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December 3, 2013

Marin County Board of Supervisors
3501 Civic Center Drive, Room 329
San Rafael, CA 94903

Dear Supervisors:

On behalf of the Center for Environmental Health's over 400 supporters in Marin County, I am writing to comment on the proposed ten year invasive weed management plan. Thank you for this opportunity.

My comments today address a specific problem associated with the use of the herbicides clopyralid and aminopyralid, both of which have been proposed for possible use under the ten year plan.

Most herbicide evaluations conclude the use of chemicals that are persistent and mobile in soil pose a high risk for water contamination. These two herbicides are in this category because they are both persistent and mobile in soil.

Consider, for example, what the Washington State Department of Transportation has written about clopyralid. The Department found that it "is moderately persistent" and that the "average half-life of clopyralid in soils is one to two months but can range from one week to one year depending on the soil type, temperature, and rates of application." The same document also states that "clopyralid is highly water-soluble" and "has the potential to be highly mobile in the environment."

(See http://www.wsdot.wa.gov/NR/rdonlyres/B80A9ADC-B066-4C1F-9B28-F5C914430FD9/0/ChptI_Properties.pdf.)

These concerns were confirmed by national monitoring for clopyralid by the U.S. Geological Survey's National Water-Quality Assessment. This program found clopyralid contamination of streams and rivers in 103 samples from 29 sites in 15 states and groundwater contamination in 5 wells in 3 states.

Aminopyralid has characteristics that are similar to clopyralid's characteristics. Thurston County (Washington) has evaluated aminopyralid and concluded that it "is soluble in water and adheres poorly to soils with or without organic matter. Mobility hazard for aminopyralid is considered high." Thurston County also noted that "Sunlight can breakdown the chemical to half of the original concentration in less than 60 days (moderate persistence). Without sunlight, aminopyralid can be expected to have more than half of its original concentration 60 days after application." These facts lead Thurston County to conclude that aminopyralid is "high in persistence hazard."

(Seen http://www.co.thurston.wa.us/health/ehipm/pdf_terr/terrestrial%20actives/Aminopyralid.pdf.)

The science of invasive species, particularly invasive plants, is undergoing rapid change. Recently nineteen

invasive species biologists published a commentary in the preeminent scientific journal *Nature* that was a concise statement of a more forward-looking and 21st century approach to invasive plants. The scientists stated that we "must embrace the fact of 'novel ecosystems' and incorporate many alien species into management plans, rather than try to achieve the often impossible goal of eradicating them or drastically reducing their abundance."

We urge Marin County to choose a forward-looking approach to invasive plant management that protects the water of Marin County.

Sincerely,

Caroline Cox

Caroline Cox
Research Director
Center for Environmental Health