

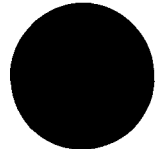
MARIN / SONOMA  
MOSQUITO AND VECTOR CONTROL DISTRICT

581

R1

First Organized District in California  
595 HELMAN LANE, COTATI, CALIFORNIA 94931  
TELEPHONE (707) 285-2200 FAX (707) 285-2200

Jim  
review



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November 16, 2005

Craig J. Wilson, Chief  
Water Quality Assessment Unit  
Division of Water Quality  
State Water Resources Control Board  
P.O. Box 100  
Sacramento, CA 95812-0100

Dear Mr. Wilson,

It has come to our attention that the California State Water Resources Control Board is considering removing the Laguna de Santa Rosa's Section 303(d) listing for excess nitrogen and phosphorous. The Marin/Sonoma Mosquito & Vector Control District (District) does not support <sup>the</sup> this revision. High nutrient levels in the Laguna appear to promote conditions that strongly interfere with our ability to control mosquitoes in this water body. Instead of delisting these nutrients, the State Board should actively encourage the rapid development of a TMDL pollution control plan.

1

The water quality objective from the North Coast Region's Basin Plan states, "Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses". It seems to us that the recent effort to remove thousands of tons of the invasive aquatic plant *Ludwigia* from over 150 acres of the Laguna de Santa Rosa waterways makes it self-evident that considerable "biostimulatory substances" are present in concentrations which adversely affect beneficial uses.

2

Not only do high nutrient levels likely stimulate massive aquatic plant growth but they also promote the massive logarithmic growth of three major vectors of West Nile virus and Western Equine encephalitis. *Culex pipiens pipiens*, *Culex tarsalis*, and *Culex erythrothorax* all favor high-nutrient conditions contributing to zooplankton and bacteria growth that provide food for these mosquitoes. Therefore, the biostimulatory substances directly contribute to the number of vector mosquitoes – elevating the issue from nuisance condition to potential public health threat.

ADMINISTRATION

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JAMES A. WANDERSCHIED
- ASST. MANAGER/VECTOR  
ECOLOGIST  
RON KEITH

Community Service • Public Health

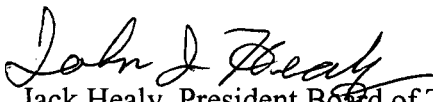
Furthermore, dense, nuisance growths of *Ludwigia*, as well as dense growths of native cattails and bulrushes, directly interfere with the District's ability to effectively control larval mosquito populations. Massive stands of vegetation preclude the effectiveness of mosquito fish, *Gambusia affinis*, and other natural predators, and require higher dosage rates of larvicides at concomitant higher expense. In areas infested with *Ludwigia*, the district is unable to use ground-based methods to dispense mosquito control materials and is forced to resort to costly helicopter applications. Together, the nutrient-promoted high mosquito abundance and increased difficulty of treatment from nuisance plant growth has led to massive increases in public expense for vector control. The district has expended approximately \$100,000 to treat the Laguna de Santa Rosa for excessive mosquito production from August 2003 to present. The district has also contributed \$100,000 for a group effort expending \$1,400,000 to chemically control and physically remove invasive *Ludwigia* from the Laguna de Santa Rosa water ways.

leading to  
costlier  
application  
methods

The District has a mandate to protect the public from mosquito disease vectors. To do this job effectively requires that our actions be supported by the actions of other agencies: to maintain the water quality of the channels and to control excess weed growth. For all these reasons, the District strongly disagrees with the recommended delisting of nitrogen and phosphorous from the Laguna de Santa Rosa's 303(d) listing. We believe that such an action would limit the ability of the North Coast Regional Water Quality Control Board to regulate nitrogen and phosphorus in the Laguna de Santa Rosa, send the wrong message to the community, and exacerbate the impaired conditions already present. We believe it is strongly within the interest of the District's mosquito control program that the Regional Board develop a Total Maximum Daily Load (TMDL) for the Laguna de Santa Rosa water segment. The TMDL process would determine the source of pollutants and serve as information to subsequently formulate a plan to reduce these pollutants from the water segment.

For your edification I am including several photographs to indicate the extent of the "aquatic growth" that we have been dealing with for the past few years. Indeed we feel that the Laguna de Santa Rosa water segment is the "poster child" for the need to reduce biostimulatory substances from entering the watershed. To delist nitrogen and phosphorous from the section 303(d) list in the Laguna de Santa Rosa is the wrong move at the wrong time.

Sincerely,

  
Jack Healy, President Board of Trustees  
MSMVCD

cc: Catherine E. Kuhlman, Executive Officer, North Coast Regional Water Quality Control Board

Attachments: Laguna de Santa Rosa photographs





D.O. = -? what causes this

Ans - LUDWIGIA

IN ORDER to address DO problem  
~~the~~ Ludwigia must be eliminated

Q) How do you eliminate it?

A) Decrease nutrients

- • a decrease in the nutrient level results from addressing the D.O. problem !!