

Burnt Lands, Dry Lakes, and Empty Pockets: Emergency Water Takings and Wildfires

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I. INTRODUCTION

After weeks of endless meetings and memos, Doc finally arrived at his family's upstate farm for some rest and relaxation. After settling in, he grabbed a chair and walked down the path to the lake where his family stored the farm's water supply. On the drive up, Doc had heard about the wildfires that were moving their way across the state, but he had paid no attention to them because the fires were reportedly still hundreds of miles away and outside his water basin.¹ After a little while he started smelling smoke and hearing helicopters in the distance. Alarmed, he looked up and saw that a wildfire was heading his way. Suddenly, over the tree line, a U.S. Forest Service helicopter rapidly approached and then stopped, hovering directly over his lake. Attached and hanging below the helicopter was a bucket. Steadily, the helicopter lowered itself closer to the lake, filling the bucket with water. While Doc watched, the helicopter filled up the bucket and flew away towards the wildfire. It returned again and again. In the end, Doc had only burnt farmland, a dry lakebed, and empty pockets.

Fighting wildfires is an increasingly costly phenomenon in the United States. In 2017, the U.S. Forest Service spent approximately \$2.4 billion dollars fighting wildfires, about double the annual amount spent a decade ago.² Additionally, the risk of liability to businesses is also growing, best exemplified by PG&E's Chapter 11 bankruptcy filing following the 2018

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1. A water basin is a geographic area drained by a single major stream, multiple streams, or lakes. Commonly known examples of water basins are the Colorado River Basin and the Nile River Basin. For more information see Laura A. Schroeder & Kendall A. Woodcock, *Interbasin Transfer, Clean Water Act, Turbid Waters: The Interaction Between Interbasin Transfer and the Clean Water Act*, WATER-LAW.COM BLOG (July 24, 2015), <https://www.water-law.com/water-rights-articles/interbasin-transfer-clean-water-act/> [<https://perma.cc/WJ8K-6HTB>].

2. Nick Wells, *What the Wildfires Are Costing Us*, CNBC (Dec. 12, 2017, 12:08 PM), <https://www.cnbc.com/2017/12/12/what-the-wildfires-are-costing-us.html> [<https://perma.cc/CWE3-GGKM>].

California Camp Fire.³ Underlying these alarming trends is climate change, which is worsening wildfire disasters.⁴ As wildfires increase in frequency, intensity, and size, common responses such as dropping water onto the fire will decrease in effectiveness due to a dwindling number of natural and artificial resources like water and fire retardant.⁵ Once snowpack and publicly owned water resources are used up, where will federal and state governments go to get more water? In an emergency scenario, such as an imminent wildfire, will governmental actors be able to take water owned by a private citizen?⁶ And if so, will the government owe just compensation under the Fifth Amendment Takings Clause—even if this action was in response to an emergency scenario?

This Comment argues that, depending on the proximity of the wildfire, the law should respond to an emergency water taking in two ways. If the wildfire is near a privately-owned water resource, then the government is unlikely to be liable for costs of taking the water supply due to the emergency takings doctrine. If, however, the wildfire is far away from the water supply, and there is no imminent danger nearby, a seizure will likely require that just compensation be paid to the owner of that private resource.

Part II of this Comment provides an overview of the Takings Clause of the Fifth Amendment, the types of takings that courts generally recognize, and

3. Russell Gold, Katherine Blunt & Kimberly Chin, *PG&E Prepares for Bankruptcy Amid Wildfire Fallout*, WALL ST. J. (Jan. 14, 2019, 8:11 AM), <https://www.wsj.com/articles/pg-e-initiates-chapter-11-reorganization-for-utility-11547465293> [<https://perma.cc/FV2H-RU8K>].

4. See Carolyn Kormann, *How Climate Change Contributed to this Summer's Wildfires*, NEW YORKER (Aug. 1, 2018), <https://www.newyorker.com/science/elements/how-climate-change-contributed-to-this-summer-wildfires> [<https://perma.cc/XTM4-CBL3>].

5. See Justin Pidot, *Natural Baselines for Wildfire Takings Claims*, 75 MD. L. REV. 698, 702–03 (2016); Thomas Kitzberger et al., *Direct and Indirect Climate Controls Predict Heterogeneous Early-Mid 21st Century Wildfire Burned Area Across Western and Boreal North America*, PLOS ONE (Dec. 15, 2017), <https://doi.org/10.1371/journal.pone.0188486> [<https://perma.cc/TC7E-263Y>].

6. Private water supplies in the United States are owned both by individuals who typically store water supplies in a private well and by corporations that buy and operate water supply resources to serve communities. In 2015 an estimated 42.5 million people in the United States, or 13% of the population, used private water supplies for common domestic indoor and outdoor water uses. See CHERYL A. DIETER ET AL., U.S. GEOLOGICAL SURVEY, CIRCULAR NO. 1441, ESTIMATED USE OF WATER IN THE UNITED STATES IN 2015 22 (2018), <https://doi.org/10.3133/cir1441> [<https://perma.cc/BDZ2-H6CS>]. Private-corporation-owned water supply resources are estimated to serve only 15% of U.S. citizens and hold about 11% of water system assets in the United States. Craig Anthony Arnold, *Water Privatization Trends in the United States: Human Rights, National Security, and Public Stewardship*, 33 WM. & MARY ENVTL. L. & POL'Y REV. 785, 791 (2009). In the past few decades, however, due to political and financial pressures, water systems and supplies have become increasingly privately owned. *Id.* at 791–92. A 2007 survey showed that nearly 600 cities in forty-three states had contracted with private water corporations to manage their water supply. *Id.* at 792.

why courts have reasoned that a seizure of water rights constitutes a governmental taking. It then recounts the historical origins of the emergency takings doctrine and its modern use in wildfire cases. Finally, it discusses the current standing of public use after the U.S. Supreme Court's decision in *Kelo v. City of New London*⁷ and analyzes the factors commonly considered in calculating just compensation in an emergency takings scenario.⁸

Part III discusses the laws that regulate surface water rights in western states, describes interbasin transfers of water, and provides an overview of why interbasin water transfers are controversial. It also describes how wildfires originate, discusses the pros and cons of common firefighting techniques, and analyzes how climate change is affecting wildfires and the likely steps governmental actors will take to combat such fires.

Part IV argues how the law would respond to a water takings claim in light of a wildfire emergency in two different scenarios: first, if there is an imminent danger and the water taken by a governmental actor is used to fight a nearby wildfire in the same water basin; and second, if there is no imminent danger and the water taken by a governmental actor is used to fight a wildfire in a neighboring water basin. Part V concludes.

II. SHOW ME THE MONEY: THE TAKINGS CLAUSE AND THE EMERGENCY TAKINGS DOCTRINE

Under the Fifth Amendment of the U.S. Constitution, the government is only allowed to take private property from its owner if there is a public use for such property and if it pays just compensation to the property owner.⁹ The Takings Clause was designed to bar the government from “forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.”¹⁰ Courts commonly analyze whether a taking has occurred by making three separate determinations: (1) how private property was taken, (2) whether the taking was for a rational public use, and (3) whether just compensation is owed to the private owner of the taken property.¹¹ This analysis changes, however, when there is an emergency. In

7. 545 U.S. 469 (2005).

8. Cases involving the Takings Clause are predominately interpreted and decided by federal jurisdiction. As such, this Comment focuses on historical federal takings jurisprudence and federal application of the emergency takings doctrine.

9. U.S. CONST. amend. V.

10. *Armstrong v. United States*, 364 U.S. 40, 49 (1960).

11. *See Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 122–23 (1978).

that scenario, courts apply the doctrine of necessity, also known as the emergency takings doctrine.¹²

A. Permanent Physical and Regulatory Per Se Takings

The U.S. Supreme Court has recognized two categories of takings: permanent physical takings and regulatory *per se* takings.¹³ A permanent physical taking occurs when the government directly invades or appropriates private property from an owner.¹⁴ The Supreme Court has articulated that when the government physically takes property for some public purpose, “it has a categorical duty to compensate the former owner regardless of whether the interest that is taken constitutes an entire parcel or merely a part thereof.”¹⁵

A regulatory taking occurs when a government regulation imposes such a severe restriction that it produces “nearly the same result as a direct appropriation.”¹⁶ The Court has generally refrained from offering an explicit guideline as to what type of rule or regulation constitutes a regulatory taking.¹⁷ Instead of using a bright-line rule, courts conduct a fact-specific examination of the regulation in question and weigh all the relevant circumstances.¹⁸

In addition to the general regulation test, the Supreme Court has articulated two categories of regulation that are deemed as *per se* takings.¹⁹ In *Loretto v. Teleprompter Manhattan CATV Corp.*, the Supreme Court found that a New York state law that required landlords to allow cable companies to install cable facilities on the roof and sides of the building constituted a taking.²⁰ The Supreme Court held that a *per se* regulatory taking occurs when the government requires a permanent physical invasion of property, however minor that invasion may be.²¹

A regulation is also a *per se* taking if it completely deprives the landowner of “all economically beneficial or productive use of land.”²² In *Lucas v. South Carolina Coastal Council*, the Supreme Court held that a taking occurred

12. *TrinCo Inv. Co. v. United States*, 722 F.3d 1375, 1377 (2013).

13. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1014–15 (1992).

14. *Id.*

15. *Tahoe-Sierra Pres. Council v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 322 (2002) (citation omitted).

16. *Id.* at 314 (quoting *Tahoe-Sierra Pres. Council v. Tahoe Reg’l Planning Agency*, 34 F. Supp. 2d 1226, 1238 (D. Nev. 1999)).

17. *Id.* at 321.

18. *Id.* at 322.

19. *Casitas Mun. Water Dist. v. United States*, 543 F.3d 1276, 1288 (Fed. Cir. 2008).

20. 458 U.S. 419, 421 (1982).

21. *See id.* at 441.

22. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1015 (1992) (emphasis added).

when a South Carolina statute barred the land owner from erecting any permanent habitable structures on the beachside residential lots that he owned.²³ The Court found that the South Carolina prohibition on building rendered the land valueless and thus was a *per se* taking.²⁴ But it clarified that anything less than a “complete elimination of value” or “total loss” requires a general regulatory takings analysis and does not qualify as a *per se* taking.²⁵

In the context of water rights, courts have generally recognized a permanent physical taking occurs when the government physically diverts water for its own consumptive use or decreases the amount of water accessible to the owner of the water rights.²⁶ For example, in *Tulare Lake Basin Water Storage District v. United States*, a court found that the government committed a taking by preventing water rights holders from using water they would have otherwise been entitled to.²⁷ The Supreme Court has also separately held that a taking of water rights can occur when the government only partially impairs the landowner’s water rights.²⁸

Underlying these holdings is the rationale that government interference with water rights constitutes a physical taking because a water taking is a drastic action; once taken, that specific water supply never returns to its legal owner.²⁹ Water owners, whose water has been diverted or taken by the government, will “never, at the end of any period of time, be able to get that water back.”³⁰ As such, courts predominately hold that the government’s taking of water is not a temporary action and does “not leave the [owner’s water] right in the same state it was before the government action,” as both the water and the owner’s right to use that water is forever gone.³¹

Not every judge agrees with the theory that a diversion or consumption of water should constitute a permanent physical taking. In *Casitas Municipal Water District v. United States*, the dissenting judge argued that the government’s requirement for the Casitas Water District to divert water for a fish ladder, an instrument to help fish migrate, did not constitute a physical taking.³² The judge reasoned that because the Casitas Water District did not

23. *See id.* at 1006–07, 1031–32.

24. *See id.* at 1028, 1031–32.

25. *See id.* at 1019–20, n.8.

26. *Washoe Cty. v. United States*, 319 F.3d 1320, 1326 (Fed. Cir. 2003); *see Dugan v. Rank*, 372 U.S. 609, 625–26 (1963) (finding a taking occurred where the government dammed a river and partially diverted water away from downstream users).

27. *Tulare Lake Basin Water Storage Dist. v. United States*, 49 Fed. Cl. 313, 319 (Fed. Cl. 2001).

28. *Dugan v. Rank*, 372 U.S. 609, 623 (1963).

29. *See, e.g., Casitas Mun. Water Dist.*, 543 F.3d at 1296.

30. *Id.*

31. *Id.*

32. *Id.* at 1298 (Mayer, J., dissenting).

actually own and control the water molecules, nor did the government acquire Casitas' water use license, there could not have been a physical taking.³³ The government only imposed a limitation "on the total quantity of water available . . . [used] to preserve the endangered [fish] under a public program to promote the common good."³⁴ "[G]overnmental deprivation of some water use rights absent the government's active or appropriative hand in diverting water for its own or a third party's consumptive or proprietary use does not amount to a physical taking."³⁵ The dissenting judge concluded that the government action in *Casitas* should have been examined under the general regulatory takings analysis instead of being found to be a physical taking.³⁶ The government was not appropriating Casitas' property, only "prohibiting Casitas from making private use of a certain amount of the river's natural flow."³⁷

B. *Origins of the Emergency Takings Doctrine*

During times of national emergency or disaster, courts have recognized that the government may commit takings that do not require payment of just compensation to property owners.³⁸ The government does not have to pay compensation where "the destruction or damage was, or reasonably appeared to be, necessary to prevent an impending or imminent public disaster from fire, flood, disease, or riot."³⁹ This doctrine of public necessity, more commonly referred to as the emergency takings doctrine, flows through the history of takings common law.⁴⁰

One of the earliest illustrations of the emergency takings doctrine is from the 1879 U.S. Supreme Court case *Bowditch v. City of Boston*.⁴¹ In *Bowditch*, a fire engulfed the city of Boston and firefighters declared that the building owned by the plaintiff was to be demolished to stop the spread of the fire.⁴² Firefighters demolished the building, which stopped the fire, but also caused the premises to be unfit for occupation and destroyed the plaintiff's personal

33. *Id.*

34. *Id.*

35. *Id.* at 1301.

36. *Id.*

37. *Id.*

38. See Gregory R. Kirsch, *Hurricanes and Windfalls: Takings and Price Controls in Emergencies*, 79 VA. L. REV. 1235, 1242 (1993).

39. *City of Rapid City v. Boland*, 271 N.W.2d 60, 66 (S.D. 1978).

40. See cases cited *infra* note 54.

41. 101 U.S. 16, 16 (1879).

42. *Id.*

property.⁴³ Under Massachusetts law, which governed when firefighters could destroy property, an owner of a destroyed building was allowed to recover reasonable compensation so long as the destruction was “judged necessary by three fire-wards” beforehand.⁴⁴ The Massachusetts Supreme Court, however, found that the demolition of the plaintiff’s building did not constitute a taking requiring just compensation as fire-wards had not judged the destruction necessary.⁴⁵ The U.S. Supreme Court affirmed.⁴⁶

The U.S. Supreme Court directly articulated the emergency takings doctrine in *United States v. Caltex*.⁴⁷ There, Caltex Inc. owned petroleum storage and shipping facilities in the Philippines before the Japanese invasion during World War II.⁴⁸ In advance of the invasion by Japanese forces, the U.S. Army requisitioned the oil deposits and eventually destroyed all remaining petroleum products and the critical parts of the refinery plants to render the facilities useless to the Japanese.⁴⁹ After the conclusion of the war Caltex demanded compensation for all of the property used or destroyed by the U.S. Army during the Japanese invasion.⁵⁰

The U.S. Supreme Court found that the plaintiffs did not have a constitutional right to compensation as the “safety of the state . . . overrides all considerations of private loss.”⁵¹ The Court reasoned that the destruction of the oil facilities was not a taking because common law had long recognized that “in times of imminent peril—such as when fire threatened a whole community—the sovereign could, with immunity, destroy the property of a few that the property of many and the lives of many more could be saved.”⁵² The Court extrapolated this reasoning and found that Caltex’s property had become a “weapon of great significance” to the Japanese and as such, the U.S. Army destroyed it to “better and sooner destroy the enemy.”⁵³

43. *Id.*

44. *Id.* at 17, 19 (citing to MASS. GEN. LAWS, ch. 24, § 4. (repealed 1953), <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter24>) [<https://perma.cc/AAA3-P7U9>].

45. *Bowditch*, 101 U.S. at 19–21.

46. *Id.*

47. 344 U.S. 149, 154 (1952).

48. *Id.* at 150.

49. *Id.* at 150–51.

50. *Id.* at 151.

51. *Id.* at 154.

52. *Id.*

53. *Id.* at 155.

C. Emergency Takings During Wildfires

While the predominant and most illustrative applications of the doctrine of emergency takings are in cases involving wartime seizure of property,⁵⁴ courts have recently applied the doctrine to takings claims resulting from natural disasters such as wildfires and floods.⁵⁵ In 2013, the United States Court of Appeals for the Federal Circuit decided *TrinCo Inv. Co. v. United States*.⁵⁶ TrinCo owned land that was surrounded by a national forest.⁵⁷ During a wildfire that burned within the national forest, the U.S. Forest Service “intentionally lit fires directly on and adjacent to TrinCo’s properties” to reduce the timber which might fuel the oncoming wildfire.⁵⁸ These intentionally lit fires caused damage to 1,782 acres of merchantable timber land that TrinCo estimated was valued at approximately \$6.6 million.⁵⁹ In response, TrinCo sued the U.S. Forest Service, arguing that the wildfire would not have burned any of the land owned by TrinCo if left alone and the intentional fires set by the U.S. Forest Service constituted a taking that required just compensation.⁶⁰

The Federal Circuit held that the emergency takings doctrine absolved the government of liability.⁶¹ However, the court limited its holding by reasoning that the government is not free from liability for *any* action taken as “part of an effort to control or prevent fire.”⁶² Instead, the government is only free from liability under the emergency takings doctrine when there is “an imminent danger and an actual emergency giving rise to actual necessity.”⁶³ The Federal Circuit further held that this determination is fact-specific and remanded the case back to the Court of Federal Claims to establish whether or not the wildfire in question posed “an imminent danger or actual emergency necessitating the destruction of such a sizable portion of TrinCo’s property.”⁶⁴

54. See *United States v. Pac. R.R.*, 120 U.S. 227, 234 (1887); *United States v. Russell*, 80 U.S. 623, 628 (1871); *Respublica v. Sparhawk*, 1 U.S. 357, 359 (1788).

55. Recent cases involving wildfires are discussed later in this part. For an example of flood and emergency takings doctrine cases, examine *Alford v. United States*, 141 Fed. Cl. 421, 425 (Fed. Cl. 2019) (holding that the emergency takings doctrine did not apply as there was not an emergency when governmental actors were aware of the need to reduce the likelihood of a levee breach and only chose to flood land after a year of analysis).

56. 722 F.3d 1375, 1376 (Fed. Cir. 2013).

57. *Id.*

58. *Id.* at 1377.

59. *Id.*

60. *Id.*

61. *Id.* at 1380.

62. *Id.* at 1378.

63. *Id.*

64. *Id.* at 1380.

The Alaska Supreme Court reached a similar conclusion in *Brewer v. State*.⁶⁵ In *Brewer*, the court addressed whether or not a taking occurred when firefighters entered the landowner's property and set fire to surrounding vegetation to deprive an oncoming wildfire of fuel.⁶⁶ The State argued against the takings claim, stating that the burnouts were part of the larger overall fire management effort and that the "public purposes of promoting the general health, safety, and welfare of the public" triggered the State's police powers.⁶⁷ The State also argued that under Alaskan law, the State is allowed to enter private land "for the purpose of preventing, investigating, suppressing, or controlling a wildland fire"⁶⁸

Similar to the court's holding in *TrinCo*, the Alaska Supreme Court held that a remand was required to determine whether or not the wildfire had constituted an imminent danger and an actual emergency giving rise to the emergency takings doctrine.⁶⁹ The court, however, went a step beyond the Federal Circuit in *TrinCo*, holding that the determination of "[w]hether a taking is necessary must be judged at the time the taking occurs."⁷⁰ The court reasoned that the essence of the emergency takings doctrine is that "the government is acting 'under pressure of public necessity and to avert impending peril' and chooses to damage private property as the lesser of two evils."⁷¹

The law's use of the doctrine of emergency takings to resolve wildfire cases is still in its infancy. However, as demonstrated by the *TrinCo* and *Brewer* cases, case law involving the doctrine is starting to develop, and these foundational cases can serve as a guide to courts and lawmakers on how to respond in similar circumstances.

D. Valid Public Use

The Takings Clause provides that the government is only allowed to take private property for a rational public use.⁷² Recent U.S. Supreme Court case law, however, has greatly expanded the scope of what courts generally

65. 341 P.3d 1107, 1118 (Alaska 2014).

66. *Id.* at 1110.

67. *Id.* at 1112.

68. A.S. § 41.15.040 (2019).

69. *Brewer*, 341 P.3d at 1118.

70. *Id.*

71. *Id.* (quoting *Holtz v. Superior Court*, 3 Cal. 3d 296, 305 (1970)).

72. *See* discussion *supra* Part II.

consider to be a rational public use.⁷³ This expansion allows courts to give great deference to the government's reason for committing a taking—a significant issue when discussing governmental response to a natural disaster such as a wildfire.⁷⁴

In *Hawaii Housing Authority v. Midkiff*, the U.S. Supreme Court considered whether transferring ownership of real property from a few wealthy landowners to those who leased the land constituted a valid public use.⁷⁵ The Court held that this was a valid public use allowable under the Takings Clause.⁷⁶ “The mere fact that property taken outright by eminent domain is transferred in the first instance to private beneficiaries does not condemn that taking as having only a private purpose.”⁷⁷ The Court stated that an affair, that on its face may be considered private, may “be raised by its class or character to a public affair” and thus not considered a taking only for a private purpose.⁷⁸

The U.S. Supreme Court went a step further in *Kelo v. City of New London* when it held that a city's exercise of eminent domain in furtherance of an economic development plan qualified as a public use.⁷⁹ In *Kelo*, the city of New London, Connecticut targeted a waterfront area for economic redevelopment to revitalize the city.⁸⁰ The city implemented a development plan by purchasing and seizing, through eminent domain, plots of land needed for the project.⁸¹ The Court saw no issue with the seizure of land from homeowners unwilling to sell and held that this was a taking for a valid public use.⁸² Nationwide, state reaction to the *Kelo* decision was fervent and swift as many states amended their eminent domain laws to prohibit economic development as a valid public use.⁸³ Despite this outcry, the U.S. Supreme Court has not overturned the *Kelo* decision, and the expanded scope of rational public use is still viable.⁸⁴

73. See Patricia J. Askew, *Take It or Leave It: Eminent Domain for Economic Development—Statutes, Ordinances, & Politics, Oh My!*, 12 TEX. WESLEYAN L. REV. 523, 523–24 (2006).

74. Brewer, 341 P.3d at 1112; Ilya Somin, *The Judicial Reaction to Kelo*, 4 ALB. GOV'T L. REV. 1, 3–5 (2011).

75. 467 U.S. 229, 233 (1984).

76. *Id.* at 241.

77. *Id.* at 243–44.

78. *Id.*

79. 545 U.S. 469, 490 (2005).

80. *Id.* at 472.

81. *Id.*

82. *Id.* at 490.

83. Ilya Somin, *The Limits of Backlash: Assessing the Political Response to Kelo*, 93 MINN. L. REV. 2100, 2102 (2009).

84. Somin, *supra* note 74, at 36.

In addition to the general expansion of the scope of public use, the recent opinion from the Alaska Supreme Court in *Brewer v. State* provides some guiding principles as to whether a water taking, in response to a wildfire, constitutes a valid public use.⁸⁵ In *Brewer*, the landowners argued that the burnouts started by the firefighters “could have been conducted before the structures were directly threatened and could have been set on state-owned land instead of their private land.”⁸⁶ The court, however, found that the firefighters’ response to the wildfire constituted a valid public use that did not require an analysis of where the burnout was placed.⁸⁷ The court reasoned that it is “accepted wisdom that fighting wildfires, even on private property, is of benefit to the public as a whole.”⁸⁸ The court also held that when the state conducted burnouts on landowners’ properties, the action was still an exercise of its police power and thus a valid public use.⁸⁹

E. Calculation of Just Compensation

The Takings Clause requires that the government pay just compensation to the property owner when a taking occurs.⁹⁰ However, courts vary on what amount qualifies as “just compensation,” particularly in consideration of an emergency like a wildfire. In a normal, non-emergency takings situation, the U.S. Supreme Court has held that a property owner is made whole, i.e., justly compensated, when he receives the fair market value for the taken property.⁹¹ Under this fair market value standard, the owner is entitled to receive “what a willing buyer would pay in cash to a willing seller” at the time of the taking.⁹² Fair market value however does not include “the special value of property to the owner arising from its adaptability to his particular use,”⁹³ meaning that the owner will be not compensated for his subjective estimate of the full value of the taken property.⁹⁴ In a water takings claim, a court’s calculation of just compensation is unlikely to include any potential use the owner may have had for the taken water.⁹⁵

85. *Brewer v. State*, 341 P.3d 1107, 1111–14 (Alaska 2014); See Part II.C for more information.

86. *Id.* at 1111.

87. *Id.* at 1112.

88. *Id.*

89. *Id.* at 1114.

90. See discussion *supra* Part II.

91. *United States v. Chandler-Dunbar Water Power Co.*, 229 U.S. 53, 81 (1913).

92. *United States v. 564.54 Acres of Land*, 441 U.S. 506, 511 (1979).

93. *Id.* (citing *United States v. Miller*, 317 U.S. 369, 374–75 (1943)).

94. See *id.*

95. See Kirsch, *supra* note 38, at 1243; Katrina Miriam Wyman, *The Measure of Just Compensation*, 41 U.C. DAVIS. L. REV. 239, 252–55 (2007).

In an emergency, however, courts modify the just compensation calculation.⁹⁶ If the traditional calculation of fair market value applied in emergencies, the government would be required to pay inflated prices caused by the emergency as compensation.⁹⁷ This in-emergency price would cause windfall profits paid by the government to the property owners because the inflated price will reduce as the emergency passes.⁹⁸ This is why, in some emergency situations, courts have held that if the government completely destroys private property instead of merely confiscating and using it, then the owner is not entitled to any compensation.⁹⁹ This non-compensation principle was the foundation of the U.S. Supreme Court's holding in both the *Bowditch* and *Caltex* cases, and has been upheld in cases involving the Iraq War and state police felony investigations.¹⁰⁰ An effect of the non-compensation principle, however, is that in an emergency, when the government does not completely destroy the property it takes, it will still owe some form of compensation—even if the compensation is not full fair market value.¹⁰¹

In an emergency takings case, the correct amount of compensation is a point of contention as both the government and the property owner wish to use different time periods to determine the fair market value of the taken property.¹⁰² The owner of the taken property likely wants to receive compensation that is equal to the amount his property would have been worth *during or after* the emergency, making it as if the taking had never occurred.¹⁰³ This would grant the property owner the inflated market price of his taken property and help offset any losses due to the subjective value he placed in the property that would have been realized by selling the property on the open market.¹⁰⁴ The government, however, likely only wants to compensate the lower market price that the property was worth *before* the emergency arose.¹⁰⁵ This way, the government is required to pay some compensation for the taking to offset the property owner's losses, but is not asked to pay inflated prices that are likely fiscally and politically

96. Kirsch, *supra* note 38, at 1244–45.

97. *See id.*

98. *Id.*

99. *United States v. Caltex*, 344 U.S. 149, 152–53 (1952); Brian Angelo Lee, *Emergency Takings*, 114 MICH. L. REV. 391, 393 (2015).

100. *Doe v. United States*, 95 Fed. Cl. 546, 563–67 (Fed. Cl. 2010) (holding that the United States did not commit a taking requiring compensation when armed forces occupied the home of an Iraqi citizen during battle); *Eggleston v. Pierce Cty.*, 64 P.3d 618, 620–22 (Wash. 2003) (holding that the removal of a wall by police to collect evidence does not require compensation).

101. *See Kirsch, supra* note 38, at 1255.

102. *Id.* at 1263.

103. *Id.*

104. *Id.*

105. *See id.*

unpopular.¹⁰⁶ The disagreement over when the fair market price should be calculated is a critical determination for courts to solve, and further analysis on this issue is needed.¹⁰⁷

III. WATER AND WILDFIRE: DOWN TO THE ELEMENTS

This Part discusses water rights regimes in the western United States and the controversy over the transportation of water from one basin to another. It also examines how wildfires originate, are commonly fought, and are impacted by climate change. For clarity, this Comment focuses on the surface water laws of Arizona as an example of the general western U.S. water rights regime called prior appropriation.¹⁰⁸

A. Surface Water Rights in Prior Appropriation States

The water rights regimes of the United States are broken up into two separate systems: prior appropriation and riparianism.¹⁰⁹ Prior appropriation is used predominately in the western United States, where most wildfires occur, and gives water rights to whoever is “first in time to appropriate water.”¹¹⁰ The prior appropriation regime allocates a water right to the first person to put a certain quantity of water to a specific beneficial use.¹¹¹

106. *Id.* at 1266.

107. Some research and analysis on this issue has already been performed but existing case law has not resolved this issue. *See id.* at 1260–67; Lee, *supra* note 99, at 409–16.

108. While California is the state most at risk for wildfires, it is not a good representative of the majority of western United States water regimes as it operates a unique hybrid system. Joseph W. Dellapenna, *Riparian Rights in the West*, 43 OKLA. L. REV. 51, 57 (1990). Arizona, meanwhile, operates a traditional prior appropriation system over its surface water regime. *Id.* at 53. Additionally, Arizona, of the states in the Ninth Circuit, is second-highest in households at high or extreme risk of wildfire and third-highest in number of fires. *Facts + Statistics: Wildfires*, INS. INFO. INST. (Feb. 19, 2019), <https://www.iii.org/fact-statistic/facts-statistics-wildfires> [<https://perma.cc/64SU-PGQJ>].

109. Jacqueline Carlton, Comment, *Drought by Fifth Amendment: Debunking Water Rights as “Real” Property*, 31 BYU J. PUB. L. 409, 412 (2017). Riparianism, used predominantly in the eastern United States, is where the government grants property owners a right to water based on the property’s bordering of a water source. Christine A. Klein, *The Constitutional Mythology of Western Water Law*, 14 VA. ENVTL. L.J. 343, 345 (1995). Under this system, each property owner has a right to an equal share of the water source. *Id.* at 365. As riparianism is not used in the western United States, where the majority of wildfires occur, the effects of water takings under this system is not addressed by this Comment. *Id.* at 346.

110. Carlton, *supra* note 109, at 412–13 (quoting 1 WATERS AND WATER RIGHTS § 12.01 (Amy K. Kelley ed., 3d ed. Lexis/Nexis/Matthew Bender 2015)).

111. *Id.* at 413.

Users of the water supply are placed into a system of priority based on when they first put the water to beneficial use; water users are made into senior or junior water rights holders, all relative in line to one another.¹¹² Under this priority system, the senior rights holder takes his water supply first and is followed by the next junior user in line.¹¹³ This sequence repeats until everyone has his water right met or the water supply runs out.¹¹⁴ A prior appropriation right to water “is not a right to specific water itself, but rather a right to divert a quantity of water, in accordance with one’s priority” from a certain point in a water source.¹¹⁵

In a prior appropriation system, once a rights holder has received or used his allotment of water, he is not allowed to go back and use more.¹¹⁶ A governmental taking of part of the water supply—either through appropriation from the water resource itself or by taking water from a user who has already received his allotment—will greatly impact the overall regime as the quantity of water that the entire system holds, and which senior and junior users are given water from, will be reduced by the taken amount for the annual allotment period.¹¹⁷

The prior appropriation regime governs water rights from surface water sources.¹¹⁸ Surface water is generally defined by statute, and includes water “flowing in streams, canyons, ravines or other natural channels, or in definite underground channels, . . . , flood, waste or surplus water, and of lakes, ponds and springs on the surface.”¹¹⁹ This Comment focuses on surface water takings claims; groundwater takings claims are outside of its scope.¹²⁰

112. *Id.*

113. *Id.*

114. A. Dan Tarlock, *Prior Appropriation: Rule, Principle, or Rhetoric?*, 76 N.D. L. REV. 881, 882 (2000).

115. Stephen N. Bretsen, *Rainwater Harvesting in Colorado and the Quandary of a Taking*, 4 TEX. A&M J. PROP. L. 165, 169 (2018).

116. *See Kobobel v. State, Dep’t. of Nat. Res.*, 249 P.3d 1127, 1139 (Colo. 2011); *see also* James H. Davenport & Craig Bell, *Governmental Interference with the Use of Water: When Do Unconstitutional “Takings” Occur?*, 9 U. DENV. WATER L. REV. 1, 32–33 (2005).

117. *See* Carlton, *supra* note 109, at 424; Davenport & Bell, *supra* note 116, at 16.

118. *Davis v. Agua Sierra Res., L.L.C.*, 203 P.3d 506, 508 (Ariz. 2009).

119. ARIZ. REV. STAT. ANN. § 45-141(A) (2019). Groundwater, under Arizona law, is defined as “water under the surface of the earth regardless of the geologic structure in which it is standing or moving . . . [and] does not include water flowing in underground streams with ascertainable beds and banks. *Id.* § 45-101(5).

120. There is need for an analysis on groundwater takings claims in response to an emergency, particularly focused on aquifer groundwater and groundwater stored in private wells. As more of the effects of climate change are felt, it is likely that governmental actors will also look to private groundwater sources to help combat wildfires.

B. Controversy Over Interbasin Transfers

A foundational aspect of the prior appropriation regime is that appropriation does not require geographic proximity to the water, and thus water resources are able to be transported long distances to the places where they are needed most.¹²¹ This idea dates back to the nineteenth-century California gold rush where the California Supreme Court held that the right to move water long distances was supported by a “universal sense of necessity and propriety.”¹²² Because of the necessity of water in more arid western states, water users can voluntarily transport water out of the basin the water resides in and move it to another basin—a process known as an interbasin transfer.¹²³ Over time, voluntary interbasin transfers have remained in use but have become controversial due to economic and environmental concerns over the relocation of water resources from where they are naturally found.¹²⁴

Interbasin water transfers are also strongly criticized by proponents of localism—the idea that local or state governments should handle water policy decisions and promote the use of water where it physically is, rather than transferring it to other locations.¹²⁵ These critics argue that the central issue with interbasin water transfers is permanency; once the water is taken out of the basin it resides in, it is 100% consumed.¹²⁶ The transferred water is never going to return to its original basin, and the overall supply of water in that basin is permanently reduced because the transferred water will now evaporate and precipitate in the new basin.¹²⁷ Critics also argue that interbasin water transfers particularly hurt rural communities, as rural farms rely heavily on water supply and any reduction in that supply invariably means fewer crops and less cash flow into the local economy.¹²⁸

Proponents of interbasin water transfers argue that many benefits to these transfers make them a useful tool for economic development and adaptation to climate change.¹²⁹ Interbasin water transfers increase the market for water and associated water rights, leading to increased economic productivity

121. Jesse Reiblich & Christine A. Klein, *Climate Change and Water Transfers*, 41 PEPP. L. REV. 439, 454 (2014); *see, e.g., In re Hood River*, 227 P. 1065, 1092 (Or. 1924).

122. *Irwin v. Phillips*, 5 Cal. 140, 146–47 (1855).

123. Schroeder & Woodcock, *supra* note 1.

124. Reiblich & Klein, *supra* note 121, at 442. Appendix II of the article includes a state by state breakdown of interstate water transfer laws for all fifty U.S. states. *Id.* at 478.

125. *Id.* at 465–66.

126. *Id.* at 466.

127. *See id.*

128. W. GOVERNORS’ ASS’N & W. STATES WATER COUNCIL, WATER TRANSFERS IN THE WEST 23–24 (2012).

129. *Id.* at 10–12.

around growing urban centers in western United States cities.¹³⁰ Proponents argue that interbasin transfers can supply a greater amount of water to urban cities, which results in more people moving to those locations and leads to greater economic production.¹³¹ Proponents also argue that interbasin water transfers are useful for maintaining fish and wildlife habitats whose natural water supplies may have been reduced due to the effects of climate change.¹³² Finally, proponents argue that rural communities can also benefit from interbasin water transfers, as these transfers can provide additional water supplies that increase the growth and diversity of crops.¹³³

C. *Wildfire Origination and Firefighting Techniques*

As the effects of climate change are increasingly felt by society, wildfires are predicted to escalate in both frequency and severity.¹³⁴ Fire seasons will get longer, forests will be more susceptible to disease infestation, and moisture loss will increase.¹³⁵ These climate change effects will also increase the availability of fuel in forests, thus adding to one of the elements of a fire.¹³⁶ To start a fire, the three elements of fuel, heat, and oxygen must combine.¹³⁷ In the outdoors, fuel is abundant as trees or underbrush are excellent fodder for fire, and this will only increase as more trees die from infestation or moisture loss.¹³⁸ Heat, meanwhile, is commonly provided by frequent natural conditions like lightning strikes or from human activities such as an out-of-control campfire or shooting off fireworks.¹³⁹

Government agencies such as the National Park Service (“NPS”) manage forest growth and prevent wildfires by setting prescribed fires.¹⁴⁰ A prescribed fire is defined by the NPS as a “planned fire intentionally ignited by park managers to meet management objectives.”¹⁴¹ Prescribed fires are used to burn up any hazardous loads of potential fire fuel that are located near

130. *Id.* at 10.

131. *See id.*

132. *Id.* at 11.

133. *See id.*

134. Pidot, *supra* note 5, at 702–03.

135. *Id.* at 702.

136. *Id.* at 703.

137. Karen M. Bradshaw, *A Modern Overview of Wildfire Law*, 21 *FORDHAM ENVTL. L. REV.* 445, 448 (2010).

138. *Id.* at 448–49.

139. *Id.* at 449.

140. *Wildfires, Prescribed Fires, and Fuels*, NAT’L PARK SERV., <https://www.nps.gov/orgs/1965/wildfires-prescribed-fires-fuels.htm> (last updated July 18, 2016) [<https://perma.cc/A45T-ET54>].

141. *Id.*

developed areas and to restore and maintain natural or cultural landscapes.¹⁴² NPS's use of prescribed fires can be dangerous, however, as these fires have been known to grow beyond firefighters' control.¹⁴³ A wildfire therefore is commonly defined by NPS as an "unplanned fire caused by lightning or other natural causes, by accidental (or arson-caused) human ignitions, or by an escaped prescribed fire."¹⁴⁴

When responding to and attempting to suppress a wildfire, firefighters generally use three techniques: (1) dropping chemical fire retardant onto the ground to slow the fire's advance;¹⁴⁵ (2) dropping water onto the flames;¹⁴⁶ and (3) intentionally lighting another fire to control the wildfire's progress, a process called backfire.¹⁴⁷ Firefighters drop fire retardant onto the forest floor in front of the advancing wildfire to deprive the fire of potential fuels of oxygen and to slow combustion.¹⁴⁸ Alternatively, they may drop water directly onto the flames to halt the fire's advance.¹⁴⁹

Common sense, and prevalent use in news and movies, may suggest that dropping either fire retardant or water from airplanes and helicopters is an effective and necessary way to fight wildfires.¹⁵⁰ Critics however argue that these techniques are not an effective way to battle most fires and their use leads to higher costs of fighting wildfires.¹⁵¹ In 2008, the *Los Angeles Times* published an exposition on intentional waste of resources by governmental firefighting agencies.¹⁵² It described how elected officials pressure firefighters into using airplane and helicopter drops because it makes for "good television."¹⁵³ "They're a highly visible way for political leaders to show they're doing everything possible to quell a wildfire"¹⁵⁴

142. *Id.*

143. See Laura Krantz, *When Prescribed Burns Go Wrong*, OUTSIDE (June 12, 2015), <https://www.outsideonline.com/1988971/playing-fire-feud-grows> [https://perma.cc/PH6F-S85Y].

144. *Wildfires, Prescribed Fires, and Fuels*, *supra* note 140.

145. Jonathan Romeo, *Fire Retardant Used on Wildfires Evolves to Ease Environmental Impact*, DURANGO HERALD (July 5, 2018), <https://durangoherald.com/articles/230373> [https://perma.cc/46E3-T5UA].

146. Karen M. Bradshaw, *Backfired! Distorted Incentives in Wildfire Suppression Techniques*, 31 UTAH ENVTL. L. REV. 155, 158 (2011).

147. *Id.* at 159.

148. Romeo, *supra* note 145.

149. See Julie Cart & Bettina Boxall, *Air Tanker Drops in Wildfires Are Often Just for Show*, L.A. TIMES (July 29, 2008), <http://www.latimes.com/local/la-me-wildfires29-2008jul29-story.html> [https://perma.cc/5MHR-D8K9].

150. *Id.*

151. *Id.*

152. *Id.*

153. *Id.*

154. *Id.*

Firefighters have even referred to helicopter and airplane use in wildfire fighting as “CNN drops.”¹⁵⁵

The process of backfire, comparatively, is an on-the-ground technique used by firefighters to intentionally deplete fuel in the path of the fire.¹⁵⁶ Backfire is frequently used because it is the lowest-cost alternative compared to fire retardant or dropping water.¹⁵⁷ Because backfire is so often used, this technique is the basis of many wildfire takings claims, including those described previously in *Brewer v. State* and *TrinCo Investment Co. v. United States*.¹⁵⁸ The problem with the backfire technique is that it is very risky and can impose enormous fiscal and environmental losses if the backfire grows out of firefighters’ control.¹⁵⁹ Therefore, to provide the best chance of saving lives and property while causing the least amount of loss, firefighters are likely to use all three techniques—fire retardant, dropping water, and backfires—when battling wildfires.¹⁶⁰

D. Wildfires in a Changing Climate

Finally, to account for the likely increase in takings claims that will occur because of climate change, it is important to understand the full implications that climate change will have on wildfires.¹⁶¹ As the climate has changed and gotten hotter, the number of wildfires and their associated costs have increased.¹⁶² Statistics show that Department of the Interior agencies spent more than \$2.9 billion in 2017 combating fires, more than twelve times what was spent on suppression efforts in 1985.¹⁶³ Further increasing the cost is the fact that fire season is now year-round and occurring in more locations.¹⁶⁴ Thus, more homes are at risk of wildfire and existing suppression supplies are used up at a rapid pace.¹⁶⁵

155. *Id.*

156. Bradshaw, *supra* note 146, at 159.

157. *Id.* at 160.

158. *See* discussion, *supra* Part II.C.

159. Bradshaw, *supra* note 146, at 159.

160. *See id.* at 158.

161. *See* A. Dan Tarlock, *Takings, Water Rights, and Climate Change*, 36 VT. L. REV. 731, 732 (2012).

162. Gabrielle Levy, *Wildfires are Getting Worse, and More Costly, Every Year*, U.S. NEWS & WORLD REP. (Aug. 1, 2018), <https://www.usnews.com/news/data-mine/articles/2018-08-01/wildfires-are-getting-worse-and-more-costly-every-year> [<https://perma.cc/L5ML-EUQP>]; *see also* Kormann, *supra* note 4.

163. Levy, *supra* note 162.

164. *Id.*

165. *See id.*

Climate change has also begun to affect both the amount of land that is considered vulnerable to fire as well as the number of regions of the U.S. that are fire prone.¹⁶⁶ Estimates from the Proceedings of the National Academy of Sciences¹⁶⁷ have established that since the 1980's, the amount of fire-arable land has doubled in the United States.¹⁶⁸ Additionally, according to the most recent National Climate Assessment, the annual area of land burned in the western U.S. could increase two to six times from the current rate by 2050.¹⁶⁹ The National Climate Assessment also reports that in the southeastern region of the United States, the annual area burned by wildfires is expected to increase by at least thirty percent by 2060.¹⁷⁰ Overlaying all of this is the fact that increases in the number of wildfires are likely to cause a feedback loop of climate change; as wildfires release more carbon into the atmosphere, together with the fact that grasses and forests are emitting more carbon than they take in, the planet will warm faster, which will in turn lead to more wildfires occurring.¹⁷¹

Due to the increasing likelihood of these climate change effects, scholars have begun to suggest that the emergency takings doctrine should be modified to impose a categorical limit to wildfire takings liability.¹⁷² This proposed restriction would hold that compensation, as a rule, will not be awarded under the Takings Clause when wildfires occur in fire-prone wildlands.¹⁷³ “Those choosing to develop within wildfire-prone wildlands do not have a reasonable expectation that wildfire will not visit their property, and without such a reasonable expectation, taking claims should fail.”¹⁷⁴

The U.S. Supreme Court may be open to this idea. In *Arkansas Game & Fish Commission v. United States*, the Court held that an issue of fact existed as to whether a taking occurred when the Army Corps of Engineers'

166. Kendra Pierre-Louis & Nadja Popovich, *Climate Change is Fueling Wildfires Nationwide, New Report Warns*, N.Y. TIMES (Nov. 27, 2018), <https://www.nytimes.com/interactive/2018/11/27/climate/wildfire-global-warming.html> [<https://perma.cc/R4Y4L-Z7SF>].

167. The Proceedings of the National Academy of Sciences is the official scientific journal of the National Academy of Sciences. *About PNAS*, PROCEEDINGS NAT'L ACAD. SCIS. U.S., <https://www.pnas.org/page/about> [<https://perma.cc/6PQP-D5YD>].

168. John T. Abatzogolou & A. Park Williams, *Impact of Anthropogenic Climate Change on Wildfire Across Western US Forests*, 113 PNAS 11770, 11770 (2016) (found at <https://doi.org/10.1073/pnas.1607171113> [<https://perma.cc/SJ7R-97LJ>]).

169. U.S. GLOBAL CHANGE RESEARCH PROGRAM, FOURTH NATIONAL CLIMATE ASSESSMENT 241 (2018).

170. *Id.* at 239.

171. Pierre-Louis & Popovich, *supra* note 166.

172. Pidot, *supra* note 5, at 717–20.

173. *Id.* at 717.

174. *Id.* at 718.

management of a dam led to flooding of the petitioner's land.¹⁷⁵ The Court explained that the property at issue had not "been exposed to flooding comparable to . . . any other time span either prior to or after the construction of the Dam."¹⁷⁶ This statement suggests that had the property historically been subject to flooding, the Court may not have held that a taking occurred as the owner of the property would have had a reasonable expectation that the land would flood again.¹⁷⁷ Increases in the number of takings claims in response to wildfires could call for policymakers and courts to institute a similar policy to ensure that governments are able to financially function.¹⁷⁸

IV. ANALYSIS

The scenario described in the Introduction,¹⁷⁹ where the government seized privately owned water in response to a wildfire, has not yet arisen. Yet, as publicly owned wildfire fighting resources are continually consumed due to climate change, the chance of a governmental actor taking privately owned water increases. Depending on the specific facts of the scenario, the law should respond in one of two ways: either finding that the action was a taking of a private resource that requires just compensation, or, due to the emergency takings doctrine, the governmental actor is not liable for seizing the water resources and therefore no compensation is owed. Part A analyzes how courts should rule if privately owned water was seized by governmental actors to fight a nearby wildfire in the same basin; for example, what happened to the water owned by Doc in the Introduction hypothetical. Part B, comparatively, discusses how courts should rule if governmental actors seized privately owned water to fight a wildfire in a different basin; for example, if firefighters took Doc's water and flew far away to fight a wildfire out of the basin.

175. 568 U.S. 23, 26–27 (2012).

176. *Id.* at 39.

177. Pidot, *supra* note 5, at 718.

178. *Id.* at 719. California Governor Gavin Newsom has recently proposed a preliminary policy that incorporates elements of this idea. Governor Newsom proposed that a \$21 billion fund be financed by utility companies and ratepayers to create a pool of money that could be used to help settle claims arising from wildfire disasters. Ivan Penn & Peter Eavis, *California Wildfire Fund Would Put Aside \$21 Billion for Damage Claims*, N.Y. TIMES (June 21, 2019), <https://www.nytimes.com/2019/06/21/business/energy-environment/newsom-california-wildfire-utilities.html> [<https://perma.cc/28NE-NZG7>].

179. *See* discussion, *supra* Part I.

A. Wildfire in the Water Owner's Basin

Courts should not consider a governmental action that takes privately owned water to fight a nearby wildfire in the same basin as a compensable taking because of the emergency takings doctrine. The fundamental analysis of a taking, in an emergency, is whether or not there was “an imminent danger and an actual emergency giving rise to actual necessity.”¹⁸⁰ Because a court would be conducting a fact-specific analysis of the taking, it is likely to focus on the proximity of the wildfire to the private water source that was invaded. As demonstrated in the *TrinCo* and *Brewer* cases, firefighters are going to take more drastic actions as the fire gets closer to human habitats like a city.¹⁸¹ Water, even if privately owned, is a valuable tool for stopping the progression of a wildfire. As such, courts should determine that any governmental action to take privately owned water, in light of the imminent danger and actual emergency of a nearby wildfire, is a taking with a valid public use that does not require compensation under the emergency takings doctrine.

In this scenario, a court may also come to a similar conclusion by reasoning that the government did not take away the private owner's water rights; instead it only took the water itself. Similar to the dissent from *Casitas Municipal Water District v. United States*,¹⁸² a court could reason that the government did not seize the owners' water rights. Rather, the government only physically took the water molecules themselves, in response to the wildfire emergency, and the water will be replaced in the next rainstorm or in the following year's appropriation. This reasoning would incorporate the clarification of the *Lucas* standard that the taking of water would not be a “complete elimination of value” as the owner's water right would still exist. Thus, as fighting a wildfire would necessarily constitute a valid public use under both the traditional and emergency takings doctrines, a court could reason that liability cannot be imposed.

There are, however, effective counterarguments that property owners could make against the seizure of privately owned water being held as a valid emergency taking. Perhaps the most persuasive counterargument is that dropping water onto or in the path of a wildfire is not the most efficient or effective way to fight a wildfire.¹⁸³ Water can only be dropped by firefighters once and stopping the wildfire in one location may not prevent the spread of the wildfire in other locations. There are other techniques that firefighters can and should use instead of dropping water; namely, placing fire retardant in

180. *TrinCo Inv. Co. v. United States*, 722 F.3d 1375, 1378 (Fed. Cir. 2013); *Brewer v. State*, 341 P.3d 1107, 1115 (Alaska 2014).

181. *TrinCo Inv. Co.*, 722 F.3d at 1376–77; *Brewer*, 341 P.3d at 1109–10.

182. See discussion, *supra* Part II.A.

183. See discussion, *supra* Part III.C.

the path of the fire and lighting backfires to burn out the progression of the fire.

Arguments against seizing and dropping a privately owned water supply also may incorporate the political pressures that firefighters face in an emergency scenario. What if privately owned water was only seized by firefighters because a politician ordered them to do so, so that the politician appeared to the public to be doing everything in his or her power to prevent damage from the wildfire? The private water owner would argue that a “CNN drop” is not a valid public use, even under the expansive definition provided by *Kelo*.¹⁸⁴

Despite the rationale of these arguments, a court should find that a governmental actor’s taking of privately owned water to fight an “imminent danger,” such as a nearby wildfire in the same basin, does not impose liability. The court in *Brewer* stated a very succinct and clear message that it is “accepted wisdom that fighting wildfires, even on private property, is of benefit to the public as a whole.”¹⁸⁵ In an imminent emergency scenario, courts should not want to second guess a governmental action taken to protect the public welfare because in the future, any hesitation due to potential liability concerns may mean the difference between life and death.

B. *Wildfire Outside the Water Owner’s Basin*

If governmental actors seize privately owned water from one water basin and take it to fight a wildfire in another basin, courts should undoubtedly conclude that a taking occurred and that just compensation is owed. As discussed previously, taking water out of a basin is very controversial due to the permanence of the action.¹⁸⁶ The water moved by firefighters will evaporate and precipitate in the new water basin and will not return to its original location. Thus, the overall amount of water in the original basin is permanently reduced and all appropriators in that basin system must now contend for less overall water.

Courts will likely analyze and compare a governmental taking of water for use in an emergency situation in another water basin to the scenario described in *Lucas v. South Carolina Coastal Council*.¹⁸⁷ In that case, the U.S. Supreme Court found that a taking occurred when there was a complete elimination of

184. See discussion, *supra* Part II.D.

185. *Brewer*, 341 P.3d at 1112.

186. See discussion, *supra* Part III.B.

187. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1015 (1992); see discussion, *supra* Part II.A.

value.¹⁸⁸ Here, a court should conclude that a complete elimination of value occurred as the water supply from the original basin system is no longer able to be used by other appropriators in the system. Like in *Lucas*, the governmental action eliminates all value and courts should adopt this standard for all interbasin transfers of water under an emergency takings scenario.

Additionally, a court could determine that there is no “imminent danger and an actual emergency giving rise to actual necessity,”¹⁸⁹ and thus, the emergency takings doctrine is not implicated. A wildfire could occur in another far-away part of the state, or in a neighboring state. But the fact that a wildfire is occurring somewhere else does not mean that there is any imminent danger to the owner of the taken water. Courts analyze emergency takings claims on a fact-specific basis of the necessity judged at the time the taking occurs.¹⁹⁰ In this scenario, there was no imminent danger to the owner of the water when the water was taken, as the wildfire was nowhere near his land. Therefore, a court should hold that a taking occurred and just compensation is owed. Similarly, firefighters had sufficient time to conduct other wildfire fighting techniques, such as fire retardant and backfire, before seizing the private property of a citizen.

Finally, while a calculation of just compensation is highly fact-specific, there is benefit to a discussion of what calculation standard a court may use to award compensation in such a scenario. As discussed above, the U.S. Supreme Court has held that an owner in a non-emergency taking is made whole by payment of fair market value price for the taken property.¹⁹¹ In an emergency, however, the calculation is modified by courts to account for the higher in-emergency price.¹⁹² A court determining just compensation in this scenario should hold that only the fair-market value of the water supply is to be paid. The same principle that determined that no emergency necessitated the seizure of the water should also determine that the water owner shall not profit from compensation set at a higher in-emergency price. This issue may also be examined under the non-compensation principle, as courts could find that while the government confiscated and used the water supply, the overall water right of the owner was not impacted or destroyed by the seizure. Thus, there is not complete destruction of the private owner’s property and the non-compensation principle does not extinguish the compensation owed to the water owner.

188. *Lucas*, 505 U.S. at 1019.

189. *TrinCo Inv. Co. v. United States*, 722 F.3d 1375, 1378 (Fed. Cir. 2013).

190. *Brewer*, 341 P.3d at 1118.

191. See discussion, *supra* Part II.E.

192. See *id.*

In conclusion, while the common law has foundationally approved of interbasin transfers of water,¹⁹³ a court should hold that a taking occurred when the seizure and transport of water was predicated on an emergency in another water basin. A taking of privately owned water, in a non-imminent scenario, does not constitute a valid public use, nor is liability dismissed by the emergency takings doctrine.¹⁹⁴

V. CONCLUSION

In a world increasingly impacted by climate change, it is widely understood that wildfires will only increase in severity and frequency. When the scenario proposed in this Comment arises or is litigated, political and economic pressures, along with the need for more firefighting resources, are likely to require a long-term solution. When that happens, the emergency takings doctrine, despite its infancy in use in natural disaster response litigation, is sure to be a cornerstone argument against the imposition of liability.

193. *See, e.g.,* *Irwin v. Phillips*, 5 Cal. 140, 146–47 (1855).

194. If the amount of taking claims due to natural disasters such as wildfires becomes too overwhelming for courts and governments to handle, the U.S. Supreme Court could institute a universal rule of no-liability. As this possibility is fairly attenuated at this point in time, this Comment does not address the after-effects of implementation of such a rule. However, this is always a possible action that the Court could take to preserve state and federal financial stability.