

Pot growers endangering California watersheds and wildlife

By Scott Bauer, Los Angeles Times 4/13/15

<http://www.latimes.com/opinion/op-ed/la-oe-0413-bauer-pot-20150413-story.html>

Since the passage of the Compassionate Use Act of 1996, marijuana cultivation has exploded in California and shows no signs of slowing. In Humboldt County alone, there are more than 4,000 marijuana cultivation sites. Northwestern California is not facing this green rush alone, as pot farms are now sprouting up throughout rural areas of California wherever land is cheap, a water source is nearby and neighbors are few and far between.

Some may welcome this industry and the wealth it brings to the affected communities. But we have to start thinking about marijuana cultivation in the context of environmental sustainability and, specifically, the drought. The reality is that marijuana cultivation has significant negative effects on our watersheds and the fish and wildlife that depend on them.

I and other environmental scientists at the California Department of Fish and Wildlife recently published a study demonstrating that under drought conditions water demand for marijuana cultivation exceeded stream flow in three of the four watersheds that were under observation. Diminished stream flow from this water-intensive activity is likely to have lethal effects on state and federally protected salmon and steelhead trout, and will cause further decline of sensitive amphibian species.

Marijuana growers are a diverse group. They range from illegal international cartels to small medicinal operations on private land. But the vast majority of them have at least

one thing in common: They divert water without obtaining appropriate state permits. In fact, I estimate that less than 5% of marijuana growers have the required permits.

They pull water from small streams harboring endangered salmon and steelhead trout populations to water their crops. Many of these streams, some considered crucial to the survival and recovery of these threatened fish species, are running dry. It is impossible to restore these fish populations if there is no water in our streams.

Marijuana growers clear forests of all vegetation to make way for their farms. Soil is sometimes carelessly bulldozed off hillsides into sensitive streams, damaging important fish habitat and impairing water quality. Fertilizer use for marijuana cultivation is pervasive. The effects of fertilizer on water quality are well known, though we don't know just how much this industry, in particular, is contributing to the degradation of our wild and scenic rivers.

Water use by the marijuana industry is of the utmost concern to the CDFW, especially in times of drought when streams barely flow. Our department recently recorded the lowest levels of Delta smelt in the Sacramento-San Joaquin River Delta in almost 50 years. And we determined that the 2014 class of young winter-run Chinook salmon in the Sacramento River had a 95% mortality rate.

Thanks to the governor and the Legislature, regulatory agencies like the CDFW and State Water Resources Control Board have expanded authority and additional personnel to prevent marijuana growers from causing further environmental decline. The CDFW's new Watershed Enforcement Team can now directly cite and fine growers for violating Fish and Game Code sections created to maintain adequate stream flows, protect water quality and prevent the construction of fish barriers. Previously, the ability to impose fines for violations lay in the hands of district attorneys. Meanwhile, we are working to educate the marijuana growers who want to legally cultivate the crop.

The people of California live in a magnificent, bio-diverse state. They have entrusted their government, and in particular the CDFW, with the protection and conservation of fish and wildlife for their use and enjoyment. But the government can't succeed alone. Marijuana growers have to get past the green-rush mentality and move toward a more sustainable future.