

Flood Control Vegetation Management in an Environmentally Aware and Cautious Community

*Larry L. Fausett, Ph.D., Santa Barbara County Flood Control District
Santa Barbara, California, 93101
lfauset@cosbpw.net*

Santa Barbara County has a long history of being aware of the natural environment. Many of the citizens of the county are active in defending, and cautious about dealing with threats to the environment, whether those threats are real such as the oil spill that occurred in the Santa Barbara channel due to the blowout under UNOCAL's Platform A in 1969 or perceived, such as the use of pesticides in agriculture and flood control vegetation management. This paper will describe the Flood Control District's efforts to manage vegetation in the various areas where we do work countywide and how those efforts have changed through the years in response to the concerns of the environmentally aware citizens of Santa Barbara County. One result of the previously mentioned oil spill and other environmental concerns was the enactment of the National Environmental Policy Act (NEPA). The following year the State of California enacted CEQA, the California Environmental Quality Act. Santa Barbara County activists had a direct role in the formalization of both of these far-reaching pieces of legislation. Here in Ventura County, the approval of the Holiday Inn Hotel that is just up the road was a similar galvanizing force for the creation of environmental legislation. In this case, people from Ventura joined with many of the same activists from Santa Barbara and other counties and convinced the legislature to enact the California Coastal Act in 1976. All of these pieces of legislation have produced regulatory bureaucracies that the Flood Control District deals with on a regular basis.

The District was also formed by an act of the legislature but this was done in 1955 in response to damage from catastrophic flooding in the county in 1953. When the District was formed, there was little thought given to how it would deal with environmental issues because the people who pressed for the formation of a Flood Control District wanted protection from the environment.

As an example of this, you can look at the areas of Santa Barbara County that have concrete channels built where there were previously creeks. There are very few of them and almost all of them were built before the 1970's. In fact, the way that the District has interacted with the development community has changed with time. Prior to 1960, houses were built as close as possible to creeks with little regard to the potential of flood damage. Starting in the early '60's, partly in response to awakening environmental concerns about the value of riparian corridors but in much larger measure due to the foresight of District engineers concern for flood protection, subdivisions were built with a wide greenbelt, open-space area on either side of a creek. On the outer edge of the greenbelt were the streets that also gave the District maintenance access when needed, and then the houses would be built. Thus the private property was set back from the creek, affording increased protection from not only flood damage, but also from erosion that threatens many older homes currently.

So what does the District do? We work to provide a regional benefit to protect the citizens of Santa Barbara County from damage that can be caused by floodwater. We use

various methods to clear debris and obstructive vegetation from about 235 miles of rivers and channels countywide. This encompasses an area from Rincon Creek to the Santa Maria River. We also perform work to restore the capacity of channels but that doesn't usually involve vegetation management. Vegetation management methods vary from hand crews to heavy equipment, herbicide spray and various types of mowers, depending on the watershed characteristics. We don't control floods nor can we prevent flooding when truly heavy rain falls. We can reduce the likelihood of flood damage that would be caused by a given storm in the absence of our efforts.

The District is like all forms of local government when it comes to the amount of money we get to perform the service that we were created to provide. We have some severe limitations on the amount of money we can take in (Prop. 13 and other similar measures) and those limitations don't account for inflationary costs.

On the other hand we are not a "use it or lose it" agency nor are we in competition with other County Government Departments that depend on the Board of Supervisors decisions on the apportionment of the County's General Fund money. Our expenses for equipment (purchases and maintenance), supplies and salaries are affected by some accounting structure decisions that were made by upper management years ago. This structure results in our employees "costing" the same amount of money per hour whether they are using a shovel or one of our bulldozers to move dirt. The same is true in vegetation management, it is the same cost per hour for an employee using a chainsaw on big trees or a \$100,000.00 spray rig for six inch high willows. Obviously we try to use the best tool for any given job to maximize crew efficiency and cover as much ground as we can in any given time period. It makes a lot of sense financially to treat areas frequently with herbicide before the vegetation achieves any significant size. In addition, when we produced our Program EIR that deals with our maintenance practices and mitigation measures, an independent toxicologist wrote the herbicide use section which concluded that, "The use of approved herbicides in accordance with the label is environmentally preferable to mechanized vegetation management". The adverse effects of erosion and turbidity following treatment of an area are minimal when herbicides are used. In addition, the District has changed practices regarding herbicide use over the years for a variety of reasons. Certain areas used to have a broadcast spray treatment every year. That changed to the broadcast treatment being followed with seeding the area with a fast growing grass that would out-compete weedy species which would otherwise colonize the channel with silt trapping growth. The grass had the added benefit of providing forage for fall migrant birds. The next step in the evolution of the management of these areas was to do a very precise spot treatment of just those species of vegetation that could trap sediment or form obstructions to flood flows. But still there were environmental activists who did not want the District to use any herbicides. This was in spite of the fact that we were not only selective in the manner we used them but were also very careful in our choice of the kinds of materials that were used. We only choose materials that have a long, independently proven record of environmental safety. The District's response to the political pressure attempting to force us to eliminate herbicide use was to develop, in concert with other County Departments, an Integrated Pest Management Strategy. The strategy codified many practices that the District had been following for years. It has caused some reductions in the amount of material we can use, which we have dealt with by making further changes in our methods of vegetation

management. In addition, we do an annual report to the Board of Supervisors in the form of a public hearing thus doing a more thorough job of informing the public of our practices and materials used. There is a review and approval process for us to use if we want to add a new material to our list of approved pesticides. This has caused some delays but by and large has not resulted in hampering our work. It has just caused us to do our research further in advance of an anticipated need.

One item in the strategy that has caused a problem is the provision that eliminates our ability to use a material if it appears on the State's "Proposition 65 List", i.e., chemicals that are "known" to cause cancer. For example, two years ago, Diuron showed up on that list. We had to scramble to find a substitute that would work with our equipment. The material we chose has to be applied twice to be roughly as effective as one application of Diuron and it is nearly ten times as expensive. In looking at the research on Diuron, it is not at all clear why it is on the "list" and I am hopeful that the manufacturer is working to rectify this situation. I am sure that this will not be the last time that our Board approved IPM strategy will cause us to change what we do and what we use with very little real benefit in the form of environmental protection. On the other hand I am also sure that if we had not taken this approach there would have been a great deal more pressure put on the Board to just outright ban the use of herbicides altogether. A copy of the Strategy can be accessed through Santa Barbara County's website. Go to www.countyofsb.org/Greenteam then click on Downloads and then "Integrated Pest Management Strategy".

In summary, the District is constantly dealing with environmental issues as we try to provide our community with the best level of flood protection that we can. In so doing, we are always looking for environmentally sound, cost effective methods of vegetation management.