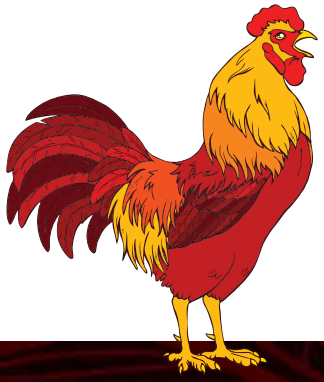
BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

2016 ANNUAL REPORT

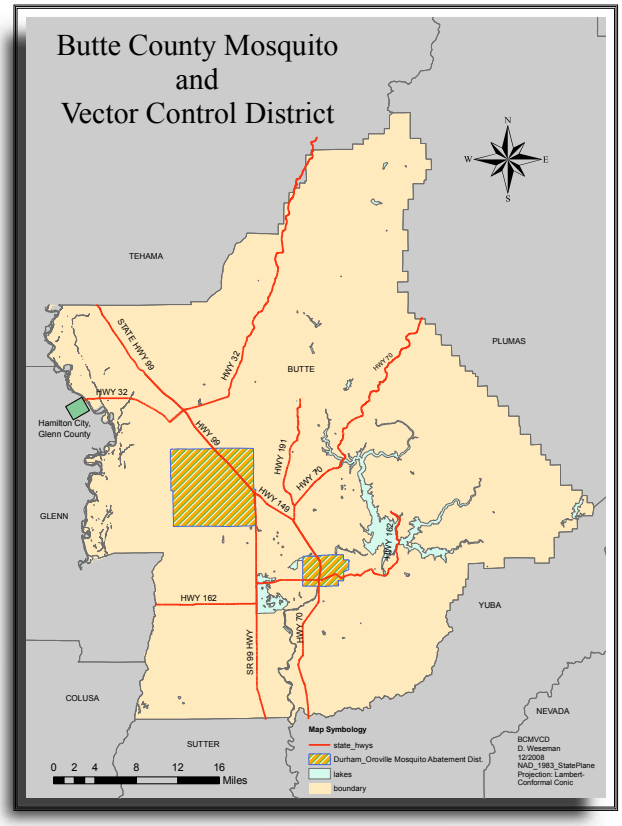
TABLE OF CONTENTS



CONTACT INFORMATION

Butte County Mosquito
and Vector Control District
5117 Larkin Road, Oroville, California 95965
(530) 533-6038 (530) 342-7350
Fax (530) 534-9916
Visit us on the web at www.BCMVCD.com

BCMVCD JURISDICTION

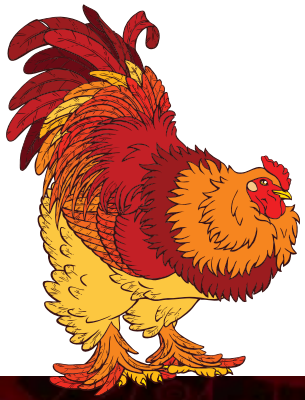


HISTORY

The Butte County Mosquito Abatement District was formed in June of 1948. The District covers 1600 square miles, and includes all of Butte County, except the small areas served by the Durham and Oroville Mosquito Abatement Districts, which were formed earlier. The District also includes the Hamilton City area of Glenn County. In April of 1994, “Vector Control” was added to the District name to reflect the additional disease surveillance and information now provided.

MISSION

The mission of BCMVCD is to primarily suppress mosquito-transmitted disease and to also reduce the annoyance levels of mosquitoes and diseases associated with ticks, fleas and other vectors through environmentally compatible control practices and public education.



MAIN OFFICE LOCATION

5117 Larkin Road
Oroville, CA. 95965

FOREWORD

Looking forward to 2017, the year of the rooster, presents an opportunity to reflect the past year. It is with great pleasure that I submit the 2016 Annual Report for the Butte County Mosquito and Vector Control District (District). The District had a very successful year serving the residents of Butte County and Hamilton City by utilizing an integrated vector management (IVM) approach that included public education and outreach, vector surveillance, reduction of breeding grounds by physical and cultural control by altering the environment and/or management practices, and by using sound biological and chemical control methods. This report outlines the work conducted by the District to accomplish its primary goal of protecting public health.

The prevention of vector-borne disease outbreaks remains the District's primary goal and it's most important responsibility to the public. West Nile virus (WNV) is now considered to be endemic in the state of California and remains the District's largest public health concern. As of December 14, 2016, the state has reported 407 WNV human infections in 2016. Butte County's human infections for 2016 is currently at 21. Butte County has had confirmation of 229 WNV human infections with 8 fatalities since the virus arrived in 2004. Since 2003 when WNV first appeared in California, 5999 human infections with 247 fatalities have been confirmed.

The extraordinary efforts to combat WNV epidemic in California should be credited to the combined efforts of more than 60 mosquito and vector control districts and local health departments, working in close cooperation with the California Department of Public Health and numerous other agencies indirectly related to mosquito and vector control.

"The Mission of the Butte County Mosquito and Vector Control District is primarily to suppress mosquito-transmitted disease and to also reduce the annoyance levels of mosquitoes and diseases associated with ticks, fleas, and other vectors through environmentally compatible control practices and public education." To achieve this goal the District provides continual surveillance of mosquitoes and other vectors to ascertain the threat of disease transmission and annoyance levels and then uses integrated vector management methods to keep mosquitoes and other vectors below those levels. The District continues to work in cooperation with property owners, residents, social groups, and other governmental agencies to minimize mosquito breeding and to reduce the threat of mosquito-transmitted diseases.

In a Rooster Year, all of the Chinese animals can reap great rewards by tapping into Rooster traits. Loyalty, commitment, hard work, family values, and top-notch appearances are just some of the characteristics that will be rewarded this year. The District will strive to continue and enhance such characteristics in hopes of lowering mosquito populations and vector-borne disease.

The Board of Trustees and employees continue to plan for the future and search for better ways to improve our programs to be prepared for future disease outbreaks that would be a threat to the health of Butte County and Hamilton City residents. We look forward to providing our services to you in the future and if you have any questions or need more information please visit our website at www.BCMVCD.com or call us at 530-533-6038 or 530-342-7350.

Respectfully,

Matthew C. Ball
District Manager

BOARD OF TRUSTEES

Standing, left to right: Carl Starkey, Bruce Johnson, Jack Bequette, Terry Mallan, Assistant Secretary Bo Sheppard, Gordon Andoe, Secretary Tom Anderson.
Seated, left to right: President Dr. Albert Beck, Dr. Suzanne Hanson, Dr. Thomas Vickery. Not pictured: Vice President Dr. Larry Kirk.

STAFF

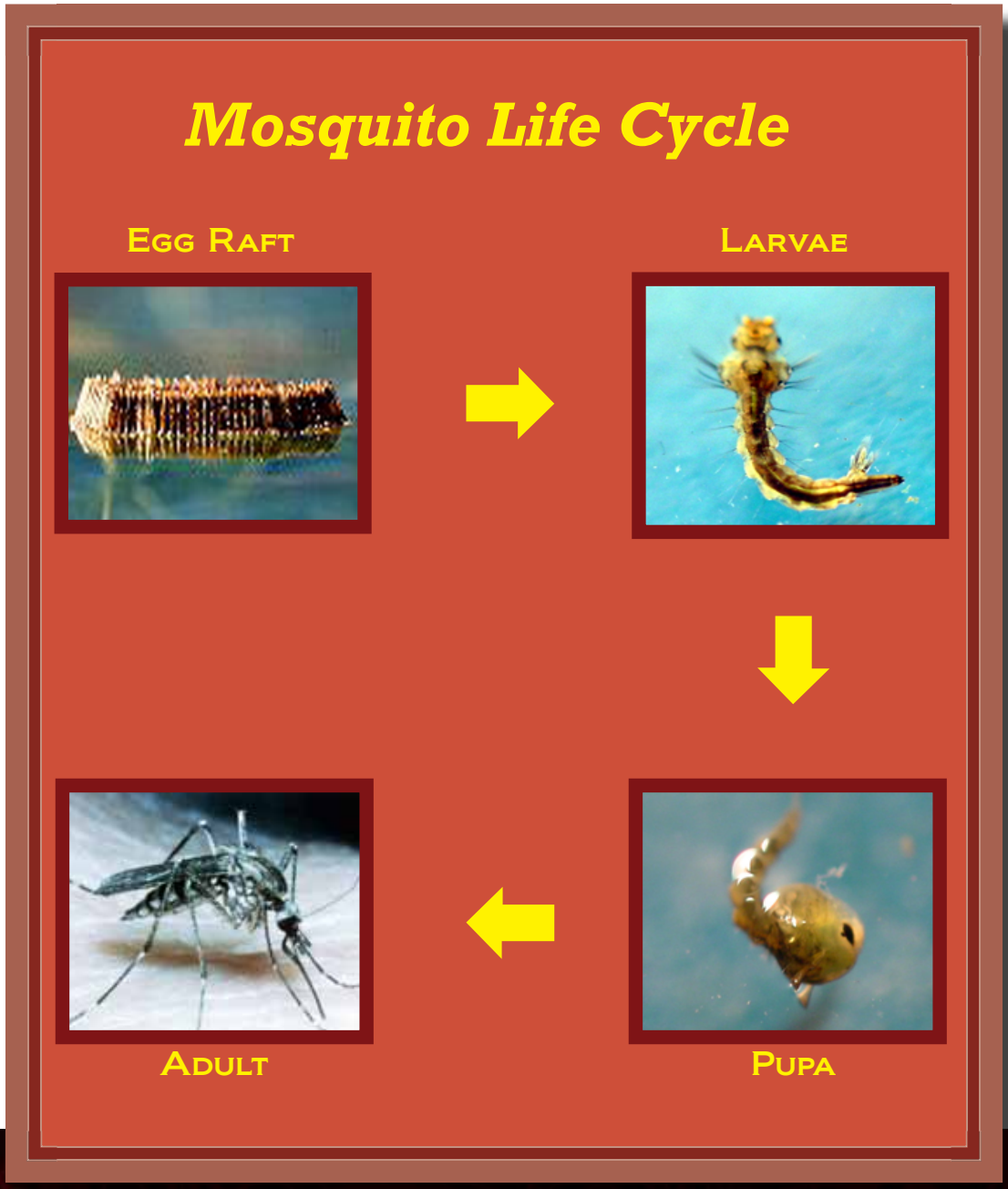
Left to right: Glen Williams, MVCS; AAron Lumsden, MVCS; Eric Dillard, MVCS; Aaron Goff, MVCS; Shane Robertson, MVCS; Phillip Henry, MVCS; Jim Richards, Regional Supervisor; Beth Vice, MVCS; Del Boyd, Pilot 2; Don Lasik, MVCS; Bill Kunde, Regional Supervisor; (MVCS: Mosquito and Vector Control Specialist, licensed by the California Department of Public Health).

ADMINISTRATIVE STAFF

Left to right: Matt Ball, District Manager; Chris Ocegueda, Fish Biologist/ Vector Ecologist; Darlene Starkey, Office Manager; Doug Weseman, Assistant Manager; Eric Gohre, Entomologist.

MOSQUITO BIOLOGY

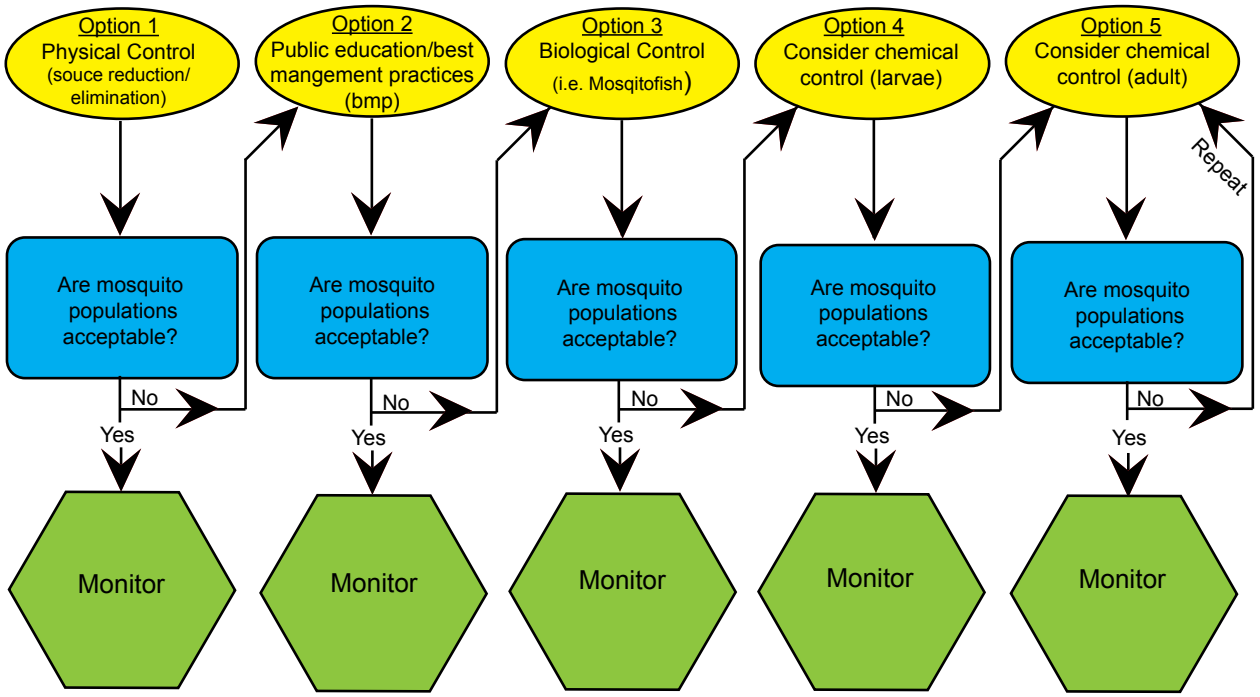
There are approximately 3,500 species of mosquitoes distributed worldwide. In California there are 53 species of mosquitoes and 25 of these are commonly found in Butte County. Mosquitoes, like other animals, must have water, food and some protection from the elements to survive. Mosquitoes undergo complete metamorphosis with four different life stages, egg, larva, pupa, and adult. Mosquito eggs and pupa are unable to feed. Larvae and adults however must feed to survive. Adult female mosquitoes need a blood meal to produce eggs, while adult male mosquitoes feed on plant nectar and juices. The time it takes for a mosquito to develop from an egg to an adult varies with different species and environments. Generally, it takes 3-5 days under optimal conditions for a mosquito to complete it's life cycle. The adult then lives between three weeks and one year. Some egg species have been known to survive for over fifty years. Female mosquitoes can have up to three or four broods of eggs in their lifetime.



INTEGRATED VECTOR MANAGEMENT (IVM) PROGRAM

Integrated Vector Management (IVM) is an effective and environmentally sensitive approach to vector management that relies on a combination of common sense practices. The District's IVM program uses current, comprehensive information on the life cycles of vectors and their interaction with the environment. This information, in combination with available vector control methods, is used to manage vector nuisance and public health threats by the most economical means and with the least possible hazard to people, property, and the environment. The District's IVM program includes public education/best management practices, physical control (source reduction and/or elimination), biological control, chemical control, and monitoring.

Each time one of the District's state certified Mosquito and Vector Control Specialists locates a mosquito breeding source the site is accessed and the flow chart below is followed. If the mosquito breeding source can be eliminated then the flow chart stops and the source is monitored.



Identifying and Sorting Mosquitoes

Co2 Trap

PHYSICAL CONTROL / SOURCE REDUCTION AND/OR ELIMINATION

The best method of mosquito control is source elimination (the complete removal of standing water). All mosquitoes need water to breed, unfortunately water is vital to keep lawns green, to grow crops, to sustain life, and to provide habitat for other aquatic insects and animals. District Mosquito and Vector Control Specialists actively work with property owners, land managers, and municipalities to reduce the amount of water needed for irrigation, to observe or consider best management practices, to actively participate in the design of new developments, and the overall reduction of standing water on a property.

Using Agrosoke to fill a tree hole

PUBLIC EDUCATION / OUTREACH AND BEST MANAGEMENT PRACTICES

The District's mission is to protect residents from mosquitoes and other vectors that transmit disease. Public education and information is an important part in the success of combating diseases such as West Nile virus and Lyme disease. The District's education program consists of public appearances at local city and county fairs, participation in the state Mosquito and Vector Awareness week, and presentations at schools and local civic groups. In addition to the above, the public education and outreach strives to find new and more effective ways of better educating the public by arming residents with knowledge to prevent mosquito bites and reduce or eliminate mosquito-breeding through informational pamphlets, website information, best management practice manuals, repellent suggestions, one on one interaction, and homeowner safeguards.

In 2010, the District and the Board of Trustees adopted a final version of a Best Management Practices (BMP) to Reduce Mosquitoes manual. The manual provides property owners with tools and techniques to minimize mosquito populations through the proper use of land management practices while reducing the use of pesticides. The BMP's contained in the manual are assembled from a number of sources including scientific literature, state and inter-agency documents, and from experienced vector control professionals. The BMP manual includes general guidance to all properties that can, have, and will breed mosquitoes. A copy of the BMP manual can be viewed on the District's website at www.BCMVCD.com. The manual has sucessfully been used to reduce mosquito populations/public health threats without the need of additional pesticides.

2016 PUBLIC EDUCATION

2016 was another successful year for the Butte County Mosquito and Vector Control District's (District) Public Education Department.

The District partnered with Stott Advertising for the eighth year in a row on a county-wide mosquito prevention billboard advertising campaign. This year's slogan for the billboards was "Mosquitoes are a Dish for Mosquitofish". The six billboards ran from May to September and rotated throughout the county on a monthly basis.

In 2016 the District was represented at several fairs and special days. These included the Spring Home and Garden Show in Chico, Gold Nugget Days in Paradise, Feather Fiesta Days in Oroville, Red Suspenders Day in Gridley, Biggs National Night Out, Berry Creek Berry Festival, Butte County Fair in Gridley, and the Salmon Festival in Oroville. All of the events that the District attends have an excellent insect display put together by District Entomologist Eric Gohre, as well as a mosquitofish and mosquito larvae display. At these events the District also hands out, free of charge, fly/mosquito swatters, tick identification cards, recyclable shopping bags, and mosquito repellent.

The PR Department has done several TV, radio, and newspaper interviews, has issued several press releases, and published public notices. The television interviews were granted to KHSL 12 News, KNVN 24 News, and KRCR News Channel 7. Radio interviews were granted to KPAY radio in Chico. Newspaper/internet interviews were granted to the Chico Enterprise Record, the Chico News and Review, the Oroville Mercury News, and the Paradise Post. A group presentation was also given to/at the California Conservation Corps. in Chico, the Fellows Club in Oroville, and the Kelly Ridge Homeowner's Association.

The District, in partnership with the Butte County Public Health Department, ran advertisements in the Chico ER and the Chico News and Review. The District is also advertised with Deer Creek Broadcasting on 103.5 FM, 97.7 FM, 95.1 FM, and KPAY 1290. This program started on June 1 and ran through the end of October. The District also advertised with Radio Chico on stations 93.9, 92.7, 96.7, 107.5, and 107.9, and did mobile Device Advertising with CBS Broadcasting.

The District gave several School presentations on Mosquitoes and Ticks throughout the District.

With this year's high number of West Nile virus cases, the District believes that it is imperative to get the mosquito bite prevention message out to the public. That message states that if a person can avoid getting bitten by a mosquito, they can avoid getting any mosquito-borne illness, including West Nile virus. Some of the ways the District suggests that residents prevent mosquito bites are staying inside at dusk and dawn when mosquitoes are most active, wearing repellent and/or long sleeves and pants when outside during peak mosquito activity, and making sure their door and window screens are in good working condition. Residents are also asked to check their property for possible mosquito breeding sources, and draining any unnecessary standing water.

2016 PUBLIC EDUCATION HIGHLIGHTS

- **Billboard Advertising (Throughout the County)**
- **Butte County Fair, Gridley (Booth)**
- **Gold Nugget Days, Paradise (Booth)**
- **Feather Fiesta Days, Oroville (Booth)**
- **Berry Creek Berry Festival (Booth)**
- **Salmon Festival, Oroville (Booth)**
- **Red Suspenders Day, Gridley (Booth)**
- **K-6 Classroom Presentations on Ticks and Mosquitoes (Throughout the County)**
- **Chico News and Review, and Chico Enterprise Record Print Advertising**
- **Chico Home and Garden Show (Booth)**
- **Fellows Club (Presentation)**
- **Kelly Ridge Homeowner's Association, Oroville (Presentation)**
- **MVCAC Mosquito and Vector Control Awareness Week (Open House at District Office)**
- **California Conservation Corps, Chico (Presentation)**
- **Several Print, Radio, and Televison Interviews**
- **Biggs National Night Out, Biggs (Booth)**
- **Radio Advertising with Deer Creek Broadcasting and Radio Chico**
- **Mobile Device Advertising with CBS Broadcasting**

PUBLIC EDUCATION PICTURES

Feather Fiesta Days

School Presentation

The District providing the Jesus Center in Chico with free mosquito wipes for the homeless.

Salmon Festival

District Tour

GIS/GPS SYSTEM

Over the past seven years the District has formed a close partnership with the CSUC Geographic Information Center (GIC) in Chico, CA. to create a new geographic information system (GIS) for the District. GIS is a system that captures, stores, analyzes, manages, and presents data that is linked to a location (spatial data). In 2010 the District went “live” with the new sytem. This system took the place of the old system which utilized map books, handwritten reports, and outdated handheld electronic devices called “Timewands”. The new system consists of a laptop computer for each Mosquito and Vector Control Specialist, including seasonal workers, that runs ESRI Corporations ArcMobile software and a GPS unit that connects to the laptop computer. The new GIS system also includes a data management server that is housed at the GIC in Chico and a new in-house computer that runs ESRI’s ArcGis version 10.1. This computer is used to manage source data collected from the laptops in the field and is also used as a link to the District’s Office Managers computer and the Microsoft Access database that it controls. The new system increases accuracy, facilitates user friendly reporting, minimizes data manipulation and corruption, and maximizes time efficiency.

WWW.BCMVCD.COM

The District’s website continues to be an important tool in educating the public about mosquitoes and other vectors and the practices of the District. On the website the user can make a service request, sign up for email notification of upcoming fogging operations, and view maps of where the District will be fogging and where the District has fogged in the past. The user can also view Board of Trustee agendas and minutes, read the latest news that affects the District and their constituents, and view information on viruses and other diseases that are transmitted by mosquitoes and other vectors such as ticks. Visitors to the website may also be interested in the mosquitofish page, as well as, the services page which lists the locations in Butte County and Hamilton City where residents can pick up free mosquitofish. The services page also includes yellowjacket and wasp nest removal, tick and insect identification, and a public education section where interested parties can find out how to request the District come to their school or service group for a presentation. The website also has links to the pesticide labels and MSDS sheets for the public health pesticides that it uses, as well as, a frequently asked questions page and a “contact us” page.

Laptop mounted inside vehicle

District website home page

EMAIL NOTIFICATION SYSTEM

In 2011 the District continued to improve the mosquito fogging notification system. The email notification system was created to meet public concerns and expectations, to enhance media coverage, and to help inform other agencies that need to know when and where the District is mosquito fogging. The Chico Enterprise Record uses these fogging notifications in their newspaper to inform their readers of the planned fogging operations. To meet these needs the District used Constant Contact software, modeled after the award winning Contra Costa Mosquito and Vector Control District's email notification system, to compose and send out the fogging notifications via email. These email notifications are sent out, in most cases, 30 plus hours before a fogging operation takes place. The notifications include maps of the areas to be fogged, links to the labels and material safety data sheets of the public health pesticides used, the dates and times of the fogging operations, and a link to the District website. The public can sign up for email notifications on the District website, www.BCMVCD.com. The District website also has the fogging notifications, as well as links to the public health pesticides. The District also makes phone calls to notify residents and agencies that do not use email or have access to a computer.

MOSQUITO FOGGING NOTIFICATION

Mosquito Fogging will take place on 08/11/2016 in the Nelson, Richvale and Thermalito areas. Please see the attached map(s) for detailed information. If you are unable to open or view the map(s) because of browser, memory space, or software problems please see the same map(s) at our website at www.BCMVCD.com. The fogging will take place from approximately 8:00 PM to 11:00 PM. Fogging operations may be cancelled due to unfavorable weather conditions.

Product(s) used in these areas will be Duet.

Links To Duet:

Label

SDS

Additional information can be obtained by viewing the manufacturers website at:

Clarke Mosquito Control

For more information please call the Butte County Mosquito and Vector Control District at (530) 533-6038 (from Oroville, Richvale, Biggs, Gridley, Berry Creek) or (530) 342-7350 (from Chico, Paradise, Cohasset, Forest Ranch) or visit www.BCMVCD.com

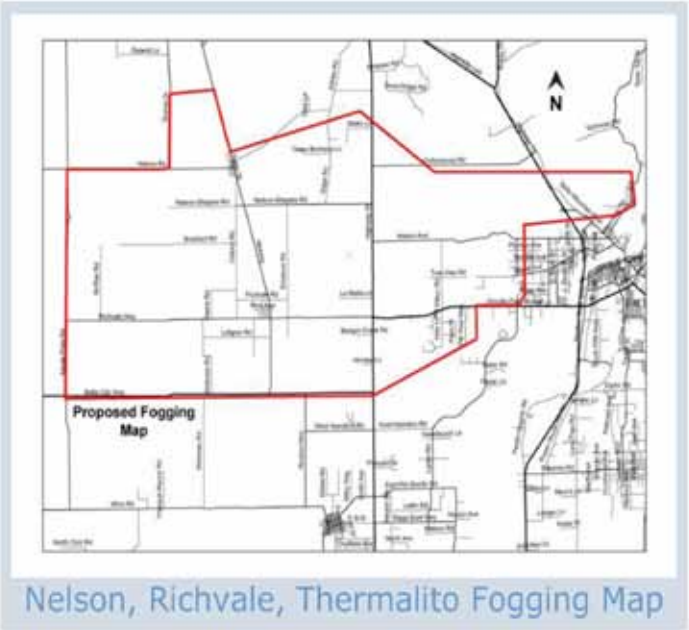
Free Mosquitofish

As a reminder, the District has a FREE Mosquitofish program. FREE Mosquitofish are available for pick up in the following communities; (1) Concow, (3) Paradise, (1) Magalia, (1) Hamilton City, (1) Gridley, (3) Chico. Additionally FREE Mosquitofish can be picked up by appointment at the District's Chico substation at 444 Otterson Drive or any time during business hours at the District's main office located at 5117 Larkin Road in Oroville. Also, Mosquitofish can be delivered to you just by visiting the District's website or by calling the District office. For more information, locations of the FREE mosquitofish pickup locations, and/or delivery of FREE Mosquitofish, please contact us at 530-533-6038 or 530-342-7350 visit the District website at www.BCMVCD.com

MOSQUITOFISH ARE ONLY TO BE USED ON PRIVATE PROPERTY and ARE NOT TO BE PLANTED IN CREEKS, STREAMS, RIVERS, and LAKES.

SUSPECTED MOQUITO-BREEDING
Should you observe and/or see a water source that you believe or could produce mosquitoes, please call us at 530-533-6038 or 530-342-7350 or visit www.BCMVCD.com. Reporters of suspected mosquito-breeding sources have the option to remain anonymous.

Butte County Mosquito and Vector Control District
| (530) 533-6038, (530) 342-7350 | www.BCMVCD.com



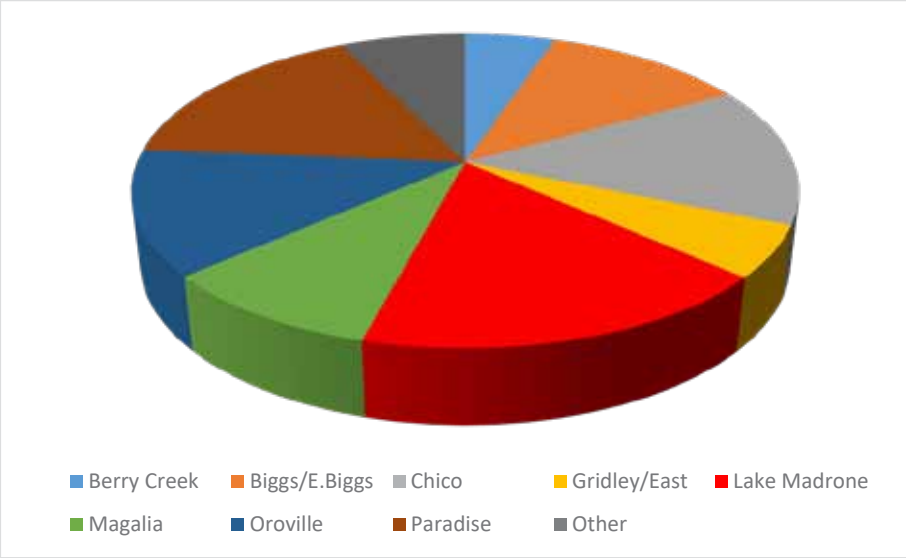
For a more detailed fogging map, please visit our website at
www.bcmvcd.com
website

Thank you,

Butte County Mosquito and Vector Control District

Example of Constant Contact email notification

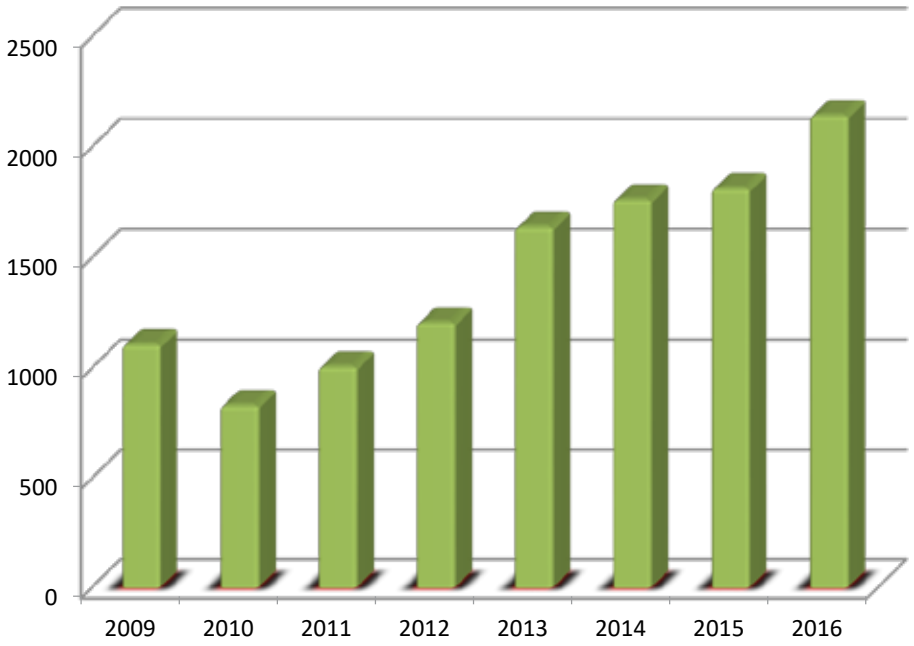
2016 SERVICE REQUEST PERCENTAGES



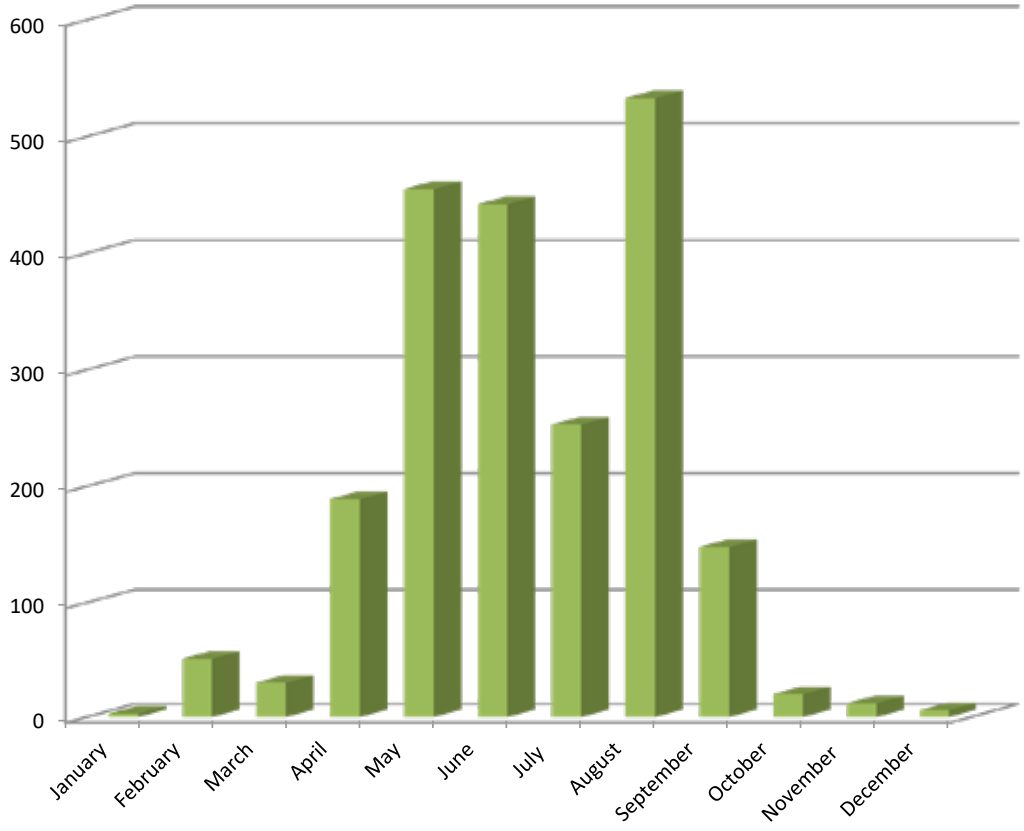
2016 SERVICE REQUESTS

Area	*Number of Service Requests*	*Percentages*
Bangor	7	0.3%
Berry Creek	112	5.2%
Biggs/E.Biggs	251	11.7%
Brush Creek	6	0.3%
Chico	308	14.4%
Clipper Mills	4	0.2%
Cohasset	13	0.6%
Dayton	10	0.5%
Durham	1	0.0%
Forbestown	7	0.3%
Forrest Ranch	17	0.8%
Gridley/East	113	5.3%
Hamilton City	4	0.2%
Honcut	2	0.1%
Lake Madrone	376	17.6%
Magalia	200	9.3%
Nelson	3	0.1%
Oroville	275	12.8%
Palermo	17	0.8%
Paradise	351	16.4%
Richvale	35	1.6%
Stirling City	27	1.3%
Yankee Hill	3	0.1%
Totals	**2142**	**100%**

2016 ANNUAL SERVICE REQUESTS



2016 SERVICE REQUESTS BY MONTH



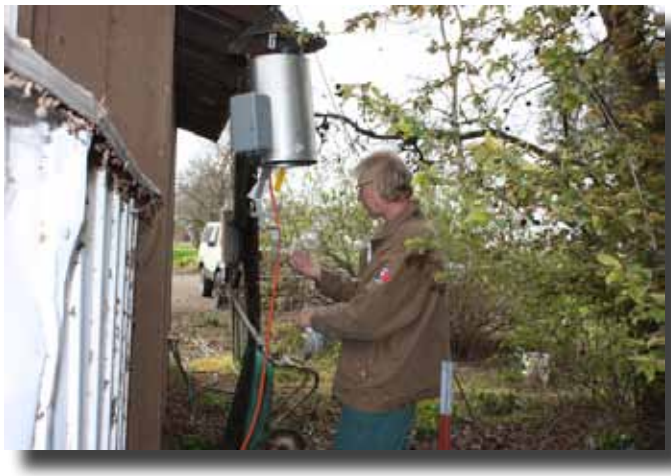
VECTOR AND VECTOR-BORNE DISEASE SURVEILLANCE

The definition of a vector is any animal capable of producing discomfort or injury, including, but not limited to, mosquitoes, flies, other insects, ticks, mites, and rats but not including domestic animals according to the California State Health and Safety Code, Section 2002(K). Surveillance of vectors is a vital component of the District's Integrated Vector Management (IVM) Program and a considerable amount of time and effort is devoted to conducting vector surveillance. The District's surveillance program consists of a scientific approach for locating vector populations usually focusing on mosquito-breeding sources, monitoring mosquito populations, and mosquito-borne disease. Data collected from the surveillance program is analyzed to determine maximum and minimum risk periods of public exposure to mosquito-borne disease, evaluates control efforts, and seasonal changes in relative abundance of mosquito species. Surveillance data is collaborated in the District's database which provides historical information on mosquito dynamics and mosquito-borne disease within the District.

The District utilizes an extensive surveillance program for both adult and immature (larval) mosquitoes. Throughout Butte County and the Hamilton City area of Glenn County, the District uses 26 New Jersey light traps, 21 gravid traps, over 40 CO2 traps, and 7 sentinel chicken flocks to monitor adult mosquito populations and virus activity. District Mosquito and Vector Control Specialists monitor larval mosquito populations throughout the entire District on a daily basis utilizing a standard one-pint dipper. District Mosquito and Vector Control Specialists spend the majority of their day inspecting standing water such as rice, wetlands, storm drains, ponds, ditches, swimming pools, bird baths, fountains, seasonal and/or other man made containers for larvae.

The District utilizes an entomology department (Lab) that is staffed with an Entomologist and a Lab Assistant. The District's entomology department is responsible for the identification of the trapped mosquito collections and reporting the population numbers to the California Department of Public Health. The Lab conducts virus testing on live mosquitoes, dead wild birds, and sentinel chicken flocks. These tests are the District's eyes to monitor and detect mosquito-borne viruses in and around the county. The Lab also conducts scientific pesticide trials to monitor the chemicals effectiveness on targeted mosquitoes and to assess the possible effects on non-targets and trials on new chemical methodology and/or new chemicals. The Lab is also at your service to identify ticks, arachnids, and other insects/arthropods of public health significance.

Entomologist Eric Gohre checking a CO2 trap



Checking a light trap

VIRUS SURVEILLANCE

2016 VIRUS SURVEILLANCE REPORT

The District monitors for Western equine encephalitis (WEE), St. Louis encephalitis (SLE), California encephalitis (CE), and West Nile virus (WNV) activity by collecting blood samples from sentinel chicken flocks strategically placed throughout the District, collecting live mosquitoes trapped throughout the District, and collecting dead wild birds District wide.

New Chicken Coop

SENTINEL CHICKEN FLOCKS

Annually the District maintains seven sentinel chicken flocks of six birds each. The flocks are located in Palermo, Honcut, Gridley, Biggs, South Chico, West Chico, and Hamilton City. Bi-weekly blood samples are taken from the sentinel chickens by the entomology staff and sent to U.C. Davis for testing. The blood sample is tested for SLE, WEE, CE and WNV. In 2016, 38 of the 43 sentinel chickens from all 7 District flocks tested positive for WNV.

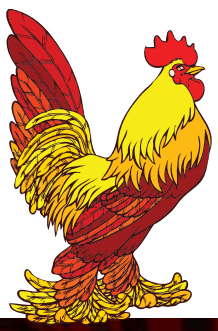
Sentinel Chicken

MOSQUITO POOLS

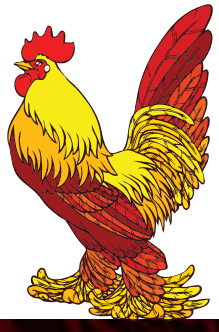
Each week the District's entomology staff strategically places traps known as encephalitis virus surveillance (EVS) or carbon dioxide traps (CO_2) around the District. Traps are posted overnight and retrieved the next morning and the collections are returned to the Lab for identification. The entomology staff will identify and sort the trapped mosquitoes and pool the collections for virus testing. A pool consists of 1 to 50 adult female mosquitoes of the same specie. Pooled mosquitoes are transferred to numbered vials and sent to the Center for Vector-Borne Disease Research (CVBDR) at the University of California, Davis. At the CVBDR lab the pools are tested for WEE, SLE, CE, and WNV. In 2016 the District sent 407 mosquito pool samples with 48 returning positive for WNV. This is the highest number of WNV positive mosquito pools ever recorded in the District service area.

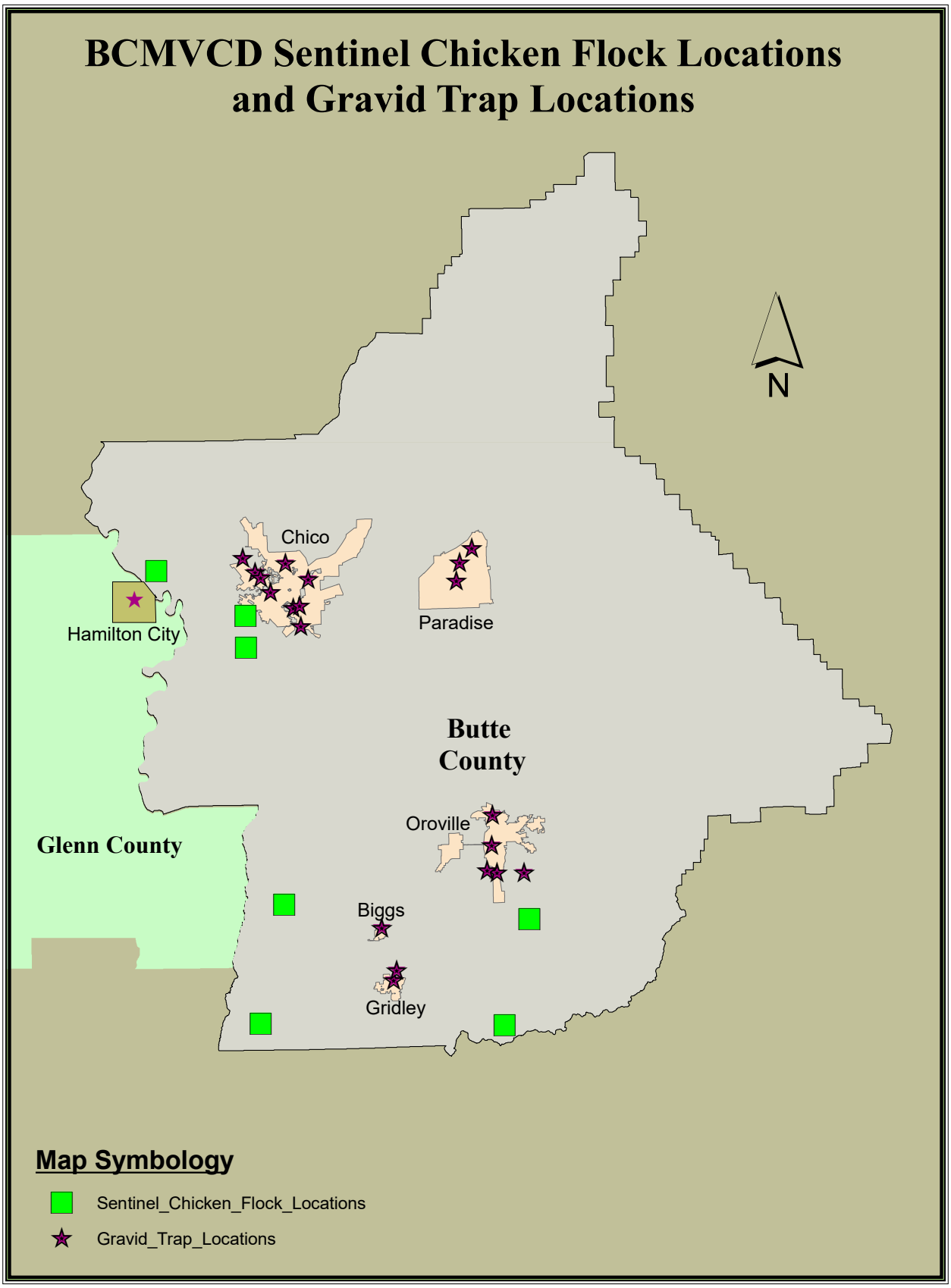
DEAD BIRD SURVEILLANCE AND TESTING

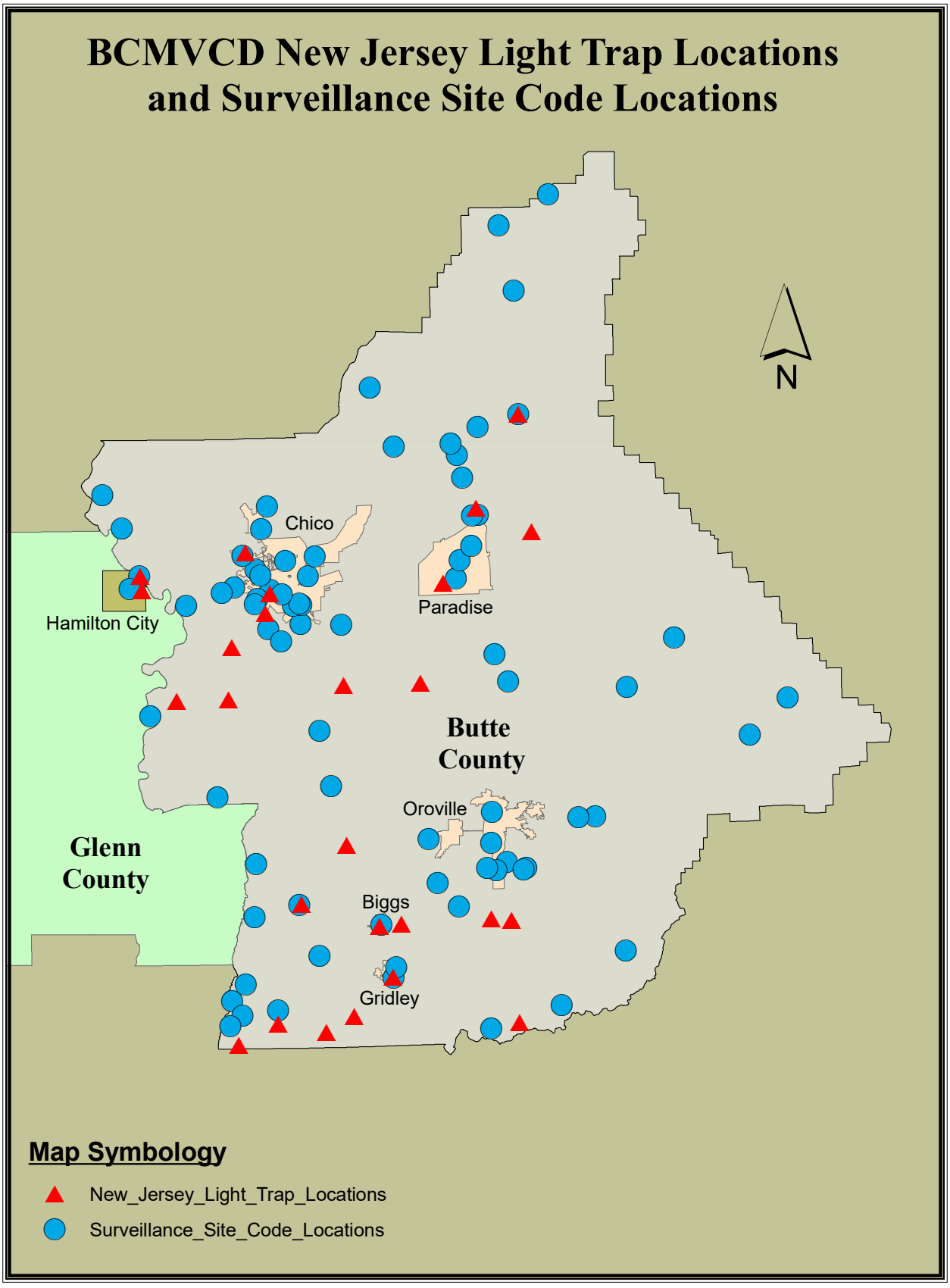
For more than ten years the District has participated in the California Department of Public Health's (CDPH) WNV dead bird testing program. County residents participate in the program by calling CDPH's dead bird hotline (1-877-WNV-BIRD) each time they find a dead bird in the District or by submitting an online form at one of these two websites, (***www.westnile.ca.gov***) or (***www.BCMVCD.com***). After a dead bird has been reported, CDPH notifies the District and District staff retrieves the bird and submits it for WNV testing.



	Humans	Horses	Dead Birds	Dead Squirrels	Mosquito Pools	Sentinel Chickens
2004	7	18	118	0	1	50
2005	25	7	79	0	4	15
2006	34	0	40	1	1	49
2007	16	0	27	0	5	32
2008	6	0	38	0	5	31
2009	2	0	13	0	5	36
2010	1	1	6	1	7	7
2011	3	0	0	0	1	20
2012	10	2	53	2	27	43
2013	24	0	42	1	38	57
2014	25	0	22	0	43	37
2015	55	0	38	0	101	37
2016	21	0	22	0	48	38
Totals	**229**	**28**	**498**	**5**	**286**	**452**

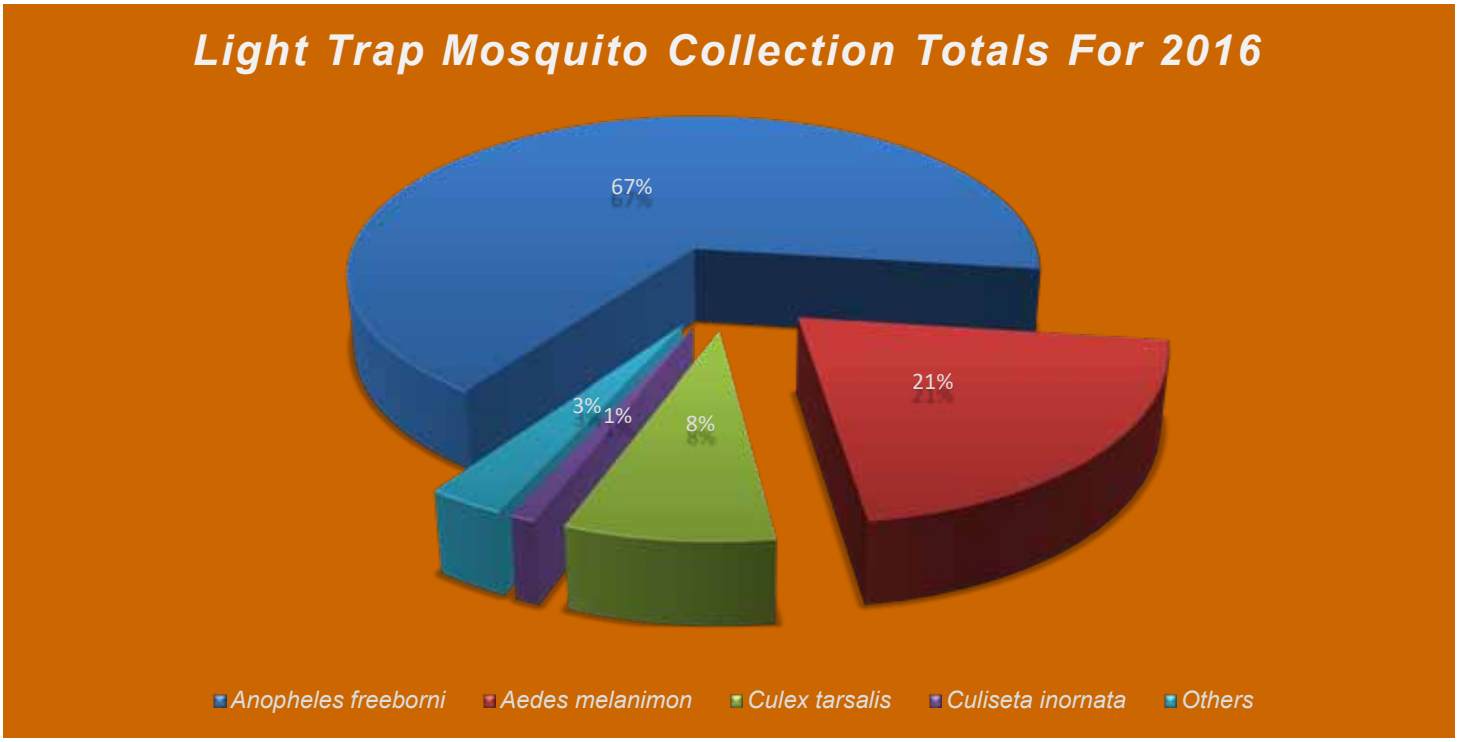



BCMVCD Sentinel Chicken Flock Locations
and Gravid Trap Locations
N
Chico
Paradise
Hamilton City
Butte
County
Oroville
Glenn County
Biggs
Gridley
Map Symbology
Sentinel_Chicken_Flock_Locations
Gravid_Trap_Locations


BCMVCD New Jersey Light Trap Locations
and Surveillance Site Code Locations
N
Chico
Paradise
Hamilton City
Butte
County
Oroville
Glenn
County
Biggs
Gridley
Map Symbology
New_Jersey_Light_Trap_Locations
Surveillance_Site_Code_Locations

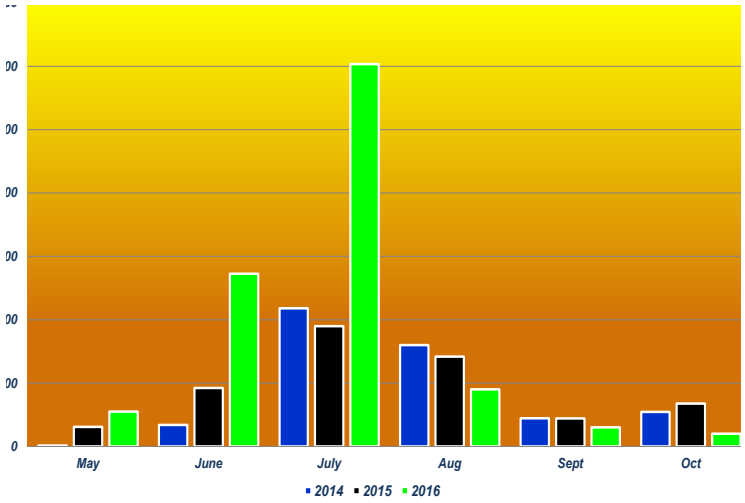
2016 NEW JERSEY LIGHT TRAP COLLECTIONS (FEMALES ONLY) MARCH 2016 - NOVEMBER 2016

Ranking	Mosquito Species	Number Collected	% (Rounded)
1	*Anopheles freeborni*	168099	68%
2	*Aedes melanimon*	52349	21%
3	*Culex tarsalis*	21900	8%
4	*Culiseta inornata*	2435	1%
5	*Culex pipiens*	591	<1%
6	*Culiseta incidens*	406	<1%
7	*Culex Erythrothorax*	58	<1%
8	*Aedes sierrensis*	50	<1%
9	*Aedes Vexans*	48	<1%
10	*Anopheles punctipennis*	34	<1%
11	*Culex stigmatosoma*	23	<1%
12	*Aedes washinoi*	2	<1%
13	*Aedes nigromaculis*	2	<1%
14	*Anopheles franciscanus*	0	0%
	Total Identified =	***245997***	***100.00%***

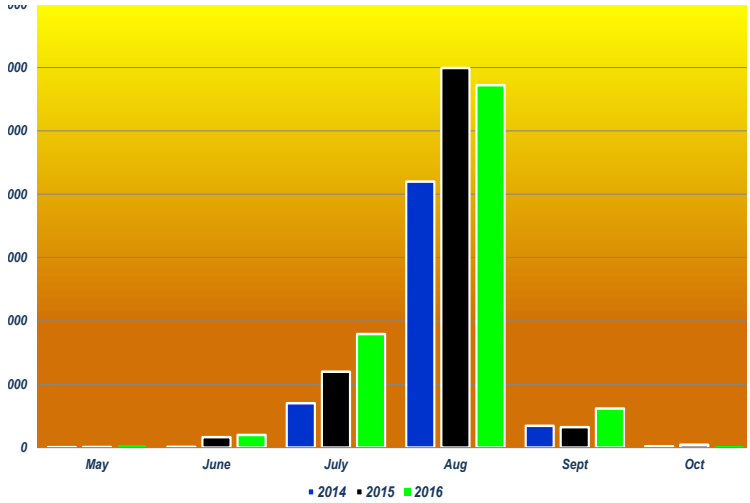


NEW JERSEY LIGHT TRAP SEASONAL FLUCTUATION OF VECTOR-BORNE DISEASE VECTORS

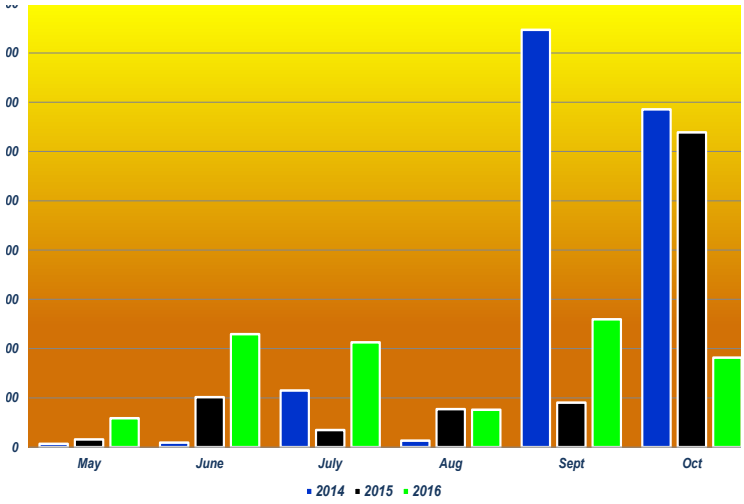
CULEX TARSALIS



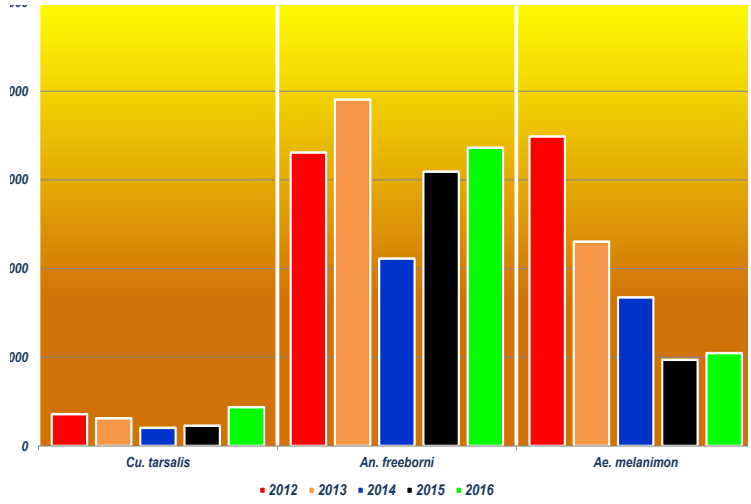
ANOPHELES FREEBORNI



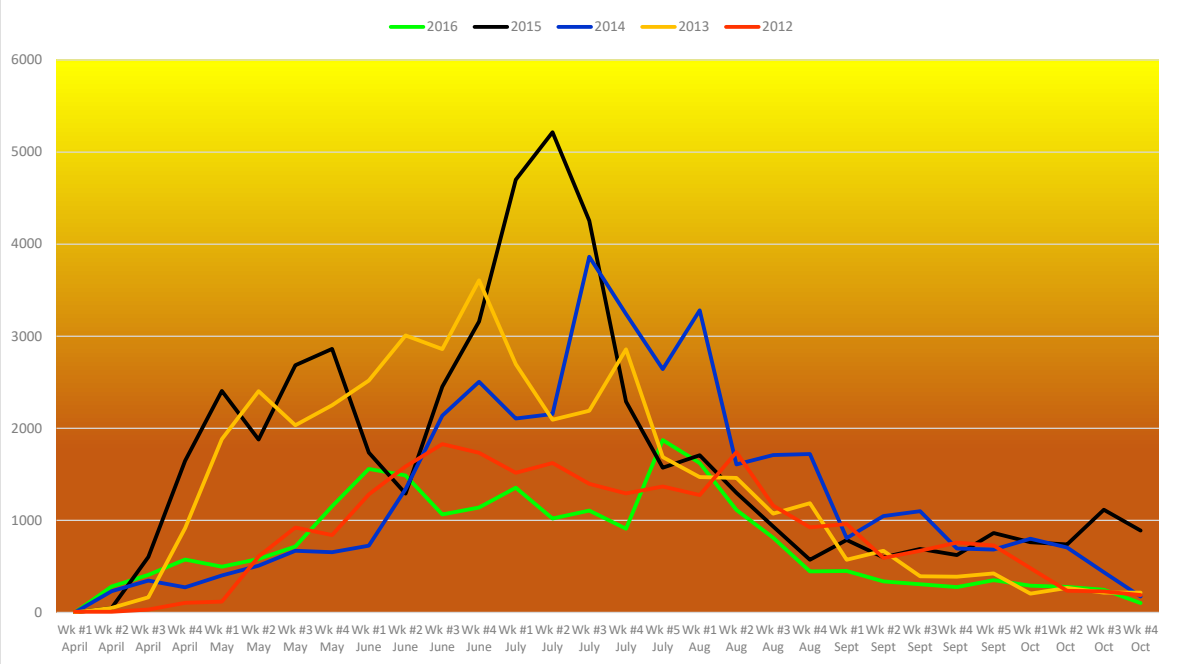
AEDES MELANIMON



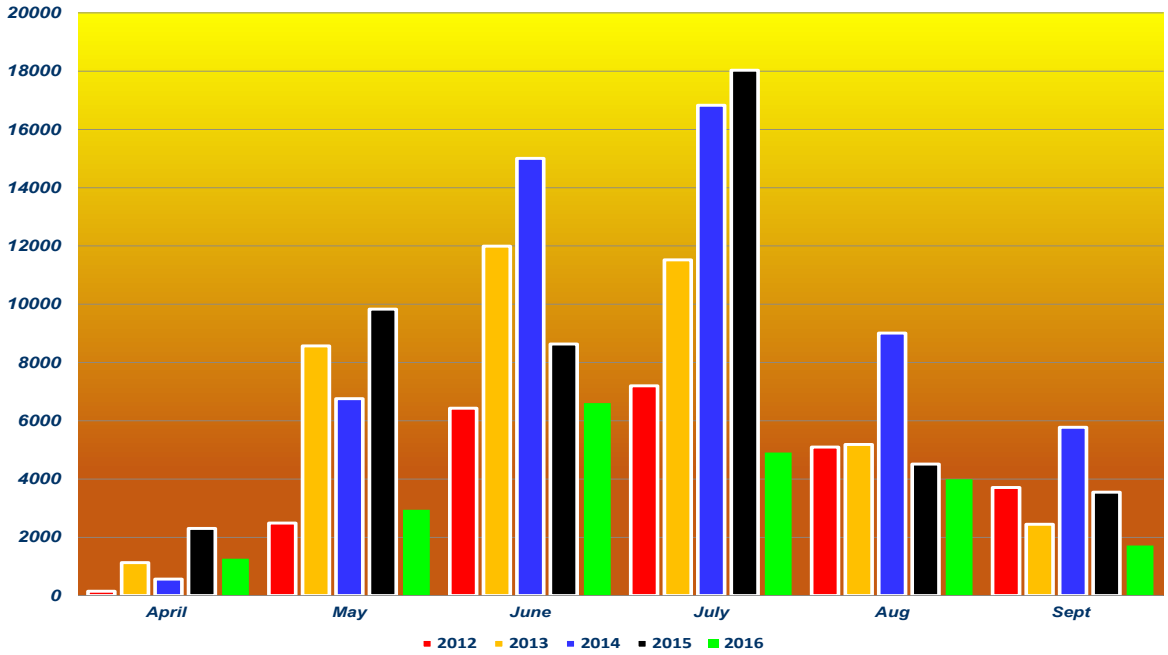
ANNUAL TOTAL FEMALE MOSQUITOES



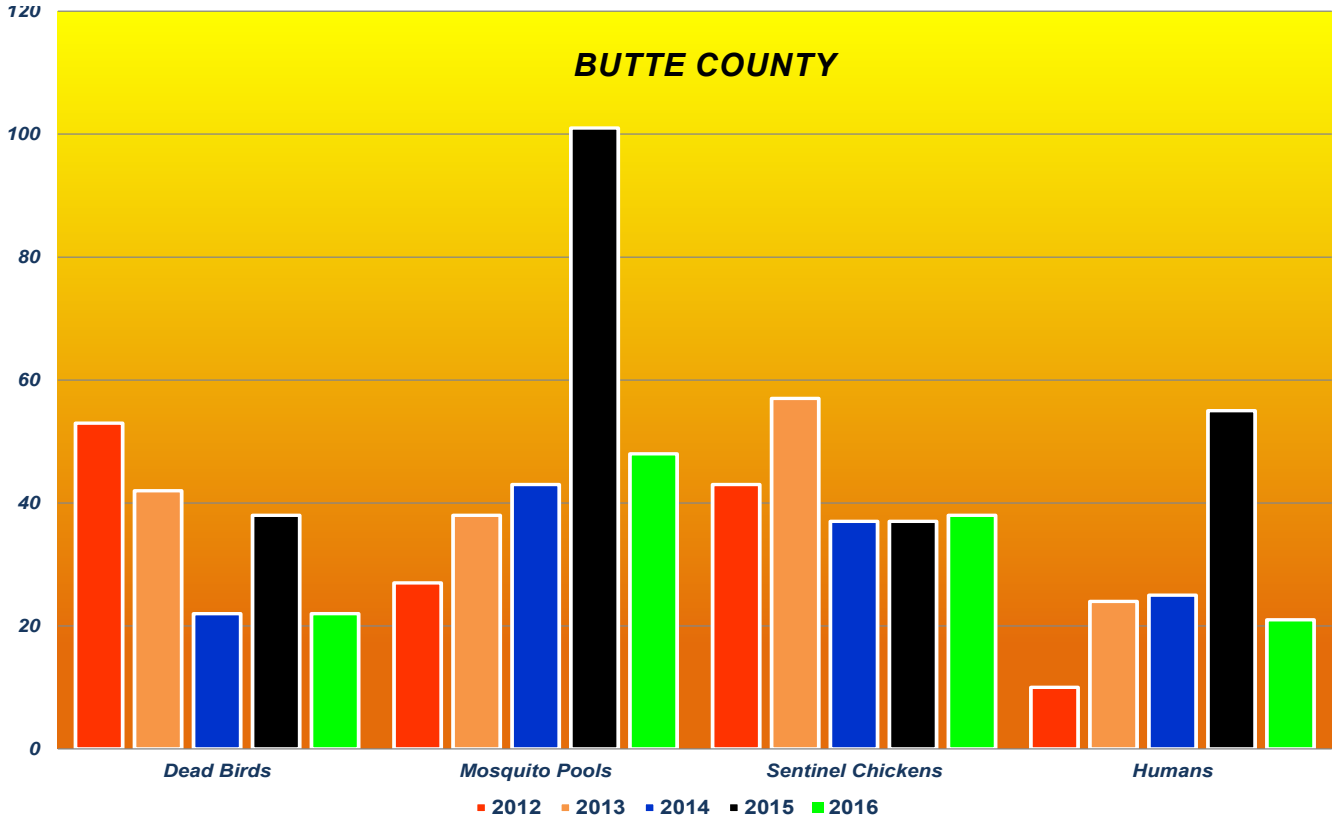
GRAVID TRAP FLUCTUATION BY WEEK

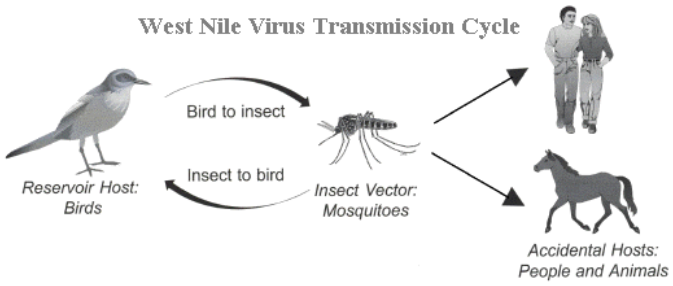


GRAVID TRAP FLUCTUATION BY MONTH



WEST NILE VIRUS ACTIVITY





WEST NILE VIRUS SYMPTOMS

SERIOUS SYMPTOMS IN A FEW PEOPLE

About one in 150 people infected with West Nile virus (WNV) will develop severe illness. The severe symptoms can include high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness, and paralysis. These symptoms may last several weeks, and neurological effects may be permanent. WNV infection can be fatal.

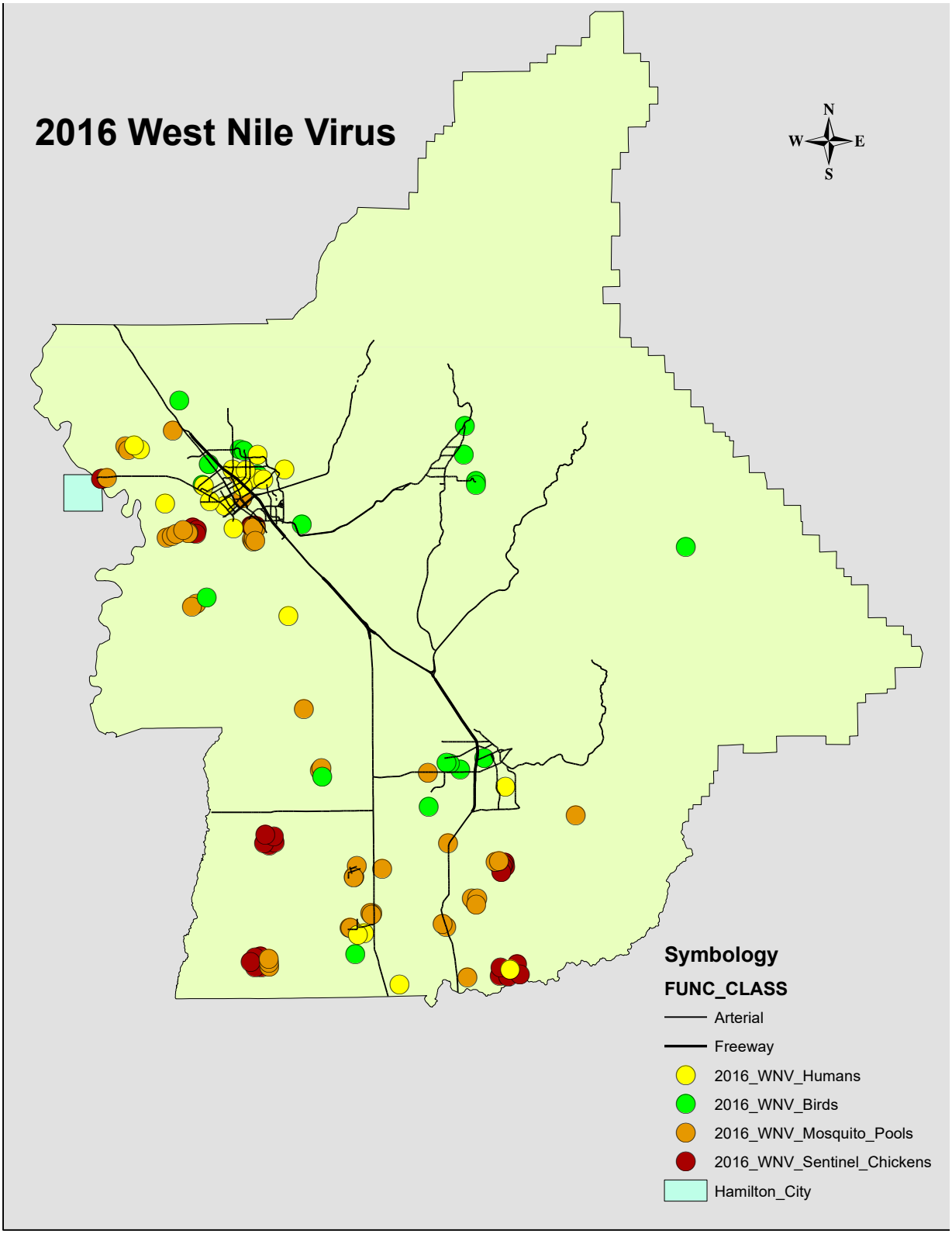
MILDER SYMPTOMS IN SOME PEOPLE

Up to 20 percent of the people who become infected will display symptoms including fever, headache and/or body aches, nausea, vomiting, and sometimes swollen lymph glands or a rash on the chest, stomach, and back. Symptoms can last as little as a few days to several weeks.

NO SYMPTOMS IN MOST PEOPLE

Approximately 80 percent of people (about 4 out of 5) who are infected with WNV will not have any symptoms at all.

2016 BUTTE COUNTY WEST NILE VIRUS MAP

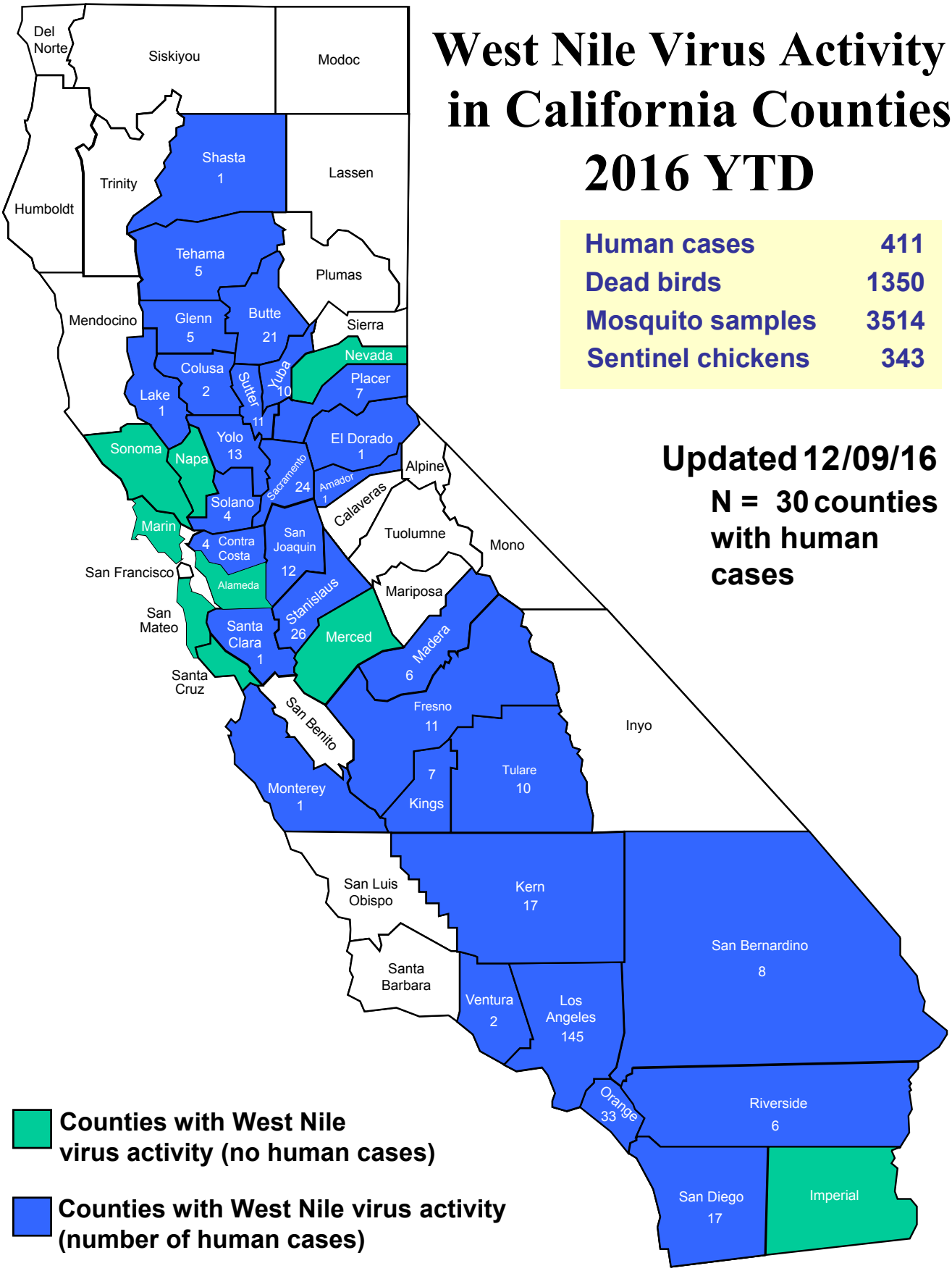


West Nile Virus Activity in California Counties 2016 YTD

Human cases	411
Dead birds	1350
Mosquito samples	3514
Sentinel chickens	343

Updated 12/09/16

N = 30 counties with human cases



Counties with West Nile virus activity (no human cases)

Counties with West Nile virus activity (number of human cases)

BIOLOGICAL CONTROL

Biological control is the intentional use of mosquito pathogens, parasites or predators to reduce the size of target mosquito populations to tolerable levels. The most popular and successful biological tool that is used by the District is the mosquitofish, *Gambusia affinis.* The District has tried other biological control methods and will continue to fully explore any new options that come along, but the most effective biological tool the District currently uses is the mosquitofish. Butte County Mosquito and Vector Control District maintains six fishponds at the Oroville Headquarters. These ponds produce hundreds of pounds of mosquitofish each year. The mosquitofish are routinely stocked and planted by District Mosquito and Vector Control Specialists to control mosquito populations in sources such as irrigation ditches, industrial, ornamental and artificial ponds, un-maintained swimming pools, semi-permanent and permanent urban sources, and at times in rice fields and wetlands. Mosquitofish are omnivorous and have a voracious appetite for mosquito larvae. The flattened head and protruding mouth enable the fish to readily prey on surface feeding mosquito larvae and pupae. A large female can consume up to 300 larvae per day! All ages, sexes, and sizes of these fish eat mosquito larvae, other small aquatic invertebrates, and algae. The fish are visual predators and feed during daylight hours.

Due to insecticide resistance and environmental concerns associated with chemical control methods, biological control methods are expanding as an effective tool used in the control of mosquitoes. populations.

Mosquitofish (Gambusia affinis) 2016

Mosq. Breeding Source Treated	lbs. Planted	Acres	Apps.
Stock Pond	1	3	8
Dredger Pit/ Ponds	2	5	4
Irrigation (Canal, Ditch, Pond,)	33	135	441
Managed Wetlands	92	336	75
Seepage	3	6	22
Water Trough	3	5	62
Field Drain	25	67	216
Dist. Grounds/Fish Ponds	263	370	22
Residential Fish Pond	9	18	112
Swimming Pool/Spa	4	7	59
Residential Misc. Container	1	1	10
Public Domain/Flood Control	0	0	0
Freeway/Road Drain	3	0	2
Sewage Ponds	2	4	13
Retention Detention/Ponds	1	2	7
Industial Commercial	2	1	4
Natural Sources/Wildlife Area	2	3	12
Organic Rice	14	59	4
Pond, Seepage, Slough, Creek	33	120	165
Public Fish Tanks	250	12	224
Large Area/Many Source Type	1	2	4
Annual Totals	***743***	***1156***	***1466***

Mosquitofish

Did You Know? Male mosquitoes usually live about five to seven days, while females can live two weeks to a month, under ideal conditions. However, the females of some species hibernate during winter, so they can live several months.

MOSQUITOFISH PICK UP LOCATIONS

Skyway Feed and Supply
5990 Foster Road
Paradise 877-1019

Foothill Mill and Lumber Company
1698 Wagstaff Road
Paradise 877-3395

Mendon's Nursery
5424 Foster Road
Paradise 877-7341

Paradise Pines True Value Hardware
14086 Skyway
Magalia 873-1008

C Bar D Feeds
3388 Hwy 32
Chico 342-5361

Magnolia Gift & Garden
1367 East Avenue
Chico 894-5410

Wilbur's Feed & Seed
139 Meyers Street
Chico 895-0569

The Pine's Yankee Hill
11300 Miller Flat Road
Oroville 534-1265
Hwy 70 just east Concow Road

Rosa's Nursery
585 Main Street
Hamilton City 826-0559

Harshbarger Ace Hardware
1626 Highway 99
Gridley 846-3625

District Office
5117 Larkin Road
Oroville 533-6038

Chico Substation (By Appointment)
444 Otterson Drive
Chico 342-7350

*Mosquitofish are not to be planted in creeks, streams, and rivers.

District fish tank

Mosquitofish

District Fish Ponds

CHEMICAL CONTROL

Chemical control is the use of target specific insecticides to reduce immature and adult mosquito populations. These chemicals are only applied when physical control, public education, and biological control methods are unable to keep mosquito populations tolerable or when emergency control measures dictate the use of chemicals to rapidly terminate or disrupt the transmission of disease to humans. There are two categories of chemicals used by the District, larvicides and adulticides. Larvicides target mosquito larvae and pupae. Adulticides target adult mosquitoes. The chemicals used by the District are registered with the United States Environmental Protection Agency (EPA), as well as the California Environmental Protection Agency (CAL EPA). The District relies mainly on larviciding as the primary means of chemical mosquito control. However, there are limitations to larviciding as a main control strategy. In Butte County where mosquito breeding occurs over large areas, the practical application of larvicides is not feasible and periodic adulticiding is necessary to protect nearby communities from the attack of adult mosquitoes. Also, there are areas that are environmentally sensitive and limit the use of larvicides. In these areas peripheral adulticiding is the only available option.

Ag-Cat treating a wetland for mosquito larvae

Residual treatment

Fogger Calibration

Calibration Training

MATERIALS USED 2016

Materials	Amount of Materials	Acres Treated	Number of Applications
Larvicides			
Abate 4E	0.07 gal.	6.00	6
Agnique	18.95 gal.	61.17	100
Altosid XR Briquettes	1.14 lbs.	0.02	4
Cocobear Oil	1,045.21 gal.	333.96	1,169
Fourstar CRG	6.10 lbs.	0.61	1
Natular G	400.00 lbs.	44.34	2
Natular XRT	309.86 lbs.	8.06	322
VectoBac 12AS	4,315.01 gal.	64,356.08	826
VectoBac G	6,236.85 lbs.	546.61	12
VectoBac GR	79,765.86 lbs.	7,434.06	178
VectoLex WDG	2.00 lbs.	3.50	3
VectoMax WSP	33.92 lbs.	1.77	240
VectoPrime	640.00 lbs.	72.46	2
		72,796.19	**2,863**
Adulticides			
Duet	1,205.16 gal.	256,184.26	2,397
Perm X ULV	132.01 gal.	11,400.48	375
Trumpet	1,079.97 gal.	137,901.09	422
		405,485.83	**3,194**
Barrier Sprays			
Suspend	12.34 gal.	36.29	315
		36.29	**315**
Yellow Jacket Control			
Drione	0.75 lbs.	0.11	11
Knox Out 2FM	0.08 gal.	0.08	33
		0.19	**44**
Herbicides			
Round Up Pro Max	0.74 gal.	1.19	10
Envoy Plus	0.84 gal.	4.37	10
Finale	2.50 gal.	8.32	13
Dimensinon 2EW	0.28 gal.	1.17	4
		15.05	**37**

Aircraft Spraying

Total Acres Treated	**210,354.03**
Total Acres Rice	**64,355.449**
Managed Wetlands	**8,097.49**
Total Acres ULV	**137,901.09**

Inspections, Applications- Ground and Aerial

	Hours
Ground Larvicide Treatments	1,006.85
Fish Plants	244.40
Aerial Larvicide	317.67
Ground Adulticide	4,420.64
Residual Sprays	210.07
Aerial Adulticide	13.20
Inspections	4,389.75

TICK SURVEILLANCE

Tick surveillance in Butte County is done primarily because of the diseases that ticks can transmit. In the United States ticks are known to transmit 14 human illnesses. The two that infect humans most often are Lyme disease and Rocky Mountain Spotted Fever (RMSF). Lyme disease is an infectious disease caused by a bacterium known as a *Borrelia burgdorferi*. People get Lyme disease when a tick infected with the Lyme disease bacterium attaches and feeds on them. The tick that is responsible for spreading Lyme disease in Northern California is the Western Black-legged tick. RMSF is a bacterial disease caused by the bacterium, Rickettsia. Transmission of the RMSF bacteria is primarily from the Pacific Coast tick. Both of these ticks can be readily found in Butte County.

District tick surveillance consists of “flagging” and identifying. “Flagging” is where a 3 x 2 piece of thick, fibrous cloth, is dragged along the edge of a trail or dirt road. The ticks attach themselves to the cloth while they are “questing” for a blood meal. Like a mosquito, the female tick needs a blood meal to lay her eggs. Once the ticks are attached to the cloth they are identifed, counted, and recorded. This information can lead to risk assessmant warnings to residents in areas that have high tick activity.

Tick “flagging”

Locating tick on the “flag”

Collecting the Tick

Western Black Legged tick

YELLOW JACKET SURVEILLANCE

Yellowjackets are medium sized black and yellow wasps (sometimes black and creme) that are often confused with honey bees, paper wasps, mud daubers, and other wasps. Yellowjackets are social insects that are considered beneficial. They can feed on garden pests and pollinate crops through daily foraging. Yellowjackets can become a public health concern because of their territorial behavior and their affinity for human food and drinks. Yellowjackets can restrict or prevent outdoor activities in areas such as campgrounds, picnic areas, and backyards.

The District will respond to reports of high yellowjacket activity. Mosquito and Vector Control Specialists will then inspect the area and decide if control is appropriate. Control measures may include placing traps or bait, treating nests with an approved insecticide, or physically removing the nest. All pesticide applications are made by state-certified technicians using materials that are registered for use by the Environmental Protection Agency.

Locating the nest entrance

"Dusting" the nest

Yellowjacket

Hornet

GOING GREEN

In an effort to reduce it's "carbon footprint" the District continually looks for ways to "go Green". One of the first steps in doing this was the purchase of an electric powered Zap pickup. This pickup is currently being used as a yard utility vehicle at the District headquarters in Oroville. This pickup is used for many applications where a gas powered pickup or a forklift were used in the past. Additionally, the pickup is used during mosquito season in urban areas for larval surveillance and control. The District has also purchased an electric powered forklift for it's Chico substation. Another step in the District's going green plan was the purchase of four bicycles. The four bikes are used mainly in Chico to treat storm drains. These bikes are especially handy in the downtown Chico area where parking and accessability can be an issue. The Mosquito and Vector Control Specialists that ride the bikes can triple their days workload, reaching many more mosquito populations in much less time.

Checking a storm drain via bicycle

Smart car

PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT

In 2011, the District completed its Programmatic Environmental Impact Report (PEIR). The District held a public hearing to receive comments on the District's Draft PEIR on February 9, 2011. After receipt of comments from the State of California Department of Public Health, and from trustees, the draft PEIR was revised and a Final PEIR was available for review between February 10, 2011 & August 5, 2011. Upon conclusion of the second review period and a second public hearing on August 10, 2011 the District's Board of Trustees adopted the District's Final PEIR report compiled by Westech Company with changes and mitigations. This report will be used as an educational component for the District. Residents can view the PEIR on the District's website at www.BCMVCD.com.

Airplane larvacide calibration

Fogger calibration

DISTRICT SHOP

The District's shop provides the maintenance and repairs for 30 vehicles, 3 forklifts, 1 backhoe, 3 ATV's, 2 amphibious Tritons, 1 loader truck and 4 utility trailers. Additionally, the shop is responsible for the maintenance and repairs to the District's electric ULV foggers, gas ULV foggers, back cans, power sprayers, small engines such as chain saws, weed eaters, lawn mowers, etc. and other mechanical items.

The shop is also responsible for repairing and installing improvements to the District facilities and grounds when and where necessary. Often the shop will repair the District's security system, lighting fixtures, plumbing fixtures, and other items as needed.

DISTRICT AIR OPERATIONS

At the Oroville facility, the District employs one full time Pilot II. On average the planes make applications to over 150,000 acres each year. During down time, the 3 planes receive repairs and technological improvements such as new instruments and instrument panels, installation of new technology (altimeter, Satloc, Ag-Nav), repainting, replacing engine parts, and routine annual maintenance. The Pilot II also is responsible for renting a passenger plane and providing aerial surveillance flights over seasonally flooded wetlands and duck clubs for the District's Mosquito and Vector Control Specialists.

DISTRICT ADMINISTRATION

Greeted by a nice smile and a pleasant tone, professional and courteous customer service is the number one priority for the District's administration staff. The District employs one full time Office Manager. The tasks of the administrative personnel involve serving the residents of Butte County and Hamilton City, as well as, the employees of the District. Accounting, budgeting, responding to telephone inquiries, maintaining public records, coordinating policies, and reporting to the Board of Trustees are just a few of the many duties the department performs.

2016 BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT BOARD OF TRUSTEES

Name	Title	Area Represented	Term Expires
Albert Beck	Board President	County at Large	December 31, 2017
Carl Starkey	Board Trustee	County at Large	December 31, 2016
Suzanne Hanson	Board Trustee	County at Large	December 31, 2018
Jack Bequette	Board Trustee	County at Large	December 31, 2016
Thomas Vickery	Board Trustee	County at Large	December 31, 2019
Bo Sheppard	Board Assistant Secretary	City of Biggs	December 31, 2018
Larry Kirk	Board Vice President	City of Chico	December 31, 2017
Bruce Johnson	Board Trustee	City of Gridley	December 31, 2019
Terry Mallan	Board Trustee	Town of Paradise	December 31, 2016
Tom Anderson	Board Secretary	Hamilton City	December 31, 2017
Gordon Andoe	Board Trustee	City of Oroville	December 31, 2017

2016 BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT EMPLOYEES

Name	Title
Matt Ball	Manager
Doug Weseman	Assistant Manager
Del Boyd	Pilot II
Darlene Starkey	Office Manager
Eric Gohre	Entomologist II
Bill Kunde	Regional Supervisor
Jim Richards	Regional Supervisor
Chris Ocegueda	Vector Ecologist/Fish Biologist
Beth Vice	MVCS
Phillip Henry	MVCS
Shane Robertson	MVCS
Don Lasik	MVCS
Aaron Goff	MVCS
Glen Williams	MVCS
AAron Lumsden	MVCS
Eric Dillard	MVCS
Kellen Larson	Shop Assistant Seasonal
Kenneth Armstrong	Shop Assistant Seasonal
Tina Weseman	Lab Assistant Seasonal
Anthony Visconte	MVC Assistant Seasonal
Frank Lopez	MVC Assistant Seasonal
Shane Cassity	MVC Assistant Seasonal
Brian Jackson	MVC Assistant Seasonal
Dacoda Quinn	MVC Assistant Seasonal
Jordan Delatorres	MVC Assistant Seasonal
Charlie Favilla	MVC Assistant Seasonal
Dan Mayer	MVC Assistant Seasonal
Alex Miller	MVC Assistant Seasonal
Stetcyn Arrington	MVC Assistant Seasonal

Keeping the Equipment Running

Building a New Chicken Coop

SPECIAL BENEFIT ASSESSMENT

To address the growing needs placed upon the District and to expand and enhance existing services, the District attempted and passed a Special Benefit Assessment on all properties within the District's Service Area. With these additional revenues the District will have the ability to enhance/improve all services provided by the District. Below is a non-exhaustive list of services that would be improved and/or enhanced:

- Increase seasonal staff and possibly permanent staff to better the services the District provides (e.g. surveillance, control, education, etc.).
- Expand the District's public education and outreach program to better educate those that the District serves to the services provided, the elimination of mosquito and other vector habitat, and how to protect oneself from mosquito and vector-borne disease.
- Expand the District's mosquito surveillance program to better identify mosquitoes of medical importance, increase the number of traps used, increase the amount of mosquitoes tested, commence with the surveillance of invasive species surveillance such as the Asian Tiger Mosquito and Yellow Fever Mosquito (both of which have been introduced into California in the past 3 years) and also to expand mosquito testing of newly introduced mosquito-borne disease such as chikungunya virus, Rift Valley fever, dengue fever, and others.
- Expand the District's tick surveillance to monitor more public use lands, test collected ticks for the presence of tick-borne disease, and conduct tick control trials.
- Expand and improve on the District's mosquitofish program. Purchase mosquitofish rearing tanks to provide an environment in which mosquitofish propagate year round rather than seasonally allowing the District to keep up with the demand requests of the public and to have more fish available to District staff to stock in mosquito-breeding areas to lower larval mosquito populations.
- Increase the amount of public health pesticide applications should surveillance data indicate a need based on treatment thresholds and/or resident service requests. Possibly lower the treatment thresholds for larvae and adult mosquitoes.
- Purchase new capital such as spray equipment and vehicles to lower maintenance costs, increase fuel mileage, and increase the reliability of service.
- Continue to and enhance investing in mosquito control research and new technology to identify better ways of protecting the public's health.

This funding measure has strengthened, enhanced, and improved the District's baseline services provided. With newly introduced invasive species as well as new and reemerging vector-borne disease, mosquito and vector controls importance will only continue to grow.

Did You Know? All mosquitoes require water to breed. Some species can breed in puddles left after a rainstorm. Just a tablespoon of water is all it takes for a female to deposit her eggs. Tiny mosquito larva develop quickly in bird baths, roof gutters, and old tires dumped in vacant lots. If you want to keep mosquitoes under control around your home, you need to be vigilant about dumping any standing water every few days.

TRANSPARENCY CERTIFICATE OF EXCELLENCE AWARD

For the 4th year in a row, the Butte County Mosquito and Vector Control District (District) received the Transparency Certificate of Excellence by the Special District Leadership Foundation (SDLF) in recognition of the District's outstanding efforts to promote transparency and good governance.

"This award is a testament to the Butte County Mosquito and Vector Control District's commitment to open government," said Matthew Ball, District Manager. "The District's entire Board of Trustees and staff are to be commended for their contributions that empower the public with information and facilitate engagement and oversight."

In order to receive the award, a special district must demonstrate the completion of eight essential governance transparency requirements, including conducting ethics training for all board members, properly conducting open and public meetings, and filing financial transactions and compensation reports to the State Controller in a timely manner.

The Butte County Mosquito and Vector Control District also fulfilled fifteen website requirements, including providing readily available information to the public, such as board agendas, past minutes, current district budgets, and the most recent financial audit.

Finally, the District must have demonstrated outreach to its constituents that engages the public in its governance, through regular district newsletters and community engagement projects.

District Transparency
Certificate of Excellence

January 2016 – January 2018

This 31st day of January 2016

The Special District Leadership Foundation is proud to present this
District Transparency Certificate of Excellence to

Butte County Mosquito & Vector Control District

In recognition of the district's completion of all transparency program requirements designed to promote transparency in their operations and governance to the public and other stakeholders.

David Aranda, SDLF Board President

Neil McCormick, SDLF Chief Executive Officer

CALIFORNIA INVASIVE SPECIES

Over the past several years, two invasive (non-native) mosquito species have been found in 126 California cities (up from 84 at the beginning of June, 2016) and there is potential for them to spread into other areas of California. They are named *Aedes aegypti* (the yellow fever mosquito) and *Aedes albopictus* (the Asian tiger mosquito). They are relatively easy to tell apart from native mosquito species because of their color and their biting habits. Unlike most native mosquito species, *Aedes aegypti* and *Aedes albopictus* bite during the day and are extremely aggressive. Both species are small black mosquitoes with white stripes on their back and on their legs. Currently, neither of the species have been located within the District's Service Area. The District has purchased, constructed, and deployed specie specific traps to provide surveillance of these two species. These mosquitoes are responsible for transmitting chikungunya virus, dengue fever, yellow fever, Zika virus, and other viruses. Below is an update on these viruses:

Zika

For 2015-2016 CDPH has reported 328 cases of Zika. All 328 individuals contracted Zika while traveling outside of the United States or through contact with a Zika-infected returned traveler. These infections are in residents of 30 California counties, including 10 with invasive Aedes mosquito detections. Of the 328 infected persons, 213 are residents in counties with known invasive Aedes. There are 28 countries and U.S. territories or states with Zika exposure. The top 5 countries include Mexico (85), Nicaragua (44), Guatemala (33), El Salvador (27), and the Dominican Republic (24).The median age of the infected persons is 35 years, and 63% of the infections occurred in females. Of the 328 infected persons, 309 were symptomatic, with at least one symptom of fever, rash, conjunctivitis, or joint pain. CDPH updates our case numbers every Friday and posts them on the CDPH Zika website.

Chikungunya

To date for 2016, 22 cases of chikungunya have been reported in California. These cases are from 10 counties, 7 with invasive *Aedes.*

Dengue

To date for 2016, 126 cases of dengue have been reported in California. These cases are from 30 counties, 10 with invasive *Aedes.*

Aedes albopictus

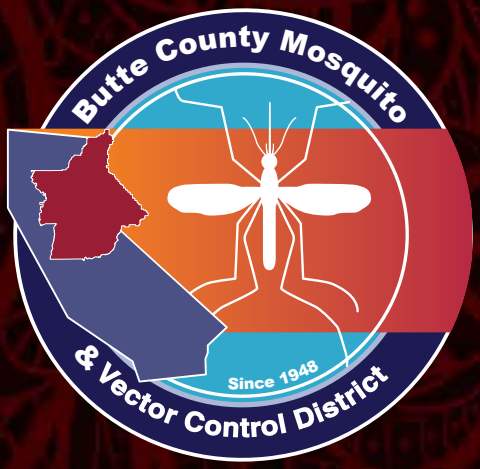
Aedes aegypti

Butte County Mosquito and Vector Control District
For The Year Ended June 30, 2016

		Budgeted	Actual	Variance Favorable (Unfavorable)
Revenue		$ 3,303,209	$ 3,755,533	$ 452,324
SALARIES & BENEFITS				
Salaries		$ 1,220,700	$ 1,276,806	$ (56,106)
Workers Compensation		$ 60,000	$ 52,732	$ 7,268
FICA & U I		$ 112,200	$ 109,807	$ 2,393
Health Insurance		$ 285,500	$ 261,308	$ 24,192
Health Ins Reimbursement		$ 20,500	$ 11,242	$ 9,258
PERS		$ 303,000	$ 273,334	$ 29,666
	TOTAL	$ 2,001,900	$ 1,985,230	$ 16,670
SERVICES & SUPPLIES				
Gas & Oil		$ 100,000	$ 86,229	$ 13,771
Repairs & Parts-Airplane		$ 20,000	$ 21,847	$ (1,847)
Repairs & Parts		$ 30,000	$ 28,237	$ 1,763
Office Supplies		$ 15,000	$ 12,834	$ 2,166
Education & Publicity		$ 30,000	$ 26,508	$ 3,492
Insecticides		$ 633,000	$ 733,059	$ (100,059)
Expendable Equipment		$ 50,000	$ 35,343	$ 14,657
Communications		$ 20,000	$ 23,619	$ (3,619)
Travel		$ 15,000	$ 5,503	$ 9,497
Utilities		$ 25,000	$ 19,831	$ 5,169
Rent		$ 5,000	$ 4,200	$ 800
Special Services		$ 80,000	$ 95,792	$ (15,792)
Trustee Allowance		$ 13,200	$ 12,500	$ 700
General Insurance		$ 75,000	$ 65,710	$ 9,290
Employee Trng & Dues		$ 10,000	$ 11,581	$ (1,581)
District Fees and Permits		$ 30,000	$ 22,838	$ 7,162
Miscellaneous		$ 12,000	$ 15,205	$ (3,205)
Research Supplies		$ 45,000	$ 58,213	$ (13,213)
Alternate Technology		$ 1,000	$ -	$ 1,000
Special Discretionary		$ 10,000	$ 11,605	$ (1,605)
Gambusia		$ 5,000	$ 9,957	$ (4,957)
	TOTAL	$ 1,224,200	$ 1,300,610	$ (76,410)
CAPITAL OUTLAY				
Bldg & Improvements		$ 50,000	$ 34,454	$ 15,546
Vehicles		$ 95,000	$ 103,794	$ (8,794)
Spray Equipment		$ 25,000	$ 21,514	$ 3,486
Aircraft		$ 5,000	$ -	$ 5,000
Office Equipment		$ 1,000	$ -	$ 1,000
Laboratory Equipment		$ 1,000	$ -	$ 1,000
Shop Equipment		$ 1,000	$ -	$ 1,000
Education & Publicity		$ 3,000	$ -	$ 3,000
Miscellaneous		$ 5,000	$ 5,920	$ (920)
Communications		$ 1,000	$ -	$ 1,000
	TOTAL	$ 187,000	$ 165,682	$ 21,318
Appropriation for contingencies		$ 852,025		$ 852,025
Grand Total		$ 4,265,125	$ 3,451,522	$ 813,603
Excess(Deficiency) of				
Revenue over Expenditures		$ (961,916)	$ 304,011	$ 1,265,927
Fund Balance 2015			3,036,133	
Fund Balance 2016			3,388,721	

Butte County Mosquito and Vector Control District
Balance Sheet Audit Information
For The Year Ended June 30, 2016

	General Fund	Reclassification Eliminations	Statement of Net Position
Current Assets			
Cash and Investments	3,118,190		3,118,190
Accrued Interest Receivable	6,449		6,449
Accounts receivable	22,350		22,350
Material & Supplies Inventories	310,103		310,103
Prepaid Expenses	21,838		21,838
Total Current Assets	3,478,930		3,478,930
Non-currrent Assets			
Capital Assets not being depreciated		615,403	615,403
Capital assets, being Depreciated		2,269,384	2,269,384
Totan Non current Assets	-	2,884,787	2,884,787
Total assets	3,478,930	2,884,787	6,363,717
Deferred outflows of resources			
Deferred pension outflows		377,709	377,709
Total deferred outflows of resources	-	377,709	377,709
Current Liabilities			-
Accounts payable & accrued expenses	19,099		19,099
Accrued Salaries and Benefits	71,110		71,110
Long term-liabilites due within 1 year compensated absences		130,952	130,952
Total Current Liabilities	90,209	130,952	221,161
Non-current liabilities			
Long term liabilities-due in more than 1 year-compensated absences		392,855	392,855
Net pension liability		2,390,965	2,390,965
Total non-current liabilities	-	2,783,820	2,783,820
Total Liabilities	90,209	2,914,772	3,004,981
Deferred inflows of resources			
Deferred pension inflows		140,759	140,759
Total deferred inflows of resources	-	140,759	140,759
Fund Balance			
Nonspendable:	331,941	(331,941)	-
Assigned - compensated absences	523,807	(523,807)	-
Unassigned, reported in:			-
General Fund	2,532,973	(2,532,973)	-
Total Fund Balance	3,388,721	(3,388,721)	-
Total Liabilities and Funds Balance	3,478,930		
Net position:			
Net investment in capital assets		2,884,787	2,884,787
Unrestricted		710,899	710,899
Total net position		3,595,686	3,595,686


Butte County Mosquito
& Vector Control District
Since 1948