DEFINING RIPARIAN RIGHTS AS "PROPERTY" THROUGH TAKINGS LITIGATION: IS THERE A PROPERTY RIGHT TO ENVIRONMENTAL QUALITY?

BY
ROBIN KUNDIS CRAIG*

The United States Constitution's prohibitions on governments taking private property without compensation have always operated most clearly in the context of real property. In contrast, arguments that these takings restrictions should apply to water and water rights throw courts for a loop. A fundamental problem for takings decisions in the water rights context is the fact that both the status of water rights as property and the defining elements of any property rights that exist are contested.

This Article argues that takings litigation can become a productive occasion for defining the status and nature of water rights—especially, increasingly, in the riparianism context. It first provides a quick review of basic takings jurisprudence, emphasizing how the constitutional prohibitions on governmental takings apply to property use rights, such as easements. It then examines the potential for takings litigation to help define the nature of water rights in general, focusing on relatively recent litigation involving water rights connected with cattle grazing on federal public lands. The Article finishes by discussing a series of cases involving riparian water rights and claims that those rights entitle the owners to certain basic environmental amenities, especially with respect to water quality. It concludes that takings jurisprudence in the riparian rights context may yet align private property rights and environmental protection, providing a more focused—and potentially more predictable and less balancing—private cause of action than nuisance for certain kinds of environmental degradation.

* Professor of Law and Associate Dean for Environmental Programs, Florida State University College of Law, Tallahassee, Florida. My thanks to Mike Blumm for inviting me to participate in this conference and to Kathryn Walter for her work in organizing and editing this symposium issue of Environmental Law. As both an alum of the Lewis & Clark School of Law and a former Adjunct Professor, Visiting Assistant Professor, and Visiting Summer Professor there, I would like to thank the honorees of this symposium—my former Dean, Jim Huffman, and my Water Law and Administrative Law professor, Jan Neuman—for all they did to help launch my career. I would also like to thank Keith Hirokawa and Josh Patashnik for their comments on this Article. I may be reached at rrcraig@law.fsu.edu.
I. INTRODUCTION

As Carol Rose has observed, "Most of us think that as a nation, the United States is and always has been very conscious of property. . . . Almost from its inception, our Constitution has included a clause protecting property against takings for public purposes without compensation . . . ."

Nevertheless, the Constitution's prohibitions on governments taking private property without compensation have always operated most clearly in the context of the relatively well-defined ownership interests—and especially fee simple interests—in real property. In contrast, arguments that constitutional takings prohibitions should apply to water and water rights often give courts substantial pause.

Part of the difficulty is that water rights are generally use rights rather than ownership rights. This usufructory status makes it more difficult to identify government actions that can actually "take" the right—especially

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3 See discussion infra Part II.B.
when the water right can be transferred to different uses. 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. 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. With regard to surface water, for example, common law riparianism assigned the rights to use water from a particular source to the real property owners along the bank of a river, stream, or lake. These rights are shared and co-equal, measured originally according to each owner's right to the natural flow and, more modernly, according to the reasonable use doctrine. In times of shortage, all riparian owners must reduce their use. In contrast, prior appropriation systems assign water rights on the basis of "first in time, first in right," without regard to real property ownership. At least in theory, these appropriative rights are well-defined in terms of priority, quantity, source of supply, and timing and rate of diversion. In times of shortage—again, at least in theory—those right holders with the oldest priority dates—senior appropriators—are fulfilled before newer right holders—junior appropriators—can take any water at all. Combined systems blend these two legal regimes in some way, such as by recognizing both kinds of water rights, as in the California system, or by importing elements of prior appropriation—defined rights, detachment from land ownership—into a "regulated riparianism" system.

States display even more variety with respect to rights to pump and use groundwater. Indeed, treatises and other authorities generally identify five major groundwater doctrines operating in the United States. The English common-law rule, which is essentially a rule of capture, allows any surface owner to pump and use—or store—any amount of groundwater that the owner desires. Because this rule causes fairly obvious problems in terms of groundwater competition, depletion of aquifers, and effects on connected

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4 See discussion infra Parts III.A, III.B, III.D.
6 Willow River Power, 324 U.S. at 504–05; JOHNSON, supra note 2, at 23–25.
7 See Willow River Power, 324 U.S. at 504 & n.2, 505.
8 JOHNSON, supra note 2, at 45; Benson, supra note 5, at 250–51; Gould, supra note 5, at 10; Lux v. Haggin, 10 P. 674, 702–04 (Cal. 1886).
9 See JOHNSON, supra note 2, at 47–49, 55–56 (describing the various facets of prior appropriation).
10 Id. at 52.
11 Id. at 46, 57.
14 Id.
surface waters, most states have eliminated it, and the English rule is now
most relevant in parts of Texas.\textsuperscript{15} Most eastern states now use instead one of
two forms of a reasonable use rule. The common law reasonable use rule, or
American rule, operates much like riparian rights in surface water:\textsuperscript{16} each
landowner may 1) make reasonable use of groundwater beneath his or her
land for beneficial purposes on that land, and 2) use the water off-property
so long as the use does not injure others, subject to the same rights of all
other landowners to do the same.\textsuperscript{17} In contrast, the \textit{Restatement of Torts}'s
reasonable use rule downplays the common law's preference for on-property
use but also creates liability if the landowner’s pumping affects surface
watercourses or lakes, acknowledging the possible hydrological connections
between surface water and groundwater.\textsuperscript{18} Michigan, Ohio, and Wisconsin
are three states that follow the Restatement rule.\textsuperscript{19} A fourth groundwater
rights regime is the doctrine of correlative rights, under which all
landowners above a common aquifer have co-equal rights to proportional
use of the groundwater beneath them, often leading courts to divide the
groundwater into “shares.”\textsuperscript{20} “California is the leading state for this
document.”\textsuperscript{21} Finally, most western states use the prior appropriation
document—“first in time, first in right”—for groundwater as well as for
surface water.\textsuperscript{22}

These differences in state water law pose real problems for courts
attempting to assess takings claims in the water rights context.\textsuperscript{23} Nevertheless, the most fundamental difficulty in applying takings
jurisprudence to water rights is the fact that both the status of water rights
as "property" and the defining characteristics of any such property right—its
scope and elements—are highly contested. For example, regarding the first
fundamental issue—are water rights property at all?—Sandra Zellmer and
Jessica Harder have noted:

One of the most divisive issues in contemporary natural resources law in the
United States is whether interests in water are legally recognized as property.
In the West, surface water is typically viewed as a form of private property,
while in the East it is not. In either case, the law is surprisingly unsettled; over two centuries of American caselaw have yielded no consistent answers.\(^\text{24}\)

Under their conception of water rights, “[t]he public interest in water... is so compelling that, by precluding non-use and imposing trade constraints, public access is ensured and private rights are correspondingly limited.”\(^\text{25}\) As a result, they argue that even under a prior appropriation regime, “appropriators do not have full takings property, but they may have due process or common law property.”\(^\text{26}\)

With regard to the second fundamental issue—if water rights are property rights, what are their defining aspects?—property rights in water are legitimately viewed as both normatively and pragmatically different from property rights in land. As Zellmer and Harder emphasized, even when water is viewed as some species of property, the public interest in water is unusually strong, given water’s absolute necessity to the existence of life.\(^\text{27}\) Moreover, water is nowhere near the (relatively) fixed natural resource that land is, but instead changes seasonally, annually, and decadally or longer, sometimes significantly, in response to seasonal and annual precipitation, flow rates and volumes, recharge rates for groundwater aquifers, and climate variability.\(^\text{28}\) These unavoidable features of water resources render water rights inherently more contextualized and adjustable than real property rights. To again quote Carol Rose:

If water were our chief symbol for property, we might think of property rights—and perhaps other rights—in a quite different way. We might think of rights literally and figuratively as more fluid and less fenced-in; we might think of property as entailing less of the awesome Blackstonian power of exclusion and more of the qualities of flexibility, reasonableness and moderation, attentiveness to others, and cooperative solutions to common problems.\(^\text{29}\)

One premise of this Article, therefore, is that takings litigation can provide an occasion for more precisely defining what a water right actually is as a species—or not—of property. For example, the Florida Supreme Court has twice used litigation alleging unconstitutional takings of riparian and littoral rights to define the future-oriented aspects of those rights—the right to begin using water in the future and the right to future accretions, respectively—as contingent future interests subject to legal regulation without compensation.\(^\text{30}\)


\(^{25}\) Id. at 687.

\(^{26}\) Id.

\(^{27}\) Id. at 692–96.

\(^{28}\) See id. at 691–92.


\(^{30}\) Village of Tequesta v. Jupiter Inlet Corp., 371 So. 2d 663, 667, 670 (Fla. 1979) (emphasizing that while a landowner has the right to use groundwater beneath the landowner’s property, there is no property right unless and until the landowner actually pumps the groundwater and
However, this Article also explores the potential for the definitional process that takings litigation requires to recognize environmental quality as an element of water rights in the riparian rights context. In general, takings claims that involve environmental protection measures pit public environmental and land-use restrictions against private property rights. A series of takings cases involving riparian water rights, however, suggest that this conflict could be turned on its head in riparian states, with the private property rights holders becoming the advocates for increased environmental protection.

Part II of this Article provides a quick review of basic takings jurisprudence, emphasizing how the constitutional prohibitions on government takings of private property apply to property use rights—traditionally, easements. Part III examines the potential for takings litigation to help define the nature of water rights in general, presenting as a case study relatively recent litigation in the West involving water rights connected with federal cattle grazing permits. Part IV then examines a series of cases involving riparian water rights and claims that those rights entitle the owners to demand certain levels of water quality. The Article concludes that takings jurisprudence in the riparian rights context may yet align private property rights and environmental protection, providing a more focused—and potentially more predictable because it requires less balancing—private cause of action than nuisance for certain kinds of environmental degradation.

II. Takings Basics

A. Categories of Unconstitutional Takings

The Fifth and Fourteenth Amendments to the United States Constitution prohibit the taking of private property for public use without compensation by, respectively, the federal and state or local governments. Until 1922, this prohibition on uncompensated takings of private property was limited to governments’ physical takings—for example, the condemnation of private land for a public road or a government building.
In 1922, however, the United States Supreme Court decided Pennsylvania Coal Co. v. Mahon, recognizing for the first time that federal, state, and local regulation might also amount to an unconstitutional taking of private property. As Justice Oliver Wendell Holmes articulated in that decision, “while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking.” The legacy of the Pennsylvania Coal decision for regulatory takings analyses has been long and convoluted.

Although there are many ways to categorize takings claims under the Supreme Court’s jurisprudence, the Court has now recognized three primary categories of takings. First, physical takings of property remain the quintessential constitutional takings and require compensation in all circumstances. Second, the Court recognizes a small but jurisprudentially similar category of per se regulatory takings, in which a government regulation deprives the landowner of all economic use of the land. Like physical takings, per se regulatory takings automatically require compensation to the private property owner. Finally, most alleged regulatory takings fall into a larger category of government actions that merely deprive the owner of some—but not all—uses or value of the property. Courts evaluate the need for compensation in these cases through the three-part balancing test that the Supreme Court established in Penn Central Transportation Co. v. New York City. Under this test, courts examine: 1) “[t]he economic impact of the regulation on the claimant,” 2) “the extent to which the regulation has interfered with distinct investment-backed expectations,” and 3) “the character of the governmental action.”

35 260 U.S. 393 (1922).
36 Id. at 415.
40 Lucas, 505 U.S. at 1017, 1019.
41 Id. at 1019, 1029, 1031–32.
44 Penn Central Transp., 438 U.S. at 124.
B. Takings Claims and Rights to Use Real Property

As noted, and generally regardless of the type of water rights regime, most states define water rights as use rights—a right to reasonable use of a waterway, a right to use a given quantity of water from a given source for a particular purpose, a right to capture and use water, and so forth—as opposed to ownership rights. As a general matter, takings jurisprudence applies less comfortably to property rights based on a right to use, such as easements, than to ownership rights. For example, is a regulation that interferes with an easement a regulatory taking or a physical taking of that property right, given that the easement is only a right to use? Regulatory restrictions on land use are generally evaluated as regulatory takings. However, if the core property right at issue is the right to use, as opposed to the Supreme Court's more frequently emphasized right to exclude, any interference with that right to use begins to look more akin to a physical taking.

The United States Supreme Court has explicitly recognized that easements over land are property rights demanding compensation if governments take them. Moreover, governments can violate the takings prohibition in the context of easements in two ways. First, the government can forcibly use private property in a way that constitutes the creation of an easement rather than permanent physical occupation or regulatory impairment of title, as when the United States Border Patrol claimed a right to locate seismic sensors on five California properties near the Mexican border in order to better detect illegal border crossings. Courts generally deem such interferences with the now servient owner's larger estate to be physical takings automatically entitled to compensation.

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45 Johnson, supra note 2, at 26.
49 Va. Elec. & Power, 365 U.S. at 625, 627 (recognizing that a flowage easement over 1540 acres of land was property subject to the Takings Clause); see also First Unitarian Church of Salt Lake City v. Salt Lake City Corp., 308 F.3d 1114, 1122–23 (10th Cir. 2002) (holding that easements are "constitutionally cognizable property interests").
50 Otay Mesa Prop. L.P. v. United States, 93 Fed. Cl. 476, 479, 488 (Fed. Cl. 2010); see also Peabody v. United States, 231 U.S. 530, 538 (1913) (noting that the government's imposition of a servitude would constitute a taking of real property); Lawrence Cnty. v. Miller, 2010 SD 60, ¶ 28, 786 N.W.2d 360, 370–71 (holding that a forcible taking or expansion of an easement for aircraft was a taking).
51 Otay Mesa Prop., 93 Fed. Cl. at 484; see also McKenzie v. City of White Hall, 112 F.3d 313, 317 (8th Cir. 1997) (concluding that the City's forcible exaction of a conditional easement was a physical rather than a regulatory taking). A contrary but interesting example of takings litigation in this category involved the federal Environmental Protection Agency (EPA) and its forcible installation of groundwater monitoring wells on private property to monitor groundwater contamination from another site subject to the Comprehensive Environmental Protection Act. The court held that the EPA's action had the effect of creating a permanent physical occupation of the land, thereby constituting a taking.
Second, and more relevantly for this Article, the government can interfere with or destroy a previously existing, generally privately created, easement, such as when a federally constructed dam destroys a flowage easement. The evaluations of these kinds of easement takings claims are generally more complex, and a critical element of the analysis is defining fairly precisely the scope of the right to use.

For example, one subset of takings jurisprudence in the easement context consists of cases where the claimant argues that the government has overburdened an existing easement. These cases are relatively rare, but their evaluations of whether a taking occurred underscore the need to properly define the scope of the property right. In particular, a governmental action that clearly falls within the scope of an easement is not a taking. If the government’s action does not so clearly fall within the scope of the easement, however, then the court faces the same kinds of questions regarding whether government action goes “too far” that arise in response to regulatory takings claims—although, admittedly, the legal framework for analyzing overburdening of easements is generally better developed under state property law, and hence more predictable, than the federal Penn Central balancing test for regulatory takings.

Preseault v. City of Burlington, Vermont provides one example of an overburden takings case. In that case, the United States Court of Appeals for the Second Circuit considered whether the City of Burlington’s installation of “fiber-optic cable on existing utility poles” along an abandoned railroad easement constituted a taking of the servient estate’s property; notably, the easement holder had been paid for the installation. As background law, in 1982, the United States Supreme Court had determined that the government-ordered installation of cables on private property not burdened by an easement constituted a physical taking of that real property. In Preseault, however, the Second Circuit took a different tack, applying Vermont’s overburdening analysis for easements and concluding that although Preseault provided evidence that “the fiber-optic cable was installed several feet below the height of the preexisting lines [he] provided no evidence that any view or any activity would be limited or impaired in any significant way beyond the impairment inherent in the preexisting lines.” As a result, there

Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9001–9075 (2006). While the United States Court of Appeals for the Federal Circuit acknowledged that the EPA’s actions constituted a physical taking of part of the plaintiff’s property, it also concluded that the “special benefits” provided to other portions of the property eliminated the need for compensation. Hendler v. United States, 175 F.3d 1374, 1377, 1382 (Fed. Cir. 1999).

55 464 F.3d 215 (2d Cir. 2006).
56 Id. at 215, 217.
58 Preseault, 464 F.3d at 217.
was no unconstitutional taking because “the fiber-optic cable did not materially increase the burden on the Preseaults’ property.”

A second subset of easement takings cases, the takings litigation generated by the federal government’s Rails-to-Trails program, similarly underscores the absolute importance of defining the nature and scope of the underlying property right—in these cases, the railroad’s easement—as part of the takings analysis. The United States Court of Appeals for the Federal Circuit, for example, has made it clear that “a Fifth Amendment taking occurs in Rails-to-Trails cases when government action destroys state-defined property rights by converting a railway easement to a recreational trail, if trail use is outside the scope of the original railway easement.”

Determining the scope of the railroad’s easement, however, often requires a detailed examination of state law. For example, in a recent Rails-to-Trails takings case, the Federal Circuit closely examined decisions from the Kansas courts regarding the status of railroad easements to conclude that, under Kansas law, railroad easements were not broad enough to include a conversion to recreational trails. Conversely, the United States Court of Federal Claims held that conveyances to railroads in Florida were, under Florida law, grants in fee simple of the railroad corridor. So important is this definitional question, in fact, that the Court of Federal Claims often certifies the question to the relevant state court.

Of course, establishing the claimed property right is an element of any takings claim. In cases where the claimant owns a fee simple interest in real property, however, establishing title to the property is generally the end of the examination of the property right itself. What the easement cases

59 Id. But see Lawrence Cnty., 2010 SD 60, ¶ 28, 786 N.W.2d 360, 370–71 (2010) (noting that the introduction of “larger, heavier, noisier aircraft” can violate the limits of an existing aircraft easement and constitute an unconstitutional taking of private property (quoting Branning v. United States, 654 F.2d 88, 100 (Cl. Ct. 1981))).

60 Ladd v. United States, 630 F.3d 1015, 1019 (Fed. Cir. 2010).

61 Farmers Coop. v. United States, 98 Fed. Cir. 797, 804 (Fed. Cir. 2011); see also Ybanez v. United States, 98 Fed. Cir. 659, 665, 667–68 (Fed. Cir. 2011) (performing the same kind of intensive analysis as employed by Texas law to reach the same conclusion); Toews v. United States, 376 F.3d 1371, 1376–79 (Fed. Cir. 2004) (performing the same kind of intensive analysis as employed by California law to reach the same conclusion); Preseault v. United States, 100 F.3d 1525, 1534–37 (Fed. Cir. 1996) (performing the same kind of intensive analysis as employed by Vermont law to reach the same conclusion).

62 Rogers v. United States, 93 Fed. Cir. 607, 618–20, 625 (Fed. Cir. 2010); see also King Cnty. v. Rasmussen, 290 F.3d 1077, 1084–88 (9th Cir. 2002) (construing a deed under Washington law to conclude that it conveyed a fee simple interest to the railroad rather than an easement). But see Rogers v. United States, 90 Fed. Cir. 418, 432–33 (Fed. Cir. 2009) (reaching the opposite result under Florida law when a conveyance to a railroad was construed to convey an easement rather than a fee simple estate).

63 E.g., Howard v. United States, No. 09-575L, 2011 WL 2120525, at *4 (Fed. Cir. May 6, 2011) (certifying the question to the Indiana Supreme Court); Chevy Chase Land Co. of Montgomery Cnty., Md. v. United States, 158 F.3d 574, 575–76 (Fed. Cir. 1998) (certifying the question to the Maryland Court of Appeals). But see Toews, 376 F.3d at 1380–81 (refusing to certify the definitional issue to the California Supreme Court).

64 Colvin Cattle Co. v. United States, 468 F.3d 803, 806–07 (Fed. Cir. 2006); Conti v. United States, 291 F.3d 1334, 1339 (Fed. Cir. 2002).
demonstrate is that when courts apply takings jurisprudence to nonfee property rights, especially usufructuary rights, defining the property interest at stake can itself become a critical legal battle. These same types of definitional issues permeate water rights takings litigation, as Parts III and IV will discuss in more detail. Before launching into those discussions, however, a basic overview of water rights takings litigation will be helpful.

C. Overview of Takings Claims in the Context of Water Rights

Two observations can be made about takings litigation in the water rights context to date. First, most cases involve appropriative rights or rights that are similarly relatively well defined. Second, when courts have found a taking of water rights, it is generally because the government action has effectively destroyed the entire right. Thus, as with easement takings cases, successful takings cases based on mere “interference” with water rights are rare.

1. Supreme Court Cases on Takings of Water Rights

Although they are less famous than the United States Supreme Court’s real property-based takings cases, the Supreme Court has decided a number of water rights-related takings cases. As early as 1899, for example, the Court held that the State of California could set water rates without effectuating a taking of existing rights in water. More relevant to this Article, the Court found a taking of water rights in the 1931 case of International Paper Co. v. United States. In that case, petitioner International Paper held a right to withdraw 730 cubic feet per second from a canal, which, according to the Court, New York law characterized as “a corporeal hereditament and real estate.” In 1917, as part of the war effort, the United States directed that all of the water in the canal be used for power production, completely destroying International Paper’s ability to use its water right. According to the Court, in a six to three decision, “The petitioner’s right was to the use of the water; and when all the water that it used was withdrawn from the petitioner’s mill and turned elsewhere by government requisition for the production of power it is hard to see what more the Government could do to take the use.” The Court thus found a taking, declaring the United States’ act to be an exercise of its eminent domain authority. Similarly, in 1950, the Court decided United States v. Gerlach Live Stock Co., requiring compensation for the claimants’ complete

65 See infra Part IIIA–B, D.
66 See infra Part III C, E.
69 Id. at 405.
70 Id. at 405–06.
71 Id. at 407.
72 Id. at 408.
loss of seasonal flooding—a previously recognized property right under California law—as a result of a federal reclamation project.\textsuperscript{74}

The Court’s 1963 decision in \textit{Dugan v. Rank}\textsuperscript{75} presented a slightly more complex issue. In that case, riparian property owners in California claimed that in building the Friant Dam on the San Joaquin River, part of the massive Central Valley Project, the United States, acting through the Bureau of Reclamation (BOR), interfered with the plaintiffs’ right to beneficially use the river.\textsuperscript{76} While the Court refused to enjoin the construction or find a trespass, it concluded that the United States had partially taken the claimed water rights and that the landowners had a—at least potential—remedy under the Tucker Act.\textsuperscript{77} The Court was unconcerned by the lack of specificity regarding what, exactly, had been taken, emphasizing instead that:

From the very beginning it was recognized that the operation of Friant Dam and its facilities would entail a taking of water rights below the dam. Indeed, it was obvious from the expressed purpose of the construction of the dam—to store and divert to other areas the waters of the San Joaquin—and the intention of the Government to purchase water rights along the river.\textsuperscript{78}

As a result, there was “no uncertainty in the taking.”\textsuperscript{79} Instead:

The right claimed here is to the continued flow of water in the San Joaquin and to its use as it flows along the landowner’s property. A seizure of water rights need not necessarily be a physical invasion of land. It may occur upstream, as here. Interference with or partial taking of water rights in the manner it was accomplished here might be analogized to interference or partial taking of air space over land . . . .\textsuperscript{80}

In effect, the government had created a superseding easement and subordinated the plaintiffs’ water rights to the Central Valley Project’s purposes.\textsuperscript{81} For the takings claim itself, however, further definition of the water rights and their value would be necessary, and “[i]n an appropriate proceeding there would be a determination of not only the extent of such a servitude but the value thereof based upon the difference between the value of respondents’ property before and after the taking.”\textsuperscript{82}

2. Tulare Lake and Casitas

More recently, the defining cases for takings litigation involving water rights have been the United States Court of Federal Claims’s 2001 decision in

\textsuperscript{74} Id. at 752–55.
\textsuperscript{75} 372 U.S. 609 (1963).
\textsuperscript{76} Id. at 610–13.
\textsuperscript{77} Id. at 611, 620–23.
\textsuperscript{78} Id. at 623.
\textsuperscript{79} Id.
\textsuperscript{80} Id. at 625.
\textsuperscript{81} Id. at 625–26.
\textsuperscript{82} Id. at 626.
Tulare Lake Basin Water Storage District v. United States (Tulare Lake)\(^{83}\) and the United States Court of Appeals for the Federal Circuit’s 2008 decision in Casitas Municipal Water District v. United States (Casitas).\(^{84}\) In Tulare Lake, California water users holding contractual rights to water from California’s Central Valley Project sued the United States, alleging that when BOR implemented the recommendations of the United States Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) under the federal Endangered Species Act (ESA)\(^{85}\) to protect the Delta smelt (\textit{Hypomesus transpacificus}) and the winter-run Chinook salmon (\textit{Oncorhynchus tshawytscha}), two listed species of fish, it caused an unconstitutional taking of their water rights.\(^{86}\) BOR’s actions consisted primarily of providing more water in the system for the fishes’ use, and, “[a]ccording to plaintiffs, the restrictions imposed . . . deprived Tulare Lake Basin [Water Storage District] of at least 9,770 acre-feet of water in 1992; at least 26,000 acre-feet of water in 1993, and at least 23,050 acre-feet of water in 1994.”\(^{87}\)

The Court of Federal Claims found that a taking had occurred.\(^{88}\) First, it rejected the United States’ argument that the plaintiffs’ claim was merely for frustration of contract, concluding instead that, unlike in the frustration-of-contract cases, under California law ‘plaintiffs’ contract rights in the water’s use [is] superior to all competing interests. It is a property interest sufficiently matured to take it out of the realm of [a frustration-of-contracts] analysis.”\(^{89}\) Thus, state water law played a critical role in defining not only the kind of interest at stake—property versus contract—but also the legal analysis that applied to the government’s interference with those interests—frustration of contract versus takings.

Second, relying heavily on \textit{United States v. Causby},\(^{90}\) the United States Supreme Court’s most significant takings decision in the context of airspace rights, the Tulare Lake court concluded that the plaintiffs were asserting a


\(^{86}\) Tulare Lake, 49 Fed. Cl. at 314.

\(^{87}\) \textit{Id.} at 316.

\(^{88}\) \textit{Id.} at 324.

\(^{89}\) \textit{Id.} at 318.

\(^{90}\) 328 U.S. 256 (1946).
physical takings claim, not a regulatory takings claim. The Court of Federal Claims emphasized the status of water rights as use rights in reaching this decision, underscoring the uncomfortable fit between standard takings jurisprudence and water rights litigation:

While water rights present an admittedly unusual situation, we think the Causby example is an instructive one. In the context of water rights, a mere restriction on use—the hallmark of a regulatory action—completely eviscerates the right itself since plaintiffs' sole entitlement is to the use of the water. Unlike other species of property where use restrictions may limit some, but not all of the incidents of ownership, the denial of a right to the use of water accomplishes a complete extinction of all value. Thus, by limiting plaintiffs' ability to use an amount of water to which they would otherwise be entitled, the government has essentially substituted itself as the beneficiary of the contract rights with regard to that water and totally displaced the contract holder. That complete occupation of property—an exclusive possession of plaintiffs' water-use rights for preservation of the fish—mirrors the invasion present in Causby. To the extent, then, that the federal government, by preventing plaintiffs from using the water to which they would otherwise have been entitled, have rendered the usufructuary right to that water valueless, they have thus effected a physical taking.

In support of its classification, moreover, the court indicated that the Supreme Court had used a physical takings analysis in International Paper Co. Finally, the Tulare Lake court examined in depth the status and dimensions of the plaintiffs' contractual water right. It noted that, under the contracts, the State of California and its agencies enjoyed contractual immunity from takings claims based on reductions in the amounts of water delivered—but that the federal government did not. Moreover, while all water rights in California are subject to a state constitutional reasonable use requirement, the law also specifically allowed for the plaintiffs' water rights, making it difficult to categorize them as unreasonable. Similarly, California's public trust doctrine can require adjustments of state water rights in order to protect environmental amenities such as fish, but state law made it clear that such curtailment authority rested in the California Water Resources Control Board—not FWS, NMFS, or BOR. Because that state board had not acted, and because protection of the fish reduced the amount

91 Tulare Lake, 49 Fed. Cl. at 319 (quoting and citing Causby, 328 U.S. at 265).
92 Id.
93 Id. (citing International Paper, 282 U.S. 399, 407 (1931)).
94 Id. at 320–24.
95 Id. at 320–21.
96 Id. at 321.
of water available to contractual users, the United States had no defense to the physical taking claim.\textsuperscript{98} In 2004, the Court of Federal Claims assessed compensation of over $23 million, then allowed the plaintiffs to claim even more compensation based on higher rates of return.\textsuperscript{99}

Like the Tulare Lake case, the Casitas litigation also involved the intersection of water rights and the ESA, this time in connection with the federal Ventura River Project in south-central California.\textsuperscript{100} A contract with the United States to construct the project granted the Casitas Municipal Water District (CMWD) “the perpetual right to use all water that becomes available through the construction and operation of the Project.”\textsuperscript{101} Over forty years later, in order to protect the federally listed west coast steelhead trout (\textit{Oncorhynchus mykiss}), BOR ordered the CMWD to: “(1) construct a fish ladder facility . . . and (2) divert water from the Project to the fish ladder, resulting in a permanent loss to Casitas of a certain amount of water per year.”\textsuperscript{102} The CMWD filed suit, claiming that the requirements both breached the contract and constituted a Fifth Amendment taking.\textsuperscript{103}

Unlike in Tulare Lake, the Court of Federal Claims found for the United States, concluding that, in the wake of the United States Supreme Court’s 2002—post-Tulare Lake—decision in Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency,\textsuperscript{104} a regulatory takings analysis—and hence the \textit{Penn Central} balancing test—applied to the CMWD’s claim.\textsuperscript{105} The Federal Circuit, however, reversed. In its takings analysis, it began by noting that “the government has conceded that Casitas has a valid property right in the water in question. Specifically, the government has conceded that Casitas has a right both to divert 107,800 acre-feet of water and to use 28,500 acre-feet of such diverted water.”\textsuperscript{106} It then reviewed the Supreme Court’s three water rights takings cases to conclude that a physical takings analysis was still appropriate. While it agreed with the United States that the “focus should primarily be on the character of the government action when determining whether a physical or regulatory taking has occurred,”\textsuperscript{107} the Federal Circuit nevertheless concluded that the government’s actions qualified as a physical diversion of water:

\begin{quote}
[T]he government did not merely require some water to remain in stream, but instead actively caused the physical diversion of water away from the Robles-
\end{quote}

\begin{footnotes}
\item \textsuperscript{98} Tulare Lake, 49 Fed. Cl. at 324.
\item \textsuperscript{99} Tulare Lake Basin Water Storage Dist. v. United States, 61 Fed. Cl. 624, 626, 630–31 (Fed. Cl. 2004).
\item \textsuperscript{100} Casitas, 543 F.3d 1276, 1280, 1282 (Fed. Cir. 2008).
\item \textsuperscript{101} Id. at 1282 (quoting Article 4 of the contract that was at issue between Casitas and the United States).
\item \textsuperscript{102} Id.
\item \textsuperscript{103} Id.
\item \textsuperscript{104} 535 U.S. 302 (2002).
\item \textsuperscript{105} Casitas Mun. Water Dist. v. United States, 76 Fed. Cl. 100, 105–06 (Fed. Cl. 2007), rev’d, 543 F.3d 1276 (Fed. Cir. 2008).
\item \textsuperscript{106} Casitas, 543 F.3d at 1288.
\item \textsuperscript{107} Id. at 1290.
\end{footnotes}
Casitas Canal—after the water had left the Ventura River and was in the Robles–Casitas Canal—and towards the fish ladder, thus reducing Casitas’ water supply.\textsuperscript{108}

Thus, \textit{Casitas} “involve[d] physical appropriation by the government,”\textsuperscript{109} and:

\[\text{[T]he water that is diverted away from the Robles–Diversion Canal is permanently gone. Casitas will never, at the end of any period of time, be able to get that water back. The character of the government action was a physical diversion for a public use—the protection of an endangered species. The government-caused diversion to the fish ladder has permanently taken that water away from Casitas. This is not temporary, and it does not leave the right in the same state it was before the government action. The water, and Casitas’ right to use that water, is forever gone. Unlike \textit{Tahoe-Sierra}, the government, in this case, directly appropriated Casitas’ water for its own use—for the preservation of an endangered species. The government requirement that Casitas build the fish ladder and divert water to it should be analyzed under the physical takings rubric.}\textsuperscript{110}

As a result, as in \textit{Tulare Lake}, compensation was required.\textsuperscript{111}

On remand, the Court of Federal Claims focused extensively on exactly what rights the CMWD held when it issued its next decision in this litigation, in December 2011.\textsuperscript{112} It concluded, for example, that California law does not allow a right to divert water independent of the application of that water to a beneficial use.\textsuperscript{113} In addition, the court noted that, under California precedent, “beneficial use generally has not been found to include the diversion and storage of water.”\textsuperscript{114} It also examined at length California’s public trust doctrine, reasonable use doctrine, and fish and game statutes as potential “background principles” that limited the scope of CMWD’s claimed water right.\textsuperscript{115} While the Court of Federal Claims did not consult with the California courts for these analyses, and while the federal government is likely to appeal the court’s conclusions on several grounds, especially the court’s treatment of California’s public trust doctrine, the Court of Federal Claims did engage in a thorough examination of what property rights, exactly, the CMWD held before moving on to conclude—surprisingly—that the CMWD’s takings claim was not yet ripe.\textsuperscript{116}

Together, \textit{Tulare Lake} and \textit{Casitas} indicate that when government action results in the physical loss of water for plaintiffs with defined rights

\textsuperscript{108} \textit{Id.} at 1291–92.
\textsuperscript{109} \textit{Id.} at 1294.
\textsuperscript{110} \textit{Id.} at 1296.
\textsuperscript{111} \textit{See id.} at 1297 n.17; \textit{Tulare Lake}, 49 Fed. Cl. 313, 318–19, 324 (Fed. Cl. 2001); \textit{see also} Patashnik, supra note 48, at 377–81 (discussing the \textit{Casitas} decision).
\textsuperscript{113} \textit{Id.} at *9–10.
\textsuperscript{114} \textit{Id.} at *11.
\textsuperscript{115} \textit{Id.} at *11–18.
\textsuperscript{116} \textit{Id.} at *33.
to divert or use a specific amount of water, the government owes compensation unless the law defining the right’s scope and elements allows for future modifications by that government.117 Moreover, such an interference with the right to use a water right is a physical, rather than a regulatory, taking. Finally, while both cases involved contractual water rights and federal water projects, there is no obvious basis for distinguishing their applicability to state or municipal actions and to water rights created through the prior appropriation doctrine.

Courts have been more reluctant, however, to protect riparian rights—or closely analogous littoral rights—through takings litigation. For one thing, courts consistently—Dugan notwithstanding—analyze takings claims that are based on the access-related (right to access the water, right to construct a pier or wharf, rights to boat and swim) and real property-related (right to accretions, right to maintain the property line after an avulsive event) aspects of riparian and littoral rights through regulatory takings analyses.118 More importantly, however, at the definitional stage, riparian rights are subject to limitations and restrictions that can make it difficult to conclude that the government has effected any taking. California’s constitutional and public trust limitations on all water rights are one set of examples.119 More recently, the Florida Supreme Court emphasized the public trust, public use, and doctrine of avulsion limitations on beachfront property owners’ littoral rights to find that beach restoration projects effected no unconstitutional takings120—a conclusion that the United States Supreme Court upheld.121

Both kinds of takings cases, therefore, underscore the critical importance of defining what exactly a “water right” is. To further develop this theme, and before proceeding to a closer examination of the treatment of riparian rights in takings litigation, this Article presents a case study of how takings litigation can force the sharpened definition of water rights.

III. DEFINING WATER PROPERTY RIGHTS IN THE WEST: TAKINGS CLAIMS AND GRAZING-RELATED WATER RIGHTS

The connection of water rights and grazing has a surprisingly robust history in takings jurisprudence. Much of this litigation, moreover, has forced courts to define the scope and features of the water rights alleged—the property “bundle of sticks” that water rights actually include.

117 See Patashnik, supra note 48, at 382–89 (discussing and criticizing the rationales for a physical takings analysis in the water rights context).
118 E.g., CRV Enters., Inc. v. United States, 86 Fed. Cl. 758, 765–66 (Fed. Cl. 2009) (analyzing the effects of the EPA’s cleanup efforts on plaintiffs’ riparian rights of access, navigation, and use through a regulatory takings analysis).
120 Walton Cnty. v. Stop the Beach Renourishment, Inc., 998 So. 2d 1102, 1109–17 (Fla. 2008), aff’d sub nom. Stop the Beach Renourishment, Inc. v. Fla. Dep’t of Envtl. Prot., 130B S. Ct. 2592 (2010).
121 Stop the Beach Renourishment, 130B S. Ct. at 2013.
A. Early Cases

In one of the earliest grazing and water rights takings decisions, the Utah Supreme Court in 1930 was forced to evaluate riparian owners’ claimed grazing and watering rights for goats in the face of Bountiful City’s attempt to prevent such use within 300 feet of a creek that it used for municipal water supply.\(^{122}\) Specifically, the ranchers claimed an unconstitutional taking of 1) their established rights to water their goats in the creek, and 2) the loss of use of grazing land along the creek.\(^{123}\) With regard to the real property takings claim, the landowners prevailed, essentially, although the court also upheld the City’s police power authority to impose some public health-based restrictions to prevent excessive contamination of the water supply.\(^{124}\)

However, the ranchers entirely lost their water rights claim. As the Utah Supreme Court explained, they simply had no protected property right under Utah’s prior appropriation law because:

> Neither the defendants nor their predecessors made any diversion of the waters of the creek for watering live stock or for any other purpose. They, without any diversion, merely permitted animals to drink directly from the creek. That gave them no right to or possession of the use of the waters . . . .\(^{125}\)

The court’s decision thus emphasized that not all water uses constitute water \textit{rights} in the property sense, underscoring the need for a close examination of the plaintiff’s claimed right in these kinds of cases.

More recently, grazing and water rights takings litigation has focused on the issue of whether a federal agency’s decision to curtail grazing on federal public land constitutes a taking of an associated water right. In several cases, the Court of Federal Claims has denied claims that the federal government’s actions with respect to grazing rights took appropriative water rights because prior appropriation doctrine generally allows water rights holders to transfer their water rights to other uses.\(^{126}\) Thus, loss of grazing privileges does not destroy the value of the right.

For example, in the 1998 case of \textit{Mitchell, Jr. v. United States},\(^{127}\) the Court of Federal Claims dismissed a grazing and water rights takings case on both statute of limitations\(^{128}\) and lack of takings grounds. With respect to the water rights claims, the Mitchells owned property that was originally adjacent to the Bureau of Land Management (BLM) Pilot Knob Allotment in Bountiful City v. De Luca, 292 P. 194, 195–96 (Utah 1930).

\(^{123}\) \textit{Id} at 196.

\(^{124}\) \textit{Id} at 200–03.

\(^{125}\) \textit{Id} at 199.

\(^{126}\) \textit{Id} at 199.

\(^{127}\) See, e.g., Fulton v. United States, 825 F. Supp. 261, 262–63 (D. Nev. 1993) (concluding that while the water rights holder did not need, under Nevada state law, a court decree to establish his water right, he had no takings claim based on the Forest Service’s refusal to renew a predecessor’s grazing permit because he could not show that loss of the grazing permit denied him all use of the water right).

\(^{128}\) \textit{Id} at 622–25.
San Bernadino County, California, on which they had grazing rights.\textsuperscript{129} The Mitchells’ predecessors-in-interest established rights—recognized by the California Water Resources Control Board—to use six wells and springs on the allotment for stock watering purposes, with a 1956 priority date.\textsuperscript{130} In 1963 the United States Navy reserved 50,000 acres of the allotment for military purposes, leading to an abrupt halting of the Mitchells’ predecessor’s grazing rights in 1983 and preventing them from using the water rights, which were on Navy land.\textsuperscript{131} The Mitchells took title in 1989 but sold the property and one water right to the Wildlands Conservancy in 1995 for protection of the desert tortoise.\textsuperscript{132}

This alternative beneficial use of the water rights—conserving the desert tortoise—destroyed the Mitchells’ takings claim:

\begin{quote}
[I]f the water rights at issue have an alternative beneficial use involving the desert tortoise, then any such use continues unaffected by the construction of the fence and the BLM’s final decision canceling plaintiffs’ range improvements. By their own admission, plaintiffs sold one of their water rights to the Desert Tortoise Preserve Committee, Inc., and the Wildlands Conservancy after the cancellation of their range improvements. Had the conservation organization been willing, plaintiffs were free to sell all of their water rights at that time, and in all likelihood would have been pleased to do so. In short, plaintiffs cannot claim that they have suffered a taking when they remain fully able to endeavor to sell the water rights at issue to a willing buyer for the benefit of the desert tortoise. Because plaintiffs remain free to avail themselves of the alleged alternative beneficial use, the construction of the fence and the cancellation of the range improvements has not interfered with this specific economically viable use of the property and thus has not effected a taking.\textsuperscript{133}
\end{quote}

Moreover, while the court primarily classified the case as an attempted per se regulatory takings argument, it also found that no \textit{Penn Central} regulatory taking had occurred, because “the government actions about which plaintiffs complain have not affected the use of the water rights in association with the desert tortoise in any manner whatsoever.”\textsuperscript{134}

Nor can water rights holders generally claim the exclusive right to produced water on grazing lands. In the 1994 \textit{Fallini v. United States}\textsuperscript{135} decision by the Court of Federal Claims, for example, ranchers in Nevada claimed a taking of their water rights by wild horses living on federal public lands.\textsuperscript{136} The ranchers’ grazing licenses from the federal BLM allowed them to develop water sources on the allotment covered by their

\begin{footnotesize}
\begin{itemize}
\item\textsuperscript{129} \textit{Id.} at 618.
\item\textsuperscript{130} \textit{Id.} at 618–19.
\item\textsuperscript{131} \textit{Id.} at 619–20.
\item\textsuperscript{132} \textit{Id.} at 620, 622 & n.7, 625.
\item\textsuperscript{133} \textit{Id.} at 625–26.
\item\textsuperscript{134} \textit{Id.} at 625 n.10.
\item\textsuperscript{135} 31 Fed. Cl. 53 (Fed. Cl. 1994).
\item\textsuperscript{136} \textit{Id.} at 54–55.
\end{itemize}
\end{footnotesize}
permits.\textsuperscript{137} The ranchers exercised this right, only to have the wild horses that BLM was managing on the same allotment drink a significant portion of the water produced.\textsuperscript{138}

In rejecting the ranchers’ takings claims, the court also rejected their arguments that their water rights included the exclusive right to control any water that they produced in connection with the grazing permits.\textsuperscript{139} Specifically,

Water produced in excess of the preference amount is subject to BLM range management standards, and historically has been available for all wildlife in the Reveille Allotment. Plaintiffs do not show an essential element of its taking claim: ownership of any of the water that has been consumed by wild horses during the period 1972–1991.\textsuperscript{140}

The ranchers had not shown that they had established any such exclusive water rights under Nevada state law,\textsuperscript{141} and federal multiple-use management dictates for public lands confounded any such expectations for exclusivity pursuant to the grazing permits.\textsuperscript{142} As a result, “given the longstanding multiple-use mandate incorporated in all of the governing legislation, and in the terms of their permits, plaintiffs did not have a compensable expectancy in exclusion of wild horses and other wild animals from the allotment or exclusive use of the forage and water.”\textsuperscript{143}

\textbf{B. Hage v. United States}

While it was not the first grazing and water rights takings case, the various rounds of \textit{Hage v. United States}\textsuperscript{144} became the first time that the Court of Federal Claims recognized that grazing-related water rights could be property rights subject to takings claims, and it eventually evaluated those claims using both the physical and the regulatory takings analyses. In this two-decade case, ranchers sued the United States in 1991 after the United States Forest Service cancelled their grazing permits, alleging unconstitutional takings of both the permits and their associated water rights.\textsuperscript{145}

\begin{footnotes}
\item[137] \textit{Id.} at 55.
\item[138] \textit{Id.}
\item[139] \textit{Id.} at 57.
\item[140] \textit{Id.}
\item[141] \textit{Id.}
\item[142] \textit{Id.} at 58–59.
\item[143] \textit{Id.} at 58. Notably, 12 years later, the United States Court of Appeals for the Federal Circuit more directly dismissed a nearly identical takings argument based on wild horses, concluding that “because wild horses are outside the government’s control, they cannot constitute an instrumentality of the government capable of giving rise to a taking.” \textit{Colvin Cattle Co. v. United States}, 468 F.3d 803, 809 (Fed. Cir. 2006).
\item[144] \textit{Hage v. United States (Hage I)}, 35 Fed. Cl. 147, 150 (Fed. Cl. 1996); \textit{Hage v. United States (Hage II)}, 35 Fed. Cl. 737, 741–42 (Fed. Cl. 1996); \textit{Hage v. United States (Hage III)}, 51 Fed. Cl. 570, 573 (Fed. Cl. 2002); \textit{Estate of Hage v. United States}, 82 Fed. Cl. 202, 205 (Fed. Cl. 2008).
\item[145] \textit{Hage I}, 35 Fed. Cl. at 150.
\end{footnotes}
In its first opinion in *Hage*, the court rejected the takings claims based on the grazing permits themselves, concluding that the permits constituted revocable licenses rather than binding contracts. As a result, the ranchers had no property interest in the permits that would support a takings claim. The takings claims based on water rights, however, proved more difficult for the court to assess, given that “[f]lowing 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. Nevertheless, the right to appropriate water can be [a] property right.” Thus, the court acknowledged that water rights, though very different from land ownership, could qualify as property rights. However, whether the ranchers actually had the water rights they claimed, and whether those rights were superior to the United States’ rights, was a fact-based inquiry subject to Nevada law that could not be determined in a motion for summary judgment.

In preparation for its examination of state law and the ranchers’ rights, the Court of Federal Claims allowed the State of Nevada and various environmental groups to participate in *Hage* as amici. After a two-week trial in October 1998, the court issued its final opinion on the property rights question in January 2002. Relying on *Tulare Lake*, the court indicated that *Hage* was a physical takings case. It then applied Nevada water law to conclude that the ranchers did indeed have vested water rights, relying heavily on determinations by the Nevada State Engineer. Moreover, while the Forest Service could subject those water rights to reasonable regulation in terms of the ranchers’ use of federal land, “[t]he government cannot deny plaintiffs access to their vested water rights without providing a way for them to divert that water to another beneficial purpose if one exists.” Thus, prior appropriation law’s allowance of water rights transfers became a double-edged sword: so long as the government allowed access enough to effectuate the transfer, no taking would occur—but failure to cooperate in the transfer could become the basis of a takings claim.

The court left the takings analysis to the last stage of the litigation and issued its opinion in 2008, after the Hages had died. Having established in its 2002 opinion that the ranchers had a vested water right in water flowing from federal lands to their private lands, it considered first the ranchers’ argument:

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146 *Id.* at 166–67.
147 *Id.* at 168–71.
148 *Id.* at 172.
149 *Id.* at 172–73.
151 *Hage III*, 51 Fed. Cl. 570, 573 (Fed. Cl. 2002).
152 *Id.* at 576.
153 *Id.* at 576–80.
154 *Id.* at 584.
155 *Id.* at 592.
[B]ecause of the policies and procedures employed by the Government, a portion of the surface waters that should flow to Plaintiffs’ patented pastures no longer reach there . . . [specifically] the proliferation of riparian vegetation, the presence of beaver dams, and the denial of Plaintiffs’ access to stream channels for clearing and maintenance purposes led to the reduced water flow.\textsuperscript{157}

The court first stressed the status of water as use rights:

It is important to again note the difference between water ownership and real property ownership; water is a usufructuary as opposed to a possessory right. Whereas real property ownership is defined by a right to exclude others from that property, water ownership is defined by the right to access and use that water.\textsuperscript{158}

Thus, the critical elements of these appropriative rights were twofold: the right to access the water and the right to use the water. The court further concluded that the Forest Service had taken both.

First, the Forest Service constructed fences around the streams in which the ranchers held water rights, cutting off their access.\textsuperscript{159} This fencing, the court concluded, constituted a physical taking of the ranchers’ water rights because it physically prevented the ranchers from accessing their water.\textsuperscript{160} Second, the court agreed with the ranchers’ arguments that, by allowing brush to grow over the streams and beavers to build dams in the upper reaches of the streams, the Forest Service interfered with both the right of access and the right of use.\textsuperscript{161} These practices reduced the flow of water reaching the ranches by about 8000 acre-feet per year.\textsuperscript{162} Nevada law allows ranchers to go upstream and clear such brush and other obstructions, but the Forest Service did not.\textsuperscript{163} As a result, even though the Forest Service’s brush policies did not directly and physically interfere with the ranchers’ access and use, they effectuated a compensable regulatory taking under the Penn Central balancing test, especially because “[t]he severe reduction in water flow to Plaintiffs’ patented lands deprived them of the water they needed for irrigation making the ranch unviable and which they could have sold in the market.”\textsuperscript{164}

The Forest Service also effected a regulatory taking of the ranchers’ irrigation ditch water rights by not allowing the ranchers to maintain the ditches.\textsuperscript{165} Under the Forest Service’s regulations, the ranchers needed a special use permit to maintain the ditches, and the permit would have

\textsuperscript{157} Id. at 210.
\textsuperscript{158} Id. at 211.
\textsuperscript{159} Id.
\textsuperscript{160} Id.
\textsuperscript{161} Id. at 211–12.
\textsuperscript{162} Id. at 211.
\textsuperscript{163} Id. at 211–12.
\textsuperscript{164} Id. at 212.
\textsuperscript{165} Id. at 213.
restricted them to using hand tools. The court found these restrictions unreasonable, because:

[I]t cannot be seriously argued that the work normally done by caterpillars and back hoes could be accomplished with hand tools over thousands of acres. The Court visited many of these ditches and stream courses spread over thousands of acres. With hand tools the task would have taken years or decades and required hundreds of workers.

The Forest Service’s harassment of the ranchers through trespass prosecutions also contributed to the court’s conclusion that, under the Penn Central factors, its actions amounted to another compensable taking.

The Court of Federal Claims found that the Forest Service had deprived the ranchers of 17,568.1 acre-feet of water total, which the ranchers would have used for agricultural purposes, and that agricultural water on the Hage’s ranch in 1991 was worth $162.50 per acre-foot. As a result, it awarded $2,854,816.20 in compensation for the water rights, plus additional statutory compensation for the ranchers’ improvements. The ranchers were also awarded their attorney fees.

The United States has appealed the case to the Federal Circuit and filed its opening brief in February 2011. An obvious and interesting issue for that appeal, in addition to the characterization of the water rights themselves, is the extent to which state-issued water rights can shape the land-use practices of federal agencies managing federal lands.

C. Colvin Cattle Company v. United States

In 2006, the United States Court of Appeals for the Federal Circuit decided Colvin Cattle Co. v. United States (Colvin Cattle II), which
involved a 520-acre cattle ranch in Nevada that had a grazing lease for the BLM’s Montezuma Allotment and stock water rights on the allotment.\textsuperscript{177} After Colvin Cattle Co. (CCC) failed to make lease payments, BLM eventually canceled the lease, ordered CCC’s cattle off the allotment, and ordered all range improvements removed, including improvements CCC used to exercise its water rights.\textsuperscript{178} However, “[a]lthough Colvin may no longer access the allotment for grazing purposes, the government has not impeded its access to water. BLM has since authorized another rancher to graze livestock, but as a condition of his authorization, he must haul his own water to the allotment.”\textsuperscript{179}

Nevertheless, CCC filed suit, alleging takings of both its ranch and its water rights. The Court of Federal Claims dismissed the lawsuit.\textsuperscript{180} It summarized CCC’s argument concisely: “At its core, plaintiff’s claim is that a right to the beneficial use of water established under Nevada law carries with it an attendant right to graze cattle on federal land since grazing is the only beneficial use to which the water can be put.”\textsuperscript{181} The United States countered that “even if plaintiff in fact possesses such a water right (a contention it does not address), the use of a public resource is not a ‘stick in the bundle of property rights,’ since ownership of a water right does not include an attendant right to graze cattle on federal lands.”\textsuperscript{182} The Court of Federal Claims agreed with the United States, finding that neither the Supreme Court nor Nevada water law nor the Mining Act of 1866\textsuperscript{183} had recognized such a right.\textsuperscript{184} Moreover, the court concluded that the loss of grazing rights and alleged loss of water rights did not amount to a taking of the entire ranch, because the grazing rights were not property rights and plaintiffs had not shown that they had been deprived of their water rights.\textsuperscript{185}

The Federal Circuit affirmed. It, too, viewed the primary issue as one of accurately defining the scope of CCC’s water rights. “In other words, the relevant question is whether Colvin’s alleged grazing interest is a stick in the bundle of rights it has acquired in the Montezuma Allotment . . . do Colvin’s water rights contain an appurtenant grazing right?”\textsuperscript{186} The Federal Circuit agreed with the Court of Federal Claims that neither federal lands law nor

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\textsuperscript{177} Colvin Cattle II, 468 F.3d at 805.  \\
\textsuperscript{178} Id. at 805–06.  \\
\textsuperscript{179} Id. at 806.  \\
\textsuperscript{180} Colvin Cattle Co. v. United States (Colvin Cattle I), 67 Fed. Cl. 568, 569 (Fed. Cl. 2005).  \\
\textsuperscript{181} Id. at 570.  \\
\textsuperscript{182} Id. at 572 (citation omitted) (quoting Am. Pelagic Fishing Co. v. United States, 379 F.3d 1363, 1376 (Fed. Cir. 2004)).  \\
\textsuperscript{183} Act of July 26, 1866, ch. 262, 14 Stat. 251 (codified as amended at 43 U.S.C. § 661 (2006)).  \\
\textsuperscript{184} Colvin Cattle I, 67 Fed. Cl. at 573–75.  \\
\textsuperscript{185} Id. at 575–76.  \\
\textsuperscript{186} Colvin Cattle II, 468 F.3d 803, 806 (Fed. Cir. 2006).  
\end{flushright}
Nevada water law created that right. As a result, there was no taking of this alleged “stick” in the bundle comprising CCC’s water rights. Moreover, CCC’s claim that BLM took its ranch also failed: “That the ranch may have lost value by virtue of losing the grazing lease is of no moment because such loss in value has not occurred by virtue of governmental restrictions on a constitutionally cognizable property interest.”

D. Walker and Sacramento Grazing Association

*Hage* perhaps convinced the Court of Federal Claims that water rights taking claims presented more difficult definitional issues than other types of takings claims, because soon after the first round of *Hage* the court declared that “[w]estern water law is far from transparent” and that it needed expert help in these cases. One source of such help has been the agencies of the relevant state, and the Nevada State Engineer played a significant role in the *Hage* decision itself. However, the Court of Federal Claims has also directly involved state courts in its water rights takings decision making. For example, having perhaps learned its lesson in *Hage*, the Court of Federal Claims asked the New Mexico Supreme Court for help in a later grazing and water rights case, *Walker v. United States (Walker I)*—help it applied in another case, as well.

*Walker* involved a forty-acre cattle ranch in New Mexico that had grazing rights in the Gila National Forest. The Walkers contended that, as a result of their purchase of the ranch and the grazing allotments, “they obtained all water, range, forage, and access rights, as well as the range improvements, on the allotments,” and they used water from the grazing allotments in their cattle operations. Over the course of several months in 1996, in response to overgrazing and sick cattle, the Forest Service first reduced the number of cattle that could graze in the allotments from 265 to 100 and then canceled the Walkers’ grazing rights altogether. After being sued for trespass in federal district court when they continued to graze their cattle, the Walkers filed their takings lawsuit in the Court of Federal Claims in 2004, alleging:

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187 Id. at 807–08.
188 Id. at 808.
189 Id.
191 *Hage I*, 35 Fed. Cl. 147, 161 (Fed. Cl. 1996) (discussing the use of the State Engineer’s affidavit in the case).
192 See, e.g., *Walker v. United States (Walker II)*, 69 Fed. Cl. 222, 232 (Fed. Cl. 2005) (applying to the New Mexico Supreme Court for answers regarding the relationship between water rights and the right to forage).
193 Id., 57 (Fed. Cl. 2005).
194 Id. at 57–58.
195 Id. at 58.
196 Id. at 58–60.
197 Id. at 60.
[A] taking of: water rights on the allotments through physical appropriation of the water and a denial of all economic uses of the water, including a deprivation of all reasonable, investment-backed expectations; the Walker Ranch, in that the water, forage, and grazing rights are essential to ranch operations, depriving the Walkers of all economically viable use thereof and all reasonable, investment-backed expectations; and the Walkers’ preference grazing rights in the allotments.\(^{198}\)

The court initially decided that the Walkers had no property rights in the grazing allotments because the district court in the trespass case had already concluded that they did not.\(^{199}\) However, in response to the Walkers’ motion for reconsideration, the court revived claims based on water, forage, and access rights, concluding that New Mexico viewed these rights—to the extent that they existed—as being distinct from surface ownership rights.\(^{200}\)

Finding New Mexico law on forage rights unclear, however, the Court of Federal Claims certified two questions to the New Mexico Supreme Court:

1. Does the law of the State of New Mexico recognize a limited forage right implicit in a vested water right?
2. Does the law of the State of New Mexico law recognize a limited forage right implicit in a right-of-way for the maintenance and enjoyment of a vested water right?\(^{201}\)

The New Mexico Supreme Court accepted the certification, issuing its opinion in June 2007.\(^{202}\) Before addressing the forage rights questions, however, the New Mexico Supreme Court flagged a potential problem with several of the Walkers’ asserted water rights, noting they had been denied in the New Mexico courts’ Mimbres River Stream System and Mimbres Underground Water Basin adjudications.\(^{203}\) However, it confined its own conclusions to the certified questions. Those questions, it emphasized, required it to explicitly define exactly what kinds of rights these water rights include in New Mexico, noting that “[o]ne court has framed the question as follows: ‘whether [the] alleged grazing interest is a stick in the bundle of rights,’ under state water law, that the Walkers have acquired with their water rights on the allotments.”\(^{204}\)

As in Colvin Cattle, therefore, the issue was whether the Walkers’ water rights included more than just a right to use and a right of access.

The New Mexico Supreme Court concluded that they did not, at least as far as forage was concerned. It distinguished Hage on the basis that Hage involved Nevada water law and that Colvin Cattle suggested that even

\(^{198}\) Id. at 61 (citations omitted).
\(^{199}\) Id. at 66.
\(^{201}\) Id. at 232–33.
\(^{202}\) Walker v. United States (Walker III), 162 P.3d 882 (N.M. 2007).
\(^{203}\) Id. at 885 n.2.
\(^{204}\) Id. at 886 (quoting Colvin Cattle II, 468 F.3d 803, 806 (Fed. Cir. 2006)).
Nevada water rights did not include the right to graze. Under New Mexico law, it began, “a water right is not an automatic stick in the bundle of rights a landowner receives upon purchasing even a fee interest in land.” The sole exception to the general rule that water rights are separate and distinct from the land is water used for irrigation, in which case the water rights are appurtenant to the irrigated land. By extension, under New Mexico’s prior appropriation doctrine, “[w]ater rights are therefore not tied to a particular location or even a particular source. As such, water rights are not considered ownership in any particular water source . . . but rather a right to use a certain amount of water to which one has a claim via beneficial use. The Walkers’ claim that their water rights included rights to use particular tracts of land would thus “undermine years of established law by declaring such a link, or an appurtenance, between land and water in the non-irrigation context.”

In the particular context of grazing on the public lands, moreover, the New Mexico Supreme Court emphasized that New Mexico law:

> [R]ecognize[s] merely a right in the use of the license to graze on public lands, allowing those with sufficient water rights to support cattle on such lands to exclude others without a water right. This Court has never indicated that a person raising cattle pursuant to a license has any separate interest in the public domain, aside from water rights protected by the Mining Act [of 1866], that can be asserted against the United States government if that license is lost.

As a result, the Walkers could not use whatever water rights they did have to bootstrap their way into continual grazing, especially because they could transfer the water rights to other beneficial uses:

> The Walkers were [] responsible for maintaining their license to graze on the public land, and since they lost that license, they cannot now rely on a right to continue a particular beneficial use to maintain the water right that they were able to acquire by way of government permission in the first place. Because the Walkers chose not to comply with the government’s permitting process, they

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205 Id. at 888 (citing Colvin Cattle I, 67 Fed. Cl. 568, 570 (Fed. Cl. 2005)).
206 Id.
207 Id. at 889.
208 Id. at 890 (citations omitted).
209 Id. Notably, however, this is one area of state water law that can differ significantly from context to context, as the New Mexico Supreme Court suggested. For example, in a 2010 opinion answering certified questions in a takings case involving an irrigation project and the ESA, the Oregon Supreme Court emphasized that, “[u]nder Oregon law, the water right became appurtenant to the land once the persons taking the water from the Klamath Project applied it to their land and put it to beneficial use.” Klamath Irrigation Dist. v. United States, 227 P.3d 1145, 1163 (Or. 2010) (en banc).
210 Walker III, 162 P.3d at 891 (citations omitted).
took the risk of either forfeiting their water right through non-use or being forced to transfer, lease, or sell that right.\textsuperscript{211}

Nor did the right-of-way to maintain the water rights include any implicit right of forage.\textsuperscript{212}

The New Mexico Supreme Court’s opinion allowed the Court of Federal Claims to conclude, on motions for summary judgment, that the Walkers had no takings claims based on forage or grazing rights.\textsuperscript{213} Moreover, following up on the Mimbres water rights adjudication issue, the court concluded that the Walkers had no water rights in any of the twenty-six source waters for which they claimed rights—out of forty water sources total—that had been included in that adjudication because the New Mexico courts had explicitly found that their predecessors-in-interest had no water rights in those waters.\textsuperscript{214} Finally, while the court concluded that the Walkers had established prima facie water rights in eleven other sources and a tank,\textsuperscript{215} it also concluded that the Forest Service had not taken any of those rights:

Cancellation of Plaintiffs’ grazing permit also did not place any limit on Plaintiffs’ alleged right to certain water sources. Indeed, the Prior Appropriation Doctrine ensures that owners may transfer, lease, or sell such rights from the surrounding lands. Plaintiffs, however, have not alleged nor submitted any evidence that their ability to transfer, lease, or sell any water rights has been impaired. In fact, Plaintiffs concede that they “could still bring their cattle to their vested water rights for stock watering purposes, as long as the cattle did not graze along the way.” Plaintiffs further concede that they have “not sought permission to move any water [in the Allotments from the Government] because of this pending litigation.” Nonetheless, Plaintiffs argue “[t]he choices presented to [Plaintiffs with respect to water access] are logistically impossible and economically prohibitive.” As the Supreme Court of the State of New Mexico observed, however, “[b]ecause [Plaintiffs] chose not to comply with the government’s permitting process, they took the risk of either forfeiting their water right through non-use or being forced to transfer, lease, or sell that right.”\textsuperscript{216}

Finally, there was no taking of the Walker ranch as a whole because the Walkers had not shown that they were deprived of all economic use, nor did the underlying government actions interfere with protected property interests to begin with.\textsuperscript{217}

\begin{footnotes}
\item[211] Id. at 892; see also id. at 894–95 (reaching the same conclusion with respect to the Walkers’ customary practice argument).
\item[212] Id. at 896.
\item[214] Id. at 695, 698–99.
\item[215] Id. at 702, 704–05.
\item[216] Id. at 706 (quoting plaintiff’s response at 19, 22; Walker III, 162 P.3d at 892; remaining citations omitted).
\item[217] Id. at 707–08.
\end{footnotes}
The Court of Federal Claims also relied on the New Mexico Supreme Court’s opinion in *Sacramento Grazing Ass’n, Inc. v. United States*, which involved grazing rights and water rights belonging to the Sacramento Grazing Association (SGA) in the Lincoln National Forest in New Mexico, where the United States Forest Service curtailed grazing to protect several species listed under the federal ESA. The court rather quickly granted the United States’ motion for summary judgment with regard to: 1) SGA’s taking claim based on SGA’s alleged right to forage, because the New Mexico Supreme Court had “held that state law does not recognize a limited forage right implicit in a vested water right,” 2) SGA’s taking claim based on cancellation of the grazing permit, which was not a property right; 3) SGA’s taking claim based on an alleged “right-of-way to move their cattle to water sources within the riparian exclosures of the Sacramento Allotment,” because “the New Mexico Supreme Court has held that the right to use water under state law does not include a right-of-way over federal lands,” and 4) SGA’s taking claim based on an allegation that the takings of the forage and grazing rights deprived the ranch of all economically viable use, because the underlying rights did not exist. Moreover, it granted the plaintiffs’ motion for summary judgment in part regarding the issue of whether SGA held valid water rights, based on the United States’ failure to refute SGA’s prima facie evidence that it had established water rights under New Mexico law. However, while the court acknowledged that SGA had raised both physical and regulatory takings claims with regard to these water rights, the court denied all summary judgment motions on the takings issue, because material issues of fact existed.

E. Lessons from the Grazing and Water Rights Cases

Viewed as a group, the grazing and water rights cases demonstrate that, in water rights takings litigation, establishing the existence and the contours of the claimed water right are both critical issues. Establishing the existence of a water right requires compliance with state law, as the 1930 Utah case demonstrated, and the Federal Court of Claims will respect state rulings on the rights themselves, whether in the form of state officials’ testimony—Hage—or state court rulings and stream adjudications—Walker. However, if the claimant does have a water right, the Court of Federal Claims has identified four elements—“sticks” in the bundle of rights—that are particularly important within the prior appropriation regimes in which these

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218 96 Fed. Cl. 175 (Fed. Cl. 2010).
219 *Id.* at 179.
220 *Id.* at 182.
221 *Id.* at 182 (citing *Walker III*, 162 P.3d at 884).
222 *Id.*
223 *Id.* at 189–90 (citing *Walker III*, 162 P.3d at 884).
224 *Id.* at 190.
225 *Id.* at 191–93.
226 *Id.* at 190–91, 193–95.
cases all arose: 1) the right to use the water itself (Hage); 2) the right to access the water so that it can be used (Hage); 3) the right to maintain water structures that allow the water to be used (Hage); and 4) the right or ability to transfer the water right to a different beneficial use (Mitchell, Walker). In contrast, these water rights carry with them no appurtenant rights to graze federal lands; indeed, one of the important features of water rights in Utah, Nevada, and New Mexico—with the limited exception of irrigation rights—is the nonappurtenant character of the water right.\footnote{See, e.g., Jeffrey J. Wechsler, \textit{This Land Is Our Land: Ranchers Seek Private Rights in the Public Rangelands}, 21 J. LAND RESOURCES & ENVTL. L. 461, 476–80 (2001) (arguing that New Mexico, Utah, and Nevada common law supports the conclusion that grazing rights are not appurtenant to water rights, and that the \textit{Hage} court was incorrect in holding otherwise).} In addition, claimants cannot expect their rights to water that they develop on federal lands pursuant to grazing licenses to be exclusive—Fallini.

Moreover, the government’s interference with different elements alters the kind of takings analysis that the courts use. As was arguably true in \textit{International Paper} and \textit{Gerlach}, if the government destroys the claimant’s ability to use the water, either by physically diverting all of the water elsewhere or physically preventing access, as in \textit{Hage}, the courts analyze the claims as physical takings claims. However, when a government merely reduces the flow of water, the grazing and water rights cases—especially when read in conjunction with \textit{Tulare Lake} and \textit{Casitas}—indicate that classifying the character of the government’s action becomes critically important. If the government’s action can be categorized as a physical diversion of water away from the claimant, as in \textit{Tulare Lake} and \textit{Casitas}, the courts have used a physical takings analysis. In contrast, in \textit{Hage}, when the reductions in water flow were the more indirect result of government policy choices, the Court of Federal Claims used a regulatory takings analysis. Similarly, the \textit{Hage} court characterized the government’s unreasonable restrictions on waterway maintenance as a regulatory taking, not a physical taking.

Finally, however, the water right holder’s ability to transfer the water right to a different beneficial use—especially a beneficial use with which the government’s actions do not and perhaps cannot interfere—can derail the finding of a compensable taking. Thus, in \textit{Mitchell}, the Mitchells' transfer of one water right to the benefit of the desert tortoise destroyed their entire takings claim. Similarly, in \textit{Walker}, the fact that the Walkers retained access to the water and an ability to transfer the water to a different beneficial use resulted in a judgment that the government had not taken their water rights. As the \textit{Hage} court subtly warned, however, if the government fails to cooperate in the transfer, or makes it impossible for the claimant to use the water for some other purpose, the takings claim would remain viable.
IV. DEFINING WATER PROPERTY RIGHTS IN THE EAST: RIPARIAN RIGHTS, TAKING CLAIMS, AND ENVIRONMENTAL QUALITY

Especially in comparison to the grazing and water rights litigation, one important difference for takings litigation involving riparian rights is that riparian rights are appurtenant. As noted previously, under common law riparianism, the right to use water in a particular stream, river, or lake is a right shared among the relevant riparian owners as an incident of their real property title, and the use of the water, at least traditionally, is limited to the riparian properties themselves. As a result, transfer considerations generally do not apply in the riparian water rights context, even in states with regulated riparianism.

As is true with appropriative rights, however, courts have better defined some aspects—“sticks”—of riparian rights than others. For example, most riparian states have fairly well-developed rules regarding the doctrines of accretion and avulsion and the rules regarding changes in riparian property borders as a result. Similarly, the riparian rights to wharf out and to make reasonable use of the water are generally fairly well delineated.

However, the common law of many riparian states suggests that a right to water of a certain quality is a component of riparian water rights. It is this arguable “stick” in the riparian bundle of rights that becomes an interesting subject of takings litigation, suggesting some potentially important twists in such litigation for the future.

A. Ancarrow v. City of Richmond: Sewage Pollution of a Marina

In 1979, the United States Court of Appeals for the Fourth Circuit addressed the issue of whether riparian landowners in Virginia should be compensated when the City of Richmond’s pollution of the James River allegedly destroyed the value of the landowners’ riparian property, which

228 JOHNSON, supra note 2, at 35–37.
229 E.g., Estate of Tenney v. S.C. Dep’t of Health & Envtl. Control, 712 S.E.2d 395, 399 (S.C. 2011) (explaining that the State of South Carolina is the “presumptive owner of lands below the high water mark” and a person who takes title to vulnerable land does so with the knowledge that there is an inherent risk of losing some land to the State through natural forces); City of Long Branch v. Jui Yung Liu, 4 A.3d 542, 549–53 (N.J. 2010) (explaining that the doctrines of accretion and avulsion have long been recognized under New Jersey’s jurisprudence).
231 Konneker v. Romano, 785 N.W.2d 432, 436 n.5 (Wis. 2010); Dyer v. Hall, 928 N.E.2d 273, 277 (Ind. Ct. App. 2010).
they had developed as a marina.233 The plaintiffs’ property was next to Richmond’s sewage treatment plant, and “the river’s polluted condition made it unattractive to the public for recreational purposes, frustrating the Ancarrows’ attempts to enhance their property’s value as a marina.”234 However, when the City then condemned the property in 1975 for expansion of the sewage treatment plant, the Ancarrows did not protest Richmond’s valuation of the property, which did not include its value as a marina; instead, they filed a takings claim.235 While the district court would have allowed the claim but abstained until the Virginia courts decided whether the pollution violated the Ancarrows’ property rights,236 the Fourth Circuit reversed, finding that “no federally protected right has been violated.”237 The Fourth Circuit focused on the issue of whether the City of Richmond had unconstitutionally taken the Ancarrows’ riparian rights or had unconstitutionally interfered “with their related land-based property rights to develop a successful marina adjacent to the river.”238 For purposes of the government’s motion to dismiss, it accepted as true the Ancarrows’ claim that they had “a riparian right to use public waters in a navigable stream” and that the City’s continuing pollution of the James River was a taking of that right.239 Nevertheless, it found the claim “meritless.”240 It emphasized first what the Ancarrows’ claim was not: it was not a claim of physical invasion of their real property; and it was not a claim that the government had blocked their access to the river.241 Instead, it was a claim that the Ancarrows had “a state-recognized riparian right to demand water of a particular purity, both for their own use and for the use of customers at their marina.”242

According to the Fourth Circuit, the Ancarrows were wrong as a matter of Virginia law, citing its own 1936 opinion to do so: “Under Virginia law, a citizen’s riparian right to use public waters of a particular purity is always subject to the superior right of the public to pollute those waters for sewage disposal.”243 Nor did Virginia’s intervening water quality amendments change the nature of the Ancarrows’ riparian rights because:

The statute does not by its terms purport to grant a new riparian right to private property owners which is superior to a city’s state-regulated right to lawfully pollute public waters. Plaintiff’s argument that such a right is implied is untenable in light of the statutory language, and would bring about an absurd

233 Ancarrow v. City of Richmond, 600 F.2d 443, 444 (4th Cir. 1979).
234 Id.
235 Id.
236 Id. at 445.
237 Id.
238 Id.
239 Id. at 446.
240 Id.
241 Id.
242 Id.
243 Id. (citing DuPont Rayon Co. v. Richmond Indus., 85 F.2d 981, 984 (4th Cir. 1936)).
result: the creation of a new cause of action for riparian owners which would in effect penalize the city for its full compliance with that regulatory scheme.\textsuperscript{244}

As for diminishment of the Ancarrows’ land value, the Fourteenth Amendment “does not protect the owner from fluctuations in the value of his property resulting from governmental decisions to put neighboring public property to a lawful, albeit unattractive, use.”\textsuperscript{245} As a result, the Fourth Circuit dismissed the Ancarrow’s complaint.\textsuperscript{246}

One could argue that the Fourth Circuit’s analysis was a bit too facile. For example, under Virginia nuisance law, “lawful use” does not insulate a landowner from nuisance claims,\textsuperscript{247} even when the landowner is acting pursuant to a state-issued permit.\textsuperscript{248} Moreover, Virginia common law establishes that:

The well settled general rule on this point is that each riparian proprietor has \textit{ex jure naturae} an equal right to the reasonable use of the water running in a natural course through or by his land for every useful purpose to which it can be applied, whether domestic, agricultural or manufacturing, provided it continues to run, after such use, as it is wont to do, without material diminution or alteration \textit{and without pollution}; but he cannot diminish its quantity materially or exhaust it (except perhaps for domestic purposes and in the watering of cattle) to the prejudice of the lower proprietors, unless he has acquired a right to do so by grant, prescription or license.\textsuperscript{249}

In addition, in 1942, the Virginia Supreme Court had expressly upheld the lower courts in forcing a municipality to use condemnation proceedings to engage in actions that would violate these riparian rights in the context of a private stream, holding that “[t]he fact that the wrongdoer here is a municipality, clothed under the Constitution and statutes of the State with the power of acquiring the plaintiffs’ riparian rights by eminent domain, does not relieve it from the application of these principles.”\textsuperscript{250} Finally, in a 1915 case, the Virginia Supreme Court suggested that sewage pollution—public or private—that amounted to a nuisance would constitute a taking of riparian rights.\textsuperscript{251}

The Fourth Circuit’s result in Ancarrow is thus probably best explained by the court’s fixation on the James River’s status as a navigable and hence public river. However, in a 2011 decision, the Virginia Supreme Court continued to cite to turn-of-the-twentieth-century decisions to define the

\begin{itemize}
  \item \textsuperscript{244} Id. at 447.
  \item \textsuperscript{245} Id.
  \item \textsuperscript{246} Id. at 448.
  \item \textsuperscript{247} Martin v. Moore, 561 S.E.2d 672, 677 (Va. 2002); Bowers v. Westvaco Corp., 419 S.E.2d 661, 666 (Va. 1992).
  \item \textsuperscript{249} Hite v. Town of Luray, 8 S.E.2d 369, 371–72 (Va. 1940) (emphasis added) (quoting MINOR ON REAL PROPERTY § 5, at 76 (2d ed. 1928)); \textit{see also} Town of Purcellville v. Potts, 19 S.E.2d 700, 702–03 (Va. 1942) (quoting the same rule from MINOR ON REAL PROPERTY).
  \item \textsuperscript{250} \textit{Town of Purcellville}, 19 S.E.2d at 703.
  \item \textsuperscript{251} McKinney v. Trustees of Emory & Henry Coll., Inc., 86 S.E. 115, 117 (Va. 1915).
\end{itemize}
status of riparian rights, even in the context of that same James River. These facts suggest that future riparian owners’ water quality-related takings claims might fare better in state courts than in the federal courts.

B. Avenal v. United States: Salinity and Oysters

In *Avenal, Jr. v. United States*, Robert Avenal, Jr. and 129 other plaintiffs leased oyster beds from the State of Louisiana. Oysters are sensitive to salinity, and the plaintiffs alleged a takings claim against the United States after the United States Army Corps of Engineers (Corps) freshwater diversion project—the Caernarvon project—destroyed the value of the leased lands for oysters because of decreased levels of salinity and increased silt deposits. The Court of Federal Claims dismissed the case on the grounds that there was no compensable property interest, and the United States Court of Appeals for the Federal Circuit affirmed.

While *Avenal* did not raise the issue of riparian rights per se, because the plaintiffs were leaseholders of state-owned lands, the Federal Circuit did recognize that the oyster leases were valuable property rights that “have the attributes of other forms of real property, and are entitled to protection from injury by third parties.” The court also recognized that the Corps’s project had caused a substantial diminution in value. However, because the Corps’s project did not physically occupy the submerged lands covered by the oyster leases, the *Penn Central* regulatory takings analysis applied. Notably, the court even acknowledged that the plaintiffs would have a claim if the problem had been based on unlawful pollution, because they had a property right to be free of those kinds of changes to water quality. However, the fact that the Corps was continually manipulating the Mississippi River undermined the plaintiffs’ takings claims, because “they cannot here insist on a guarantee of non-interference by government when they well knew or should have known that, in response to widely-shared public concerns, including concerns of the oystering industry itself, government actions were being planned and executed that would directly affect [the plaintiffs’] new economic investments.”

As in *Ancarrow*, therefore, the public aspects of the waters involved and the government’s actions counted against the private property rights holders in *Avenal*. However, the *Avenal* court grounded its decision more

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253 100 F.3d 933 (Fed. Cir. 1996).

254 *Id.* at 934.

255 *Id.* at 934–36.

256 *Id.* at 936.

257 *Id.* at 938.

258 *Id.* at 936.

259 *Id.* at 937.

260 *Id.*

261 *Id.*

262 *Id.*
solidly in the idea of notice and reasonable expectations, emphasizing that the plaintiffs had acquired their oyster leases after the Corps was already considering the project about which they eventually sued.263

C. Mildenberger v. United States: Riparian Property and Aquatic Ecological Well-Being

The alleged riparian right to water of a particular quality most recently took center stage in the Florida-based case of Mildenberger v. United States.264 John Mildenberger and the twenty-one other plaintiffs in this case own property along the St. Lucie River and St. Lucie Canal in east-central Florida.265 The State of Florida constructed the canal in 1924 to connect the St. Lucie River to Lake Okeechobee in central Florida; Lake Okeechobee sits at the northern end of the Everglades and historically has been subject to severe flooding.266 Because of this flooding, Congress authorized the Central and South Florida Project in 1948, which the Corps built and continues to maintain.267 As a result of the project, the Corps uses the St. Lucie River and St. Lucie Canal to help control the water levels in Lake Okeechobee.268

The ecological effects on the St. Lucie River have been devastating. Public reports of the damage began as early as 1952, and “[i]n 1970, a Wall Street Journal editorial noted that ‘the once-clear St. Lucie is black with mud, and Corps officials in Florida admit their agency is largely to blame. Nearly all the fish are gone. Gone, too, are most of the oysters, clams, pelicans, ospreys and wild ducks.’”269 However, the plaintiffs’ takings claims focused on events from 2004 to 2006, when:

Lake Okeechobee experienced long periods of high water levels, stressing the dike around the lake and prompting the Corps to release high volumes of water into the St. Lucie Canal. In 2004, state environmental officials warned people not to swim or fish in the St. Lucie River because of high bacteria levels. In 2005, due to algal blooms, the Martin County Department of Health banned swimming, fishing, and other contact with the St. Lucie River. The discharge of water from the lake reduced the salinity of the St. Lucie Canal to nearly zero, resulting in the death of oyster beds. The demise of the oyster beds also contributed to the decline of numerous other estuarine species including gastropods, crabs, sponges, fish, and birds. The amount of sea grass at the mouth of the St. Lucie River also substantially declined in 2006.270

263 Id. at 938.
264 643 F.3d 938 (Fed. Cir. 2011).
265 Id. at 943.
266 Id. at 941.
267 Id. at 941–42.
268 Id.
269 Id. at 942 (emphasis added) (quoting Tom Herman, Embattled Corps, WALL ST. J., Jan. 6, 1970, at 1).
270 Id. at 942–43.
Specifically, the landowners claimed that “[t]he Corps’ releases of water allegedly took Claimants’ ‘riparian right to use and enjoy the water in the St. Lucie River free from pollution,’ including their rights to swim, boat, fish, and use the water for recreation.”

The Court of Federal Claims dismissed the case on statute of limitations grounds, but offered as an alternative basis for dismissal a conclusion that the plaintiffs’ riparian rights could not support a takings claim because they were held in common with the public. The Federal Circuit affirmed. It concluded first that the plaintiffs, who filed their lawsuit in 2006, failed to comply with the Tucker Act’s six-year statute of limitations. In general, takings “[c]laims accrue when the events giving rise to the Government’s alleged liability have occurred and the claimant is or should be aware of their existence,” but the plaintiffs argued for application of the “stabilization doctrine,” which “recognizes that determining the exact point of claim accrual is difficult when the property is taken by a gradual physical process rather than a discrete action undertaken by the Government such as a condemnation or regulation.” However, the Court of Federal Claims concluded that the plaintiffs’ claims were untimely even if the stabilization doctrine applied:

The Corps has released large volumes of polluted nonsaline water from Lake Okeechobee into the St. Lucie River for almost eighty years and the environmental effects have been evident since the 1950s. In the 1990s, some Claimants formed the St. Lucie Initiative, Inc. to restore the health and productivity of the St. Lucie River. . . . The Initiative recognized that the river was polluted with agricultural runoff and that “[t]he ancillary failures of grass beds, benthic life, and fish and wildlife in general are obvious.” Regardless of whether the stabilization doctrine applies, Claimants’ suit is untimely.

Nor did the federal government’s promises to mitigate the environmental damage change the result. Nevertheless, like the Court of Federal Claims, the Federal Circuit went on to address the status of the claimed property rights under Florida law. It concluded that “Claimants’ alleged exclusive riparian rights are unrecognized under Florida law,” noting that “[r]ights shared with the public are not compensable if taken, whereas the four exclusive littoral or riparian rights are.” These four exclusive rights are “(1) the right to have access to

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271 Id. at 943 (quoting Complaint for Just Compensation, ¶ 33, Mildenberger v. United States, 91 Fed. Cl. 217 (Fed. Cl. 2010) (No. 1:06-cv-00760)).
272 Id. at 943–44.
273 Id. at 947–48.
274 Id. at 945.
275 Id.
276 Id. at 946 (quoting the plaintiffs’ complaint).
277 Id. at 946–47.
278 Id. at 948.
the water; (2) the right to reasonably use the water; (3) the right to accretion and reliction; and (4) the right to the unobstructed view of the water.\footnote{279}

Moreover, although the polluted water allegedly required Claimants to clean their boats, experience fetid odors, witness dead and dying animals, and be exposed to harmful water, Claimants voluntarily dismissed their claims to upland damage. Claims of noxious odors and aerosols resulting from the Corps' discharges do not constitute a physical taking of Claimants' property.\footnote{280}

Finally, "although Claimants may be experiencing the effects of pollution of a greater degree than the public, they are suffering the same injuries."\footnote{281} As a result, the Federal Circuit again upheld the Court of Federal Claims.\footnote{282}

The statute of limitations issue may have been an insurmountable obstacle for the plaintiffs in \textit{Mildenberger} given the long history of both state and federal control over Lake Okeechobee, the Everglades, and the surrounding waterways. Nevertheless, as was true of the Fourth Circuit's view of Virginia law in \textit{Ancarrow}, the Federal Circuit's analysis of Florida riparian rights may have been too facile. For example, the Florida Supreme Court has explicitly held that pollution of waterways can injure landowners' riparian rights, giving rise to a private cause of action distinct from the public management aspects of those waterways.\footnote{283} Moreover, the Florida District Courts of Appeals have repeatedly granted riparian owners causes of action—and injunctions and damages—against defendants who pollute waterways.\footnote{284}

Finally, although case law in Florida does state that the riparian right of \textit{navigation} is held in common with the public right of navigation, the Florida Supreme Court in 1981 disapproved the primary case asserting that no compensable taking could arise as a result, finding instead that riparian owners had a compensation cause of action if they could claim a special injury, even if the public interest in navigation otherwise justified the damaging project.\footnote{285} Nevertheless, the Court of Federal Claims in \textit{Mildenberger} found this express disapproval of the "no compensable property right" rule from Florida's highest court "inapposite" and dicta.\footnote{286}

\footnote{279} \textit{Id.} (quoting Walton Cnty. v. Stop the Beach Renourishment, Inc., 998 So. 2d 1102, 1111 (Fla. 2008)).
\footnote{280} \textit{Id.} at 949.
\footnote{281} \textit{Id.}
\footnote{282} \textit{Id.}
\footnote{284} See, \textit{e.g.}, Deltona Corp. v. Adamczyk, 492 So. 2d 463, 463–64 (Fla. Dist. Ct. App. 1986) (affirming both damages and an injunction when the defendant's actions in pumping water from Evans Lake were "interfering with the natural quantity and quality of water in Evans Lake to any extent or degree that causes damage to appellee's lands or otherwise injures appellee" (emphasis added)); N. Dade Water Co. v. Adken Land Co., 130 So. 2d 894, 897–99 (Fla. Dist. Ct. App. 1961) (enjoining a sewage treatment plant's operation when it polluted nonnavigable lakes).
\footnote{286} Mildenberger v. United States, 91 Fed. Cl. 217, 242 (Fed. Cl. 2010).
Moreover, both federal courts failed to distinguish the riparian right of navigation, which clearly has a significant relationship to public rights in water as a result of both Florida’s public trust doctrine \(^{287}\) and the federal navigation servitude,\(^ {288}\) from the asserted right to be free of polluted waters.

**D. A Comparison to Water Quality Takings Claims Under Prior Appropriation: A-B Cattle Company v. United States**

In 1980, the United States Court of Claims similarly dismissed a rarer prior appropriation-based taking case based on water quality in *A-B Cattle Co. v. United States (A-B Cattle I).*\(^ {289}\) However, its approach was much more respectful of the complexities of state water law than the courts’ approaches to riparian takings claims. In this case, stockholders in Colorado sued the United States for a taking of their water rights in connection with the Frying Pan/Arkansas Reclamation Project on the Arkansas River, alleging that water delivered after the reclamation project would be less silty than what they were entitled to, effectively resulting in them receiving less water because there would no longer be silt to seal the delivery ditch, which had prevented loss of water into the ground.\(^ {290}\)

The district court originally found a property right in the silty water and a taking.\(^ {291}\) Through complex procedural maneuverings, however, the takings question eventually fell to the United States Court of Claims, which certified the issue of property rights in water quality to the Colorado Supreme Court.\(^ {292}\) The Colorado Supreme Court initially decided the issue in favor of the landowner–stockholders but then reversed itself in response to a motion for rehearing.\(^ {293}\) Although Colorado has a statute requiring water substitutions to supply water of the same quality, the court nevertheless concluded:

> In our view the appropriations were for water, and not for water containing silt. Silt is not a component of water. Rather, it is suspended sediment which comes principally from the banks and bottom of an onrushing stream and which settles to the bottom when there is no longer movement of the water. Thus, there is far more sediment being carried in the waters of the Arkansas River during the flood season of late spring, than in the early spring or fall.

The “quality” requirement of the statute is not violated when a person slows down the movement of water, resulting in the settling of silt to the bottom and leaving only clear water for the senior appropriator. Further, we regard the

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\(^{289}\) 621 F.2d 1099 (Ct. Cl. 1980).

\(^{290}\) *Id.* at 1101.

\(^{291}\) *Id.* at 1102.

\(^{292}\) *Id.*

\(^{293}\) *Id.* at 1103 (citing A-B Cattle Co. v. United States, 589 P.2d 57, 58 (Colo. 1978) (en banc)).
storage of water, with consequent settling of silt to the bottom of the reservoir, as not constituting an unreasonable deterioration in quality.\textsuperscript{294}

As a result, the United States Court of Claims denied the stockholders' takings claims.\textsuperscript{295}

Nevertheless, both the United States Court of Claims and the Colorado Supreme Court effectively acknowledged the complexity of the water rights definitional question—the former by asking the state court for assistance, and the latter through its granting of the motion for rehearing. Similar attentiveness to the complexities of state water law are also required in the riparian rights context, because—as even the quick investigations of Virginia and Florida law suggest—at least some riparian landowner claims to better water quality may be viable.

\textbf{E. Lessons from the Riparian Pollution Litigation}

Although the cases are perhaps too few to represent any kind of trend, what is striking about the riparian rights takings claims based on pollution is that the federal courts feel no need to consult state courts with respect to novel questions, even when existing state law suggests a substantial argument exists that the right to be free of pollution is a riparian property right capable of being constitutionally taken. In stark contrast, when the issue arose in the context of the prior appropriation doctrine in \textit{A-B Cattle Co.}, the Court of Federal Claims turned immediately to the Colorado Supreme Court. These differences suggest that, while that court has learned that “[w]estern water law is far from transparent,”\textsuperscript{296} it has failed to learn the same lesson about eastern water law.

In particular, several eastern states have viable but underdeveloped case law stating that riparian property rights include the right to water of a certain quality.\textsuperscript{297} This right may be particularly strong in North Carolina, where the riparian owner’s right to water “undiminished and unimpaired in quality” has been incorporated explicitly into the state’s contemporary reasonable use rule.\textsuperscript{298} Thus, if government action—within the statute of

\footnotesize{\textsuperscript{294} A-B Cattle Co. v. United States (\textit{A-B Cattle II}), 589 P.2d 57, 59–60 (Colo. 1978) (en banc) (citing Cushman v. Highland Ditch Co., 33 P. 344 (Colo. App. 1893)).
\textsuperscript{295} \textit{A-B Cattle I}, 621 F.2d at 1104–05.
limitations—completely destroys a riparian property owner’s right to water of undiminished quality by physically adding pollutants to or directly causing diminished water quality, that government arguably—under the logic of Tulare Lake, Casitas, and Hage—has caused a physical taking of riparian water rights, requiring compensation. Moreover, neither the Clean Water Act nor the state’s implementation of that statute, such as through water quality standards, would be barriers to the takings claims, because statutory requirements cannot trump constitutionally protected property rights.

The obvious question, of course, is what a takings claim would add in the water quality context beyond what can be accomplished through nuisance. Clearly, when water pollution becomes bad enough, landowners can sue each other for nuisance. However, two features distinguish nuisance claims from takings claims. First, nuisance claims are directed at private individuals; governments generally cannot be held liable for creating a nuisance. In contrast, takings claims are by definition filed against governments. As such, takings claims based on water quality arguably could fill a legal gap in redressing harms caused by water quality problems.

Second, nuisance is inherently a matter of unreasonableness and interest balancing—typically, a weighing of the gravity of harm to the plaintiff against the utility of the defendant’s conduct. In contrast, if courts recognize a right to unpolluted waters as an independent riparian property right, and if they follow the logic of the prior appropriation cases, governments’ direct diminishment of water quality would require compensation as a physical taking—or, alternatively, a very quick improvement in water quality.

V. CONCLUSION

As this Article has demonstrated, takings litigation to protect water rights from government action almost by necessity requires the adjudicating court to examine carefully the exact nature of the alleged water right at issue. The Court of Federal Claims has learned that western water law is complicated and that the existence—or not—of a particular element of the alleged property right regarding water cannot be presumed. In contrast, the federal courts seem less willing to accept that eastern riparian rights might be equally complex, especially in terms of an asserted property right to undiminished water quality.

Nevertheless, as noted, many eastern states do appear to recognize and, at least in some circumstances, protect a riparian right to be free of excess

Thus, a showing of unreasonable use would probably still be necessary before a takings claim could succeed.

300 Id. § 1313.
303 E.g., id. at § 100.
pollution. Moreover, riparian landowners have sporadically tested the possibility of using this right to improve water quality.

Adding this property rights dimension to a more traditionally tort-based nuisance analysis for water quality would certainly change—at least in the water context—the fundamental structure of environmental takings litigation to date, aligning private property owners in favor of increased environmental protection. More tantalizing, however, is the possibility that better recognition of certain riparian rights in the takings context could change the dynamics of water quality protection in eastern states. In particular, a recognition of potential takings liability might encourage governments to implement more fully their existing water quality laws and to perform more thorough environmental impact analyses for projects that could affect water, resulting in better water quality for everyone.