

annual report 2014



protecting public health since 1919

Foreword

SHASTA MOSQUITO AND VECTOR CONTROL DISTRICT

19200 Latona Road, Anderson, CA 96007

Telephone: (530) 365-3768 Fax: (530) 365-0305

Web: shastamosquito.org



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Manager

Residents of the Shasta Mosquito and Vector Control District,

On behalf of the Board of Trustees and staff of the District, we are pleased to present the 2014 Annual Report for the Shasta Mosquito and Vector Control District. This year was marked by one of the most severe droughts on record resulting in Governor Brown declaring an official drought emergency. The common thought regarding drought and mosquito production might be that with less water, you would have fewer mosquitoes. However, the risk of mosquito borne diseases can actually increase in drought years. This is largely due to several factors which include; normally healthy creeks no longer flowing as freely but are pooling in areas, areas that had mosquito fish protecting them from mosquito production are no longer able to support the effective bio-control, and most importantly, when water is scarce the vectors (mosquitoes), reservoirs of disease (birds) and incidental hosts (humans) are all competing in close proximity for the same resource.

West Nile virus (WNV) continues to challenge the District as the most important vector-borne disease we are currently facing. This year Dr. Ron Chapman, director of the California Department of Public Health, corroborated what we detected locally, "The proportion of mosquitoes infected with West Nile virus is at the highest level ever detected in California." This soaring level of infection in mosquitoes led to our highest human case count statewide since 2004, totaling 798 human cases with 29 WNV related fatalities reported in 2014. This year serves as a reminder of how dramatic changes in the ecology of diseases and vectors can very quickly accelerate public health concerns.

This year we also saw some changes on the personnel side of District operations. Two full time Vector Control Assistants, Mark Mulcahy and Chris Ocegueda were hired to replace retired staff and unfortunately we said goodbye to one of our Field Supervisors. Geoff Taylor spent 17 years with the District in several different positions and was instrumental in building the District to our current level.

The District continues our firm commitment to the residents of SMVCD. Going forward, we hope to continue fostering cooperation with residents, property owners, community groups as well as other governmental agencies to enhance the impact we have on vector control. We look forward to providing our services to you in the future. If you have any questions about this report or District services, please visit our website at www.shastamosquito.org or call us at (530) 365-3768.

Sincerely,

Peter Bonkrude
District Manager

Tom Mancuso
President, Board of Trustees

Board of Trustees



Staff



Back Row

Kevin Pearson
Peter Bonkrude
Al Shabazian
Mark Mulcahy
Kelly Cleland
John Albright
Darcy Buckalew
Valerie Peterson
Guangye Hu
Haley Bastien
Kendra Angel-Adkinson

Front Row

Mike Alexander
Corey Boyer
Geoff Taylor

Chris Ocegueda
(inset)



District History



1919 Redding Mosquito Abatement District was established.

1950s Anderson, Clear Creek and Cottonwood Mosquito Abatement Districts were consolidated to create the Shasta Mosquito Abatement District.

1970s Two annexations occurred which added 48 square miles from Palo Cedro and Balls Ferry areas to make a 130 square mile district.

1990s The District annexed Shasta Lake, Keswick, Shasta, Centerville, Cloverdale, Happy Valley, Olinda, West Cottonwood, Coleman, Millville, Bella Vista, Mt. Gate and Jones Valley areas. This annexation now encompassed approximately 384 square miles. In 1994 the District changed its name to the Shasta Mosquito and Vector Control District to better reflect its services.

2000s The District annexed Lakehead, Castella, French Gulch, Igo, Ono, Shingletown and Viola, therefore the District now encompasses approximately 1086 square miles in Shasta County.



"1920"
Digging a
Ditch to
Disperse
Water

Integrated Vector Management

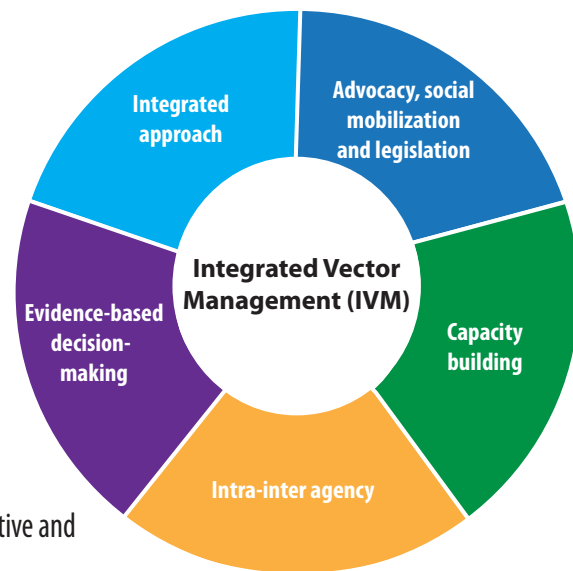
What is a Vector

A vector is an insect or living carrier that transmits an infectious agent.

What is Integrated Vector Management (IVM)

IVM is "a rational decision-making process for the optimal use of resources for vector control" (WHO, 2008). Its goal is to make a significant contribution to the prevention and control of vector-borne diseases. An IVM-based process should be cost-effective, should have indicators for monitoring efficacy with respect to impact on vector populations and disease transmission, and should employ sustainable approaches. IVM comprises several key elements:

- **Policy and Legislation:** This involves the establishment and continuation of an appropriate regulatory and legislative framework for public health in order to ensure implementation of effective and sustainable interventions for the prevention and control of vector-borne diseases.
- **Collaboration:** This component relates to the establishment of effective mechanisms for collaboration within and between public and private sectors whose actions impact vectors.
- **Empowerment and involvement of local communities and other stakeholders:** The empowerment of communities and involvement of other stakeholders ensures that they adequately participate in the planning, design and implementation of vector control interventions.
- **Integrated approach:** This involves the integration of non-chemical and chemical vector control. It further relates to opportunities for multi-disease control approaches aimed at rational and synergistic use of available resources for disease control.
- **Evidence-based decision making:** Strategies and interventions need to take into account local vector ecology (breeding habitats, life cycles, feeding and resting behavior), pattern of disease transmission, resources and the prevailing socio-economic conditions.
- **Capacity building:** In order for IVM initiatives to succeed, it is important that there is development of essential physical infrastructure and strengthening of the requisite technical and program or project management skills at national and local levels.



West Nile virus

Shasta Mosquito and Vector Control District West Nile virus Activity 2006-2014

	2014	2013	2012	2011	2010	2009	2008	2007	2006
Humans	2	1	1	0	0	0	1	9*	4
Horses	1	0	5	0	0	1	0	3	2
Sentinel Chickens	11	21*	6	0	0	0	3	7	4
Mosquito Samples	33*	15	17	1	0	2	0	17	7
Dead Birds	6	38	36	0	4	9	7	45	88
Squirrels	0	1	1	0	0	0	0	0	2*

The all-time District record for WNV+ DeadBirds was 90 set in 2004 (no testing in September).
The record for horse cases (30 cases) was also in 2004 with 10 horse fatalities.

*All-Time District Record

Shasta County

California Drought

The drought plaguing California was likely a major contributor to the increase in WNV cases. When there is less water, birds and mosquitoes are seeking out the same water sources. Consequently, they are more likely to come into closer proximity to one another, which could increase the virus.

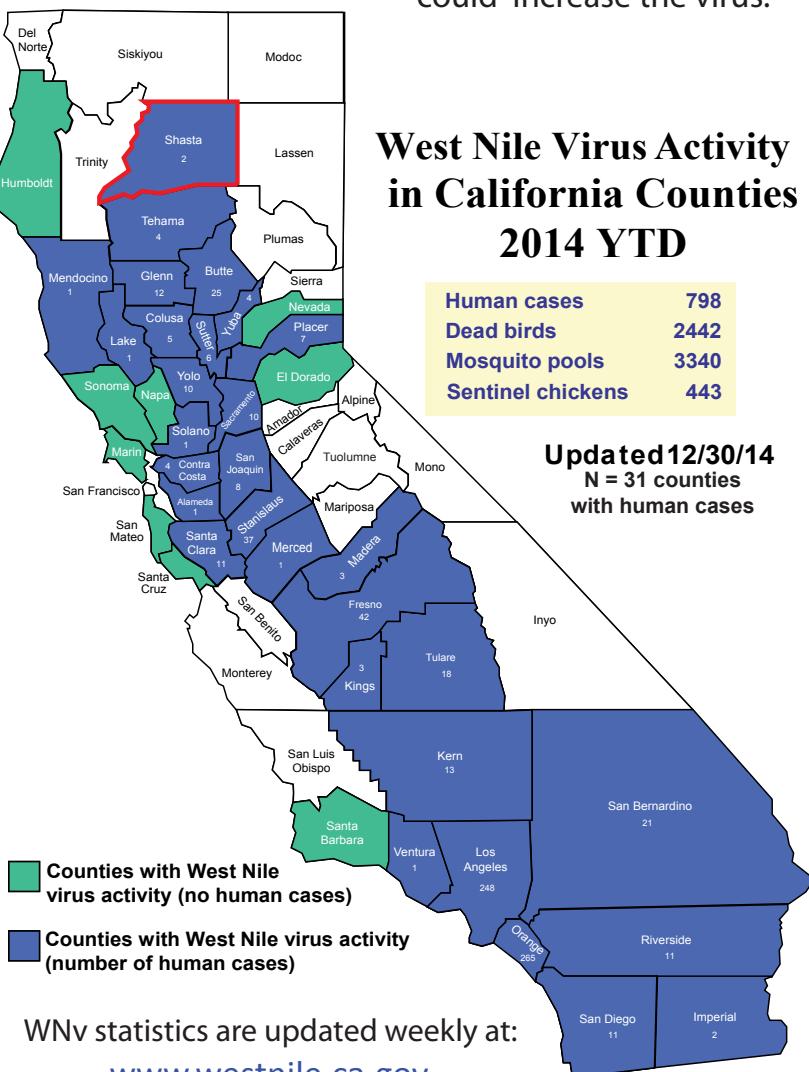
California West Nile Virus

	2012	2013	2014
Human Cases	479	379	798
(fatal)	20	15	29
Horses	22	13	16
Dead Birds	1,644	1,251	2,442
Mosquito Samples	2,849	2,528	3,340
Sentinel Chickens	540	485	443
Squirrels	23	8	4

West Nile Virus Activity in California Counties 2014 YTD

Human cases	798
Dead birds	2442
Mosquito pools	3340
Sentinel chickens	443

Updated 12/30/14
N = 31 counties
with human cases



There were 798 cases of West Nile virus reported in California in 2014. That's more than three times the average number of annual cases over the past five years.

More than half of 2014's cases have come from Los Angeles and Orange counties, according to state data.

California recorded 29 human West Nile-related deaths. The state hasn't seen that many fatalities from the virus since 2004, when 29 people died of the disease.

In the past five years, West Nile activity appeared to taper off by November. In 2014, human cases were being reported through December.

WNV statistics are updated weekly at:

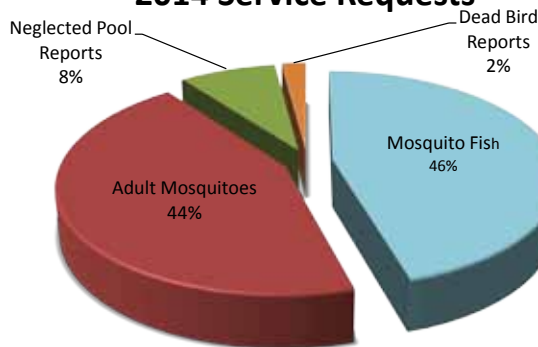
www.westnile.ca.gov

Service Request

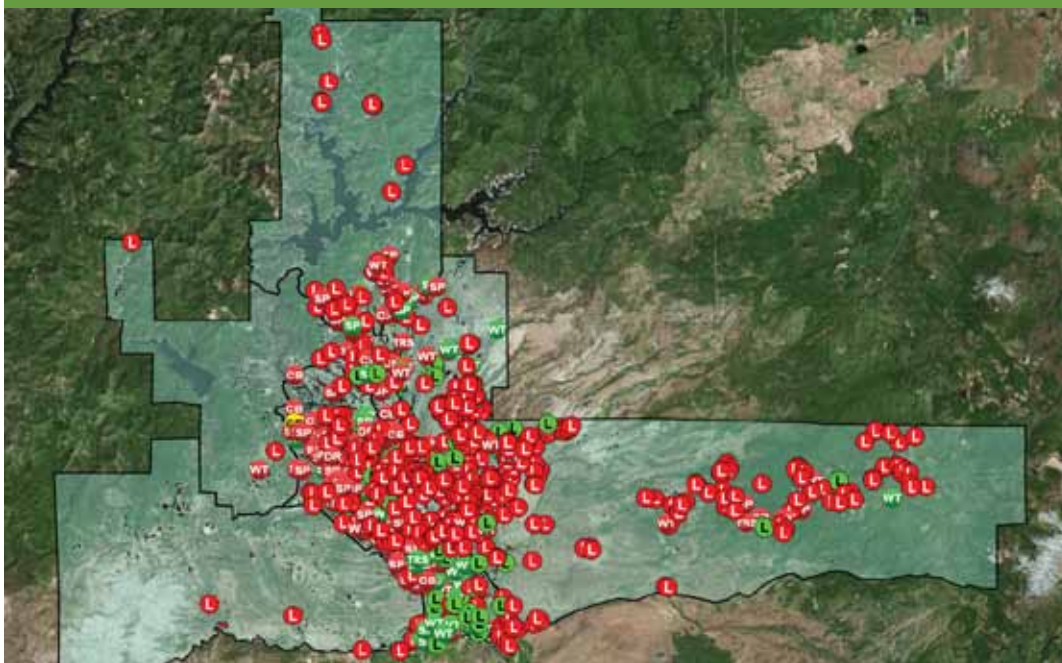


**Yard with
Standing
Water**

2014 Service Requests



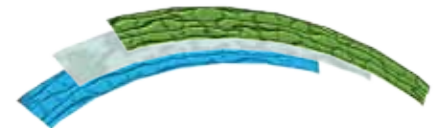
The circles below are potential mosquito breeding sources. When a new source is found the technician marks it on the mapping software used by all SMVCD employees. These sources are continuously monitored.



What's "Bugging" You?

District staff truly feel responding to our public through service requests provides a connection that not only informs the District of potential mosquito issues, but provides an engaging outlet for staff to educate and update District residents on mosquito concerns, mosquito fish requests and neglected pool reports. In addition to mosquito control issues, we have staff that can provide insect identification, vector control consultations, and general vector information.

We provide several ways to contact the District. Twenty-four hour access is available through the service request feature on our website www.shastamosquito.org, our office hours are 8am-4pm (M-F) and we will have someone available to answer your call. These calls are an important source of information for the District. Residents are encouraged to call or submit a request as soon as they have a need for service. We strive to respond to service requests within two business days.



Community	Requests
Anderson	94
Bella Vista	21
Castella	10
City of Shasta Lake	50
Cottonwood	60
Enterprise	47
French Gulch	1
Happy Valley	28
Igo	5
Jones Valley	0
Lakehead	13
Millville	6
Mountain Gate	4
Ono	3
Palo Cedro	32
Redding	339
Shasta	5
Shingletown	32
TOTAL	750

Neglected Pools

The drought of 2014 brought a new element to neglected pools. With water restrictions in many areas homeowners were unable to maintain water levels in their pools. Despite these conditions the number of neglected pools was considerably lower than in 2013 in both reported and aerial surveillance pools.



Reported Pools

2013	2014
94	67

Aerial Surveillance Pools

2013	2014
697	331

Warrants Issued to Property Owners

Thousands of mosquitoes can hatch from a single neglected swimming pool and this could effect an entire neighborhood. To help combat this battle the District has obtained a warrant since 2010 from the Superior Court of the State of California to inspect and abate. From April through October this allows technicians to gain access to neglected swimming pools. This is necessary for the following situations:

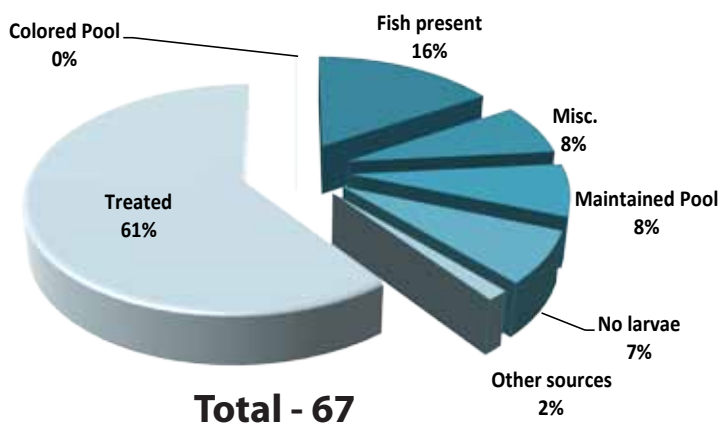
1. The property is vacant and ownership of the property cannot be easily identified.
2. The property is not vacant, but the owner cannot be contacted.
3. Permission to enter is not granted by the owner or tenant for some reason.



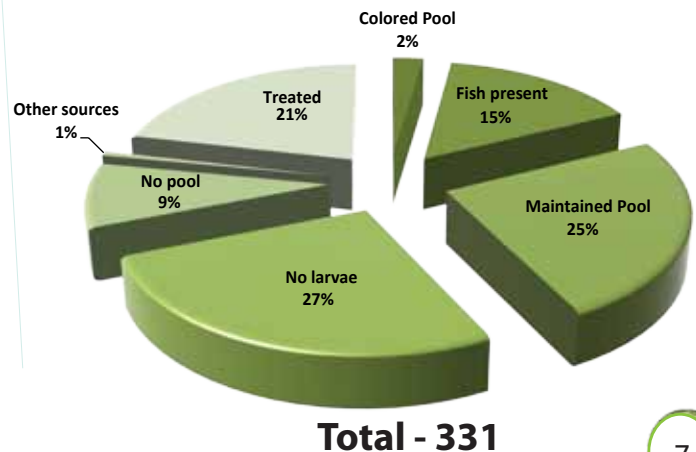
The warrant requires District personnel to make a reasonable attempt to gain landowner permission to enter a property before the warrant is exercised to gain access. The warrant must be posted on the property to be entered for 24 hours prior to entry by District personnel.

Twenty-eight warrant notifications were issued in 2014. No fines were issued, but access to pools was quickly gained.

2014 Reported Pools



2014 Aerial Surveillance Pools



Biological Control

Why Fish?

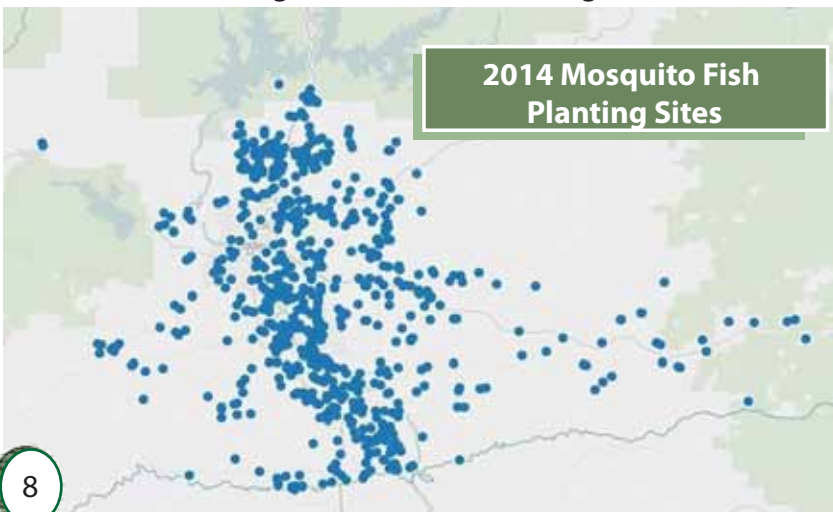
Biological control is using an organism to control mosquito populations. The District continued to use mosquito fish, *Gambusia affinis*, as an effective biological control agent. Mosquito fish are released into confined permanent and semi-permanent water bodies. Each mosquito fish consumes up to 100 mosquito larvae per day and the females reproduce very rapidly. In 2014, a total of 372 requests were received for mosquito fish.

Mosquito fish are provided free of charge to residents. In 2014, the staff stocked a total of 848 mosquito breeding sources with mosquito fish. These breeding sources include neglected swimming pools, bird baths, fountains, animal water troughs, and backyard and recreation ponds. The total area treated with mosquito fish was 934.70 acres.



The fish grader is used to grade out the larger females for breeding.

2014 Mosquito Fish Planting Sites



In 2014, the District used the newly established indoor fish rearing program to stock and rear mosquito fish. It stocked approximately 180 pounds of mosquito fish over the winter and produced 100-150 fry each day. The program made mosquito fish available for releases all year round, especially in the spring season when some species of mosquitoes started to breed, but the water temperature was still too cold for mosquito fish to grow and reproduce in nature.



A breeding box is a tightly woven mesh that allows the small fry to come up safely for their first breath of air. The box also protects them from the adult fish. Synthetic plants are hanging on the bottom to provide the fish a more secluded place with cover.

Physical Control



Overgrown Trails



Forestry Cutter Used to Clear Thick Brush

Physical control is achieved by altering the major ecological components of the vector's environment associated with the establishment and production of the vector's immature stages. It can be carried out by simply turning over a bucket, removing a used tire, using hand tools (machetes and chain saws), herbiciding to control overgrown vegetations, or using heavy equipment to clean ditches. The District worked closely with the California Department of Fish and Wildlife for environmental concerns and also collaborated with the CalFire Sugar Pine inmates to increase manpower.



Trails After Clearing

Additionally, the District reviewed and commented on proposed projects within the District boundaries being considered by the city and county departments. This provided opportunities to reduce vector breeding conditions prior to construction and development.

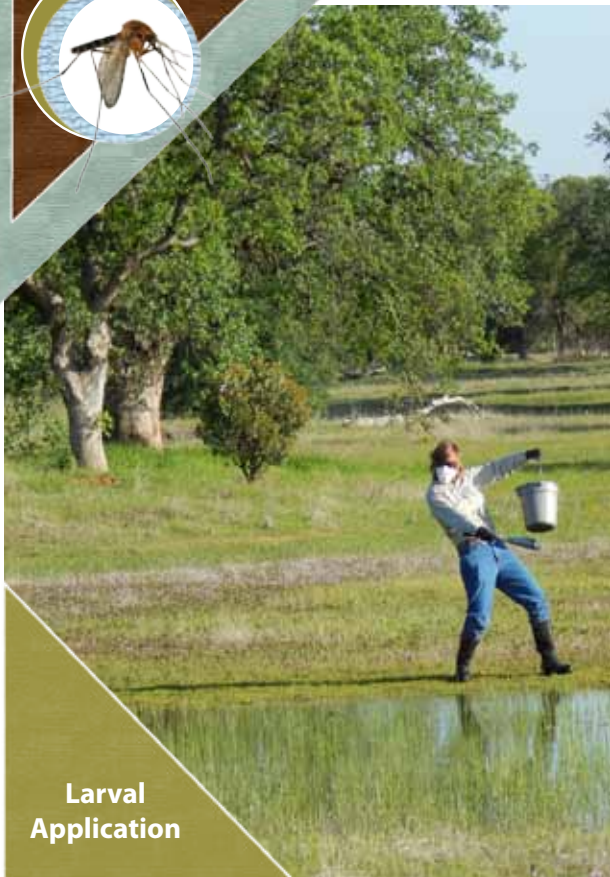


Access to Sources Blocked



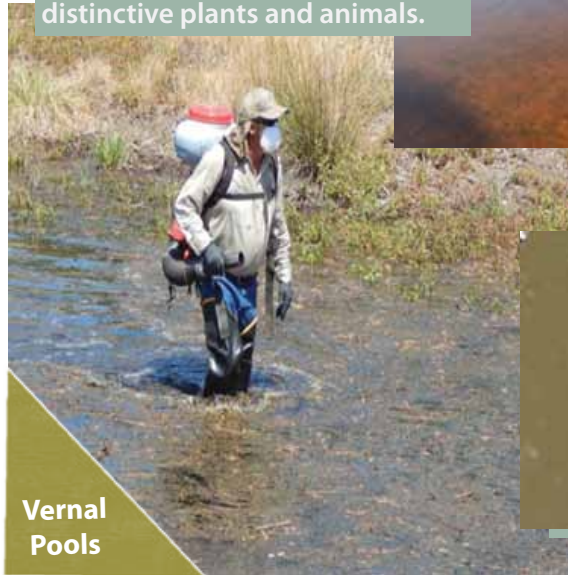
Herbiciding

Immature Mosquito Control



Larval
Application

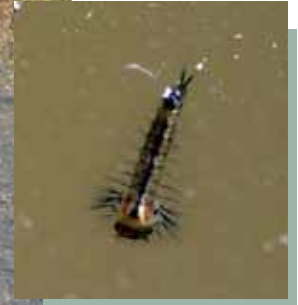
Vernal Pools are temporary pools of water that provide habitat for distinctive plants and animals.



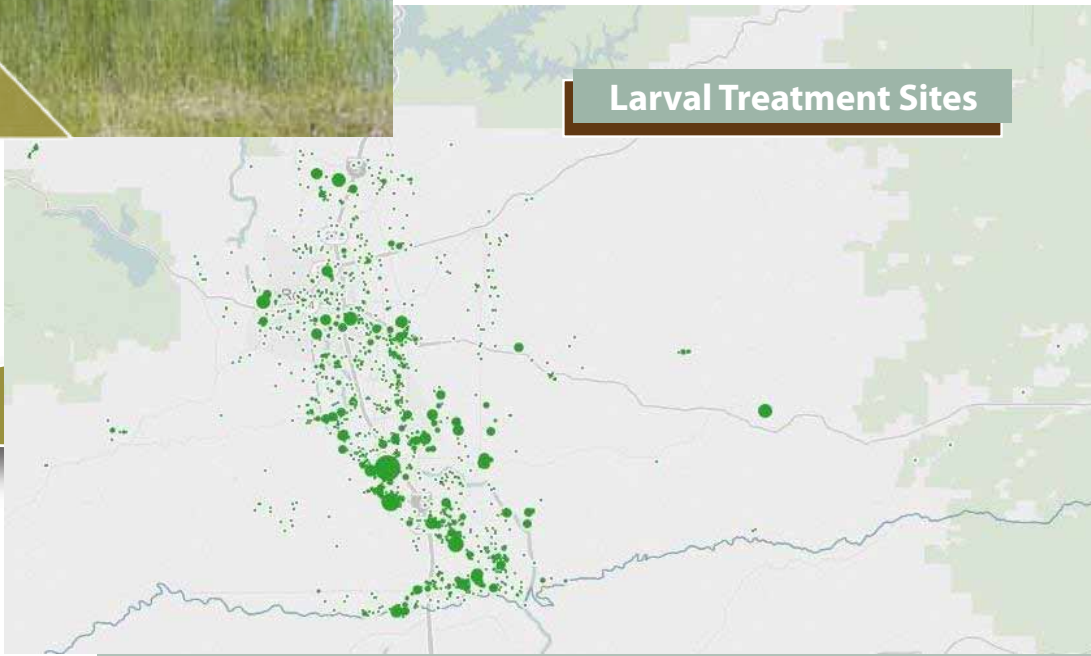
Vernal
Pools



Pasture



Larval Treatment Sites



The larval and pupal stages of mosquitoes live in water just like fish. Since they are confined to water they are much easier to control than the flying adult mosquitoes they emerge into.

The District inspected 17,131 sites for mosquito breeding and treated 4,334 sites of standing water. Fifteen products referred to as larvicides were used to aid in the control of mosquito larvae. The total area treated was more than 4,300 acres. When used as directed by the label, these larvicides produce no significant harm to humans, non-target organisms or the environment.

In addition to the regular inspection and larviciding described above, District staff completed several special projects. In the spring, the District focused on vernal pool treatment to suppress early season mosquitoes. In the summer, staff concentrated on catch basins. Staff inspected more than 8,000 catchbasins and treated 1,500 of those that had mosquito breeding occurring.

Adult Control



Adult Control Treatment Sites

Each dot represents a fogging route.

Adult Control Products

- Anvil
- Fyfanon
- KONTROL 4-4
- Merus
- Perm-X UL 31-66
- Zenivex

Adult Mosquito Control

An integral component of any IVM program is the use of adult mosquito control to quickly reduce the population of adult mosquitoes, thereby reducing the public health risk from mosquito transmitted diseases. Even the most effective larvicide programs will require adult mosquito control application when populations and disease incidences increase to numbers where people are at risk. These applications utilize techniques and products that are regulated by federal and state agencies.

Mosquito adulticides are applied as ultra-low volume (ULV) sprays. ULV sprayers dispense very fine droplets that stay aloft and contact flying mosquitoes; these products have a very short lifespan in the environment and break down readily in sunlight. ULV applications involve small quantities of the products active ingredient in relation to the size of the area treated, typically less than 1-3 ounces per acre. In 2014, District staff completed 498 adulticide missions and treated approximately 145,324 acres.

Number of 2014 Adult Control Routes by Community

Treehole squatter

Redding
177

Anderson
148

Cottonwood 64

Enterprise 38

City of Shasta Lake
31

Shingletown
8

Igo
5

Mo
G
a
t
t
e
i
n

Shasta
5

Millville
4

Castella
2

French
Guilch
2

Lakehead
3

Palo Cedro
2

Bella Vista
2

Happy Valley
2

Other Vectors



A small bite from a tiny tick can be a big health risk.

Ixodes pacificus
"Western Black Legged Tick"



Tick Collecting



Red Markers Represent Ticking Locations

2014 marks the 5th year of the District's tick surveillance program. Between November and March, District staff sampled 21 locations on a weekly basis. The ticks they gather are identified

and counted; this process builds statistics on tick populations over time. Upon analyzing the data this program has generated, the District identified several areas where ticks repeatedly demonstrated tick borne disease within the population. The District has worked with the appropriate land use agencies to post placards in these areas to warn and protect the public.

Ixodes pacificus, *Dermacentor occidentalis* and *Dermacentor variabilis* are the three species of ticks most commonly found within the District. Of these three, *Ixodes pacificus* (the western black legged tick) is the primary concern for tick borne diseases. *Borrelia burgdorferi*, the bacteria that causes Lyme disease was found in ticks at nine of the survey locations throughout the District in 2014. The overall infection rate in ticks throughout the District was 6.7%.

Three Stages of Lyme Disease Symptoms

- 1. Early Stage** (3-32 days after bite)
Rash (Erythema Chronicum Migrans),
Fever, Muscle and Joint Soreness,
Head ache
May not occur in 30% of patients
- 2. Secondary Stage** (Weeks-Months after Bite)
Neurological/Cardiovascular
- 3. Late Stage** (Months-Years after bite)
Arthritis/Severe Neurological

Flu-like symptoms, muscle aches, joint soreness, headache, stiff neck, chills, fever or swollen lymph nodes.

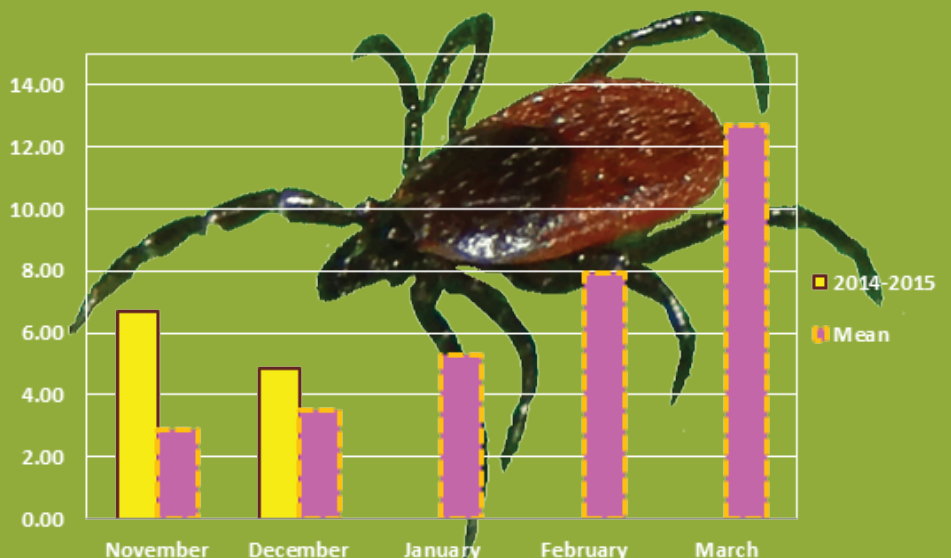
Paralyzed muscles of the face.

Palpitations of heart rhythm (rare).

An expanding rash that appears 1-30 days after the bite of an infected tick.



2014-2015 Ticks per Hour vs Seasonal Average



(*15 Sites Mean Count November 2009 - December 2014)

New & Emerging Vectors & Diseases



CALIFORNIA NEWS



Aedes aegypti

Aedes aegypti

Also known as: "Yellow fever mosquito"

Native of: Africa

Transmitted Diseases: Yellow fever, dengue, and chikungunya fever

Detected: Fresno, Madera, San Mateo, San Diego, and Los Angeles Counties



Aedes albopictus

Aedes albopictus

Also known as: "Asian tiger mosquito"

Native of: Southeast Asia

Transmitted Diseases : Cache Valley virus, dengue, St. Louis encephalitis fever, western equine encephalomyelitis and chikungunya fever



Aedes notoscriptus

Aedes notoscriptus

Also known as: "Aussie Mozzie mosquito"

Native of: Queensland, Australia

Transmitted Diseases : dengue 1-4 viruses,

dog heartworm in Australia, Murray Valley encephalitis, Ross River & Barmah Forest viruses, and Fort Valley fever virus

Detected: East Los Angeles

New Mosquito Species in California

Three new mosquito species have been detected in California in the last three years. These mosquitoes are difficult to control because of their preferred habitat, which is small artificial water-holding containers for laying eggs. Most of their preferred breeding sites are in our backyards making control a challenge. Further complicating the control efforts the eggs resist drying and can remain viable for months on dry surfaces of containers.

It is not always possible to determine how these mosquitoes were introduced into California. It is possible that the eggs were on plants, recycled tires or other materials that were transported by planes, ships or cars from infested areas to non-infested areas.

Currently, none of the exotic arboviruses carried and transmitted by *Aedes aegypti* or *Aedes albopictus* are known to be circulating among humans or mosquitoes in California, but established mosquito populations increase the potential for local transmission to occur. All reported cases of dengue in California to date have been contracted from outside of California.

For more information go to : www.cdph.ca.gov

Should District Residents be Concerned About Invasive Aedes?

The District is concerned about any potential exotic invasive species introduction. Locally, if these mosquitoes become established the surveillance and eradication efforts could draw important resources from the required needs for regular mosquito control. These exotic importations are not only a public health concern, but a budgetary concern as the techniques and staffing required for these different species are dramatically more intensive than current operations. Our District is currently looking for exotic species as part of our regular operation and has put together a plan to respond if any invasive species are discovered.

Research



Checking
Application
Equipment

Barrier Application



This icon represents
mosquito monitoring on
either side of the barrier

The red outlined
area is the
application site



Barrier
Application

Barrier Treatment

"Barrier treatment" is another adult mosquito control method used by mosquito control agencies. The technique involves the application of residual sprays to vegetation between mosquito sources and populated areas to prevent movement of mosquitoes into areas of potential human exposure. To date this method of control has not been attempted by the Shasta Mosquito and Vector Control District. In 2014, a field trial was attempted to assess the extent to which a barrier treatment might slow mosquito migration out of local source areas. The project had to be stopped due to the detection of high levels of WNV in mosquitoes trapped within the test area. This required the use of traditional adult mosquito control to reduce public health risk, which made it impossible to collect meaningful test data (mosquito populations) from the experimental site.

Overwintering Mosquitoes

Little is known about the presence of West Nile virus during the winter when mosquito activity slows. Staff began an experiment to find, collect and test mosquitoes to determine if they harbor WNV during the winter. Mosquitoes which survive the winter as adults can be found in a variety of locations such as sheds, concrete waterways, wood piles and other features which offer protection from the elements.



Mosquitoes
Found in
December



Overwintering
Mosquito
Research

Research News

Because of the risk of the introduction of new mosquito-borne diseases through tourism and commerce the US Department of Agriculture Animal and Plant Health Inspection Service (APHIS) is studying the ability of American mosquitoes to transmit mosquito-borne diseases found in other areas of the world. In 2014, live samples of local *Culex tarsalis* and *Culex pipiens* from the Shasta Mosquito and Vector Control District were sent to the APHIS Arthropod-borne Animal Diseases Research Unit in Kansas to study whether they are competent vectors of Japanese encephalitis.

Cache Valley Virus

In early 2014 Cache Valley virus, a mosquito-borne virus that causes abortion, lamb mortality and birth defects in sheep was detected in aborted lambs in an area bordering the northeastern area of the District. This disease is spread to sheep by cool-weather mosquitoes in the fall, which is outside of the District's normal time for mosquito surveillance. Beginning in November 2014, the District began to trap for mosquitoes active in cool weather to assess the level of detectable Cache Valley virus presence within the District. Because of the importance of this disease to agriculture, UC Davis has agreed to test the mosquitoes for the presence of Cache Valley and other viruses.



Abnormalities in Lambs May Include:

- Crooked joints
- Deformities of the skeleton
- Twisted necks or spines
- Weak muscles
- Uncoordinated gait

Humans and Cache Valley virus

Although unlikely, humans can contract Cache Valley virus. In 2003 a healthy 41 year old Wisconsin man became acutely ill with a severe headache, nausea, vomiting and fatigue. It was determined he had Cache Valley virus. After three days of treatment he was released. The patient claims to be fully recovered four months later.

Pesticide Resistance Testing

The District has very few effective products available to use for the control of adult mosquitoes. In order to remain vigilant against the development of resistance to this very limited choice of chemicals, regular testing is being conducted within the District to detect local mosquito tolerance to mosquito control products, and the mechanisms leading to any observed tolerance.

In 2014, the California Department of Public Health began to provide genetic testing of mosquito samples for the presence of genetic markers for a particular type of resistance called knock-down resistance (KDR). One third of the local *Culex pipiens* mosquitoes submitted from the District showed genetic markers of KDR in their DNA. Although this is a cause for concern, the problem was much more severe at other agencies from northern California that submitted samples.



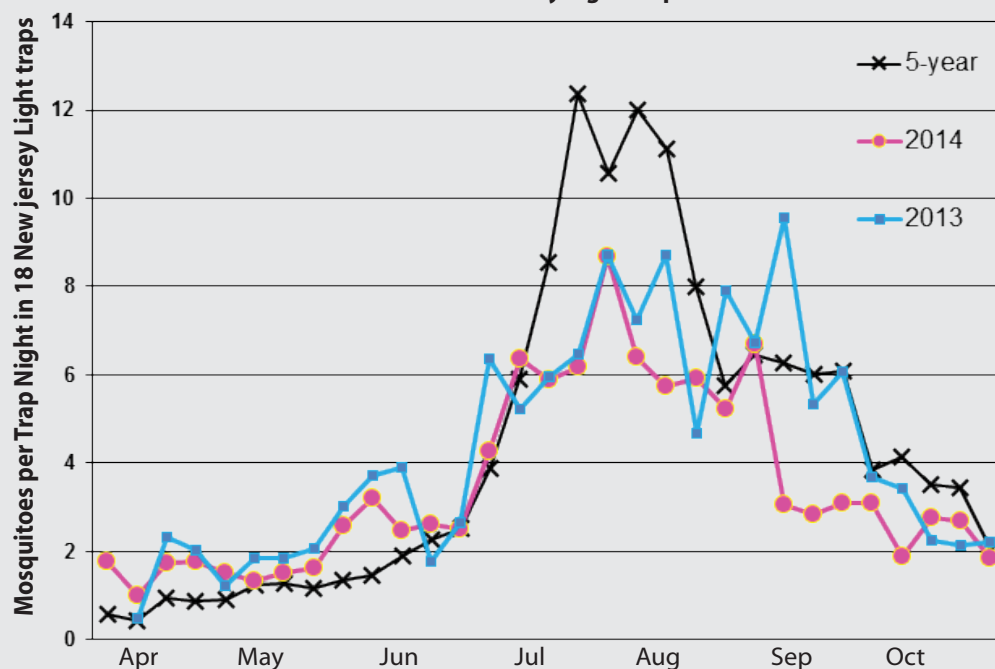
photo credit: Contra Costa Mosquito & Vector Control District

Vector & Disease Surveillance



One of the most essential components of a successful IVM Program is the surveillance of vectors and the diseases they transmit. By effectively monitoring the abundance of vectors and the occurrence of disease, the District is better able to provide effective and focused public health vector control. Historically, malaria, Saint Louis encephalitis, western equine encephalomyelitis, canine heartworm and West Nile virus have been transmitted by mosquitoes within the District.

SMVCD 2013 & 2014 Versus 5 Year Mosquito Averages
18 New Jersey Light Traps



New Jersey Light Traps

New Jersey light traps placed at 18 fixed locations throughout the District use a timed light source to attract mosquitoes overnight in jars that are collected on a weekly basis. Mosquitoes from the jars are identified to sex and species and counted from April through October. These traps provide useful mosquito population trend information since they have been generating data for nearly 40 years.

Why Test Birds?

Since West Nile virus (WNV) first arrived in the western hemisphere its activity has been tracked by testing the dead birds it has killed for the presence of the virus. The number of dead birds found positive for WNV within the District in 2014 was 1/6 the number found in 2012 and 2013 despite other indications that WNV activity was at an all-time high this year (see chart on page 5). Likely reasons for this discrepancy include the development of natural immunity in birds, fluctuations in the level of public participation in dead bird reporting and limitations put on dead bird testing due to budget cuts at the state level.



Vector & Disease Surveillance

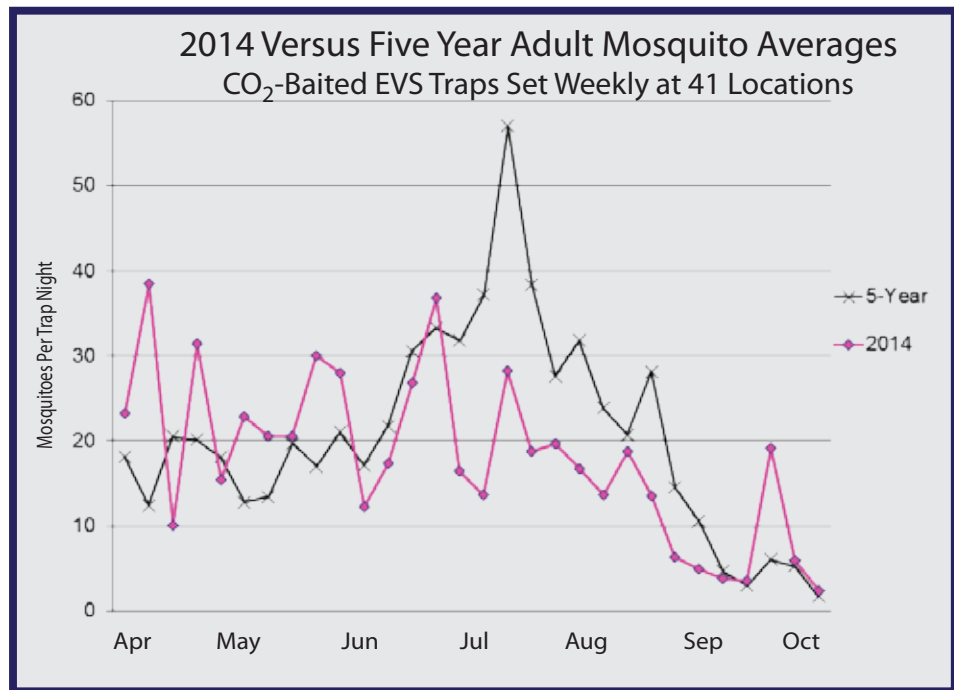


Why Chickens?

Since chickens are easy birds to keep and observe, antibodies from their blood have been used historically for the detection of mosquito-borne diseases spreading in the environment. The District maintained five sentinel chicken flocks of eight birds each, spread strategically throughout the District in 2014. Blood samples were taken between May and October, when mosquito populations are at their highest. In 2014 antibodies to WNV were found in 11 of the District's 40 sentinel chickens (28%), which is about 1/2 of the record of 21 set in 2013.

EVS samples & test results 2012-2014

Year	Number of samples submitted	Number of WNV+ samples
2012	679	17
2013	264	15
2014	509	33



Over 1000
mosquitoes
caught
overnight



EVS Traps

Encephalitis virus surveillance (EVS) traps use CO₂ gas to attract and collect mosquitoes seeking a blood meal. EVS traps are set for one night per week at each of the 41 fixed locations throughout the District. The following morning they are collected and the mosquitoes are identified and counted. Additional "floater" traps are set in other problem areas as needed based on service requests, infected birds and other factors.

Mosquitoes from these traps are submitted in samples (pools) of 8 to 50 mosquitoes each to UC Davis on a weekly basis to be tested for the presence of infectious agents. A record number of mosquito samples (33) were found positive for WNV in 2014, which is nearly double the previous record of 17 collected in 2012 and 2007.

Outreach



School
Presentations



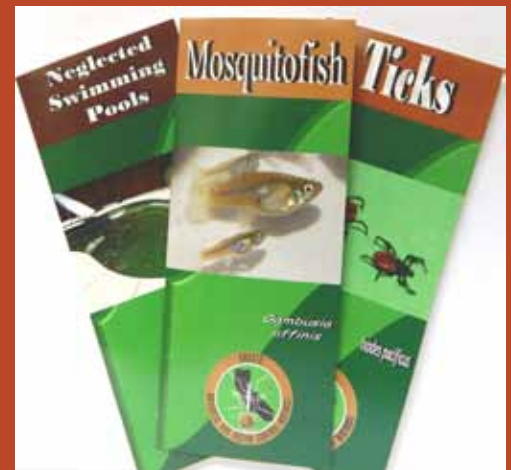
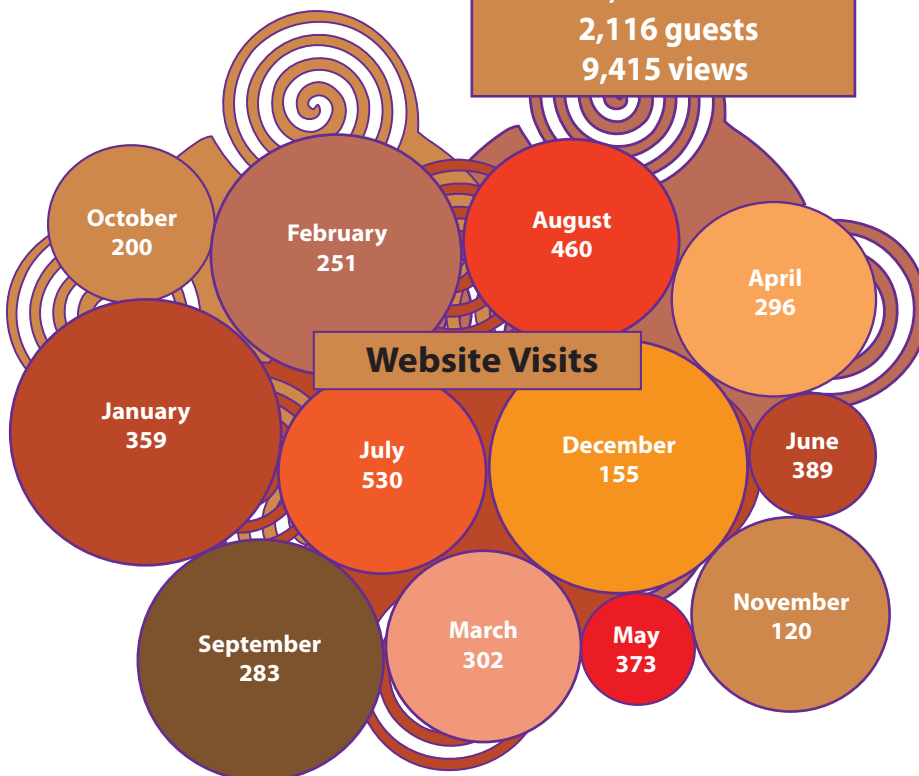
Walking
Sticks



2014 Outreach Highlights

- Boat, Sport & RV Show
- Redding Home Show
- Spring Home & Garden Show
- Annual Report Presentations-Cities of Redding, Anderson, and Shasta Lake
- Redding Rancheria Earth Day Fair
- Whole Earth & Watershed Festival
- Chrysalis School Presentation
- Millville School Career Day
- Juniper School Exploration Day
- Shasta District Fair
- Redding Rancheria Health Fair
- KQMS AM Interview about mosquitoes
- Donated DEET wipes to Camp Hope and Project Homeless

District Website Visits
3,718 visits
2,116 guests
9,415 views



Brochures that cover a variety of topics are available at outreach events and on the District's website at: www.shastamosquito.org

Spray Notification is a new feature that was added to the District's website as an outreach effort. This feature provides interested parties advanced notice of when and where we are performing adult mosquito control. Providing our District residents an almost real-time update on District activities will increase our dynamic engagement with the public. Largely due to this feature we saw continued web traffic to our website. To sign up for spray notification go to: <http://www.shastamosquito.org/fogging-update>

Financial Highlights

Fiscal Year 2013-2014



Financial Administration

The Shasta Mosquito and Vector Control District depends on property tax revenues and benefit assessments to fund its operations. The District's objective is to be fiscally responsible in accordance with Generally Accepted Accounting Principles (GAAP), Governmental Accounting, Auditing and Financial Reporting (GAAFR) as well as State Controller reporting guidelines.

The District has completed extensive research and is now beginning the process of transferring treasury management to an outside financial institution separate from the Shasta County Auditor-Controller's office. Having more control will give the district more accurate, up to date and simplified reporting. This separation will be a positive move for the district by saving time, money and ultimately providing a more efficient and effective financial management system.

Additionally, staff members and Board of Trustee members formed the Capital Improvement Program (CIP) Ad Hoc Committee to discuss and prioritize projects for the next 5 years. This was a successful experience and will support planning for the future growth of the district.



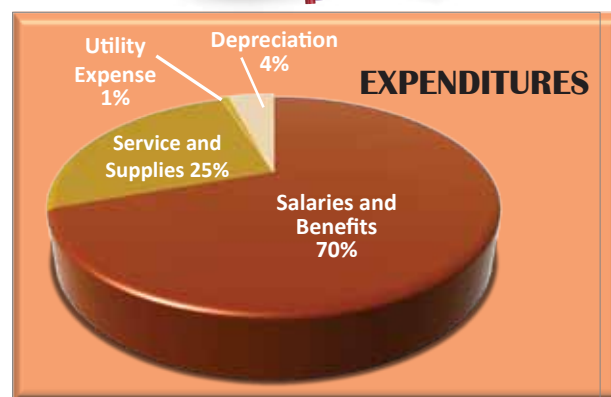
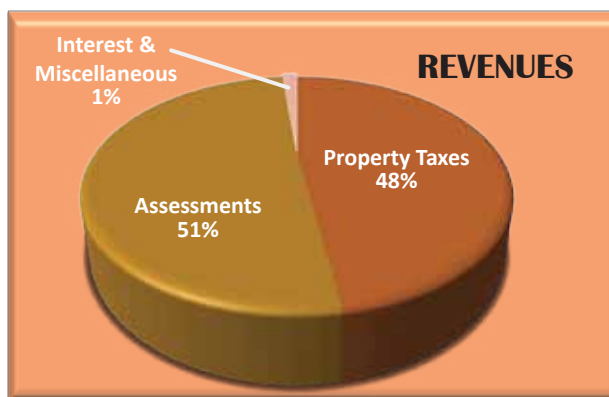
Assets	
Cash and cash equivalents	\$ 3,163,546
Accounts Receivable	8,422
Due from other governments	42,611
Inventories	56,055
Non-depreciable capital assets	51,273
Depreciable capital assets, net	619,336
Other Post Employment Benefit Liability	7,689
TOTAL ASSETS	3,948,932

Liabilities	
Accounts payable	\$ 19,358
Compensated Absences	116,826
TOTAL LIABILITIES	136,184

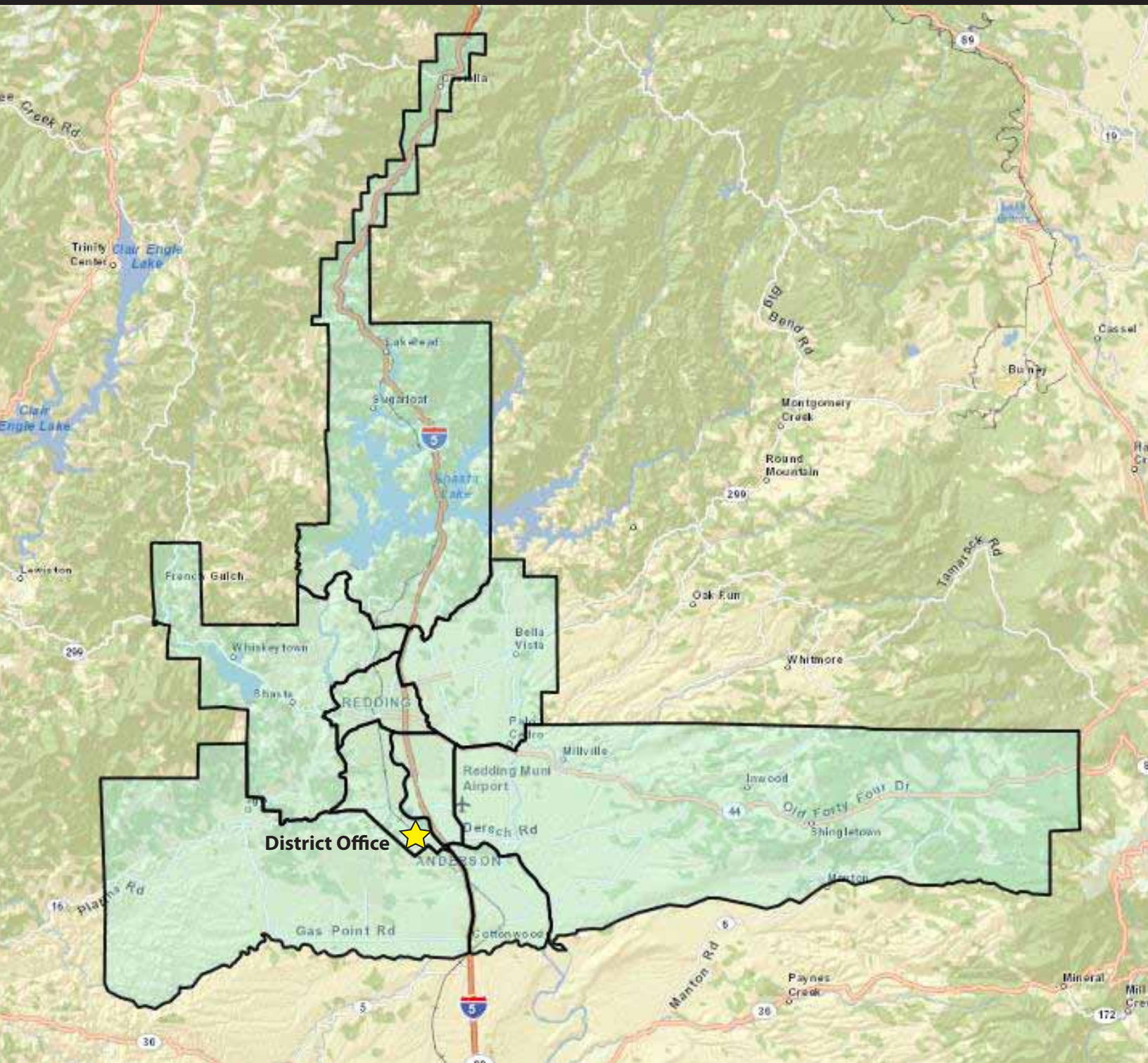
Budget to Actual			
Income:	Budget	Actual	% Budget
Taxes	\$ 1,119,470	\$ 1,109,649	99%
Benefit Assessment	\$ 1,096,516	\$ 1,044,174	95%
Other	\$ 271,399	\$ 153,709	57%
Total Income	\$ 2,487,385	\$ 2,307,532	93%
Expenses:			
Services and Supplies	\$ 722,826	\$ 662,399	92%
Payroll Expenses	\$ 1,834,559	\$ 1,788,489	97%
Fixed Asset purchases	\$ 35,500	\$ 31,277	88%
CERBT Contribution	\$ 86,653	\$ 86,653	100%
Total Expenses	\$ 2,679,538	\$ 2,568,818	96%

2013-2014 Expenditures		
Salaries and Benefits	1,766,756	69.57%
Service and Supplies	643,801	25.35%
Utility Expense	20,434	0.80%
Capital Outlay	672	0.03%
Depreciation	108,017	4.25%
TOTAL	2,539,680	100%

2013-2014 Revenues		
Property Taxes	1,074,588	47.66%
Assessments	1,146,513	50.85%
Interest & Miscellaneous	33,760	1.50%
TOTAL	2,254,861	100%



Shasta Mosquito & Vector Control District



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