

July-August 2007

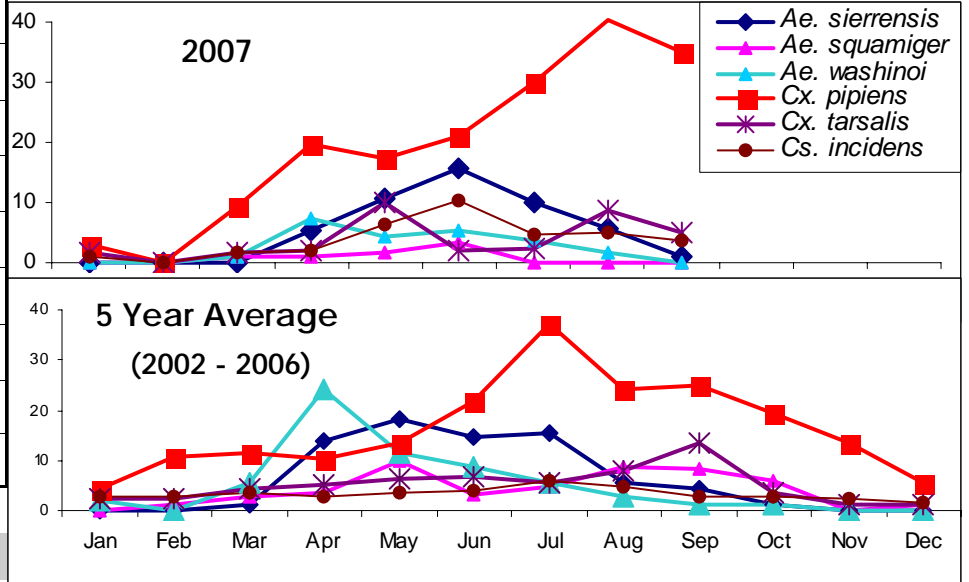


Entomology Report



Table of Contents	
Adult Mosquito Populations	1
Mosquito Control Operations	1,2
Sewer Plant Tour	2
WNV Update	2,3
Cordgrass Treatment	3
Cemetery Surveillance	3
Public Education	4
Upcoming events	4

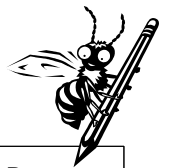
Adult Mosquito Populations in CO2 Traps



Mosquito Control Operations

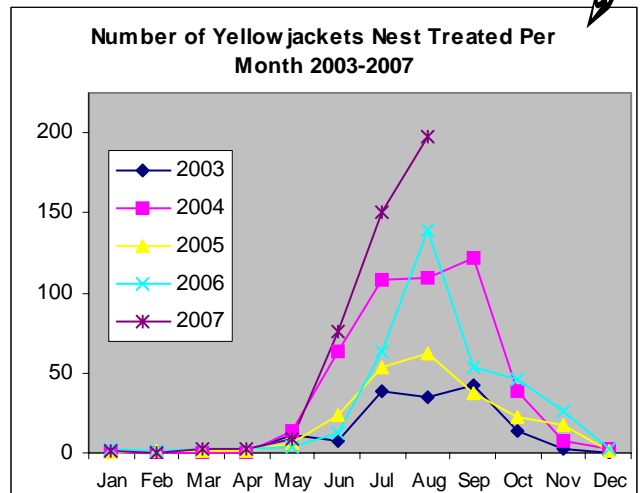
Mosquito control technicians treated:

- 1,148 (July) and 1,118 (August) backyard fishponds,
- 56 (July) and 64 (August) neglected swimming pools
- 51,040 (July) and 48,205 (August) catch basins
- Water under 17 (July) and 28 (August) buildings
- 148 (July) and (August) 193 ditches and drain lines.



Seasonal inspection and treatment continued throughout the summer. Regular inspections at Bair Island and Mussel Rock revealed low water levels. Very little treatment was required at these sites. Technicians continued inspecting and treating creeks in urbanized parts of the county. Helicopter treatment of cattail marshes in San Bruno, Portola Valley, and Pacifica began on July 3, 2007 and continued every 3 weeks throughout July and August. Sewage treatment plants in Half Moon Bay, South San Francisco, Millbrae, Burlingame, San Mateo and Redwood Shores were treated weekly.

Yellowjacket nests continued to be unusually abundant in July and August. 150 nests were treated in July and 198 nests in August.



(Continued on page 2)



Mosquito Control Operations (cont. from page 1)



Lauren Marcus "dusts" the entrance to a ground nest



Tina Sebay digs up a nest



Exposed portions of a dug-up ground nest



Dead yellowjackets and larvae

Sewer Plant Tour

In July, the South San Francisco Water Quality Plant provided an outstanding tour of their plant to District staff. Staff members learned about how wastewater is collected and processed. The District provides mosquito control services at this and 5 other sewage treatment plants throughout the county. Such locations can be significant sources of mosquito development.



Finished product! The beaker holds water treated at the plant

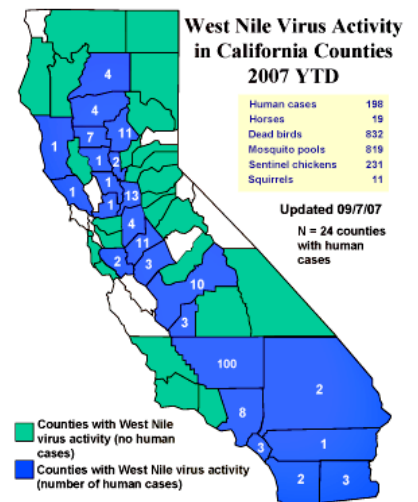


Plant operator, Brian, explains how wastewater is treated as Samantha Wallingford looks on

West Nile Virus Update

West Nile Virus (WNV) has been quite active throughout the summer of 2007. Notably, 100 human cases were reported in Kern County of which 4 have died. Following Kern, 13 human cases were detected from Sacramento County and 11 each from Butte and Stanislaus Counties. Although the number of human cases reported by the end of August is higher for 2007(198) than 2006(158), this number is substantially less than in 2004 (430) and 2005 (416).

Throughout the Bay Area, WNV activity has decreased. Human cases have been detected in Santa Clara (2), Sonoma (1), and Solano (1) counties. San Mateo, Contra Costa, Alameda, San Francisco, and Marin counties have had no human cases in 2007. A positive Eastern Gray Squirrel and a Sparrow were detected in the city of San Mateo in July and August respectively. This is a reduction from 5 WNV positive animals this time last year, and is consistent with lower levels of activity in the bay area.





West Nile Virus Update (Continued):

Dead Birds and Squirrels Reported, Tested, and Positive for WNV in San Mateo County

Year	Reported	Tested	Positive
2007	187	84	2
2006	170	109	5
2005	190	150	8
2004	79	32	11

* This table represents data from January through September 9 of each year.

2007 WNV Positive Dead Birds and Squirrels		
Species	Date	City
Eastern Grey Squirrel	7/9/2007	San Mateo
Sparrow	8/6/2007	San Mateo

Number of Mosquitoes Tested for WNV, 2007			
Month	# Mosquito Pools	# Mosquitoes	# Positive
August	54	2150	0
July	27	822	0
Total	81	2972	0

Cordgrass Treatment

Control of invasive cordgrass began in July. This work is done under contract with the California Coastal Conservancy and the US Dept of Fish and Wildlife. Invasive spartina threatens to change the ecology of San Francisco Bay by colonizing mudflats, sloughs, and pickleweed marshes throughout the bay. Control involves application of Imazapyr, an herbicide that affects a plant enzyme not found in animals. This material stops plant growth but does not affect animals. Patches of invasive cordgrass were treated by helicopter in salt marshes along the shore near East Palo Alto, Redwood City and South San Francisco.



Helicopter Treatment of Cordgrass

Cemetery Surveillance

In July, operations and laboratory staff conducted extensive surveillance for mosquito larvae in Colma City cemeteries. Larvae were found breeding in many of the decorative urns holding water and flowers on several of the graves. However, trapping in the surrounding residential communities demonstrated that few adult mosquitoes leave the area. District staff will continue to monitor the situation, but mosquito populations are currently having a limited impact on the surrounding homes.



Mosquito larvae found in flower container



Technician Stephanie Cavanaugh, checking plastic flower containers for mosquito larvae



"An Independent Special District
Working for You Since 1916"

SAN MATEO COUNTY
MOSQUITO ABATEMENT DISTRICT

1351 Rollins Road
Burlingame, CA 94010

Phone: 650-344-8592

Fax: 650-344-3843

www.smcmad.org

The San Mateo County Mosquito Abatement 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, Vector Ecologist	32
Angela M. Rory, Assistant Vector Ecologist	31
Angie Nakano, Assistant Vector Ecologist	44
Lauren Marcus, Assistant Vector Ecologist	38
James Counts, Supervisor	16
Karen Williams, Finance Administrator	11

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

Outreach Activities

The District has engaged in community outreach and education throughout the summer months. Educational presentations have been given to children of all grades from elementary to high school. Booths at city fairs have been staffed to provide residents with information about mosquito control, disease prevention, and to answer questions from the community. Below is a list of outreach activities performed during the summer:

- Baywood Summer School presentation on "Bugs that Suck" to first through fourth graders.
- Gregory High School lecture on "Vector-borne Diseases".
- A day in the life of a vector biologist tour for a student from Presentation High School.
- A week long informational station at the San Mateo County Fair.
- Presentation on mosquitoes and yellowjackets at the Sloat Garden Center in San Bruno.
- A Bay Area WNV task force meeting held at the District.

Upcoming Events:

- Pacifica Fog Fest (9/29-9/30)
- South San Francisco Day in the Park (9/15/07)
- Tire Amnesty (10/20/07) The District will be assisting the Department of Environmental Health in promoting proper disposal of used tires. Rainwater that collects in old tires is a potential source of mosquito development and can be extremely difficult to treat effectively. Proper tire disposal is encouraged.



Lab Intern: Margaret the Mosquito



Lauren Marcus educating children on "Bugs that suck".

