

Santa Clara County Vector Control District

Operations and Surveillance Report

December 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 to humans in the County.

Services Provided

- Detection of the presence/prevalence of vector-borne diseases, such as plague, West Nile virus, 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

Santa Clara County Vector Control District had a very active year in 2018. Major activities included conducting treatments to control saltmarsh mosquitoes, hosting our annual Open House, and conducting aerial surveillance to identify green swimming pools. During the summer, four adult mosquito control treatments were scheduled throughout Sunnyvale, Santa Clara, and Morgan Hill. We look forward to improving our services and continuing to help the residents of Santa Clara County in 2019. The District also reminds the public to report any mosquito breeding by contacting us.

(408) 918-4770

sccvector.org

Operations Report



District staff checks and treats mosquito larvae in flooded street stormwater catch basins, curbs, natural breeding sources, and ponds. These sites hold standing water due to rainfall or urban runoff from domestic water usage. **During December, our staff inspected 147 locations and treated 51 of them. As temperatures decrease, the lifecycle and development of mosquitoes slow down.**



The mosquitofish is a topminnow (*Gambusia affinis*) that is a natural predator of larval and pupal stage mosquitoes. In December, the District stocked mosquitofish in three locations. The District will restart delivering free fish for stocking backyard sites like fountains, ponds, and rain barrels during the Spring months.

Professional Development

Continued Education

District staff attend two Continued Education Seminars per year provided by the Coastal California Region of the Mosquito and Vector Control Association of California to remain informed on the latest issues regarding vectors and the infectious diseases they transmit. The last regional Continued Education Seminar of 2018 took place December 10 in San Leandro, California. Presentation topics included vermin in food establishments, invasive *Aedes* mosquitoes status, detection and control of bedbugs, successful cases and the use of unmanned aerial applications, red imported fire ant updates, and bee health promotion. In early 2019, staff will attend the Mosquito and Vector Control Association of California's 87th Annual Conference, which will be held in Burlingame, California.

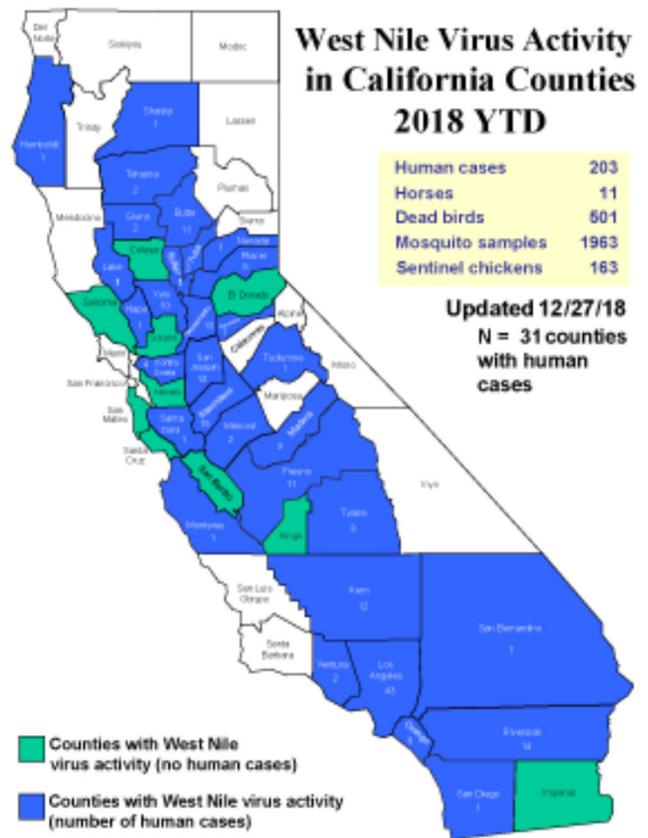
West Nile Virus Surveillance

Statewide

As of 12/27/18, there were 203 human cases with eight fatalities; 142 had neuro-invasive illness and 22 were asymptomatic. A total of 499 West Nile Virus (WNV) positive birds were reported across 39 counties. In 2018, there were 1,963 WNV positive mosquito samples.

Santa Clara County

During 2018, the District tested 254 dead birds for WNV, Saint Louis encephalitis (SLE) and Western Equine encephalitis (WEE); there were 66 WNV positive and 188 negative results. Fifty-three of the positive birds were American crows. The remaining thirteen birds varied from finches, song sparrows, ravens, Lewis' woodpeckers, and chestnut-backed chickadees. There were six positive mosquito samples detected; three house mosquito (*Culex pipiens*) and three Western encephalitis mosquito (*Culex tarsalis*) detections. The Sentinel Chicken program detected 9 positive for WNV out of 761 samples. Positive chickens were detected from controlled flocks in Sunnyvale, Palo Alto, and San Martin.



Public Service Requests

Count of Item ID	
Issue	Total
Rodents	40
Coyote	9
Gambusia (Mosquito Fish)	9
Other Vertebrate	9
Skunk	8
Raccoons	5
Other Invertebrate	5
Mosquitoes	5
Opossum	4
Other (see description)	3
Bed Bug	3
Squirrels	2
Bees	1
Cockroaches	1
Neglected Pool	1
Grand Total	105

During December, there were a 105 service requests ranging from bats, wasps, and yellowjackets. Rodent issues continue to be the most common resident request, followed by coyotes, mosquitofish, skunks, and other vertebrates, including wild pigs, birds, mountain lions, and squirrels. If you would like to schedule an inspection, please submit a service request by calling (408) 918-477 or visiting us online at sccvector.org.



Insect Identification

There were 16 insect samples submitted by the public for identification either via photos or walk-in requests. Specimens were identified as biting mites, spiders, ants, ticks, vinegar flies, and occasionally, nothing or debris. Biting mites cause numerous small, yet intensely, itchy welts that persist particularly when one scratches in response. Thus, it is recommended not to scratch, or scratch as little as possible, in order to assuage the itching sensation.

During this rainy season, some rare creatures may emerge from flooded lawns. One is the “hammerhead worm” or land planarian that normally lives underground feeding on earthworms (pictured in top photo). The other creature may be lawn shrimp or terrestrial amphipod that are also flushed out during heavy rains (pictured in bottom photo).



Pictured on top is a Hammerhead worm (Peg Smith, Yolo Gardener—UC Davis) and pictured at the bottom is the local Lawn shrimp, about 1 cm in length.

Outreach Programs

The District continues to educate the public on preventing mosquito breeding and eliminating their habitat. Outreach efforts include both digital and printed campaigns through a variety of communication outlets. An example of one of our newest campaigns can be seen in the photo below.

SO SIMPLE, EVERYONE CAN DO IT

PUT STANDING WATER ON YOUR BUCKET LIST

DUMP AND DRAIN TO PREVENT MOSQUITOES AND WEST NILE VIRUS



SANTA CLARA COUNTY
VECTOR CONTROL
DISTRICT
(408) 918-4770
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Our Health Educator continues to provide presentations to schools, libraries, organizations, and other interested groups. If you are interested in scheduling a presentation, please contact Hung Pham at (408) 918-4794.

Mosquito Trapping in December

In December, New Jersey Light Traps (NJLT) continued to collect adult mosquitoes and other nocturnal flying insects attracted to 25 Watt light bulbs. The trap contents are collected weekly and identified by staff in the Vector laboratory. One trap location indicated surging mosquito populations, that was caused by stagnant water in an underground culvert nearby. The culvert was promptly treated for mosquito larvae and pupae.



Trap Type	Site Name	Species	Total
NJLT	Gilroy Ag Farm	None	0
	Hellyer Park NJLT	<i>Culex pipiens</i>	1
	Kelley Park NJLT	None	0
	Los Altos Nursery	None	0
	Oakcreek Pump Station	<i>Culex pipiens</i> <i>Culex tarsalis</i>	4 1
	Oka Road NJLT	<i>Culex pipiens</i> <i>Culiseta incidens</i>	4 1
	PAWC	None	0
	San Martin Coop Site	None	0
	Sunken Gardens NJLT	<i>Culex pipiens</i>	18
	Vector Control Yard NJLT	None	0
	Westmont FFA	<i>Culex pipiens</i>	2
	Total		31



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.”