

California is moving towards marijuana legalization. This is a good and important thing for a whole host of reasons, but one important reason is the environmental impact of unregulated and illegal marijuana cultivation on the environment - something that has been discussed both in the [news](#) and here on [Legal Planet](#). Those impacts include [diversion of water for irrigation](#) (harming [fish runs](#) and even endangering community water supplies); the use of toxic chemicals for [pesticides and herbicides](#); contaminated water runoff and discharges; and the [clearance of forests and other habitats](#) on public and private lands.

A key step towards an effective and sustainable marijuana legalization is the enactment of a regulatory system to control the negative impacts of marijuana cultivation. Legalization, without an effective regulatory structure, can create a grey area where harmful impacts can continue to occur. That has been the case with respect to medical marijuana in California, which voters approved in 1996, but which has not been formally regulated. As a result, even though medical marijuana is theoretically legal, the lack of regulatory oversight and supervision has facilitated cultivation activities that have caused a range of environment harms.

Finally, after years of inaction, the legislature is taking steps to address the regulation of medical marijuana, including its impacts on the environment. It [passed a series of bills](#) at the very end of the session that create an overall regulatory framework. (The bill that focuses on regulatory issues from cultivation, including environmental issues, is [here](#). A useful summary is [here](#).) There is much to like in this bill from an environmental perspective: Just creating an enforceable licensing scheme will facilitate [greater enforcement of environmental laws](#). It mandates that the state set pesticide usage standards on marijuana cultivation, both to protect consumers from harmful residues and to protect workers and the environment from improper usage. Moreover, the statute does take some important steps in terms of protecting water resources: It requires the existing state agencies to use their current broad regulatory authority to address the impacts of marijuana cultivation on waterways and wetlands.

But there is still a major issue in the bill, and it goes to the paradigm that the drafters took towards regulating the environmental impacts of marijuana cultivation. [Those drafters stated that their goal was to have marijuana cultivation obey existing environmental laws, and be treated the same as other agricultural activities.](#) And that is (more or less) what the legislation produces. The lead agency to coordinate regulation (including environmental regulation) for marijuana cultivation is the Department of Food and Agriculture.

However, as environmental law scholars and practitioners well know, the rules that agriculture follows in environmental law are not the rules that everyone else has to comply

with. Under federal law, for instance, agricultural activities are exempt from a range of important environmental provisions. For instance, the return flows from agricultural irrigation (which are often heavily laced with the fertilizers, pesticides and herbicides that have been used in agricultural activities) are exempt from regulation under the federal Clean Water Act. Similar exemptions exist under federal hazardous waste laws.

California does somewhat better. At least in theory, state and regional water quality agencies can regulate discharges from agricultural activities, though there are questions about how much this regulatory authority has been exercised in practice.

In the context of marijuana cultivation, there is one area in particular where treating marijuana just like other forms of agricultural activity is really problematic: the conversion of land to agricultural uses.

Conversion of land (often important habitat) to agricultural uses can have major impacts on native species and ecosystems. For instance, the boom in vineyards in wine country has resulted in substantial loss of native oak woodlands. Much marijuana cultivation occurs in the North Coast in counties like Mendocino, which have important and intact native forests that are essential habitat for a diverse range of species.

There is some existing protection for some kinds of habitat from land conversion. If an animal species is listed for protection under the federal Endangered Species Act, conversion of its habitat is (in some circumstances) prohibited under federal law - regardless of whether the conversion will occur for agricultural or other purposes. However, federal law does not protect plant species from the destruction of their habitat, at least on private lands. State law provides some protection for timber forests from conversion to other uses (such as agriculture or commercial or residential development). But many habitats (including most oak woodlands) are not designated as timber forests, and in any case, there are exemptions under state law for timber forest conversions up to three acres in size.

So what protection is there for habitats for rare and endangered plant species, for animal species that are not federally listed, and for ecosystems that are not potential timber forests (such as oak woodlands)? Again, there is some backstop under state law. There are state laws that protect the habitat of rare and endangered plants (including the California Endangered Species Act). There is also a state law that is intended to protect oak woodlands.

The problem is that these state laws have specific exemptions for agriculture. For instance, the state law that protects oak woodlands from land conversion specifically exempts

conversion for agricultural uses. Cal. Pub. Res. Code § 21083.4 The state laws that protect the habitat of rare and endangered plants and state listed animal species also have important agricultural exemptions. See Cal. Fish and Game Code §§ 2086, 2087, and 1913.

These issues will matter on the ground. The flipside of regulating and legalizing marijuana is that there will be an increase in investment - and in turn, cultivation impacts - from marijuana. We may see substantial conversion of native habitats for marijuana cultivation going forward - and state law will not be adequate to ensure that that land conversion protects sensitive habitat and sensitive species. The concerns are particularly strong because marijuana is [often grown in areas](#) (e.g., hilly rainy areas on the North Coast) that have not been historically used for agriculture.

This is not just an issue for the medical marijuana bill that the legislature just passed. There will almost certainly be a ballot initiative in 2016 to legalize recreational use of marijuana. Lieutenant Governor Gavin Newsom's Blue Ribbon Commission which has been exploring issues relating to marijuana legalization says that [its focus is enforcement of "existing environmental laws,"](#) (pdf., p. 24) implying that marijuana cultivation would fall under the relevant agricultural exemptions in state and federal law. If that initiative passes, the stakes will be raised even higher, as that will surely facilitate even greater expansion of marijuana cultivation on the ground in California.