

District Report:

October 2014

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Laboratory staff test chickens from the sentinel flock for West Nile Virus. November 4 is the last day in 2014 the chickens will be tested.

District News

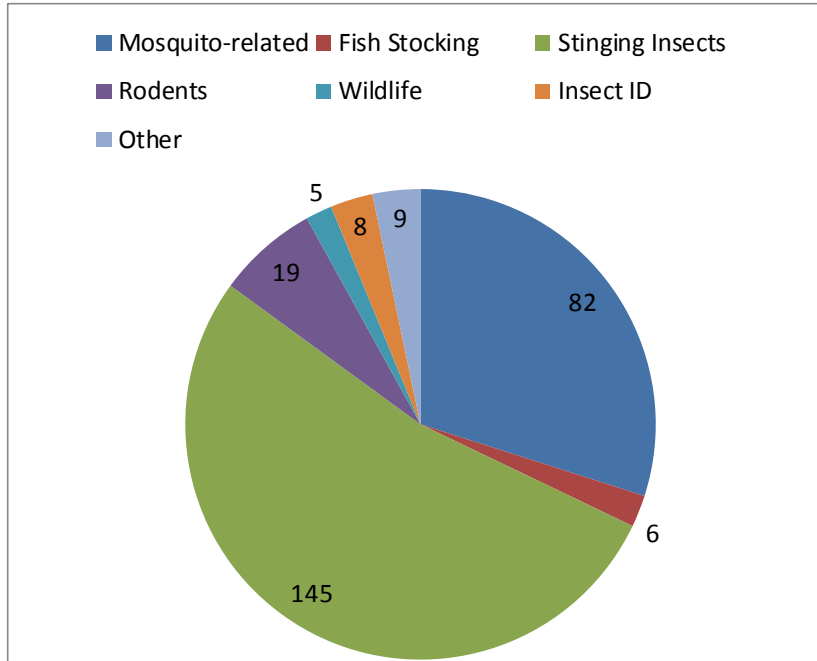
- In October, two birds collected in Pacifica tested positive for West Nile Virus, but mosquitoes collected in these areas subsequently tested negative. No mosquito samples tested positive for West Nile Virus in October.
- On Oct. 7th, the Public Health Education and Outreach Officer presented to the East Palo Alto City Council on the current status of West Nile Virus in San Mateo County.
- On Oct. 9th and again on Oct. 23rd, the Public Health Education and Outreach Officer, as well as the Interim Manager, met with web developers from Digital Deployment to discuss progress on the new District website. The new website is expected to launch in January 2015.
- The Environmental and Public Outreach Committee of the Board of Trustees met on Oct. 22nd to choose the design for the new District logo.
- District staff attended the MVCAC Quarterly Meeting in Sacramento on Oct. 22-24. Public Health Education and Outreach Officer Megan Caldwell was appointed to the MVCAC Public Relations Committee.
- On Oct. 27th, the District held a Public Information Session on the threat of West Nile Virus in San Mateo County. Speakers included the District's Assistant Manager Brian Weber, John Holick from Central Life Sciences, and Dr. D. Scott Smith from Stanford University School of Medicine.
- Laboratory staff will provide instruction to students at Ravenswood City School District on Dec. 8th and 9th.
- District offices will be closed November 27th and 28th, December 23rd through 26th, and January 1st and 2nd in observance of upcoming holidays.

The District asks residents to report dead birds or tree squirrels at <http://westnile.ca.gov>. Specimens that appear to have been dead for less than 24 hours and are in good condition will be tested for West Nile Virus.

San Mateo County Mosquito and Vector Control District

Service Requests and Acres Treated

Number of Service Requests in September

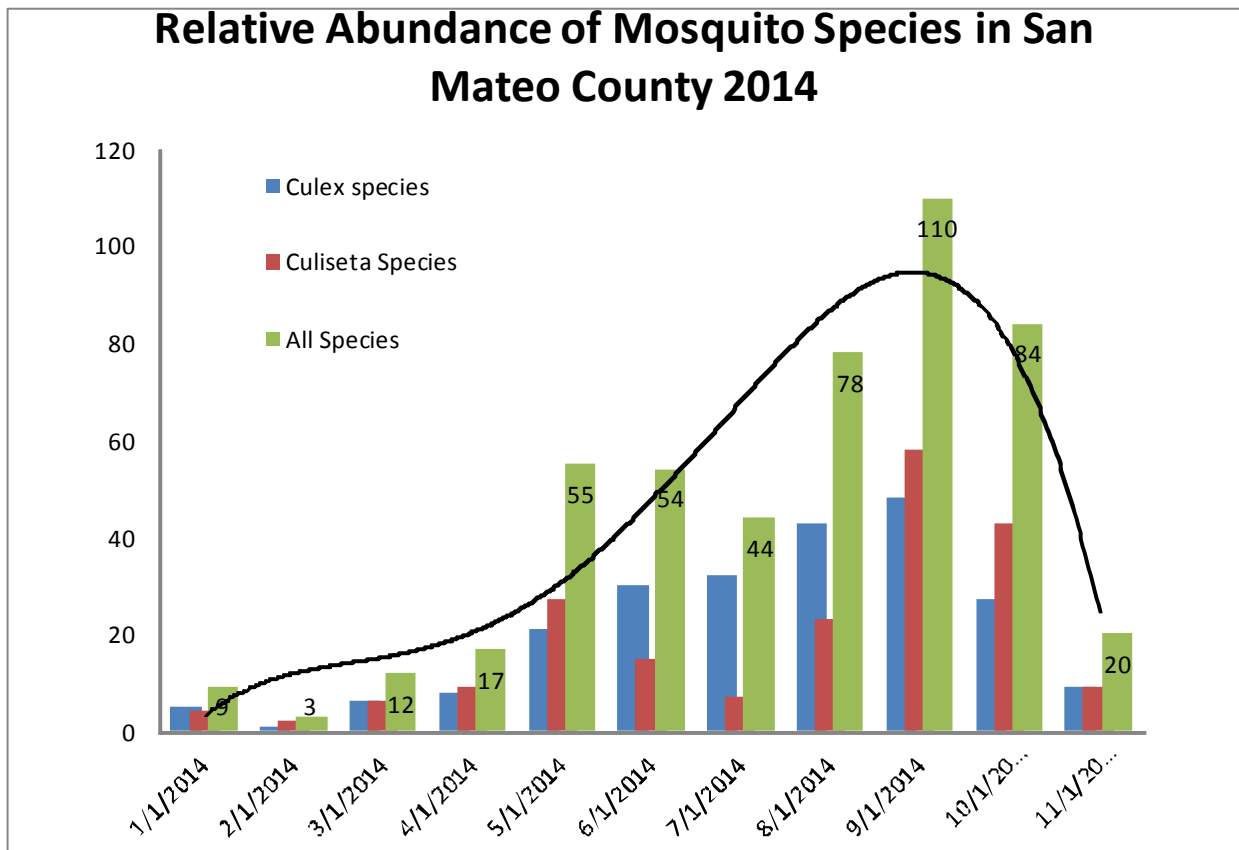


Number of acres treated

Source Type	August	September
Marshes and Impounds	66.91	6.15
Catch basins	20.52	0.89
Other	1.81	0.25
Ditches and Drainlines	0.62	0.13
Backyard Ponds	0.21	0.13
H2O under bldgs	0.15	0.17
Swim Pools	0.11	22.78
Vaults	0.06	2.73
Misc Containers	0.05	0.64
Total	90.45	33.87

New Jersey Light Traps

Relative Abundance of Mosquito Species in San Mateo County 2014



San Mateo County Mosquito and Vector Control District

West Nile Virus Surveillance

SEASONAL TOTALS OF POSITIVE MOSQUITO POOLS – 2014

STREET	CITY	ZIP CODE	TEST DATE	FOGGING DATE	% REDUCTION
Claremont St	San Mateo	94401	June 19, 2014	June 19, 2014	77%
Ladera Oaks	Portola Valley	94028	July 18, 2014	July 21, 2014	97%
Ellsworth Ct	San Mateo	94401	July 18, 2014	July 21, 2014	99%
Ellsworth Ct	San Mateo	94401	July 23, 2014	July 28, 2014	79%
Birch Ave	San Mateo	94402	July 26, 2014	July 30, 2014	98%
Eisenhower St	San Mateo	94403	July 29, 2014	July 30, 2014	98%
Robert Dr.	Menlo Park	94025	August 06, 2014	August 11, 2014	86%
End of Louise	Menlo Park	94025	August 06, 2014	August 11, 2014	86%
Webb Ranch	Portola Valley	94028	August 08, 2014	N/A	
Webb Ranch	Portola Valley	94028	August 08, 2014	N/A	
Clay Park	South San Francisco	94080	August 11, 2014	August 19, 2014	78%
Hacker Way	E Menlo Park	94025	August 22, 2014	August 24, 2014	98%
Haven Ave	Redwood City	94063	August 29, 2014	September 2, 2014	89%
Boothbay Ave	Foster City	94404	September 16, 2014	September 18, 2014	91%
Biscayne Ave	Foster City	94404	September 16, 2014	September 18, 2014	91%

SEASONAL TOTALS OF POSITIVE BIRDS – 2014

STREET	CITY	ZIP CODE	BIRD SPECIES	TEST DATE
Cedar St.	San Carlos	94070	American Crow	4-Jun-14
Berenda Way	Portola Valley	94028	Blue Jay	9-Jul-14
Oak Hollow Way	Menlo Park	94025	American Crow	17-Jul-14
El Camino Real	San Mateo	94401	American Crow	21-Jul-14
Shoreline Dr.	San Mateo	94404	American Crow	25-Jul-14
Politzer Dr.	Menlo Park	94025	American Crow	4-Aug-14
Andeta Way	Portola Valley	94028	American Crow	4-Aug-14
Longford Dr.	S. San Francisco	94080	House Finch	15-Aug-14
Hermosa Way	Menlo Park	94025	Blue Jay	27-Aug-14
Cotton St.	Menlo Park	94025	American Crow	4-Sep-14
City Park	San Bruno	94066	Hawk	5-Sep-14
Lyme Lane	Foster City	94404	American Crow	11-Sep-14
Lyme Lane	Foster City	94404	American Crow	11-Sep-14
Hacker Way	Menlo Park	94025	Sparrow	11-Sep-14
E. Bayshore Rd.	Redwood City	94063	Bluebird	16-Sep-14
Biscayne Ave.	Foster City	94404	House Finch	23-Sep-14
Tioga Way	Pacifica	94044	American Crow	6-Oct-14
Oceana Blvd.	Pacifica	94044	American Crow	14-Oct-14

San Mateo County Mosquito and Vector Control District

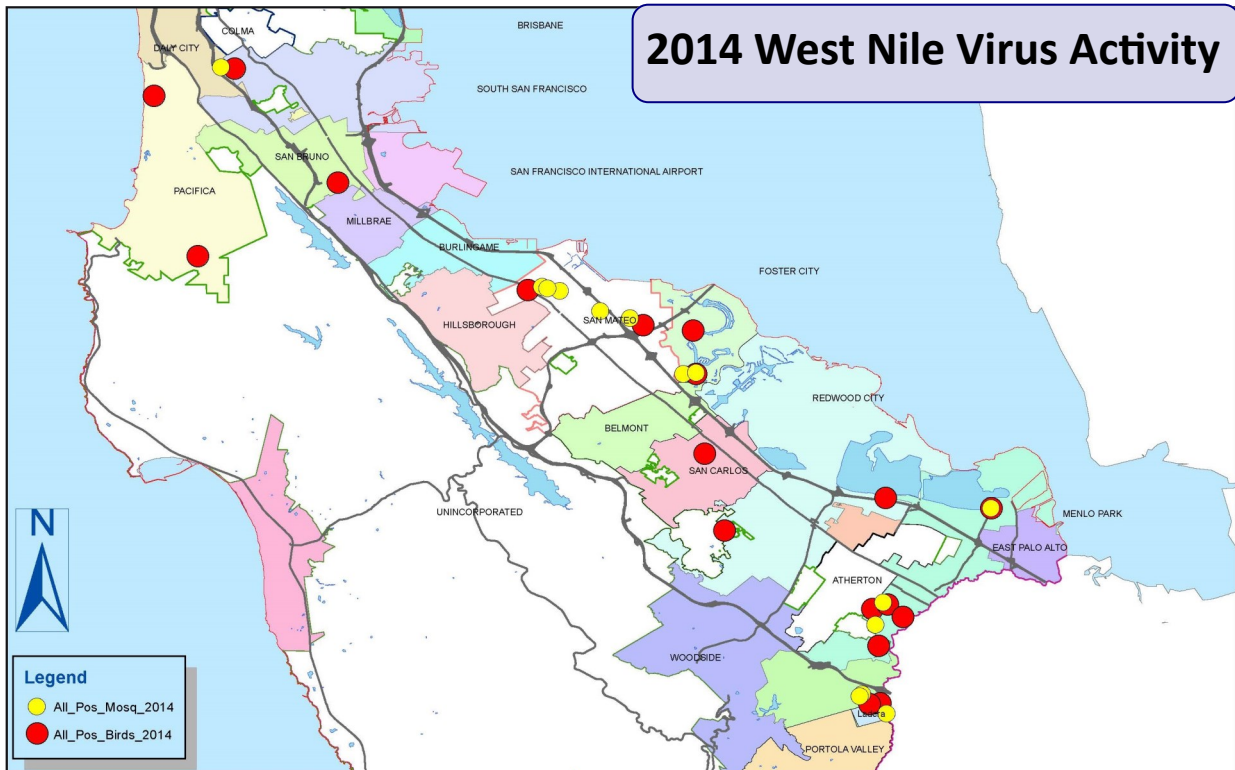
West Nile Virus Risk Assessment

The West Nile Risk Assessment Rating for San Mateo County is currently 2.3

	2014-01-15	2014-01-31	2014-02-15	2014-02-28	2014-03-15	2014-03-31	2014-04-15	2014-04-30	2014-05-15	2014-05-31	2014-06-15	2014-06-30	2014-07-15	2014-07-31	2014-08-15	2014-08-31	2014-09-15	2014-09-30	2014-10-15	2014-10-31
Risk	1	1	1	1	1	1	1	1.7	1.7	1.5	2	2.2	2	3	3	2.6	2.2	3.5	2.5	2.3
Environment	1	1	1	1	1	1	1	2	2	2	2	2	2	3	2	2	2	2	3	2
Abundance									1			1		1	1	1	1			
Infection												3	1	5	5	4	1	5	1	1
Seroconversion								1	1	1	1	2	2	2	2	2	2	2	2	2
Dead Bird	1	1	1	1	1	1	1	2	2	2	3	3	3	4	5	4	5	5	4	4

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



Drought and West Nile Virus

Think California's unprecedented drought will help with the fight against West Nile Virus? Think again: historically, levels of West Nile Virus have been higher in drought years, and this year is no exception.

One factor that may be responsible for this effect is the overall decrease in number of water sources available to birds and mosquitoes. According to Vicki Kramer, Chief of Vector-Borne Disease at California Department of Public Health, "When we have less water, birds and mosquitoes are seeking out the same water sources, and therefore are more likely to come in to closer proximity to one another, thus amplifying the virus."

Lower water levels may also promote West Nile Virus activity by creating stagnant areas where water once flowed freely. For example, many creeks are reduced to a few pools of standing water, providing areas ideal for mosquito larvae. Man-made sources may also breed more mosquitoes; San Mateo County Mosquito and Vector Control District's catch basin program is projected to continue a month longer this year than usual to address this problem.



Standing water, like this local creek bed, is an ideal habitat for mosquito larvae.



The District's catch basin program is projected to continue a month longer this year than usual due to the drought.

While water conservation is important, drought-conscious residents may be inadvertently contributing to mosquito problems through the use of storm water collection and storage systems. Unless properly screened, these systems provide a regular source of standing water where mosquitoes can breed. Fortunately, the City-County Association of Governments of San Mateo and Bay Area Water Supply and Conservation Agency have partnered with San Mateo County Mosquito and Vector Control District to overcome this problem, offering a rebate to homeowners who purchase and properly install screened rain barrels. Applicants receive information about mosquito control and District services, while District technicians are provided with a list of newly-installed rain barrels so that they can be regularly inspected for mosquito larvae.

While mosquitoes and West Nile Virus are at the forefront of many residents' minds, the drought can also increase incidences of residents coming into contact with another vector: rodents. During droughts, rats and mice can become desperate in their attempts to find water sources, leading them to enter homes and take other risks. Residents are reminded that access to water sources may attract rodents to a property.

San Mateo County Mosquito and Vector Control District

District Balance Sheet - Consolidated Funds as of September 30, 2014

	<u>Sep 30, 2014</u>
ASSETS	
Current Assets	
Checking/Savings	
1010 · Cash	5,525,242
1010A01 · Cash-VCJPA Property Contingency	36,595
1010A02 · Cash-VCJPA Member Contingency	320,324
1020 · Cash - Petty Cash	400
Total Checking/Savings	<u>5,882,561</u>
Accounts Receivable	
1012 · 1012 · Accounts Receivable-001	83,713
Total Accounts Receivable	<u>83,713</u>
Other Current Assets	
1120 · Inventory - Pesticides	120,187
Total Other Current Assets	<u>120,187</u>
Total Current Assets	<u>6,086,460</u>
TOTAL ASSETS	<u><u>6,086,460</u></u>
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
4300-1 · 4300-1 · Accounts Payable	60,466
Total Accounts Payable	<u>60,466</u>
Credit Cards	
US Bank Credit Card	-
Total Credit Cards	<u>-</u>
Total Current Liabilities	<u>60,466</u>
Total Liabilities	60,466
Equity	
32000 · Retained Earnings	6,983,607
Net Income	(957,612)
Total Equity	<u>6,025,995</u>
TOTAL LIABILITIES & EQUITY	<u><u>6,086,460</u></u>

San Mateo County Mosquito and Vector Control District

District Profit & Loss - Consolidated Funds for the month ended September 30, 2014

REVENUES	September-14				Year to Date			
	MTD Actuals	MTD Budget	MTD (Over) / Under	% of Budget	YTD Actuals	YTD Budget	YTD (Over) / Under	% of Budget
1021 Prop. taxes, current, secured	0	0	0	0%	0	0	0	0.0%
1024 PY Secured Rede	0	0	0	0%	0	0	0	0.0%
1031 Prop. taxes, current unsecured	0	0	0	0%	0	0	0	0.0%
1033 Prop. taxes, prior, unsecured	0	0	0	0%	0	0	0	0.0%
1041 Prop taxes CYsecured SB 813	0	850	850	0.0%	2,202	1,700	(502)	130%
1042 Prop taxes CYunsecured SB 813	0	0	0	0%	0	0	0	0.0%
1043 PYSB 813 REDEM	0	0	0	0%	0	0	0	0.0%
1045 Prop. taxes unsecured SB 813	0	0	0	0%	0	0	0	0.0%
1831 Homeowner Prop	0	0	0	0%	0	0	0	0.0%
1046 1046 - ERAF Rebate	0	0	0	0%	0	0	0	0.0%
1521 Interest Earned	0	1,600	1,600	0.0%	9,902	9,900	(2)	100%
2031 Benefit Assessment	0	0	0	0%	0	0	0	0.0%
2439 Mosquito Control Tax	0	0	0	0%	0	0	0	0.0%
2451 Service Abatement Income	32,696	38,418	5,722	85%	116,425	148,005	31,580	79%
2647 Misc Refunds/RDA/RPTTF	0	10,000	10,000	0%	0	12,500	12,500	0.0%
2658-11 VCJPA-Misc Income	0	0	0	0%	0	0	0	0.0%
2658 Other	5,077	100	(4,977)	5077%	182,577	3,100	(179,477)	5890%
Revenue Total:	37,774	50,968	13,195	74%	311,107	175,205	(135,901)	178%
EXPENDITURES								
Salary & Benefits								
4111 Regular Full Time	121,257	132,359	11,102	92%	374,837	463,255	88,418	81%
4115 Severance Pay	74,671	0	(74,671)	0%	74,671	0	(74,671)	0%
4161 Regular Part Time	27,022	34,560	7,539	78%	84,644	120,960	36,316	70%
4311 Social Security	1,787	2,279	492	78%	5,558	7,772	2,214	72%
4321 Retirement	40,146	44,164	4,019	91%	125,250	154,575	29,325	81%
4412 Health Insurance	21,915	33,130	11,215	66%	77,987	99,350	21,363	78%
4414 Great-West Deferred Comp	250	1,000	750	25%	1,750	3,500	1,750	50%
4415 Medicare Insurance	3,259	2,452	(807)	133%	7,819	8,535	716	92%
4422 Dental Insurance	2,692	3,750	1,058	72%	8,809	11,250	2,441	78%
4431 Vision Insurance Plan (VSP)	442	500	58	88%	1,369	1,500	131	91%
4440 Employee Commute Benefit	284	750	466	38%	571	2,250	1,679	25%
4442 Long Term Disability	869	1,100	231	79%	2,675	3,300	625	81%
4451 Unemployment Insurance	882	1,397	515	63%	3,517	6,891	3,374	51%
4621 AFLAC Insurance	464	560	96	83%	1,688	1,870	182	90%
Subtotal	295,938	258,002	(37,936)	115%	771,145	885,008	113,863	87%
Services & Supplies								
5111 Pesticides	48,617	10,000	(38,617)	486%	84,776	85,000	224	100%
5121 Clothing	3,508	1,400	(2,108)	251%	5,342	8,155	2,813	66%
5156 Household	335	300	(35)	112%	659	900	241	73%
5171 Medical/Laboratory	3,304	2,500	(804)	132%	9,652	9,250	(402)	104%
5188 Other Misc (Union Bank Fee)	37	50	13	74%	73	150	77	49%
5199 Office	1,021	1,445	424	71%	3,950	4,940	990	80%
5233 Tools/Equipment	1,667	2,800	1,133	60%	7,393	12,650	5,257	58%
5331 Memberships	774	0	(774)	0%	8,774	8,000	(774)	110%
5416 Gasoline/Oil	7,306	8,000	694	91%	23,185	24,000	815	97%
5428 Facility/Auto/Equip Maint/Repair	4,649	14,135	9,486	33%	11,531	21,725	10,194	53%
5472 General Maintenance	357	725	368	49%	1,091	2,375	1,284	46%
5631 Electric/Gas	132	2,420	2,288	5%	5,139	7,260	2,121	71%
5635 Water/Sewer Disposal	262	435	173	60%	1,677	2,265	588	74%
5721 Meetings/Conferences	2,756	4,950	2,194	56%	7,883	12,250	4,367	64%
5856 Services/Consultation	39,464	29,190	(10,274)	135%	94,525	96,292	1,767	98%
5966 District Special Expenses	13,224	35,800	22,576	37%	16,758	108,475	91,717	15%
6712 Telephone	1,748	2,590	842	67%	4,815	8,245	3,430	58%
6725 Liability Insurance	0	0	0	0.0%	39,619	41,000	1,381	97%
6731 Other Insurance	0	0	0	0.0%	97,821	104,150	6,329	94%
Subtotal	129,160	116,740	(12,420)	111%	424,664	557,082	132,418	76%
Fixed Assets								
7211 Structures/Improvements	0	0	0	0.0%	0	0	0	0.0%
7311 Equipment	939	37,110	36,171	3%	72,909	77,930	5,021	94%
Subtotal	939	37,110	36,171	3%	72,909	77,930	5,021	94%
Expenditures Total:	426,037	411,852	(14,185)	103%	1,268,719	1,520,020	251,301	83%
NET INCOME								
Net Income	(388,263)	(360,883)	27,380		(957,612)	(1,344,814)	(387,202)	

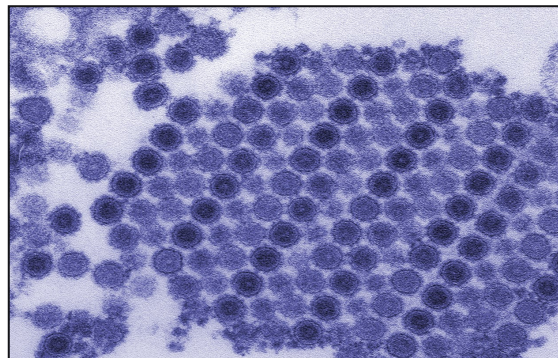
NOTE: Although District Net Income is running in the negative through 9/30/14, we anticipate an influx of property tax revenue beginning in December-2014 that will put us in a favorable condition.

Chikungunya

Chikungunya virus cases continue to increase in the Caribbean, and locally acquired cases have occurred in Florida since July 17, 2014. Chikungunya is a vector-borne disease that is transmitted by certain *Aedes* mosquitoes, including *Aedes aegypti* and *Aedes albopictus*. The presence of these *Aedes* mosquitoes near a person infected with Chikungunya virus could result in local transmission.

Chikungunya virus is expanding its range, and arrived in the Western Hemisphere in 2013. A recent article by Stephen Higgs discusses whether Chikungunya is likely to spread across the United States and become established in a similar manner to West Nile Virus (WNV) in the early 2000s¹. The author notes that Chikungunya is more quickly detected because the transmission cycle does not involve birds, which can circulate the virus in the area before there are human cases, and because Chikungunya cases are typically symptomatic, unlike WNV. However, regions of the U.S. that do not have adequate vector control programs might still respond too slowly to prevent establishment of the virus¹.

Symptoms of infection of Chikungunya virus are fever and joint pain, and sometimes include headache and rash. Those at greatest risk are infants, adults over 65 years of age, and people with other medical conditions.



TEM micrograph of Chikungunya virus particles. Image by CDC Public Health Image Library.

1. Higgs, S., 2014. Chikungunya virus: a major emerging threat., *Vector-Borne and Zoonotic Diseases*. Vol. 14, Number 8.

San Mateo County Mosquito and Vector Control District

Protecting public health since 1916.

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Burlingame, CA 94010
(650) 344—8592
info@smcmad.org



Visit us on the web at:
www.smcmad.org

A New District Logo

On Oct. 22nd, the Environmental and Public Outreach Committee of the Board of Trustees met to select a new logo for the District. The new logo will be available in full color, grayscale, and single-color (pictured right) versions, and will be accompanied by a guide detailing the visual aspects of San Mateo County Mosquito and Vector Control District's new image. This logo takes the place of several previous logo versions that are currently in use, and will help provide a fresh, consistent image to the District's public-facing materials and activities — including this report.

In addition to the rebranding initiative, work continues on the development of a new San Mateo County Mosquito and Vector Control District website. Stakeholder input was gathered during October, and will be used to tailor the new website's content organization, functionality, and layout to better fit the needs of its users. Features planned for the new website include an online service request form, interactive maps, and email notifications sign-up. The new website will also include features which help the District earn the Special District Leadership Foundation's District Transparency Certificate of Excellence. The new San Mateo County Mosquito and Vector Control District website is expected to launch in January 2015.



A sneak peek at the one-color version of the new District logo.