

annual report 2011



**Protecting
Public Health
Since 1919**



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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To the Residents of the Shasta Mosquito and Vector Control District:

It is with great pleasure that we submit the 2011 Annual Report for the Shasta Mosquito and Vector Control District (SMVCD). This year the District has moved further than ever before toward embracing our 2011 mission statement change; "To protect the public's health from vector-borne disease and nuisance, through a comprehensive mosquito and vector control program focused on innovation, experience and efficiency." This report provides an overview of the work performed in 2011. Also, enjoy our theme for this Annual Report which highlights the past and future of mosquito control; delving into the long standing history of mosquito control in Shasta County and California.

We are currently in our 9th year responding to West Nile virus (WNV) in Shasta County and although we've learned a lot, WNV continues to be a focus at the District to protect the public's health. In 2011 we were fortunate to only experience one mosquito sample that tested positive for WNV, marking our lowest year for disease activity since its arrival. However, the positive sample highlights the fact that WNV is still present and a concern. Additionally, it is important to note that although the District saw a decrease locally for WNV activity, statewide California saw an increase of 49.5% in human WNV infections from 2010.

Because West Nile virus is well established in our District, and with the continued economic crisis furthering the high number of homes in foreclosure; neglected swimming pools that can produce high numbers of mosquitoes continue to be a top priority. We rely heavily on our surveillance and the public's cooperation to identify properties and swimming pools that need attention. The District has also expanded its outreach to the public and other agencies so that we can coordinate to find more effective ways to reach common goals.

Lastly, this year will likely be marked by the start of the National Pollutant Discharge Elimination System (NPDES) permit as of November 1st, 2011. Despite objections by many (our District included) to the duplicative regulation, we will be forced to comply with the permit for the foreseeable future. This permit, overseen by the State Water Resource Control Board, will undoubtedly cost the District time and money to ensure that we can still provide the most effective and efficient program to our residents. As a District, a State Association Member, and a National Association Member; we will continue to find ways to make our voices heard, that these permits are unnecessary and prohibitive to our District protecting the public's health from mosquito and vector - borne diseases.

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

Larry Mower,
2011 President, Board of Trustees

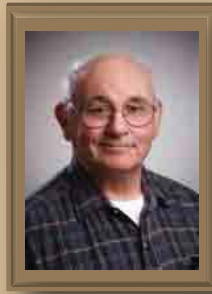
BOARD OF TRUSTEES



Board Trustee
Vickie Marler
Shasta County



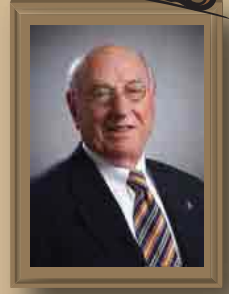
Board Vice President
John Dunlap
Shasta County



Board President
Larry Mower
Anderson



Board Secretary
Stephen Morgan
Shasta Lake



Board Trustee
Charles Ryan
Redding

District Manager
Peter Bonkrude

Administrative
Manager

Office Assistant

Operation
Supervisor

Vector Control
Technicians
(VCA, VCT 1, 2, 3)
9 Total

Vector
Ecologist

Assistant
Vector Ecologist

THE STAFF - 2011

Back Row:

Audie Butcher
Al Shabazian
Joe Mimbs
Mike Alexander
Betty Willis
Peter Bonkrude
Kelly Cleland
Kevin Pearson
Geoff Taylor

Front Row:

Corey Boyer
Catherine Hasher
Tim Mickela
John Albright
Valerie Peterson
Kendra
Angel-Adkinson



1910 TECHNICIANS
OROVILLE, CA

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HISTORY

The first local mosquito control district was formed in 1919 in the Redding area. Mosquitoes were transmitting malaria, a mosquito borne disease that was prevalent in the region. Other districts formed in Anderson and Cottonwood.

The Anderson, Cottonwood and Redding areas had some of the highest malaria rates in the continental United States.

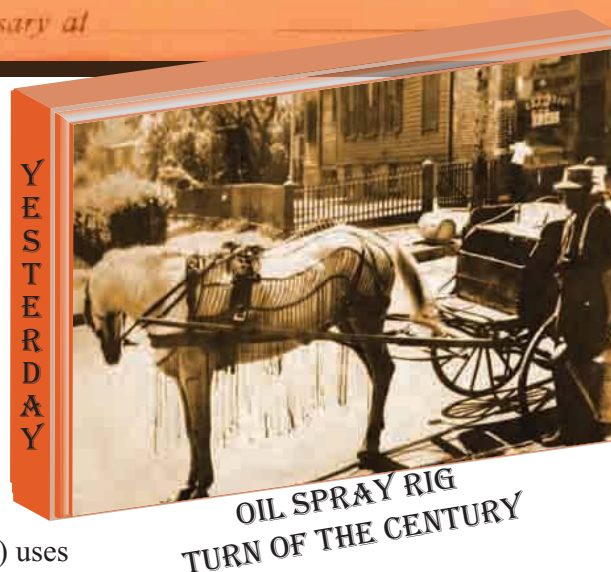
In the mid 1950s, the three districts consolidated into one comprehensive district. When it became necessary, the district expanded its boundaries to include surrounding areas; effectively providing public health protection to a larger number of Shasta County residents. Today, Shasta Mosquito and Vector Control serves 1086 square miles of Shasta County.

Decades after the formation of the first local mosquito control district, diseases transmitted by mosquitoes and other vectors are still a serious threat to public health. Shasta Mosquito and Vector Control District (SMVCD) uses the most efficient, reliable and scientifically sound mosquito and vector control techniques to reduce current vector-borne disease issues while maintaining surveillance for future emerging diseases.

The 2011 annual report includes historical photographs collected from California mosquito districts to depict how mosquito control has changed throughout the years.

To the Parents of School Children:

The blood test taken at the school _____ DAYE
shows that your child _____ NAME _____ has
malaria of the _____ type. It is important for the
future welfare of the child that it be cured. The State Board of
Health is in Anderson for a short time only. We would advise
that the treatment be begun soon. If possible bring your child
to the malaria dispensary at _____



INTEGRATED VECTOR MANAGEMENT

MOSQUITO LIFE CYCLE



In 1909 California reported 6000 cases of malaria

What's a Vector

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

What is Integrated Vector Management (IVM)

Shasta Mosquito and Vector Control utilizes an Integrated Vector Management approach to controlling mosquitoes within our District boundaries. IVM is defined as "a rational decision-making process for the optimal use of resources in the management of vector populations, so as to reduce or interrupt transmission of vector-borne diseases." (WHO)

Its characteristic features include:

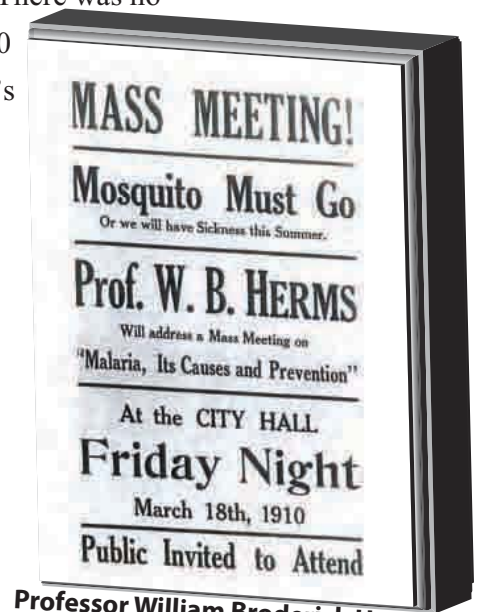
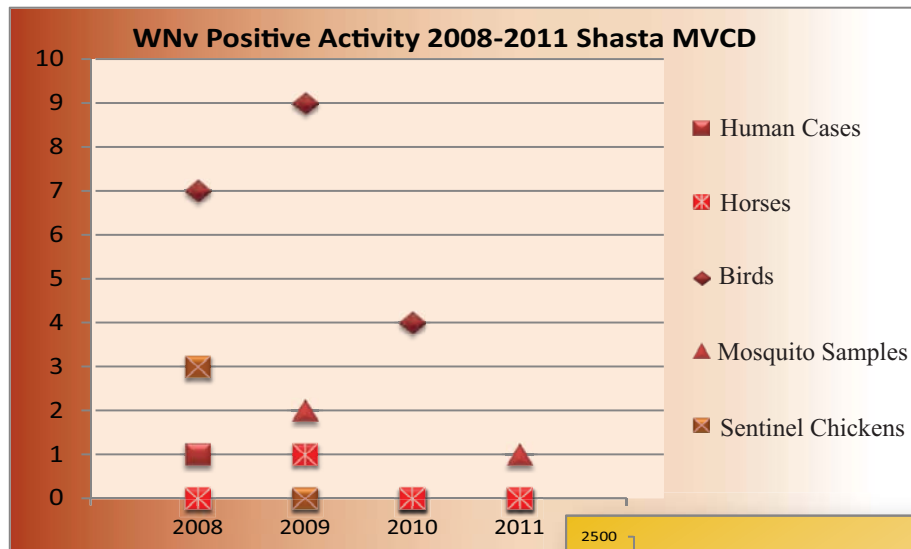
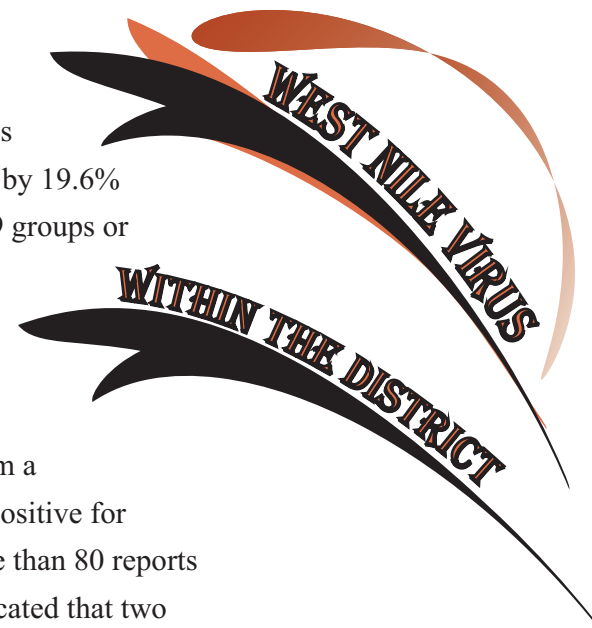
- Selection of proven vector control methods based on knowledge of local vector biology and ecology, disease transmission and morbidity;
- Utilization of a range of interventions, separately or in combination and often synergistically;
- Collaboration within the health sector and with other public and private sectors that impact on vector breeding;
- Engagement with local communities and other stakeholders;
- A public health regulatory and legislative framework;
- Rational use of insecticides;
- Good management practices.

An IVM approach takes into account the available health infrastructure and resources and integrates all available and effective measures whether chemical, biological or environmental (WHO).

Brief timeline of disease

- 1850s-malaria introduced in Shasta county
- 1919-Shasta Mosquito Abatement District formed
- 1930s-Western Equine Encephalitis virus isolated from sample in Shasta county
- 1950s-Malaria eliminated in the United States
 - 1952-California encephalitis epidemic, hundreds of cases
- 2004-first indication of West Nile virus in Shasta county
- 2012 and beyond - more outbreaks?

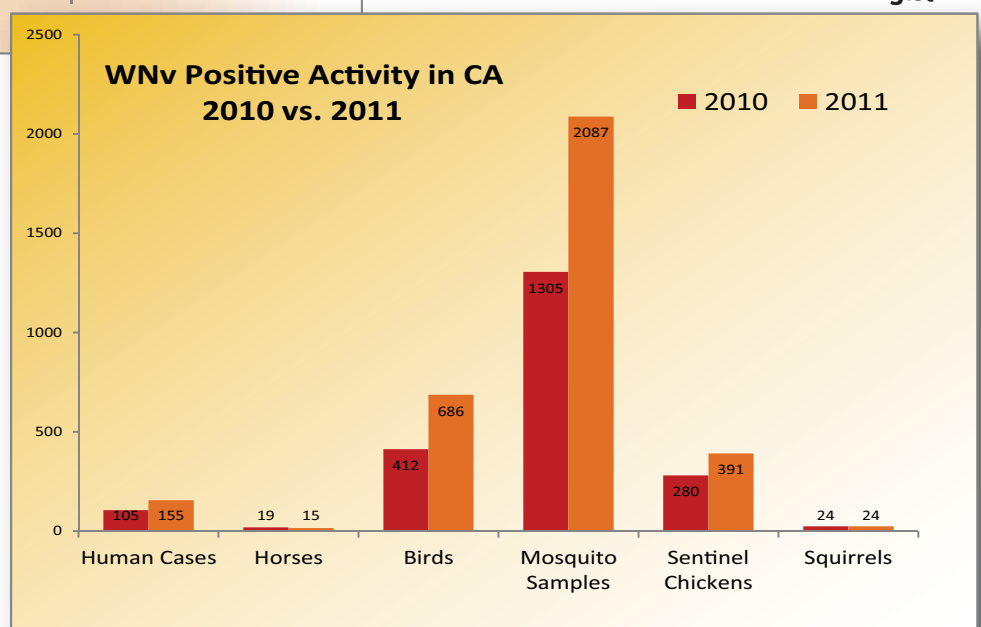
In 2011, the District was able to increase the number of mosquitoes tested for West Nile virus (WNV) by 19.6% over 2010. The District tested 389 groups or 'pools' of mosquitoes from 43 unique trap sites, both fixed and variable. This was an increase of 18 traps sites from just 25 in 2010. A single pool from a location east of Anderson tested positive for WNV. District staff recorded more than 80 reports of dead birds. Further testing indicated that two birds had chronic infections of WNV. There was no indication of WNV from the nearly 600 blood samples taken from the District's sentinel chickens.



Professor William Broderick Herms
medical & veterinary entomologist

IN CALIFORNIA

As in years past, the majority of WNV activity has been concentrated in the central and southern area of the state. Overall, 2011 saw a resurgence of WNV infection in humans and animals. California had 155 human cases of WNV infection in 2011, whereas there were 105 in 2010. Incidence of avian infection & mosquito infection were also higher than 2010.

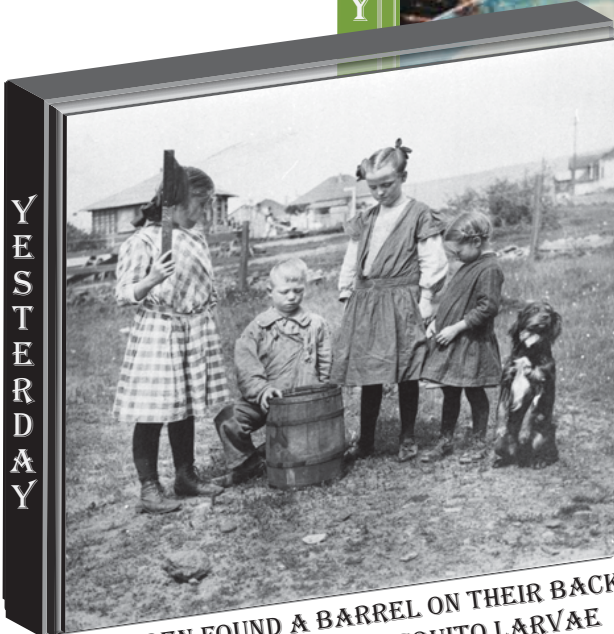


West Nile virus, like other encephalitis viruses before it, can be expected to persist within the District for the foreseeable future. Preventing further WNV incidence is key. Shasta MVCD staff continue to monitor and test mosquito populations for the virus and intervene with various forms of mosquito control. The public can help us continue to "fight the bite" by draining standing water around their homes and using approved repellents containing DEET.

SERVICE REQUESTS

TODAY

YESTERDAY



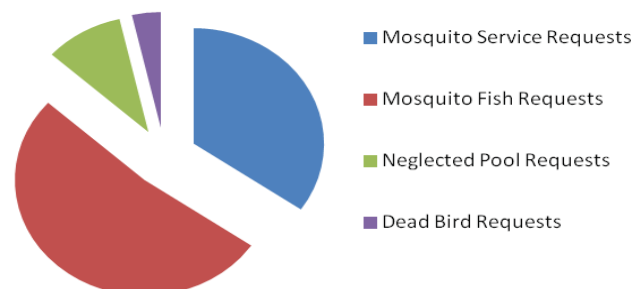
CHILDREN FOUND A BARREL ON THEIR BACK PORCH, FILLED WITH MOSQUITO LARVAE

2011 Service Requests	
Request Reason	Number of Requests
Mosquito Service Requests	319
Mosquito Fish Requests	480
Neglected Pool Requests	90
Dead Bird Requests	33

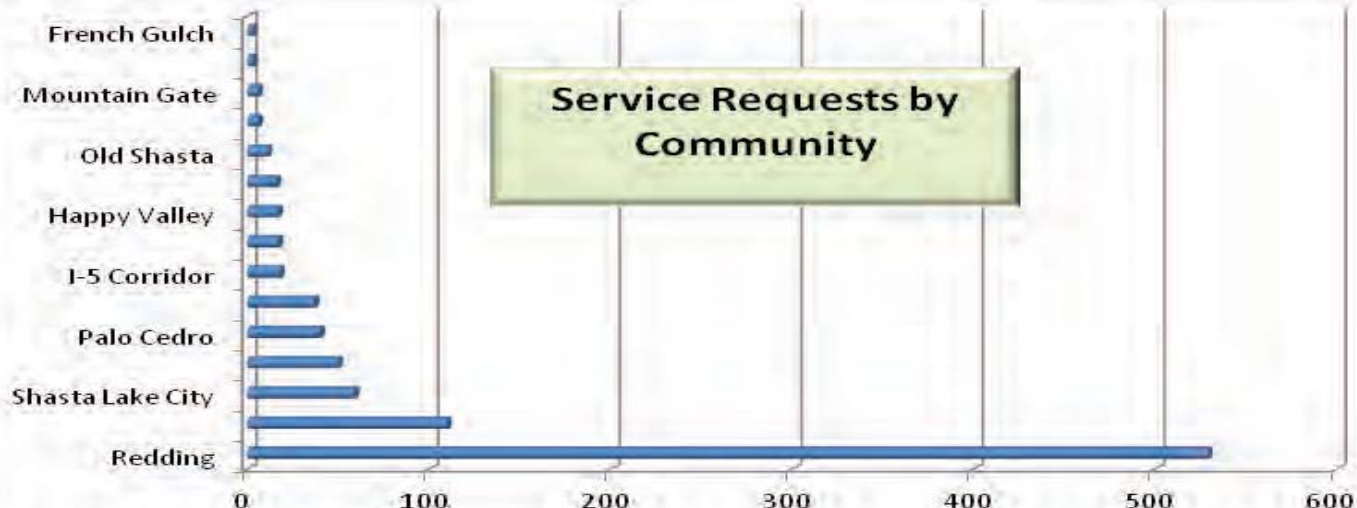
Each year the District generally receives between 500 and 1000 calls from the public requesting service. The requests serve as an opportunity for the public to interact with District staff. We maintain a typical 48 hour response time to all service requests, and believe customer service is the most important connection we have with our District residents.

Requests are divided into mosquito service (adult problems, mosquito sources, etc), mosquito fish (requests for district staff to plant fish), neglected pool requests (reporting a neglected pool or water feature), and dead bird calls (a form of disease surveillance). If you live within the Shasta MVCD service area, you can put in a service request by calling the District at (530) 365-3768 between 8:00 a.m. and 4:00 p.m. Monday through Friday, or contact us 24 hours a day on our website: www.shastamosquito.org.

2011 Service Requests



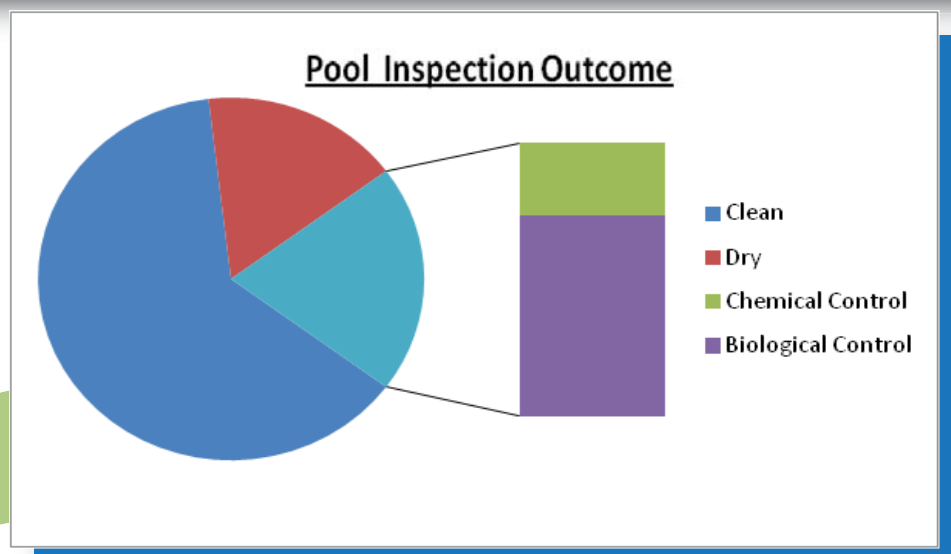
Service Requests by Community



The continuing economic challenges facing our community have meant that the District's neglected pool program has remained a large focus throughout 2011. The neglected pool program was initiated in 2008, and consists of an area warrant for the inspection and abatement mosquito breeding and an annual aerial surveillance providing the District with information regarding the location of new neglected pools. Despite these tools, the District still relies heavily on the cooperation and coordination of agencies like realty offices, code enforcement, and the public to report pools, hot tubs, fountains and ponds that are not being maintained. In 2011, of the 917 pools identified through both aerial photography and service requests; 134 pools were newly treated and 53 pools inspected had been treated previously. These inspections resulted in 23 warrants.



Neglected Pool Program		
Aerial Surveillance Identified	Service Request Identified	Resolution
107	30	Biological Control
26	23	Chemical Control
560	18	Clean
149	4	Dry
842	75	TOTAL

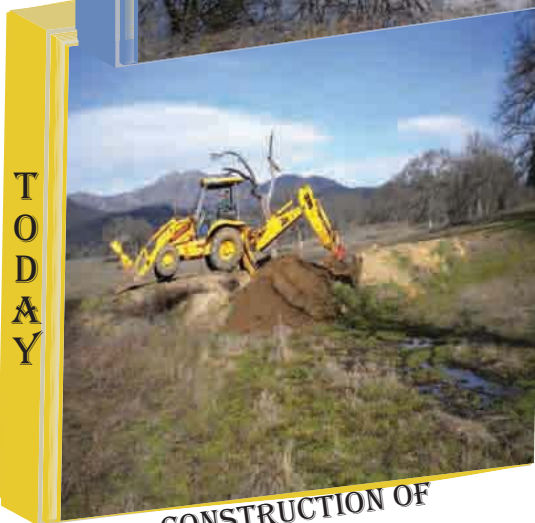


BIOLOGICAL CONTROL



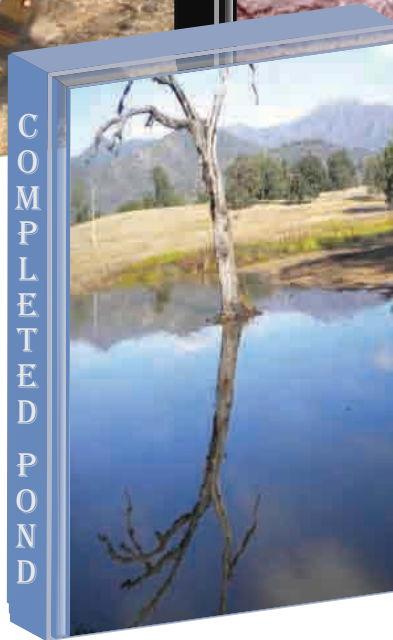
YESTERDAY

EARLY SWAMP WORK



TODAY

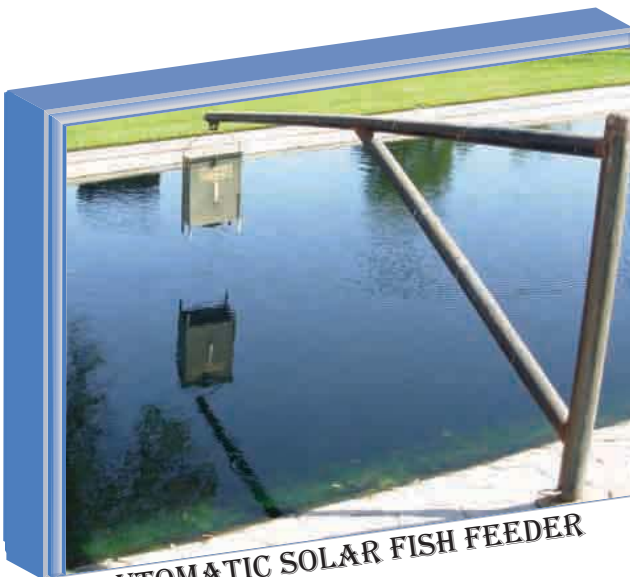
CONSTRUCTION OF A NEW POND



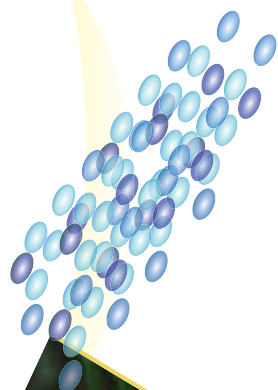
COMPLETED POND

Biological control is the deliberate use of an organism to regulate the population of a pest organism. The District uses biological agents to reduce larval mosquito populations and promote predation on immature mosquitoes. The District currently utilizes the most successful biological tool against larval or immature mosquitoes; *Gambusia affinis* or better known to the public as mosquito fish. Mosquitofish are small live-bearing minnows closely related to the common guppy. They have been

said to consume as many as 80-100 mosquito larvae per day, and are capable of quickly populating a source if conditions are favorable. Reducing larval mosquito populations greatly reduces the need to control adult populations. District staff delivers and stocks these fish in areas where they will quickly adapt to the habitat and multiply. These areas include: stock ponds, neglected swimming pools, ornamental ponds and water features. This year District staff stocked 51.45 acres with fish, this accounted for 4% of the total larval treatments in 2011.



AUTOMATIC SOLAR FISH FEEDER



Mosquito fish have been used since 1922 to control mosquito larvae.

EARLY TRENCH WORK



YESTERDAY

PHYSICAL CONTROL



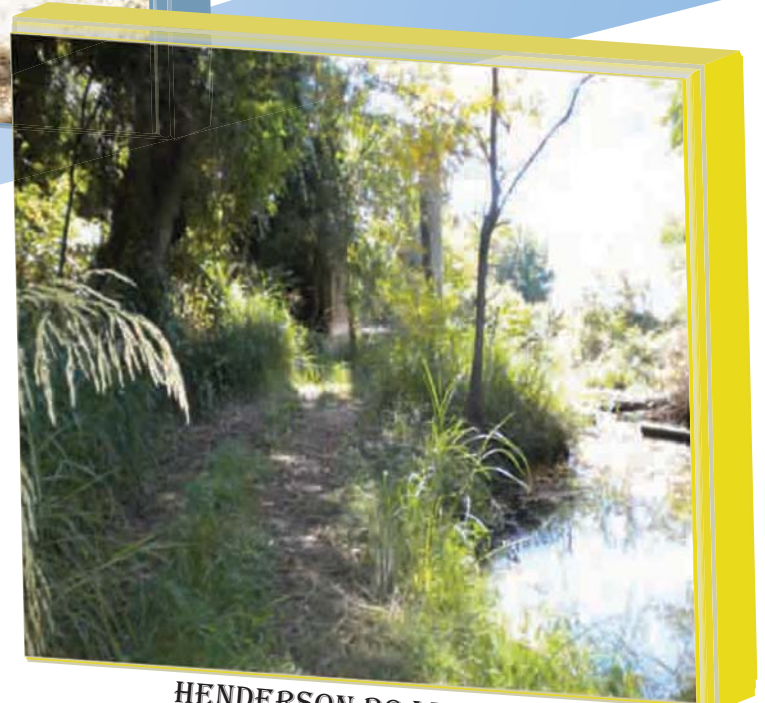
TODAY

ANDERSON RIVER PARK



HENDERSON OPEN SPACE ROAD AND TRAIL MAINTENANCE

Physical control involves taking action to reduce or eliminate breeding sites or increase access for other control efforts through modification of the environment and/or features that provide breeding habitat for mosquitoes and other vectors. For mosquitoes in urban areas, it is common practice to drain breeding sites such as discarded tires, bird baths or stock water troughs or other areas that hold water. In natural settings, altering sites where mosquitoes breed, such as stagnant ponds, borrow pits, or cavities in trees that collect rainwater, can limit mosquito production. These source control methods can be very effective, cost-efficient and present little to no risk to people or the environment.



HENDERSON ROAD AREA

In 1915, The Mosquito Abatement Districts Act passed and signed by the Governor. The bill authorized the formation of mosquito control districts in the State of California

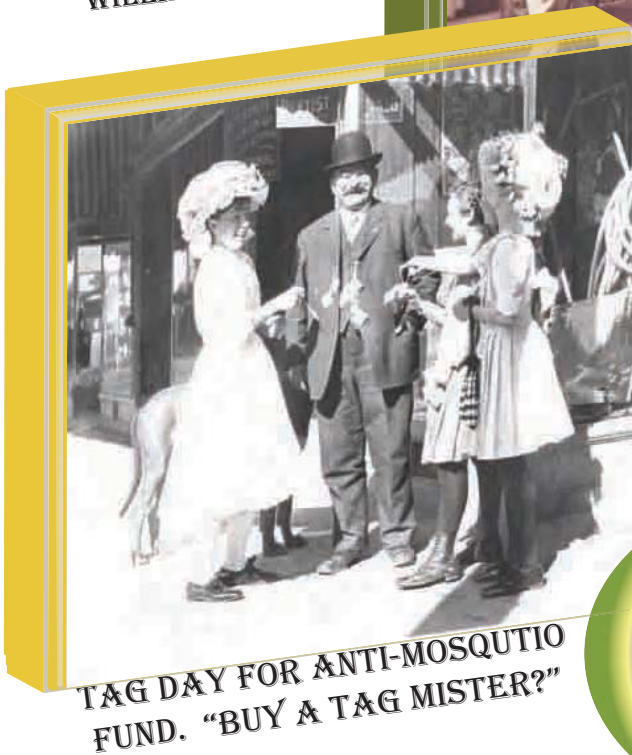
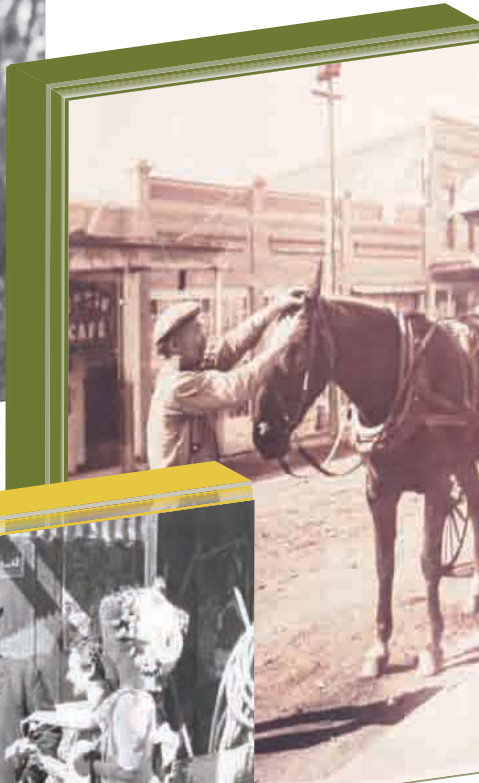
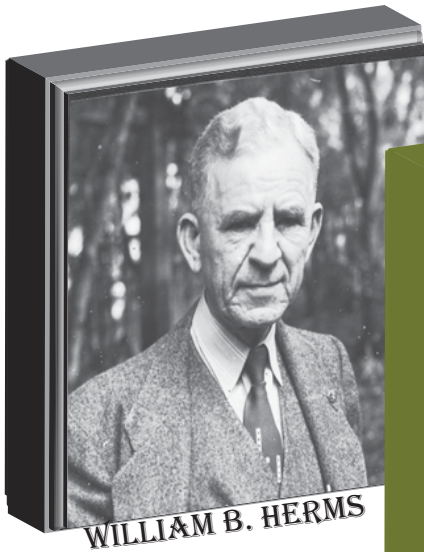
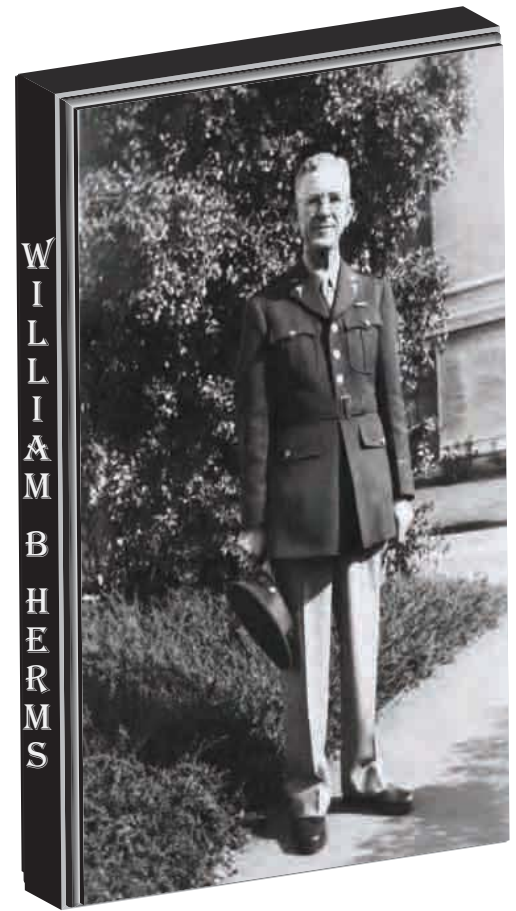
MOSQUITO CONTROL HISTORY

William B. Herms was an assistant professor of entomology at UC Berkley at the turn of the 20th century. Between 1908-1910, he travelled through California teaching the public the importance of anopheline mosquitoes in malaria transmission and control. The cities of Oroville and Los Molinos were among the first to benefit from mosquito control organized in part by Herms. As a result of all these efforts, malaria cases and economic loss due to malaria declined appreciably in the areas.

Thanks to W.B Herms and his contemporaries, it was proven that mosquito-borne disease could be reduced and maintained at low levels.

It was also noted that qualified personnel were a necessity of an efficient mosquito control program.

In 1915, the Mosquito Abatement Act was passed, creating an avenue for the formation of mosquito abatement districts to protect the public from mosquito-borne diseases.



CHARLEY TAGS HIS HORSE TO HELP THE CAUSE

In 1920 the California Mosquito Control Association was formed. Harold F. Gray and Prof. William B. Herms are early leaders.

To raise money for mosquito control, anti-mosquito league's were formed. For one day tags were sold and in return the locals and received an anti-malaria pin for a ten-cent contribution to Herms's "Benefit Mosquito fund." William Reeves, who later served as dean of the U.C. Berkeley School of Public Health in the 1960s, contended that the Oroville ten-cent mosquito tag provided a model for Franklin Roosevelt's National Foundation for Infantile Paralysis Program. Reeves maintained that the Oroville mosquito tag drive "was the [nation's] first March of Dimes".

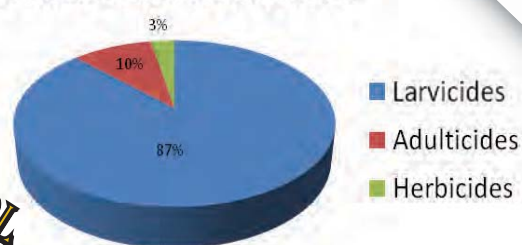
The chemicals used by the District are registered by both the federal and California EPAs and applied in strict accordance with environmental laws. This includes the training and certification of vector control technicians as per the California Department of Public Health. The use of larvicides involves applying chemicals or control agents to areas where mosquito larvae exceed thresholds. Larvicides kill immature aquatic-stage mosquitoes (larvae/pupae) or inhibit development to adult emergence. Immature control is critical because at this stage mosquitoes are restricted to water bodies or aquatic habitats and are relatively immobile. Mosquitoes, once emerged as winged adults, are much more difficult to control, and fewer methods are available. Adulticides (chemicals aimed at killing adult mosquitoes) are applied via ULV equipment that sprays small amounts of pesticide with large volumes of air in a “fog” when climatic and weather conditions are favorable. Timing of adulticide applications is designed to minimize exposure to humans and occurs generally between 9 p.m.-12 a.m. and from 3 a.m.-6 a.m.

CHEMICAL CONTROL

Culex mosquito larva under microscope

Culex tarsalis pupa

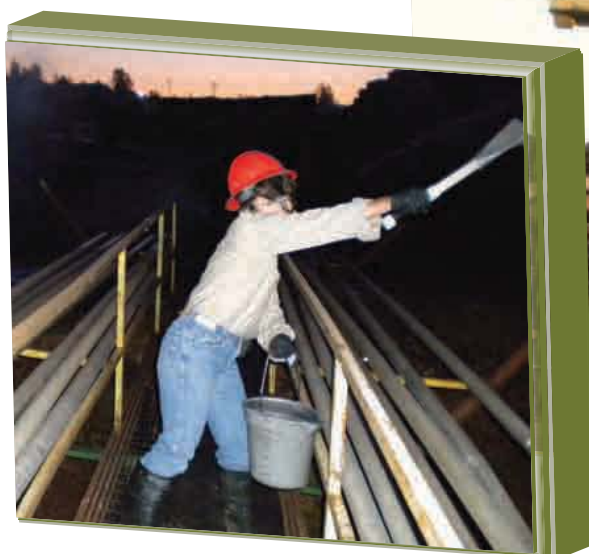
Chemical Control Activities



LARVAL CONTROL

Immature Control

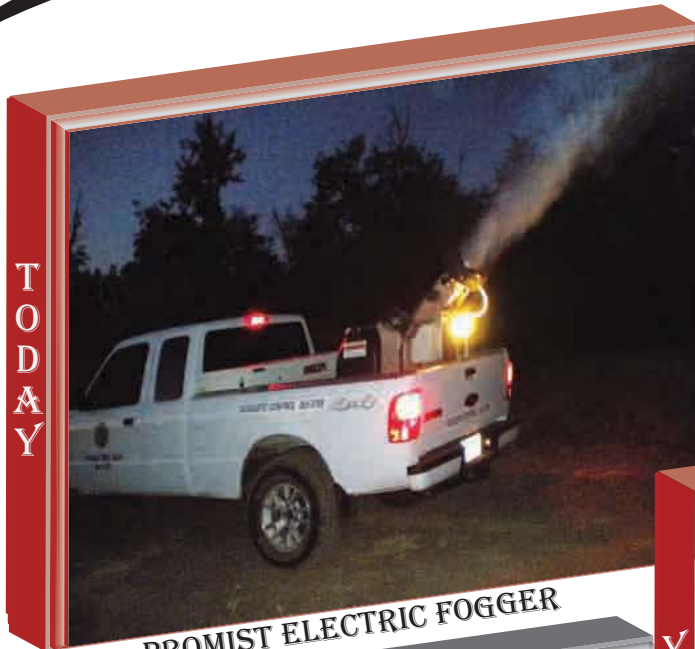
Community	Inspections	Larval Treatments	Acres Treated
Anderson	2822	365	411
Bella Vista	188	34	2.36
Castella	86	27	8.78
Cottonwood	1335	242	211.59
Enterprise	2069	163	82.58
French Gulch	66	27	7.38
Happy Valley	212	6	0.012
I-5 Corridor	262	6	0.35
Igo/Ono	106	13	1.07
Millville	604	51	20.16
Mountain Gate	87	44	1.4
Old Shasta	131	30	6.68
Palo Cedro	182	72	82.68
Redding	4746	625	392.79
Shasta Lake City	1577	249	79.46
Shingletown	402	39	22.47
Totals	14875	1993	1330.762



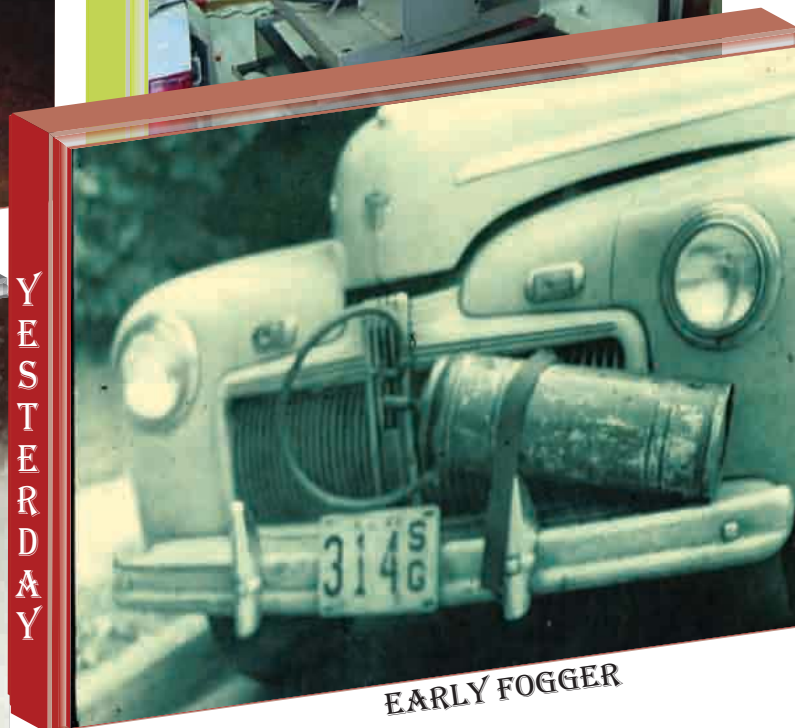
LARVAL TREATMENT AT LUMBER MILLS



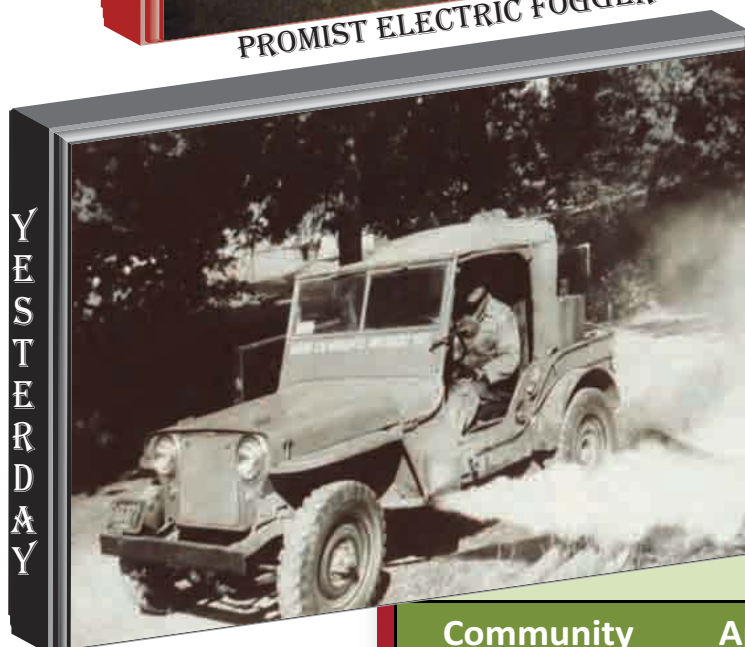
ADULT CONTROL



PROMIST ELECTRIC FOGGER



EARLY FOGGER



Adult Control

Community	Applications	Miles Driven	Acres Treated
Anderson	47	118.48	4308.45
Bella Vista	3	33.87	1231.64
Castella	3	39.83	1448.45
Cottonwood	20	6.3943	232.52
Enterprise	24	155.71	5662.34
French Gulch	1	6.67	242.54
Happy Valley	5	4.56	165.86
I-5 Corridor	8	40.74	1481.51
Igo/Ono	3	42.56	1547.64
Millville	3	31.5	1145.45
Mountain Gate	2	22.44	815.88
Old Shasta	1	17	618.18
Palo Cedro	2	35.8	1301.81
Redding	91	262.11	9531.35
Shasta Lake City	43	226.11	8222.19
Shingletown	2	18	654.54
Totals	258	1061.7743	38610.35

1947

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) was passed. The act required that all pesticides be registered with the United States Department of Agriculture prior to being marketed or shipped into interstate commerce.

Shasta Mosquito and Vector Control District has a number of employees with training and certification in the biology and control of vectors other than mosquitoes. The District does not provide control services for these vectors, but provides written and oral information and advice to residents and the media about personal protection, and other ways of reducing the public health threat posed by a wide variety of local vectors.



COLLECTING TICKS



1940 PLAGUE SURVEY CREW

YESTERDAY

OTHER VECTORS

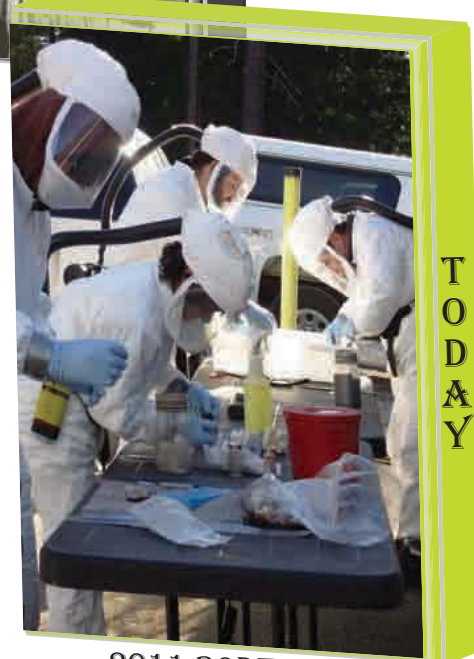
Mosquitoes and ticks

Like mosquitoes, certain tick species can vector encephalitis viruses. Although not found in the US, there are several thousand cases in Europe and Asia annually.

What do they have in common??

RODENT SURVEILLANCE

Rodents and the fleas or ticks they carry can transmit several diseases, either through inhalation of droppings or through the bite of an infected flea or tick. This includes such diseases as Hantavirus cardiopulmonary syndrome (HCPS), plague, tularemia, and tick-borne relapsing fever. SMVCD's program focuses preliminary serological surveys in areas within the District where contact with rodents is likely; however the program largely comprises working with concerned citizens on exclusion techniques and cleanup procedures. Each season the District will conduct several surveillance events and as needed consultation inspections.



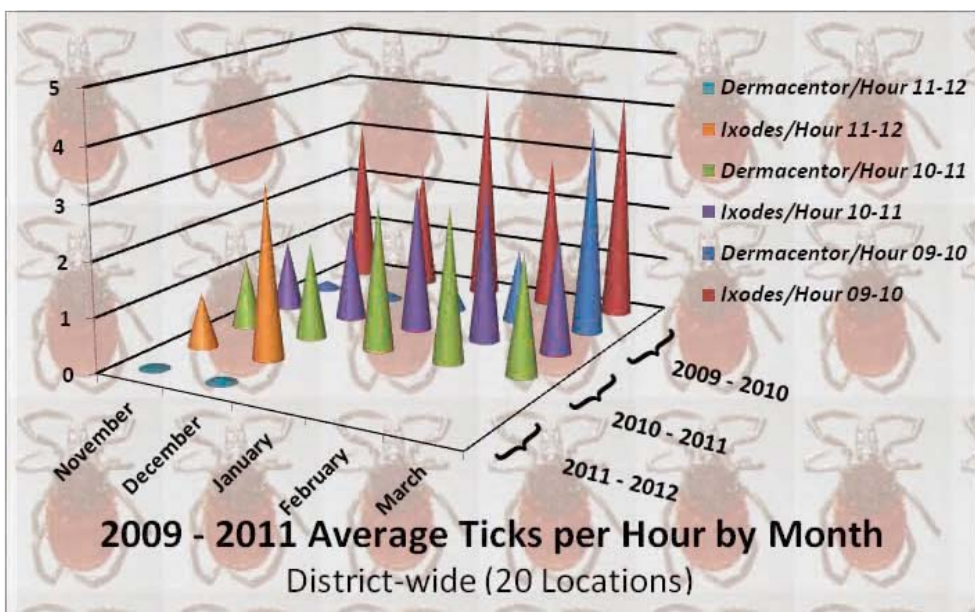
2011 RODENT DISEASE SURVEILLANCE

TODAY

TICK SURVEILLANCE

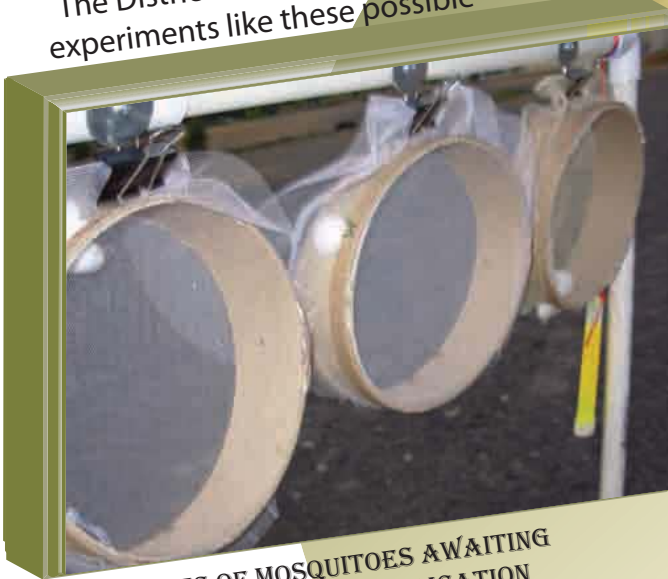


Regular weekly tick surveillance was begun in 2009. Tick surveillance takes place from November through March every year while mosquito surveillance and control activities are at a minimum within the District (see graph). Twenty locations are sampled throughout the District in areas where tick habitat is associated with a high level of human activity. Ticks are collected in vegetation along trails and at the interfaces between habitat types (ecotones). *Ixodes pacificus* ticks collected since November of 2010 have been tested by Shasta County Public Health for the presence of tick-borne Diseases. In the 2010-2011 tick collection season four samples of *Ixodes pacificus* ticks were found to be positive for *Borrelia* spp. bacteria.



RESEARCH

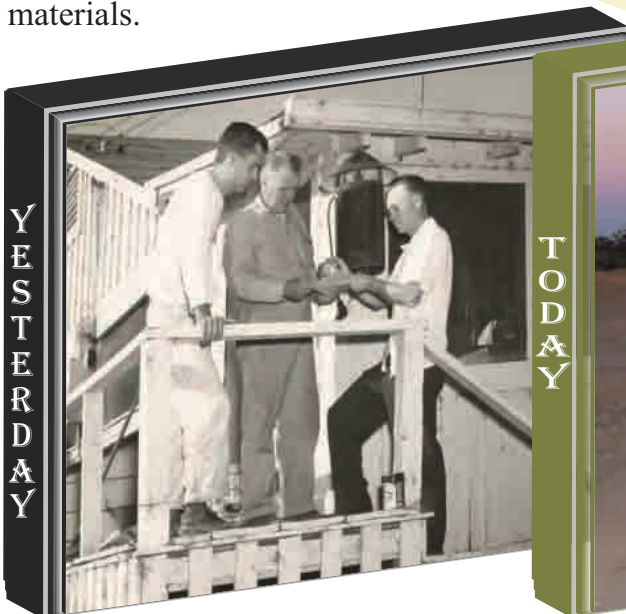
The District's insectary makes experiments like these possible



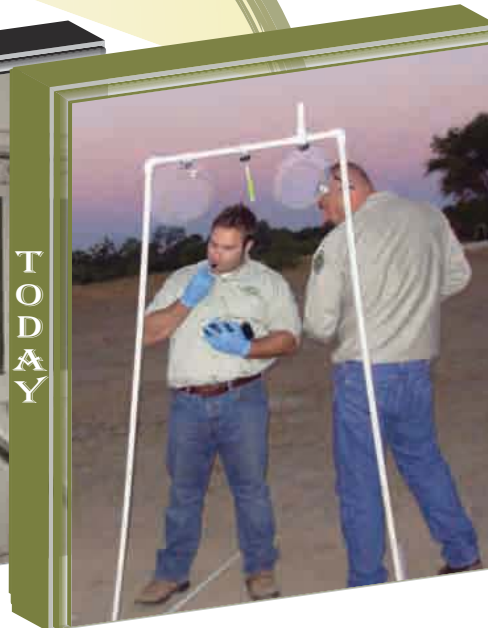
CAGES OF MOSQUITOES AWAITING ADULTICIDE APPLICATION

CAGE TRIALS

One way to test the effectiveness of adult mosquito control products and techniques is to place live adult mosquitoes in "cages" in the environment. By applying adult mosquito control products in simulated field conditions in the vicinity of the caged mosquitoes, observation of the rate of adult mosquito mortality within the cages can be used as an indicator of the efficacy of application methods and materials.



YESTERDAY



TODAY



BOTTLE BIOASSAY

In order to test wild, local mosquitoes for their susceptibility to mosquito control chemicals "bottle bioassays" are used. Wild mosquitoes of a known species and age are placed in bottles containing known quantities of mosquito control active ingredients. Mortality in these bottles is compared to the mortality of lab-reared mosquitoes known to be susceptible to these products tested at the same time in the same type of bottles with identical doses of the same active ingredients.

INSECTARY

Since 2010 the District has maintained an insectary for rearing mosquitoes under carefully controlled conditions. Two laboratory strains of mosquitoes known to be susceptible to mosquito control products are kept alive in the insectary on an ongoing basis. Eggs of local mosquitoes collected in the wild can be reared in the insectary, as needed, to run trials to compare their pesticide susceptibility to the laboratory strains.



Culex tarsalis



Culex quinquefasciatus

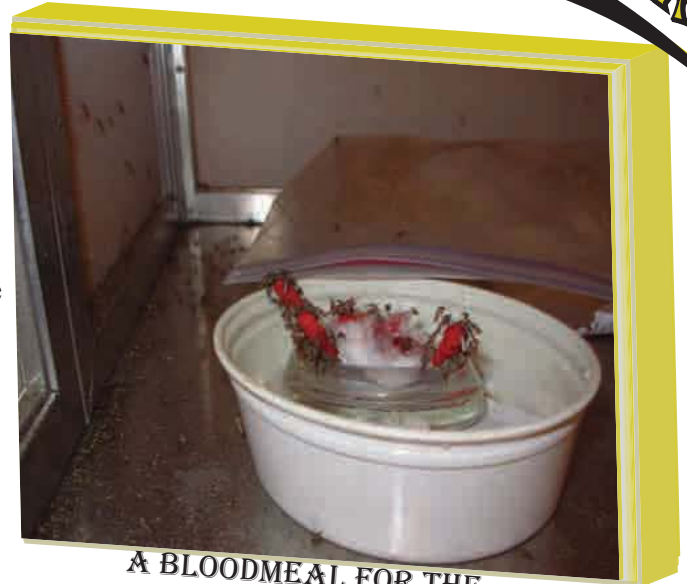
OVIPOSITION POOL

Wading pools with stagnant water (oviposition traps) can be placed in the environment to attract egg-laying females, which will lay egg clusters (rafts) containing up to several hundred eggs apiece. These egg rafts can be collected, hatched out and reared in the District's insectary in order to control the age and species of wild mosquitoes used for experimental purposes, such as pesticide resistance testing, by the District's vector ecology staff.



Top: Oviposition pool
Right: wild egg rafts collected from pool

RESEARCH



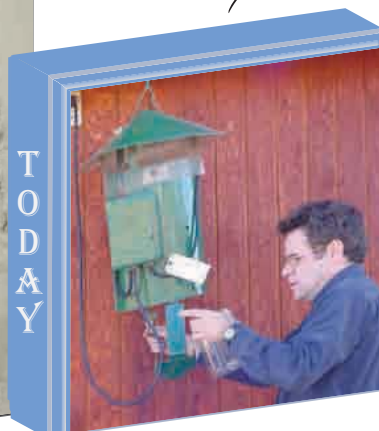
A BLOODMEAL FOR THE
INSECTARY RAISED MOSQUITOES

VECTOR & DISEASE SURVEILLANCE

YESTERDAY



TODAY



NEW JERSEY LIGHT TRAP

New Jersey light traps (pictured left) are set at 21 fixed locations throughout the District. Mosquitoes from these traps are collected weekly, tallied by sex and species and recorded in databases at the State and local level. Mosquito population data derived from these traps is used to assess pest and disease risk posed by mosquitoes in the different areas of the District.

DEAD BIRD SURVEILLANCE

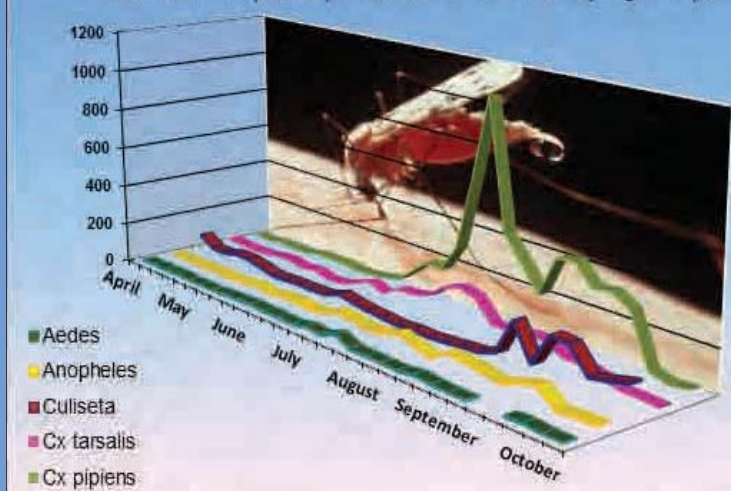
West Nile virus often kills the birds it infects, especially corvids like crows and magpies. Recently deceased birds are tested for WNV and other encephalitis viruses.

Positive samples indicate transmission of the virus in the general area and closer inspection or treatment may be necessary. In 2011, there were 80 reports of dead birds in the District. Further testing indicated 2 birds had chronic WNV infections.



2011 Mosquito Populations by Genus

Total Adult Mosquitoes per Week in 21 New Jersey Light Traps



SENTINEL CHICKEN PROGRAM

Since birds are important reservoir hosts of several mosquito-borne diseases, the District uses blood samples from sentinel chicken flocks as an indicator of the presence of mosquito-borne disease transmission within the District. In 2011 blood samples from the District's five sentinel flocks (50 birds) were taken every two weeks from mid April to mid October and sent to a public health lab in Richmond. There were no antibodies to any mosquito-borne disease detected in the samples.

Bwok?



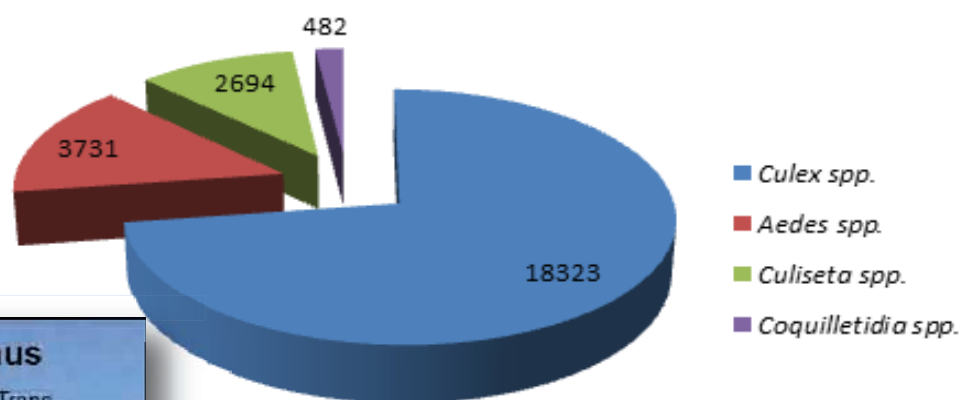
Did you know?

In 1936 Encephalitis was made a reportable disease

One of the most essential components of a successful integrated vector management program is the surveillance of vectors and the diseases they transmit. The risk of discomfort and/or disease transmission by mosquitoes within the District depends on space, time and prevalence of certain species of mosquitoes and incidence of disease. By effectively monitoring the abundance of vectors and the occurrence of disease, the District is better able to direct its operations and provide efficacious and focused public health intervention. Historically malaria, Saint Louis encephalitis, western equine encephalomyelitis, canine heartworm and West Nile virus have been transmitted by mosquitoes within the District. This year the District utilized two trap types to gather abundance and disease data; New Jersey light traps and encephalitis virus surveillance (EVS).

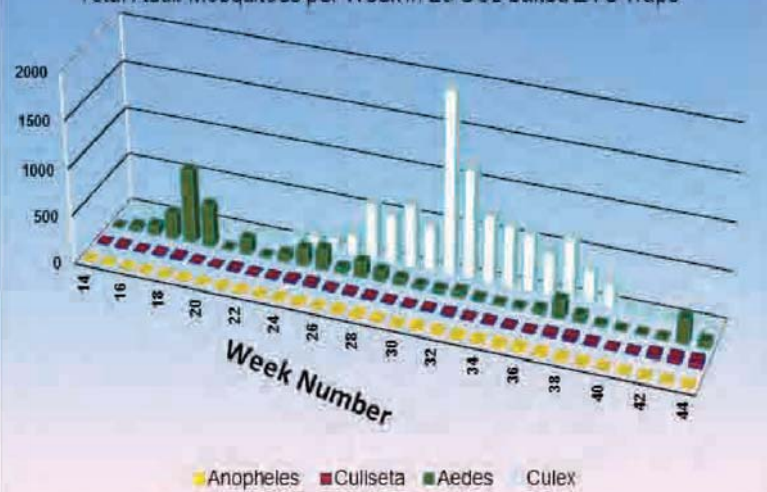
Adult Mosquitoes Trapped District-wide by Genus in 2011

Light Traps and CO₂-baited Traps Combined from April through October



2011 Mosquito Populations by Genus

Total Adult Mosquitoes per Week in 25 CO₂-baited EVS Traps

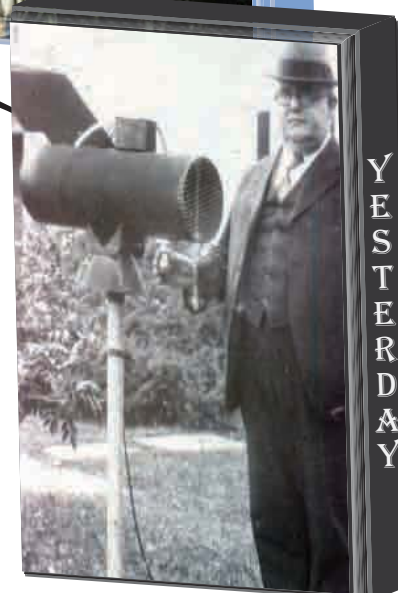


TODAY

EVS TRAPPING

In 2011 SMVCD continued to set encephalitis virus surveillance (EVS) traps on a weekly schedule, adding six for a total of 26 fixed trap locations. The traps are baited with carbon dioxide (dry ice) which simulated animal breath and attracts female mosquitoes seeking a blood meal. Traps are set for one night at each location every week and the mosquitoes are collected, counted and identified the following morning. In addition, variable or 'floating' trap sites are established on an as-needed basis.

After recording relevant data, the mosquitoes from the EVS trap are submitted to UC Davis to be tested for the presence of infectious agents. In 2011, the District submitted 389 samples (up from 325 samples in 2010) to be tested. One sample was found to be positive for West Nile virus.



YESTERDAY

OUTREACH



NEW PORTABLE POP UP DISPLAY

ONLINE

The District provides a wealth of information on its website. Foremost is information on our mosquito control operations. Visitors can check which areas are scheduled for adult mosquito control applications, request an inspection for their homes and report dead birds.

Additionally, the website includes information on other vectors, vector borne diseases and even Board agendas and meeting minutes.

PUBLIC EVENTS



ANDERSON SPRING HOME & GARDEN SHOW



EARLY MOSQUITO CONTROL FLYER

information & service
www.shastamosquito.org

24/7

SMVCD believes that direct contact with the public can often yield the best results. In 2011, District staff contacted many people at a variety of events, including:

- the Shasta District Fair
- the Spring Home & Garden Show
- the Redding Home & Garden Show
- a presentation at Columbia School
- a presentation for the National Association of Retired Federal Employees

The District has over fifty print brochures on a variety of topics concerning mosquito and vector control. In 2011 the District was able to distribute 63,288 flyers/brochures which were included with bills from local utility agencies. The District's Vector Ecologist was interviewed by a reporter with the local newspaper regarding springtime mosquito prevention measures around the home. Additionally, the District issued press releases highlighting our tick surveillance program and West Nile virus activity both local and statewide.

The Shasta Mosquito and Vector Control District considers public information to be the most important component of its comprehensive vector management program. The District uses a variety of media to reach residents.



TODAY



YESTERDAY

STUDENTS LEARN ABOUT MOSQUITO BREEDING SOURCE 1916

Website Information

Visits	4,356
Unique Visitors	1,923
Page Views	11,222

PRINT MEDIA

Statement of Financial Position: FY 2010-2011 (June 30, 2011)

FINANCIAL HIGHLIGHTS

2010-2011	
Assets	
Cash and cash equivalents	\$ 1,685,674
Restricted cash and cash equivalents	836,880
Accounts Receivable	1,963
Due from other governments	81,471
Property tax receivable - long term	93,064
Inventories	245,438
Restricted investments	755,182
Other postemployment benefit asset	9,060
Non-depreciable capital assets	193,226
Depreciable capitals assets, net	678,577
TOTAL	4,580,535

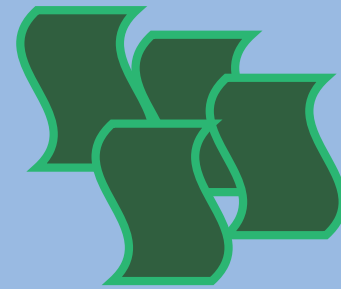
Liabilities	
Accounts payable	\$ 53,447
Deferred revenue	93,064
TOTAL LIABILITIES	146,511

Fund Balance/Net Assets	
Nonspendable	338,502
Assigned capital projects	836,880
Unassigned	2,377,779
TOTAL FUND BALANCE	3,553,161
TOTAL LIABILITIES AND NET ASSETS	3,699,672

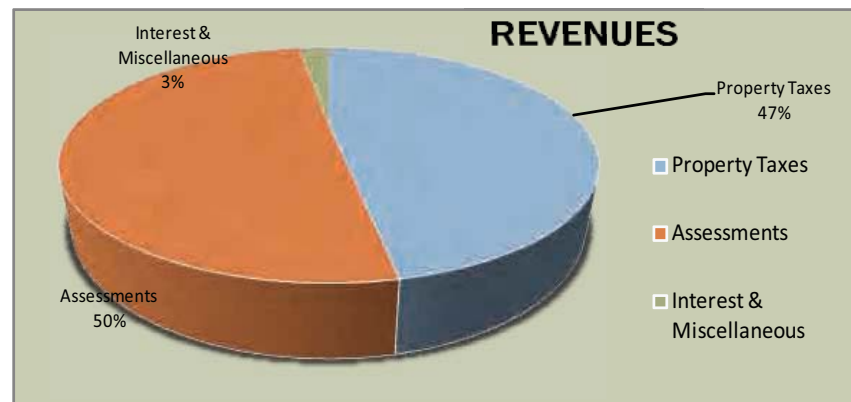
Change in Net Assets	
Net (expense) revenue	(2,288,841)
Taxes and Benefit Assessments	2,202,091
Investment Income	56,898
Change in Net Assets	(29,852)

Net Assets	
Beginning of Year as restated	4,423,783
Prior Period Adjustment	-
Net Assets End of Year	4,393,931

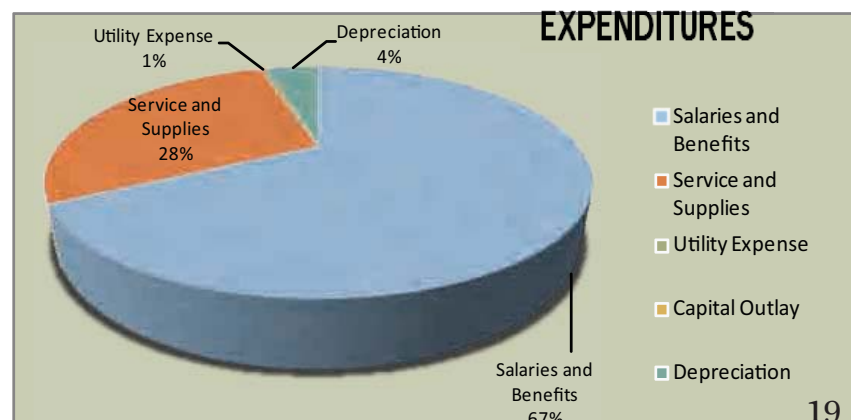
Funding Sources - Property taxes represent 47% of the District's funding. This includes Current Secured, Current Supplemental and Current Unsecured property tax. The District's other main source of revenue is through two benefit assessments that assess individual properties. Benefit Assessment revenue represents 50.5% of District Funding. The remaining 2.5% or revenue comes from interest earned and miscellaneous sources.



2010-2011 REVENUES		
Property Taxes	1,062,729	47.04%
Assessments	1,139,362	50.44%
Interest & Miscellaneous	56,898	2.52%
TOTAL	2,258,989	100%



2010-2011 EXPENDITURES		
Salaries and Benefits	1,537,611	67.18%
Service and Supplies	643,176	28.10%
Utility Expense	13,112	0.57%
Capital Outlay	-	0.00%
Depreciation	94,942	4.15%
TOTAL	2,288,841	100%



POSTER CIRCA 1915

The Fourteen Points

This is not an advertisement, but a statement of scientific facts that concerns the welfare of Redding. If you are a good citizen you will take the time to read the following:

1. Redding loses thousands of dollars each year due to sickness from malaria.
2. There is only ONE way that malaria can be contracted—thru the bite of a mosquito that has bitten someone already suffering from malaria.
3. Mosquitoes require standing water in order to pass the early stages of their life history.
4. There are probably some pools of standing water on your property, or an open well, or some old cans or barrels with some water in the bottom.
5. And there are probably some mosquito "wrigglers" in that water.
6. And "it's up to you" to either drain those pools and empty those containers or cover them with oil every week.
7. A thimbleful of water left undisturbed for ten days is liable to produce mosquitoes.
8. Are you sure that there are no puddles under your house?
9. If you need any help or information, or have any criticisms or comments to make, call the Mosquito Abatement District at the City Hall—phone 180.
10. You are paying money in taxes for this district.
11. The object of the district is to control the mosquitoes of Redding and consequently, the malaria.
12. The object will be obtained if every citizen that reads this page follows its instructions.
13. The limited funds of the district make the success of the project entirely dependent upon the cooperation of the citizens.
14. YOU are hereby appointed a mosquito inspector, and YOUR duties are to clean up the Standing water on YOUR property, or call up the district.

**DON'T "Let Woodrow Do It," for With Congress in Session He'll Have Enough to Do;
Do It NOW --- YOURSELF!**

**Shasta Mosquito
& Vector Control
District**

**19200 Latona Road
Anderson, CA 96007
(530) 365-3768**

**contact@shastamosquito.org
www.shastamosquito.org.**