CORONAVIRUS (COVID-19)

PROTECT YOURSELF AND LOVED ONES FROM CORONAVIRUS.

To help prevent the further spread of coronavirus, practice the following:

- Wash your hands with water and soap for at least 20 seconds.
- Stay home if you are feeling sick.
- Stay at least 6 feet apart from other people.

In an effort to protect staff and community members, the County of Santa Clara Vector Control District is adhering to all recommendations from the Centers for Diseases Control and the County of Santa Clara Public Health Department. The District offices are currently closed, but we remain committed to protecting public health and continue to operate critical programs to ensure we control the threat of vector-borne diseases.

Although Coronavirus (COVID-19) is not transmitted through mosquito bites, other diseases like West Nile virus, Western equine encephalitis, St. Louis encephalitis, and heartworm are transmitted by infected mosquitoes. With the shelter-in-place order, it is the perfect time to eliminate mosquito breeding around the home.

Drain any standing water collected in old tires, buckets, toys, bird baths, and any container that could hold water for more than a few days. Ensure swimming pools and spas are kept above circulation level, clean rain gutters often to keep water flowing, and fix water leaks.

Wear insect repellent approved by the Environmental Protection Agency and apply according to the label. Wear long sleeves and pants, preferably in light colors, and ensure door and window screens are in good condition.

The District will continue monitoring public health guidelines and modify operations as needed. We appreciate the understanding, cooperation, and support of the community during these unprecedent times.

Sincerely,

Nayer Zahiri
County of Santa Clara Vector Control District Manager
SERVICES AVAILABLE

The County of Santa Clara Vector Control District is committed to protecting the public from vectors capable of transmitting diseases or creating a nuisance.

The services listed below are available for free to the public in Santa Clara County:

- Advice, and/or control measures for mosquitoes.
- Phone consultations and advice for rodent infestations and/or wildlife activity.
- Insect identification and confirmation letter. Please mail or submit photo of specimen during Shelter-in-Place order.
- Phone consultations for bed bug abatement.
- Yellowjacket and wasp control/nest removal in public areas.
- Dead bird pickup and testing for West Nile virus.
- Mosquitofish to control mosquito populations are available for front door delivery during shelter-in-Place order.
- Due to the Shelter-in-place order, school and community presentations, educational booths, and hands on activities are on hold until further notice.

A VECTOR is any animal or insect that can transmit diseases to animals or people.
OPERATION UPDATES: JANUARY

The District’s staff checks and treats mosquito larvae in flooded street stormwater catch basins, curbs, naturally breeding sources, and ponds. These sites hold standing water due to rainfall or urban runoff from domestic water usage.

Stagnant water in these areas, and in neglected swimming pools, can breed mosquitoes that can carry dangerous human diseases like West Nile virus.

The County of Santa Clara Vector Control District actively monitors such locations to prevent these local nuisances from emerging and potentially spreading diseases.

Map 1. In January, staff inspected 658 catch basins and treated 2 that were found to contain mosquito larvae.
OPERATION UPDATES: JANUARY

Map 2. In January, 5 curb inspections were conducted and 2 were treated to control mosquito breeding.

Map 3. Inspected 5 neglected pools and treated 2 that were found to be breeding mosquitoes.
OPERATIONS DATA

OPERATION UPDATES: JANUARY

Map 4. Inspected 257 different locations including man-made habitats such as ponds, creeks, and marshes, treating 58 that were breeding mosquitoes.
OPERATION UPDATES: FEBRUARY

Map 5. Inspected 1,128 catch basins and treated 40 that contained larvae.

Map 6. A total of 4 curbs were inspected and 1 was treated to eliminate mosquito breeding.
OPERATION UPDATES: FEBRUARY

Map 7. In February, 2 of 18 inspected pools were treated to eliminate larvae.

Map 8. A total of 296 man-made habitats were inspected, treating 93 that were breeding mosquitoes.
OPERATIONS DATA

OPERATION UPDATES: MARCH

In March, 5 catch basins and 7 neglected pools were inspected but none were breeding mosquitoes. No curbs were inspected or treated for mosquito breeding.

Map 9. In March, 234 man-made habitats were inspected and 63 were treated for mosquito larvae.
OPERATIONS DATA

OPERATION UPDATES: APRIL

Map 10. In April, 4,838 catch basins were inspected for mosquito breeding and 411 were treated to eliminate larvae.

Map 11. Only 1 of 2 inspected curbs required treatment to eliminate mosquito larvae.
OPERATION UPDATES: APRIL

In April, staff inspected 61 reported neglected pools but none were treated as no pools were found to be breeding mosquitoes.

Map 12. Inspected 350 man-made habitats including ponds, marshes, and creeks, treating 176 that were found to be breeding mosquitoes.
OPERATIONS DATA

MOSQUITOFISH DELIVERIES: JANUARY AND FEBRUARY

Map 13. A total of 10 mosquitofish were delivered in January for 3 service requests received that month.

Map 14. Delivered 88 mosquitofish in February during 20 service requests.
OPERATIONS DATA

MOSQUITOFISH DELIVERIES: MARCH AND APRIL

Map 15. In March, 6 mosquitofish service requests were received, delivering a total of 45 fish.

Map 16. In April, 43 fish were delivered for the 7 service requests that were received that month.
WEST NILE VIRUS SURVEILLANCE

STATEWIDE

As of December 2019, there were a total of 225 symptomatic infections and 18 asymptomatic infections. Of the 225 symptomatic cases reported, 65% had neuroinvasive disease and 2.7% resulted in fatalities. In 2019, West Nile virus was reported in 28 counties, with the highest cases in Fresno and Tulare Counties. There have been no human cases reported in 2020 so far.

SANTA CLARA COUNTY

Based on fifteen years of dealing with West Nile virus (WNV) in California, trends have suggested that drought years are more active in WNV than those following raining winters and spring seasons. So far this year, Santa Clara County leads the state in positive bird detections.

On February 3, 2020, a dead American crow in San Jose was reported to the District and tested positive for WNV. A large fountain no longer in use was found holding stagnant water and containing common house mosquito (*Culex pipiens*) and the cool weather mosquito (*Culiseta incidens*) species. These mosquitoes are known to transmit West Nile virus, Western equine encephalitis, and Saint Louis encephalitis. No positive mosquitoes were detected.

First West Nile virus positive bird of 2020.
On March 9, 2020, two American crows tested positive in South San Jose, both collected at the same location near Blossom Hill Road and Camden Avenue. No positive mosquitoes were detected.

The fourth positive crow was collected on April 30, 2020 in Los Altos. A new grid-based system was implemented to more evenly space traps throughout the target area. This trapping is also improved by using more gravid traps that capture older, blood-fed female mosquitoes that are more likely to carry an arbovirus. The grid-based system also provides guidance to alert and direct larviciding operations targeting curbs, catch basins, and other potential mosquito breeding sites.

Although it is impossible to know how busy the 2020 mosquito season will be, we continue to operate our essential programs, such as our mosquito surveillance program needed to target suppression of virus-carrying mosquitoes.
WEST NILE VIRUS SURVEILLANCE IN CALIFORNIA COUNTIES

West Nile Virus Activity in California Counties 2020 YTD

- Human cases: 0
- Horses: 0
- Dead birds: 5
- Mosquito samples: 0
- Sentinel chickens: 0

Updated 05/15/20
N = 0 counties with human cases
INVASIVE Aedes SURVEILLANCE

TRAVEL CASES

During January, there were two travel cases for Aedes-borne diseases (dengue, chikungunya, and yellow fever), where residents returned to the County with infections acquired outside the United States. Pending weather conditions, specialized traps are set to detect any *Aedes aegypti* (Yellow fever mosquito) activity in the vicinity of each travel case to determine whether potential local transmission may occur. In 2019, Santa Clara County led the state in chikungunya disease travel cases, and to date, no invasive *Aedes aegypti*, have been detected in the county.
TICK-BORNE DISEASES

TICK SAMPLING AND NEW APPLICATION

During January, nine hiking trails in parks were sampled for ticks in preparation for Lyme disease testing. The sampled locations included Almaden Quicksilver, Alum Rock, Sierra Azul, and Fremont Older Open Space Preserve. A smart phone application called GAIA was utilized to accurately measure distance traveled and elevation for future analytics.

Example of GAIA application map for Alum Rock Park trail tick collection indicating quarter kilometer transect collection sites.
MURINE TYPHUS SURVEILLANCE

SAMPLING SITES

Murine typhus is a disease transmitted by fleas, usually found on rodents. Infection occurs through flea fecal contamination of the bite site, usually occurring through scratching. Although most individuals who are infected do not realize they have been bitten by fleas, symptoms include muscle pain, headache, fever, nausea, joint pain, and vomiting.

In January, the District selected two areas for murine typhus sampling at Columbus Park and Ridder Park. The surveys captured Norway rats carrying fleas, mites, and lice. All fleas were tested and found negative for *Rickettsia typhi* and *Rickettsia felis*, the bacterium responsible for murine typhus. During nights that had a chance of rain, the traps were covered with material to keep the rats dry.

Rodent trap placement locations for murine typhus surveillance.
PUBLIC SERVICE REQUESTS

JANUARY THROUGH APRIL SERVICE REQUESTS

From January to April, the District received 617 service requests. A total of 240 requests were received in January, 208 in February, 83 in March, and 86 in April. The highest service requests have been for coyotes, mosquitoes, and rodents.

<table>
<thead>
<tr>
<th>Service Request</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
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</thead>
<tbody>
<tr>
<td>Bats</td>
<td>9</td>
<td>15</td>
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<tr>
<td>Bed bugs</td>
<td>25</td>
<td>26</td>
<td>14</td>
<td>13</td>
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<tr>
<td>Bees</td>
<td>16</td>
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<td>14</td>
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<tr>
<td>Coyote</td>
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<td>16</td>
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<td>10</td>
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<tr>
<td>Mosquitoes</td>
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<td>24</td>
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<td>26</td>
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<td>Mosquito pools</td>
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<td>26</td>
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<tr>
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In January, Vector Control District staff attended a workshop hosted by the Mosquito and Vector Control Association of California. In the beginning of March, staff also attended the Vertebrate Pest Conference, where they presented a poster on a skunk exclusion project that was conducted in August 2019.

Wildlife burrowing under homes and other structures is a major concern to residents in Santa Clara County, and when District staff noticed skunks were burrowing under the Vector Control District office, the team decided to use it as an educational opportunity. Vector Control staff collaborated in each step of the process, which was documented to produce educational tools for the public. The entire skunk exclusion process included monitoring the burrow for wildlife activity, conducting animal eviction, acquiring exclusion material, preparing the site, and installing a barrier screen around the Vector Control facility. A DIY (Do It Yourself) video was created to demonstrate to the public how to approach a similar situation at their home.

Beyond the initial outreach objectives, participating District staff also gained beneficial and valuable hands-on experience in every step of the exclusion work. The final DIY video can be found at SCCVector.org.
OUTREACH PROGRAM

PUBLIC EDUCATION

In January, our Health Educator held 20 school presentations, followed by 15 in February, and 5 in March. Participating schools included Oakridge Elementary, Luther Burbank Elementary, Wilcox High School, Russel Middle School, Mt Madonna High School, John Muir Middle School, and Live Oak High school.

The District also held educational presentations for the San Jose Code Enforcement Agency, Town Park Towers Senior Living Facility, Board and Care Home Operators, and hosted an educational booth at DeAnza College.

Due to the Coronavirus (COVID-19) outbreak, our in-person educational presentations and other education and outreach programs have been placed on hold until further notice.

Bed bug presentation for the Board and Care Home Operators.

Dr. Noor Tietze presenting to the San Jose Code Enforcement Agency on the topic of indoor pest control.
To detect and minimize vector-borne diseases, to abate mosquitoes, and to assist the public in resolving problems that can cause disease, discomfort, or injury to humans in Santa Clara County.

www.sccvector.org

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