

KINGS MOSQUITO ABATEMENT DISTRICT

THE KINGS COUNTY BLOOD SUCKERS

SUMMARY

The Grand Jury, recognizing multiple news articles on mosquito related issues within the county, decided that there was public interest to warrant an investigation into the current practices of the Kings Mosquito Abatement District (KMAD). Mosquito populations in Kings County tend to be a pest to humans and can be a vector for numerous diseases. *Culex tarsalis* and *Culex pipien* are mosquitoes native to Kings County that are known to transmit the West Nile Virus. The non native *Aedes aegypti* mosquito has recently been found in Madera, Clovis, Exeter, and Arvin. This particular species is known to carry and transmit infectious diseases such as Yellow Fever, Chikungunya and Dengue Fever.

BACKGROUND

California Penal Code §933.5 provides: “A grand jury may examine the books, duties and records of any special purpose taxing district in the county...”

METHODOLOGY

The Grand Jury interviewed the KMAD Manager, toured the facility, and reviewed documents both online and from KMAD.

DISCUSSION

Hanford Mosquito Abatement District was formed in January 1945. The district was expanded in April 1961 with the inclusion of the Corcoran Mosquito Abatement District to become the KMAD. Currently KMAD covers an area of 580 square miles which includes 34 square miles in Tulare County. KMAD employs 12 full time employees plus an additional 15-20 seasonal staff based on environmental conditions of the county. The District has a current fleet of 30 vehicles.

Their annual budget is \$2,062,704 which is funded by property taxes from the district area.

Their mission is to suppress all mosquito populations to the lowest levels possible, thus minimizing the mosquito’s disease spreading potential and improving the quality of human life. To accomplish this mission, KMAD implements a mosquito and disease

surveillance program that continually monitors mosquito abundance and disease activity to insure efficient and effective allocation of resources.

Satellite images and flyover photography show details of possible infestation sites such as swimming pools, ditches, standing water, and irrigated fields. Employees who work in the field are equipped with GPS handheld computers. The employee enters the type and quantity of treatment they use in the field on the computer. This also provides a record of inventory and when the last time the area was treated.

A court issued warrant is utilized by KMAD to allow access to any property for inspection and/or treatment. This warrant is reissued annually.

The four main treatments currently in use by KMAD are:

- *Bacillus Thuringiensis israeliensis* (BTI) – Bacillus bacteria which produces a toxic reaction in the mosquito.
- Altosid – A hormone that causes mosquitoes to stay in the larval state, interrupting the growth cycle.
- Natular – A bacteria product that is toxic to the mosquito.
- Mosquitofish – A small fish whose diet consists of large amounts of mosquito larvae, relative to their body size.

These treatments are approved by the Occupational Safety Health Administration (OSHA) to be non toxic to humans or other animals.

The months from April to September are normally the period when mosquitoes are the most active. During this period, seasonal employees, equipped with mosquito traps, test areas to determine the level and type of mosquito activity. Trapped mosquitoes are transported to the Delta Vector Control District Office, in Visalia, to be tested for a number of infectious diseases which include West Nile Virus, Yellow Fever, Dengue Fever, and Chikungunya. These areas are then treated with the mosquito controlling agents as needed.

The public is encouraged to report mosquito infestations and dead birds. Birds often fall victim to viruses transmitted by mosquitoes and should be reported by calling The Dead Bird Hotline at (877) 968-2473.

The KMAD facility is not American Disabilities Act (ADA) compliant and will be moving to a new location in the future which will be in compliance.

FINDINGS AND RECOMMENDATIONS

Finding 1

Mosquitofish are a natural predator of mosquito larvae. Mosquitofish are a re-occurring resource in the State of California and are available to the general public at no cost by calling KMAD at (559) 584-3326.

Recommendation 1

None

Finding 2

Treatments used by KMAD are regulated using safeguards that have been determined by OSHA not to pose a health hazard to humans or other animals. Mosquito populations develop little resistance to these treatments.

Recommendation 2

None

Finding 3

The existing facility does not comply with ADA standards. The Grand Jury, at the time of the interview, was informed that the district is planning a new ADA compliant facility.

Recommendation 3

None

REQUEST FOR RESPONSES

None

COMMENTS

The facility is neatly kept, with materials properly indentified and stored. The Grand Jury thanks KMAD for their cooperation and information.