



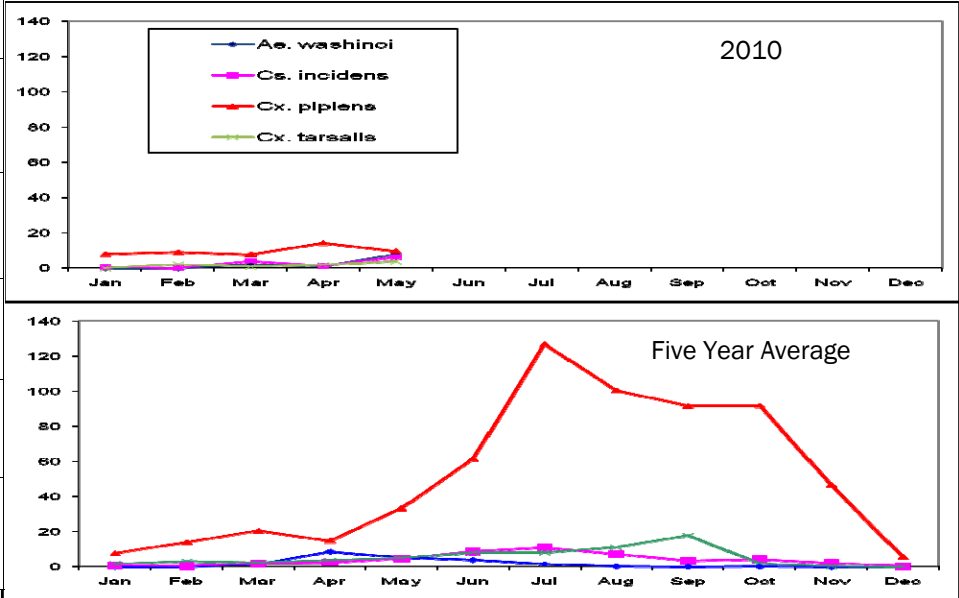
Entomology Report



Adult Mosquito Populations in CO2 Traps

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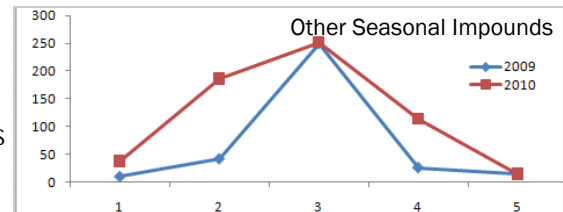
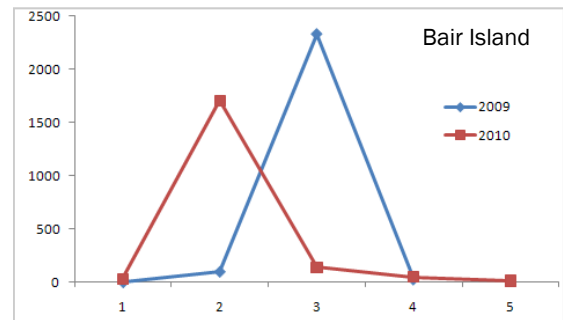
Mosquito Control Operations

In May, Vector Control Technicians treated 1,368 backyard fishponds, 144 ditches & drains, and 57 neglected swimming pools for mosquitoes.

Mosquito control in seasonal impounds and marshes has begun to wind down. Applications on Bair Island included two acres of marsh on Inner Bair Island, treated with ground equipment on May 4, as well as ten acres of marsh on Outer Bair Island treated by hand on May 13. No helicopter applications were made. In addition, 228 seasonal impounds at other sites in 23 cities were treated. These ranged in size from 0.1 to 2 acres.

Technicians also began inspecting and treating creeks in May. Creek maintenance in Atherton, Belmont, Menlo Park and San Carlos has been completed. Work will continue next month in the remaining cities.

Technicians treated large numbers of underground sources this spring. A total of 19,222 catch basins and 2,190 utility vaults were treated in May.



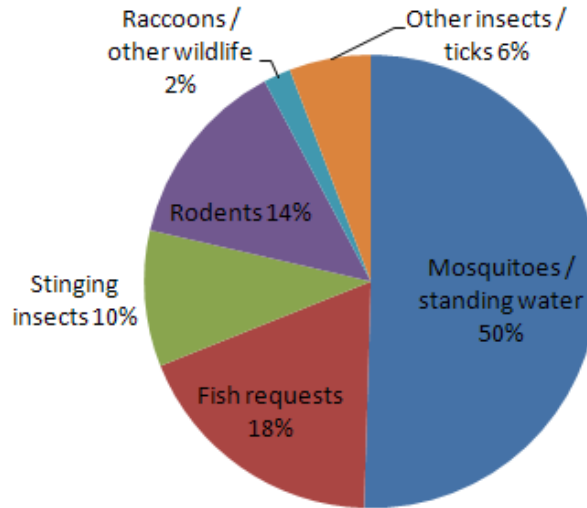
Comparison of acres of seasonal impounds treated per month in 2010 and 2009. Upper graph shows helicopter applications to Bair Island (treated once in March 2009 and February 2010). The lower graph shows all other seasonal impounds. Acres treated in May is similar to last year. However this year, greater acreage required treatment in February and April.



Operations—Service Requests

District staff responded to 103 requests for service in May. Seventy-one of these requests were related to mosquitoes (mosquito complaints, requests for mosquito fish delivery, and reports of standing water). Of the six service requests for other insects, four were fly-related.

Reason for Request	# Requests
Mosquitoes / standing H2O	52
Fish requests	19
Stinging insects	10
Rodents	14
Raccoons / other wildlife	2
Other insects / ticks	6
TOTAL:	103



West Nile Virus Update

Statewide:

As of June 7, 2010, eleven (11) dead birds have been found positive for West Nile virus (WNV) in California. The WNV-positive dead birds this year come from Los Angeles County, Orange County, and Santa Clara County (see map at right). In the Bay Area, Santa Clara County has reported seven (7) crows testing positive for West Nile virus this season.

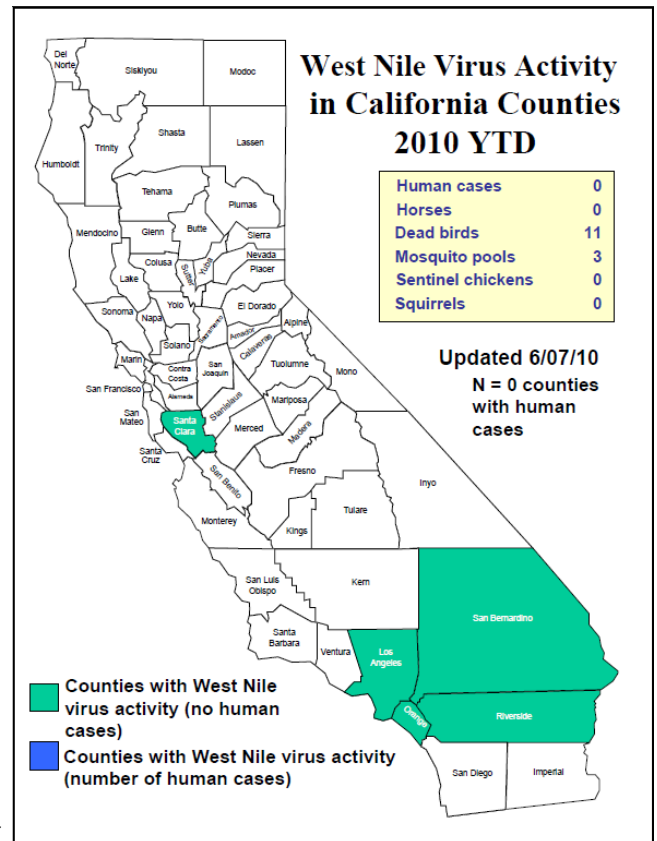
Positive mosquito pools have been detected in San Bernardino and Riverside Counties (see map at right).

There have not been any human cases of WNV reported so far this year in California. Similarly, no cases had been reported at this time last year.

San Mateo County:

Forty-seven dead birds have been reported in San Mateo County to date this year. Four of these birds were in suitable condition for testing; none have tested positive.

The district asks residents to call to report birds or tree squirrels that appear to have been dead for less than 48 hours and are in good condition. They should contact the state's WNV hot line at **877-WNV-BIRD (2473)** or submit a report online at <http://westnile.ca.gov>.





Rodent Inspection Methods—Smoke Testing to detect Norway rat burrows

District laboratory and operational staff received training in Alameda County on conducting smoke tests in sewer lines to locate Norway rat burrows. Alameda County Vector Control Services District employs smoke tests to assess the integrity of sewer lateral lines and identify burrows of Norway rats. Norway rats typically live underground and frequently construct burrows from broken lines to the ground surface above. The test involves using a blower to push non-toxic smoke down a sewer line. The smoke will emerge from the entrance to burrows in yards and vacant lots. Vector control technicians walk both sides of the street and mark locations where smoke can be seen escaping from rodent burrows. During this demonstration test, smoke was seen rising from several burrow entrances under sidewalks and in residential landscaping. Most of these breaches were in the lateral lines that run to individual homes. Once the breaks are identified, the district notifies individual property owners and the city of the locations of areas needing repair. Sewer line breaks provide harborage for Norway rats and their repair is necessary to bring rat populations under control. Smoke testing is one element of an integrated control program for control of Norway rats.



Gas-powered blower positioned over manhole access to sewer line.



Locations were marked with arrows where smoke was observed escaping to the surface due to breaks in residential sewer lateral lines.

Continuing Education Workshop at Solano County Mosquito Abatement District



District staff learn about new naturally-derived mosquito control products from Clarke's Ben Goudie.

On May 19th, district staff attended a hands-on Continuing Education Workshop at the Solano County Mosquito Abatement District. The workshop was sponsored by the mosquito and vector control districts of the Coastal Region to satisfy education requirements for staff.

Staff from member districts and industry vendors gave presentations at ten work stations. Individual stations covered topics such as equipment calibration, spill prevention, mosquito surveillance equipment, the biology and control of bedbugs, respirator usage, and updates on new mosquito control materials.



Contra Costa County MVCD's Steve Schutz discusses innovations in carbon dioxide mosquito traps.



"An Independent Special District
Working for You Since 1916"

SAN MATEO COUNTY
MOSQUITO AND VECTOR CONTROL

1351 Rollins Road
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The San Mateo County Mosquito and Vector Control District is an independent, Special District funded by a property tax voted in by individual cities. Our mission is to safeguard the health and comfort of our citizens through a planned program to reduce mosquitoes and other vectors in an environmentally responsible manner.

	Extension
Robert B. Gay, Manager_____	12
Chindi A. Peavey, Laboratory Director_____	32
Angie Nakano, Vector Ecologist_____	31
Tina Sebay, Vector Ecologist_____	38
Theresa Shelton, Vector Ecologist_____	44
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"A VECTOR is any animal that can transmit disease to animals or people."

Dengue Fever

Locally-acquired dengue virus has been confirmed in 28 people who lived in or traveled to Key West, Florida from 2009 to the present. These are the first cases of dengue acquired within the United States since 1946. There have been other occasional cases in recent years along the Texas-Mexico border which have been associated with major outbreaks in nearby Mexican cities. Dengue fever is a serious vector-borne disease transmitted by *Aedes aegypti* and *Ae. albopictus* mosquitoes.

People infected with dengue virus often have no symptoms, but the disease can be life-threatening, particularly if a person has been exposed to more than one strain of the virus. Typical symptoms of dengue fever include headaches, eye pain, joint pain, muscle soreness, rash, bleeding from the nose or gums, and fever. More severe cases include vomiting and abdominal pain after the fever has subsided. The circulatory system may fail, leading to death.

Dengue has seen a worldwide rise in recent years. *Ae. aegypti* is associated with urban environments and has benefited from deforestation. Increased international travel has led to the spread of viral strains and mosquito vectors. Climate change will likely allow northward expansion of the disease. *Aedes albopictus* was introduced to the U.S. mainland in 1985 and has spread throughout the southeast, expanding the potential for dengue. It has also become established in Hawaii. The re-emergence of the disease in Florida and threat to other regions highlights the need for mosquito surveillance and control programs.



Aedes albopictus, the Asian Tiger mosquito, is transported to new areas usually as larvae in small items holding water, such as tires or nursery plant containers.