
Mosquito Control District Performance Is Mixed

SUMMARY

The Metropolitan Mosquito Control District uses approved and registered insecticides, and generally has applied them according to label instructions. However, a report issued by the Legislative Auditor's Office identifies concerns with the District's adult mosquito treatment policies and practices among other things.

The Metropolitan Mosquito Control District is responsible for controlling mosquitoes and black flies and monitoring disease-carrying ticks in the Twin Cities area. The District uses *Bti*, a natural soil bacteria, to kill mosquito larvae. It also uses products containing methoprene, a growth regulator that stops mosquito larvae from hatching into adults. Finally, it sprays synthetic chemicals (resmethrin and permethrin) to kill adult mosquitoes.

After a review of U. S. Environmental Protection Agency documents and scientific literature, the study concluded that *Bti* and methoprene pose little risk to people and most nontarget species. While resmethrin and permethrin have the potential to harm other types of insects, they should not be harmful to humans or the environment if properly applied.

The District's 1998 budget of \$8.6 million was financed primarily from property taxes. In 1998, the

District employed 47 full-time staff and 164 seasonal staff, most of whom provided mosquito control services from regional offices. The District treated almost 197,500 acres with insecticides in 1998, a 15

percent reduction from 1997. Treatment of mosquito larval breeding acres represented 64 percent of all acres treated in 1998. Drier weather conditions allowed the District to reduce the number of acres it treated with insecticides to kill adult mosquitoes by 37 percent in 1998.

A review of the District's treatment data showed that in 1998 the District applied insecticides only after pretreatment counts of mosquito larvae or adults indicated that treatments were necessary. However, the study also found that the District provided adult mosquito treatments for some for-profit enterprises and private functions in 1998, contrary to its adult mosquito treatment policy. The report recommends that the District review and clarify its policy for providing adult mosquito treatments to for-profit enterprises.

Since 1982, state law has given private landowners the right to refuse the District access to their property. The study found that language in state law on the District's access to public property is unclear and contradictory. State law gives the District access to any property "subject to the paramount control of the county and state

Program Evaluation Report **Metropolitan Mosquito Control District**

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Key Findings:

- Contrary to its policy, the District provided adult mosquito treatments to some for-profit enterprises and private functions in 1998.
- The effectiveness of most larval insecticides used by the District has been reasonable, but it has been inconsistent for others.
- Language in state law on the District's access to public property is unclear and contradictory.

Recommendations:

- The Metropolitan Mosquito Control Commission should adopt a clear, comprehensive adult mosquito treatment policy and the District should ensure that its practices conform with its policy.
- The District should reevaluate the effectiveness and future use of methoprene products used to kill floodwater mosquito larvae and insecticides used to kill adult mosquitoes.
- The Legislature should clarify whether the Department of Natural Resources should have the right to refuse treatment on its land.

*The report is available at our web site:
<http://www.auditor.leg.state.mn.us/pe9903.htm>
Copies of the full report or summary are also available
by calling 651/296-4708.*

authorities,” but it requires the Commissioner of Natural Resources to allow the District on Department of Natural Resources (DNR) property for mosquito control purposes. While state law allows counties and state authorities the right to determine what mosquito control activities occur on their land, it removes that right from DNR. The report suggests that the Legislature consider clarifying this language.

The District determines how well it controls mosquitoes overall by testing the effectiveness of the insecticides it uses. The study found that some of the insecticides used by the District killed a reasonable number of mosquito larvae—between 78 and 99 percent depending on the insecticide and how it is used. However, the effectiveness of methoprene products used to kill floodwater mosquitoes has been inconsistent. In addition, research by the District in 1996 showed that the insecticides used to kill adult mosquitoes reduced adult mosquito populations by an average of 57 percent. The report recommends that the District examine how it measures the effectiveness of methoprene products used to kill floodwater mosquitoes and insecticides used to kill adult mosquitoes and use the results of these studies to reevaluate the continued use of these products.

The District has used a telephone information line, web site, press releases, telephone calls to individuals, and signs posted on public land to notify the public of mosquito control activities and adult insecticide applications. In 1998 the District also placed an advertisement in newspapers and left posted notices up longer than in the past. The report recommends that the District should continue the level of public notification provided in 1998. It also suggests that the District exercise care to present the most accurate information possible to the public.

The District is currently governed by a 17-member commission composed of county commissioners appointed annually by their respective county boards. The study considered several alternative governance structures for the commission. Although the report does not recommend a major restructuring at this time, it suggests that the Legislature consider changing the composition and reducing the size of the commission.

Copies of the report, entitled *Metropolitan Mosquito Control District*, may be obtained from the Office of the Legislative Auditor at 651/296-4708 or at <http://www.auditor.leg.state.mn.us/pe9903.htm>. For further information, contact Susan Von Mosch or Roger Brooks at 651/296-4708.