BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

2015 ANNUAL REPORT

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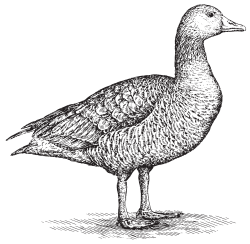
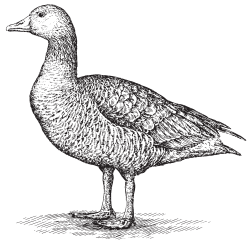
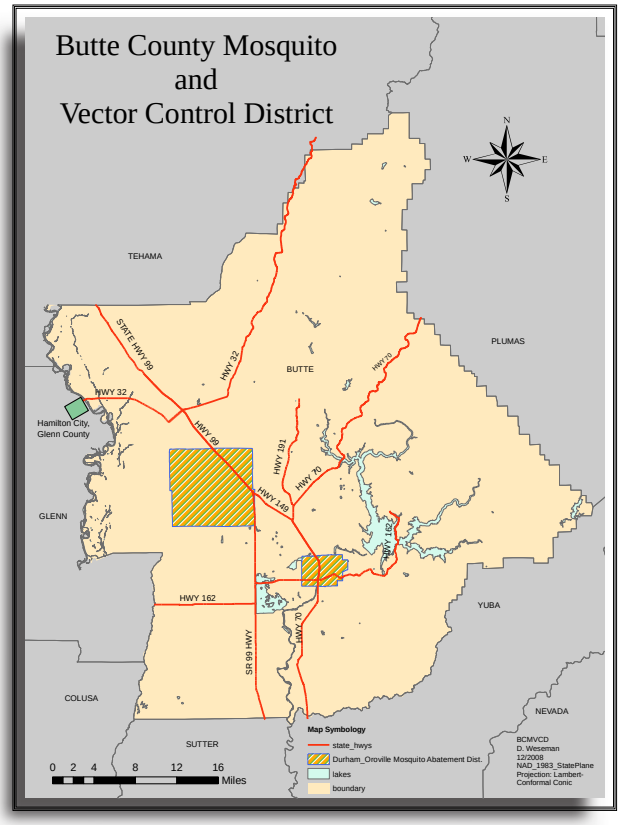
CONTACT INFORMATION

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

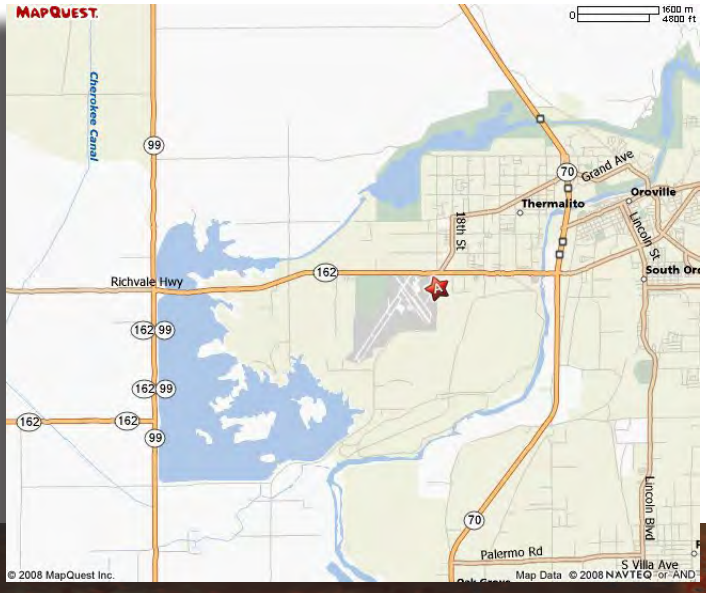
The Butte County Mosquito Abatement District was formed in June of 1948. The District covers 1600 square miles, and includes all of Butte County, except the small areas served by the Durham and Oroville Mosquito Abatement Districts, which were formed earlier. The District also includes the Hamilton City 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.

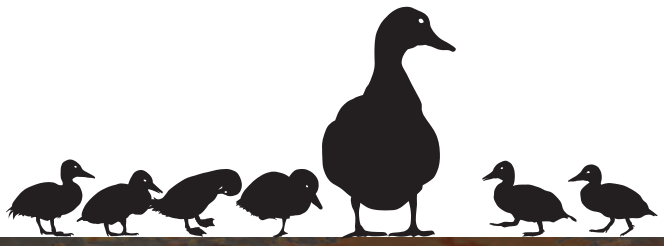
MISSION

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

It is my honor to submit the 2015 Annual Report for the Butte County Mosquito and Vector Control 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.

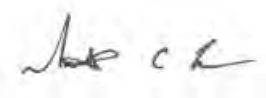
The prevention of vector-borne disease outbreaks remains the District's primary goal and it's most important responsibility to the public. West Nile virus (WNV) is now considered to be endemic in the state of California and remains the District's largest public health concern. The state observed another extremely active WNV season. As of writing this, currently 637 human infections have been confirmed in 2015. Butte County's human infection rate increased from 25 in 2014 to 55 in 2015. This is the largest number of human infections ever recorded in Butte County for a single year. Butte County has had confirmation of 208 WNV human infections with 8 fatalities since the virus arrived in 2004. One of the eight fatalities occurred this year. Our thoughts and prayers are with the family and friends of the deceased. Since 2003 when WNV first appeared in California, 5442 human infections with 214 fatalities have been confirmed.

The District continues to aggressively control unmaintained / abandoned swimming pools, catch basins, storm drains, and retention / detention ponds and works in partnership with other local agencies and governments to maintain improper functioning utilities that could and have bred mosquitoes. Regardless of drought conditions, the over watering of landscaped yards and environments continues to add to the mosquito breeding problems in urban mosquito sources and extends the length of our mosquito season. In addition to urban mosquito breeding problems, the District continues surveillance and control in agricultural, rural, and wetland areas that breed mosquitoes. Due to two newly established invasive mosquito species in the state of California, the District has greatly expanded surveillance efforts to detect either of these two species of mosquitoes. The District continues to conduct surveillance of ticks of medical importance and surveillance and control of yellow jackets.

"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 pest 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.

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: Secretary Tom Anderson, Jack Bequette, Carl Starkey, Vice President Charles Bird, President Dr. Albert Beck, Terry Mallan, Bo Sheppard, Gordon Andoe, Dr. Larry Kirk.
Seated, left to right: Allan K. Seefeldt, Assistant Secretary Jerry Ann Fichter.

STAFF

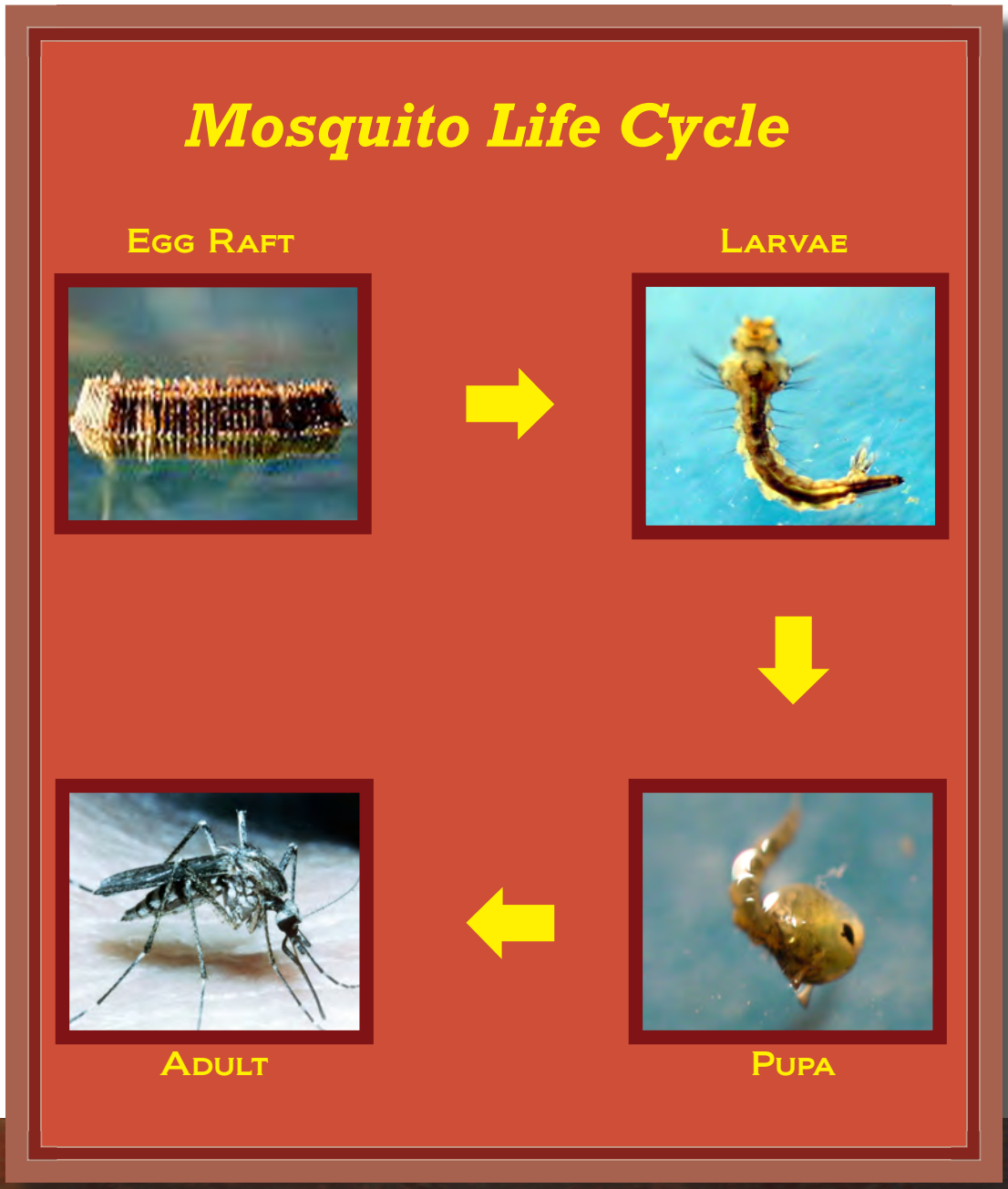
Left to right: Glen Williams, MVCS; AAron Lumsden, MVCS; Eric Dillard, MVCS; Aaron Goff, MVCS; Shane Robertson, MVCS; Phillip Henry, MVCS; Jim Richards, Regional Supervisor; Beth Vice, MVCS; Del Boyd, Pilot 2; Don Lasik, MVCS; Bill Kunde, Regional Supervisor; (MVCS: Mosquito and Vector Control Specialist, 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

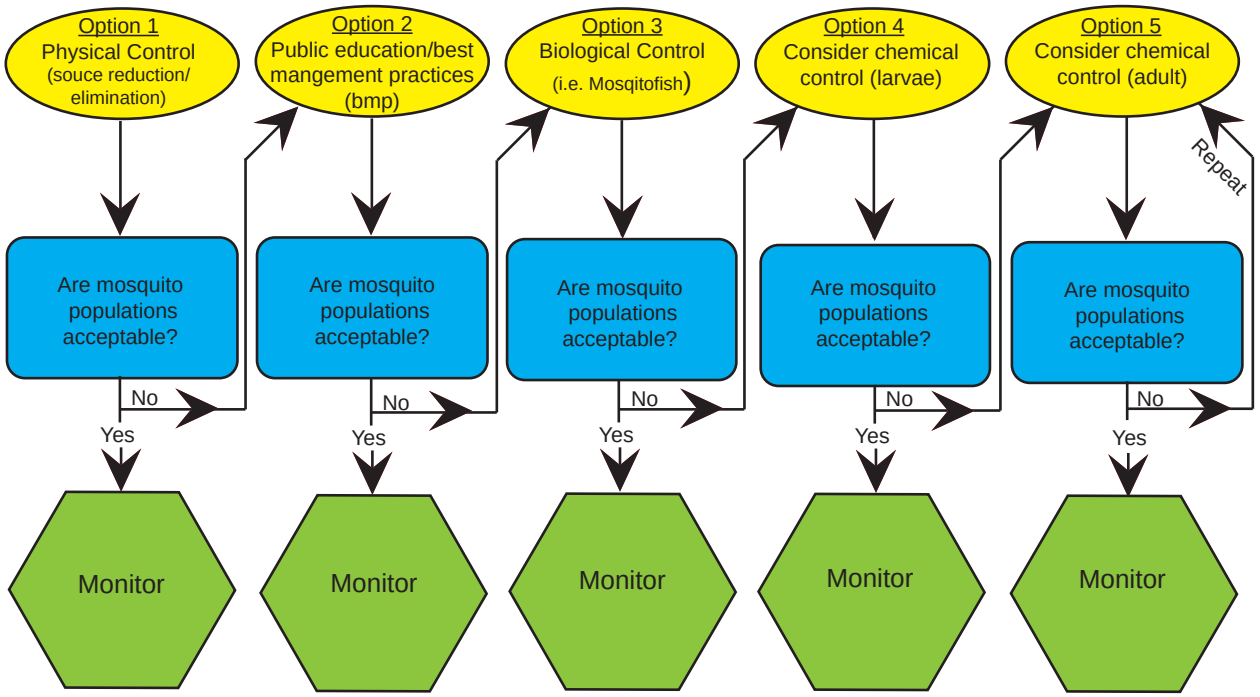
There are approximately 3,500 species of mosquitoes distributed worldwide. In California there are 53 species of mosquitoes and 25 of these are commonly found in Butte County. Mosquitoes, like other animals, must have water, food and some protection from the elements to survive. Mosquitoes undergo complete 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.

2015 PUBLIC EDUCATION

2015 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 seventh year in a row on a county-wide mosquito prevention billboard advertising campaign. This year's slogan for the billboards was "Fight the Bite". The six billboards ran from May to September and rotated throughout the county on a monthly basis.

In 2015 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, Silver Dollar Fair in Chico, 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 several 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. District Manager Matt Ball and Assistant Manager Doug Weseman gave presentations at the Gateway Science Museum in Chico, and the Rotary Clubs in Gridley and Paradise. A group presentation was also given to/at the California Conservation Corps. in Chico.

The District 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.

School presentations on Mosquitoes and Ticks continue to be offered to schools throughout the District.

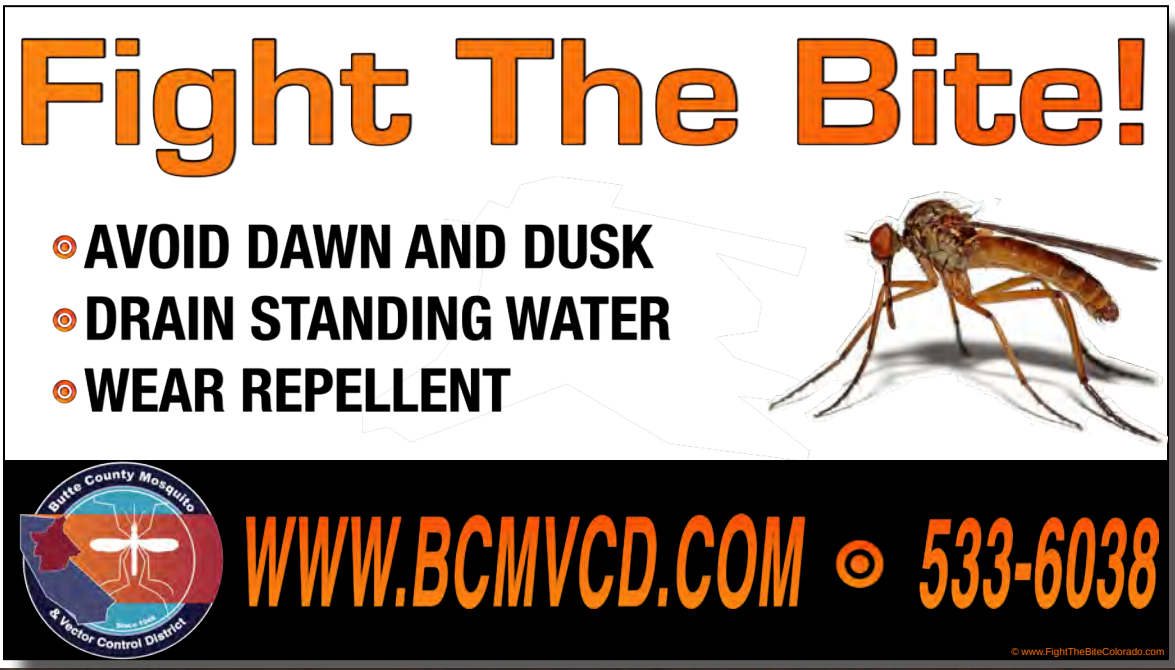
With this year's high number of West Nile virus cases, the District believes that it is imperative to get the mosquito bite prevention message out to the public. That message states that if a person can avoid getting bitten by a mosquito, they can avoid getting any mosquito-borne illness, including West 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.

2015 PUBLIC EDUCATION HIGHLIGHTS

- **Billboard Advertising (Throughout the County)**
- **Butte County Fair, Gridley (Booth)**
- **Silver Dollar Fair, Chico (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)**
- **Butte County Agencies/Businesses “Report Standing Water” Campaign**
- **Chico Home and Garden Show (Booth)**
- **Rotary Club, Gridley (Presentation)**
- **Rotary Club, Paradise, (Presentation)**
- **AMCA National Mosquito 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)**
- **Gateway Science Museum, Chico (Presentation)**

District Brochures

Public Education Event Pictures



2015 Billbaord Campaign

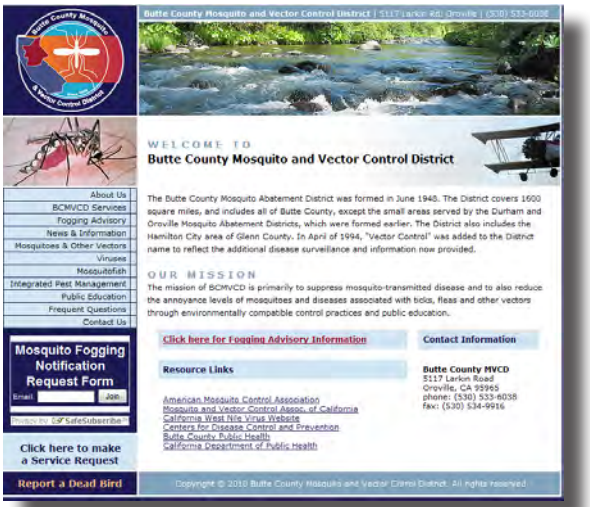
GIS/GPS SYSTEM

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.

Butte County Mosquito and Vector Control District

Fogging Cancellation

The Mosquito Fogging scheduled to take place on 10/01/2015 in the Nelson, Richvale, and Thermalito areas has been cancelled due to unfavorable weather conditions. Please see 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 BCMVCD.com

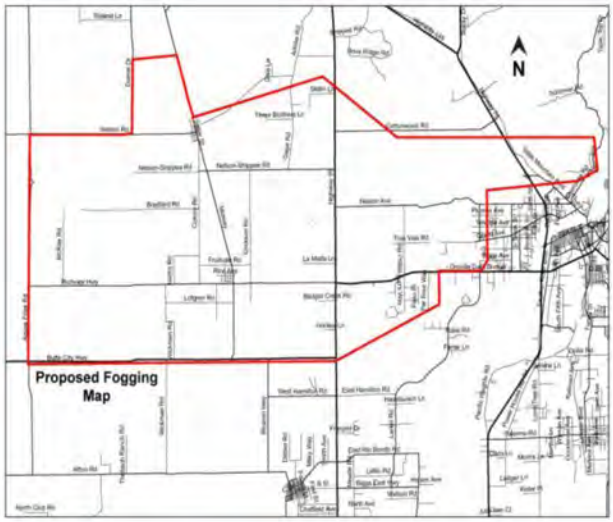
For more information please call the Butte County Mosquito and Vector Control District at (530) 533-6038 (from Oroville, Richvale, Biggs, Gridley, Berry Creek) or (530) 342-7350 (from Chico, Paradise, Cohasset, Forest Ranch) or visit www.bcmvcd.com

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.



Nelson, Richvale, Thermalito Fogging Map

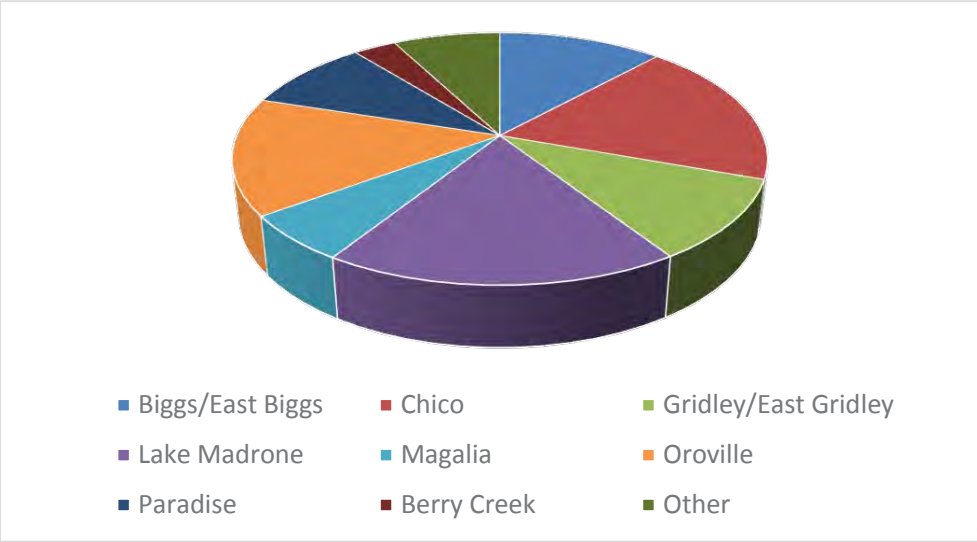
For a more detailed fogging map, please visit our website at
www.bcmvcd.com
website

Thank you,

Butte County Mosquito and Vector Control District

Example of Constant Contact email notification

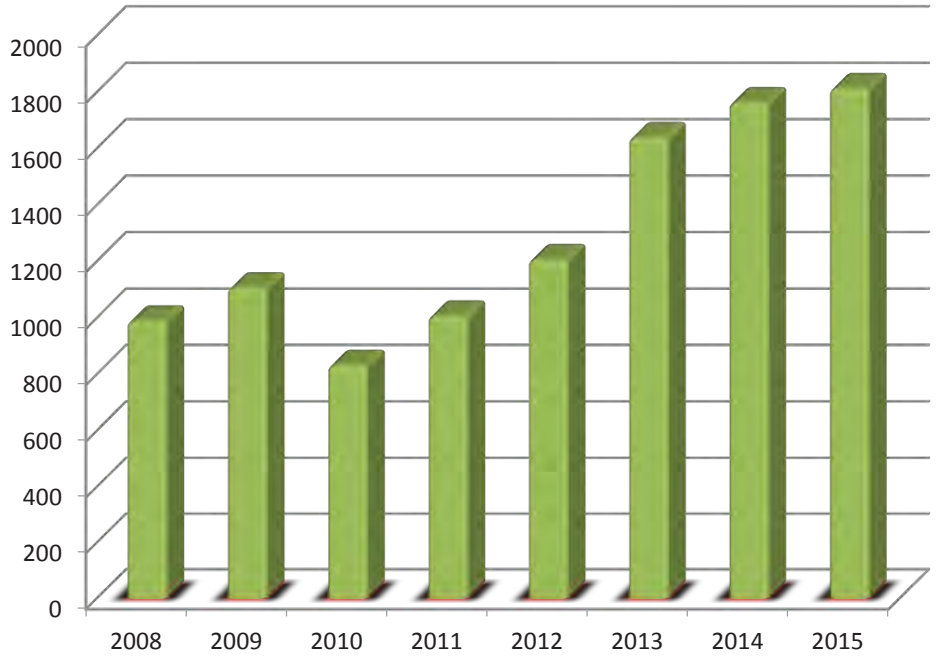
2015 SERVICE REQUEST PERCENTAGES



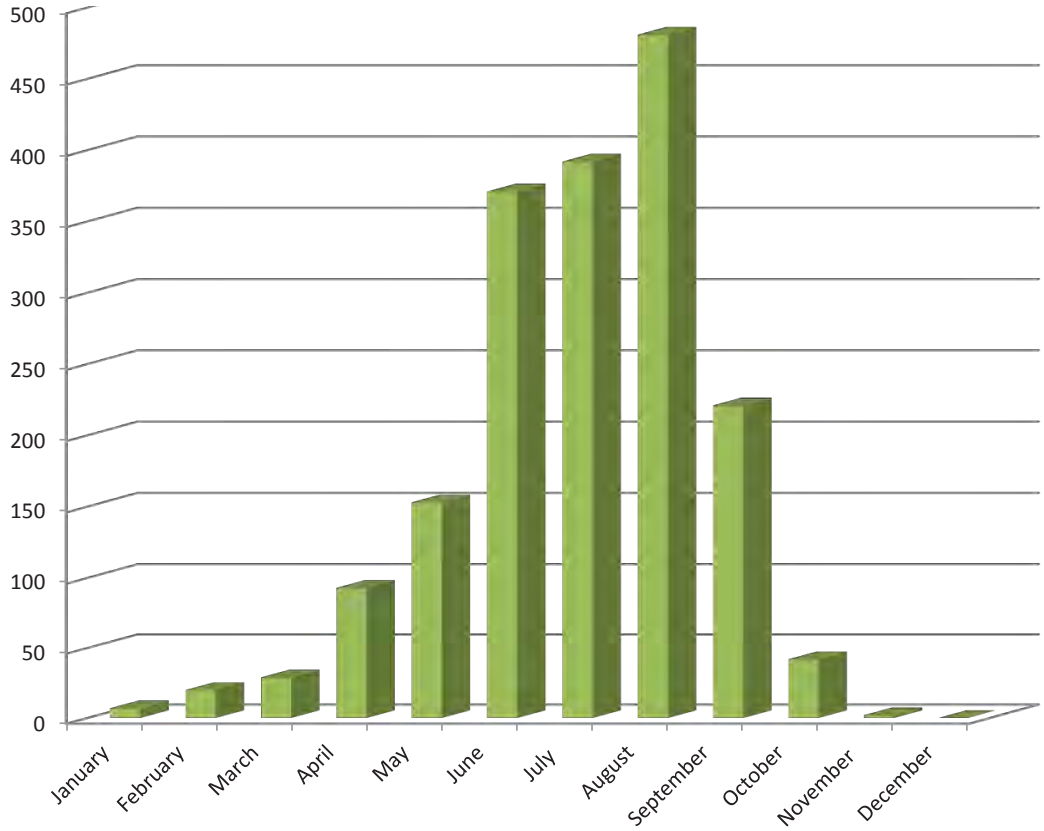
2015 SERVICE REQUESTS

Area	*Number of Service Requests*	*Percentages*
Bangor	5	0.3%
Berry Creek	58	3.3%
Biggs/E.Biggs	152	8.6%
Brush Creek	6	0.3%
Chico	319	18.1%
Clipper Mills	4	0.2%
Concow	3	0.2%
Dayton	8	0.5%
Durham	8	0.5%
Forbestown	2	0.1%
Forrest Ranch	13	0.7%
Gridley/East	186	10.6%
Hamilton City	10	0.6%
Honcut	8	0.5%
Lake Madrone	272	15.4%
Magalia	125	7.1%
Nelson	5	0.3%
Nord	1	0.1%
Oroville	275	15.6%
Palermo	18	1.0%
Paradise	234	13.3%
Richvale	17	1.0%
Stirling City	29	1.6%
Yankee Hill	3	0.2%
Totals	**1761**	**100%**

2015 ANNUAL SERVICE REQUESTS



2015 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

2015 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 2015, 37 of the 42 sentinel chickens from all 7 District flocks tested positive for WNV.

Sentinel Chicken

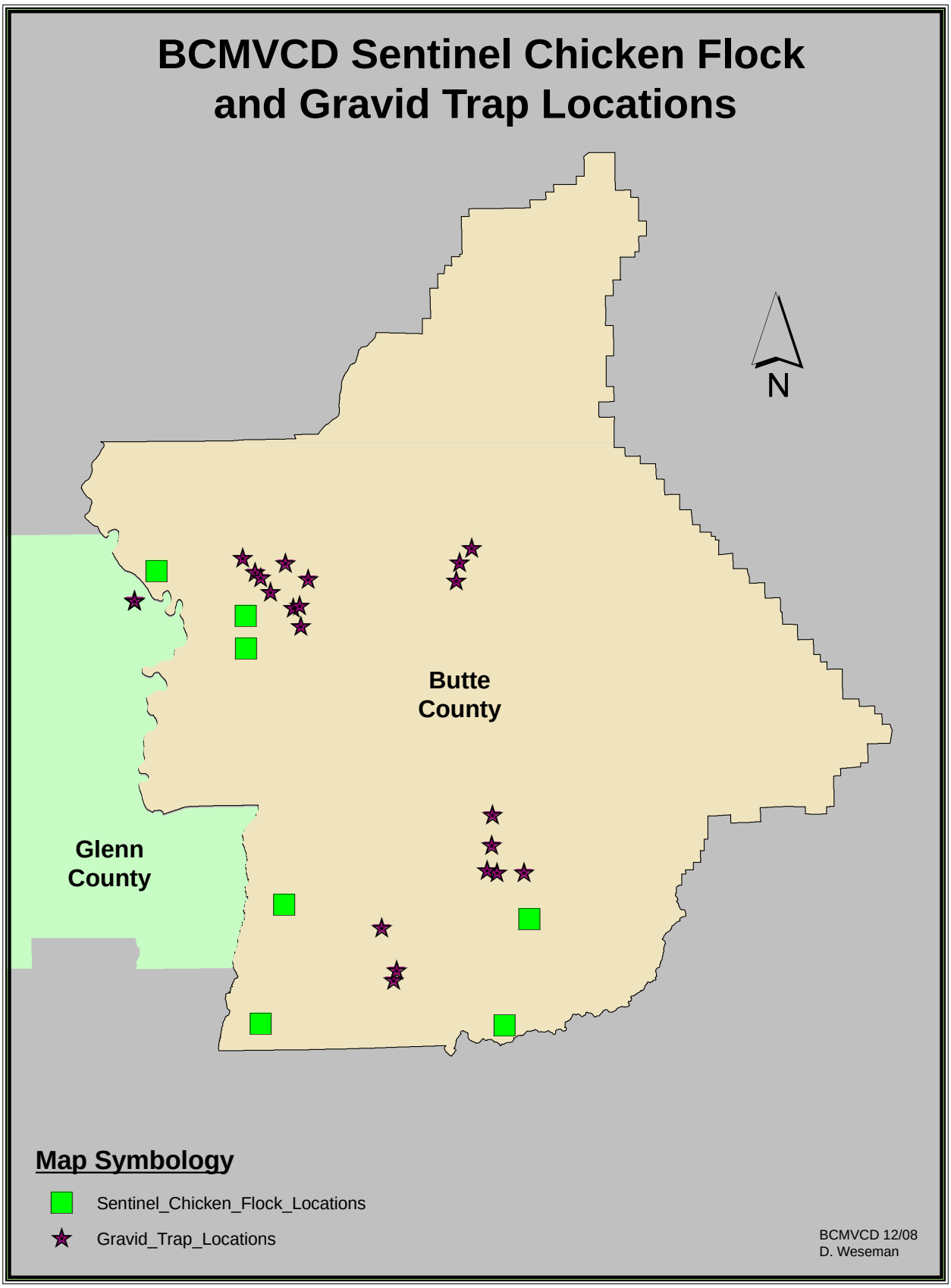
MOSQUITO POOLS

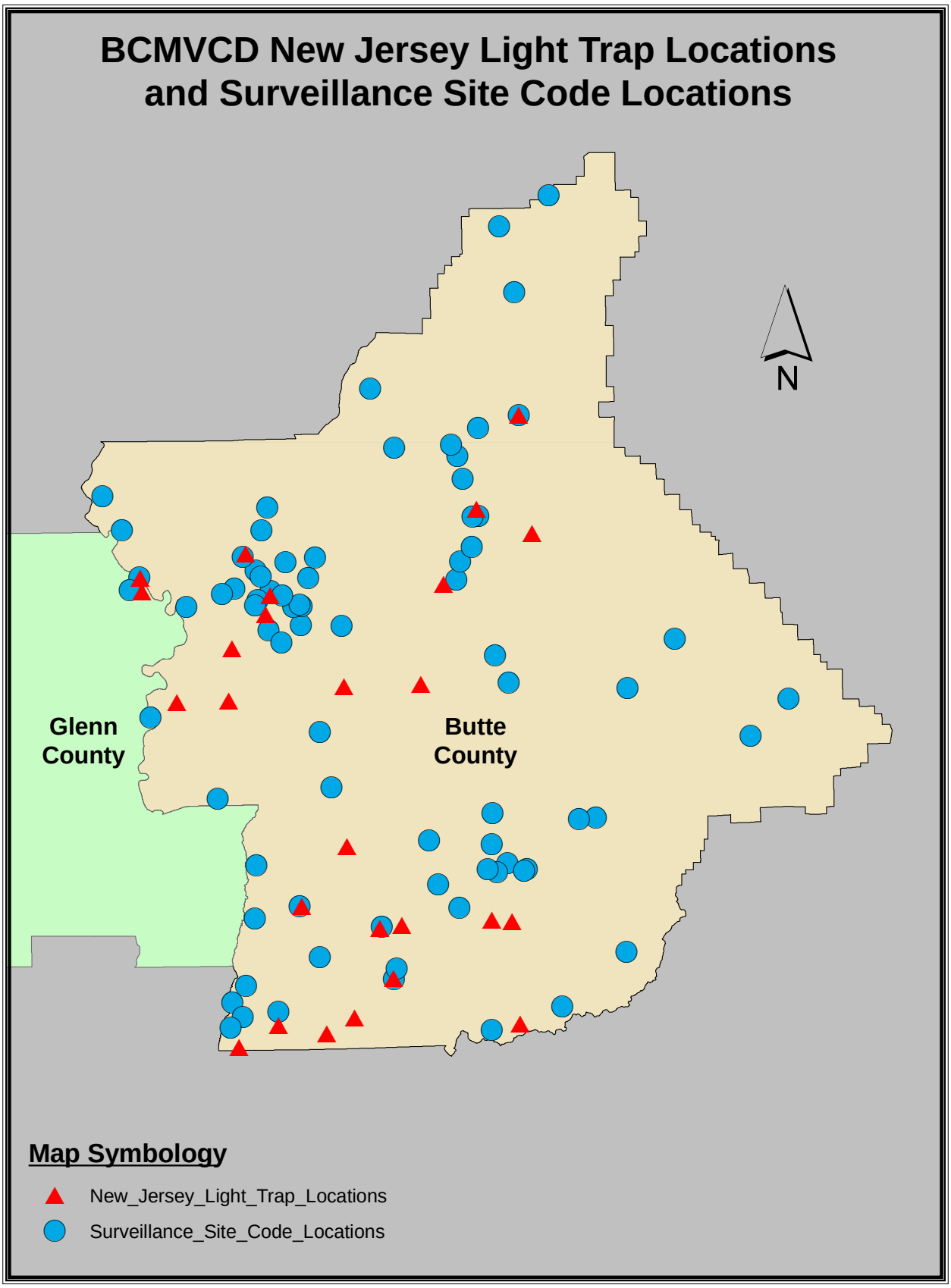
Each week the District's entomology staff strategically places traps known as encephalitis virus surveillance (EVS) or carbon dioxide traps (CO_2) around the District. Traps are posted overnight and retrieved the next morning and the collections are returned to the Lab for identification. The entomology 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 2015 the District sent 415 mosquito pool samples with 101 (94 in Butte County and 7 in Hamilton City) 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**
Totals	**208**	**28**	**476**	**5**	**238**	**414**


BCMVCD Sentinel Chicken Flock and Gravid Trap Locations
N
Butte County
Glenn County
Map Symbology
Sentinel_Chicken_Flock_Locations
Gravid_Trap_Locations
BCMVCD 12/08
D. Weseman


BCMVCD New Jersey Light Trap Locations
and Surveillance Site Code Locations
N
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Butte
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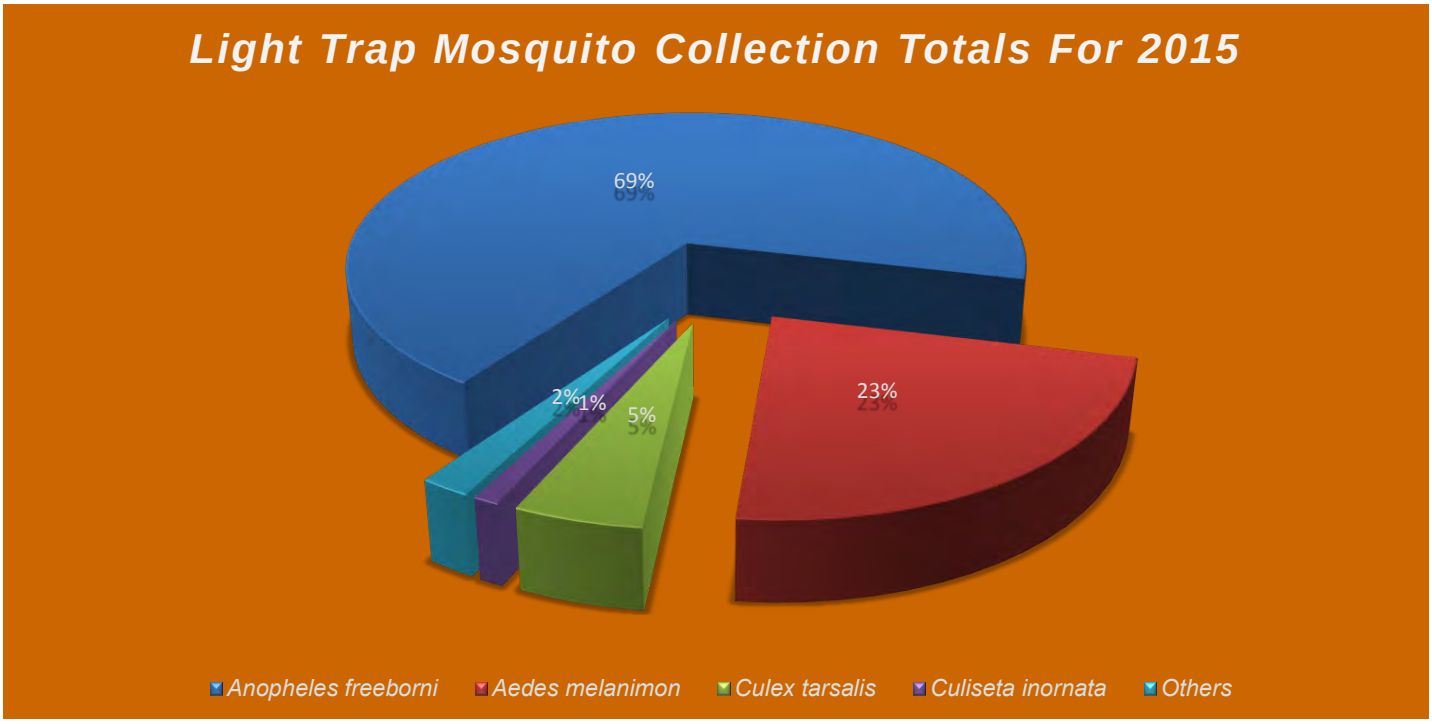
Map Symbology
New_Jersey_Light_Trap_Locations
Surveillance_Site_Code_Locations

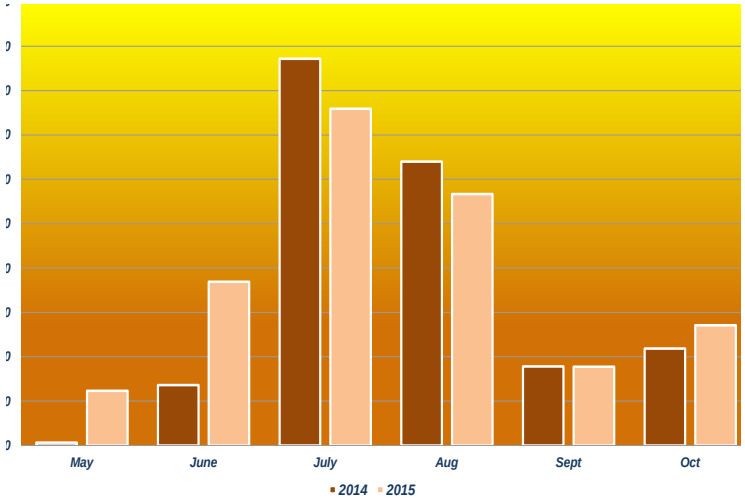
2015 NEW JERSEY LIGHT TRAP COLLECTIONS (FEMALES ONLY) MARCH 2015 - NOVEMBER 2015

Ranking	Mosquito Species	Number Collected	% (Rounded)
1	*Anopheles freeborni*	145,260	69%
2	*Aedes melanimon*	47,972	23%
3	*Culex tarsalis*	10,255	5%
4	*Culiseta inornata*	2,169	1%
5	*Culex pipiens*	1,366	<1%
6	*Culiseta incidens*	261	<1%
7	*Aedes vexans*	234	<1%
8	*Culex Erythrothorax*	193	<1%
9	*Aedes washinoi*	63	<1%
10	*Culex stigmatosoma*	42	<1%
11	*Aedes sierrensis*	36	<1%
12	*Aedes nigromaculis*	15	<1%
13	*Anopheles franciscanus*	8	<1%
14	*Anopheles punctipennis*	0	<1%
	Total Identified =	***207,874***	***100.00%***

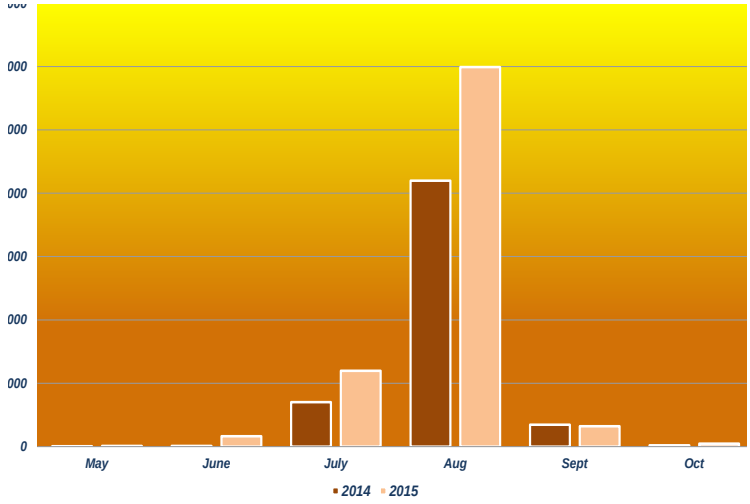


NEW JERSEY LIGHT TRAP SEASONAL FLUCTUATION OF VECTOR-BORNE DISEASE VECTORS

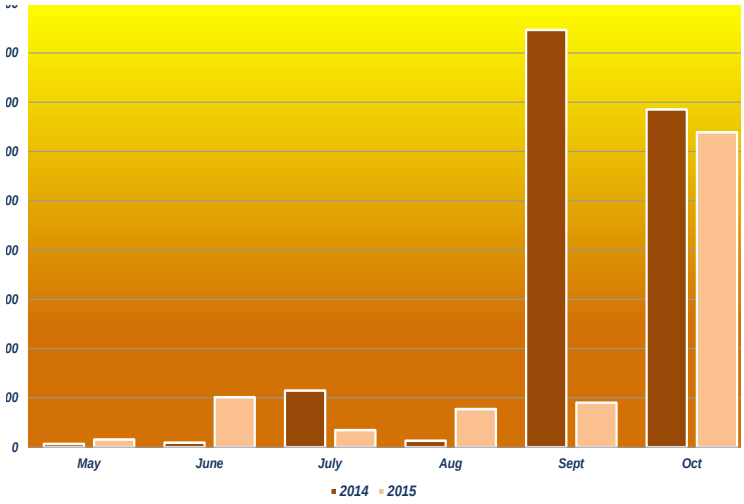
CULEX TARSALIS



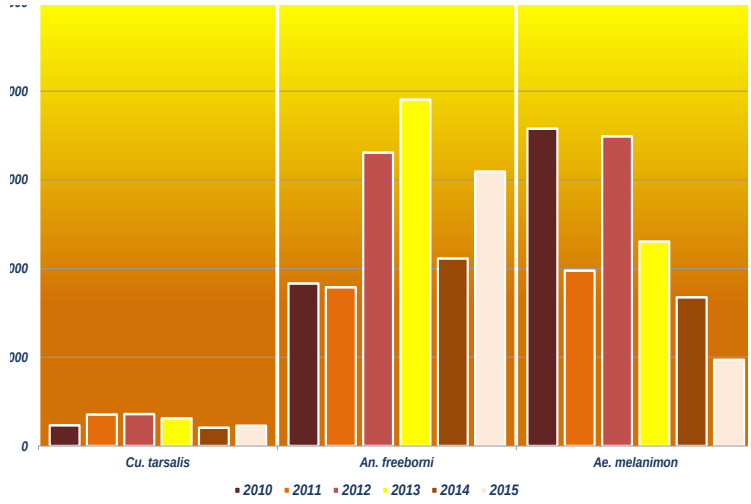
ANOPHELES FREEBORNI



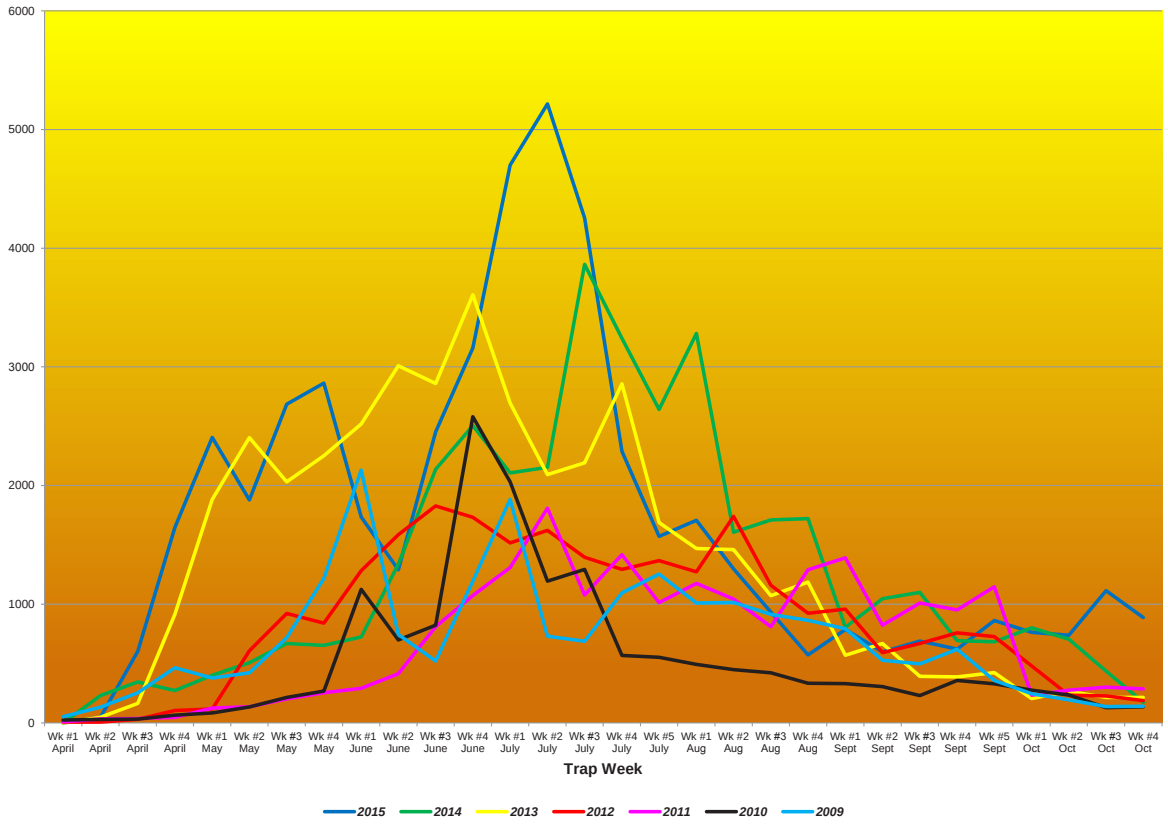
AEDES MELANIMON



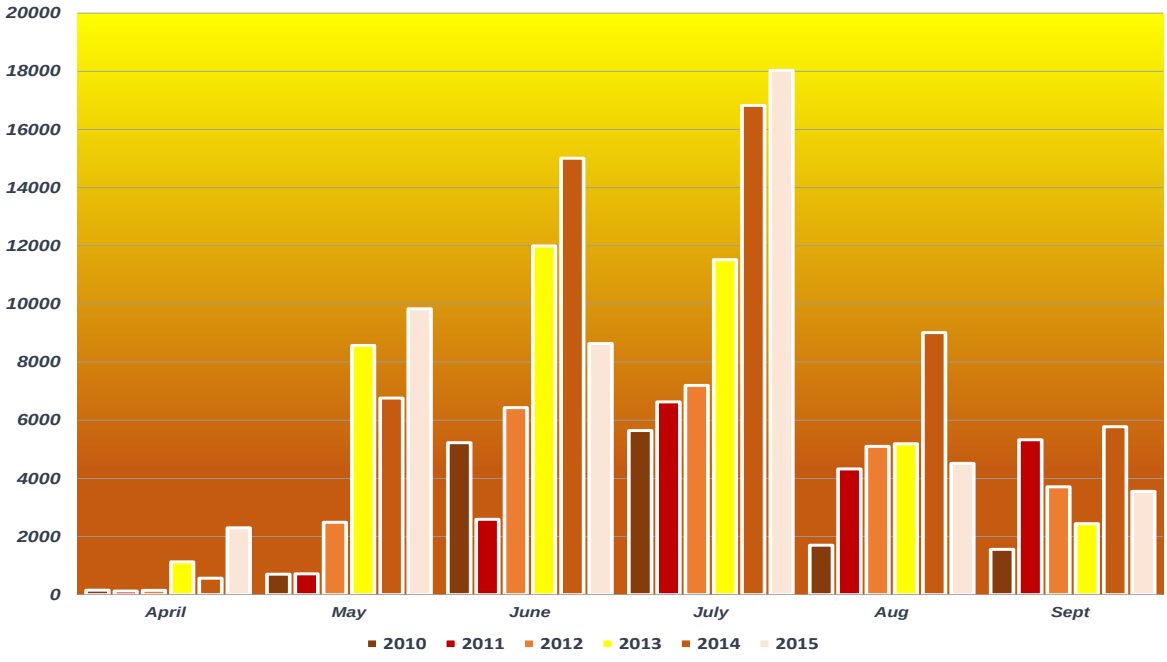
ANNUAL TOTAL FEMALE MOSQUITOES



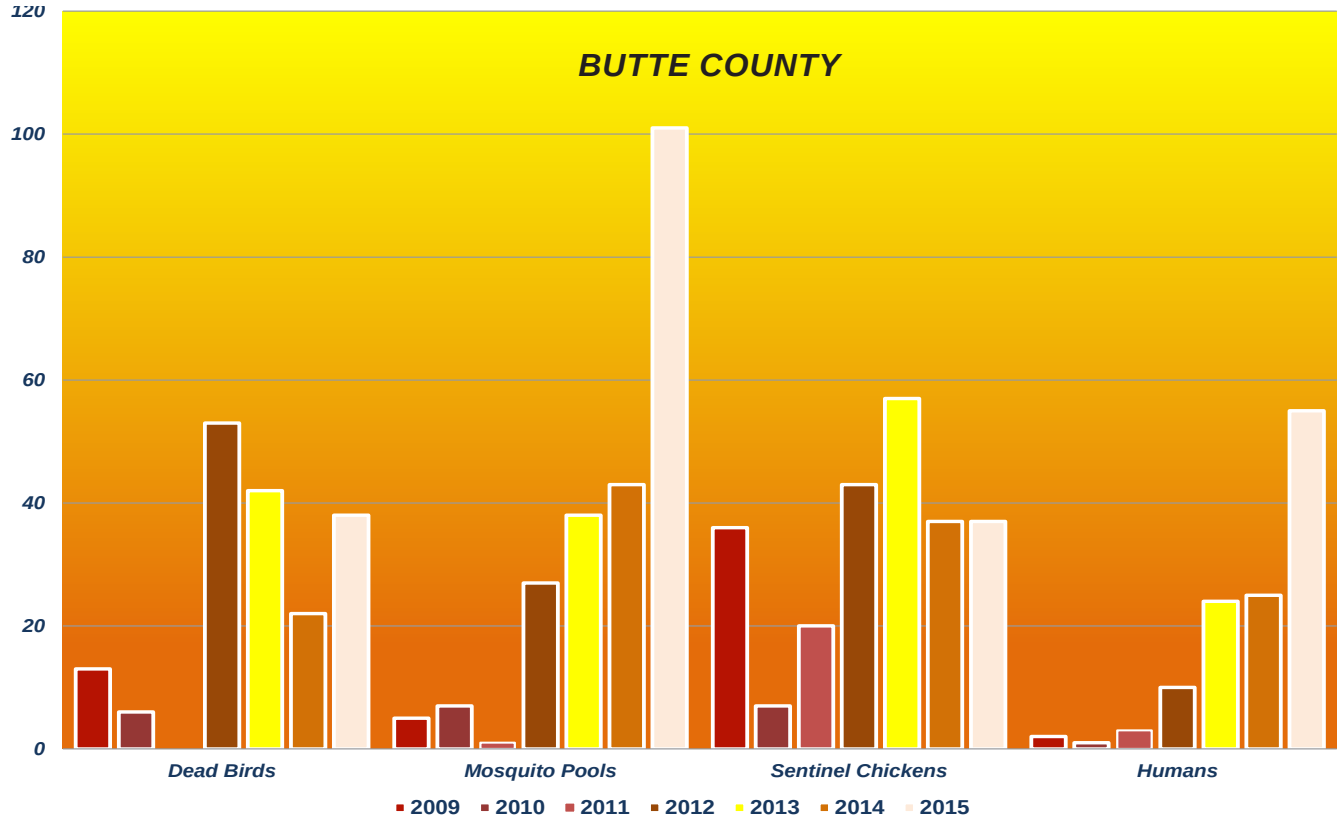
GRAVID TRAP FLUCTUATION BY WEEK

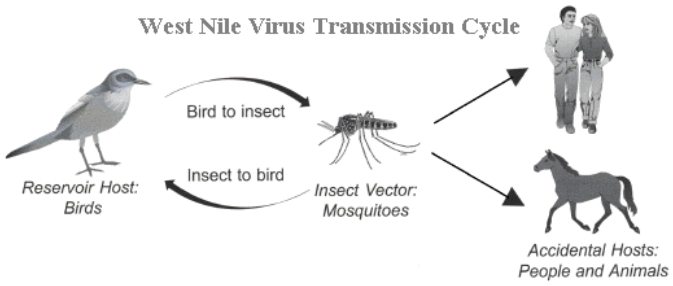


GRAVID TRAP FLUCTUATION BY MONTH



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.

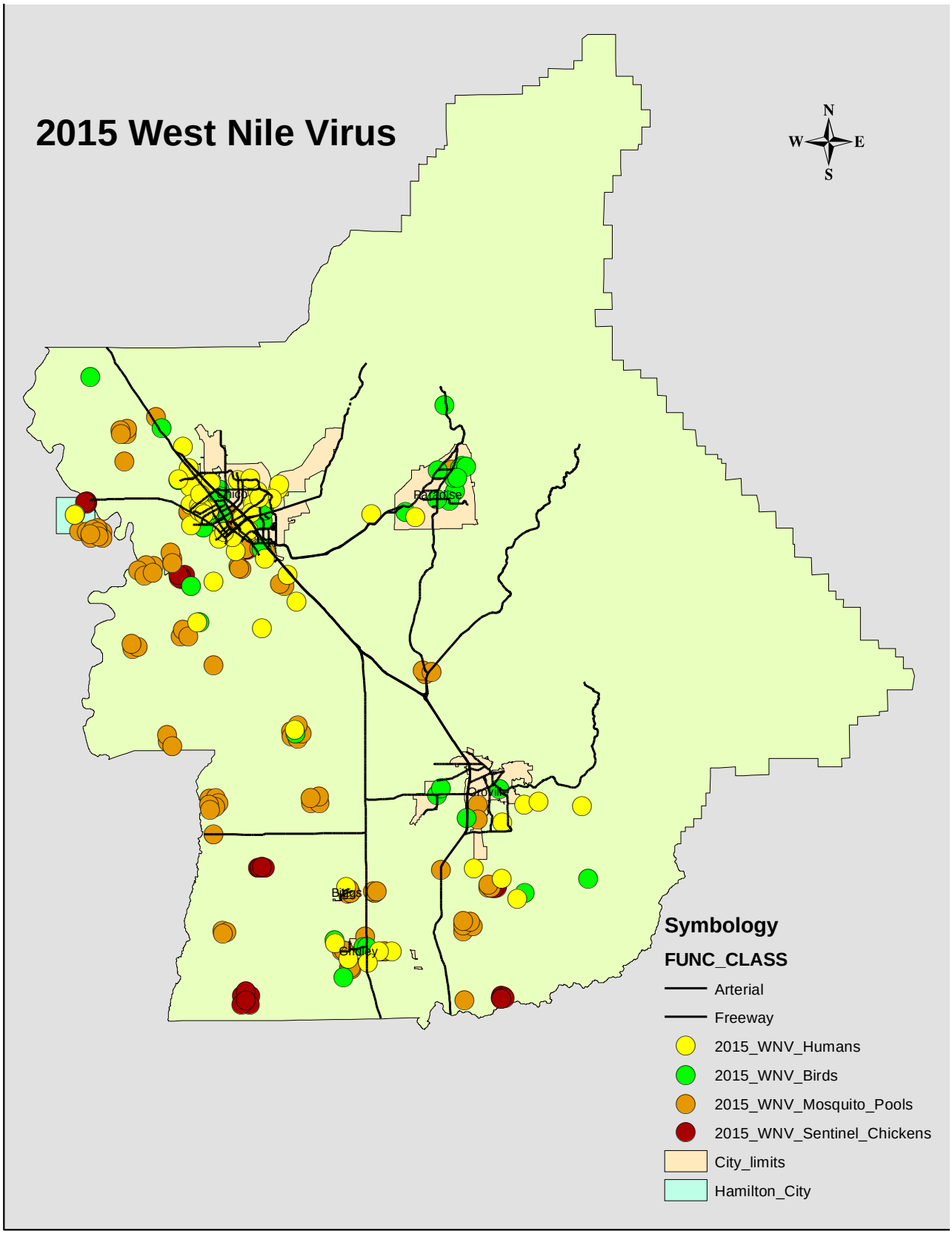
MILDER SYMPTOMS IN SOME PEOPLE

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.

2015 BUTTE COUNTY WEST NILE VIRUS MAP

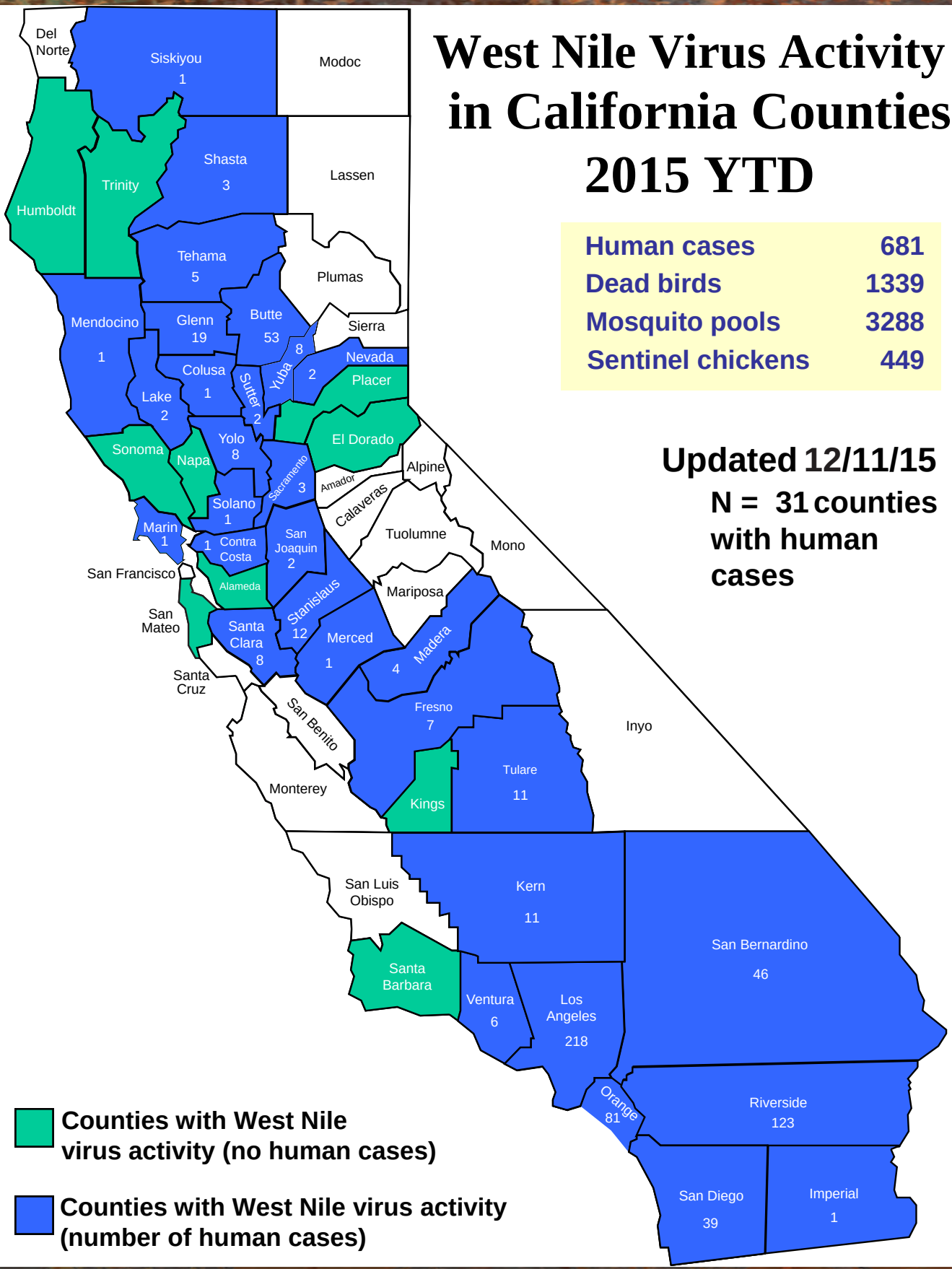


West Nile Virus Activity in California Counties 2015 YTD

Human cases	681
Dead birds	1339
Mosquito pools	3288
Sentinel chickens	449

Updated 12/11/15

N = 31 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) 2015

Mosq. Breeding Source Treated	lbs. of Fish Planted	Acres Treated	Apps. Made
Stock Pond	1	1	3
Dredger Pit/ Ponds	3	16	13
Irrigation (Canal, Ditch, Pond,)	40	119	267
Managed Wetlands	57	1121	42
Seepage	2	4	12
Water Trough	7	5	55
Field Drain	19	45	194
Dist. Grounds/Fish Ponds	266	530	147
Residential Fish Pond	4	8	81
Swimming Pool/Spa	4	7	74
Residential Misc. Container	3	2	45
Public Domain/Flood Control	1	2	1
Freeway/Road Drain	1	2	4
Sewage Ponds	2	6	7
Service Requests	4	8	6
Retention Detention/Ponds	2	4	4
Pastures	1	2	10
Misc. Container/Nursery	1	2	2
Natural Sources/Wildlife Area	2	36	11
Rice	7	15	8
Pond, Seepage, Slough, Creek	17	40	86
Sentinel Fish Tanks	33	1	148
Large Area/Many Source Type	1	2	4
Annual Totals	***477***	***1978***	***1224***

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

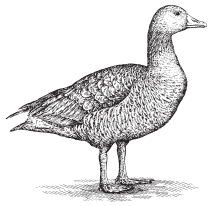
Calibration Training

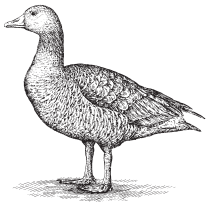
MATERIALS USED 2015

Materials	Amount of Materials		Acres Treated	Number of Applications
Larvicides				
Abate 4E	0.02	gal.	2.00	2
Abate 5% Pellets	49.90	lbs.	10.00	10
Agnique	1.77	gal.	8.83	64
Altosid SBG II	209.10	gal.	30.26	13
Altosid XR Briquettes	4.45	lbs.	0.09	14
Altosid XR-G	7.50	lbs.	0.75	9
Bactimos Briquettes	1.24	lbs.	0.07	11
Cocobear Oil	611.13	gal.	201.45	841
Fourstar Briquetts	15.04	lbs.	0.41	10
Golden Bear	3.44	gal.	1.12	4
Natular G-30	1178.90	lbs.	166.41	62
Natular XRT	2.38	lbs.	0.06	11
Vectobac 12AS	3974.55	gal.	55915.94	807
Vectobac G	6108.00	lbs.	662.25	69
Vectobac GR	55242.77	lbs.	5490.54	133
Vectobac GS	10054.00		957.12	22
Vectobac WDG	244.37	lbs.	569.11	7
Vectolex WDG	14.20	lbs.	17.97	20
Vectomax FG	2426.00	lbs.	237.93	5
Vectomax WSP	236.21	lbs.	12.35	930
			64284.66	**3044**
Adulticides				
Anvil 10+10	329.03	gal.	108626.14	1067
Duet	545.00	gal.	112912.69	1207
Kontrol	88.61	gal.	9293.63	174
Perm X ULV	35.68	gal.	3191.67	56
Pyrethrin 12%	0.41	gal.	94.55	1
Pyronyl Oil	4.75	gal.	648.46	7
Trumpet	959.98	gal.	124588.10	400
Zenivex E-20	2.08	gal.	1175.76	11
			360531.00	**2923**
Barrier Sprays				
Suspend	16.50	gal.	47.78	394
			47.78	**394**
Yellow Jacket Control				
Drione	0.44	lbs.	0.22	6
Knox Out 2FM	0.41	gal.	0.14	13
			0.36	**19**
Herbicides				
Round Up Pro Max	2.25	gal.	3.50	8
Dimensinon 2EW	0.35	gal.	1.48	1
			4.98	**9**

Aircraft Spraying

Total Acres Treated	**188,491.50**
Total Acres Rice	**57,077.86**
Managed Wetlands	**6,572.03**
Total Acres ULV	**124,588.10**





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.

2015 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
Charles Bird	Board Vice President	County at Large	December 31, 2018
Jack Bequette	Board Trustee	County at Large	December 31, 2016
Allan Seefeldt	Board Trustee	County at Large	December 31, 2015
Bo Sheppard	Board Trustee	City of Biggs	December 31, 2018
Larry Kirk	Board Trustee	City of Chico	December 31, 2017
Jerry Ann Fichter	Board Assistant Secretary	City of Gridley	December 31, 2015
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, 2015

2015 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
David Corson	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
Dakota Burley	MVC Assistant Seasonal
Jordan Delatorres	MVC Assistant Seasonal
James Favilla	MVC Assistant Seasonal
James LaMar	MVC Assistant Seasonal
Natalie LopesChuna	MVC Assistant Seasonal
Chase Moore	MVC Assistant Seasonal
Stetcyn Arrington	MVC Assistant Seasonal

Keeping the Equipment Running

Maruyama Calibration

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

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 2014 – December 2015

This 16th day of January 2014

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 Administrator

CALIFORNIA INVASIVE SPECIES

Over the past several years, two invasive (non-native) mosquito species have recently been found in several California cities 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, and other viruses. Below is an update on chikungunya and dengue:

Chikungunya

As of November 13, 2015, there have been 156 cases of chikungunya reported in California (45 confirmed, 111 probable). These cases are from 25 counties, 9 with invasive Aedes. Of those returning to counties with invasive Aedes, 48 or 55% were likely viremic while in California. 90% of these cases reported travel to Latin America, 34% with travel to Mexico, 17% with travel to El Salvador and 12% with travel to Guatemala.

Dengue

As of November 13, 2015, there have been 83 cases of dengue reported in California (18 confirmed, 65 probable). These cases are from 18 counties, 8 with invasive Aedes. Of those returning to counties with invasive Aedes, 35 or 54% were likely viremic while in California. 40% of these cases reported travel to Latin America, 13% (11) with travel to Mexico. Last year at this time California had 9 cases reported from Mexico.

Mexico

Chikungunya- There have been 9,375 confirmed cases of chikungunya in 2015. There has not been any local transmission reported from Baja California. Sonora reported their first case of locally transmitted chikungunya in September and have had over 20 cases to date.
Dengue- There have been 20,409 confirmed and 189,531 probable cases of dengue reported in Mexico for 2015. Baja California has reported 96 locally transmitted cases and Sonora has reported 2,054 locally transmitted cases to date. The total confirmed cases for Mexico is about 13% lower than this time last year.

Aedes albopictus

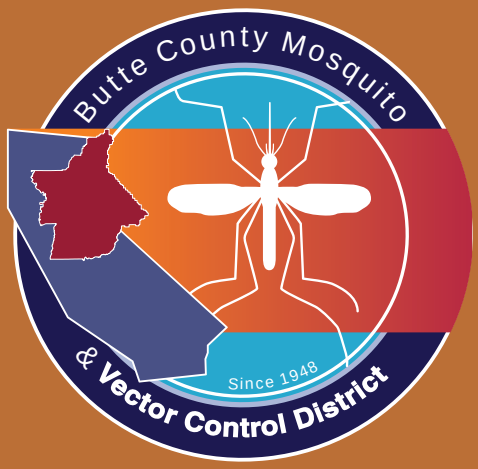
Aedes aegypti

2015 FINANCIALS

Butte County Mosquito and Vector Control District For The Year Ended June 30, 2015				
				Variance Favorable
		Budgeted	Actual	(Unfavorable)
Revenue		$ 3,301,692	$ 3,637,759	$ 336,067
SALARIES & BENEFITS				
Salaries		$ 1,165,000	$ 1,154,436	$ 10,564
Workers Compensation		$ 50,000	$ 56,651	$ (6,651)
FICA & U I		$ 105,000	$ 100,058	$ 4,942
Health Insurance		$ 365,000	$ 257,537	$ 107,463
Health Ins Reimbursement		$ 24,200	$ 15,603	$ 8,597
PERS		$ 217,000	$ 219,636	$ (2,636)
	TOTAL	$ 1,926,200	$ 1,803,921	$ 122,279
SERVICES & SUPPLIES				
Gas & Oil		$ 120,000	$ 100,361	$ 19,639
Repairs & Parts-Airplane		$ 20,000	$ 20,092	$ (92)
Repairs & Parts		$ 30,000	$ 28,712	$ 1,288
Office Supplies		$ 15,000	$ 11,231	$ 3,769
Education & Publicity		$ 40,000	$ 28,171	$ 11,829
Insecticides		$ 553,000	$ 571,044	$ (18,044)
Expendable Equipment		$ 50,000	$ 59,581	$ (9,581)
Communications		$ 20,000	$ 16,240	$ 3,760
Travel		$ 15,000	$ 4,017	$ 10,983
Utilities		$ 25,000	$ 20,379	$ 4,621
Rent		$ 5,000	$ 1,552	$ 3,448
Special Services		$ 100,000	$ 104,308	$ (4,308)
Trustee Allowance		$ 13,200	$ 12,500	$ 700
General Insurance		$ 85,000	$ 65,869	$ 19,131
Employee Trng & Dues		$ 10,000	$ 8,162	$ 1,838
District Fees and Permits		$ 30,000	$ 16,184	$ 13,816
Miscellaneous		$ 20,000	$ 10,620	$ 9,380
Research Supplies		$ 50,000	$ 37,662	$ 12,338
Alternate Technology		$ 5,000	$ -	$ 5,000
Special Discretionary		$ 25,000	$ 10,585	$ 14,415
Gambusia		$ 5,000	$ 4,758	$ 242
	TOTAL	$ 1,236,200	$ 1,132,028	$ 104,172
CAPITAL OUTLAY				
Bldg & Improvements		$ 50,000	$ 52,799	$ (2,799)
Vehicles		$ 140,000	$ 136,264	$ 3,736
Spray Equipment		$ 30,000	$ 34,762	$ (4,762)
Aircraft		$ 10,000	$ 9,063	$ 937
Office Equipment		$ 2,000	$ -	$ 2,000
Laboratory Equipment		$ 2,000	$ 4,760	$ (2,760)
Shop Equipment		$ 2,000	$ -	$ 2,000
Education & Publicity		$ 2,000	$ -	$ 2,000
Miscellaneous		$ 2,000	$ -	$ 2,000
Communications		$ 5,000	$ -	$ 5,000
	TOTAL	$ 245,000	$ 237,648	$ 7,352
Appropriation for contingencies		$ 850,350		$ 850,350
Grand Total		$ 4,257,750	$ 3,173,597	$ 1,084,153
Excess(Deficiency) of Revenue over Expenditures		$ (956,058)	$ 464,162	$ 1,420,220
Fund Balance 2014			2,571,971	
Fund Balance 2015			3,036,133	

Butte County Mosquito and Vector Control District
Balance Sheet
Governmental Funds
For The Year Ended June 30, 2015

Assets		
Cash and Investments	2,710,726	
Accounts receivable	12,600	
Inventories	391,737	
Total Assets	3,115,063	
Liabilities and Fund Balance		
Liabilities		
Accounts payable	30,067	
Accrued Salaries and Benefits	47,861	
Use tax payable	1,002	
Total Liabilities	78,930	
Fund Balance		
Nonspendable:		
Reserved for imprest cash	11,500	
Reserved for inventories	391,738	
Committed to:		
General Reserve	360,000	
Aircraft Engine	350,000	
Capital outlay	550,000	
Assigned to:		
Research	20,000	
Vector borne Disease	155,000	
Unassigned, reported in:		
General Fund	1,197,895	
Total Fund Balance	3,036,133	
Total Liabilities and Funds Balance	3,115,063	
Reconciliation of the Balance Sheet of Governmental Funds to the Statement of Net Assets:		
Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the governmental fund		2,964,009
Deferred outflows and inflows of resources represent pension related activity that will occur in future periods and, therefore, are not reported in the governmental fund		(414,901)
Long term liabilities, including the net pension liability, are not due in the current reporting period and, therefore, are not reported in the governmental fund.		(4,487,538)
Net Position of Governmental Activities		1,097,703


Butte County Mosquito
& Vector Control District
Since 1948