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Subject: Support for Bonny Doon Association recommendations on cannabis cultivation

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MP

Dear Members of the Santa Cruz County Board of Supervisors and the Cannabis Cultivation Choices Committee:

I write in strong support for the regulations on commercial cannabis cultivation proposed by the Rural Bonny Doon Association for their home watersheds. I am a river ecologist and a Professor at UC Berkeley, although I write here to express my personal views. I have studied river food webs along the California North Coast for over the last 28 years, mainly in the upper South Fork of the Eel River in Mendocino Co. Over the last fifteen years, we have seen great degradation of the environment along the California North Coast due to burgeoning marijuana cultivation. Fertilizer and pesticide contamination of waterways and food webs supporting fish and wildlife are documented effects of uncontrolled cannabis cultivation: (<https://www.nationalforests.org/blog/pay-no-attention-to-the-crime-behind-the-emerald-curtain>; <https://www.nationalforests.org/blog/looking-behind-the-curtain>). In the Eel, poorly built roads and excavated water retention ponds have re-initiated erosion and delivery of fine sediments to river channels, reversing the incipient recovery of the Eel from the poor logging practices of the last century. The worst immediate impacts of cannabis cultivation, however, are summer water withdrawals that exacerbate effects on the ongoing drought.

When summer base flows of rivers of the North Coast drop to critically low levels, edible algae like diatoms and filamentous green taxa become overgrown with cyanobacteria that thrive in warmer, stagnant water. Some of these cyanobacteria in the Eel and Russian Rivers are neurotoxic, causing dog deaths that have rightly concerned the public and have received considerable media attention. I attach a paper (Power et al. 2015) that presents our view of changes over the last 15 years, do in particular to impacts of burgeoning marijuana cultivation, that may tilt the Eel River summer food web from salmon supporting to degraded state in which cyanobacteria blooms become a public health concern.

David Rubin and others in the Rural Bonny Doon watershed association have written a powerful and prescient statement about the potential impacts of commercial marijuana cultivation in their home watersheds in rural Santa Cruz.

Their primary policy recommendations are:

- 1) to confine cannabis cultivation to lands zoned for agriculture, and prohibit cultivation on timber lands and sensitive areas, including watersheds that support salmonids and other sensitive wildlife;
- 2) to require organic cultivation in order to avoid introduction of fertilizers, herbicides, insecticides, and rodenticides into surface and ground waters;
- 3) to prohibit commercial cultivation from residential areas, where home owners would be disturbed by odor, traffic, land surface conversion, and other disruption.

In my opinion, these policies are both wise and comprehensive. I believe that their proposed plan for regulating commercial cannabis cultivation would be a very useful model for other groups seeking to protect people and watersheds against a surge in marijuana cultivation that may follow legalization, and against the grey or black markets that will persist if strong environmental regulations are not sufficiently enforced. I want to convey to you my strong support for this proposed plan, and my concern that if commercial marijuana cultivation is not subject to strong environmental oversight and regulation, great harm to natural environments and public health will persist and spread.

Sincerely,

Mary E. Power

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