

trict." These are the people who are continually talking about metropolitan government, and how they could save the taxpayers' money by doing away with overlapping districts. When we set up our districts we set them up to take care of mosquito problems. The mosquito doesn't care where a district starts or where it stops. If one city were to try to control its own mosquitoes and an adjacent city didn't, you know what the result would be. So our districts are usually set up to cover several cities or perhaps several different governmental jurisdictions. Recently we heard of various attacks on the overlapping districts. About two years ago the Governor set up a committee to study metropolitan government. A bill was submitted to the Legislature which was intended to lead up eventually to metropolitan government. Under this proposition if two cities decided they wanted to set up a district for one thing or another, say for a fire department, they could include a third city and the two cities could well have enough power to take in this other city that might not want to come in. That would be going into metropolitan government via the back door. The League of California Cities at first thought it would go along with this and it reached a point where we had to call up the Board of Directors and get them to hold a state meeting, attended by 376 mayors throughout the State of California. They voted it down unanimously.

The reason I am mentioning this, gentlemen, is that our mosquito abatement districts are involved in this, too. Now, first of all, I assure you these big over-all governments are not economical; they are expensive. If you will check the tax rate of our larger cities in California you will find that they are much higher than those cities of 100,000 or under. It has become a well-known fact with municipal people down through the years that when a city reaches 100,000 it becomes unwieldy and can't take care of its public services properly.

Now it is my belief, gentlemen, that we are all in the same boat. If they wipe out the cities, if they wipe out home rule, they wipe out or destroy the mosquito districts in some metropolitan areas. There is one thing that we should bear in mind—with the long, practical, down-to-earth experience that our people have had in mosquito abatement, it would take a long time for a new type of agency to reach the point of doing an equivalent job.

I can only say this in closing. Thus far in the present legislative session we haven't found any bills being proposed that would affect the districts in this respect. If the cities are affected, the districts are going to be affected because the cities help organize and are a part of these many districts. Our district, and I know this is true of many others, is what they are calling an overlapping district. Therefore, we should all be alert and, if it becomes necessary, be prepared to call on our assemblymen and at least give them an informed opinion. Last year, through the League of California Cities, we were able to slow this down and stop it, we hope, but the issue is apt to come alive again. So all I can do here is to alert you as to what has been going on, in case you are not aware of these recent developments, and to urge you to watch for possible future activity on this issue. Thank you very much.

## SHOULD A MOSQUITO ABATEMENT DISTRICT BE INVOLVED IN INSECT CONTROL OTHER THAN MOSQUITOES?

EDWARD E. ENOS

*Trustee, Alameda County Mosquito Abatement  
District*

Since receiving an invitation to appear on this program I have been anticipating the occasion with a great deal of interest. Primarily, I have been looking forward to a discussion with those of you to whom the call has gone out in many areas to take over control of insects other than mosquitoes. Secondly, I wanted to discuss with you some of the practical aspects of fly control.

I have divided my talk into about five considerations. The first is that of district powers. It might be well at the outset to quote the section of the California Health and Safety Code which gives the district board of trustees the power to ". . . take all necessary or proper steps for extermination of mosquitoes, flies, or other insects, either in the district or in the territory not in the district but so situated with respect to the district that mosquitoes, flies or other insects from such territory migrate into the district."

The second consideration is that of service. We should bear in mind that mosquito abatement districts are public service agencies. In view of this if the people demand a specific service which we are authorized to provide, then we should give them that service. Several districts have already undertaken gnat control or fly control.

The results of investigations indicate that there are several main sources of domestic flies, including household garbage and other back yard sources such as lawn clippings, industrial wastes, and livestock and poultry manure. According to the most recent California surveys, these are the primary or major sources of domestic flies.

To combat this problem—a man-made problem, incidentally—several avenues of approach have been suggested: (1) education of the public as to the proper disposal of garbage—illustrated so well yesterday afternoon in that excellent talk by Mr. St. Germaine from Santa Clara County; (2) an extensive campaign to improve refuse management through use of proper containers; (3) twice-a-week pick up of garbage; and (4) improved farm management and sanitation programs.

Scientists have shown that in some areas the average garbage can may produce as many as 1200 flies per week. However, in such a situation, with two garbage collections per week, the figure dropped to an average of 120 flies per can per week. In other words, 10% of the flies developed in the first four days and 90% developed in the next three days. Now, the house fly cycle during the warm weather is approximately this: (1) egg to larva, ½ day or longer; (2) larva to pupa, 3½ days

or longer; (3) pupa to adult, 1½ days or longer. So you see that the period from egg to pupa may be as short as 4 days. Thus, you can really get into trouble after the 4th day.

The third consideration is that of financing. Financing a project or a new program is a matter of great importance. At present a district may levy up to 15 cents per \$100 assessed valuation. If we go over the 15 cents we must petition the board of supervisors, and with their consent we can levy up to 40 cents. The question arises as to whether or not a comprehensive fly control project would be economically sound. Highly trained employees would have to be hired. The cost to the district could be as much as three times the present cost of operation. In my particular district, which has about 300,000 housing units, the garbage in some areas should be collected twice weekly, at least during the warm season, thus imposing a heavy cost upon the patrons. However, this is the largest source of flies in many urban areas and, therefore, one which we must confront. The people provide the breeding sources for flies; therefore, it is just as possible for them to prevent the breeding of flies.

The fourth consideration is enforcement. A question may well arise in the area of enforcement, as well as in terms of service, which I might call, for lack of a better term, the tolerance level, or the threshold of annoyance. In other words, when shall a district representative respond to a home call? Shall it be 2 flies? Shall 3 flies be the deciding point? One mosquito is sometimes enough to result in a call. Will the same be true of house flies?

The fifth consideration is that of control. Several sources of technical information are available for the control of flies: the University of California, the State Bureau of Vector Control, the State Department of Agriculture, and others.

It takes moist organic material to produce flies; dry material will not produce flies. Flies can be prevented in waste material by (1) spreading it thinly to dry; (2) cultivating it into the soil, (3) storing it in a fly-tight bin, (4) covering it with a tarp, (5) gathering droppings daily and burying under 6 inches of compacted soil.

I hope that in this discussion I have kindled a spark of interest in each of you so you will go home and study this problem further. You may some day be called upon by the board of supervisors or by a citizens' committee to provide this kind of extended service. In Contra Costa County a citizens' committee was actually formed and they appeared before the board of supervisors, as I understand it, and said, "We want fly control now." As a result, the Contra Costa County Mosquito Abatement District is in the fly control business. You may have that occur in your area, just as we are having to give it serious consideration in Alameda County at the present time. This will require careful thought, but I am confident that it is a problem that can be solved.

## REQUIREMENTS FOR ANNEXATION TO MOSQUITO ABATEMENT DISTRICTS BY NEW SUBDIVISIONS

ALFRED J. ENGLE

*Director of Sanitation*

*Santa Barbara County Health Department*

After having encountered considerable resistance to expansion of the existing abatement districts or to the formation of additional abatement districts here in Santa Barbara County, we have resorted to a procedure which, to the best of our knowledge, is unique. We have had tremendous subdivision growth here in the last few years. Basically, there are two procedures which we are using for the expansion of mosquito control in Santa Barbara County as this service relates to the growth of subdivisions. Both procedures involve the following county agencies: Planning Department Subdivision Committee, Health Department, Special Districts Coordinator (a new office we have had here for less than a year), office of the County Council and, of course, the Board of Supervisors. In addition to the aforementioned governmental agencies, the existing mosquito abatement district in the vicinity of the proposed annexation is of course involved.

The first procedure we will consider involves the annexation of noncontiguous subdivisions to a mosquito abatement district.

The second procedure which I want to talk about, and this is still in somewhat of an experimental stage, involves the formation of a mosquito abatement district as a condition of final approval of a subdivision wherever mosquito control is needed and where no district exists within a reasonable operational distance.

Returning to the first procedure, the annexation of noncontiguous proposed subdivisions, I am sure you are all familiar with the sections of the Health and Safety Code, Article VI, Sections 23-30, which read as follows: "Any territory lying contiguous to a mosquito abatement district may be annexed to the district; noncontiguous territory may be annexed by the district if the board of supervisors of each county in which a portion of the territory proposed to be annexed determines by resolution that such portion of the territory is within a reasonable operational distance of the district." The action starts when the subdivider presents his preliminary map to the Planning Department for consideration. The preliminary map is then presented, usually by the subdivider's engineer, to the County Subdivision Committee, which is composed of department heads of Planning, Roads, Public Works, Health, Fire, Flood and the County Special Districts Coordinator. Prior to presentation of the preliminary map to the Subdivision Committee, the Planning Department has determined that the proposed subdivision is located, we shall say, in the Goleta Valley but is not within the boundaries of the Goleta Valley Mosquito Abatement District, nor is it adjacent to the district. As the preliminary map is considered by the Subdivision Committee, jointly with the subdivider, the matter of annexation of the proposed subdivision to the various districts of the Goleta Valley is brought to the attention of the subdivider, including annexa-