



**Public Health**  
Environmental Health Services

# Mosquito and Vector Control Program

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April 13-14, 2016



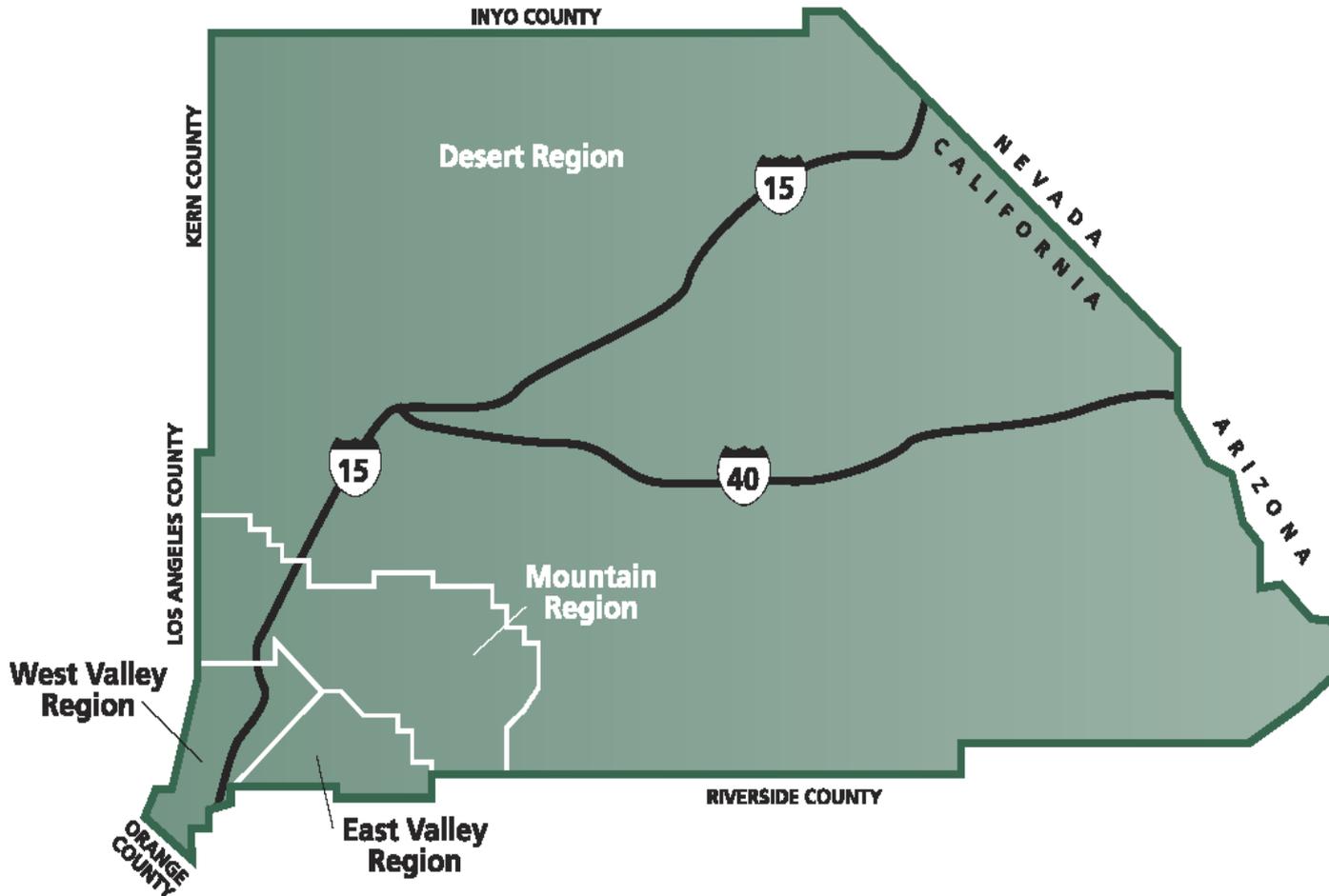
# San Bernardino County



# San Bernardino County

## Cities in San Bernardino County

Adelanto	Montclair
Apple Valley	Needles
Barstow	Ontario
Big Bear Lake	Rancho Cucamonga
Chino	Redlands
Chino Hills	Rialto
Colton	San Bernardino
Fontana	Twentynine Palms
Grand Terrace	Upland
Hesperia	Victorville
Highland	Yucaipa
Loma Linda	Yucca Valley



# Mosquito & Vector Control Program

*“The mission of the San Bernardino County Mosquito and Vector Control Program (MVCP) is to protect health and enhance the quality of life of County residents through the suppression of mosquito and other vector transmitted diseases, and the reduction of annoyance levels caused by mosquitoes and other pests of public health importance.”*



# Mosquito & Vector Control Program

**Vectors are animals or insects capable of transmitting diseases to humans, such as mosquitoes, ticks, fleas and rodents.**

## **Components within the MVCP Program:**

- Disease Surveillance
- Operations
- Community Education



# Disease Surveillance

## Mosquito-borne

- West Nile Virus
- St. Louis Equine Encephalitis
- Western Equine Encephalitis
- California Encephalitis
- Zika Virus
- Dengue
- Chikungunya

## Tick-borne

- Lyme Disease
- Rocky Mountain Spotted Fever
- Relapsing Fever

## Rodent-borne

- Hantavirus
- Plague
- Arenavirus



# Operations



- Abatement of mosquito breeding
- Abatement of bee activity on public property
- Code enforcement of applicable County code regarding vectors and nuisance pests
- Respond to citizen complaints and service requests for community control of vectors
- Sewer treatment
- Vector surveys for property development/demolition
- Tire processing facilities inspections
- Poultry ranch, dairy and equestrian center inspections

# Health Education and Community Outreach

## Community Block Surveys

- Mosquito breeding, rodents, cockroaches, general education

## Community Education

- Health fairs, community events, presentations

## Press Releases

## Social Media



# ZIKA VIRUS



# Zika Virus Surveillance

## Operations

- Abate breeding source
- Pesticide
- Physical abatement
- Code enforcement

## Methods

- AGO traps, used specifically for the *Aedes* mosquitoes
- BG traps, used specifically for *Aedes* mosquitoes seeking blood meal
- CO2 traps
- Gravid traps
- New Jersey light traps



# Measures to Reduce and Avoid Breeding Areas

- **Drain or Dump** – Remove all standing water around your property where mosquitos lay eggs such as birdbaths, old tires, pet watering dishes, buckets, or even clogged gutters.
- **Clean and scrub** any container with stored water to remove possible eggs.
- **Dress** – Wear shoes, socks, long pants and long-sleeved shirts whenever you are outdoors to avoid mosquito bites.
- **DEET** – Apply insect repellent containing DEET, PICARDIN, IR3535, or oil of lemon eucalyptus according to manufacturer's directions.
- **Doors** – Make sure doors and windows have tight-fitting screens. Repair or replace screens that have tears or holes to prevent mosquitos from entering your home.



# WEST NILE VIRUS



# WNV Disease Surveillance

## Disease Surveillance determines:

- Prevalence of WNV in mosquito samples
- Amount of mosquitoes in an area
- Species of mosquitoes in an area

## Methods:

- CO2 traps
- Gravid traps
- New Jersey light traps
- Sentinel chicken flocks
- Dead birds
- Community complaints



# WNV Operations

## Operations

- Breeding source Abatement
- Physical abatement
- Mosquito Fish (Fish and Game limitations)
- Pesticide (last resort)
- Code enforcement



# Fight the Bite: 5 Ds

**Drain or Dump** Remove all standing water around your property where mosquitoes lay eggs such as birdbaths, green swimming pools, ponds, old tires, buckets, clogged gutters, or even puddles from leaky sprinklers.

**Dawn and Dusk** Avoid spending time outside when mosquitoes are most active.

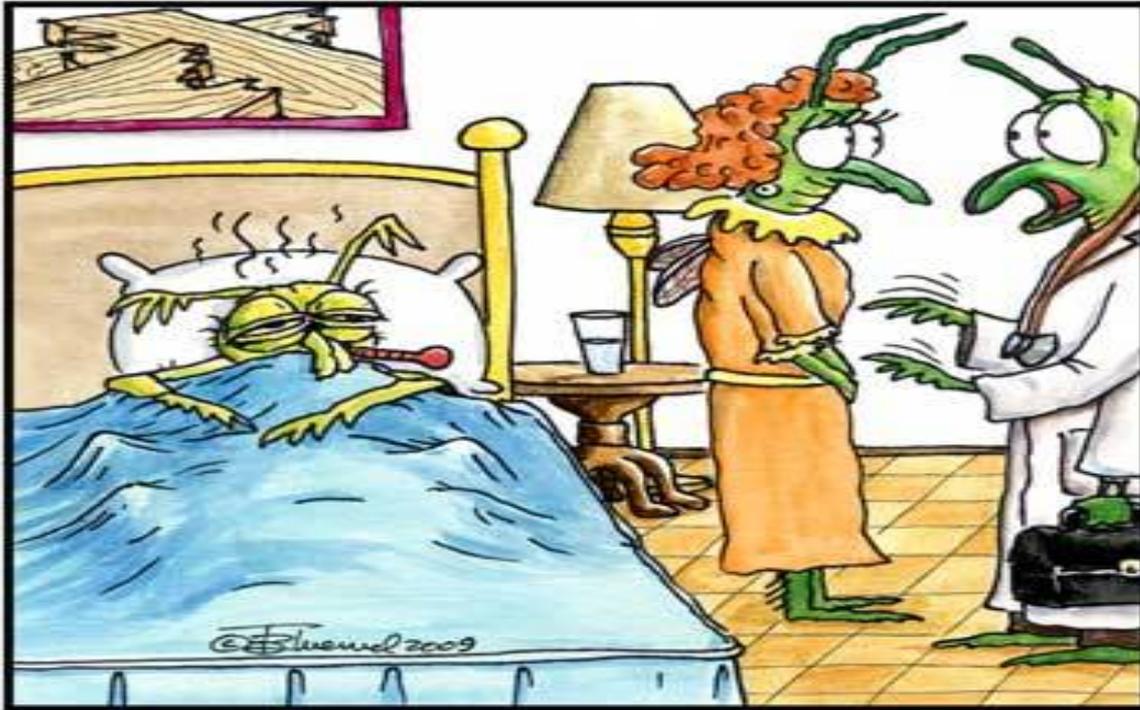
**Dress** Wear shoes, socks, and long pants and long-sleeved shirts that are loose-fitting and light-colored.

**DEET** Apply insect repellent containing DEET according to manufacturer's directions.

**Doors** Make sure doors and windows have tight-fitting screens. Repair or replace screens that have tears or holes to prevent mosquitoes from entering home.



# Questions?



"He's lucky, Mrs. Buzzez - many young bugs experiment with insecticide and never buzz again..."

# Questions?



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