 counties. Thus far in 2018, 480 positive mosquito samples were reported to the state. To date, 12 human cases have been reported in California.

Santa Clara County

As of July 27, 354 dead birds have been reported in Santa Clara County. Of the reported birds, 128 have been tested for WNV and 21 were found positive. The Sentinel Chickens Program has detected one positive chicken in the County.



Public Service Requests

Service Request	Number
Bats	10
Bed Bug	7
Bees	5
Cockroaches	7
Coyotes	30
Mosquito Fish Requests	40
Mosquitoes	49
Neglected Pools	12
Opossums	16
Raccoons	23
Rodents	95
Skunks	25
Snakes	1
Squirrels	14
Wasps and Yellowjackets	29
Other Invertebrates	7
Other Vertebrates	1
Other Vector Issues	23
Grand Total	394

Popular Service Requests

During July, there were 394 service calls among a wide range of issues, including rodents, mosquitoes, requests for mosquito-fish, stinging insects (bees and yellowjackets), and wildlife. Services provided include home inspections for rodents or wildlife and phone consultations. Calls regarding rodents and mosquitoes were the most frequent reasons for public inquiries.

Insect Identification

Eight arthropods were submitted by residents for identification during July including, rat mites, dog ticks, Chafer beetle and *Anopheles* mosquito.

Public Education Events

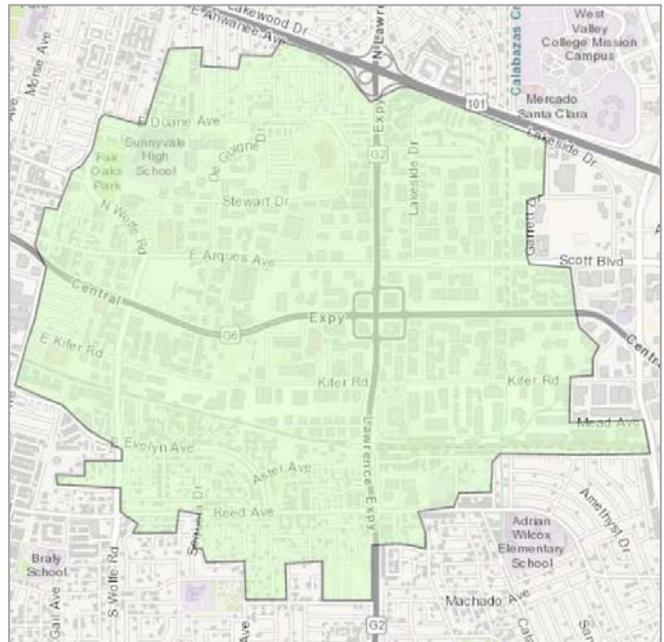
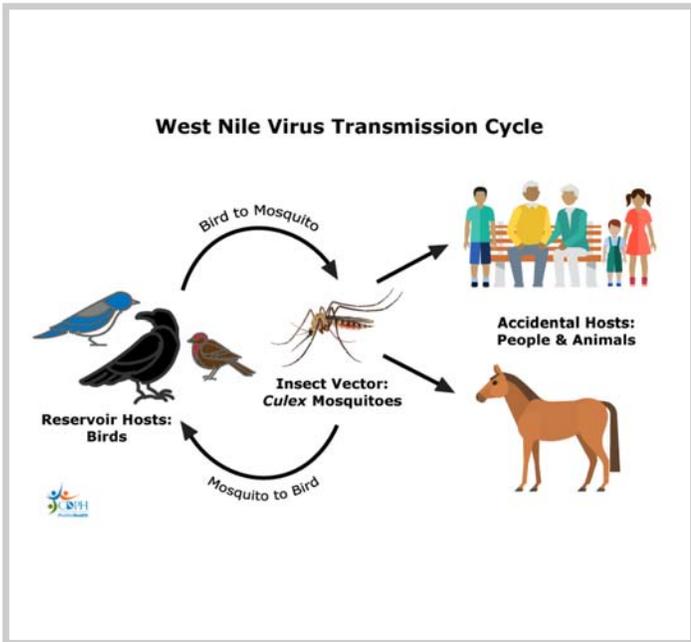
The Vector Control Public Education team can bring free animal science lessons to your school, youth organization, library, or senior center. Demonstrations include preventing the spread of West Nile virus and other mosquito-borne diseases, along with the best ways to make your home safer from local mountain lions and coyotes. The customized presentations are available for youths and adults, with interactive activities for everyone. To sign up, email hung.pham@cep.sccgov.org or call 408.918.4794.



West Nile Virus Treatments

Second Adult Mosquito Treatment Of 2018

On July 26, the District conducted the second treatment in 2018 to suppress adult mosquitoes carrying West Nile virus. Several birds and a mosquito sample were found to be positive in portions of the cities of Sunnyvale and Santa Clara. The treatment was successfully completed during the night to avoid traffic and when pollinators, such as honey bees, are not active. All treatments utilized are approved by the Federal and State Environmental Protection Agencies.





Santa Clara
County Vector
Control District

1580 Berger Dr.
San José, CA
95112

Vector Control History

The Vector Control District was formed in 1988 and is one of 12 special districts located in the greater San Francisco Bay Area charged with providing vector control per California health, safety, and government codes. The District is one of six in the State where the County Board of Supervisors acts as the trustee and oversees operations. Funding for District work comes from a county-wide property tax assessment.



"A VECTOR is any animal that can transmit disease to animals or people."