

June 2013

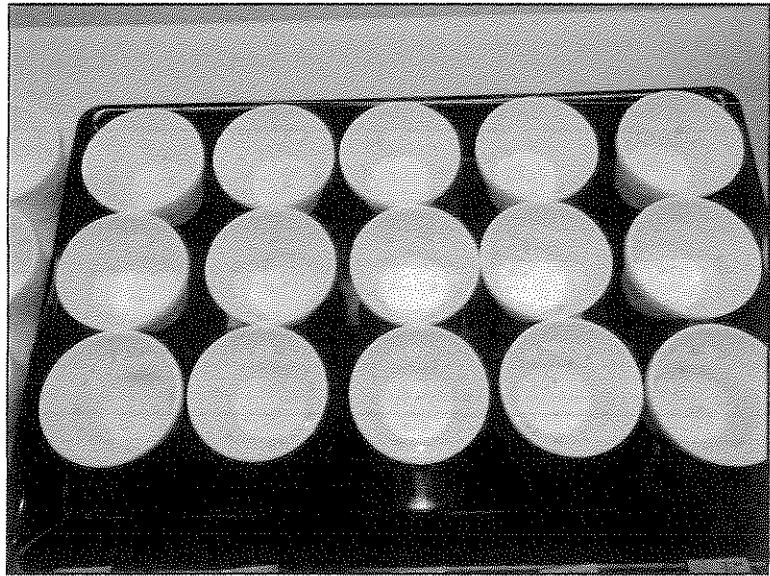


District Report



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The District in Action!



The district laboratory performs mosquito larvae bioassays to test the efficacy of pesticides. Each column of larval cups contains a different concentration of pesticide.

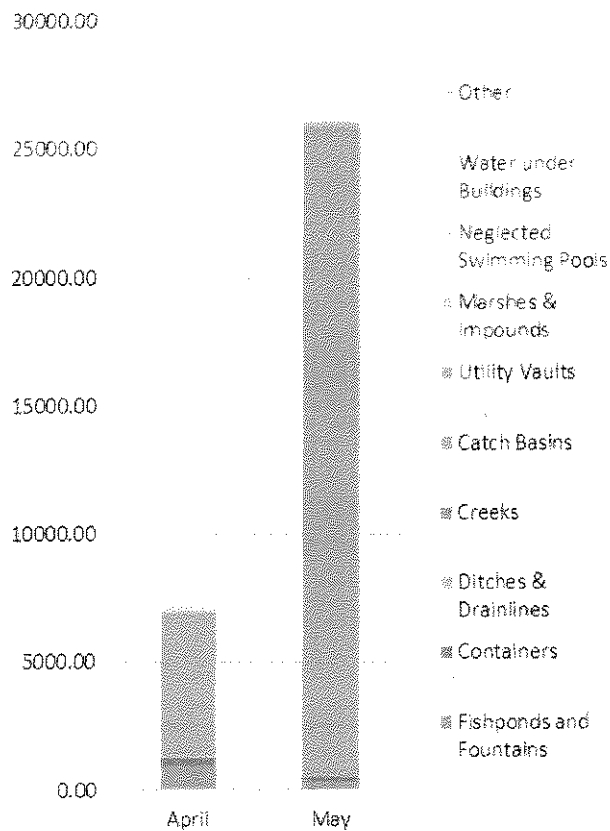
District News

- District staff participated in the Foster City Art and Wine Fair on June 1 and 2, and set up a district booth for the San Mateo County Fair in at the San Mateo event center from June 8-16. These events are opportunities to educate the public about district services and mosquito and vector control.
- Sewer plants in South San Francisco, Half Moon Bay, Burlingame and San Mateo are being inspected every two weeks and treated if necessary.
- Finance Director Rosendo Rodriguez attended the Government Finance Officers Association annual conference in San Francisco from June 2-5.
- Operational staff are conducting seasonal treatment of catch basins in cities along the bay.
- Amanda Poulsen joined the laboratory staff on June 19 as a summer laboratory assistant. She will help in the lab until mid-September when she plans to begin graduate studies at UC Davis.

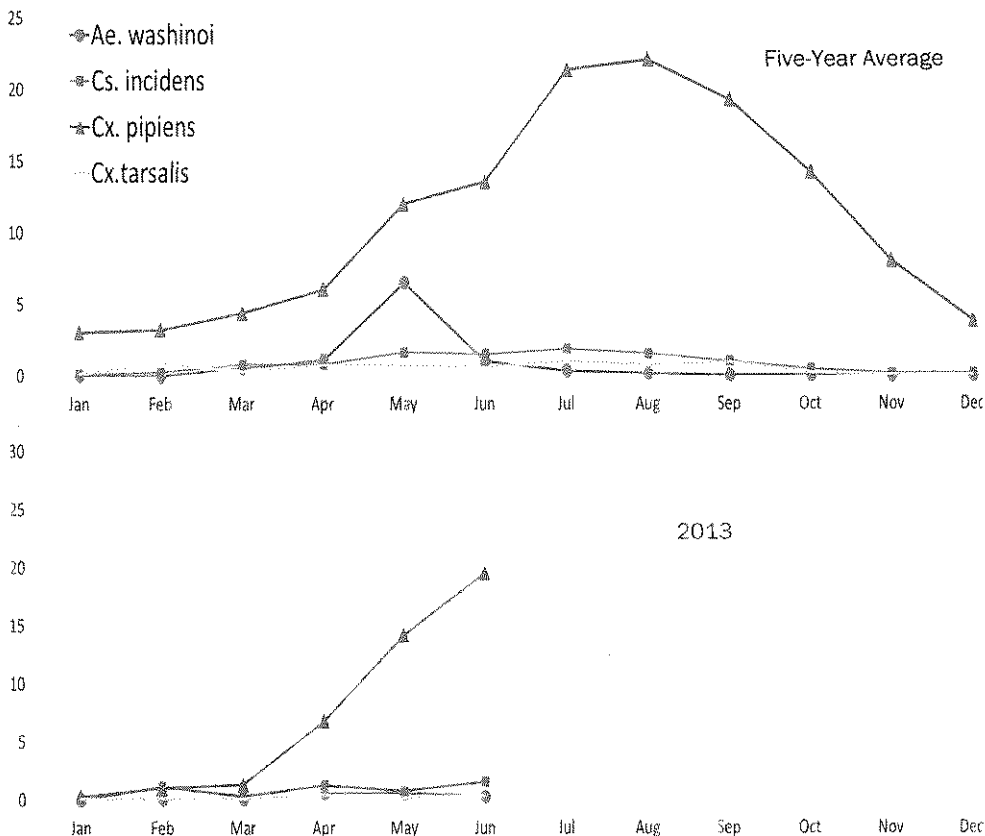


Mosquito Sources Treated

	April	May
Fishponds & Fountains	920	346
Containers	362	195
Ditches & Drain lines	59	66
Creeks	19	38
Catch basins	5,653	25,290
Utility Vaults	45	55
Marshes & Impounds	93	47
Neglected Swimming Pools	58	38
Water under Buildings	8	7
Other	57	25
Total	7,274	26,107



CO₂ trap data (average per trap)



Key to Species:

▲ Cx. pipiens

Culex pipiens is the primary vector mosquito for West Nile Virus in many parts of the U.S. It is an extremely common pest in San Mateo county.

● Cx. tarsalis

Culex tarsalis is the primary vector of St. Louis encephalitis and western equine encephalitis.

◆ Ae. washinoi

Aedes washinoi is an active day-biting mosquito which usually breeds in freshwater pools near marshes or streams.

■ Cs. incidens

Culiseta incidens is a large mosquito with dark patches on its wings. It is the most common mosquito species found breeding in fishponds.

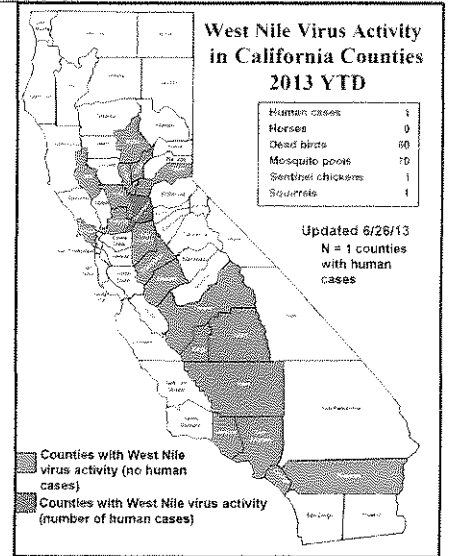


West Nile Virus Surveillance

San Mateo County

During the 2013 West Nile Virus (WNV) season, two dead birds in San Mateo County have tested chronic positive for West Nile Virus. Additionally three dead birds from the city of San Mateo have tested positive for WNV with the in-house testing using the VectOR test but tested negative by the state. The chronic positive birds were an American Goldfinch from Redwood City, reported on June 12 and a Red-shouldered Hawk from Emerald Lake Hills reported on June 17.

The district asks residents to call in to report dead birds or tree squirrels. Specimens that appear to have been dead for less than 24 hours and are in good condition will be tested for WNV. Residents should contact the state WNV hot line at **877-WNV-BIRD (968-2473)**. Reports can also be made online at <http://westnile.ca.gov>.

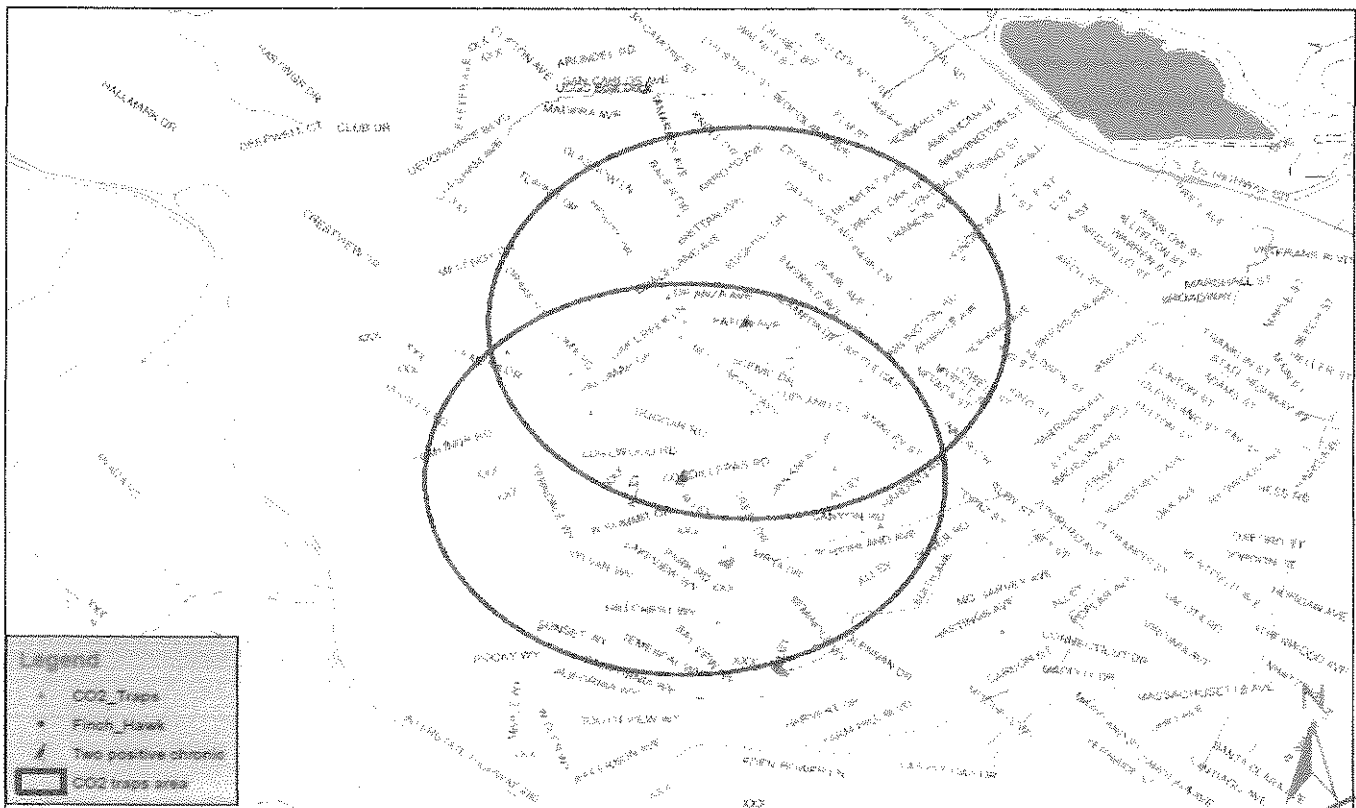


California

5,375 dead birds have been reported with 1,063 tested and 60 positive as of June 27, 2013. One human case of WNV has been confirmed, in Sacramento County (shaded blue in map on right). Seventy mosquito pools throughout the state have tested positive for WNV. One sentinel chickens and one squirrel have also tested positive for West Nile Virus.

WNV Chronic Positive Birds—map

San Mateo County Positive Birds Finch and Hawk June 25, 2013





West Nile Virus Risk Assessment

Time Interval 2013 by Half-month
Agency SANM
Spatial No Spatial Filter
Target WNV - West Nile virus
Trap Type All Available Trap Types
Sex/Condition Females - Mixed
Species All Available Species

	1/15/13	1/31/13	2/15/13	2/28/13	3/15/13	3/31/13	4/15/13	4/30/13	5/15/13	5/31/13	6/15/13	6/30/13	7/15/13	7/31/13	8/15/13	8/31/13
Risk	1	1	1	1	2.3	2.3	2.3	2.5	2.5	2.2	2.2	2.5				
Environment	1	1	1	1	1	1	1	2	2	2	2	2				
Abundance		1	1		5	5	5	5	5	5	5	5				
Infection										1	1					
Seroconversion								1	1	1	1	1				
Dead Bird	1	1	1	1	1	1	1	2	2	2	2	2	2			

The California Department of Public Health generates a risk assessment level ranging from 1-5 for West Nile Virus (WNV). The risk level is determined by analyzing a combination of data on mosquitoes and infection rates gathered by the District, weather patterns and the state WNV hotline. The risk levels are explained as:

- Risk Rating 1.0—2.5** *Normal Season, "No Alert Level"*
 - Regular district operations
- Risk Rating 2.6—4.0** *Emergency Planning, "Alert Level"*
 - Enhanced larval detection and control, public health officials notified, increased disease surveillance, more public outreach
- Risk Rating 4.1-5.0** *Epidemic Conditions, "Emergency Level"*
 - full media campaign, physicians and veterinarians alerted, detection and investigations of human cases, continue enhanced larval surveillance and control



Operations Report

The technicians are going back to school! Beginning this month we start our treatment of over 200 schools' catch basins. This program ensures the safety of not only the students that attend during the summer but also the thousands of residences that surround them. We have already sent a letter to all of the school districts notifying them of our plans.

Also this month we have introduced Natular, the only OMRI certified larvicide into our rotation of treatments. This is an important step in our Integrated Pest Management for two reasons: first, the more products we use the less likely mosquitoes will become resistant to the materials. Second, organic farms owners are more satisfied with our treatments when they find out the product we are using is OMRI certified.

Around the County

*Technician **Jim O'Brien** in a joint effort with the **Daly City** code enforcement officer was able to abate a source that had stagnant water under the house. After multiple attempts to get the owner to fix the problem, Jim wrote a detailed letter to the code enforcement officer explaining the house is a breeding site for *Culex pipiens* which is considered to be a primary carrier of West Nile Virus and consequently a serious threat to public health. In less than a month the resident fixed the plumbing issue under the house. Great job Jim!

*While on a mosquito call in **Millbrae**, **Stephanie Busam** found a dry ditch behind a row of houses that had multiple illegal dams built out of cinder blocks, wood and other types of garbage. Stephanie identified the potential for a future mosquito problem and asked Assistant Manager Brian Weber if we could clean out the debris from the ditch. Brian thought this was a great idea and will be contacting Millbrae Public Works to set up a joint plan where we remove the waste from the ditch and they haul it away. Nice find Stephanie!



Illegal dam in Millbrae.

*Technician **Hector Cardenas** conducted a search for mosquitoes in an area of **Redwood Shores** where he has had high trap numbers. Hector found a few things that lowered the number of mosquitoes the past few weeks, but not enough to eliminate the problem. Hector had a feeling there were mosquitoes breeding under these large metal vault lids that were bolted down. He decided to remove the bolts and was able to find three vaults that had adult mosquitoes flying out of them. Way to go the extra mile Hector!

*Veteran seasonal technician **Jenny McDaniel** found a mosquito problem at the former **Bay Meadows** race track in **San Mateo** that had been invading the surrounding neighborhood. Jenny took it upon herself to find the problem after we told her we were placing her in a different city to spray catch basins because they were having a mosquito issue. Jenny gained access into an area that was normally locked up; once inside she was able to locate two different mosquito breeding sites and treated them accordingly. Thanks for going above and beyond Jenny!

District Balance Sheet - Consolidated Funds As of May 31, 2013

	<u>May 31, 13</u>
ASSETS	
Current Assets	
Checking/Savings	
1010 · Cash	6,087,715
1010A01 · Cash-VCJPA Property Contingency	37,989
1010A02 · Cash-VCJPA Member Contingency	329,086
1020 · Cash - Petty Cash	200
Total Checking/Savings	6,454,990
Accounts Receivable	
1012 · 1012 · Accounts Receivable-001	13,664
Total Accounts Receivable	13,664
Total Current Assets	6,468,654
TOTAL ASSETS	6,468,654
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
4300-1 · 4300-1 · Accounts Payable	73,555
Total Accounts Payable	73,555
Credit Cards	
US Bank Credit Card	-
Total Credit Cards	-
Total Current Liabilities	73,555
Total Liabilities	73,555
Equity	
3021 · 3021 · Prior Period Adjustment	6,996
32000 · Retained Earnings	5,219,323
Net Income	1,168,780
Total Equity	6,395,099
TOTAL LIABILITIES & EQUITY	6,468,654

San Mateo County Mosquito and Vector Control

District Profit & Loss - Consolidated Funds for the month ended May 31, 2013

REVENUES	MTD May-13	YTD FY12/13	Budgeted FY12/13	YTD May %	92%
				Balance Remaining	% of FY12/13 Budget
1021 Prop. taxes, current, secured	123,750	1,510,253	1,519,800	9,547	99.4%
1024 PY Secured Rede	0	3,315	3,400	85	97.5%
1031 Prop. taxes, current unsecured	0	86,568	82,000	(4,568)	105.6%
1033 Prop. taxes, prior, unsecured	0	(771)	650	1,421	-118.6%
1041 Prop. taxes CY secured SB 813	6,162	27,869	19,700	(8,169)	141.5%
1042 Prop. taxes CY unsecured SB 813	0	0	650	650	0.0%
1043 PY SB 813 REDEM	949	949	1,400	451	67.8%
1045 Prop. taxes unsecured SB 813	0	0	320	320	0.0%
1046 1046 ERAF Rebate	0	236,011	203,718	(32,293)	115.9%
1521-11 VCJPA-Interest Income	0	3,320	0	(3,320)	0.0%
1521 Interest Earned	0	36,265	53,840	17,575	67.4%
1831 Homeowner Prop	3,864	9,385	5,000	(4,385)	187.7%
2031 Special Assessment	109,096	1,379,224	1,491,980	112,756	92.4%
2439 Other Special Charges	36,738	448,035	459,585	11,550	97.5%
2451 Service Abatement Income	7,445	229,911	276,892	46,981	83.0%
2647 Misc Refunds/RDA/RPTTF	0	84,482	0	(84,482)	0.0%
2658-11 VCJPA-Misc Income	0	22,176	0	(22,176)	0.0%
2658 Other	0	73,310	27,000	(46,310)	271.5%
Total Revenue	288,005	4,150,302	4,145,935	(4,367)	100.1%
EXPENDITURES					
Salary & Benefits					
4111 Regular Full Time	103,222	1,125,600	1,325,000	199,400	85.0%
4161 Regular Part Time	3,234	124,067	151,000	26,933	82.2%
4311 Social Security	306	8,932	9,000	68	99.2%
4321 Retirement	30,887	331,585	395,000	63,415	83.9%
4412 Health Insurance	27,609	276,986	314,635	37,649	88.0%
4414 Great-West Deferred Comp	1,000	10,500	13,000	2,500	80.8%
4415 Medicare Insurance	1,569	18,479	24,000	5,521	77.0%
4422 Dental Insurance	3,038	26,784	36,000	9,216	74.4%
4431 Vision Insurance Plan (VSP)	375	3,954	4,700	746	84.1%
4440 Employee Commute Benefit	548	3,750	5,000	1,250	75.0%
4442 Long Term Disability	819	7,855	10,000	2,145	76.6%
4451 Unemployment Insurance	293	13,743	18,000	4,257	76.4%
4621 AFLAC Insurance	444	4,918	6,200	1,282	79.3%
Subtotal	173,342	1,957,154	2,311,535	354,382	84.7%
Services & Supplies					
5111 Agricultural	14,785	152,740	250,000	97,260	61.1%
5121 Clothing	1,655	19,007	23,910	4,903	79.5%
5158 Household	181	3,232	3,980	748	81.2%
5171 Medical/Laboratory	337	4,268	5,190	922	82.2%
5188 Other Misc (Union Bank Fee)	72	921	1,860	939	49.5%
5199 Office	1,401	14,980	20,852	5,872	71.8%
5233 Special Tools	369	11,376	20,475	9,099	55.6%
5331 Memberships	1,880	17,041	18,388	1,347	92.7%
5416 Gasoline/Oil	4,748	49,000	67,000	18,000	73.1%
5428 Miscellaneous Repair	3,423	71,944	274,140	202,196	26.2%
5472 General Maintenance	301	5,900	9,290	3,390	63.5%
5631 Electric/Gas	2,889	10,363	7,770	(2,593)	133.4%
5635 Water/Sewer Disposal	267	5,954	9,790	3,836	60.8%
5721 Meetings/Conferences	5,239	58,506	83,760	25,264	69.8%
5856 Services/Consultation	35,882	282,729	332,865	50,136	84.9%
5966 District Special Expenses	12,593	68,887	169,820	100,733	40.6%
6712 Telephone	1,996	14,806	20,300	5,494	72.9%
6725 Liability Insurance	0	57,162	60,000	2,838	95.3%
6731 Other Insurance	0	82,401	84,096	1,695	98.0%
Subtotal	88,019	931,217	1,463,286	532,069	63.6%
Fixed Assets					
7211 Structures/Improvements	0	0	0	0	0.0%
7311 Equipment	9,205	93,152	164,234	71,082	56.7%
Subtotal	9,205	93,152	164,234	71,082	
Total Expenditures	270,566	2,981,523	3,939,055	957,533	75.7%
NET INCOME					
Net Income	17,438	1,168,780	206,880		



"An Independent Special District
Working for You Since 1916"

SAN MATEO COUNTY
MOSQUITO AND VECTOR CONTROL

1351 Rollins Road
Burlingame, CA 94010

Phone: 650-344-8592
Fax: 650-344-3843
www.smcmad.org

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
Nayer Zahiri, Laboratory Director _____	32
Theresa Shelton, Vector Ecologist _____	44
Tina Sebay, Vector Ecologist _____	38
Brian Weber, Assistant Manager/Operations Director _____	16
Rosendo Rodriguez, Finance Director _____	11

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

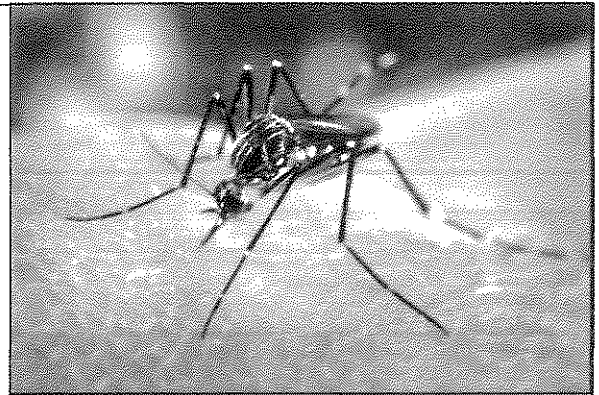
Aedes aegypti

Aedes aegypti, the yellow fever mosquito, has been detected in Madera and Fresno Counties in California. This mosquito has been introduced to California in the past, but has never successfully established. However, the presence of this mosquito species in two neighboring counties indicates that it will take a considerable effort to eradicate it from the area. It is also possible that *Aedes aegypti* is also in other counties that have not yet detected it, and that it might further expand its range.

Aedes aegypti is a vector of yellow fever, dengue fever, and chikungunya. It is an aggressive daytime biter of mammals, including humans. It is a container breed-

ing mosquito that can easily live in urban areas. Eliminating standing water in yards, such as flower pots, old tires, and buckets can help limit the mosquito, but because it requires only a small amount of water for successful breeding, finding and removing all sources is a very difficult task.

The San Mateo County Mosquito and Vector Control District currently has a surveillance program with ovitraps for *Aedes albopictus*, the Asian tiger mosquito, which will also be an effective way to simultaneously conduct surveillance for *Aedes aegypti*. The laboratory staff are currently choosing plant nurseries to expand the number of sites in the county with ovitraps. We hope the surveillance program, along with residents reporting mosquito problems, will help us detect and control any introductions of *Aedes aegypti* before they can become a permanent mosquito species in the county.



A female *Aedes aegypti* mosquito taking a blood meal.
Photo credit: CDC