

RECEIVED

DEC 30 2003

STEPHEN A. BOUGH  
COURT EXECUTIVE OFFICER

## Napa County Mosquito Abatement District

### Summary

The Grand Jury investigated the Napa County Mosquito Abatement District (NCMAD) to determine if it is effective in its current use of tax funds and to ensure that the incremental assessment funds it will receive beginning in December of 2003 will be used effectively. The potential threat that the county faces from West Nile Virus makes this especially important. The Grand Jury is impressed by the job that the District is doing and concludes that the citizens of Napa County can have confidence that the District will fulfill its mission.

Educating the public is essential to the District's efforts to prevent West Nile Virus from becoming a major public health problem. The Grand Jury recommends that the District engage a public relations firm to help with this effort.

### Background

The District's mission is to control the mosquito population and to prevent the spread of diseases such as malaria and encephalitis. It is staffed with a Director, three full-time field technicians, and a half-time administrator, and is governed by a Board of Trustees comprised of representatives from the cities in Napa County and the county-at-large.

NCMAD works with other public agencies, and wineries to provide an environmentally sound mosquito control program. It works with the Flood Control and Water Conservation District to minimize mosquito production in wetland restoration / enhancement projects.

The District has been funded by an ad valorem tax that produces approximately \$600,000 per year in revenue. A new voter-approved assessment will produce approximately \$700,000 in additional funds.

### Methodology

In conducting its investigation, the Grand Jury:

- Conducted interviews with the District Director and members of the District staff.
- Reviewed budgets and audit reports.
- Observed a Board of Trustees meeting and District staff meeting.

### Discussion

The Mosquito Abatement District provides the following services:

- Assists landowners and agencies in eliminating mosquito sources.
- Responds to complaints of mosquitoes; determines the source of the problem.
- Provides mosquito fish free of charge during the mosquito season.
- Monitors mosquito populations and diseases.
- Uses sentinel chicken flocks as an early warning system for disease (the chickens attract mosquitoes and can easily be monitored for disease).
- Provides emergency control of larval mosquitoes.
- Informs the public about mosquitoes and mosquito-borne diseases.

The District controls mosquitoes by targeting the larvae found in stagnant water because preventing adult emergence has proven to be the most effective way to control mosquito populations. Four methods are used:

- Biological control – use of natural predators, parasites, and hormones.
- Chemical control – emergency control when pupae are present.
- Physical control – exclusion or improved water circulation.
- Public education – information resource on mosquitoes and their diseases.

The Board of Trustees meets monthly and reviews all aspects of the operation. The Grand Jury was impressed by the business-like nature of the Board meeting and by the strong support the Director receives from the Board.

Controlling costs is a priority for all District personnel. The Director personally oversees all expenditures. The staff maintains most District equipment to avoid costly contracted repairs and seeks to minimize operating costs. Staff morale is high.

The District is very customer sensitive. The Director personally responds to all complaints and ensures that they are dealt with promptly and satisfactorily.

**The District believes that the mosquito population in the county would be reduced by 50% if residents took the following precautions in order to avoid creating the conditions required for them to breed:**

- **Fishponds – stock with mosquito fish (provided free by the District).**
- **Swimming pools & spas – chlorinate; cover tightly when not in use.**
- **Birdbaths – change water at least once per week.**
- **Containers – empty, invert, or cover to prevent mosquito entrance.**
- **Basement & under house – drain the area; correct leaky plumbing, dripping air conditioners, or refrigeration units.**
- **Catch basins & storm drains – do not dispose of litter or debris into these.**
- **Sump – construct so that water does not stand, or screen over.**
- **Standing water – eliminate by draining or filling.**
- **Tires – dispose of properly, or cover so that water does not collect inside.**
- **Tree holes – consult with a licensed nursery or tree service before draining, filling, screening, or removal.**
- **Septic tank – keep tightly covered. A major mosquito producer!**
- **Watering trough – stock with mosquito fish or change water weekly.**
- **Creek – do not dump litter or debris into creek or create obstructions.**

In October, there were two reported West Nile Virus cases in Southern California. Because Napa County is in the Pacific Flyway, the District believes that it is very likely that there will be an outbreak of the disease here in 2004, posing a serious public health issue.

The District intends to use new funding to:

- Hire additional staff and convert the administrator to full-time status.
- Deploy nine additional chicken flocks as an early warning system.
- Prepare for, identify, and eradicate mosquitoes carrying West Nile Virus.
- Take on the responsibility to control the yellow-jacket population.
- Staff up to provide 24-hour response to citizen complaints.
- Educate the public about mosquito control and disease prevention.

The District intends to triple the staff of field technicians in time to deal with the 2004 mosquito season. A lab scientist will be hired in March of 2004 to test dead birds and live mosquitoes for disease and to assist in formulating strategies to combat mosquitoes and other disease-bearing vectors.

### **Commendation**

The Napa County Mosquito Abatement District has effectively employed revenues to control mosquitoes in the County.

### **Finding 1:**

The District believes that the public is generally unaware of the threat posed by West Nile Virus and the steps that can be taken to prevent it.

### **Finding 2:**

The newly hired field technicians will not yet be fully trained when the 2004 mosquito season begins. Therefore, there is a danger that the technicians will be spread too thin if they take on new vectors and West Nile Virus reaches Napa County early in the season.

### **Recommendation 1:**

The Grand Jury recommends that the District hire a public relations firm to develop a comprehensive campaign to make the public aware of the dangers associated with West Nile Virus and the actions residents should take to prevent a major outbreak of this disease.

### **Response requested from:**

District Director, Napa County Mosquito Abatement District  
Board of Trustees, Napa County Mosquito Abatement District

### **Recommendation 2:**

The District should continue to make controlling the mosquito population its highest priority.

### **Response requested from:**

District Director, Napa County Mosquito Abatement District  
Board of Trustees, Napa County Mosquito Abatement District

**The Grand Jury urges the newspapers and other media in Napa County to assist the District in educating the public regarding the dangers of West Nile Virus and the steps that the general public needs to take to prevent a major outbreak of this disease from occurring.**