

Santa Clara County Vector Control District Operations and Surveillance Report December/January 2018



<i>Table of Contents</i>	
<i>page</i>	
Manager’s Message	1
Operations Report: Curbs and Catchbasins	2
Operations Report: Neglected Pools and Mosqui- tofish	3
Invasive Aedes: Adult Mosquito Trapping	4
Underground Adult Mosquito Surveillance and West Nile Virus Update	5
Public Service Requests and Insect Identification	6

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 of medical significance.

Services Provided

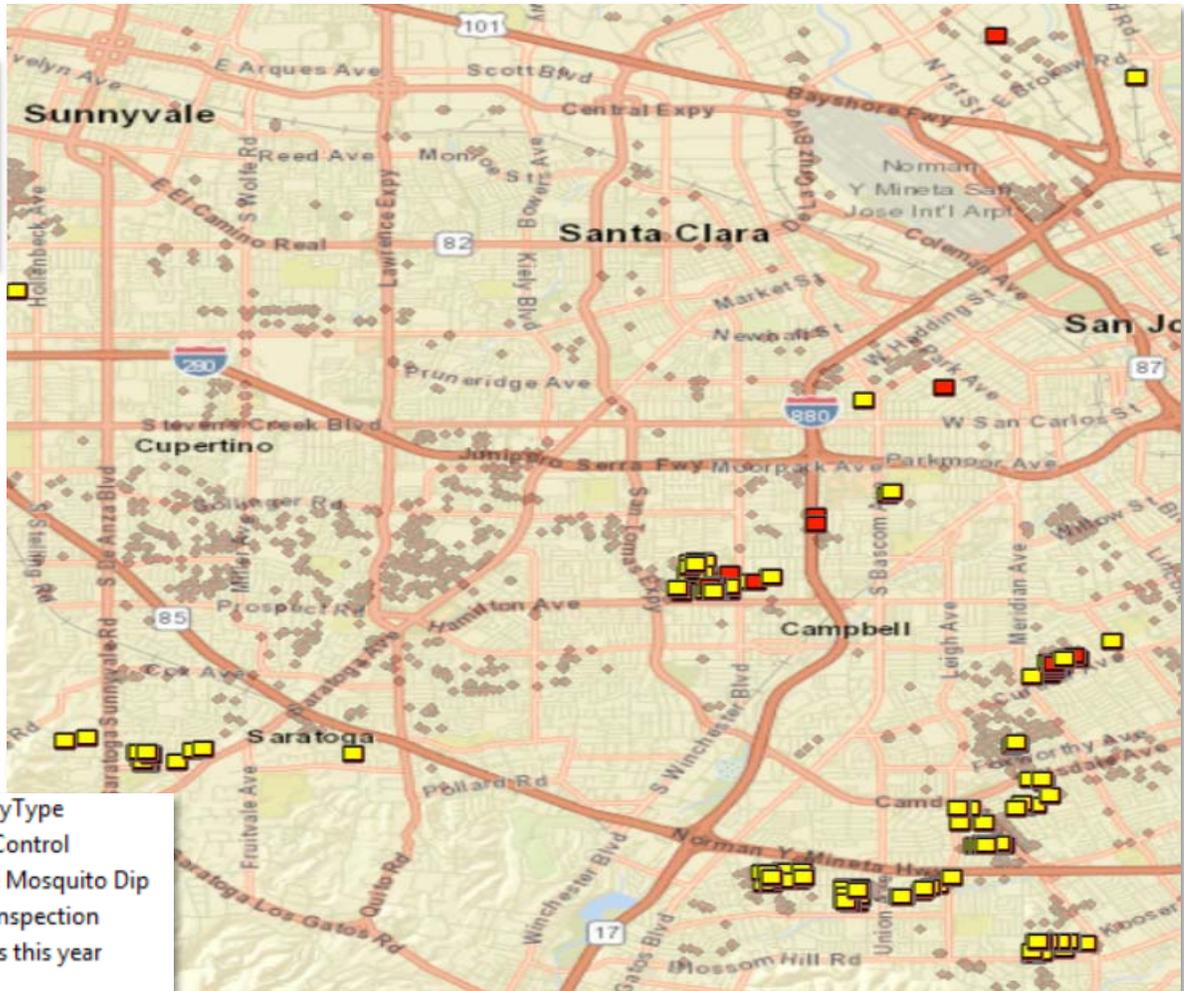
- Detection of the presence/prevalence of vector borne diseases, such as Plague, West Nile Virus, rabies, & Lyme disease, through ongoing surveillance and testing
- Routine inspections, and treatment as necessary, of known mosquito and rodent sources
- Response to customer initiated service requests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

Manager’s Message

Invasive Aedes mosquitoes are rapidly spreading throughout California, addressing invasive mosquitoes will require a community wide effort, and will require our vigilant monitoring if we are to detect them in our county soon enough to keep them under control.

Operations Report: Curbs and Catchbasins

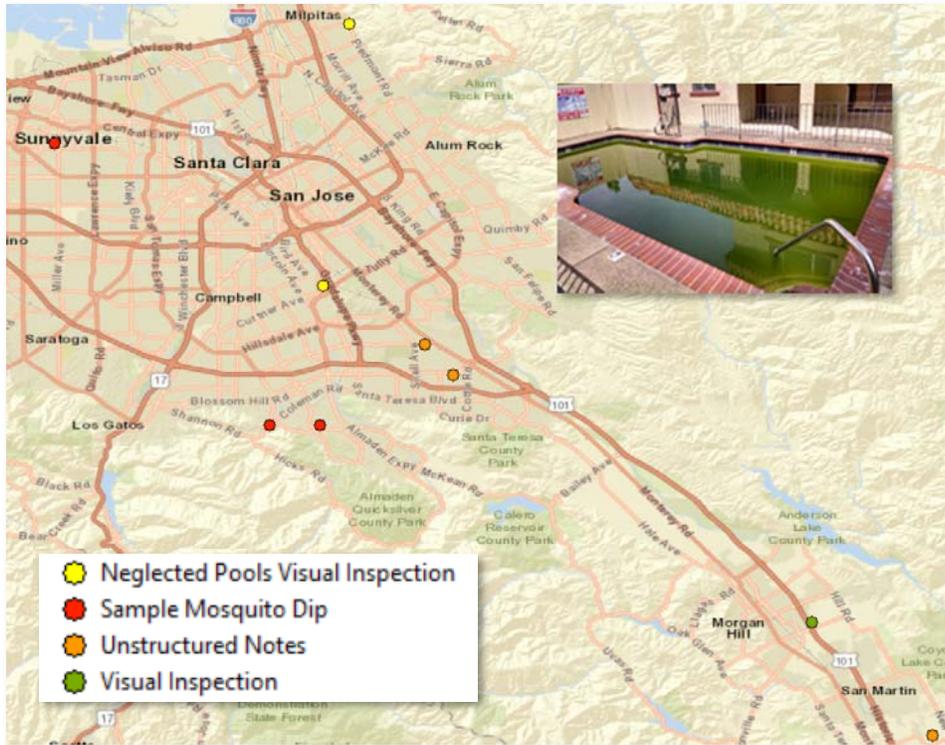
Street curbs



The District employs seasonal staff to check and treat mosquitoes in flooded street curbs and stormwater catchbasins. These sites hold standing water due to rainfall or urban runoff from domestic water usage. During Dec-Jan, 256 street curbs were inspected or treated for larval and pupal stage mosquitoes using biorational pesticides. There were no catchbasin inspections performed.

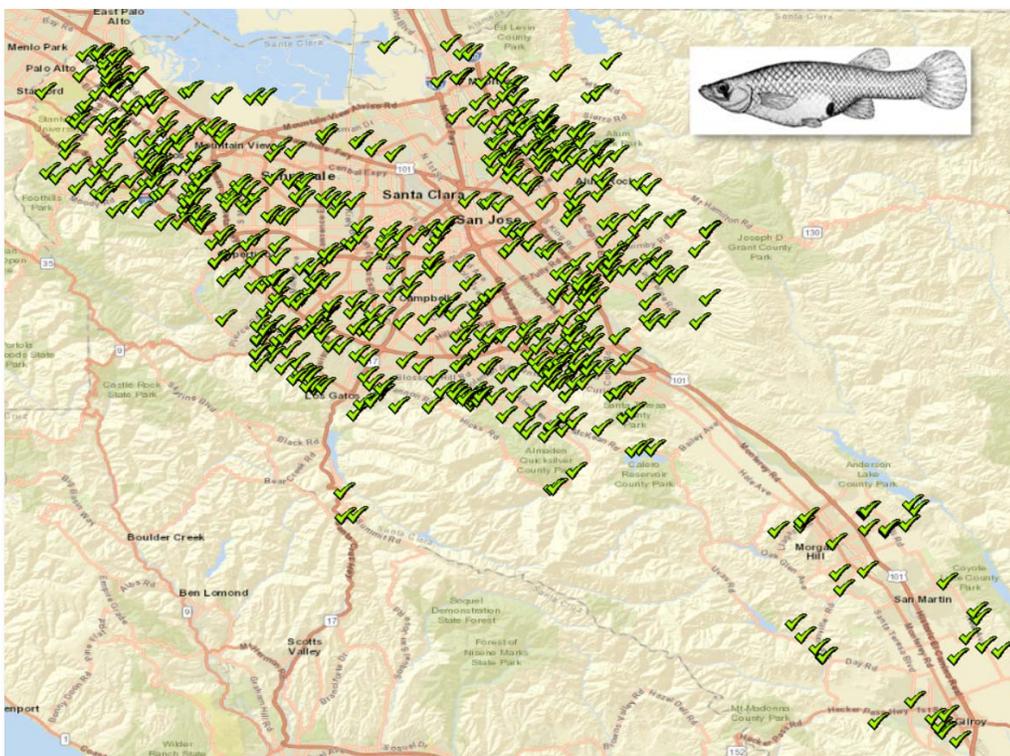
Bacillus thuringiensis var. israelensis and Bacillus sphaericus in a slow release briquette formulation can provide up to 180 days of mosquito control without harming aquatic life, humans, livestock or wildlife.

Operations Report: Neglected Pools



Stagnant water in neglected swimming pools can produce hundreds of mosquitoes and cause a local nuisance to neighborhoods. The District inspected 17 pool locations during Dec-Jan.

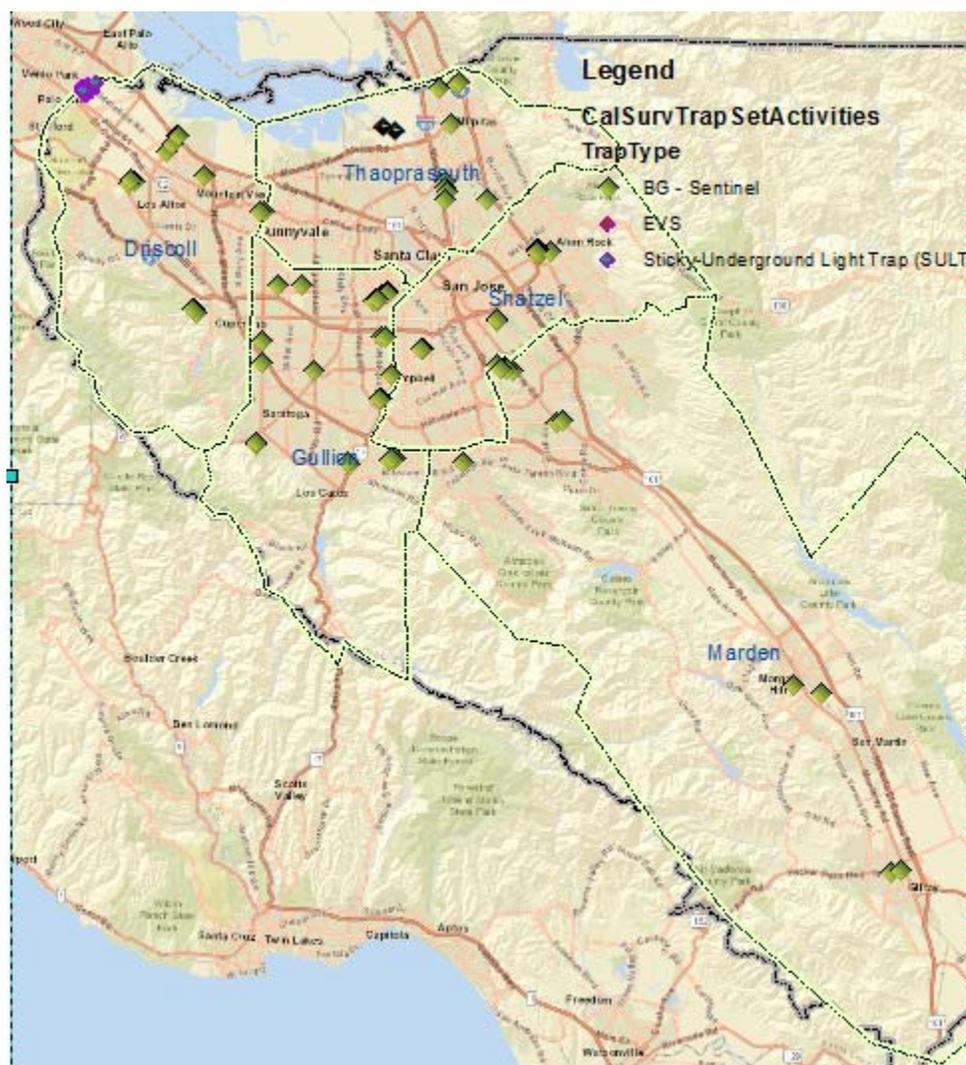
Operations Report: Biological Control with Mosquitofish



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. The District does not deliver fish during the winter. A total of 8,458 fish were delivered to 711 properties during 2017.

Invasive Aedes Surveillance

Trapping Activities in December and January



Invasive Aedes Trapping
Continued efforts to find exotic mosquitoes, *Aedes aegypti* or *Aedes albopictus* during the winter months have employed the Biogents Sentinel trap that utilizes both visual and odor-based attractants.

The BG Sentinel traps use a Human Odor Lure (lactic acid) to entice day-biting mosquitoes to enter the trap.

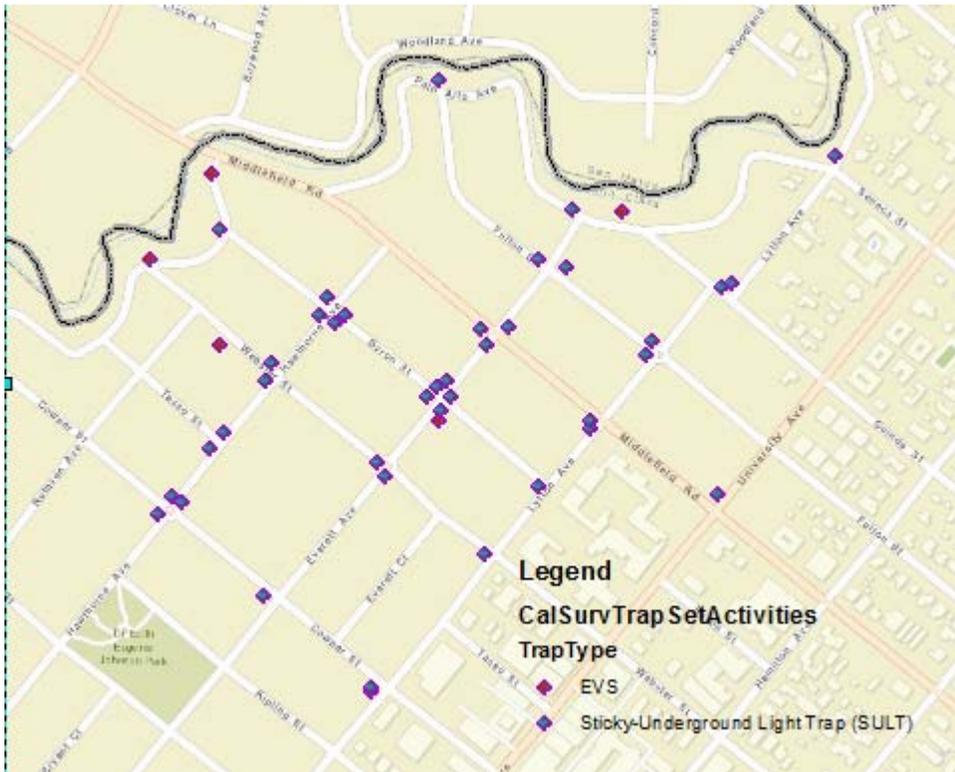


Typically the trap is left overnight or longer depending on battery or AC hookup.

Detection Method	Trap Nights	Positive Detections
Ovicup Trap	0	0
Biogents Sentinel Trap (BG-Sentinel)	94	0
Autocidal Gravid Trap (AGO or MAGO)	1	0
Public Submission of Day-biting mosquitoes Travel Cases (Zika, Chikungunya, dengue)	3	0

Underground Adult Mosquito Surveillance

Plans are underway to deploy about 50 “sticky underground light traps” (SULT) in a Palo Alto neighborhood where two West Nile virus positive crows were recently found. It is not clear how these birds became infective, but may be due to winter active mosquitoes or bird-to-bird transmission. Carbon dioxide baited traps (EVS) did not recover any Culex mosquitoes placed above ground . . . Soon SULT traps will be placed in catch-basins and under stormwater manhole covers to sample underground mosquitoes. Initial problems with magnet strength required further fine tuning of this new trap type.



It is not clear how these birds became infective, but may be due to winter active mosquitoes or bird-to-bird transmission. Carbon dioxide baited traps (EVS) did not recover any Culex mosquitoes placed above ground . . . Soon SULT traps will be placed in catch-basins and under stormwater manhole covers to sample underground mosquitoes. Initial problems with magnet strength required further fine tuning of this new trap type.

West Nile Virus Update

Count Dec-Jan	test_status	species	Total
Negative	Negative	American Crow	8
		Cooper's Hawk	1
		Dark-eyed Junco	1
		Fox Sparrow	1
		Hawk	1
		House Finch	1
		House Sparrow	1
		Unknown - songbird	2
Negative Total			16
Positive	American Crow	5	
Positive Total			5
Grand Total			21

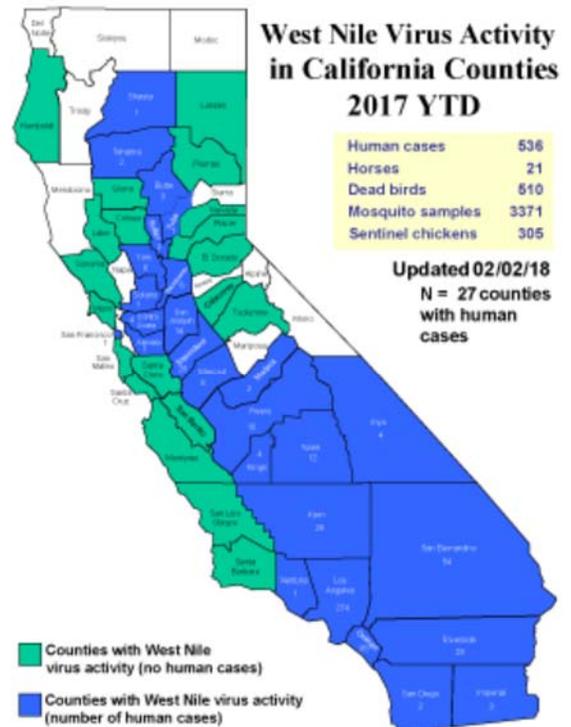
Statewide:
As of December 1, 2017, 510 dead birds have tested positive for West Nile Virus (WNV) in California (see map at right). At this time last year, 1,346 positive birds had been reported.

Twenty seven counties have submitted a total of 3,371 positive mosquito sam-

ples to the state so far this year. To date, 536 human cases have been reported from 27 counties this year.

Santa Clara County:

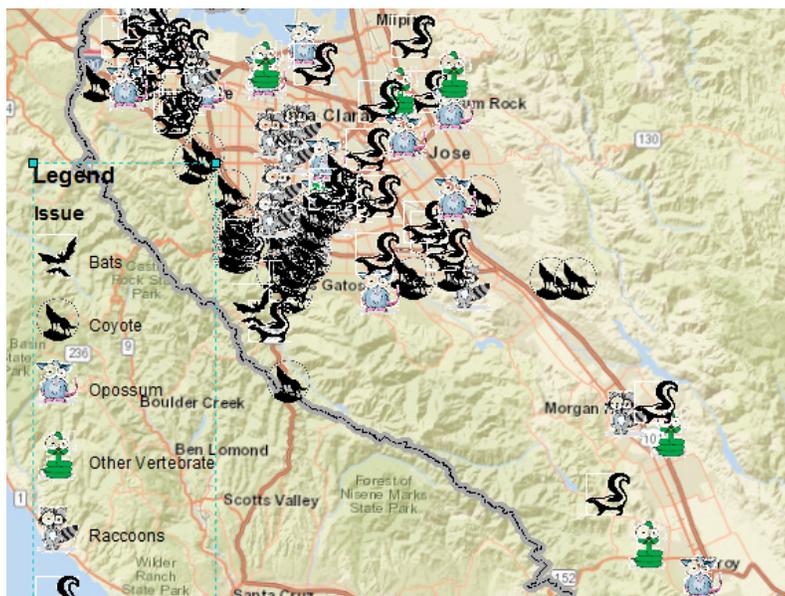
As of December 1, 2017, 497 dead birds have been reported in Santa Clara County. Of these reported birds, 102 have been tested for WNV and 12 were found positive. The Sentinel Chickens Program was concluded for this year were at the end of October. In 2017, none of the chickens tested positive for WNV.



Public Service Requests

Row Labels	Count
Bats	2
Bed Bug	7
Bees	1
Cockroaches	1
Coyote	40
Fogging Questions	0
Gambusia (Mosquito Fish)	9
Mosquitoes	25
Neglected Pool	4
Opossum	11
Other (see description)	13
Other Invertebrate	2
Other Vertebrate	6
Raccoons	14
Rodents	156
Skunk	31
Snake	1
Squirrels	5
Wasps/Yellowjackets	5
Grand Total	337

During December and January there were 337 calls for service among a wide range of issues including mosquitoes, requests for mosquitofish, 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 highest in frequency. The map below shows 104 wildlife service calls for October-November.



Insect Identification Service



A female of Western black-legged tick, *Ixodes pacificus*, attached to a resident who was hiking. The use of repellents can protect residents.

Insect Identification

25

Insects submitted by residents for identification during December and January included: Bedbug, Western black-legged tick, false wolf spider, stink bug, and aphids.



Santa Clara
County Vector
Control District
1580 Berger
Dr., San José,
CA, 95112
408-918-4770

Our District Mission is to detect and minimize vector-borne diseases, to abate mosquitoes, and to assist the public in resolving problems with rodents, wildlife, and insects of medical significance in Santa Clara County.



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