
environmentalcommons

February 16, 2008

Mr. John Morley
Mendocino County
Department of Environmental Health
501 Low Gap Rd., #1326
Ukiah, CA 95482

RE: Precautionary Principle Comments on Vector Control Program

Dear John,

Thank you for agreeing to have the vector control program of Environmental Health be a pilot program of the Precautionary Principle policy. Both you and Kirk Ford did a good job presenting information at the scheduled workshop on January 23, 2008. I found the workshop to be very instructive. My only wish is that more people would have known about the workshop so that there could have been greater attendance.

Regarding the specifics of the products used to control mosquitoes and possible less harmful alternatives, please see my general and detailed comments below:

1. *Bacillus thuringiensis, israelensis (Bti)* – Vectobac

I am pleased to know Mendocino County's first product choice in controlling mosquito populations is an organically approved product that is relatively non-toxic except to the target species. *Bacillus thuringiensis israelensis (Bti)* is a naturally occurring soil bacterium that can effectively kill mosquito larvae present in water and is very specific for mosquitoes and black flies.

While Bti is relatively nontoxic to mammals, birds, and fish, few studies have closely examined potential long-term ecological impacts from *Bti* application. In fact, some studies suggest that continuous application of *Bti* to wetland areas (over a period of 2-3 years) may result in an overall decrease of biodiversity. For this reason, we request Environmental Health continue to use the product prudently particularly if applications are being made in wetland areas. Should Environmental Health find they are making continuous applications in wetland areas, I suggest that these areas may be prime sites for bat houses or dragon fly releases.

2. *Bacillus sphaericus* – Vectolex

Again, I am pleased that the County has chosen to use a mosquito control product that is relatively non-toxic. *Bacillus sphaericus*, a naturally occurring soil bacterium, has been shown to be quite effective at killing mosquito larvae present in water, particularly water that is rich in organic matter. *B. sphaericus* has very few environmental risks associated with its use. However, the product has been shown to have residual levels of persistence in some waters for up to nine months. Additionally, the recycling of *B. sphaericus* from mosquito corpses can increase its persistence having potential effects on non-target aquatic and terrestrial species. For this reason, I request that *B. sphaericus* be primarily used in contained waters and not in waters that are running.

3. Methoprene

Due the toxicity of this product, I understand Environmental Health only chooses to use methoprene in very limited circumstances, such as abandoned swimming pools where exposure is unlikely. This is largely due to the product's high toxicity to freshwater and estuarine invertebrates. The product is not very persistent in the environment having a half-life in water of <1 day in sunlight and >4 weeks in darkness. I encourage the County to continue to use this product judiciously.

Conclusion

Again, thank you for the opportunity to learn more about Mendocino County's vector control program. Environmental Commons greatly appreciates the opportunity to provide comment while commending the Environmental Health Department for choosing products that present modest environmental harm. I also applaud Environmental Health for carefully evaluating the conditions of application.

As the Precautionary Principle becomes more fully implemented into County decision-making, we suggest the County do a better job of reaching the public when sharing educational information and seeking public input. The workshop and materials on the vector control program were extremely informative, educational, and valuable. While I understand the bureaucratic nature and cost in conducting greater outreach, the value of inviting more extensive participation could reduce public conflict and the occasional distrust. That said, Environmental Health is to be commended for its prudent approach to controlling mosquitoes in the County. My only wish is that more residents knew about the careful decision-making already taking place within this particular program.

Sincerely,

Britt Bailey, Director