



Monterey County Board of Supervisors

Response to the

2013 Monterey County Civil Grand Jury
Interim Final Report No. 3

July 22, 2014

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REPORT TITLE: Mosquito Abatement in Monterey County
RESPONSE BY: Monterey County Board of Supervisors
RESPONSE TO: Findings F-1, F-2, F-3, and F-5

Finding F-1: Mosquitoes in Monterey County carry diseases that can infect humans and animals, including, but not limited to West Nile virus and equine encephalitis.

Response F-1: The County agrees with this finding.

Finding F-2: The requirements for construction of holding ponds, continuing and growing irrigation of vineyards and other agricultural crops in the County create mosquito breeding locations. Additionally, with a growing population, global trade, and tourism, new mosquito species traveling into new regions, present an increasing potential for humans and animals to contact mosquito borne disease throughout Monterey County.

Response F-2: The County agrees that holding ponds and certain irrigation practices can create mosquito breeding locations. However, carefully managed irrigation and water treatment can minimize breeding. The County also recognizes that non-agricultural practices can contribute to the creation of mosquito breeding environments throughout the County.

The County believes that there is a need to clarify whether the Grand Jury's finding references a growing population of humans and animals or growing population of mosquitos. If the Grand Jury's finding regarding growing population refers to humans and animals, then the County is unaware of any evidence that shows that the increase in human or animal population in Monterey County has in the past or will in the future result in increased potential for humans and animals to contract mosquito borne disease. Consequently, if the Grand Jury finding references human and animal population, the County wholly disagrees with this finding. If the Grand Jury's finding on growing population refers to mosquitos, then the County is aware that any impact on potential for humans and animals to contract mosquito borne disease in Monterey County depends on which species of mosquito population increases. If there is an increase in mosquitos that do not have the ability to infect humans and animals, then this population may crowd out other mosquitos that have the potential to transmit disease, resulting in no change or even a decrease in potential for humans and animals to contract mosquito borne disease. If there is an increase in mosquitoes that do have the ability to infect humans and animals, then there may be an increase in potential for humans and animals to contract mosquito borne disease. Consequently, if the Grand Jury finding references mosquito population, then the County partially disagrees with this finding.

Global trade of products that harbor mosquito eggs or mature mosquitos that are also capable of transmitting new or emerging mosquito borne disease may increase the potential for human and animals to contract mosquito borne disease. The species of mosquito would need to also survive the Monterey County climate and the disease causing organism would also need to be present in Monterey County. The County agrees with this finding.

Tourism might contribute to mosquito borne disease transmission. For example, a tourist might arrive in Monterey County with an active mosquito borne disease, and a mosquito capable of transmitting that disease might be present in Monterey County and bite that tourist, and the mosquito might bite and infect a susceptible individual. In this scenario, tourism could contribute to mosquito borne disease transmission. However, to date, the Health Department has not identified an individual with a mosquito borne disease that acquired the disease in this manner. Therefore, the County partially disagrees with the statement that tourism could increase the potential for humans and animals to contract mosquito borne disease throughout Monterey County.

New mosquito species traveling into new regions, specifically Monterey County, could increase the potential for humans or animals to contract mosquito borne disease, provided that the new species is capable of transmitting a mosquito borne disease causing organism. If the new species is incapable of transmitting a mosquito borne disease causing organism, then this new species may crowd out other mosquitos that have the potential to transmit disease, resulting in no change or even a decrease in potential for humans and animals to contract mosquito borne disease. The County is unaware of any instances where new species traveling to Monterey County have transmitted mosquito borne disease among humans. Therefore, the County partially disagrees with this finding.

Finding F-3: Coordination and communication between the District staff and the Monterey County Health Department staff has been infrequent, somewhat limited to instances of disease out-breaks. A large working group of stakeholders was established during the West Nile outbreak in 2004, but it no longer meets on a regular basis.

Response F-3: Wholly disagree. Since 2004, The Monterey County Health Department's Environmental Health Bureau (EHB), the Health Department's Public Health Bureau (PHB), and the County Resource Management Agency have continued frequent communications with the District and with other interested stakeholders. County communication with District staff has not been limited to disease outbreaks. Rather, the County has collaborated on various occasions to provide public presentations, to create and disseminate informational brochures, to maintain flocks of sentinel chickens for West Nile Virus surveillance in King City, to provide updated West Nile Virus surveillance activity on the County website and to provide annual District training to Health Department staff on West Nile Virus prevention and mosquito abatement services.

Furthermore, since 2004, the EHB has responded to 143 public complaint investigations and documented over 1,500 hours of staff time responding to public inquiries over the phone, providing community outreach at public meetings, providing public presentations, investigating complaints and conducting inspections. In addition, the EHB assists the District in annual retrieval and transport of dead birds to the District for laboratory analysis. Furthermore, beginning in April of each year, the EHB incorporates WNV prevention information into routine education and inspection of owners and operators of regulated facilities in the EHB Solid Waste (Waste Tire), Hazardous Materials, Drinking Water, and Consumer Protection (Housing) programs and provides direction in abating conditions that would lead to mosquito breeding.

Detailed examples of these and other coordination and communication activities are available at the Monterey County Health Department Environmental Health Bureau office.

Finding F-5: Should the proliferation of mosquitoes and mosquito borne disease increase, it will not only have an impact on the health of residents but will also negatively impact tourism thus affecting the whole economy of Monterey County.

Response F-5: Partially disagree. The County agrees that proliferation of mosquitos that are capable of transmitting disease causing organisms and an increase in mosquito borne disease among humans may have an adverse impact on the health of residents. With regards to the proliferation of mosquitos and an increase in mosquito borne disease negatively impacting tourism, thus affecting the whole economy of Monterey County, the County is unaware of any evidence that shows that past increases in mosquito borne disease has resulted in a negative impact on tourism and an effect on the whole County economy. For instance, the first human case of West Nile Virus illness was identified in California in 2002. (*ArboNET*, Arboviral Diseases Branch, Centers for Disease Control and Prevention) That same year, California direct travel spending was estimated to be \$72.8 billion with \$8.4 billion in total tax receipts generated in California. (*California Travel Impacts by County, 1992-2012*, California Travel & Tourism Commission, May 2014) In 2005, 880 confirmed cases of West Nile virus cases were reported in California, which is the greatest number of human cases reported thus far. That year, California direct travel spending was estimated to be \$87.7 billion with \$9.3 billion in total tax receipts generated in California. There is no evidence that these cases negatively impacted tourism or affected the whole economy of Monterey County. Should a new or emerging mosquito borne disease result in a much larger number of human cases, then this could possibly draw the attention of tourists to our local situation. However, the County is unable to speculate the impact to tourism and the whole economy.

REPORT TITLE: Mosquito Abatement in Monterey County
RESPONSE BY: Monterey County Board of Supervisors
RESPONSE TO: Recommendations R-1, R-2, R-3, and R-4

Recommendation R-1: County Board of Supervisors, The District, and the Monterey County Health Department should work together to develop a coordinated plan for mosquito control, including a budget for countywide mosquito management, whether the parcel tax passes or does not pass.

Response R-1: The County currently coordinates mosquito abatement services with the District. The County will work with the District to review the coordinated effort, will explore opportunities to more formally coordinate efforts, and will review the cost to provide coordinated mosquito services to County residents.

Recommendation R-2: The District and the Monterey County Health Department should establish regular and routine communication regarding mosquito abatement and control issues. They should work to find ways to maximize resources of both groups to broaden the reach of mosquito control throughout the County when possible.

Response R-2: The District and the Monterey County Health Department will enhance its current communication efforts with the District by establishing routine and regular communication and will enhance its current collaborative efforts by finding ways to maximize resources to broaden the reach of mosquito control throughout the County.

Recommendation R-3: The Northern Salinas Valley Mosquito Abatement District Board should allocate resources to public information and outreach, including but not limited to; managing the website, social media and written materials explain the role of mosquitoes in human and animal disease and the resources available to members of the public trying to control mosquitoes on their own property.

Response R-3: As this recommendation is directed to the District Board, the County respectfully declines to respond to this recommendation.

Recommendation R-4: The District and Monterey County Health Department staff should mutually and quickly explore and report on a path to extend the mosquito abatement activities throughout the County and report their findings to the Board of Supervisors.

Response R-4: The Health Department will contact the District to explore the need for mosquito abatement activities in Monterey County.