NOTES

A River Used to Run Through It: Protecting the Public Right to a Sustainable Water System

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ABSTRACT

There is no way around it—we use too much water. As population growth and climate change continue on their collision course, the prospect of a catastrophic water crisis looms large on the horizon, especially in the United States. Here, half of the country still abides by a prior appropriation system that has been an ineffective way to manage the shortages caused by inadequate management, sky-high demand, and drought. Some have attempted to remedy this system by leveraging the public trust doctrine, a mostly fruitless approach thus far.

This Article argues that a better solution might be the use of the public nuisance doctrine, a well-established property doctrine that draws on limits inherent to all property rights (and especially to the curious category of water rights). A successful public nuisance claim would also establish a public right to a sustainable water system, and this Article explores the contours of such a right, drawing on existing precedent on wetlands and floodplains as a model. Finally, this Article addresses potential takings claims and arguments that public nuisance and prior appropriation are incompatible. Ultimately, it concludes that recognizing the public's right to a sustainable water system—and protecting that right through the enforcement of public nuisance claims—upholds the principles of sustainability, equity, and justice that prior appropriation originally sought to promote and protect.

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INTRODUCTION

Traditional tribal fishing areas without fish.[1] Thousands of jobs evaporating into dry desert air.[2] Cities losing access to water for basic municipal functions.[3] States embroiled in bitter lawsuits over disappearing rivers.[4] Yesterday's fever dreams of post-apocalyptic dystopia are rapidly becoming today's reality—and glimpses of tomorrow's global crisis.[5] Water shortages, exacerbated by climate change and drought, are no longer a hypothetical fear. This new reality is arriving especially quickly in the American West, where natural aridity has collided with spectacular human ambition.[6] Droughts and water shortages are happening now and show no sign of going away.[7]

Such terrible events should be met with action and innovation. When a deadly bout of smog in 1948 killed twenty residents of Donora, Pennsylvania and saddled thousands of others with lasting health effects, the government responded by convening a national air pollution conference in 1950 and (after more deadly smog events elsewhere) eventually passed the Clean Air Act in 1963.[8] Similarly, in the 1950s and '60s, as increasingly polluted rivers began catching fire, one particularly notable fire on the Cuyahoga River merged with political will and savvy to precipitate the Clean Water Act.[9] But even allowing for the decades it can take to bring about meaningful change, individuals and governments alike have failed to respond adequately to our impending water crisis.[10] Worse, they have actively contributed to the problem with flawed decision-making and stubborn, bad habits.[11]

Compounding this crisis is a rigid legal system that seems frozen in time and constrains any attempt to bring water usage back to sustainable levels. The prior

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1. *See* Gordan Gregory, *Re-watering Nevada's Dying Walker Lake*, HIGH COUNTRY NEWS (Aug. 10, 2011), https://perma.cc/ML4R-PJEE.

2. *See* Sena Christian, *How One California Farmer is Battling the Worst Drought in 1,200 Years*, ENSIA (Mar. 26, 2015), https://perma.cc/672X-X2S8.

3. *See* Mychel Matthews, *Water Curtailment or None, Groundwater Users Adjust to Unpredictable Supplies*, TIMES-NEWS (Jun. 25, 2019), https://perma.cc/EY3A-PNLN.

4. *See* Paige Blankenbuehler, *How Best to Share the Disappearing Colorado River*, HIGH COUNTRY NEWS (Dec. 20, 2018), https://perma.cc/G6JJ-72KE.

5. *See generally* Fiona Harvey, *Water Shortages to be Key Environmental Challenge of the Century, NASA Warns*, THE GUARDIAN (May 16, 2018), https://perma.cc/DM4R-YRAD.

6. *See* Sam Metz, *Water Shortages in Western United States More Likely Than Previously Thought*, DENVER POST (Sept. 16, 2020), https://perma.cc/3S3N-4WU5; Delaney Snaadt, *Water Crisis in the West*, ARCGIS STORYMAPS (Sept. 27, 2019), https://storymaps.arcgis.com/stories/7dcc24f933a04e9e972b36914a9c66b7/print.

7. *See* Kasha Patel, *Drought Persists in the U.S. Southwest*, EARTH OBSERVATORY (last visited Oct. 18, 2021), https://perma.cc/3WY3-GQ2S; Luke Runyon, *Dry and Getting Drier: Water Scarcity in Southwest is the New Norm, Study Says*, CRONKITE NEWS (Nov. 29, 2018), https://perma.cc/6KS5-HSXM.

8. *See* Lorraine Boissoneault, *The Deadly Donora Smog of 1948 Spurred Environmental Protection—But Have We Forgotten the Lesson?*, SMITHSONIAN MAG. (Oct. 26, 2018), https://perma.cc/3GM7-3XSG.

9. Although the Cuyahoga River fire in 1969 captured the national imagination and is sometimes credited with triggering the CWA's passage, historians have noted since that the fire was widely misreported at the time and perhaps only gained notoriety because of preexisting environmental movements. *See generally The Myth of the Cuyahoga River Fire*, SCI. HIST. INST. (May 28, 2019), https://perma.cc/3BH3-LKH2.

10. *See, e.g.*, Abrahm Lustgarten, *How Much Water Does the West Really Have?*, PROPUBLICA (July 17, 2015), https://perma.cc/JC9C-2NGW.

11. *See, e.g.,* Philip Kiefer, *The West's Water Shortage is Fueled by Human Error*, OUTSIDE (Nov. 11, 2019), https://perma.cc/TPA3-7WZ5.

appropriation system, seemingly as precious to the West as the water itself, allocates continuing rights to water that no longer exists. For the system's senior users, it guarantees a full withdrawal of water regardless of the consequences, enshrining that right such that states seemingly cannot disturb it without violating the Constitution itself. Demand for water grows even as supply visibly shrinks. The resulting tension is significant, both for the users that must live in such an unpredictable and unpleasant reality and for the legal system that is typically tasked with helping to deliver us from such unreasonable outcomes.

One of many such crises is happening at Nevada's Walker Lake. Once a driver of local business and recreation,[12] the lake's water levels depend mostly on incoming snowmelt from the Sierra Nevada Mountains.[13] With nearby industry monopolizing the use of that water, the lake itself has physically and biologically shrunk to a shadow of its former self, a decline that has been the subject of much coverage and consternation.[14] Attempts to divvy up the area's limited water resources date back well over a century,[15] but one decades-long effort to protect the lake hit a roadblock in the summer of 2020 With the Nevada Supreme Court's *Mineral County* decision.[16]

FIGURE 1: Photo of Walter Lake With Sign Indicating the Reduced Water Level Since 1908.[17]

12. *See, e.g.*, Pam Wright, *Nevada's Fourth-Largest Lake is Vanishing*, THE WEATHER CHANNEL (Apr. 5, 2018), https://perma.cc/EQH2-YP7X.

13. *Id.*

14. *Id.*; Gregory, *supra* note 1; Mark Cheater, *Dry Times at Walker Lake*, NAT'L WILDLIFE FED'N (Oct. 1, 2002), https://perma.cc/XY94-KE6T.

15. *See* Mineral Cnty. v. Lyon Cnty., 473 P.3d 418, 422 (Nev. 2020).

16. *See generally id.*

17. Raquel Baranow, Walker Lake, Nevada with sign in lower-right showing lake elevation in 1908 (photograph), Wikimedia Commons (Sept. 3, 2013), https://perma.cc/PC86-RXLD.

In *Mineral County*, the titular county and other parties sought to secure water rights sufficient to maintain Walter Lake's health and the county's economy. This claim relied on the public trust doctrine, which charges the state with maintaining shared water resources. According to the majority, saving the lake would inevitably require existing upstream users to receive less river water than they were entitled to under Nevada's existing system of water allocation. Given that the lake's water usage was determined by a federal consent decree, Mineral County's request to intervene initially moved through the federal courts. Upon inquiring into state law, the Ninth Circuit found important and unresolved questions of state law.[18] The *Mineral County* Court was thus faced with two questions, certified from the Ninth Circuit: (1) whether previously appropriated rights could be reallocated under the public trust doctrine, and (2) whether such reallocation might give rise to a taking under the state constitution.[19]

After weighing the public trust doctrine against the state's prior appropriation system for water right allocation, the court answered the first question in the negative and accordingly declined to reach the second. Ultimately, although its opinion "recognize[d] the tragic decline of Walker Lake" and expressed sympathy for "the plight of Walker Lake and the resulting negative impacts on the wildlife, resources, and economy in Mineral County," the majority felt unable and unwilling to "uproot an entire water system" via the public trust doctrine.[20]

Although the Walker Lake dispute continues at the federal level, the *Mineral County* decision reflects three broader aspects of western water law. First, it illustrates the enduring power of prior appropriation rights, even in a statutory regime and administrative law context (and despite commentary suggesting that the doctrine has considerably weakened in strength over the years[21]). Second, it unearths the common law roots of water rights, and thus the continuing role of courts in shaping them. And finally, it confirms something scholars have long suspected[22]—that courts may not be interested in fully utilizing the public trust doctrine, once the darling of hopeful environmentalists.

Walker Lake is a unique natural resource: it is one of only three "desert terminus lakes" in the western United States with a fishery.[23] However, its uncertain future also matters because its story is not ultimately that unusual. Water is a scarce resource in the western United States, and the existing legal framework for apportioning water has failed to do so in a sustainable way. Continuing down the

18. *See* Mineral Cnty. v. Walker River Irrigation Dist., 900 F.3d 1027, 1034 (9th Cir. 2018).

19. *See id.*

20. *See Mineral County*, 473 P.3d at 430.

21. *See, e.g.*, Reed D. Benson, *Alive but Irrelevant: The Prior Appropriation Doctrine in Today's Western Water Law*, 83 UNIV. COLO. L. REV. 675, 678 (2012).

22. *See, e.g.*, Dave Owen, *The Mono Lake Case, the Public Trust Doctrine, and the Administrative State*, 45 U.C.D.L. REV. 1099, 1104–05 (2012).

23. *See* Michael W. Collopy & James M. Thomas, *Restoration of a Desert Lake in an Agriculturally Dominated Watershed: The Walker Lake Basin* (Apr. 2010), https://perma.cc/2MPF-B28W (report prepared by Walker Basin Project).

path that we are on risks a future in which no one has water at all. When we acknowledge this reality, the framing of the issues in *Mineral County* is off-center. The *Mineral County* parties asked the court to find that the public trust doctrine could be used to curtail prior appropriation rights, thus raising a takings question. In considering this question, neither the parties nor the court addressed the issue of whether prior appropriation rights were self-limiting.

This is an important question because, as this Article argues, prior appropriation rights are subject to the same inherent limits as all other private property rights. These limits are built into the right itself and can also be derived from the application of core common law doctrines, like nuisance law. These doctrines, even if they are seen as imposing limits on property rights, can overcome resulting takings claims. The *Mineral County* court saw an opportunity for action. It had solid doctrinal ground from which to invoke the public trust doctrine; but even if its decision not to was wise, the inherent limits on property rights still apply to the prior appropriation rights at issue in this case and others.

This Article argues that future litigation over contested sources of water should recognize these inherent limits, which derive from the very idea of property and are expressed through well-established doctrines like public nuisance law. These claims, unlike the claims in *Mineral County,* do not lead to takings and more clearly establish the public's right to a sustainable water system. Part I of this Article describes the prior appropriation system that currently structures water law in the western United States, as well as its enduring limits and shortcomings. Part II discusses the water right more generally, emphasizing its inherent limits and susceptibility to judicial adjustment. Part III traces the public trust doctrine's meteoric rise and subsequent stalling. Part IV of this Article argues for the existence of a public right to a sustainable water system and addresses arguments against its application. Part IV then suggests that public nuisance can play a role in moving toward a sustainable prior appropriation system. Part V of this Article briefly notes that this approach would not undermine the principles of finality that are central to modern water law.

I. THE LEGAL FRAMEWORK FOR WATER RIGHTS

Water rights, like those at issue in *Mineral County*, are oftentimes long-established, and tracing their history reveals some of the more unusual qualities of water rights. This Part is bookended by discussion of the two legal tools invoked in *Mineral County*: the prior appropriation system and the public trust doctrine. Both have common law origins that reflect the ways courts have defined water rights in response to the relationship between water and human well-being. This Part's middle section examines the inherent limits on water rights that helped to drive those water law developments—limits that should be recentered as we enter a new age of water management.

A. THE PRIOR APPROPRIATION SYSTEM (AND ITS LIMITS)

Prior appropriation is the bedrock of western water law. Roughly speaking, the doctrine boils down to two concepts: "First in time, first in right," and "use it or lose it."[24] Under this system, the first—"senior"—users to lay claim to a water right have priority over later—"junior"—users. Junior users may then have their right curtailed or completely extinguished to protect the ability of senior users to make full withdrawals. Although users do not have physical ownership of any water, they do have a "usufructuary" property right (a right to benefit from the use of another's property) in the water's use. Notably, the size of a water right depends on the amount of water that is diverted and put to "beneficial use." Failure to exercise the entirety of a water right jeopardizes the continuing validity of that right, which incentivizes users to continuously extract the maximum amount of water to which they are entitled. Commentators have pointed out that this arrangement inevitably "promotes a race to use as much as possible as soon as possible."[25]

There have been attempts to modernize and update the prior appropriation system. In some states, advocates have successfully pushed to ensure minimum in-stream flows and prevent total de-watering of streams.[26] There have also been attempts to recognize a "public interest" factor in the granting of water rights.[27] Finally, there has long been an understanding that prior appropriation rights do not include the right to waste water, and some have sought better enforcement of that aspect of the doctrine.

Unfortunately, this "stitching and fitting"[28] has proven largely inadequate for adapting the doctrine to modern needs.[29] State courts have cautiously upheld these tools but signaled less-than-full enthusiasm about the idea that in-stream flows and other environmental considerations are *per se* beneficial or in the public interest.[30] In fact, undefined commitments to public interest could just as well serve as the basis for more intensive water withdrawals.[31] Likewise, a lack of definition around what constitutes "waste" means that enforcing rules against it

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24. GEORGE C. COGGINS ET AL., FEDERAL PUBLIC LAND AND RESOURCES LAW 428 (7th ed. 2014).

25. Robert Haskell Abrams, *Prior Appropriation and the Commons*, 37 UCLA J. ENV'T L. & POL'Y 141, 152 (2019).

26. *Id*. at 160.

27. *Id*. at 162.

28. *Id*. at 161, 165.

29. *Id*. at 143 ("[T]he checks included in the prior appropriation system have failed to do their job."). *See also* Jacqueline Carlton, *Drought by Fifth Amendment: Debunking Water Rights as Real Property Comments*, 31 BYU J. PUB. L. 409, 422 (2017) ("The current view of state courts is that there are inherent limitations of the prior appropriation doctrine – beneficial usage and priority . . . Yet, courts have been able to adapt to the changing conditions of water supply and demand in light of drought conditions and growing populations.").

30. Abrams, *supra* note 25, at 161.

31. *Id*. at 165 ("In a drier and more drought-prone West, balancing the public interest factors might auger for more, rather than less, dewatering.").

requires a burdensome, case-by-case analysis.[32] Most notably, the first two tools—in-stream flows and public interest considerations—apply only to the granting of new water rights. Prior appropriation rights that existed before these developments are vested rights that, theoretically, cannot be modified.[33]

Thus, the prior appropriation system remains unable to effectively manage and allocate water.[34] Under the current system, exercise of prior appropriation rights can, and often inevitably does, harm other owners and, by threatening the long-term sustainability of the threatened water system, endangers the public at large. Over-allocation of watersheds is common, leading to dry streams or frequent curtailments.[35] Droughts push these limits even further, and the prospect of more severe droughts brought on by climate change has led to concern that the West is on the cusp of a catastrophic water crisis. The "first in time" element of the doctrine also tilts the scale in favor of established corporate water users.[36] Given the barriers to entry for smaller, newer entrants, curtailments on the rights of junior users have the potential to disproportionately impact the vulnerable, whose access is limited by their own resources and the overall shortage of water.

However, the nature of prior appropriation rights makes rethinking water usage difficult even for the boards, courts, and agencies that legislatures created to adjudicate water rights. Currently, prior appropriation rights established before the codification of permitting systems are essentially untouchable, making it difficult to respond to changing conditions on the ground. Attempts to alter water rights often lead to litigation,[37] and although takings challenges in this context are usually unsuccessful, scholars have expressed concern that the potential for a successful claim may still pose a challenge to water reform.[38] As *Mineral County* demonstrated, prior appropriation remains the law of the land (or water, rather) in many places. And as the plight of the actual Mineral County illustrates, this

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32. *Id*. at 143 ("[T]he checks included in the prior appropriation system have failed to do their job."); Carlton, *supra* note 29, at 416 ("Even if waste were to occur, states have not clearly defined waste – essentially because it is difficult to police water usage for waste . . . ").

33. Abrams, *supra* note 25, at 166.

34. *See id*. at 143 ("The greatest failing of the prior appropriation doctrine has been its inability to foresee and respond to the . . . destructive overutilization of water.").

35. *See* Burke W. Griggs, *Beyond Drought: Water Rights in the Age of Permanent Depletion*, 62 KAN. L. REV. 1263, 1297 (2014) ("Chronic water shortages have driven at least ten states to litigation presently before the Supreme Court of the United States, and most of these cases involve western waters.").

36. *See* Abrams, *supra* note 25, at 155 ("[P]rior appropriation doctrine still suffers from old, inefficient, low-value uses that claim large shares of water.")

37. *See id*. at 1263 ("Chronic water shortages have driven at least ten states to litigation presently before the Supreme Court of the United States, and most of these cases involve western waters."); Carlton, *supra* note 29, at 410 ("The [litigation] response in California to its water crisis is a sign of what is to come in other western states as they struggle to address the need for water conservation.").

38. Dave Owen, *Taking Groundwater*, 91 WASH. UNIV. L. REV. 253, 259 (2013) ("Although case law at the intersection of groundwater regulation and takings doctrine may seem somewhat settled, the partial consensus is fragile. In part, that fragility arises from a thin theoretical basis . . ."); *see also* Carlton, *supra* note 29, at 421 (describing successful takings challenge).

formulation of prior appropriation will only accelerate our path toward massive water shortages, industrial turnover, and ecosystem collapse. It is thus time to reconsider our water rights model or, more accurately, remind ourselves what water rights have historically been.

B. UNDERSTANDING THE WATER RIGHT

This unworkable regime was not inevitable. Prior appropriation was itself developed as an attempt to preserve the public interest. In fact, courts have noted more broadly that "property rights serve human values. They are recognized to that end, and are limited by it."[39] Understanding this dimension of the water right is critical to understanding how it can be effectively regulated. This section will consider three issues related to water rights: how they are shaped by courts; how they are subject to limits inherent to all property; and how they are subject to additional limits derived from the unusual nature of water.

1. The Role of Courts

The close link between judicial action and water rights is best illustrated by the development of the prior appropriation system. The system developed as an alternative to traditional riparian rights, still the standard in lusher eastern states. Under the riparian system, rights revolve around "reasonable use" and consider a broader landscape of needs. Thus, the right to draw water is tethered to the needs of neighbors. Users "share the shortage" when necessary. Faced with limited water availability in the arid West, early courts quickly realized that the traditional rules of water usage would make it almost impossible to incentivize settlement and development.[40] After all, who would undertake intensive agricultural or industrial projects in a world where a stable supply of water was not guaranteed? To preserve a continuing and constant right to water, the California Supreme Court adopted prior appropriation as the law of the land in 1855.[41] Other western states soon followed, with several incorporating the doctrine into their state constitutions.[42]

This relatively sudden ascension from common law to constitution underscores how important courts have always been to the process of defining water rights. Both the prior appropriation and riparian systems were entirely common law systems, and the water right itself is the product of judicial decisions. Takings decisions especially have been an arena through which courts have defined the dimensions of the water right.[43] It was courts that decided water rights were a

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39. State v. Shack, 277 A.2d 369, 372 (N.J. 1971).
40. Griggs, *supra* note 35, at 1267–74.
41. *Id.*
42. *Id.*
43. Robin Kundis Craig, *Defining Riparian Rights As "Property" Through Takings Litigation: Is There a Property Right to Environmental Quality?*, 42 ENV'T L. 115, 131 (2012).

property right that could be taken. In leading cases, federal courts typically framed the right as one that could be physically taken or occupied, rather than one that was extinguished by regulation.[44] The Court of Federal Claims, in a quartet of cases, elaborated on each of the sticks in the bundle of water rights. This bundle has been summarized as containing: (1) the right to use the water, (2) the right to access the water, (3) the right to maintain structures for water use, and (4) the right or ability to transfer the water right to another beneficial use.[45] State courts, meanwhile, have done their own work to define water rights within their jurisdictions. For example, case law in some riparian states has extended the water right to include water of a certain quality, empowering government action to combat pollution.[46]

Although common law water regulation was eventually codified and turned over to permitting bodies, courts—and state courts in particular—have continued to play a major role in upholding the decisions of those bodies. And, as *Mineral County* demonstrated, courts can still independently undertake sweeping reforms in water law. *Mineral County* was only the latest chapter in a water dispute that stretched back to 1924. A federal effort to establish water rights for the Walker Lake Paiute Tribe led to the 1936 Walker River Decree, which adjudicated water rights for the river. The decree has been within the jurisdiction of the District Court for the District of Nevada ever since, and the Nevada State Engineer's decisions are subject to that court's review. It was that district court that dismissed Mineral County's attempt to intervene, triggering Ninth Circuit review and certification to the state high court.

In this way, the courts served as initial gatekeepers for whether the state could even attempt the reallocation of the water rights as requested. When the Nevada Supreme Court claimed that it was powerless to authorize such an action, it was perhaps selling itself short. After all, state high courts first created and defined the prior appropriation system. And even in *Mineral County*, the court flexed its common law powers significantly—in discussing the public trust doctrine, the court held for the first time that the public trust extended to all waters of Nevada. This surprising expansion of the doctrine was a silver lining for disappointed environmentalists and was disfavored by the dissent, which would have preferred a narrower holding that integrated the original, limited public trust into the prior appropriation system.

2. Inherent Limits on Property Rights

The dissent, for its part, also emphasized that "under our system of water rights, a prior appropriation is never permanent—even vested rights are granted

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44. *Id.* at 135.

45. *Id.* at 144.

46. *Id.* at 153 (collecting cases and noting that "several eastern states have viable but underdeveloped case law stating that riparian property rights include the right to waster of a certain quality.").

only to the extent their holders do not over-appropriate or waste water."[47] This statement recognizes that water rights have never been totally absolute. In fact, no property right is totally absolute. Whether the court is exercising its equity power or upholding the state's police power, it is always able to enforce, impose, or clarify the limits of supposedly absolute or permanent rights. Many major property law developments can be framed in terms of the rights they decide do not exist. The next section will describe the unusually malleable nature of the water right, but it is worth emphasizing at the outset that *all* modern property rights have inherent limits and are subject to regulation. Enforcement of such limits would not be a post hoc, court-imposed revision to our legal system—it is part of its very foundation. In particular, property rights have a built-in Lockean limit, harm limit, and monopoly limit.

a. The Lockean Limit

In the seventeenth century, John Locke wrote that property rights are only justified if "there is enough, and as good, left in common for others."[48] This "Lockean proviso" continues to influence property law today, and scholars have argued from it that "[t]he legitimate origin of property is not first possession but equal opportunity."[49] Consequently, our property rights regime does more than just give assurances to owners regarding the sanctity of their property. Our property rights are ultimately mutually dependent and, when they conflict, must be adjusted for the preservation of the property itself.[50] Otherwise, "[a]bsolute property rights are self-defeating."[51] Indeed, even libertarian theorists (who support a strong right to private property) like Robert Nozick, believe that the "historical shadow of the Lockean proviso" means that individuals cannot "appropriate the only water hole in a desert and charge what he will," even if they are not to blame for the shortage[52]—both a convenient metaphor and an accurate reflection of one of our most pressing monopoly problems.

b. The Harm Limit

To ensure the sustainability and legitimacy of all property, our system of property rights also provides assurances that owners cannot use their property in a

47. Mineral Cnty. v. Lyon Cnty., 473 P.3d 418, 436 (Nev. 2020) (Pickering, C.J., dissenting).

48. *See* JOHN LOCKE, SECOND TREATISE OF GOVERNMENT 18 (C.B. Macpherson ed., Hackett Pub. Co. 1980) (1690).

49. Joseph William Singer, *Original Acquisition of Property: From Conquest* & Possession to Democracy & Equal Opportunity, 86 IND L.J. 763, 778 (2011).

50. Joseph William Singer, *Essay: Rent*, 39 B.C.L. REV. 1, 37 (1997) ("To obtain stability and basic security for all, property rights must be made partially secure and partially contingent on limits needed to ensure that security is afforded to all persons within the system.").

51. *Id.* at 34.

52. ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA 180 (1974).

way that harms others.[53] This principle has even been described by courts as "the essence of the tort of nuisance."[54] Of course, property rights are valuable and deserving of great deference. These outer limits are ideally only invoked by the real threat of harm to others, to their ability to enjoy property, or to the public welfare.[55] Unregulated water usage has the potential to enact all three types of harm. Indeed, a widespread water shortage would be a bona fide natural and economic disaster, justifying potential extreme action. Courts have held that in times of disaster, destruction of property to protect others' property is within the government's power.[56] Of course, in water law cases, the remedies sought by plaintiffs generally fall short of destroying a property right. Rather, in cases like *Mineral County*, plaintiffs simply want reallocation of water rights—a partial curtailment of existing water rights. Given the government's power to destroy real property in the name of public safety, such reallocation seems even more justifiable.

c. The Monopoly Limit

Together, the Lockean limits and harm-preventing regulations can also be construed as a limitation on monopolies. Our modern system of property law implicitly disfavors total and unconditional control of property, especially if that control is concentrated in the hands of a few.[57] This emphasis can be traced back to what one scholar has described as "a slow erosion and final rebellion against feudalism as both a form of government and a form of property ownership."[58] As a result of this desire to avoid tyrannical and absolute ownership, our property law system prevents excessive hierarchies and resists letting the preferences of prior owners dictate the options for present owners. Similarly, since the nineteenth century, courts have actively protected the public interest by preventing monopolies from forming.[59] The current prior appropriation system—with its strict hierarchy,

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53. *See* Singer, *Original Acquisition Original Acquisition of Property: From Conquest* & Possession to Democracy & Equal Opportunity, *supra* note 49, at 778. ("Property rights are not, and cannot be absolute . . . If you want to live in a democracy, then property rights must be limited by law."). *See also* Joseph William Singer, *Property as the Law of Democracy*, 63 DUKE L. J. 1287, 1324 (2014) ("Property law is designed to spread freedom, opportunity, security, and wealth, but it is also designed to prevent owners from inflicting harm on others and from acting in a manner that is incompatible with norms of propriety.").

54. Bloomington v. Westinghouse Electric Corp., 891 F.2d 611, 614 (7th Cir. 1989).

55. *See, e.g.*, Dobbs v. Wiggins, 929 N.E.2d 30 (Ill. Ct. App. 2010); Heart of Atlanta Motel, Inc. v. United States, 379 U.S. 241 (1964); Miller v. Schoene, 276 U.S. 272 (1928).

56. *See* Bowditch v. Boston, 101 U.S. 16 (1979) (finding no taking when the government destroyed property to prevent the spread of a fire); Strickland v. Dep't of Agric., 922 So.2d 1022 (Fla. Dist. Ct. App. 2006) (same).

57. *See* Singer, *Property as the Law of Democracy*, *supra* note 53, at 1308–16.

58. Joseph William Singer, Property Law as the Infrastructure of Democracy, Lecture at the University of Florida Levin College of Law (2011), *in* 7 POWELL ON REAL PROPERTY, at 8.

59. *See, e.g.*, Camfield v. United States, 167 U.S. 518, 524 (1897) (finding "it would be recreant to its duties as trustee for the people of the United States to permit any individual or private corporation to

endless timelines, and ability to monopolize—is in great tension with these principles. This tension does not mean that the system is invalid, but it does suggest that it is more likely to trigger the limits of what we consider to be acceptable property rights. It also suggests that the most extreme exercise of prior appropriation rights might be attempts to exercise rights that our property law system does not recognize.

3. Inherent Limits on Water Rights

Although all property rights have inherent limits, the distinction between real property and water rights does matter. One scholar has written that "[i]n a state of nature . . . water and land move in opposite orbits,"[60] noting that concepts like exclusive ownership, temporal priority, and free transfer are ill-suited for regulating water.[61] Instead, the nature of water causes the property system to gravitate towards centralized control.[62] The result is "localized interventions in response to widely perceived problems that no one could ignore—the extinction of fish and animals . . . the drying up of rivers and wells—that called for some concerted social response."[63]

It is both conceptually and normatively justifiable to treat water rights as especially susceptible to judicial reshaping. To start, water rights have been described as weaker in nature than real property rights,[64] unpredictable,[65] subject to a "tradition of change,"[66] and particularly high in inherent risk. These unusual qualities of the water right are attributable in part to the unusual characteristics of the water resource itself.[67] Natural availability of water fluctuates, and many users compete

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monopolize them for private gain, and thereby practically drive intending settlers from the market."); Central Transp. Co. v. Pullman's Palace Car Co., 139 U.S. 24 (1891).

60. Richard A. Epstein, *Essay: How Spontaneous? How Regulated: The Evolution of Property Rights Systems*, 100 IOWA L. REV. 2341, 2354 (2015).

61. *Id.* at 2346, 2353. Professor Epstein also argues that the Lockean proviso is not applicable in the dynamic context of water regulation. Rather, he argues, the goal "is to make sure that the diversions from the river do not exceed the point of destabilization." *Id.* at 2352.

62. *Id.* at 2357 ("There is no single riparian who is in a position to effectively [ensure navigability], so the water system transforms itself from a *res commune* to one that has strong elements of government ownership and control.") (alteration in original).

63. *Id.* at 2363.

64. A. Dan Tarlock, *Takings, Water Rights, and Climate Change*, 36 VT. L. REV. 731, 740 (2012) (saying "the Constitution affords water-right holders *comparatively less* protection compared to land owners."); Joseph L. Sax, *The Constitution, Property Rights and the Future of Water Law*, 61 U. COLO. L. REV. 257, 261 (1990) ("In fact water rights have *less* protection than most other property rights . . .").

65. *See* Craig, *supra* note 43, at 117 ("Another difficulty in applying takings jurisprudence to water rights is that water rights vary considerably more from state to state – and sometimes, even within states – than real property rights do.").

66. Sax, *supra* note 64, at 266.

67. *Id.* ("Water rights differ depending on whether surface water or groundwater is involved and on whether the authorizing state is a riparian, prior appropriation, or other jurisdiction."); Tarlock, *supra* note 64, at 739 ("The risk level for water-right holders and land owners at the water-land edge has always been relatively greater than those faced by 'dry-land' owners because the scope of a water right

for that uncertain quantity. Thus, "all water-right holders face the risk that the entitlement might be curtailed."[68] This unique relationship—and reliance—means that "change is the unchanging chronicle of water jurisprudence."[69] "New needs have always generated new doctrines and, thereby, new property rights."[70] In turn, "water's capacity for full privatization has always been limited."[71]

That said, the inherent limits described in the previous section are at play in the water right. In fact, the very concept of a usufructuary right was "imported into water law to signal that the ability to remove and use water was subject to limitations that had to be enforced in a natural setting."[72] The doctrine draws on traditional Roman law that permits consumption and use of fruit while barring destruction of the property that generated the fruits.[73] Once translated into early American common law, it grew to include the principle that private uses of a riparian resource should not deplete its value for common uses (for example, navigation, recreation, or fishing).[74]

Therefore, in the prior appropriation sphere, courts do not have to change or redefine water rights to make them more sustainable. Existing, inherent limits based on background principles are sufficient to justify curtailment or reallocation of even the most settled prior appropriation rights.[75] As one commentator has written:

> Within the background principle of prior appropriation, water rights could not be exercised to harm earlier established rights, including public interests. Thus, water has never been a 'vested property interest' in the traditional sense, and instead, remains a right limited to the extent it harms public rights.[76]

C. THE PUBLIC TRUST DOCTRINE (AND ITS LIMITS)

For many advocates, the most natural endpoint for such arguments was the public trust doctrine.[77] The doctrine's basic thrust is that navigable waterways

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is defined in the context of other users and the state."); *see also* Hage v. United States, 35 Fed. Cl. 147, 172 (1996) ("Flowing water presents unique ownership issues because it is not amenable to absolute physical possession. Unlike real property, water is only rarely a fixed quantity in a fixed place.").

68. Tarlock, *supra* note 64, at 740.

69. Sax, *supra* note 64, at 268.

70. *Id*. at 269.

71. *Id*.; *see also* Owen, *supra* note 38, at 275, 275 n.147 (noting the idea that "water rights are inherently more limited and contingent" and finding that it has "ample support" in case law).

72. Epstein, *supra* note 61, at 2351.

73. *Id*.

74. *Id*.

75. *See* John D. Leshy, *A Conversation About Takings and Water Rights*, 83 TEX. L. REV. 1985, 1996 (2005) ("In fact, water law is considerably richer in background principles than land law."); Sax, *supra* note 64, at 274 ("The subordination of private rights to public claims in natural resources is not new or unfamiliar.").

76. Carlton, *supra* note 29, at 430–31.

77. *Id*. at 431–36 ("The connection between water rights and the public trust doctrine allows public interests to be prioritized before all other water holders," *id*. at 435); Abrams, *supra* note 24, at 182–84; *see also* Griggs, *supra* note 35, at 1321 ("[U]pstream diversions can become sufficiently damaging to

and their underlying lands are held in a trust for the benefit of the public. Notably, the public trust places obligations on its trustee—the state, writ large—to manage and dispose of its land in a way that benefits the public. This principle is rooted in ancient Roman law and, more recently, adopted from English common law.[78] The leading public trust case is *Illinois Central Railroad Co. v. Illinois*, in which the Supreme Court held the state was unable to divest its public trust duties over a lakefront.[79]

For the purposes of water rights allocation, however, the high-water mark of the doctrine is *National Audubon Society v. Superior Court*,[80] known popularly as the *Mono Lake* case. In that case, the California Supreme Court did what Mineral County had hoped the Nevada Supreme Court would: it held that appropriations of Mono Lake could be reallocated to protect the lake itself. In doing so, it noted that protecting the lake had connections to human health and ecosystem health, suggesting that those goals allowed the state to "reconsider allocation decisions even though those decisions were made after due consideration of their effect on the public trust."[81] It also found that the state's trustee duties included ensuring that vested right holders did not harm the trust when exercising their rights. This holding was not the creation of a new right but rather an acknowledgment of a traditional limit on property rights.

Mono Lake has been widely recognized as an expression of the state's right to control water allocations. Unsurprisingly, the case was central to the *Mineral County* dissent. Its actual impact, however, has been much narrower. As previously described, the Nevada Supreme Court was willing to endorse a conceptually expansive and powerful vision of the public trust, but it declined to adopt the actual innovation at the core of *Mono Lake*—using the trust to reallocate water rights. For that task, even the newly-inflated public trust was not enough. Indeed, a survey of cases post-*Mono Lake* concluded that it had virtually no influence on court decisions and only a minor impact on administrative decisions.[82] Despite hopes that the public trust doctrine would help clear the way for judicial reform of prior appropriation, such reform has been slow to materialize. *Mineral County* is illustrative of that disconnect.

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downstream interests such that the state itself takes legal action. Importantly, it does so on behalf of all of its citizens, and not just its water rights owners."); Peter N. Davis, *Law and Fact Patterns in Common Law Water Pollution Cases*, 1 MO. J. OF ENV'T & SUSTAINABILITY L. 3, 9 (1993) (noting that not many public trust cases had been brought but saying "its potential for protecting watercourses from pollution is great").

78. Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 475–76 (1970).

79. 146 U.S. 387 (1892).

80. 658 P.2d 709 (Cal. 1983).

81. *Id.* at 728.

82. *See* Owen, *supra* note 22, at 1104–05.

II. INTRODUCING THE PUBLIC NUISANCE DOCTRINE

The public trust doctrine is not the only common law doctrine designed to protect the public interest, however. All equity doctrines have a component of public protection built into them. In particular, the public nuisance doctrine is a powerful tool for courts to protect public rights.[83] The public nuisance doctrine is both better-established than the public trust doctrine and traditionally seen as a doctrine of real property law (thus triggering the previously discussed limitations inherent to property rights).[84] This Part (Part II) will address the doctrine's history, component parts, and uses. The following Parts will then undertake the task of defining and limiting the doctrine's application to a "public water right" (Part III), as well as explore potential challenges to that application (Part IV).

For relative simplicity, the remainder of this Article will assume the application of public nuisance to reallocations of water rights in the prior appropriation system, with an emphasis on supporting legislative action to this end. One possible scenario would be a situation in which states undertook temporary reallocations of water rights—including those of senior users—that protected the health of the watershed and the sustainability of the system. Such an action could be grounded in the state's power to prevent public nuisances and be reviewed under that theory if legally challenged. These temporary reallocations would then incentivize senior users to negotiate with junior users for more sustainable, permanent allocations of water rights. Through this process, states could also reset the amount of water available to be allocated and bring that figure closer to reality. Because the public nuisance doctrine is separate from the public trust doctrine, this option remains viable even in states like Nevada that declined to extend the latter.

Alternatively, and perhaps less desirably, states could file suit against senior users on behalf of junior users or on behalf of the public (and its interest in the watershed). During the remedy or consent decree process, they could then request that courts reallocate or approve reallocations of water rights. This scenario would likely be a far more fact-intensive ordeal for courts and may be an unsavory circumvention of democratic processes. However, it could also be a more attractive option for watersheds that are already tightly enmeshed in judicial orders and decrees. In either scenario, states or courts can assert public nuisance as justification for the reallocations.

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83. *See* Richard Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources Law: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 660–64 (1986) (asserting the continued relevance of public nuisance law despite the rise of public trust doctrine).

84. For an example of public nuisance's real property roots, *see* Beatty v. Kurtz, 27 U.S. 566, 584 (1829) ("This is not the case of a mere private trespass; but a public nuisance . . . ."). *Beatty* was included in a late-nineteenth century collection of property law cases. JOHN CHIPMAN GRAY, SELECT CASES AND OTHER AUTHORITIES ON THE LAW OF PROPERTY 798 (1889).

A. RECONNECTING WITH THE ROOTS OF THE PUBLIC NUISANCE

The public nuisance doctrine has a storied, if slightly sullied, reputation—it has been referred to as "an impenetrable jungle" and a "legal garbage can."[85] At the same time, it has been repeatedly touted as a promising legal tool for a wide variety of social ills.[86] In fact, those disappointed by the truncated life of the public trust doctrine should take hope from the cat-like public nuisance doctrine, now cycling through just the fourth of its nine lives. Although ostensibly a tort, the public nuisance doctrine's origins have close ties to criminal law,[87] and its first applications were to issues adjacent to the environment or public trust.[88] Early, uncontroversial public nuisance suits were used to preserve the navigability and quality of waterways.[89] What came next was a string of attempts to fully capitalize on its potential.

Environmentalists in the 1970s first pushed for and, ultimately, won a redefinition of the doctrine, hoping to make it a promising addition to the arsenal of tools they needed to fight pollution. These reforms were part of a greater trend in which scholars "re-examin[ed] dusty legal tools."[90] Although "greeted with great enthusiasm," these changes ultimately "did not ignite a revolution," and scholars have acknowledged that the reforms, though enshrined in the Restatement (Second) of Torts, are "unlikely to ever take hold in courts."[91] Still, these early rounds produced some notable victories,[92] and proponents of public nuisance reemerged in the 1980s and 1990s pushing novel applications of the doctrine to manufacturers

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85. Richard O. Faulk & John S. Gray, *Alchemy in the Courtroom? The Transmutation of Public Nuisance Litigation*, 2007 MICH. ST. L. REV. 941, 948 (2007) (quoting others).

86. For a sense of how often this theory is revived for environmental protection purposes, *compare* Matthew Russo, Note, *Productive Public Nuisance: How Private Individuals Can Use Public Nuisance to Achieve Environmental Objectives*, 18 U. ILL. L. REV. 1969 (2018) *with* Robert Abrams & Val Washington, *The Misunderstood Law of Public Nuisance: A Comparison with Private Nuisance Twenty Years after* Boomer, 54 ALB. L. REV. 359 (1990) *and* Kenneth S. Boger, *The Common Law of Public Nuisance in State Environmental Litigation*, 4 ENV'T AFF. 367 (1975).

87. *See* Thomas W. Merrill, *Is Public Nuisance a Tort?* 4 J. TORT L. [ii], 5 (2011) ("As a public action, the closest analogy to public nuisance, both historically and conceptually, is not tort but criminal law.").

88. *See* Victor E. Schwartz & Phil Goldberg, *The Law of Public Nuisance: Maintaining Rational Boundaries on a Rational Tort*, 45 WASHBURN L. J. 541, 545 (2006) ("Historically, American public nuisance cases involved non-trespassory invasions of the public use and enjoyment of land. In the eighteenth and early nineteenth centuries, most public nuisance cases involved the obstruction of public highways and waterways . . . .").

89. *See id*. at 9 ("The classic example of a public nuisance is what used to be called a purpresture – blocking or obstructing a public road or navigable waterway."); Schwartz & Goldberg, *supra* note 88, at 545–46 (describing use of public nuisance during Industrial Revolution and noting that "water pollution suits against companies for industrial run-off often succeeded").

90. Denise E. Antolini, *Modernizing Public Nuisance*, 28 ECOLOGY L.Q. 755, 834 (2001).

91. *Id*. at 828.

92. *See, e.g*., Abrams & Washington, *supra* note 86, at 391–92 (describing the Love Canal case). *See generally* Louise A. Halper, *Public Nuisance and Public Plaintiffs: Rediscovering the Common Law (Part I)*, 16 ENV'T L. REP. 10292, (1986) (collecting New York Cases).

of dangerous products like asbestos, tobacco, guns, and lead paint.[93] Despite early flashes of success, scholars have described the result as "a report card showing that yet again the effort to expand the tort of public nuisance law beyond its original scope and purpose ... failed."[94] Recently, public nuisance doctrine has become the sword of choice for those hoping to spark widespread action on climate change.[95] Scholars have responded with pessimism about the "staggering" weight placed on the "big comeback" of this "dreary common law doctrine."[96]

Even if the rejection of those claims was correct, the use of public nuisance to excavate inherent limits on water rights should be much less controversial. As previously discussed, the relationships between public nuisance, public health, and environmental protection are as old as the doctrine itself. There is no need to adapt this ancient tool for modern problems—these are the problems for which it was created. In fact, water reallocations can be justified under public nuisance doctrine as it is currently formulated by its critics. Although its exact parameters are still debated, the doctrine typically contains certain components: (1) substantial and unreasonable infringement on a public right; (2) specific types of common law conduct, *or* (3) a relationship to statutes and regulations; and (4) control and causation by the party alleged to have created the nuisance.[97] Additionally, public nuisance is associated with other doctrinal characteristics that make it uniquely suited for state enforcement.

As implied by the name and traditionally applied, public nuisances mirror public rights—a sustainable water system, defined here as a healthy watershed, is an archetypal public right. Subsequent sections will discuss the doctrinal sources and parameters for this right, but the right also has physical and economic dimensions. The public has a right to expect that the state will safeguard the security, sustainability, and stability of their water sources. Although the public may not be able to claim a continuous right to a certain amount of water, it can more broadly rely on the state to ensure that their supply of water—a basic human need that implicates survival itself—stays physically available. However, because water is also a core part of much economic activity, there is also a collective public right to sustainable water management. This right requires that water regimes be viable in the long-term and that they be able to accommodate the uncertain, fluctuating future of water in a world of climate change.

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93. *See* Faulk & Gray, *supra* note 85, at 958–60; Schwartz & Goldberg, *supra* note 88, at 552–61.

94. Victor E. Schwartz, Phil Goldberg, & Corey Schaecher, *Over? Why Recent State Supreme Court Decisions Should End the Attempted Expansion of Public Nuisance Law* 62 OKLA. L. REV. 629, 639 (2010). Like the previous wave of attempted expansion, these attempts to bring public nuisance suits against manufacturers have also met with their fair share of scholarly criticism. *See generally id.*; Schwartz & Goldberg, *supra* note 88; Faulk & Gray, *supra* note 85.

95. David A. Dana, *The Mismatch Between Public Nuisance Law and Global Warming,* 18 SUP. CT. ECON. REV. 9, 9–10 (2010).

96. *Id.* at 10.

97. *See* Schwartz, Goldberg, & Schaecher, *supra* note 94, at 633–34; Faulk & Gray, *supra* note 85, at 962–68; Schwartz & Goldberg, *supra* note 88, at 564–72.

Currently, this public right to a sustainable water system is under attack along both dimensions. There is, to put it plainly, not enough water. Some of this shortfall is unavoidable—states cannot control the weather. But they can control how much water is taken from a water source. The way that prior appropriation states have so far exercised that control is threatening the water sources themselves. The Colorado River, which carved the Grand Canyon but is unable to satisfy the demands of the nearly forty million Americans that use it, has not consistently made it to its natural endpoint—the Pacific Ocean—in decades.[98] The massive imbalance between demand (still growing) and supply (dropping quickly due to climate change[99]) could potentially result in a water shortage of over a trillion gallons by 2060.[100] The problem with this reckless pace is now unavoidable. In August 2021, the federal government declared the first-ever water shortage at Lake Mead.[101] The resulting "Tier 1 reductions"—that is, cuts to users—are likely the first of many. On a practical level, the implementation of these reductions reflects the chaos of modern water management, with its considerations of diverse but disappearing water sources; its entanglement with conflicts between and among states, tribes, and stakeholders; and its many layers of bad math.[102] As an ecological matter, the result has been the dramatic depletion of the river, including the virtual disappearance of an entire river delta ecosystem and its benefits.[103] As one writer put it, the river is "a perfect symbol of what happens when we ask too much of a limited resource: it disappears."[104] And if there is any public water right, it should be the right to not have your water source disappear.

This over-allocation is far from an isolated incident. Of California's twenty-seven major rivers, sixteen are over-allocated. The San Joaquin River is allocated at 861% of its natural flow.[105] These untenable and outdated assumptions about how much water is available are a big part of the public nuisance that threatens to drain the West. Of course, recognizing a public nuisance cannot add more water to depleted watersheds. Slapping a new legal label on a farmer's decimated crop does not fix the farmer's underlying problem. Still, properly framing the issue, restoring legal tools to plaintiffs, and removing the assumptions that distort the

98. *See* Tim Vanderpool, *The Colorado River Delta is Proof of Nature's Resiliency*, onEarth, (Jun. 28, 2018), https://perma.cc/8F6D-QCP9; Lulu Runyon, *For a Few Weeks the Colorado River Reached the Ocean. Will it Happen Again?* KPBS, (Feb. 19, 2018), https://perma.cc/9DPC-YMG6.

99. *See* Jordan Davidson, *Colorado River has Lost 1.5 Billion Tons of Water to the Climate Crisis, 'Severe Water Shortages' May Follow,* EcoWatch, (Feb. 21, 2020), https://perma.cc/LF5R-EGP9.

100. *See* Peter Annin, *Tough Times Along the Colorado*, N.Y. Times, (Jan. 30, 2019), https://perma.cc/5324-CZZV.

101. *See* Henry Fountain, *In a First, U.S. Declares Shortage on Colorado River, Forcing Water Cuts*, N.Y. Times (Aug. 16, 2021), https://perma.cc/PE2H-RT73.

102. *See id.*; *see also* Abrahm Lustgarten, *Less Than Zero*, ProPublica (July 17, 2015), https://perma.cc/3RDK-TT27.

103. Sarah Zielinski, *The Colorado River Runs Dry*, Smithsonian Mag. (Oct. 2010), https://perma.cc/YDN7-FRBD.

104. *Id.*

105. *See* Sena Christian, *supra* note 2.

market can open the door to the development of a better system. In fact, even more than the ability to temporarily reallocate a senior user's prior appropriations, the ability to apportion water based on realistic and accurate availability is key to developing a sustainable water system. Temporary reallocations can bring year-to-year demand within reach of actual supply and provide a clearer picture of the problem that alerts lawmakers and citizens to the need for a second shot at distributing water. In this way, public nuisance doctrine could finally provide states the latitude to bring paper rights and actual rights into alignment—and, most importantly, to rethink system-wide aspects of the prior appropriation system.

Vanishing rivers (and lakes and aquifers) have an immediate and devastating economic effect. The Colorado River powers an economy that is worth over a trillion dollars, a figure that in turn makes up a significant portion of state economies. For example, one study shows that losing access to the Colorado River would cut Nevada's gross economic product by some eighty-seven percent, with heavy losses in industries ranging from real estate to healthcare.[106] In May 2019, the Colorado River Research group warned that projected megadroughts or extreme floods might cause "socioeconomic events that might stress the existing legal/management framework beyond any known circumstance."[107] Their report indicated that reduced water supply is the new norm, that climate change will severely exacerbate reductions, and that such droughts have "undermin[ed] past civilizations in the region."[108] The prior appropriation system as is, unworkable even before the recent wave of droughts, does nothing to account for this future. Under the current system, modern courts, governments, and users are pressured to prioritize the private usufructuary rights of water rights holders, but as we continue to experience dry decades, there is an equally important public right to a sustainable economic regime that does not trap its users in a self-defeating system.

1. Substantial and Unreasonable Interference

Assuming that the right to a sustainable water system exists, the question then becomes whether the users whose rights need to be reallocated are causing a substantial and unreasonable interference with that public right. Substantial interference is typically conceived of as a filtering mechanism for trivial claims. If the claimant's harm is more than a "mere" or "petty annoyance" and beyond the "disturbance of everyday life," this element is typically satisfied.[109] Notably, even a

106. *See* TIM JAMES, ANTHONY EVANS, EVA MADLY & CARY KELLY, THE ECONOMIC IMPORTANCE OF THE COLORADO RIVER TO THE BASIN REGION 15–17 (2014). [Note: available at https://perma.cc/A6CV-2DSL].

107. Bob Berwyn, *New Study Projects Severe Water Shortages in the Colorado River Basin*, INSIDE CLIMATE NEWS (Feb. 20, 2020), https://perma.cc/F772-9B4F.

108. *Id.*

109. *See* Faulk & Gray, *supra* note 85, at 964.

threatened harm can be considered substantial.[110] Under almost any definition, the harms suffered by downstream water users are substantial. The Colorado River and its potential to destabilize an entire region's economy (and even society) is one example. Walker Lake is another. In *Mineral County*, the majority acknowledged that:

> [Walker Lake's] size and volume have shrunk significantly since they were first measured in 1882 . . . Today, Walker Lake suffers from high concentrations of total dissolved solids, such that it has high salt content, low oxygen content, and high temperatures. While the cause of the decline is attributable to multiple factors, including declining precipitation levels and natural lake recession over time, it is clear that upstream appropriations play at least some role. The decline of Walker Lake, according to appellants, has threatened the shelter of migratory birds and proven inhospitable to fish species such that much of the lake's fishing industry has been eliminated.[111]

Unreasonable interference has proven a far more contentious standard.[112] As part of the first wave of nuisance reform in the 1970s, the criminality standard was amended to "unreasonable interference" with a public right.[113] In weighing reasonableness, courts consider interference with public health, safety, peace, comfort, or convenience; any statutory overlay; whether the conduct is continuous and long-lasting; and whether the defendant knows of its effects.[114] Here, those factors point toward the conduct of senior users as something that falls within the scope of traditional public nuisance. Junior users, whether they use the water for similar purposes or rely on it for entirely different reasons, experience a significant disruption of well-being when their rights are curtailed. This challenge is only magnified when, as is becoming the case, senior water users are consistently and consciously exercising their full water rights to the detriment of junior users. Although it is somewhat unclear whether an aggregation of private nuisances amounts to a public nuisance,[115] the interference here is with water security and conservation at the societal and ecosystem level. That is a protectable public right.

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110. Abrams & Washington, *supra* note 86, at 374.
111. Mineral County, 473 P.3d at 422.
112. Abrams & Washington, *supra* note 86, at 375.
113. *Id.* at 366.
114. *Id.*
115. *Id.* at 384 ("Although an aggregate of private nuisances is sometimes said not to constitute a public nuisance, the better-reasoned case law and scholarly opinion suggest otherwise."). If this view prevails, it is not hard to imagine how a series of private nuisances – perhaps chronic shortages experienced by junior users – could become a public nuisance in the form of business disruption that threatens overall economic health and viability. One example might be the destruction of Walker Lake's fishing industry. *See* Mineral County, 473 F.3d at 422. A distressed industry has knock-on economic effects (unemployment, subsidization, lost revenue, etc.) that will eventually affect even the senior users that initially benefited from curtailments.

Just as importantly, however, subsequent court decisions and scholarship have convincingly established that "unreasonableness" is concerned only with the resulting injury—not the conduct leading to that injury—and therefore should foreclose any weighing or balancing.[116] As previously noted, public nuisances are historically analogous to crimes. One result of this history is that public nuisance operates under a strict liability standard.[117] Because public rights are so important, public nuisance cases do not lend themselves to the traditional "balancing of equities" that accompanies private nuisance claims. The Restatement (Second) left in language suggesting that such balancing is still necessary, but courts have skipped or altered this step to the approval of commentators[118]—perhaps a recognition that unreasonable interference with public rights amounts to a violation of the limits inherent to all property rights. Thus, supporting a state's decision to reallocate water rights to prevent a public nuisance does not require a court to pronounce judgment on the reasonableness of upstream or senior water users. Instead, it only requires them to acknowledge the severity of harm experienced by downstream or junior users—or, to be more accurate, the harm experienced by all users when a water supply is rendered unsustainable or unusable.

2. Specific Types of Common Law Conduct

At common law, public nuisances are formed from the interference with a public right. As previously discussed, this interference sometimes involves quasi-criminal conduct.[119] It is neither conceptually nor normatively productive to argue that senior water users engage in criminal conduct or have a criminally culpable mindset when they follow the prior appropriation system as it was explained to them. Over the

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116. Abrams & Washington, *supra* note 86, at 377–78. *See, e.g.*, Commonwealth v. Barnes & Tucker Co., 319 A.2d 871, 886 (Pa. 1974) ("We recognize that when a Commonwealth brings an equity action to abate a public nuisance its right to relief is not restricted by any balancing of equities."); Wilsonville v. SCA Serv., Inc., 426 N.E.2d 824, 835 (Ill. 1981) ("[N]uisance cannot be justified on ground of necessity, pecuniary interest, convenience or economic advantage . . . The importance of an industry to the wealth and property of an area does not as a matter of law give it rights superior to the primary or natural rights of citizens who live nearby."). A middle ground might be cases in which the court balances potential injuries but does so "with great caution" and on an "extremely narrow basis"—especially, but not only, if public health is involved. Such was the approach taken by the West Virginia Supreme Court in Bd. of Comm'rs of Ohio Cnty. v. Elm Mining Co., 9 S.E.2d 813, 817 (W. Va. 1940). *See* Karol Boudreaux & Bruce Yandle, *Public Bads and Public Nuisance: Common Law Remedies for Environmental Decline*, 14 FORDHAM ENV'T L. J. 55, 73–75 (2002).

117. Abrams & Washington, *supra* note 86, at 368–74; *see also* Merrill, *supra* note 87, at 16–17; Antolini, *supra* note 90, at 774–75. Others have suggested that the standard of liability, like the available remedy, varies between public and private plaintiffs. Either way, "the liability issue in public is confused." Boudreaux, *supra* note 116 at 62–63, 63 n. 24.

118. *See* Merrill, *supra* note 87, at 17 n. 67 (calling it "controversial" whether courts actually apply balancing and noting that cases may "focus more on the existence of an unreasonable condition rather than the defendant's engaging in unreasonable conduct"); Boudreaux, *supra* note 116, at 75 (discussing court's decision to forgo balancing); Abrams & Washington, *supra* note 86, at 377–78 (calling the balancing test "problematic").

119. Abrams & Washington, *supra* note 86, at 377–78.

intervening centuries, however, the bar for public nuisances has been uncontroversially relaxed to include lawful conduct that involves conflicting property uses. The irreconcilable needs of water users fall into this category. More controversial have been attempts to reformulate public nuisance as variations on negligence claims.[120] Those have been largely unsuccessful and are not implicated here.

3. Relationship to Statutes and Regulations

As a common law doctrine, public nuisance is subject to preemption by statute. Such preemption happened rather dramatically with the application of public nuisance to water quality cases. In 1972, the Supreme Court held in *Illinois v. Milwaukee* that—contrary to post-*Erie* prognosticators—federal environmental common law still existed. Commenters reacted by crowning public nuisance as a potential gap-filler for federal regulations.[121] That hopeful attitude has persisted,[122] and scholars have noted that public nuisance's environmental role has increased with the proliferation of federal environmental legislation.[123] The doctrine's relevance in the water quality sphere has not lasted, however. Less than ten years later, faced with the same parties, the Supreme Court decided in *Milwaukee v. Illinois* that Congress had preempted the common law claims before it by passing the Clean Water Act. Still, the symbiotic relationship between statutes and common law remains alive and well, and courts must take care to interpret each in light of the other.[124]

The question here then is whether Congress has also preempted water allocation and, perhaps more broadly, regulation of water quantity. Although the Clean Water Act has been used to regulate water quantity in narrowly defined circumstances, and the Supreme Court has acknowledged a connection between water quality and quantity,[125] the answer for now is that Congress has not. Perhaps the

120. *See* Schwartz, Goldberg, & Schaecher *supra* note 94, at 639; Schwartz & Goldberg, *supra* note 88, at 565.

121. *See* Craig E.R. Jakubowics, Comment, *Federal Common Law of Public Nuisance: An Expanding Approach to Water Pollution Control*, 10 UNIV. BALT. L. REV. 134, 144 (1980). ("The Supreme Court intended that the federal nuisance action fill the gaps in the patchwork of federal and state statutes governing the control and abatement of water pollution.").

122. Public nuisance still seems to be a viable gap-filler for hazardous waste disposal. *See, e.g.*, Boudreaux, *supra* note 116, at 83–86 (describing how public nuisance served as a remedial gap-filler for Superfund legislation); Abrams & Washington, *supra* note 86, at 393–95 (asserting that public nuisance can fill gaps in the statutory system regulating hazardous waste disposal). *See generally* Kevin Dothager, Note, *When the Clean Air Act Fails a Public Nuisance May Help* North Carolina ex rel. Cooper v. Tennessee Valley Authority, 16 MO. ENV'T L. & POL'Y REV. 690 (2009).

123. Boudreaux, *supra* note 116, at 63–64.

124. Richard O. Faulk, *Uncommon Law: Ruminations on Public Nuisance*, 18 MO. ENV'T L. & POL'Y REV. 2, 5–7.

125. PUD No. 1 v. Wash. Dep't of Ecology, 511 U.S. 700, 719 (1994) ("Petitioners also assert more generally that the Clean Water Act is only concerned with water 'quality,' and does not allow the regulation of water 'quantity.' This is an artificial distinction. In many cases, water quantity is closely related to water quality; a sufficient lowering of the water quantity in a body of water could destroy all of its designated uses, be it for drinking water, recreation, navigation or, as here, as a fishery.")

clearest expression of Congress' intent to stay out of such issues is the existence of fifty separate water management regimes. Despite a willingness to dive into the details of regulating discharges, pollutants, and navigability, Congress has largely stayed out of water allocations beyond protecting what it deems necessary to protect federal and tribal interests. Instead, it has allowed to persist a water system so complex that it has been analogized to "a marbled cake, with several levels of government intermingled in an irregular pattern."[126] Despite the political, issue, and programming fragmentation that this division of responsibilities has caused,[127] Congress has allowed this system to persist. Similarly, federal courts have waded into interstate water disputes with great hesitation and only when absolutely necessary, expressing repeatedly that they would prefer a solution crafted by states.[128] It is therefore unlikely that Congress intended to preempt federal—and certainly not state—common law around water allocations.

The issue remains, of course, whether it is appropriate for courts to interpret state legislative silence as an invitation to carve out new common law public nuisances.[129] This Article does not plan to resolve this sensitive question because its focus is on the role of courts in upholding or applying state legislative efforts to reallocation water rights under the theory of addressing a public nuisance. However, it is in many ways unfair to characterize prior appropriation as "silent" on the issue of distributive justice. As previously described, prior appropriation is a place-sensitive solution to the problem of scarcity. It does value stability and priority, but more broadly, it is intended to promote flourishing and productivity. Although the letter of the law does not speak on how state legislatures want users to coexist, the prior appropriation system itself can be seen as an expression of their desire to see residents of the arid West healthy and protected from the vicissitudes of supply. Thus, it is not hard to imagine that the regime's architects might have seen widespread overallocation, curtailments, and abuse as a public nuisance.

4. Control and Causation

Control and causation are important for establishing that a remedy is available if the court finds that a public nuisance is being maintained.[130] Here, curtailing the water rights of senior users would functionally remedy the nuisance. Of

126. William, Whipple, Jr., *Future Direction for Water Resources*, *in* WATER MANAGEMENT IN THE 21ST CENTURY 9, 10 (A. Ivan Johnson & Warren Viessman, Jr. eds., 1989) (quoting Professor Henry P. Caulfield).

127. *See* Robert W. Adler, *Addressing Barriers to Watershed Protection*, 25 ENV'T L. 973, 991 (1995).

128. *See* Dana, *supra* note 95, at 25–28. *See also* People v. Rinehart, 377 P.3d 818, 823 (Cal. 2016) ("Following the United States Supreme Court's lead, we traditionally have applied a strong presumption against preemption in areas where the state has a firmly established regulatory role.").

129. For arguments that they should not, *see generally* Faulk, *supra* note 124.

130. *See* Faulk & Gray, *supra* note 85, at 965 ("Control is a necessity because a primary purpose underlying public nuisance is the ability of public authorities to have a legal remedy available . . . .").

course, senior users may and can rightfully claim that they neither control nor cause drought. It is not their fault that water supplies in the West are limited. However, the public nuisance being combatted in these cases is not the nuisance of drought. Rather, the public rights to be vindicated are the right to an ecologically sustainable and secure water regime. That is a nuisance that can be directly abated by a reallocation of water rights. It is difficult (though not impossible[131]) to prove that over-allocations and wasteful withdrawals contribute to drought and overall water insecurity. But it is much easier to establish that such usage leads immediately to harms for junior users.

Turning back to *Mineral County*, it is no mystery why downstream users experienced harmful shortfalls. Neither the defendants nor the court contested that upstream users could essentially fix the problem by leaving more water in the river. Thus, the upstream users' water usage qualifies as both causing and controlling a public nuisance. Again, calling this a nuisance is not intended to invoke traditional conceptions of criminality or negligence. Public nuisance doctrine is concerned with outcome and ignores underlying legality. Indeed, early cases involving pollution abated legal industrial activity.

5. Other Characteristics

Several other qualities of the public nuisance doctrine make it exceptionally suited for use by states. First, the abatement of public nuisances draws on a court's equity powers, which include the power to adapt in a way that statutory text cannot.[132] Before its decision was superseded by statute, the Supreme Court specifically prescribed a flexible, sensitive approach to federal common law with "no fixed rules"—"the applicable federal common law depends upon the facts peculiar to the particular case."[133] This approach is exactly the type needed to effectively analyze reallocation of settled water rights. It should and does not assume that all senior water users are wasteful or unscrupulous. It similarly does not view all junior users as automatically deserving or in need of a vindication of their rights. Instead, it simply maintains that there is a commonly held right to a sustainable water supply. Although states should be the first to determine proper allocations, courts have considerable equity power to confirm or question whether the resulting regime ultimately serves this aim.

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131. Colum. Univ. School of Eng. & Applied Sci., *New Feedback Phenomenon Found to Drive Increasing Drought and Aridity*, ScienceDaily (Sept. 2, 2019), https://perma.cc/VZ2P-9T9L; Brian Kahn, *Drought Reinforcing Drought in the U.S. Southern Plains*, ClimateWatch Mag. (July 6, 2021), https://perma.cc/9GG6-XF4E. Recognition of this may need to start with the legislature, but courts "sometimes do stretch traditional tort requirements of causation." Dana, *supra* note 92, at 21.

132. Abrams & Washington, *supra* note 86, at 360 ("If courts of equity are to continue to 'do equity,' time-honored common law rules must eventually yield to modern realities. After all, the great pride of the common law is its ability to adapt.").

133. Jakubowics, *supra* note 121, at 166.

Second, courts abating public nuisances are specifically empowered to issue injunctive relief.[134] Public nuisance remedies are dependent on the identity of the plaintiff; public plaintiffs, like governments, are entitled to seek injunctions, while private plaintiffs can seek damages.[135] Traditionally, public plaintiffs are precluded from seeking damages, and private plaintiffs cannot win injunctions.[136] Here, those remedies are in alignment with the needs of users. Governments or sovereigns can seek enforcement of their reallocations (or, if they deem courts institutionally competent, request reallocation by the court), and courts can deliver such a remedy for them if so requested.

Although this Article will not explore the ability of private parties to sue over such allocations, courts in that position would presumably only be able to provide plaintiffs with damages for their own injuries—perhaps with additional damages for the loss of a functioning watershed. Oftentimes, critics of public nuisance expansion are perhaps justifiably concerned about the appropriateness of allowing a single plaintiff to demand that a court undertake the legislative role of reallocating rights.[137] By adhering to a traditional relief structure, such outcomes can be avoided, and the separation of powers can be maintained.[138]

Third, the doctrine of public nuisance has no statute of limitations,[139] making it easier for states to reform systems as deeply entrenched as prior appropriation. Fourth, the doctrine has been held to overcome the so-called "permit shield," under which state authorization can be raised as a defense.[140] The lack of a permit shield means that a nuisance can still be found even though the allocations are backed by a state-issued permit. Fifth, public nuisance claims by the government circumvent the "free-rider" problem that often stymies privately-driven environmental remediation.[141] Sixth, and finally, public nuisance claims traditionally mandate a focus on a clearly defined geographic scope and identifiable

134. *See* Merrill, *supra* note 87, at 17–18.

135. *See* Faulk & Gray, *supra* note 85, at 950.

136. *See id*.

137. *See* Merrill, *supra* note 87, at 6 ("My principal claim is simply that the legislature must speak before courts use public nuisance law to adjudicate lawsuits targeting controversial social harms."); Antolini, *supra* note 90, at 875–79; Dana, *supra* note 95, at 13, 35.

138. If legislatures do not explicitly define or act under a public nuisance theory, courts can still use their common law powers to define or enforce such a right. In that scenario, however, it will perhaps be impossible for the court to truly divest from its own judgments regarding the legislature's policy choices. As one scholar has noted, the public nuisance doctrine "invests in the courts the task of social planner, and as such, it seems to invest in courts tasks that one might think would belong more appropriately in the legislative arena." Dana, *supra* note 92, at 14.

139. *See* Boudreaux, *supra* note 116, at 64.

140. *Id*. at 81–83.

141. The "free-rider" problem stems from the lack of incentives for any one owner to take on the costs of suing to abate a nuisance, given that all of their neighbors will benefit for free. *See id*. at 72 (calling the free-rider problem the "Achilles heel" of private public nuisance suits).

actors[142]—information that is easily supplied by an existing state permit system and central to any attempts at reallocating usage rights across a watershed.

B. THE RELATIONSHIP BETWEEN PUBLIC TRUST, PUBLIC NUISANCE, AND PRIOR APPROPRIATION

Preventing public nuisance and protecting the public trust are, in many ways, similar endeavors. Both are responses to breakdowns in the political process[143] and can be valuable gap-fillers even in a detailed statutory regime.[144] One scholar has even called public nuisance an "inland version of public trust doctrine," and others have explicitly connected it to natural resources.[145]

However, public nuisance has a few key differences. For one, it is more focused on case-by-case resolution, rather than functioning as an overarching principle of law.[146] In some ways, it can be conceived of as a higher but more dispositive bar than the public trust standard.[147] As discussed, modern public nuisance is also a product of collaboration between common law and statutes.[148] It is typically deployed by the government against private conduct, rather than flowing both ways as a tool and check on government interests.[149] Courts combatting a public nuisance are fundamentally invoking the state police power to protect health, safety, and welfare.[150] Though the state is the possessor of police power, courts monitor and sometimes channel the exercise of this power by fixing the limits of property rights—including those limits inherent to the rights.

Ultimately, these characteristics of the doctrine may give it substantive and procedural advantages over an extension of the public trust doctrine. For example, the public trust doctrine has been criticized as an unnecessary common law solution to a problem that is best resolved through regulation by legislative and administrative bodies.[151] If this criticism is true, the public nuisance doctrine can serve as a comparatively unobtrusive gap-filler. Because enforcement of public nuisance is traditionally limited to governments, initial decision-making in public nuisance cases remains with the state.[152] Even private parties that can establish standing can only prevail on their claims if they can demonstrate adequate public

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142. *See* Faulk, *supra* note 124, at 19.

143. Albert C. Lin, *Public Trust and Public Nuisance: Common Law Peas in a Pod*, 45 U.C. DAVIS L. REV. 1075, 1078–79 (2012).

144. *Id*. at 1083.

145. *Id*. at 1078.

146. *Id*. at 1091.

147. Abrams, *supra* note 25, at 165 (describing the currently "low bar" of "avoiding an affirmative nuisance or a threat to public health").

148. *See* Lin, *supra* note 143 at 1096.

149. *Id*. at 1092.

150. *See id*. at 1077 ("Public nuisance is no ordinary tort, however, as its invocation . . . involves an exercise of the state's police power.").

151. *See* Lazarus, *supra* note 80, at 665–68.

152. *See* Lin, *supra* note 143, at 1093.

interests at stake. This raised bar facilitates a coordinated use of the doctrine with existing regulatory frameworks and in keeping with modern trends in public nuisance law, incentivizes legislatures to participate by passing statutes that define the public right at issue.[153] Additionally, for states and courts wary of sweeping change in water rights, the public nuisance doctrine's case-by-case constraint functions as a reliable but incremental approach to reallocating water rights.

Nuisance limits are a part of the background principles for property rights (including water rights),[154] and both private and public nuisance suits have been used to regulate water quality.[155] In the prior appropriation context, courts have held that senior users cannot expect totally natural water quality, though they may be entitled to "be free from unreasonable interference . . . by material deterioration of water quality."[156] The rights of junior users are less clear—the courts that have chimed in are split over whether junior users take water as they find it or if there is a right to water fit for diversion.[157]

Overall, there is surprisingly little intersection between even private nuisance law and prior appropriation. In the prior appropriation context, nuisance arises when a *junior* user's right impedes a senior user's right.[158] This nuisance arises regardless of what kind of harm the senior and junior users experience. This creates somewhat strange scenarios in which behaviors take on a nuisance quality purely because of the prior appropriation system. Behavior that might be a nuisance in other contexts—cutting off all access to water, for example—is acceptable if the user is a senior user. Behavior that is not a nuisance elsewhere—diverting water without destroying the source—is a nuisance when it is performed by a junior user. And although public nuisance has been used to regulate water quality, there is currently no meaningful intersection between public nuisance law and prior appropriation.

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153. *See id*. at 1096.

154. *See* Leshy, *supra* note 75, at 2000 ("[Y]our neighbor's property right does not include, and has never included, the right to use her land in a way that causes a nuisance. California court decisions dating back more than a century stand for the proposition that using water in such a way to impair fisheries may be a nuisance, and if so, this use can be stopped without compensating the water rights holder."); Craig, *supra* note 43, at 154 ("Clearly, when water pollution becomes bad enough, landowners can sue each other for nuisance.").

155. A thorough 1993 survey found that public nuisance claims made up about 13% of common law water pollution suits, many addressing "contamination of public water supplies" or "creation of widespread odors." Private nuisance suits made up 38% and were the leading legal theory. Davis, *supra* note 77, at 3–4.

156. *See* Davis, *supra* note 77, at 5 (surveying cases).

157. *See id*.

158. *See, e.g*., Willey v. Decker, 73 P. 210, 214 (Wyo. 1903).

III. Defining The Public Water Right

Courts might be reluctant to break new ground in public nuisance because the doctrine has traditionally required a hands-on court.[159] To bring a successful claim, plaintiffs must establish the existence of a public right, consensus on which has eluded courts even as they have defined those rights on a case-by-case basis.[160] After establishing the right, courts must then determine what qualifies as a substantial and unreasonable interference with that right. And, as with the public trust doctrine, expansion of that right might be difficult without "a readily defensible stopping point."[161] At each step, they must "resist deciding political question controversies where they cannot devise definitive standards and rules for their adjudications."[162]

In building out a water rights-public nuisance doctrine, however, courts have an intuitive and uncontroversial reference point for analysis and standard-setting—wetlands and floodplains. Since the 1970s, state courts have been instrumental in the regulation of wetland and floodplain development, upholding the power of states to do so against takings challenges. Along the way, they have provided principles that can be used to guide courts as they wade into the reform of prior appropriation water rights. This Part will first establish why these cases are useful to the task of defining the public water right. Then, it will extract from those cases two principles that can serve as functional standards for adjudicating the public water right.

A. wetlands and floodplains as a model

There are several reasons that the body of wetland and floodplain case law is appropriate as a reference point for regulating water use more generally. Most obvious are the superficial similarities. To put it crudely, wetlands and floodplains are where water and land meet and, subsequently, where the fluctuating and risk-laden body of water law collides with the solid and settled field of real property law. But the doctrinal roots for this comparison run even deeper. In navigating this transition, courts often justified their decisions with references to the characteristics of the natural resources themselves. Those decisions tended to specially emphasize that the resources were interconnected, irreplaceable, and in danger—qualities that are present in water resources today.

159. Lin, *supra* note 143, at 1084 ("Courts prescribe the duties and limitations of the public trust doctrine, just as they determine in public nuisance cases what comprises a substantial and unreasonable interference with a public right.").

160. *Id*. at 1090.

161. *Id*. at 1089.

162. Faulk, *supra* note 124, at 19.

1. The Interconnected Nature of the Water Resource

When the Texas Supreme Court held that the right to pump groundwater was so absolute as to allow such pumping to endanger neighboring property, a dissenting justice observed that "[m]any things, though lawful, when done to excess, become remediable."[163] "What we do," he wrote, "cannot be understood except in relation to those we touch."[164] In such cases, he argued, nuisance claims—among others—may be allowable.[165] Other states have been more sensitive to these interlocking interests. The Wisconsin Supreme Court, for example, wrote that "what makes this [wetlands regulation] case different from most condemnation or police power zoning cases is the *interrelationship* of the wetlands, the swamps and the natural environment of the shorelands to the purity of the water and to such natural resources . . ."[166] Based on this understanding, which it called "more sophisticated" than traditional views about wetlands, the court recognized a public benefit to maintaining such ecosystems through a public trust and in their natural state.[167]

Similarly, when evaluating regulation of floodplains, courts have observed that the effects of development are not constrained to the parcel being altered. The Iowa Supreme Court, for example, is one of several courts that found no taking when owners were prevented from developing a floodplain because "the collective benefits of the regulatory action outweigh the restraint imposed."[168] In defining those collective benefits, courts often point to the benefits of avoiding the external costs associated with preventing or remedying flooding.[169] The Georgia Supreme Court has made similar findings about maintaining riparian corridors themselves.[170] These holdings were important to the regulation of natural resources, but they were not necessarily novel. As one scholar has written,

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163. Friendswood Dev. Co. v. Smith-Southwest Indus., Inc., 576 S.W.2d 21, 33 (Tex. 1978) (Pope, J., dissenting).

164. *Id.*

165. *Id.* at 34.

166. Just v. Marinette, 56 Wis. 2d 7, 16–17 (Wis. 1972) (emphasis added).

167. *Id.* at 17.

168. Easter Lake Est., Inc. v. Polk Cnty., 444 N.W.2d 72, 76 (Iowa 1989). *See also* Smith v. Town of Mendon, 4 N.Y.3d 1, 15 (N.Y. 2004) ("a modest environmental advancement at a negligible cost to the landowner does not amount to a regulatory takings"); Turnpike Realty Co. v. Dedham, 362 Mass. 221, 235 (Mass. 1972) ("restrictions must be balanced against the potential harm to the community from overdevelopment of a flood plain area."); McElwain v. Cnty. of Flathead, 811 P.2d 1267, 1272 (Mont. 1991) (upholding floodplain restriction because "the public interest involved here outweighs the encroachment upon appellant's property"); Krahl v. Nine-Mile Creek Watershed Dist., 283 N.W.2d 538, 543 (Minn. 1979) (noting that because a natural marsh was "the district's only means of flood control . . . unrestricted filling of the floodplain poses a substantial threat to the public").

169. *See, e.g.*, Beverly Bank v. Ill. Dep't of Transp., 579 N.E.2d 815, 821 (Ill. 1991); Turnpike Realty, 362 Mass. at 228–29; Columbia Venture, LLC v. Richland Cnty., 776 S.E.2d 900, 915–16 (S.C. 2015); Responsible Citizens in Opposition to Flood Plain Ordinance v. City of Asheville, 302 S.E.2d 204, 209 (N.C. 1983).

170. *See* Pope v. City of Atlanta, 249 S.E.2d 16, 19–20 (Ga. 1978).

"subordination of private rights to public claims in natural resources is not new or unfamiliar."[171]

These ideas—that natural resources and human well-being are internally interconnected and connected to each other—apply with equal force to the use of water itself. Few natural resources are as interconnected as water. Indeed, the *Mineral County* majority (over the dissent's objection[172]) based its holding on the idea that protecting the public interest would inevitably diminish the water rights of existing users.[173] Similarly, before certifying questions for the Nevada Supreme Court, the Ninth Circuit resolved for itself the issue of whether the river and lake were both part of the Walker River Basin and thus subject to the prior consent decree.[174] It found that historically, the two were considered to be connected components of the larger river basin.[175]

This holistic view of watersheds is an essential part of any water law reform, because such interconnectedness triggers the inherent limits embedded in all property rights and animates much of nuisance law itself.[176] As scholars have pointed out, it is both inaccurate and damaging to separately manage groundwater and surface water, as the two are intertwined and inseparable.[177] However, even if state legislatures move to manage both sources together, state courts need to subsequently recognize and enforce those changes.

In fact, legislative and judicial conceptions of watersheds may need an even more radical refresh. Scientific research suggests that watersheds are best viewed as four-dimensional—varying longitudinally (upstream-downstream), laterally (floodplain-uplands), vertically (groundwater-surface water), and temporally (across time).[178] These dimensions often bear little relation to political or even physical boundaries.[179] At least one federal court has pointed to this "dynamic" quality of watersheds as justification for upholding water quality regulations under the federal Clean Water Act—just one example of how courts can update their own perceptions of water resources. This kind of "more sophisticated" view can also be applied to justify an extension of police power over watersheds more generally.[180]

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171. Sax, *supra* note 64, at 274.
172. *See* Mineral County, 473 P.3d at 436 (Pickering, J., dissenting).
173. *See id.* at 428.
174. *See* United States v. U.S. Bd. of Water Comm'rs, 893 F.3d 578, 604–06 (9th Cir. 2018).
175. *See id.*
176. See Rashmi Dyal-Chand, *Sharing the Cathedral*, 46 Conn. L. Rev. 647, 649–50, 683 (2013).
177. *See, e.g.*, Owen, *supra* note 38, at 268. *See also* Epstein, *supra* note 60, at 2361 ("[O]ne serious problem is the strong and correct perception that it is no longer possible to maintain separate systems for (under)ground water and surface waters, given the interactions between them.").
178. *See* Adler, *supra* note 127, at 982.
179. *See id.*
180. Am. Farm Bureau Fed'n v. EPA, 792 F.3d 281, 300 (3d Cir. 2015).

2. The Irreplaceable and Endangered Status of Water Resources

In addition to recognizing the holistic nature of watersheds, courts have drawn a connection between wetlands' irreplaceable nature, their endangered status, and the need to regulate their development. For example, the Alaska Supreme Court has noted "the unique ecological and economic value that wetlands provide" through ecosystem services.[181] Alaska is not alone in recognizing that wetlands play a specific role in protecting the health of the planet and its inhabitants. Our understanding of this role—and its interaction with natural disasters like flooding—has only grown in the age of climate change.[182] Indeed, when upholding state regulation of wetlands, several courts have noted the relevance of new information about their importance.[183] These important functions of wetlands were considered additionally deserving of protection because they were actively under siege.[184] The New Hampshire Supreme Court went so far as to find that "the development of wetlands was injurious to the public *because of the unique nature of a vanishing resource*."[185]

Our understanding of water resources has undergone the same evolution. We no longer conceive of water as an endlessly renewable resource.[186] Experience has taught us that the availability of water in aquifers, rivers, and lakes is not constant or inevitable. Rivers run dry. Lakes shrink. Aquifers empty.[187] In turn, those who rely on them go without. There are no alternatives to a stable water supply,

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181. R&Y, Inc. v. Mun. of Anchorage, 34 P.3d 289, 298 (Alaska 2001).

182. *See Why are Wetlands Important?*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (Mar. 31, 2021), https://perma.cc/MQ24-ZXQQ.

183. *See, e.g.*, Brecciaroli v. Conn. Comm'r of Env't Protection, 362 A.2d 948, 951 (Conn. 1975) (noting "extensive support in recent case law and commentary with respect to the importance of wetlands as natural resources and with respect to their imminent demise at the hands of man"); Gardner v. N.J. Pinelands Comm'n, 593 A.2d 251, 261 (N.J. 1991) (questioning whether precedent finding a taking from wetlands restrictions was still good law given "the emerging priority accorded to the ecological integrity of the environment" and growing recognition of "the environmental and social harms of indiscriminate and excessive development"); Milardo v. Coastal Res. Mgmt. Council, 434 A.2d 266, 269 (R.I. 1981) (discussing at length the dynamic nature of harm definition and "the power of society to guard against these newly perceived dangers").

184. *See id*.

185. Claridge v. N.H. Wetlands Bd., 125 N.H. 745, 750 (N.H. 1984); *see also* Sibson v. State, 115 N.H. 124, 129 (N.H. 1975) (emphasis added) (analogizing wetlands case to "cases where individuals are required to cease heretofore lawful activities now determined harmful to the public," *id*. at 129).

186. *See, e.g.*, Griggs, *supra* note 35, at 1282–83 ("[Legislatures and courts] retained the assumption that the [hydrologic] system as a whole was replenished on a regular basis by rainfall. The largest supply of water in the region, the huge but effectively non-renewable supplies of the Ogallala, did not figure into their considerations. Over the next decades, it turned the legal world of water upside down.").

187. This Article is not addressing groundwater depletion, but suffice it to say, the depletion of aquifers is an intertwined and equally urgent issue. *See* Noah Gallagher Shannon, *The Water Wars of Arizona*, N.Y. TIMES (July 19, 2018), https://perma.cc/592C-LDSA (addressing the prevalence of groundwater depletion, an issue that is not the focus of the present Article, but an intertwined and equally urgent issue); Laura Parker, *What Happens to the U.S. Midwest When the Water's Gone?*, NAT'L GEO. (Aug. 2016), https://perma.cc/Y5WQ-KHMR.

and this irreplaceable, vanishing resource deserves the same protections that courts extended to the wetlands around it.

From these characterizations of the regulated resource as irreplaceable and endangered flows the possibility of a public nuisance. As previously described, the New Hampshire Supreme Court considers wetlands development "injurious to the public."[188] Several other states have reached similar conclusions, sometimes using language that directly triggers public nuisance protections.[189] For example, the Wisconsin Supreme Court held that "it is not an unreasonable exercise of [police] power to prevent *harm to public rights* by limiting the use of private property to its natural uses."[190]

B. SETTING STANDARDS FOR THE PUBLIC WATER RIGHT

If there is a public right to a sustainable water system, states can protect that right from public nuisances. However, they must do so with manageable standards in mind. The case law around the regulation of wetlands and floodplains provides two such standards. First, courts rejected that there is a right to fundamentally change a natural resource. Second, they rejected—as all of property law does—the existence of a right to harm others. Both principles map cleanly onto the definition of a public water right and public nuisances against it. Put succinctly, courts should be empowered to uphold the reallocation of water rights—even prior appropriations—if full withdrawals would threaten the water supply itself and thus harm others. The first condition would generally justify curtailments, even for senior users, while the second would justify deviating from a strict policy of curtailing junior rights to protect senior ones.

1. The "Natural State" Principle

The first principle originates from *Just v. Marinette*, a major decision by the Wisconsin Supreme Court.[191] As previously described, the *Just* court adopted a "natural state" rule that prioritizes the preservation of a natural resource. Under this rule, private property owners have no overriding right to "change the essential natural character of his land so as to use it for a purpose for which it was unsuited in its natural state and which injures the rights of others."[192] The true impact of the *Just* decision is debatable—some have suggested that, like the

188. *Claridge*, 125 N.H. at 750.

189. *See, e.g.*, Brecciaroli v. Conn. Comm'r of Env't Prot., 362 A.2d 948. 951 (Conn. 1975) (upholding wetlands regulation because "police power may properly regulate the use of property where uncontrolled use would be harmful to the public interest"); Avenal v. States, 886 So. 2d 1085, 1107 n.28 (La. 2004) (quoting *Lucas* and rejecting a takings claim based on water diversion, because saving the coastline was "an actual necessity" that would "forstall [sic] [a] grave threat to the lives and property of others").

190. Just v. Marinette Cnty., 56 Wis. 2d 7, 17 (Wis. 1972) (emphasis added).

191. *See generally id.*

192. *Id.* at 17.

Mono Lake doctrine, it has relatively limited import.[193] If nothing else, however, the *Just* decision has been cited by other state courts to reject the idea that property owners are entitled to the "highest" or "best" use of their land, especially when it would require extensive interference with natural resources.[194] As the Supreme Court has noted in the zoning context, there is no right to get the most out of property.[195]

The *Just* rule can be easily adapted for water resources. Although users with prior appropriations do have a right to priority and stability when possible, they ultimately do not have an absolute right to get the most water possible—especially if doing so will "change the essential natural character" of the water resource. Admittedly, defining this kind of fundamental change will present many close cases. A water resource cannot be fully sealed off or untouched in the same way that a wetland or floodplain can be. However, years of agency expertise can help courts define when use of a resource undermines its natural character.

Additionally, courts can treat the public trust as a proxy for the public right. *Mineral County*, for example, was not a close case. For over a decade, government agencies and community advocates had been warning that the lake at issue was existentially threatened.[196] The majority did not even go out of its way to dispute that more water would be needed to adequately protect the public trust—it simply held that such a need would not be sufficient to override existing water rights.[197] Under *Just*, however, even the settled prior appropriation right of an upstream user does not and never has included an absolute right to continue withdrawals if they would destroy the lake entirely. As one scholar has written, "a water right that enables its owner to eliminate the source of water upon which that right depends cannot be a permanent real property right; it cannot even be a usufructuary one."[198]

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193. *See generally* David P. Bryden, *A Phantom Doctrine: The Origins and Effects of Just v. Marinette County*, 3 AM. BAR FOUND. RES. J. 397 (1978).

194. *See, e.g.,* Gil v. Inland Wetlands & Watercourses Agency of Town of Greenwich, 219 Conn. 404, 412 (Conn. 1991) (calling the natural state standard "plausible" but choosing not to reach it); Graham v. Estuary Props., Inc., 399 So.2d 1374, 1382 (Fla. 1981) (adopting *Just* and agreeing with that court's "observations" about "exceptional circumstances" around wetlands). *See also* Neifert v. Dep't of the Env't, 395 Md. 486, 516–18 (Md. 2006) (holding that, even though denial of permit rendered lot undevelopable, no taking occurred because granting permit would have created a nuisance); J.M. Mills, Inc v. Murphy, 116 R.I. 54, 70–71 (R.I. 1976) (citing state statute that requires courts to make a determination as to whether "the proposed alteration would not essentially change the natural character of the land, would not be unsuited to the land in the natural state, and would not injure the rights of others"); Milardo v. Coastal Res. Mgmt. Council, 434 A.2d 266, 269 (R.I. 1981) (finding no property right to "discharge waste into the surrounding area").

195. *See* Goldblatt v. Hempstead, 369 U.S. 590, 592–93 (1962) (collecting cases).

196. *See History of Walker Lake*, WALKER BASIN CONSERVANCY, https://perma.cc/YU32-YRN2.

197. *See Mineral County*, 473 P.3d at 422 ("While the cause of [Walker Lake's] decline is attributable to multiple factors . . . it is clear that upstream appropriations play at least some role.").

198. Griggs, *supra* note 35, at 1317.

Admittedly, this argument only provides solid doctrinal ground from which to justify curtailments on senior users that would typically be immune from such abrogation. A strict prior appropriation regime could still protect senior users by forcing junior users to go completely without water. At the extremes, the traditional model—in which junior users get nothing and senior users get everything—could still be deemed environmentally sustainable as long as it brings total usage below a certain level and makes it responsive to actual year-to-year supply.

However, this status quo is based on a faulty premise and produces unreasonable outcomes. Many early water rights were based on inaccurate or over-inflated accounts of water usage.[199] Those flimsy paper rights then entrenched users who have an incentive to continue maximizing their share of the supply. Meanwhile, late-comers can have their usage rights extinguished regardless of the reasonableness of their use, the sustainability of their practices, or the necessity of their business. This puts municipalities, who generally sought appropriations later than farmers, at a significant disadvantage when it comes to securing adequate water supplies.[200] It also creates uncertainty in the labor market for farmers that are unlucky enough to be junior users.[201] At least one study has suggested that such burdens can be disproportionately concentrated in poorer regions.[202] Such inequitable and harmful outcomes cut against the original aims of the prior appropriation doctrine, which sought to protect vulnerable users against large corporate interests and protect the public's interest in reliable access to water.[203]

2. The "Do No Harm" Principle

To address similar harms in the public nuisance context, courts have invoked the widely accepted principle that there is no absolute right to use property in a way that would cause harm to others or endanger the public. In the process, they outlined ways that water rights specifically interact with harm. In fact, the harm principle was part of the *Just* Court's holding. However, incorporating it

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199. Abrams, *supra* note 25, at 154–55 ("Such inflation of claims resulted in what are pejoratively (yet aptly) termed 'paper rights.'").

200. For example, cities in Idaho have been repeatedly entangled in legal attempts to protect their water rights. *See* Mychel Matthews, *Water Curtailment or None, Groundwater Users Adjust to Unpredictable Supplies*, TIMES-NEWS (Jun. 25, 2019), https://perma.cc/R8YH-Y4XH; Bryan Clark, *Cities Face Curtailment Without Water Deal*, TIMES-NEWS (Apr. 22, 2016), https://perma.cc/JAR9-KHVG; Greg Moore, *Cities to Jointly Defend Water Rights*, IDAHO MOUNTAIN EXPRESS (Jun. 17, 2015), https://perma.cc/7RLZ-D47F.

201. *See* Kate Mailliard, *Expanding Pockets, Shrinking Farms: How the "Buy and Dry" Method Creates Vulnerability in the Farming Labor Market*, Univ. of DENVER WATER L. REV. 722, 735 (2020).

202. *See* Zachary P. Sugg, *An Equity Autopsy: Exploring the Role of Water Rights in Water Allocations and Impacts for the Central Valley Project during the 2012-2016 California Drought*, 7 RESOURCES 1, 11 (2018).

203. *See generally* DAVID SCHORR, THE COLORADO DOCTRINE (2012); *see also* Griggs, *supra* note 35, at 1320 ("Because water is an inherently public resource, considerations of the public and the public interest have long played a central role in the administration of western water law.").

ultimately does not rely on a full-scale adoption of the *Just* rule. Instead, it simply requires a return to police power basics.

Courts upholding the regulation of wetlands and floodplains almost universally found that challenged regulations were bottomed on the state police power to protect health, safety, and welfare. The Florida Supreme Court, for example, is just one court that has held specifically that "protection of environmentally sensitive areas and pollution prevention are legitimate concerns within the police power" and upheld a regulation that "promotes the welfare of the public [and] *prevents a public harm*."[204]

Public nuisance doctrine was devised to prevent such public harms, and the mismanagement of water resources poses an even more immediate public harm.[205] More North Americans are affected by drought than by any other natural disaster.[206] Water shortages and droughts have a tangible impact on public health.[207] Overuse of water exacerbates the problem, meaning the current system locks us into a destructive feedback loop.[208] Prior appropriation is premised on the idea that the public benefits from effective allocation of the water resource, but the current version of the doctrine threatens the viability of that resource and thus harms the public. Worse, it does so in a way that is unequal across society.[209]

Addressing the distributive and environmental justice concerns within that harm is something for which public nuisance doctrine is exceptionally well-suited. Under this framework, the judicial role remains appropriately limited. Public nuisance claims do not require courts and states to undertake a sweeping reallocation of long-settled water rights. Rather, such claims are resolved on a case-by-case basis. Courts simply need to recognize that reallocation by the state may be necessary to prevent harm and "balance the equities" for public nuisance claims. States retain the sole power to consider the size of harm to affected parties.[210] Although there may be viable private nuisance cases in some situations,

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204. Graham v. Estuary Props., Inc., 399 So. 2d 1374, 1381 (Fla. 1981).

205. While wetlands cases dealt primarily with pollution, the distinction between water quality and water quantity is arguably a meaningless one. *See* Sax, *supra* note 63, at 271.

206. Griggs, *supra* note 35, at 1263.

207. Carla Stanke et al., *Health Effects of Drought: A Systematic Review of the Evidence*, PLOS CURRENTS 1, 1 (2013), https://perma.cc/AKK5-ZUWK.

208. For example, when junior users have their rights curtailed, they often turn to groundwater pumping, a practice with similarly severe consequences on overall hydrologic stability. *See, e.g.*, *id.* at 1297 ("[Groundwater] depletion has less immediate consequences than drought, but those consequences are more profound. Depletion usually takes longer to appear, in the form of reduced streamflow; but its effects on the hydrological system can endure far longer.").

209. Though there is little empirical research on equity within the prior appropriation system, there is evidence that the impacts of drought fall disproportionately on some racial groups in states like California, which still remains elements of the prior appropriation system. *See, e.g.*, Kristoffer Wikstrom et al., *Environmental Inequities and Water Policy During a Drought: Burdened Communities, Minority Residents, and Cutback Assignments*, 36 REV. POL'Y RES. 4, 4–27 (2019).

210. For example, curtailment of a major senior right might result in a loss of profit, while widespread curtailments of junior right could force a large group of users out of business. This may justify reallocation to avoid the public nuisance of widespread disruption or destruction. Of course, the

courts should focus on evaluating aggregate harm for its impact on public rights. Finer judgments about whether one upstream user is solely responsible for downstream harms are best left to other, more competent institutions.

Ultimately, even this limited intervention—defined generally as power to prevent interference with public rights—is sufficient to create real change and protect states as they attempt the prior appropriation system back toward sustainability. Under a public nuisance theory, for example, the state could modify the Walker River Consent Decree to prevent harm to Mineral County, which itself represents the public interests of its residents.

IV. ADDRESSING CONCERNS WITH THE PUBLIC NUISANCE MODEL

Although the public water right can be defined and limited in a way that is appropriate for judicial adjudication, there remain other reasons to be concerned about the use of public nuisance doctrine in the context of water use regulation. This Part will address several of those concerns. First, it will consider whether public nuisance can be used to unsettle water allocations without functionally eviscerating the prior appropriation system. Second, it will address the inevitable takings challenge that would arise against such an action. Third, it will note the doctrine's reliance on public plaintiffs. Fourth, and finally, it will acknowledge the doctrine's most crucial limits: its inability to shift our fundamental conception of water rights as anthropocentric. Underlying this Part is the acknowledgment that, like any other common law solution, public nuisance doctrine should not be seen as a silver bullet. It is powerful but should not (and cannot) extend beyond the power of the courts themselves.

A. WHAT'S LEFT OF PRIOR APPROPRIATION?

It is reasonable to wonder what would be left of a water right if these modifications are allowed. Certainly, the right of senior users to a guaranteed amount of water is borderline sacred in western water law. However, blind adherence to this component of the doctrine at the expense of all others ignores the principles that animated prior appropriation from its inception. As previously discussed, prior appropriation was intended to protect the public interest, promote distributive justice, and prevent waste. It has traditionally included three important doctrinal elements not found in the riparian system: (1) "first in time, first in right"; (2) beneficial use; and (3) actual diversion.[211] The first can be watered down while still respecting the second and third. The result would be a system that better promotes the underlying goals of prior appropriation.

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reverse is possible as well. While prior appropriation doctrine largely ignores the reasonableness of use (focusing instead on broad conceptions of "beneficial use"), states may be forced to make difficult policy decisions about the necessity of water across different uses. Courts should display the typical levels of deference accorded to those policy choices.

211. Benson, *supra* note 21, at 680–82.

It is important to note at the outset that "first in time, first in right" does not need to be totally disregarded by courts. The limits imposed by the public nuisance doctrine are inherent, existing limits that are found in all property rights. They would only be activated by water usage of a certain kind, in a certain amount, or with a certain effect. When water is plentiful, use is reasonable, or the harm is not great enough, those outer limits are not reached. In those contexts, prior appropriation can operate as it does today.

Even if a public nuisance forms and the state acts, the general principle of "first in time, first is right" can still be honored. Senior users can still maintain their position of privilege. Their interests can still take priority over that of junior users. In practice, this could impose on states a reasonableness-blind obligation to minimize senior right curtailments. Although junior users can only assert the functional equivalent of minimum in-stream flows—that is, enough water to keep their business or municipality from a crisis point—senior users can still maintain the right to the maximum amount of profit that is possible *without endangering others*. This is still a significant benefit, especially in states that allow for water rights to be sold and transferred.

The remaining two elements of prior appropriation are unaffected by public nuisance law. Water users would still have an obligation to demonstrate that their water withdrawals are being put to a beneficial use, and they would retain the right to transfer their allocations between beneficial uses. Similarly, water users continue to perfect their right through actual diversion, and their right to maintain the structures necessary for that diversion are unaffected. At most, public nuisance law might encourage states to more clearly define or strictly enforce these two requirements. They are, after all, intended to effectuate the anti-waste and public interest aims of prior appropriation. However, just as with the public trust doctrine, a sudden uptick in enforcement is well-within the rights of the state.[212]

B. THE TAKINGS PROBLEM

Like other changes in water law or regulation more generally, any attempt by a state to reallocate water will likely be met almost immediately with a takings challenge.[213] Under the federal Constitution, property cannot be taken without compensation.[214] And perhaps because of water's dynamic nature and importance

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212. Sax, *supra* note 64, at 269 (disputing the idea that "a standard once set (such a waste rule in water law) cannot be subsequently tightened up").

213. Though it went largely unchallenged, the initial institution of the prior appropriation system was itself arguably a massive taking by courts. *See* Epstein, *supra* note 60, at 2361 ("The judicial decision that set aside the early property rights system was open to a strong challenge on takings grounds, given that these rights were 'vested.' But in this case, the Colorado court performed marvels of statutory interpretation to essentially read the riparian rights system off the books and anoint the prior appropriation system its successor.").

214. Some state constitutions also have their own takings clause, but this Article will not survey or address individual state takings claims.

to human life, cases involving water make up a sizable share of the Supreme Court's takings precedent.[215] Attempts to curtail the water rights of senior water users are reflexively (and sometimes successfully) litigated as takings,[216] and scholars have raised concerns that such claims could potentially pose a significant barrier to legal reform in a water-scarce future.[217] This section argues first and foremost that the takings problem can be avoided entirely, because prevention of a public nuisance simply requires the enforcement of the existing and inherent limitations embedded in every property right. However, the doctrinal underpinnings of water law are still murky and subject to change.[218] Thus, this section will also discuss how the application of public nuisance can survive takings challenges of all stripes.

1. "Background Principles" of Law

As previously discussed in Section III.B, all property rights—but especially water rights—are subject to inherent limitations. Some of the most well-established and uncontroversial include the Lockean limit (which preserves the continuing availability of property for others), the harm limit (which prevents the use of property to harm others), and the monopoly limit (which prevents an owner from exercising complete or permanent ownership). These inherent limits are not derived from any statute or recent common law developments. Instead, they are drawn from the very foundations of our property law system. They are, to use the Supreme Court's terminology, "background principles" of property law. In fact, it is inaccurate to say that they are limits placed *on* a right. Rather, they are gatekeeping limits that prevent a right *from forming at all*. There is no right to use a resource in a way that would destroy its source, harm others, or create a monopoly. Therefore, there is no right that can be taken.

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215. *See, e.g.*, United States v. Willow River Power Co., 324 U.S. 499 (1945) (hydroelectric power); United States v. Dickinson, 331 U.S. 745 (1947) (erosion and flooding); First English Evangelical Lutheran Church v. Los Angeles Cnty., 482 U.S. 304 (1987) (floodplain regulation); Nollan v. Cal. Coastal Comm'n, 483 U.S. 825 (1987) (beach access); Lucas v. S.C. Coastal Council, 505 U.S. 1003 (1992) (coastal construction); Palazzolo v. Rhode Island, 533 U.S. 606 (2001) (wetland regulations); Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency, 535 U.S. 302 (2002) (lakefront property); Stop the Beach Renourishment, Inc. v. Fla. Dept. of Env't Prot., 560 U.S. 702 (2010) (beach renourishment); Ark. Game & Fish Comm'n v. United States, 133 S. Ct. 511 (2012) (controlled flooding); Koontz v. St. Johns River Water Mgmt. Dist., 570 U.S. 595 (2013) (wetlands regulation); Murr v. Wisconsin, 137 S. Ct. 1933 (2017) (riverside property).

216. *See, e.g.*, Daniel Rothberg, *Little-Known California Lawsuit Complicates Drought Plan for Lake Mead*, NEW HUMANITARIAN (Mar. 21, 2018), https://perma.cc/K3FJ-UY74; Jeremy P. Jacobs, *Takings Arguments Bubble Up as Calif. Cuts Water Rights,* E&E NEWS (July 27, 2015), https://perma.cc/D2YX-AV8S.

217. *See, e.g.*, Owen, *supra* note 38, at 259 ("Although case law at the intersection of groundwater regulation and takings doctrine may seem somewhat settled, the partial consensus is fragile. In part, that fragility arises from a thin theoretical basis . . . .").

218. *See, e.g.*, *id.* ("Although case law at the intersection of groundwater regulation and takings doctrine may seem somewhat settled, the partial consensus is fragile. In part, that fragility arises from a thin theoretical basis . . . .").

This was most clearly described in *Lucas v. South Carolina Coastal Council*, a Supreme Court case involving state regulation of coastal construction.[219] In that case, Justice Scalia, writing for the majority, framed the inquiry into background principles as a threshold and a first step and suggested that those principles should be roughly equivalent to a state's common law nuisances. Because there is no right to maintain a nuisance, the right to maintain a nuisance cannot be taken. In a concurrence, Justice Kennedy indicated that he would define such principles even more broadly. Post-*Lucas* courts may have taken his side.[220] Although *Lucas* found a taking, some argue that its legacy in lower courts has been the expansive constructions of "background principles" used to justify state regulation. Still, nuisance-based reallocations fit even within the *Lucas* majority's narrower vision.[221] Because interference with a sustainable water system is a public nuisance, actions that create such interference are not and were never within the "bundle" of property rights that come with a usufructuary water right. The government cannot take a user's water right because once their action threatens to destroy the water's source, harm other users, or monopolize the resource, it is no longer an action that they are legally entitled to take. This conclusion requires only a straightforward application of time-honored precedent.

2. Takings Under *Penn Central*

Admittedly, takings jurisprudence is often confusing and has grown only more confusing over time.[222] Given the occasional and unpredictable expansion of its definition, it is worth walking through why an application of public nuisance to prior appropriation rights would not be a taking under any current formulation of the doctrine. The dominant form of takings analysis is under the Supreme Court's *Penn Central* balancing test (the most frequently applied test in takings challenges to wetlands and floodplain regulations).[223] *Penn Central* is also the relevant test for regulatory takings, which occur when a regulation prohibiting certain uses of property goes too far (although, as will be discussed shortly, these are not bright lines).[224] In any event, *Penn Central* instructs courts to consider: a regulation's economic impact; its interference with reasonable investment-backed expectations; the character of the government's action; and fairness and

219. Lucas v. S.C. Coastal Council, 505 U.S. 1003 (1992).

220. Michael C. Blumm & Lucus Ritchie, Lucas's *Unlikely Legacy: The Rise of Background Principles as Categorical Takings Defenses*, 29 Harv. Env't L. Rev. 321, 334 (2005).

221. The application of background principles is especially compelling here, because one of the primary criticisms of cases like *Casitas* (where courts found physical takings) has been the court's disregard for underlying state law.

222. *See* Danaya C. Wright, *A Requiem for Regulatory Takings: Reclaiming Eminent Domain for Constitutional Property Claims*, 49 ENV'T L. 307, 311 (2019) (calling regulatory takings doctrine "an incoherent, dysfunctional mess" with "irreconcilable tensions" and advocating for its rejection).

223. Penn Cent. Transp. Co. v. New York City, 438 U.S. 104 (1978).

224. *See* Tahoe-Sierra Preservation Council v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 321–22 (2002).

justice. As in the wetlands and floodplains cases, all four factors here point toward nuisance-based reallocations as not takings.

Under the first prong, the economic impacts of a reallocation are unlikely to rise to a level that constitutes a taking. This is not to downplay the economic harms of having less water than usual. Water curtailments now are oftentimes stressful and devastating, especially for those who rely on the water to run a business. However, a properly conducted reallocation should almost never result in the total extinguishment of a water right, because the entire point of the reallocation is to ensure that everyone has access to at least some water. Thus, the severity of the reduction that does should be measured against the worst-case scenario—the not-at-all farfetched scenario where no one gets enough water and then, eventually, almost no one gets any water at all. Given the fragility of our current water systems, the economic impacts of surgical reductions for some users are outweighed by the other factors in the *Penn Central* test.

In the context of water rights, *Penn Central*'s second prong—interference with reasonable expectations—cuts against finding that a taking has occurred. Because no owner has a right to maintain a nuisance (and because water rights have a history of change), it cannot be said that owners have reasonable investment-backed expectations in water usage at the levels that would destroy a watershed or harm others. As previously discussed, the prior appropriation system still confers significant benefits upon senior users, even after some of their water is allocated. They still maintain priority and are assured more predictability than junior users. In a market-based reallocation, they can still receive fair compensation for giving up some of their allocation. These are reasonable expectations for water users in an historically arid environment experiencing unusually severe drought. What is not reasonable is to expect the right to keep drawing water even after it is clear that doing so would threaten the continued viability of the water source, directly harm neighbors and downstream users, and effectively grant a monopoly to a select group of users. This is not to downplay the investment made by many senior users. It is simply acknowledging the reality of water use in the American West—a reality that drove early users and courts to institute prior appropriation and now compels that system to be better tailored for modern conditions.

According to an under-utilized strand of reasoning in Supreme Court precedent, the reasonable expectations of a water right holder should also be considered in light of the unusual properties of the water right. In his *Lucas* concurrence, Justice Kennedy observed that "[c]oastal property may present such unique concerns for a fragile land system that the State can go further in regulating its development and use than the common law of nuisance might otherwise permit."[225] Although this comment was otherwise unexplained, it suggests that the dynamic nature of water may independently and inherently justify state

225. *Lucas*, 505 U.S. at 1035 (Kennedy, J., concurring).

action. Justice Kennedy picked this argument back up in *Murr v. Wisconsin*,[226] in which the Court announced a test for determining what the "denominator" should be in a takings claim. Under *Murr*, the second prong of the three-part test is the property's physical characteristics.[227] In his majority opinion, Justice Kennedy cited his observation from *Lucas* and noted that "it may be relevant that the property is located in an area that is subject to, or likely to become subject to, environmental or other regulation."[228] Taken at face value, this implies that owners of water rights might have a responsibility to be aware of their rights' limits and fluidity (both physical and legal). Lower courts have not elaborated on this part of the test, but some courts have independently arrived at this conclusion.[229] This prong's potential remains untapped, but overall, "reasonable expectations" should account for the literal and temporal fluctuations inherent in water use.

Penn Central's third prong—the character of the government action—also suggests that a reallocation would not be a taking. The long-term harm that results from dewatering natural water sources—not to mention the health and economic impacts of destabilizing water access during a drought—are emergencies urgent and severe enough to justify governmental action. Like wetlands and floodplains regulation, water regulation is an exercise of police power for the public welfare—a type of governmental action that courts are inclined to accept as legitimate.

In fact, this action is not just to prevent a crisis—it is also to secure a public benefit. Conferring a public benefit at the expense of a private owner is typically grounds to find a taking. However, there is a notable exception for situations in which the owner benefits from the regulation, something known as "average reciprocity of advantage."[230] That reciprocity is present here. For example, when adjudicating wetlands and floodplains cases, courts were aware that they were not simply forestalling a future harm. They considered the benefits of intact wetlands and undeveloped floodplains, both of which provide valuable ecosystem services and play an important function in keeping the public safe. These benefits accrued to the owners themselves.

These considerations are amplified with something as fundamentally necessary as water. The government is not simply holding off disaster. It is actively

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226. Murr v. Wis., 137 S. Ct. 1933 (2017).

227. *See id.* at 1945–46.

228. *Id.* at 1945.

229. *See, e.g.*, Rowe v. North Hampton, 131 N.H. 424, 428 (N.H. 1989) (upholding wetland restrictions and referencing "the uniqueness of the land") (citing Carbonneau v. Town of Exeter, 119 N.H. 259, 263 (N.H. 1979)); Gove v. Zoning Bd. of Appeals, 444 Mass. 754, 765 (Mass. 2005) (rejecting economic loss or deprivation of investment-backed expectations because plaintiff did not show losses were "outside the range of normal fluctuation in the value of coastal property"); Columbia Venture, LLC v. Richland Cnty., 776 S.E.2d 900, 916 (S.C. 2015) (referencing "inherent risk in floodplain development").

230. Penn. Coal v. Mahon, 260 U.S. 393, 415 (1922); *see also* Moskow v. Comm'r of Dep't of Env't Mgmt., 384 Mass. 530, 533–534 (1981) (finding no taking from wetland restriction because either the plaintiff or the general public benefited from the restriction).

providing something that the public needs and has a right to, whether or not there is a drought (though certainly more so in a drought). And by safeguarding the long-term sustainability and security of the water supply, the government is conferring a benefit onto even the senior users whose rights are reallocated. Without it, they would themselves no longer have a stable water right upon which to rely.

Finally, *Penn Central*'s fourth prong—"fairness and justice"—supports allowing water rights to be reallocated. Admittedly, this prong is the most slippery. It is both fair and just to honor property rights—that is, in many ways, the purpose of property law. However, property law enforces those rights to create a fair and just society. Such a society does not recognize an absolute water right that gives senior users license to act in a tyrannical or feudal fashion. To be clear, reallocation of water rights should not happen for the sake of simple redistribution or equalization. The reallocations necessary to prevent a public nuisance are not triggered by inequality or even necessarily inequity. They are a reaction to the fact that if the system continues on its current path, there will be widespread harm—first to select junior users, then to the public at large, and eventually to even the most senior users. Ultimately, if the state is minimally intrusive and carefully considered in its reallocations, it is actively in pursuit of fairness and justice—a particularly compelling reason to find that no taking has occurred.

3. Per Se Takings

In some cases, courts bypass the *Penn Central* balancing test and find a categorical, or *per se*, taking. Like regulatory takings as a whole, these *per se* takings have been criticized as doctrinally unjustified and unworkable.[231] Though, The Supreme Court has on occasion announced new forms of *per se* takings, but nuisance-based reallocations fall into none of those categories. Again, the leading case in this area is *Lucas*, which held that a categorical, regulatory taking only occurs when an owner is deprived of *all economically beneficial use* of their property.[232] As described, the point of reallocation is to ensure that no one is entirely deprived of water, so it is hard to imagine a scenario resulting in a total taking. In fact, for wetlands and floodplain, courts have almost uniformly held that some beneficial use is left in the property even when it is retained in its natural state. Most noted that some development could still occur or that there were alternative uses for the intact property.[233] Some even noted the economic value of

231. *See generally* Lynn E. Blais, *The Total Takings Myth*, 86 FORDHAM L. REV. 47 (2017).

232. Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1020 (1992).

233. *See, e.g.*, Gove v. Zoning Bd. of Appeals, 444 Mass. 754, 763 (Mass. 2005) (". . . the expert's $23,000 valuation did not take into account uses allowed in the conservancy district, either as of right or by special permit, which she admitted could make the property 'an income producing proposition'"); Rowe v. North Hampton, 131 N.H. 424, 429 (N.H. 1989) (finding no loss of all value and saying that "[w]hether or not agriculture and forestry are environmentally sound uses of her lot is irrelevant because, under the ordinance, they are permitted uses").

recreation[234]—an argument advanced by a dissenting Justice Blackmun in *Lucas*.

Although usage restrictions seem regulatory on their face and thus seem to most obviously implicate *Lucas*, some courts have trended toward treating infringement on water rights as a physical taking,[235] with two high-profile examples coming out of the Federal Circuit.[236] The reasoning used to reach this conclusion, however, has come in for significant criticism by scholars[237] and the occasional court.[238] After all, traditional physical takings involve actual physical intrusion onto a property.[239] One commentator has even written that arguments for both physical and regulatory takings of water are weak and that an ideal solution would allow water rights to be characterized as either, depending on the facts.[240] Although the Supreme Court has not squarely faced this issue, it may not be able to avoid it for much longer.[241] If and when that happens, the outcome will be hard to predict, given that case law and scholarship seem to have haltingly developed in opposite directions. Even if courts stretch the "physical" aspect of physical takings and find that a usage restriction is an actual invasion, nuisance-based reallocations fall short of the high bar needed to establish a *per se* physical taking.

The main reason that reallocations survive *per se* physical takings claims (if the physical takings framework is indeed still the correct framework) is the same reason that they survive regulatory takings claims under *Lucas*: they are neither total nor permanent. *Klamath*, a recent, representative, and successful takings challenge out of the Federal Circuit, undertook a physical takings analysis that relied almost exclusively on cases involving *total* physical takings—claims in

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234. *See, e.g.,* Krahl v. Nine-Mile Creek Watershed Dist., 283 N.W.2d 538, 543 (Minn. 1979) (accepting state's assertion that "the land could be used agriculturally; to meet open-space requirements of the zoning code; as a density credit area; for golf driving ranges, parking lots, recreation uses, setback areas"); Turnpike Realty Co. v. Dedham, 362 Mass. at 235 (noting statute permits recreational use).

235. *See* Josh Patashnik, *Physical Takings, Regulatory Takings, and Water Rights*, 51 SANTA CLARA L. REV. 365, 369–81 (2011).

236. Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313 (2001); Casitas Mun. Water Dist. v. United States, 102 Fed. Cl. 443 (2011), *aff'd*, 708 F.3d 1340 (Fed. Cir. 2013).

237. *See, e.g.*, Patashnik, *supra* note 235, at 375 & n.45 (collecting articles critical of *Tulare Lake*); *see also* John D. Echeverria, *Is Regulation of Water a Constitutional Takings?*, 11 VT. J. OF ENV'T L. 581 (2010) (criticizing *Casitas*).

238. *See, e.g.*, Allegretti & Co. v. Cnty. of Imperial, 138 Cal. App. 4th 1261, 1275 (Cal. Ct. App. 2006); Owen, *supra* note 38 at 274 (finding that "many more cases have rejected [*Tulare Lake*] than have followed it."). Interestingly, in *Casitas*, the same judge that decided *Tulare Lake* concluded that subsequent Supreme Court precedent prevented him from finding another physical taking. Casitas Mun. Water Dist. v. United States, 76 Fed. Cl. 100, 106 (2007). The Federal Circuit reversed.

239. *See* Patashnik, *supra* note 235, at 382.

240. *See id*. at 381–404.

241. Patashnik, *supra* note 235, at 381 (hypothesizing that "deliberately leaving this area of law is [likely not] a viable long-term solution . . . At some point, the Federal Circuit, and possibly the Supreme Court, will likely need to clarify the doctrine.").

which use of the property had been completely extinguished.[242] Users in those cases did not have any access to the water that they held a right to use. This would not be the outcome of a successful nuisance-based reallocation.

Traditionally, *per se* physical takings could also occur when the taking was permanent. One important example was *Loretto*, which held that the permanent physical installation of television cables was a taking.[243] But nuisance-based reallocations can easily be conducted in a way that does not result in permanent infringements on usage rights. Namely, the state could require that all reallocations be temporary. A state could time-limit the reallocation and pledge to revisit them frequently. An accessible appeals process would further allay fears of temporary reallocations ossifying into permanent ones. These temporary reallocations can then be used as the starting point for negotiations between junior and senior users, who can enter into more permanent arrangements. A senior user who reduces their allocation as part of such a program would not have had that portion of their allocation permanently "occupied." Rather, they would have acquired a new, smaller allocation (along with the agreed-upon compensation).

In keeping with the unpredictability of takings doctrine, however, the Supreme Court has recently readjusted the boundaries of what qualifies as a taking. In *Cedar Point*, decided in 2021, the plaintiffs alleged that the statutorily-granted right of labor organizers to access employer property for limited periods of time constituted a *per se* physical taking.[244] The Court agreed, surprising those—including the three dissenting justices—who had considered permanence an important part of *per se* takings.[245] Despite its expansion of *per se* physical takings claims to temporary or intermittent access, *Cedar Point* ultimately does not implicate the kind of water reallocation described here.

For one thing, *Cedar Point* sharpens the definition of physical takings in a way that pulls the category *away* from water rights. In its opinion, the majority rejected that a physical taking could be recast as a regulatory taking simply because it "comes garbed as a regulation (or statute, or ordinance, or miscellaneous decree)."[246] Instead, cutting through that question, it focused on whether an actual physical taking had occurred.[247] In finding that it had, the court focused on

242. *See* Klamath Irrigation v. United States, 129 Fed. Cl. 722, 726, 730–31 (2016). The *Klamath* Court cited *Tulare Lake* and *Casitas*, as well as: Int'l Paper Co. v. United States, 282 U.S. 399 (1931); United States v. Gerlach Live Stock Co., 339 U.S. 725 (1950); Dugan v. Rank, 372 U.S. 609 (1963); and Washoe Cnty. v. United States, 319 F.3d 1320 (Fed. Cir. 2003). All of the cases except *Dugan* involved a total deprivation of the water right. *Dugan* found a partial taking but did not weigh in on whether it was physical or regulatory and arguably only stands for the proposition that a categorical taking can occur even in the *absence of* a physical taking. *See* Dugan, 372 U.S. at 625 ("A seizure of water rights need not necessarily be a physical invasion of land. It may occur upstream, as here.").

243. Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419 (1982).

244. Cedar Point Nursery v. Hassid, 141 S. Ct. 2063 (2021).

245. *See id*. at 2083–84 (Breyer, J. dissenting).

246. *Id*. at 2072.

247. *See id.*

the regulation's impact on the employer's "right to exclude" and the labor organizers' accompanying "right to invade."[248] The court also situated the taking along a kind of physical invasion spectrum that begins with trespass.[249] These concepts of exclusion, invasion, and trespass do not translate well to the world of water rights, which is defined in terms of usage and volume.

By contrast, a water reallocation *does* resemble the government action at issue in one of the Court's major pronouncements on regulatory takings: *Tahoe-Sierra*.[250] There, the Court was confronted with a land-use plan that imposed development moratoria around Lake Tahoe.[251] In finding that the plan did not give rise to a taking, the Court drew a hard line between acquisition of "private property for a public purpose" (physical takings) and "regulations that prohibit a property owner from making certain uses of her private property" (regulatory takings).[252] The "longstanding distinction" between these types of takings meant that it was "inappropriate to treat cases involving physical takings as controlling precedents for the evaluation of a claim that there has been a 'regulatory taking' . . . ."[253] The court found that the moratoria fell squarely into the second category, noting that "the interference with property rights 'arises from some public program adjusting the benefits and burdens of economic life to promote the common good.'"[254]

Satisfied that this was a regulatory taking, the Court then turned to *Penn Central* and made two important observations that apply to water reallocations. First, the Court noted that a property right has multiple "dimensions"—a "geographic dimension[]" and a "temporal aspect."[255] "Both dimensions must be considered if the interest is to be viewed in its entirety."[256] A temporary deprivation fails to enact a total taking along the time front because "the property will recover value as soon as the prohibition is lifted."[257] Second, the Court declined to set a strict timeline for when a temporary taking becomes unacceptable, defaulting instead to *Penn Central*'s "fairness and justice" analysis.[258] This is especially notable since, as the dissent noted, the regulation and litigation in *Tahoe-Sierra* essentially banned economic development for nearly six years.[259]

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248. *See id.* at 2072–73.

249. *See id.* at 2078. The Court reinforced "the distinction between trespass and takings" but cited to sources describing how the frequency of trespasses can factor into a takings analysis.

250. Tahoe-Sierra Pres. Council v. Tahoe Reg'l Planning Agency, 535 U.S. 302 (2002).

251. *See id.* at 306.

252. *Id.* at 321–22.

253. *Id.* at 324.

254. *Id.* at 324–25 (quoting Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978)).

255. *Id.* at 331–32.

256. *Id.* at 332.

257. *Id.* at 332. Beyond that, the Court acknowledged that temporariness does not prevent a taking from occurring—it simply "should not be given exclusiveness one way or the other." *Id.* at 337.

258. *See id.* at 341–42.

259. *See id.* at 346 (Rehnquist, C.J. dissenting).

If *Tahoe-Sierra* and *Cedar Point* represent, respectively, the regulatory and physical poles of the takings world, it is clear that a water right would be in the *Tahoe-Sierra* category. When a water right is temporarily disrupted, there is no exclusion, invasion, or trespass in the ordinary meanings of those words. Rather, usage is regulated—a moratorium is placed on the right's economic development. *Cedar Point* (which repeatedly cited *Tahoe-Sierra*[260]) has no application to a government action like this.

But even if a water right could be physical taken and even if reallocation were akin to a physical invasion, *Cedar Point* still does not suggest that a *per se* taking has occurred. To the contrary, *Cedar Point* leaves room for the "many government-authorized physical invasions" that are not a taking "because they are consistent with longstanding background restrictions on property rights."[261] Here, the Court cited to *Lucas*, which as previously discussed, can be read to support the reallocation of water rights.

A final, exotic strain of *per se* taking can be found in *Horne v. Department of Agriculture*, a strange Supreme Court case without clear precedential value.[262] In *Horne*, the Court held that a government regulation requiring raisin farmers to give the government a share of their crops was a categorical physical taking. Because a physical taking had resulted from a regulation, some observers were immediately concerned that the Court was implicitly endorsing the regulatory-to-physical transformations in *Tulare Lake* and *Casitas*, with potential ramifications for environmental regulation.[263] Indeed, shortly thereafter, water users in California claimed *Horne* supported their arguments that drought-induced water curtailments were takings.[264]

Other commenters have cast doubt, however, on whether *Horne* should meaningfully impact water law. The *Horne* Court explicitly rejected applying a 1929 case about oysters, highlighting the "public ownership" in wildlife.[265] To some court-watchers, this reference to public ownership provides a viable defense against takings claims (the thrust of which is that the ownership of water is more like that of oysters than raisins[266]) and undermined the water-regulation-as-physical-takings model.[267] The true impact of *Horne* is yet to be determined. But for

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260. *See* Cedar Point Nursery v. Hassid, 141 S. Ct. 2063, 2071, 2072, 2074, 2075, 2077 (2021). Interestingly, *Tahoe-Sierra* was argued and won by Chief Justice Roberts, the author of *Cedar Point*'s majority opinion, before his appointment to the bench. *See Tahoe-Sierra*, 535 U.S. at 305.

261. *Id.* at 2079.

262. Horne v. Dep't of Agric., 569 U.S. 513 (2013).

263. *See* Norman A. Dupont, *The Raisins of Wrath: The Court Finds a Fifth Amendment Taking, But Does It Imply Something More?*, TRENDS (Jan. 1, 2016), https://perma.cc/9X9Q-TM89.

264. *See* Jacobs, *supra* note 216.

265. *See* David Schorr, *Oysters, Raisins, and Water*, ENV'T, L., & HIST. (June 24, 2015), https://perma.cc/F5GZ-57GK.

266. *See* Jonathan Zasloff, *Drought and the Supreme Court*, LEGALPLANET (June 23, 2015), https://perma.cc/9JR3-U3QM.

267. *See id.*

now, it seems possible that it will go the way of *Casitas*, which one scholar described as so fact-bound that it "seems likely to be instead remembered as a relatively minor case."[268]

C. IDENTIFYING A PLAINTIFF

Although takings challenges are not likely to stop states from undertaking nuisance-based reallocations, any litigation in support of the reallocations will require interested parties to act deliberately in selecting a plaintiff. As previously discussed, public nuisance suits are typically only available to public actors. In fact, injunctions are traditionally only available to governments. This means that enforcement—or instigation—of reallocations is almost exclusively left to the state, who can easily obtain standing as an extension of their parens patriae role of public protection.[269] Conversely, private parties—like junior water users—are unlikely to obtain injunctive relief through a suit. Instead, they can only seek damages. This is perhaps a relatively minor limitation, because suits brought by individual users are a poor excuse to reallocate rights across an entire watershed. Our traditional respect for separation of powers suggests that leaving that first step to the state legislature is preferable. Private suits can then be used mostly to recoup losses after a water delivery is no longer possible.

If private parties do want to bring an individual suit, however, they will have to contend with the "special-injury" rule—a persistent thorn in the side of public nuisance plaintiffs. This rule requires that private parties must prove that the harm they suffered is different in kind—and not just in degree—from the harm suffered by others. As scholars have noted, this rule is rather paradoxical in that the more widespread the harm is, the less likely it is that a plaintiff can establish the requisite specialness of their injury.[270] Public nuisance reformers in the 1970s unsuccessfully attempted to excise the rule, and alternatives have been proposed since.[271] However, the "special-injury" rule remains on the books in many, if not most, jurisdictions and would generally bar action by any one junior or downstream water user.[272]

D. PHILOSOPHICAL LIMITATIONS

Even public nuisance's fiercest advocates generally describe it as a gap-filling tool. Although this approach is aligned with traditional notions of the judicial role, it also means that public nuisance is not able to change an underlying

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268. Patashnik, *supra* note 235, at 380.

269. *See* Dana, *supra* note 95, at 20; Jakubowics, *supra* note 121 at 162–63. The Supreme Court also seemed to affirm the unique standing of states in *Massachusetts v. EPA*. *See* Dana, *supra* note 95, at 15.

270. *See* Antolini, *supra* note 90, at 788–89.

271. *See id*. at 849–64.

272. *See, e.g*., Hale v. Ward Cnty., 848 N.W.2d 245 (N.D. 2014). *But see* Akau v. Olohana Corp., 652 P.2d 1130 (1982).

philosophical problem in water law. As currently conceived, both riparian and prior appropriation systems conceive of water almost entirely in terms of usage. This is a fundamentally anthropocentric view of water and property. Under it, there are few ways to justify conserving a water resource for the sake of conservation.

There are reasons to believe that such an approach is outdated and normatively undesirable.[273] Some have even suggested that natural resources might inherently deserve legal protection.[274] Justice Douglas, in *Sierra Club v. Morton*, famously wrote that "[c]ontemporary public concern for protecting nature's ecological equilibrium should lead to the conferral of standing upon environmental objects to sue for their own preservation."[275] Still, the idea of giving standing to the environment has not gained much traction.[276] Of course, this does not mean that courts have not recognized the inherent value present in natural resources. The *Just* decision, for example, can be read as acknowledging this. Similarly, the Alaska Supreme Court has written that "wetlands are a valuable resource in and by themselves."[277] The public trust doctrine itself has been described as largely limited to waters precisely because that "reflects the special value to society of particular natural resources."[278]

Ultimately, however, such pronouncements can still be read as referring to "value" in an anthropocentric sense—that is, wetlands are "valuable" because they serve our needs and promote our interests in water quality, flooding mitigation, and biodiversity. Public nuisance law is powerless to change this. Even if a court were to establish a public water right that prevented harm to a hydrologic system, such a right could be based entirely on the utilitarian value of healthy hydrologic systems to the humans that rely on them. Indeed, "[t]he interests protected by [public trust and public nuisance] doctrines are wholly anthropocentric, not ecocentric, and primarily involve the use of amenities."[279] Despite their potential impact on property rights, they "are unlikely to catalyze a reconceptualization of humanity's relationship nature."[280]

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273. *See generally* Susan Emmenegger & Axel Tschentscher, *Taking Nature's Rights Seriously: The Long Way to Biocentrism in Environmental Law*, 6 GEO. INT'L ENV'T L. REV. 545 (1994); Joshua Rottman, *Breaking Down Biocentrism: Two Distinct Forms of Moral Concern for Nature*, 5 FRONTIERS PSYCH. 905 (2014).

274. *See generally* CHRISTOPHER D. STONE, Should Trees Have Standing? Toward Legal Rights for Natural Objects (1972); *see also* Sierra Club v. Morton, 405 U.S. 727, 743 (1972) (Douglas, J., dissenting) (citing Stone and positing that "[t]he river as plaintiff speaks for the ecological unit of life that is part of it.").

275. *Morton*, 405 U.S. at 742.

276. *See* Lindsay Fendt, *Colorado River 'Personhood' Case Pulled By Proponents*, ASPEN JOURNALISM (Dec. 5, 2017), https://perma.cc/CV2L-XEK3.

277. R&Y, Inc. v. Mun. of Anchorage, 34 P.3d 289, 296 (Alaska 2001).

278. Lin, *supra* note 143, at 1089.

279. *Id.* at 1081.

280. *Id.*

V. A NOTE ABOUT FINALITY

And finally, finality. The idea that prior appropriation values finality above all else drove the *Mineral County* Court's reluctance to upend settled rights in the name of the public trust. Courts inclined to put such extreme weight on finality misunderstand the tools they can use to promote such a value. To many, the bright-line rules in the prior appropriation system may seem more administrable and reliable than the tort standards in public nuisance.[281] Along with finality, they are perceived as promoting clarity and predictability.[282]

But in fact, rules can often behave unexpectedly. This is especially true when they apply to informal situations like the ones that governed initial prior appropriation claims.[283] Furthermore, rules are not self-executing, especially when cases are hard[284]—and prior appropriation cases are hard. When squarely addressed, they require a multitude of judgments involving historical documents, beneficial use, reasonable use, waste, and more.[285] Courts have thus far avoided taking on these difficult questions to keep the prior appropriation system running smoothly, but that does not change the fact that strict application of pure prior appropriation "rules" will inevitably implicate messy judicial decision-making.

Meanwhile, standards like public nuisance have the potential to be a more elegant solution. For one thing, standards take their shape from precedents,[286] and for public nuisance, there is a wealth of useful comparison cases like the wetlands and floodplain cases described here. Furthermore, the predictability of standards can be aided by using presumptions. For example, in nuisance law, owners are presumed to have an entitlement to use of their property.[287] This is exactly what the prior appropriation system recognizes when it honors the priority rights of senior users. However, even a strong presumption can be overcome by the appropriate facts. And as previously discussed, there are deep-seated property principles involving public harm that are powerful enough to justify judicial adjustment of that presumption.

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281. *Compare* Griggs, *supra* note 35, at 1297 ("Droughts force the administration of water rights by priority on a regular basis, and prior appropriation imposes fairly clear and reliable consequences as water rights owners divert according to their respective priorities.") *with* Lin, *supra* note 143, at 1084 ("Relatedly, both [public trust and public nuisance] doctrines set out general standards whose application in specific instances can be uncertain."); *see also* Lazarus, *supra* note 83, at 663 (noting the increasing flexibility of nuisance law).

282. Joseph William Singer, *The Rule of Reason in Property Law*, 46 U.C.D. L. REV. 1369, 1375–76 (2013).

283. *See id*. at 1380–82.

284. *Id*. at 1383–84.

285. Griggs, *supra* note 35, at 1314 ("Just as the doctrine of beneficial use has evolved over time to embrace new uses that were technologically impossible, economically unfeasible, or culturally marginal for earlier generations of water users, the principle of reasonable use is not a fixed one. Rather, it is a dynamic principle that has responded to changes in hydrology, technology, scientific information, water demand, and social and economic conditions. The same goes for waste . . . ").

286. Singer, *supra* note 282, at 1388–89.

287. *Id*. at 1390.

Adjusting is not the same as eliminating, however. As with the "first in time, first in right" principle, finality is not totally extinguished by the possibility of reallocation. Even in a system where water rights can be reallocated to prevent public nuisances, there can still be a powerful preference for finality. Reallocation of senior rights can still be a measure of last resort—a luxury not afforded under any formulation of the riparian system.

After all, only a handful of well-positioned users experience any measure of finality. (And if they participate in a water rights market system, they too are conserving water and calculating usage.[288]) For junior users, finality is purely aspirational. In modern years, curtailments and "calls" have become increasingly common. Desperate junior users have turned to increasingly unsustainable or environmentally damaging practices like groundwater pumping to make up for the deficit. When wells run dry, finality is a legal fiction.

In any event, the last resorts are upon us. Blind adherence to finality risks completely depleting our water resources or damaging them beyond repair. Walker Lake is increasingly unable to support basic ecosystem functions. It is only a matter of time before those effects reverberate upstream into the river that feeds it. If, like most other lakes, Walker Lake was part of a larger network of rivers and aquifers, the effects would be even further compounded. Finality is an appropriate principle for water allocation—but it is the risk that the resource itself will meet an unpleasant, final end that should ultimately drive a court's decision.

CONCLUSION

Drought is a natural disaster, but the water shortages of the American West are a crisis of our own making. Our mistakes and misunderstandings have been further entrenched by a legal system that makes it seemingly impossible to change course. What is needed now is a refresh—a chance to set out realistic expectations for how much water is available and to reallocate on the basis of actual supply. So far, every attempt to achieve that refresh has been rebuffed by the prior appropriation system, an especially ironic turn of events given that the system itself was a novel judicial solution meant to provide equitable and sustainable access to water. However, the even older doctrine of public nuisance may provide states a legal path toward building a more sustainable water system—one that fits squarely within time-honored precedents, respects the fundamentals of prior appropriation, and promotes commonsense conceptions of the common good. Such a system is our public right, and it should be protected by legislatures, courts, and the individual users who, in the end, will need it more than anyone.

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288. Abrams, *supra* note 25, at 174 ("Reallocation of appropriated water is a staple of present-day water law in the West.").