West Nile Virus Activity
No West Nile virus (WNV) activity has been detected in Santa Barbara County in 2018 to date. There has been a total of three WNV positive dead birds in two California counties: two in Santa Clara County and one in San Mateo County.

Statistics for California WNV activity can be found online at [www.westnile.ca.gov](http://www.westnile.ca.gov). National statistics for WNV can be found at the National Centers for Disease Control and Prevention website at [www.cdc.gov](http://www.cdc.gov).

St. Louis Encephalitis Virus Activity
No St. Louis encephalitis (SLE) virus activity has been detected in California in 2018 to date. SLE activity has never been confirmed in Santa Barbara County. Most SLE cases occur in hot inland areas.

Zika Virus and Invasive Aedes Mosquito Update
The Santa Barbara County Public Health Department has reported a total of 10 travel related cases of Zika infection in Santa Barbara County to date, three in calendar year 2017. No invasive *Aedes* sp. mosquitoes have been found in Santa Barbara County to date. Overall the number of Zika cases were down throughout the Americas in 2017. There have been 640 total imported cases of Zika virus into 37 California counties as of March 2, 2018 (508 in 2015-16, 127 in 2017-18), but no local mosquito transmitted cases. In Mexico in 2017, the highest number of Zika cases occurred in central Mexico as opposed to southern Mexico in 2016. Locally acquired cases of Zika have been reported as far north as Ensenada, Baja California, Mexico. Local mosquito transmitted cases of Zika infections have also been reported in southern Florida and southern Texas. Invasive yellow fever mosquitoes (*Aedes aegypti*) and Asian tiger mosquitoes (*Aedes albopictus*) have now been found in 197 cities and communities (39 with both) in 14 California counties. No *Ae. aegypti* have been detected in Alameda and San Mateo counties in two years, so those counties are no longer considered to be infested. A third species, the Australian backyard mosquito (*Aedes notoscriptus*) appears to be getting established in parts of Los Angeles County and a single specimen has been found in Orange County. *Ae. aegypti* and *Ae. albopictus* can transmit dengue, chikungunya, and yellow fever viruses as well as Zika virus. *Ae. notoscriptus* is an excellent vector of dog heartworm.

Zika virus information can be found at [https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Zika.aspx](https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Zika.aspx) and at [http://www.cdc.gov/zika/](http://www.cdc.gov/zika/).

Sentinel Chicken Flocks
The District obtained 28 new chickens from Demler Egg Ranch in San Jacinto, California on February 15, 2018. They have replaced the two year old chickens in the Goleta and Mission Hills flocks along with the WNV positive flock at Solvang. Also the flock at the U.S. Forest Service Ranger Station on Paradise Road has been re-established. The chickens at the Carpinteria Sanitary District will serve for another season. The 2018 sentinel chicken sampling season will begin the week of April 1, 2018.

Samples of blood are collected from each chicken on strips of filter paper and dried overnight. They are then submitted to the California Department of Public Health Vector-Borne Disease Laboratory at Richmond, California where they are analyzed for antibodies to WNV and other mosquito-borne encephalitis viruses.
Live Mosquito-Borne Virus Surveillance

Mosquito trapping was seriously curtailed in March 2018 due to cold, windy, and wet weather. Trapping in northern Santa Barbara County and San Luis Obispo County will begin in April 2018 weather permitting.

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>DATE</th>
<th>NUMBER of MOSQUITOES</th>
<th>NUMBER of TRAPS^</th>
<th>MOSQUITOES PER TRAP NIGHT*</th>
<th>POOLS SUBMITTED</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Coast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UCSB/Santa Barbara Airport Bluffs</td>
<td>3/5-6/18</td>
<td>11</td>
<td>13 EVS</td>
<td>0.8</td>
<td>0</td>
<td>N.A.</td>
</tr>
<tr>
<td>El Estero Wastewater Plant, Santa Barbara</td>
<td>3/28-29/18</td>
<td>38</td>
<td>10 EVS</td>
<td>3.8</td>
<td>2</td>
<td>Pending</td>
</tr>
</tbody>
</table>

* Mosquitoes Per Trap Night = Number of Mosquitoes ÷ (Number of Traps x Number of Nights)

^ EVS = CO2 trap          BG = BG-Sentinel invasive Aedes mosquito trap

This surveillance technique utilizes battery-powered Encephalitis Virus Surveillance (EVS) traps that use dry ice as a source of carbon dioxide along with human scented BG-Sentinel traps to attract adult female mosquitoes that are actively seeking a blood meal. The live female mosquitoes are taken into the District’s laboratory where they are anesthetized, sorted by species, and placed into “pools.” The pools (1 pool = up to 50 adult female mosquitoes of a single species collected at one place at one time) are stored in the District’s ultra-low temperature freezer at -70ºC until they can be submitted to the Davis Arbovirus Research and Training (DART) laboratory on the U.C. Davis campus where they are analyzed for the presence of live mosquito-borne viruses including WNV. The BG-Sentinel traps are deployed to survey for invasive Aedes mosquito species that are known vectors of Zika virus and other diseases.

West Nile Virus Dead Bird Submissions
The District did not submit any dead birds in March 2018.

The West Nile Virus Dead Bird Hotline is closed for the winter season. Citizens are still be able to report dead birds online at [www.westnile.ca.gov](http://www.westnile.ca.gov). The Hotline will resume full operation on April 16, 2018.

Citizens can report dead birds to the California Department of Public Health’s toll free West Nile Virus Dead Bird Hotline (1-877-968-2473 or 1-877-WNV-BIRD) or online at [www.westnile.ca.gov](http://www.westnile.ca.gov). Local agencies will pick up dead birds approved for testing and collect samples via oral swabs that are transferred to RNase cards. The RNase cards are dried outdoors for at least two hours then mailed to the Davis Arbovirus Research and Training (DART) laboratory on the U.C. Davis campus where the samples are analyzed for West Nile Virus.

PACIFIC COAST TICK (*Dermacentor occidentalis*)

Also known as the Pacific Coast Dog Tick, this tick species is very common along local roadsides and trails, especially during the cooler months of the year. It is a known vector of *Rickettsia phillipi* which can cause human illness on rare occasions. The symptoms of *R. phillipi* are similar to but milder than Rocky Mountain Spotted Fever (*Rickettsia rickettsii*); fever, rash, eschar(s). Pacific Coast Ticks infected with *R. phillipi* have been collected at Romero Canyon, Montecito in January 2014 and January 2015 and along the Snyder Trail, upper Santa Ynez Valley in January 2015. Several *D. occidentalis* collected at Romero Canyon in January 2015 were also infected with *Rickettsia rhipicephali*, which is not known to cause human illness.