

2016

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Recommended Citation

Catherine Griffith, *The Grass is Greener Where You Water It: Regulating Water Use for Marijuana Cultivation to Curb California's Severe Drought*, 22 *Hastings West Northwest J. of Env'tl. L. & Pol'y* 85 (2016)

Available at: https://repository.uchastings.edu/hastings_environmental_law_journal/vol22/iss1/6

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The Grass is Greener Where You Water It: Regulating Water Use for Marijuana Cultivation to Curb California's Severe Drought

*Catherine Griffith**

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I. Introduction

As a result of global warming, the majority of the Western United States has been faced with severe drought.¹ With many of the nation's states facing severe drought, water regulation increasingly grows in importance. California is in a six-year drought and it is estimated that it will be the worst drought California has experienced in 500 years.²

The cultivation and production of marijuana requires vast amounts of water.³ The excessive amounts of water used to cultivate marijuana has greatly contributed to the already detrimental drought in the Western United States.⁴ With the continuing influx of states legalizing marijuana production and cultivation, it is essential for states to establish regulations on water use that will protect essential water sources and combat the severe drought.⁵ Although almost half of the nation's states have passed regulations decriminalizing the use and possession of marijuana, legalizing marijuana for medicinal purposes, or legalizing marijuana for recreational purposes, the illegal cultivation of marijuana is a continually occurring.⁶ With the increase cultivation of marijuana, legally and illegally, the United States is faced with a crisis and must take action in order to preserve water sources throughout the country.⁷

Part II will discuss federal laws criminalizing the cultivation, production, possession, use, and distribution of marijuana, state laws legalizing marijuana for medicinal and recreation use, California's regulations decriminalizing marijuana for medicinal purposes, and laws

* Catherine Griffith is a graduate of Texas A&M School of Law. I offer my appreciation to Professor Warren for her thoughtful feedback, guidance, and encouragement. I also thank my colleague Kourtney Doman for acting as a sounding board, providing me with insightful conversations, and challenging my stance on the issues at hand. Finally, thank you to the entire *West-Northwest Journal of Environmental Law and Policy* editorial team for their work in helping to prepare this article for publication.

1. Mike Bostock and Kevin Quealy, *Mapping the Spread of Drought Across the U.S.*, N.Y. TIMES (Apr. 9, 2015), <http://www.nytimes.com/interactive/2014/upshot/mapping-the-spread-of-drought-across-the-us.html?abt=0002&abg=0>.

2. *Id.*

3. Glenna Anderson, *Marijuana's Thirst Depleting North Coast Watersheds*, PRESS DEMOCRAT (Apr. 12, 2014), <http://www.pressdemocrat.com/csp/mediapool/sites/PressDemocrat/News/story.csp?cid=1860712&sid=555&fid=181#page=1>.

4. *Id.*

5. *Id.*

6. *Id.*

7. *Id.*

regarding medical marijuana dispensaries in California. Part III will discuss how the cultivation of marijuana is contributing to severe drought in California and California's permitting plan for water diversion and appropriation. Additionally, it will analyze regulations and permitting plans that counties in California have made an effort to implement. Part IV will discuss the role that the federal government is playing in eradicating and disrupting otherwise legal grows in California and why the DEA is raiding and eradicating grows throughout California. Finally, Part V will discuss a new permitting program that the California State Water Board is planning to implement and argue that the federal government should allow each state to regulate water use for marijuana cultivation in accordance with state water laws and permitting plans.

II. Current Federal and State Laws Regarding Marijuana Legalization

Although California, along with twenty-two additional states and Washington, D.C., have enacted laws legalizing or decriminalizing the cultivation, possession and use of marijuana, the Controlled Substances Act lists marijuana as a Schedule I drug, making the production, cultivation, use, possession, and distribution of marijuana illegal under federal law.⁸ This section will discuss the Controlled Substance Act and the movement of nearly half of the nation's states to legalize marijuana, with California being at the forefront of marijuana decriminalization.

A. The Federal Government on Marijuana Possession and Production

The Controlled Substance Act of 1970 classifies marijuana as a Schedule I drug, placing it in the same class as heroin and ecstasy.⁹ As a Schedule I drug, the federal government deems marijuana highly addictive and lacking any medicinal value.¹⁰ Furthermore, the Controlled Substance Act of 1970 makes the cultivation, production, possession, use, and distribution of marijuana illegal under federal law.¹¹

Although marijuana is illegal under federal law, President Obama stated that the federal government has "bigger fish to fry," and the former United States Attorney General, Eric Holder, stated that the federal

8. *Id.*

9. 21 U.S.C. § 863(d) (2014).

10. *Id.* § 812(b)(1).

11. Anderson, *supra* note 3.

government would allow states to legalize marijuana as long as the states strictly regulate cultivation, distribution, possession, and production.¹²

Because the Controlled Substance Act makes it illegal to use, possess, cultivate, distribute, and produce marijuana, the federal government reserves the right and authority to enter a state and shut down any and every dispensary distributing marijuana.¹³ Marijuana cultivators and users face legal persecution on the federal level because federal law is in direct conflict with several state's legislation legalizing or decriminalizing the cultivation and use of marijuana.¹⁴

Although twenty-three states have enacted regulations legalizing the cultivation and use of marijuana for medicinal purposes, the federal government has not recognized marijuana as having any medicinal value.¹⁵ In the most recent election, Alaska, Oregon, and Washington D.C. joined Colorado and Washington State in enacting regulations legalizing marijuana for recreational use.¹⁶ Recent reports indicate that the United States federal government is in the process of studying the beneficial effects of marijuana, and the United States Surgeon General, Vivek Murthy, stated, "We have some preliminary data that for certain medical conditions and symptoms, that marijuana can be helpful."¹⁷

B. State Medical and Recreational Marijuana Laws

23 states as well as Washington D.C. have passed regulations legalizing the use of marijuana for medicinal purposes.¹⁸ Additionally, Washington, Colorado, Oregon, Alaska, and Washington D.C. have legalized

12. Ryan Grim and Ryan Reilly, *Eric Holder Says DOJ Will Let Washington, Colorado Laws Go Into Effect*, HUFFINGTON POST (Aug. 29, 2013), http://www.huffingtonpost.com/2013/08/29/eric-holder-marijuana-washington-colorado-doj_n_3837034.html.

13. *Id.*

14. *Id.*

15. 23 LEGAL MEDICAL MARIJUANA STATES AND DC, <http://medicalmarijuana.procon.org/view.resource.php?resourceID=000881> (last visited Oct. 17, 2015).

16. Dan Merica, *Oregon, Alaska, and Washington, D.C. Legalize Marijuana*, CNN (Nov. 5, 2014), <http://www.cnn.com/2014/11/04/politics/marijuana-2014/index.html>.

17. Matt Ferner, *U.S. Surgeon General Vivek Murthy Says Marijuana 'Can Be Helpful' For Some Medical Conditions*, HUFFINGTON POST (Feb. 4, 2015), http://www.huffingtonpost.com/2015/02/04/vivek-murthy-marijuana_n_6614226.html.

18. 23 LEGAL MEDICAL MARIJUANA STATES AND DC, *supra* note 15.

the recreational use of marijuana as well as the medicinal use of marijuana.¹⁹

i. California's Medical Marijuana Laws

California was the first state to pass marijuana legislation, decriminalizing the cultivation and use of marijuana for medicinal purposes.²⁰ In 1996, California passed Proposition 215, also known as the Compassionate Care Act, which provided qualified Californians with the ability to possess, cultivate, and use marijuana for medicinal purposes.²¹ The driving principle behind the Compassionate Care Act was to ensure that Californians, who were critically ill, had the right to possess and use marijuana for medicinal purposes.²² In 2004, California passed Senate Bill 420 (SB420), also known as the Medical Marijuana Protection Act, which created an identification system for patients using marijuana for medicinal purposes.²³ One of the perks of the Medical Marijuana Protection Act is that each patient receives an identification card, which provides the patient with the ability to quickly provide law enforcement with identification indicating their status as a legal medical marijuana user.²⁴

Furthermore, the Medical Marijuana Protection Act originally provided qualified patients and their primary caregiver the right to possess 8 ounces or less of dried marijuana and/or 6 mature marijuana plants or 12 immature marijuana plants.²⁵ However, in 2010 the California Supreme Court ruled that the regulations on how many plants a person may grow or possess were illegal.²⁶ Patients may now grow or possess as many marijuana plants as is reasonably necessary to meet their medical needs.²⁷

19. 23 LEGAL MEDICAL MARIJUANA STATES AND DC, *supra* note 15; Merica, *supra* note 16

20. California Compassionate Use Act 1996, CAL. HEALTH & SAFETY CODE, § 11362.5 (West, Westlaw through 2014 reg. sess.).

21. *Id.*

22. Scott Imler, *Medical Marijuana in California: a history*, L.A. TIMES (Mar. 6, 2009), <http://www.latimes.com/health/la-oew-gutwillig-imler6-2009mar06-story.html#page=1>.

23. California Compassionate Use Act 1996, *supra* note 20, at §§ 11362.7-11362.83.

24. California Compassionate Use Act 1996, *supra* note 20, at §§ 11362.7-11362.83.

25. 23 LEGAL MEDICAL MARIJUANA STATES AND DC, *supra* note 15.

26. David Downs, *Victory: Congress ends war on medical marijuana*, SMELL THE TRUTH, (Feb. 18, 2015), <http://blog.sfgate.com/smellthetruth/2014/12/12/congress-ends-war-on-medical-marijuana/>.

27. *Id.*

ii. California's Regulations of Medical Marijuana Dispensaries

Provided that the patient receives a doctor's recommendation, the Compassionate Care Act authorizes an individual medicinal marijuana patient, or multiple patients, to start a grow operation, which includes both outdoor and indoor grow operations.²⁸ California law allows for the establishment of "collectives" or "cooperatives," which provides multiple patients with the ability to come together and have a single grow for an entire group of patients.²⁹ There is no limit on the number of members for a particular grow and not every member is required to participate in the actual cultivation process.³⁰

Medical marijuana dispensaries are formed when multiple patients come together and control one single operation as a group of qualified patients.³¹ California law requires that every medical marijuana dispensary be a non-profit organization.³² State, local, and county laws regulate where dispensaries may be established and under what regulations they must operate.³³

III. Marijuana, the Water Guzzling Green Depleting California's Watersheds

The impact that marijuana cultivation has on the environment is undeniable.³⁴ The cultivation of marijuana is complex in that it affects multiple facets of the environment.³⁵ Indoor cultivation of marijuana requires constant high intensity lighting, and it has been argued that it is one of the most energy intensive industries.³⁶ There are multiple areas of concern as far as outdoor cultivation goes, including deforestation, the use of pesticides and rodenticides, and water diversion.³⁷ The diversion of water for marijuana cultivation has severely impacted California's rivers, streams,

28. *Id.*

29. *Id.*

30. *Id.*

31. *Id.*

32. *Id.*

33. *Id.*

34. Gary Graham Hughes, *EPIC to Participate in HSU Earthday Symposium to Examine Marijuana's Environmental Impact*, (Apr. 15, 2013), <http://www.wildcalifornia.org/blog/epictoparticipate/>.

35. Gina S. Warren, *Regulating Pot to Save the Polar Bear: Energy and Climate Impacts of the Marijuana Industry*, 40 COLUM. J. ENVTL. L. 385, 404-06 (2015).

36. *Id.*

37. *Id.*

and habitat.³⁸ Marijuana requires at least six gallons of water per plant per day over a five-month cultivation period.³⁹ Although marijuana cultivation has contributed to the drought in California, it is important to note that California is also home to other agriculture contributing to the drought. Swami Chaitanya, a member of the Mendocino Cannabis Policy Council, found that about two gallons of water is required to produce an eighth of an ounce of marijuana, which is less than the 1,500 gallons required to produce an ounce of beef and the five gallons required to produce a head of broccoli, and twice as much as the 1 gallon required to grow a single almond.⁴⁰ This section will discuss how the marijuana industry is contributing to the depletion of California's watersheds and contributing to the drought in California. Additionally, this section will analyze various laws and regulations as they pertain to water use and consumption.

A. Marijuana Cultivation's Contribution to Depleting California's Watersheds

Northern California is the hotspot for legal and illegal marijuana growers.⁴¹ The famed Emerald Triangle, which consists of Mendocino County, Humboldt County, and Trinity County, has been the hub for marijuana growers over the past two decades.⁴² California law enforcement has confiscated between two million and four million illegal marijuana plants in recent years.⁴³ Those plants alone received over 1.8 billion gallons of water during cultivation.⁴⁴

Although California has enacted laws decriminalizing the production and use of marijuana for medicinal purposes, there are still thousands of illegal growers throughout the state.⁴⁵ Neither Proposition 215 nor SB 420 provides regulations on the amount of water marijuana growers are authorized to use.⁴⁶ "The paradoxical status of marijuana in the US—it is legal to grow and sell in some states, but remains illegal under federal law—

38. Anderson, *supra* note 3

39. *Id.*

40. Ann North, *Is Weed the New Almond*, N.Y. TIMES (July 1, 2015), http://takingnote.blogs.nytimes.com/2015/07/01/is-weed-the-new-almond/?_r=0.

41. Anderson, *supra* note 3.

42. *Id.*

43. Anderson, *supra* note 3.

44. *Id.*

45. *Id.*

46. *Id.*

makes it hard to regulate.”⁴⁷ The water used by cultivators in the Emerald Triangle primarily comes from free running rivers and streams.⁴⁸ There are four primary watersheds used by marijuana cultivators.⁴⁹ The Redwood Creek watershed drains directly into the Pacific Ocean, and the other three watersheds supply the Eel River.⁵⁰ Satellite imaging showed that there was an average of 30,000 plants growing in each of the watersheds in 2012.⁵¹ It is estimated that each marijuana plant requires a minimum of 6 gallons of water per day over a five-month cultivation period.⁵² With 30,000 plants using 6 gallons of water per day, the marijuana plants were siphoning 180,000 gallons of water per day over a five-month cultivation period.⁵³

B. The California Water Use Permitting Process

The California State Water Board has a permitting process in place, which allows individuals to apply for a permit to divert water for private use, in the public interest.⁵⁴ The State Water Board regulates the use and appropriation of water within the state.⁵⁵ The majority of California counties and cities allow for landowners to extract and put to beneficial use percolating ground water without the approval of the state board or a court.⁵⁶

When an individual wants to appropriate or divert water from a naturally flowing water source with an outlet, he or she is required to apply for a permit.⁵⁷ The permitting process is a multistep process. First, the individual desiring to use water submits an application. Thereafter, the board notifies the individual within thirty days if the application was

47. Gwynn Guilford, *The US Government is Helping Illegal Pot Producers Destroy California's Water Supply*, QUARTZ (Feb. 13, 2014), <http://qz.com/172828/the-us-federal-government-is-helping-illegal-pot-producers-destroy-californias-water-supply/>.

48. Anderson, *supra* note 3.

49. *Id.*

50. *Id.*

51. *Id.*

52. *Id.*

53. *Id.*

54. *The Water Rights Process*, CALIFORNIA EPA STATE WATER RESOURCES CONTROL BOARD http://www.waterboards.ca.gov/waterrights/board_info/water_rights_process.shtml#process (last visited Oct. 17, 2015).

55. *State Water Withdrawal Regulations*, NAT'L CONFERENCE OF STATE LEGISLATURES, <http://www.ncsl.org/research/environment-and-natural-resources/state-water-withdrawal-regulations.aspx> (last visited Oct. 17, 2015).

56. *Id.*

57. *The Water Rights Process*, *supra* note 55.

accepted or requires amendment.⁵⁸ The application must include the nature of the project, the amount of water that is going to be diverted, the place where water will be diverted from, and the purpose for which the water will be diverted.⁵⁹ Next, the board conducts an environmental review of the application, as required under the California Environmental Quality Act.⁶⁰ The individual applying for the permit is required to provide an Environmental Impact Report if his or her water use will endanger the natural habitat or water quality.⁶¹ The board provides a notice and comment period where the public is allowed to protest the appropriation and use of the water, to which the applicant is required to respond.⁶²

If a protest arises that is required to be resolved, then the board attempts to resolve the issue.⁶³ If there is an issue regarding the water diversion for small projects, the board typically resolves the issue through an engineering field investigation report from the Board's Division of Water Rights.⁶⁴ The board issues a permit only if it determines "that unappropriated water is available to supply the applicant, and that the applicant's appropriation is in the public interest."⁶⁵ Typically, the applicant must begin the project construction within two years of a permit's issuance.⁶⁶ Finally, once the project is completed, the conditions of the permit have been met, and the board determines that the largest amounts of water are being put to beneficial use, the board issues a license.⁶⁷ The license remains effective as long as all conditions are continually met and the water appropriation continues to maintain a beneficial use.⁶⁸ The board maintains the right to enforce the conditions of the permit and revoke the permit in instances of violation or illegal water use.⁶⁹

58. *Id.*

59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.*

63. *Id.*

64. *Id.*

65. *Id.*

66. *Id.*

67. *Id.*

68. *Id.*

69. *Id.*

C. County Regulations of Water Use for Marijuana Cultivation

Although neither Proposition 215 nor Senate Bill 420 regulate the cultivation of marijuana, counties throughout California have made efforts to regulate cultivation and water use.⁷⁰ The decriminalization of marijuana cultivation and use in California opened the floodgates for marijuana cultivators to take advantage of the rich environment and water sources in California's Emerald Triangle.⁷¹ Unfortunately, there are no clear guidelines or regulations under Proposition 215 or under SB420 regarding marijuana cultivation.⁷² Every county has different regulations on how many plants a grower is authorized to cultivate, however, many counties, such as Humboldt County in the Emerald Triangle, have no regulations at all.⁷³ Additionally, neither Proposition 215 nor SB 420 regulates the amount of water growers are authorized to use for their marijuana cultivation operations.⁷⁴

Recently, the residents of Lake County took steps to curtail the depletion of natural rivers and streams within the County.⁷⁵ California residents petitioned the board of supervisors of Lake County to begin regulating the cultivation of marijuana.⁷⁶ The residents proposed an ordinance that would regulate all marijuana cultivation within the county.⁷⁷ The proposition details restrictions on marijuana cultivation, including regulating water use for marijuana cultivation.⁷⁸ The proposition requires that all cultivators have a legal water source on the premises and requires the cultivator to refrain from engaging in unlawful or unpermitted extraction of water for cultivation purposes.⁷⁹ If growers violate the regulations laid out in the proposition, they are subject to forfeiture of their operation and

70. Joe Vazquez, *Few Legal Consequences for Growers Gaming California Marijuana Laws*, CBS LOCAL (Oct. 1, 2014), <http://sanfrancisco.cbslocal.com/2014/10/01/few-legal-consequences-for-growers-gaming-california-marijuana-laws-pot-humboldt-county-crime-sheriff-district-attorney-cultivation-possession/>.

71. *Id.*

72. *Id.*

73. *Id.*

74. *Id.*

75. Lake County Marijuana Cultivation Ordinance 2997 Referendum, Measure N (June 2014), [http://ballotpedia.org/Lake_County_Marijuana_Cultivation_Ordinance_2997_Referendum,_Measure_N_\(June_2014\)](http://ballotpedia.org/Lake_County_Marijuana_Cultivation_Ordinance_2997_Referendum,_Measure_N_(June_2014)).

76. *Id.*

77. *Id.*

78. *Id.*

79. *Id.*

will no longer be permitted to cultivate marijuana in Lake County.⁸⁰ Conversely, Humboldt County California does not regulate the number of plants or water use for marijuana cultivation.⁸¹ The unregulated use of water in Humboldt County and many counties across the northern parts of California have put a strain on water resources while California continues to deal with severe drought conditions.⁸²

Although regulations across California are sporadic at best, marijuana cultivators appear to be in favor of cultivation regulations and support programs focused on mitigating environmental damage resulting from marijuana cultivation.⁸³ Hezekiah Allen, executive director of the Emerald Growers Association, stated, “[t]he war on drugs has not only failed us, but created this situation. This is commercial agriculture. Regulate this please. We would rather pay taxes than fines.”⁸⁴

IV. The Federal Government on Cultivation Regulations in California

Although federal government officials have stated that as long as states legalizing marijuana strictly regulate the cultivation, use, and distribution of the drug, they will not enforce federal law on cultivators in the state, the federal government is continuing to raid and eradicate otherwise legal grows in California.⁸⁵ This section will explain how several counties in California have attempted to regulate marijuana cultivation but were circumvented by the federal government. Furthermore, this section will argue that if the federal government is not going to enforce the Controlled Substance Act on marijuana cultivation, then it is essential that the federal government allow states to regulate water use for marijuana cultivation according to their state’s permitting processes and/or county regulations.

80. *Id.*

81. Vasquez, *supra* note 70.

82. Guilford, *supra* note 47.

83. Warren, *supra* note 35.

84. Adam Randall, *Sheriff Allman Speaks in Sacramento at 'Fish, Flows, and Marijuana Grows*, Ukiah Daily Journal (July 1, 2015), <http://www.ukiahdailyjournal.com/general-news/20150701/sheriff-allman-speaks-in-sacramento-at-fish-flows-and-marijuana-grows>.

85. Guilford, *supra* note 47.

A. The Federal Government Circumvents California's Regulations

The lack of uniformity between federal law and state law has led to marijuana growers enjoying unregulated use of water and sucking water sources dry within the Emerald Triangle.⁸⁶ "In theory, Californian state or local regulators should be able to set environmental standards for cannabis cultivation, the way they might with grapes or timber. But the federal government won't let them."⁸⁷

In 2010 Tom Allman, the Mendocino County Sheriff, began charging growers a \$1,050 permitting fee for marijuana cultivation, a \$500 monthly inspection fee, and a \$25 charge for a serial-numbered zip-tie that growers were required to attach to each plant certifying that the plants met the environmental standards.⁸⁸ Additionally, the regulation required that an individual grower not exceed a twenty five-plant restriction and a cooperative could not exceed a ninety nine-plant restriction.⁸⁹ These new guidelines were not an immediate success due to the marijuana grower's fears that the state government would disclose their growing operations to the federal government.⁹⁰ Only eighteen growers signed up for permits in the first year, but by 2011 over 100 growers applied for permits, bringing in \$663,000 of revenue.⁹¹ Allman used those funds to lead a campaign against growers who were cultivating marijuana illegally on public land.⁹² Additionally, many of these illegal growers consisted of people who were appropriating and damming water from streams.⁹³ In one year, Allman eradicated more than 640,000 illegal marijuana plants, one third of what the DEA eradicates per year in the entire state of California.⁹⁴

Unfortunately, the DEA did not see Allman's permitting plan and eradication of hundreds of thousands of illegal marijuana plants as a success.⁹⁵ The DEA raided legal marijuana growing operations throughout Mendocino County and United States attorney Melinda Haag stated that the raids were part of a crackdown on "significant drug traffickers."⁹⁶ The DEA

86. *Id.*

87. *Id.*

88. *Id.*

89. *Id.*

90. *Id.*

91. *Id.*

92. *Id.*

93. *Id.*

94. *Id.*

95. *Id.*

96. *Id.*

subpoenaed Mendocino County's records of all participants in the permitting program, which created a detrimental blow to the trust formed between growers and the Mendocino County police.⁹⁷ The federal government insisted that Allman shut down the permitting program, and in March 2012 Allman conceded.⁹⁸

Because the DEA receives funding from Congress based on how many plants are eradicated and how many grows are disrupted, the DEA continues to raid and eradicate plants cultivated in otherwise legal grow operations.⁹⁹

B. The Hypocrisy of the DEA Regarding Marijuana Regulation

Under the Controlled Substances Act, it is illegal for individuals to cultivate, possess and use marijuana.¹⁰⁰ Therefore, the federal government may not participate in anything pertaining to the legalization of marijuana.¹⁰¹ Sheriff Allman's zip-tie program did not require federal government involvement, the federal government stated that they were not going to enforce federal law on states legalizing marijuana so long as the state implements restrictions regulating the cultivation, distribution and use of marijuana, yet the federal government raided grows that were occurring legally and in accordance to state and county regulations.¹⁰² Rusty Payne, a spokesman for the DEA stated that the DEA focused on large illegal marijuana grows.¹⁰³ But the locations and operations raided prove that is not the case and the DEA actually raided legal grows ranging in size.¹⁰⁴ Additionally, Payne argued that the increased legalization of marijuana cultivation would lead to an increase in illegal marijuana cultivation, precisely what the DEA is trying to prevent.¹⁰⁵

The DEA depends on the "war on drugs" for funding.¹⁰⁶ Congress evaluates the success of the DEA based on two criteria, the number of plants eradicated, and the number of operations they disrupt.¹⁰⁷ Over half of the

97. *Id.*

98. *Id.*

99. *Id.*

100. *Id.*

101. *Id.*

102. *Id.*

103. *Id.*

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

plants eradicated and the operations disrupted in 2012 were in California.¹⁰⁸ At the end of the day, this all comes down to the fact that the DEA's main source of revenue would be undermined by the successful implementation of marijuana grow regulations in counties throughout California.¹⁰⁹

C. The Hinchey–Rohrabacher Amendment

In the fall of 2014, the House of Representatives and the Senate agreed on passing the Hinchey-Rohrabacher Amendment (the Amendment), which was officially approved by Congress at the end of December 2014.¹¹⁰ The Amendment established that through September 2015 the Department of Justice would be prevented from receiving or using any funds from the \$1.1 trillion spending bill in order to prevent states from implementing their own laws regarding the use, possession, distribution, or cultivation of medical marijuana.¹¹¹ The Amendment did not address the use, possession, distribution, and cultivation of recreational marijuana.¹¹² Therefore, the Department of Justice was still be able to receive and use funding to prevent states from implementing their own laws regarding the use, possession, distribution, and cultivation of recreational marijuana.¹¹³ Additionally, the Amendment did not strictly prohibit the DEA or federal government agents from raiding otherwise legal marijuana grows.¹¹⁴ Rather, the Amendment established that funds would not be used to prevent states from implementing their own marijuana laws in regards to medical marijuana.¹¹⁵

Although the Amendment stated that funds made available to the Department of Justice may not be used to prevent states from implementing their own state laws regarding marijuana cultivation, it did not explicitly prohibit the federal government from continuing to raid and eradicate otherwise legal grows.¹¹⁶

The Amendment seemed to illustrate that the federal government was willing to allow states to regulate marijuana cultivation in accordance with state and local laws. However, it is not entirely clear that the spending bill for the year of 2016 will include such an amendment. Therefore, the Department of Justice will again be permitted to receive and use funds from

108. *Id.*

109. *Id.*

110. *Id.*

111. Amendment 778 to H.R. 4660, 113th Congress. (2014); *See also* Downs, *supra* note 26.

112. Amendment 778 to H.R. 4660, 113th Congress. (2014)

113. *Id.*

114. *Id.*

115. *Id.*

116. *Id.*

the new spending bill in order to prevent states from implementing their own laws regarding the use, possession, distribution, or cultivation of medical and recreational marijuana.

V. Recommendations to Curb Marijuana's Affect on California's Drought

This section will discuss a new regulation the California State Water Board is enacting to curb pollution from marijuana cultivation. Additionally, this section will discuss recommendations for states regulating the cultivation of marijuana. Furthermore, this section will discuss how it has become increasingly difficult to persuade growers to follow state regulations due to the federal government raids on otherwise legal marijuana grows. Lastly, this section will argue that California should be permitted to regulate marijuana cultivation through state processes and monitoring in order to restrict and control water use for marijuana cultivation.

A. The North Coast Regional Water Quality Control Board's Attempt to Regulate Marijuana Cultivation

The North Coast Regional Water Quality Control Board has announced a new regulatory framework addressing pollution and water quality as they relate to marijuana cultivation.¹¹⁷ The Water Board intends on implementing a permitting program regulating waste runoff and pollution of water sources.¹¹⁸ The new regulations will not address the illegal appropriation or diversion of water; rather, they will focus on the prevention of waste run-off into rivers and streams.¹¹⁹

Water Board Assistant Executive David Leland stated, "Our regulatory program will apply to persons cultivating marijuana on private lands, and it will include conditions and provisions for site development, maintenance, operations, and cleanup as applicable."¹²⁰ The Board's permitting plan does not issue permits for the cultivation of marijuana, rather it is an effort to regulate the growth.¹²¹

117. Adrian Baumann, *Water Board Moves to Implement Marijuana Growing Regulations*, DAILY JOURNAL NEWS (Nov. 7, 2014), http://www.ukiahdailyjournal.com/news/ci_26887881/water-board-moves-implement-marijuana-growing-regulations.

118. *Id.*

119. *Id.*

120. *Id.*

121. *Id.*

The new permitting program will be a three-tier program.¹²² Growers in tier one are classified as having the least impact and will be required to comply with the regulations, but will not be forced to pay a fee.¹²³ Growers in tier two who are or could have a substantial impact are required to pay a fee, enroll for coverage, and submit a water quality protection plan for the development and operation of the grow operation.¹²⁴ Marijuana cultivators in the third tier are considered to have grow operations that require cleanup and abatement.¹²⁵ Cultivators in the third tier with grow operations posing an imminent threat of discharge to streams and wetlands are required to “submit a site restoration plan for review and approval by the water board, followed by implementation under their oversight.”¹²⁶

The State Water Board is taking steps in the right direction in order to curb the drought and prevent any further environmental impacts of water use for marijuana cultivation, but the proposed permitting plan appears weak at best and should include a permitting process similar to that of permitting water use for agricultural purposes, which shall be discussed further in subsection D.¹²⁷

B. Marijuana Watershed Protection Act (AB 243)

California Assembly Member Jim Wood introduced the Marijuana Watershed Protection Act (AB 243) on February 5, 2015.¹²⁸ AB 243 is aimed at protecting California’s natural resources and, if passed, will require state agencies to address the environmental impacts of marijuana cultivation.¹²⁹ Indoor and outdoor marijuana cultivation would be regulated in accordance with state and local laws.¹³⁰ State and local laws would be used to establish the best use and practices regarding electricity use, water use, pollution

122. *Id.*

123. *Id.*

124. *Id.*

125. *Id.*

126. *Id.*

127. *Id.*

128. Press Release, California State Assembly, Assemblymember Wood introduces legislation to provide consistency for medical marijuana farms and protect vital watersheds (Feb. 18, 2015), <http://asmdc.org/members/a02/news-room/press-releases/assemblymember-wood-introduces-legislation-to-provide-consistency-for-medical-marijuana-farms-and-protect-vital-watersheds>.

129. A.B. 243 (Cal. 2015), *available at* http://www.leginfo.ca.gov/pub/15-16/bill/asm/ab_0201-0250/ab_243_bill_20150205_introduced.pdf.

130. *Id.*

discharge, environmental impacts, etc.¹³¹ According to Jim Wood, AB 243 is not meant to establish a permitting process that marijuana cultivators would be required to obey, rather, AB 243 establishes the need for state and local laws to establish the best ways to cultivate marijuana and minimize the impacts on the environment.¹³²

C. Comprehensive Regulation Through Assembly Bill 266 and Senate Bill 643

California lawmakers recently passed Assembly Bill 266 (AB 266) and Senate Bill 643 (AB 643) in addition to the Marijuana Watershed Protection Act (AB 243), which Governor Jerry Brown signed into law on August 9, 2015.¹³³

The passing of AB 266 enacts the Medical Marijuana Regulation and Safety Act.¹³⁴ AB 266 is extensive and complex, but for the first time in over 20 years, the Bill makes it clear that license-holders and licensed activity “are not unlawful under state law and shall not be an offense subject to arrest, prosecution, or other sanction under state law, or be subject to a civil fine or be a basis for seizure or forfeiture of assets under state law.”¹³⁵ Among other things, AB 266 establishes a licensing framework based on the size of the grow operation and provides a dual system for licensing between state and local governments “within the Department of Consumer Affairs the Bureau of Medical Marijuana Regulation.”¹³⁶

Under SB 643, the Department of Food and Agriculture, in conjunction with the Department of Pesticide Regulation, is responsible for ensuring that marijuana cultivation “is conducted in accordance with state and local laws related to land conversion, grading, electricity usage, water usage,

131. *Id.*

132. Press Release, California State Assembly, Assemblymember Wood introduces legislation to provide consistency for medical marijuana farms and protect vital watersheds (February 18, 2015), <http://asmdc.org/members/a02/news-room/press-releases/assemblymember-wood-introduces-legislation-to-provide-consistency-for-medical-marijuana-farms-and-protect-vital-watersheds>.

133. Lisa Leff, *California Governor OKs Medical Marijuana Regulations*, ABC NEWS (Oct. 9, 2015), <http://abcnews.go.com/Health/wireStory/california-governor-oks-medical-marijuana-regulations-34379548>.

134. A.B. 266 (Cal. 2015) available at https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB266.

135. *Id.*; See also David Downs, *Here's What's Inside California's Historic Medical Cannabis Regulations - AB 266*, EAST BAY EXPRESS (Sept. 11, 2015), <http://www.eastbayexpress.com/LegalizationNation/archives/2015/09/11/here-s-whats-inside-californias-historic-medical-cannabis-regulations-ab-266>.

136. *Id.*

agricultural discharges, and similar matters.”¹³⁷ SB 643 does not contain a licensing or permitting plan for water diversion; rather it requires the Department of Food and Agriculture to implement a licensing system aimed to restrict water diversion and reduce environmental damage caused by marijuana cultivation.¹³⁸

D. Options for Regulating the Cultivation of Marijuana in California

For the past two decades marijuana cultivators have enjoyed California’s natural resources with little to no regulation, but the enactment of the three above discussed bills will provide California officials with the ability to regulate marijuana cultivation and mitigate environmental impacts.¹³⁹ Growers have been purging rivers and streams, as well as damming rivers, diverting water, and illegally appropriating water for marijuana cultivation.¹⁴⁰ The federal government has stated that they are taking “hands off approach” and are allowing states to enact laws legalizing marijuana.¹⁴¹ However, every attempt by the state and local governments to regulate the cultivation of marijuana has been thwarted by the DEA.¹⁴² The state of California and local governments within have been unsuccessful in regulating water use and the environmental impacts of marijuana cultivation largely due to the lack of consistency in the state and federal laws and the inability to setup a workable framework to regulate the booming marijuana industry.¹⁴³

Each state’s constitution defines the rights and authorities of the state government to regulate the use of waters within their respective state.¹⁴⁴ If the federal government is not going to enforce the Controlled Substance Act on states that have legalized marijuana, then the federal government should allow states to restrict water use according to regulations they enact.

137. S.B. 643 (Cal. 2015), available at https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB643. See also Kate Sell, *Regulating Marijuana’s Environmental Impacts*, REG BLOG (Sept. 15, 2015), <http://www.regblog.org/2015/09/15/sell-ca-marijuana-environmental-regs/>.

138. *Id.*

139. See Sell, *supra* note 137.

140. S.B. 643 (Cal. 2015); See Sell, *supra* note 137.

141. Ryan J. Reilly & Ryan Grim, *Eric Holder Says DOJ Will Let Washington, Colorado Laws Go Into Effect*, HUFFINGTON POST (Oct. 9, 2014), http://www.huffingtonpost.com/2013/08/29/eric-holder-marijuana-washington-colorado-doj_n_3837034.html.

142. Guilford, *supra* note 47.

143. *Id.*

144. See generally Environment and Natural Resources Provisions in State Constitutions, 22 J. LAND RESOURCES & ENVTL. L. 73 (2002).

California has a permitting process for individuals to follow when they want to appropriate or divert water for a beneficial use.¹⁴⁵ The permitting process is typically used for larger industries such as agriculture projects.¹⁴⁶ The new Assembly and Senate Bills recently enacted treat marijuana as an agricultural crop, requiring the Department of Food and Agriculture to enact a regulatory licensing framework, which will regulate and track water usage and the environmental impacts of water usage and runoff.¹⁴⁷

Marijuana, a taxable cash-crop, qualifies under the permitting process if the considered use of water is for a beneficial use, such as agricultural purposes or medicinal purpose.¹⁴⁸ Following the permitting process described above, marijuana cultivators would be able to apply for a permit under the stated guidelines and potentially receive a license to legally use water to cultivate marijuana.¹⁴⁹ Allowing the state and local governments to regulate marijuana production within the state would put marijuana cultivation with the likes of the timber and wine industry.¹⁵⁰

The new permitting process that the State Water Board is enacting is a step in the right direction to curb the environmental impacts of marijuana cultivation.¹⁵¹ Issuing water use permits allows the state to control cultivation and regulate water use as well as waste runoff into rivers and streams.¹⁵² The revenue could then be used to combat illegal grow operations throughout the state and hire more law enforcement to eradicate illegal grows.¹⁵³ Allowing growers to receive permits provides the state with the power and authority to control and regulate the cultivation and use of marijuana, which is what the federal government requested.¹⁵⁴

Under the new Assembly and Senate Bills, each county is provided with the opportunity to enact their own local regulatory framework.¹⁵⁵ However, each county is also provided with the option to default to the rules and permitting plan as enacted by the state agency.¹⁵⁶ The ability for counties and local municipalities to enact their own regulatory licensing systems provides for the opportunity to follow a permitting program similar

145. *The Water Rights Process*, *supra* note 54.

146. *Id.*

147. S.B. 643 (Cal. 2015).

148. *Id.*

149. *Id.*

150. *Id.*

151. Amendment 778 to H.R. 4660, *supra* note 111.

152. Amendment 778 to H.R. 4660, *supra* note 111.

153. *Id.*

154. *Id.*

155. S.B. 643 (Cal. 2015).

156. *Id.*

to the one that Allman initiated in Mendocino County.¹⁵⁷ Each county in California would have the ability to regulate water use based on the guidelines established under the Mendocino County zip-tie program, or some rendition thereof.¹⁵⁸ Allowing each county to regulate water use provides marijuana cultivators with the protection of the local government and provides a substantial source of revenue for the state.¹⁵⁹ County permitting programs allows for the regulation of water use, which prevents further unlawful draining of the state's water sources and provides local governments with the ability to take action to curtail the drought.¹⁶⁰

If the federal government is going to allow each individual state to pass laws legalizing marijuana, then the federal government should leave it up to each state to decide how to regulate the cultivation process and water use.¹⁶¹

VI. Conclusion

The Western United States is facing a severe drought.¹⁶² The legalization of marijuana in California has contributed to the drought and depletion of rivers and streams due to the large amounts of water required to cultivate marijuana.¹⁶³ In order to curtail the drought and help alleviate the appropriation and diversion of water from rivers and streams, the state should be permitted to implement restrictions regulating water use for marijuana cultivation.¹⁶⁴ Allowing growers to apply for a water use permit and/or enacting county permitting programs requiring growers to apply and abide by regulations is the most efficient way to help alleviate marijuana cultivation's contribution to the severe drought in California. If the federal government is not going to enforce the Controlled Substance Act on the states, then it is essential that the federal government allow each state to regulate water use for marijuana cultivation according to state and county regulations.

The new Assembly and Senate Bills set California up for success as far as marijuana cultivation regulations and environmental impacts are concerned. While there is no guarantee that the DEA will not yet again request the names of all the marijuana cultivators licensed throughout the state of California and raid their otherwise legal grow operations, the new Assembly Bills are still a huge step in the right direction. The bills set up a

157. Guilford, *supra* note 47.

158. *Id.*

159. *Id.*

160. *Id.*

161. *Id.*

162. Bostock and Quealy, *supra* note 1.

163. Anderson, *supra* note 3.

164. *Id.*

framework for the regulation of marijuana cultivation and in turn alleviate the environmental impacts of marijuana cultivation. It is up to the federal government to take a step back and allow states to regulate the industry in accordance with their own regulatory framework.