
Water Bankruptcy Through the Bankruptcy Code

Jack Zarin-Rosenfeld*

Water scarcity due to climate change is forcing the state and local government agencies that regulate water use to prioritize certain water uses and users above others. Water agencies could just stand pat and enforce existing priorities, even if doing so would cut off valuable collective uses of water that are lower in priority than uses by narrow private interests. Alternatively, the agencies could try to adapt water priorities to climate change by reducing water obligations owed to certain groups of users in order to free up water supplies for other groups of users, even if doing so would trigger a mass of litigation from users set to receive less water than they were promised. Anticipating these dynamics, water law scholars developed the concept of “water bankruptcy,” a set of principles for better resolving the multiparty lawsuits bound to follow adaptation of water priorities to climate change. To date, however, proponents of water bankruptcy in principle have urged lawmakers to amend their own state and local procedures, overlooking the possibility that water bankruptcy in practice is already available to water agencies through the federal law of municipal bankruptcy, Chapter 9 of the Federal Bankruptcy Code.

This Article is the first attempt to examine the promise of water bankruptcy through Chapter 9 of the Bankruptcy Code, which allows local government units to readjust their debt obligations into more sustainable arrangements. As it turns out, the Code makes available a litigation process that is readymade for water bankruptcy, maximizing flexibility for eligible water agencies to

* Copyright © 2023 Jack Zarin-Rosenfeld. Associate Professor of Law, Maurice A. Deane School of Law at Hofstra University. Thank you to Barry Friedman, Helen Hershkoff, Emma Kaufman, Troy McKenzie, Ricky Revesz, Katrina Wyman, Natalie Jacewicz, the faculty at Hofstra Law, and scholars in the Furman Academic Program at NYU Law.

consolidate in a single forum all claims to specific water sources, to breach and compensate obligations owed to large groups of water users, and even to pay for emergency water supplies. Water bankruptcy through the Bankruptcy Code also would not implicate the efficacy or constitutional concerns raised by recent Chapter 9 bankruptcies of general municipalities. Faced with dwindling freshwater supplies, water agencies and advocates of water bankruptcy in principle should appreciate the promise of water bankruptcy through the Bankruptcy Code.

TABLE OF CONTENTS

INTRODUCTION	1437
I. WATER BANKRUPTCY AS PRINCIPLE.....	1441
A. <i>The Law of Water Use</i>	1441
B. <i>Adapting Water Priorities to Climate Change</i>	1445
C. <i>The Need for Water Bankruptcy</i>	1450
II. WATER BANKRUPTCY AS PRACTICE.....	1454
A. <i>The Promise of Water Bankruptcy Through the Bankruptcy Code</i>	1456
1. Comprehensive Source-Based Adjudication	1456
2. Adjustment Plans that Conserve Water Supplies	1460
3. Class-Based Consent and Minimal Judicial Oversight.....	1467
B. <i>The Perils of Water Bankruptcy Through the Bankruptcy Code</i>	1471
1. Efficacy Concerns	1471
2. Constitutional Concerns	1475
III. AGGREGATING CLAIMS TO COMMON RESOURCES.....	1480
A. <i>Attacking the Anticommons with Aggregate Litigation</i>	1481
B. <i>Aggregate Legitimacy and Individual Control</i>	1484
CONCLUSION	1487

INTRODUCTION

Climate change has and will continue to endanger supplies of freshwater throughout the United States. Already severe droughts threaten freshwater resources in the Southwest, while extreme and unpredictable weather swings in the Southeast have started to cause “flash” droughts forcing cutbacks in irrigation and water-powered electricity.¹ Even coastal regions are affected, as rising sea levels cause saltwater to infiltrate previously fresh sources of water.²

As climate changes make freshwater scarcer, the state and local government agencies that regulate private access and use of water will be forced to prioritize certain water uses and users above others.³ One option is that these water agencies can stand pat and continue to satisfy their existing obligations, even if those obligations prioritize water use by individual private actors over water uses that are more collective, socially valuable, and possibly even existential. Rather than honor existing obligations no matter the consequences, water agencies could

¹ See, e.g., Robin Kundis Craig, *Water Law and Climate Change in the United States: A Review of the Legal Scholarship*, WIREs WATER, May/June 2020, at 1, 2, 6 [hereinafter *U.S. Water Law*] (summarizing the varying regional effects of climate change on water resources, including “the progressive reduction of fresh water” due to drought and “increased variability” in the form, timing, and amounts of precipitation); see also Thomas C. Brown, Vinod Mahat & Jorge A. Ramirez, *Adaptation to Future Water Shortages in the United States Caused by Population Growth and Climate Change*, 7 EARTH’S FUTURE 219, 226 (2019) (“Projected changes in climate will affect water use in several sectors, as rising potential evapotranspiration rates, plus decreasing precipitation in some areas, raise agriculture and landscape irrigation demands and rising temperatures raise electricity demands.” (internal citations omitted)).

² See, e.g., Craig, *U.S. Water Law*, *supra* note 1, at 7 (noting risk of saltwater intrusion of coastal groundwaters); Jesse Reiblich & Christine A. Klein, *Climate Change and Water Transfers*, 41 PEPP. L. REV. 439, 444-47 (2014) (discussing predicted decreases in fresh water supplies due to droughts, unpredictable weather patterns, saltwater intrusion from rising sea levels, and quality degradation of drinking water sources); see also Brown et al., *supra* note 1, at 232 (“[C]limate change and population growth are likely to present serious challenges in some regions of the U.S., notably the central and southern Great Plains, the Southwest and central Rocky Mountain States, and California, and also some areas in the South (especially Florida) and Midwest.”).

³ Cf. Jim Rossi & J.B. Ruhl, *Adapting Private Law for Climate Change Adaptation*, 76 VAND. L. REV. 827, 843 (2023) (noting “the premise behind the need for climate adaptation” is that “water scarcity” and other climate changes “will disrupt private interests and relationships”).

instead try to breach, eliminate, or reduce obligations owed to certain groups of water users in order to free up water supplies for other users. Because adapting water priorities to climate change requires water agencies to break a large number of past promises, however, it is inevitable that adaptation will trigger a mass of litigation from those getting less water than promised.

Anticipating these dynamics over the last two decades, scholars of water law have examined and criticized the existing forums for litigating claims to water use. Most concerningly, existing forums allow litigation among large groups of water users to fester because settlements require individualized consent from every individual water user.⁴ Water litigants need instead a collective procedure that represents the interests of every type of water user but does not require individualized consent as a condition for settlement. Why not then, the scholars asked, structure complex lawsuits over scarce water supplies in times of drought to look more like complex lawsuits over commercial assets in times of financial distress — that is, like bankruptcy?⁵

So was born the concept of water bankruptcy, a set of principles for better resolving the complex litigation that follows adaptation of water rights to climate change.⁶ However, because state law governs water use and water-use lawsuits are in state court, water bankruptcy to date has been a clarion call for new legislation only at the state level. If each state facing water shortages passes legislation to synchronize their water procedures, the thinking goes that the principles of water bankruptcy could salvage the morass of water-use lawsuits bogged down in state courts around the country.⁷

This Article contends that water bankruptcy need not wait for negotiators or lawmakers to come around. The federal law of municipal bankruptcy, Chapter 9 of the Bankruptcy Code (“Code” or “Chapter 9”), already provides a vehicle that solves the problems besetting complex water-use suits.⁸ By integrating techniques from corporate

⁴ See *infra* notes 51–54 and accompanying text.

⁵ See *infra* notes 55–57 and accompanying text.

⁶ Christine A. Klein, *Water Bankruptcy*, 97 MINN. L. REV. 560, 564 (2012); see also Rhett Larson & Kelly Kennedy, *Bankrupt Rivers*, 49 U.C. DAVIS L. REV. 1335, 1337 (2016).

⁷ See *infra* notes 58–61 and accompanying text.

⁸ 11 U.S.C. § 901.

reorganization and substantive water law, the Chapter 9 process would empower local water agencies to make their water supplies more sustainable. Agencies could do so by restructuring many (or all) of their existing obligations to deliver water service — all under limited judicial supervision and without the need to obtain active consent from each individual holder of a claim to water use. Thus, Chapter 9 already offers a viable avenue for water agencies to implement reforms meant, above all, to preserve freshwater supplies.

And while Chapter 9 is useful for water bankruptcy, it also turns out that water bankruptcy is a good use of Chapter 9. As a process meant to adjust the obligations of discrete municipal service providers, water bankruptcy through the Bankruptcy Code would not implicate the efficacy or constitutional concerns raised by recent Chapter 9 bankruptcies of general municipalities.⁹ Furthermore, comparing water bankruptcy through the Code to other aggregate litigation suggests a broader insight: the legitimacy of aggregating claims to contested resources peaks when the underlying substantive law already constricts individual control over the resource.¹⁰

Part I introduces the need for water bankruptcy in principle. It first describes the tough choices that water scarcity due to climate change forces upon the state and local government agencies that administer water rights. Failure to adapt is sure to cause political blowback, especially if and when water agencies are required by law to cut off valuable collective uses of water that are junior in priority to uses by narrow private interests. A proactive response to water scarcity requires the water agency to breach and extinguish some of its outstanding obligations to high priority users. This is sure to trigger a mass of litigation brought by everyone set to receive less water than promised. Water bankruptcy is then introduced as a set of principles to improve the established vehicles for complex litigation concerning water rights, mainly by breaking from the mandate that resolution of each individual water claim requires the active participation of each individual water claimant.¹¹ So far, proponents of water bankruptcy in principle have

⁹ See *infra* Part II.B.2.

¹⁰ See *infra* Part III.

¹¹ See Klein, *supra* note 6, at 622-23.

urged state and local lawmakers to amend their own local procedures to resemble a bankruptcy process, leaving unexplored the possibility that water bankruptcy is already available to water agencies through Chapter 9 of the Federal Bankruptcy Code.¹²

The next Part explores whether Chapter 9 of the Federal Bankruptcy Code is a good vehicle for water bankruptcy and, in turn, whether water bankruptcy is a good use of Chapter 9. It first discusses how a water agency, so long as it can demonstrate “insolvency,” can use the Bankruptcy Code to consolidate into one forum every claim related to the agency’s outstanding obligations to permit water use or deliver water service. Although the insolvency requirement is the major obstacle to Chapter 9 eligibility, a water agency may be able to qualify for Chapter 9 by presenting evidence of “service delivery insolvency,” including evidence of actual cuts in water service and the agency’s declared intent to breach many (or all) of the agency’s outstanding water obligations.¹³

As Part II Section A proceeds to explain, a water agency that qualifies as a Chapter 9 “debtor” would gain exclusive power to propose a plan that recognizes and adjusts many (or all) of the valid claims arising out of the agency’s declared breaches. Chapter 9 would afford the agency broad leeway to propose adjustments that sustain water supplies by favoring certain types of water user over others, and it would provide a vehicle for the agency and all of its putative obligees to adjudicate which claims are valid and which are not.¹⁴ Free from any Code-required priorities, a water bankruptcy plan could compensate various groups with extinguished water claims and dedicate any newly available water to other groups with minimal risk that a bankruptcy judge would deny plan approval. Rather than insist on an approval process that requires individualized consent, the Code provides a process of group-based voting in which only a *supermajority* of individual claimants need to approve for the plan to go into effect as against *all* individual claimants.¹⁵

Water bankruptcy, as Part II Section B shows, also avoids typical concerns about Chapter 9 cases. Responding to the recent spate of

¹² See *infra* note 63.

¹³ See *infra* Part II.A.1.

¹⁴ See *infra* Part II.A.2.

¹⁵ See *infra* Part II.A.3.

bankruptcies by general municipalities like Detroit, commentators have worried that municipal debtors do not have clear guidance as to what types of financial distress are resolvable through the Chapter 9 process. But Chapter 9 is best suited for exactly the kind of debtor envisioned by water bankruptcy — special purpose providers of discrete local services — and substantive water law already provides distributive rules of guaranteed minimums and proportional loss spreading that can guide effective readjustments of water rights.¹⁶ Others may worry that water bankruptcy is unconstitutional if it forces out-of-state water agencies to litigate over water transfers against their sovereign will or if it takes away promised water in violation of due process. Here again, the use of federal bankruptcy law should assuage concerns because sovereign immunity does not insulate state governments from debtor collection suits brought under the Bankruptcy Code, and the Code’s comprehensive framework allows for adjudication of takings compensation as part of the bankruptcy case itself.¹⁷

Part III concludes by discussing what water bankruptcy through the Bankruptcy Code reveals about aggregation of claims to other types of resources. In conflicts between claimed uses of commonly owned resources (like water), there is no good argument for giving each individual user a veto over proposed changes to collective allocations. When the status quo threatens a supply of resources critical to human life, aggregate litigation may well be the response that best combines expedience and fairness.

I. WATER BANKRUPTCY AS PRINCIPLE

A. *The Law of Water Use*

State-based common law and statutory permits govern water access and use by private actors.¹⁸ These state water rights are *use*-based,

¹⁶ See *infra* Part II.B.1.

¹⁷ See *infra* Part II.B.2.

¹⁸ Craig, *U.S. Water Law*, *supra* note 1, at 2-3 (summarizing the main sources of state-based water rights); see also Joseph W. Dellapenna, *Global Climate Disruption and Water Law Reform*, 15 WIDENER L. REV. 409, 443 (2010) [hereinafter *Global Water Law Reform*] (explaining that states have plenary authority to “regulate water withdrawal and use in order to protect the public health, safety, and welfare”); Henry E. Smith, *Governing*

granting entitlements to specific times, places, and manners of water use, *not* to unlimited ownership of specific amounts of water.¹⁹ Because the same water source can be used at the same time by multiple users for multiple purposes, water rights tend “to interlock in the sense of one right depending on another for its content.”²⁰

Under the common law “riparian” approach typical of humid eastern states, private actors establish water claims by owning land appurtenant to a water source and putting that water to “reasonable use.”²¹ Any landowner’s use is *per se* reasonable if it does not conflict with any other user, and once uses do start to conflict, “natural wants” like drinking

Water: The Semicommons of Fluid Property Rights, 50 ARIZ. L. REV. 445, 466 (2008) (“[C]ommon law of water . . . is not the only institution used to mediate water conflicts. Instead, many other institutions, ranging from personal contracts among appropriators to mutuals, water districts, and public regulators, can supply the exclusion and, especially, the governance rules needed to increase the usefulness of water.”).

¹⁹ Craig, *U.S. Water Law*, *supra* note 1, at 2 (“In the United States, water law . . . embodies a unique form of property law that grants usufructuary rights to water resources — that is, rights to *use* water instead of title ownership to the waterbody.”); Smith, *supra* note 18, at 455-56; (“[W]ater rights are inherently use rights, giving rise to a nonexclusive, use-based, interconnected system of rights that takes many contextual factors and diverse interests into account.”); *see also* Dan Tarlock, *How Well Can Water Law Adapt to the Potential Stresses of Global Climate Change?*, 14 DENV. WATER L. REV. 1, 7 (2010) (“Water is simultaneously semi-exclusive, a shared and partially communal resource. Of necessity, each user’s right is subject to the rights of other similarly situated users on a stream or over an aquifer. No user has the power to exclude completely other users to the extent that a landowner can punish trespassers.”).

²⁰ Smith, *supra* note 18, at 465. Hence, the term “spillover effects” is used often to describe externalities in general — one person’s use always changes conditions for other uses of the same water supply. *See* Amy Sinden, *The Tragedy of the Commons and the Myth of a Private Property Solution*, 78 U. COLO. L. REV. 533, 578-80 (2007) (“Because of this usufructuary nature of water rights, they are accompanied by particularly extensive and significant externalities. One right holder’s diversion of surface water can have important impacts on downstream users.”).

²¹ *See, e.g.*, ROBIN KUNDIS CRAIG, ROBERT W. ADLER & NOAH D. HALL, *WATER LAW* 15 (2017) (“Under riparian common law, an owner of land abutting a waterbody is a riparian and has certain rights, including . . . the right to make reasonable use of the water, subject to the equal rights of other riparians on the same waterbody.”). Landowners can also choose to allow water transfers to other locations in exchange for compensation. *See, e.g.*, Tarlock, *supra* note 19, at 12 (explaining that “reasonable use” requirement forces “non-overlying” users to compensate “overlying” owners of groundwater aquifers for damages caused by “export[ing] water to non-overlying areas”).

and bathing are *per se* more reasonable than “artificial wants” like irrigation and power.²² Beyond that, riparian priorities between conflicting uses are based on which use is “more valuable” and less harmful to other water users at any given moment, and, thus, such priorities remain always up for grabs.²³

Under the common law “prior appropriation” approach typical of arid western states, private actors establish claims by using water first in time, such that the earliest “senior” uses receive full priority over subsequent “junior” uses.²⁴ In effect, the first user can withdraw all the water necessary for that first use before the second user receives any water; the second user can withdraw its necessary water before the third user receives any, and so on.²⁵ Appropriators have rights only to put specific sources to specific uses, and they must put their water to continuous “beneficial” use or otherwise risk abandoning their water claims.²⁶ Both western and eastern states have augmented or replaced

²² Smith, *supra* note 18, at 473.

²³ See *id.* at 454, 473-74.

²⁴ Craig, *U.S. Water Law*, *supra* note 1, at 2 (“Under prior appropriation, in times of shortage or drought, the most junior water users are cut off (‘curtailed’) from using any water, while senior water rights holders continue to take their full right.”); Sinden, *supra* note 20, at 577 (“[W]ater users along a particular stream or river are ranked from most senior to most junior depending on how far back in time each user can trace her claim. In times of drought, water is shut off to the most junior appropriators first.”).

²⁵ See, e.g., Robin Kundis Craig, *Drought and Public Necessity: Can a Common-Law “Stick” Increase Flexibility in Western Water Law?*, 6 TEX. A&M L. REV. 77, 100 (2018) [hereinafter *Western Water Law*] (“[T]hose who are ‘last in right’ may in fact receive no water if actual stream flows cannot satisfy all claims.”).

²⁶ Smith, *supra* note 18, at 467-70 (discussing prior appropriation’s “first-in-time method of allocating priority of rights,” requirement that water be put to continuous “beneficial use,” and detailed specification of water rights by use and source location); see, e.g., Craig, *Western Water Law*, *supra* note 25, at 84 (“[T]he first user to apply water to a beneficial use, without waste or abandonment, acquires a continuing right to keep using water superior to that of later users drawing water from the same source. In times of limited water supplies, the junior users — the users who acquired their water rights later in time — must entirely cease to use water before senior users have to curtail their water use at all.”); see also *id.* at 86 (“[U]nder prior appropriation’s anti-speculation doctrine, cities (like all appropriators) can claim water rights for both future growth and future drought only to a point — i.e., only to the extent of their reasonably projected future water needs.”).

the common law with regulatory permitting systems.²⁷ Generally, states create “special purpose” districts dedicated to overseeing local allocation and use of water.²⁸ Comprehensive permit systems are now the exclusive means of water governance in all western states, and roughly half of the eastern states have implemented more limited systems, requiring permits, for example, only for withdrawals of large volumes, for certain purposes, or from certain sources.²⁹ Consequently, largescale conflicts between existing water users, as well as proposed changes to the purpose or location of existing water uses, are now adjudicated by state water agencies subject to judicial review.³⁰

²⁷ See CRAIG ET AL., *supra* note 21, at 87 (“Both eastern riparian states (and Hawai‘i) and western prior appropriation states have enacted water use permit systems.”). The evolution of California water law has been especially “complicated and . . . idiosyncratic,” as it is one of the few states that has integrated both riparian and appropriative water rights for surface waters. Craig, *U.S. Water Law*, *supra* note 1, at 2-3. Through a series of judicial decisions, legislation, and constitutional amendments, California initially recognized both appropriative and riparian water rights, then “made prior appropriation the exclusive means for obtaining water rights” going forward, then conditioned all preexisting riparian rights “only to the extent of beneficial use, thus in a sense converting them into a hybrid riparian and appropriative water right.” CRAIG ET AL., *supra* note 21, at 59-60.

²⁸ See CRAIG ET AL., *supra* note 21, at 87 (“In both western and eastern states . . . a state agency oversees whatever water use permit program that exists.”). Generally, “special purpose” districts are separate entities with dedicated and exclusive sources of funding, separate and apart from general tax revenue. The usual funding sources are revenue generated by users of the district’s services (e.g., fees paid by water users) and district-issued bonds secured by the district’s assets. Special purpose water districts, specifically, vary in size and authority based on the boundaries of the water sources they manage (rather than political subdivisions). See generally Smith, *supra* note 18, at 471-72 (discussing water-use governance by water boards and local water “mutuals” and “districts,” which “either own water rights themselves or regulate members’ water use” and “implement governance regimes, prescribing terms of use”).

²⁹ See CRAIG ET AL., *supra* note 21, at 87-88, 90-91. For example, California implemented a “comprehensive permit system” for surface water rights in 1914. Paul J. Pearah, *Keeping the Desert at Bay: Adapting California Water Management to Climate Change*, 22 HASTINGS W.-NW. J. ENV’T L. & POL’Y 137, 144 (2016). The common law appropriative rights that predated 1914 were grandfathered in and treated as senior to any permit-based right, and from 1914 onwards, permits became the exclusive means of obtaining a surface water right in California. See *id.*

³⁰ See CRAIG ET AL., *supra* note 21, at 99 (“[T]he point of a permit system is that some state official has to give formal approval before a person or business entity can start using water The application will usually require the applicant to describe . . . how

B. *Adapting Water Priorities to Climate Change*

Due to climate change, scarcity of fresh water will be a fixture of American life for decades to come, especially in western states.³¹ The consequences of inaction would be drastic, morally and politically. But adapting to climate change — namely, by disrupting and reallocating existing water priorities on a large scale — will generate its own surge of legal and political opposition.³² By design, permit systems have

much water is desired, from what water source, with what point of withdrawal, for what use, and potential public interest issues or effects on other users.”); Micah Goodwin, *Environmental and Economic Pitfalls of Interstate Water Transfers*, 80 *LA. L. REV.* 739, 747 (2020) (“[Prior appropriation and riparian systems] are similar in modern practice because both rely heavily on bureaucratic oversight Water rights are based upon a permit . . . and permitting agencies scrutinize the proposed use based on a hierarchical list of acceptable uses.”); Sinden, *supra* note 20, at 579-82 (describing “general form” of agency adjudication of water permits and transfers and suggesting that contemporary water regimes “retain some procedure for the approval of water rights transfers by some government entity based on the consideration of external effects”); Smith, *supra* note 18, at 471 (“Any change in use or transfer requires a permit from the [water] board. The trend is for these regulatory authorities to have additional authority and discretion to consider the impact of such proposals (and even of existing uses) on third parties and the public interest.”).

³¹ See, e.g., CRAIG ET AL., *supra* note 21, at 11 (“Over the next century, temperatures in the American West are expected to increase by 3.6° to 9°F (2° to 5°C); Brown et al., *supra* note 1, at 232 (“[C]limate change and population growth are likely to present serious challenges in some regions of the U.S., notably the central and southern Great Plains, the Southwest and central Rocky Mountain States, and California, and also some areas in the South (especially Florida) and Midwest.”). In addition to the generally hotter climate, the western and southwestern United States will be particularly affected by reduced snowpack in the mountains. The loss of snowpack will reduce the availability of water for California and the other Colorado River basin states. See, e.g., Noah D. Hall, Bret B. Stuntz & Robert H. Abrams, *Climate Change and Freshwater Resources*, 22 *NAT. RES. & ENV’T* 30, 30 (2008) (“Scientists predict significant loss of snowpack in the western mountains, a critically important source of natural water storage for California and other western states.”).

³² See Tarlock, *supra* note 19, at 7-8 (“Until recently, nature and human intervention kept the risks of supply curtailment low and the expectation of full enjoyment of the right high. As a result, there are major psychological, political, institutional, and legal barriers to using the law to distribute the extreme risks of global climate change among large classes of water users.”); Robert W. Adler, *Climate Change and the Hegemony of State Water Law*, 29 *STAN. ENV’T L.J.* 1, 24 (2010) (“If senior appropriators stand on their absolute rights, the whole system could move from one of predominant winners to one of predominant losers. The most senior appropriators will continue to receive full

formalized and perpetuated common law priorities, not altered them, as legislators and administrators in recent years have emphasized surety of existing water rights over climate adaptation.³³ Although permit systems in theory allow for reallocation of existing uses in the public interest, they have been used mainly to lock in existing allocations based on temporal priority.³⁴ Western water agencies have not yet attempted

allocations, but many users could be cut off entirely, resulting in potentially serious economic and social consequences.”); *cf.* Rossi & Ruhl, *supra* note 3, at 833 (describing increases in litigation and private disputes due to climate adaptation as “inevitable”).

As one survey of the literature puts it, the consensus among scholars favors “water governance approaches that can change water allocation arrangements and their own goals for water management as the water resource itself changes, especially in response to climate change.” Craig, *U.S. Water Law*, *supra* note 1, at 11; *accord id.* at 5, 7 (surveying proposals to help states deal with drought); Larson & Kennedy, *supra* note 6, at 1339-40; Reiblich & Klein, *supra* note 2, at 447-49 (reviewing consideration of water transfers “as a response to climate-induced disruptions of water supplies”); *see also* Adler, *supra*, at 17, 34, 40-43.

Put another way, water agencies can conserve supply by transferring or changing the terms of *legal water rights*, and they can augment supply by seeking transfers of *actual water*. *See* Reiblich & Klein, *supra* note 2, at 451 (“In contrast to the transfer of legal water rights . . . ‘[G]eographic transfers’ involve the movement of bulk water that previously has not been reduced to legally cognizable water rights. To qualify as a geographic transfer, generally, the water must cross a boundary the law regards as significant.”).

³³ *See* CRAIG ET AL., *supra* note 21, at 82 (discussing conversions to permit systems that “universally . . . recognize[d]” common law priorities); Craig, *U.S. Water Law*, *supra* note 1, at 11 (“[F]or both prior appropriation and riparianism, water law has evolved in the United States to favor surety of property rights. This evolution substantially reduced water law’s flexibility to deal with either changing social realities, such as the shift of population from rural areas to cities, or climate change and its impacts on aquatic resources and ecosystems.”); Tarlock, *supra* note 19, at 11 (noting the shift to “water use permits that seek to introduce greater security of right into the common law”).

³⁴ Many riparian permit systems today protect existing uses from “interference” by new uses. CRAIG ET AL., *supra* note 21, at 91-92 (noting that permit systems around the country “have begun to look very similar” and discussing “non-interference” and “public interest” requirements); *accord* Tarlock, *supra* note 19, at 11-12, 15 (“[W]ater use permits introduce a high degree of stability into any system. Thus, it will be hard to dislodge them even though the law permits the reassignment of rights.”).

Once touted as a catalyst of climate adaptation, private market-like mechanisms have proven incompatible with water rights and thus have not meaningfully contributed towards securing existing allocations. *See* Tarlock, *supra* note 19, at 20 (“The major barrier to adaptation is the correlative and incomplete nature of water rights, which increase the transaction costs of transfers.”). Briefly put, riparian claims do not trade

large-scale changes to existing priorities, even in the face of over-allocated water sources.³⁵ Riparian priorities are respected, but they remain largely inchoate because eastern states, blessed with enough water to satisfy regional demand, have not been forced to reckon with conflicting uses of water at a large scale.³⁶

Failure to adapt water rights to climate change would mean enforcing existing priorities without regard to the fact that enforcement will reduce (or eliminate) more valuable water services and may even wipe out the entire water source in the future. In fully allocated western waterbodies, the senior-most appropriative rights are perpetual and dedicated to agriculture and ranching users; such users appropriated water well before even the most basic municipal uses began (and thus have priority).³⁷ Since appropriative priorities are temporal above all,

privately because they are too vague and uncertain, and appropriative claims cannot trade privately without proof that the trade does not harm any senior claims, which is rarely the case. *See* Craig, *Western Water Law*, *supra* note 25, at 87 (“Although western water rights are property rights, they are not freely alienable when the owner wants to change the beneficial use of the water (e.g., agriculture to municipal supply) or the place of use (e.g., farm to city).”); Tarlock, *supra* note 19, at 20-23 (analyzing the “transaction costs” that arise from “no injury” requirements in the west and “inchoate” priorities in the east).

³⁵ *See* Craig, *Western Water Law*, *supra* note 25, at 85 (“[S]tate water agencies’ flexibility in dealing with drought is reduced because most water in the West is tied up in private and governmental property and contractual rights; thus, reallocation of water use and water priorities is both economically expensive and legally and politically challenging.”); Tarlock, *supra* note 19, at 14-15 (describing efforts by western states to maintain “the expectation of no supply disruption”).

³⁶ *See* Craig, *U.S. Water Law*, *supra* note 1, at 6 (“The reasonable use basis of riparian rights does not provide sufficient legal structure to deal with drought rationally or efficiently, even in many regulated riparian states.”); Tarlock, *supra* note 19, at 14 (“In the Eastern states, nature has provided sufficient ground and surface water to meet all competing demands; right holders seldom face serious risks of curtailment, except on very small streams.”).

³⁷ *See* Craig, *Western Water Law*, *supra* note 25, at 80-81 (“[M]uch of the water — often 80% or more — is allocated . . . to uses (most notably agriculture) other than drinking water and power generation; . . . most rivers and lakes are fully or over-appropriated, meaning that there is little to no elasticity left in these systems to cope with severe drought.”); Reiblich & Klein, *supra* note 2, at 456 (“[I]n many [western] jurisdictions the average annual water supply has already been stretched so thin that new water rights are unreliable . . . [T]he holders of such ‘junior’ water rights must wait patiently in line until all ‘senior’ water rights have been satisfied in full.”); Sinden, *supra*

western water agencies and users have to pay senior rightsholders for water transfers to meet even their most essential water needs, regardless of the nature or value of the senior's use.³⁸ As fresh water becomes ever more scarce, seniors will be tempted to sell water to the highest bidder, not to the bidder dedicated to the most socially important uses.³⁹ And after truly sustained drought, senior

note 20, at 576 (“In the arid states of the American West, water scarcity has become a problem of increasing urgency as urban development competes with well-entrenched agricultural uses for limited supplies. As construction of the large-scale dams and reservoirs that fueled the region’s exponential growth in the twentieth century has become politically and environmentally infeasible, policymakers have begun to consider ways to more efficiently allocate existing supplies.”); Tarlock, *supra* note 19, at 20 (“Economists have long criticized western water law as inefficient because senior rights are generally dedicated to low value agricultural uses instead of continually moving them to higher value, alternative uses.”).

³⁸ Craig, *Western Water Law*, *supra* note 25, at 86 (“[B]ecause agriculture was developed before cities were established, large volumes of water typically are allocated to agriculture. Transferring agricultural rights to municipalities, even for short periods during drought, can involve substantial expense and time and can be socially divisive.”); *id.* at 105 (“Experts have long recognized the inequities of strict prior appropriation law. Application of that doctrine to allow the growing of low-value crops . . . while water-starved residents pay exorbitant prices to truck in water from elsewhere, elevates black-letter water law over the human values that all property law is intended to serve.”).

³⁹ See Adler, *supra* note 32, at 43 (warning that geographic water transfers will “follow money around the country”); Craig, *U.S. Water Law*, *supra* note 1, at 3-4; Craig, *Western Water Law*, *supra* note 25, at 99 (“[W]estern states need a legal doctrine that allows them to reallocate water rights to protect human survival, rather than tolerate a public health crisis while crops flourish and businesses profit.”); Juliet Eilperin, *This Giant Climate Hot Spot Is Robbing the West of Its Water*, WASH. POST (Aug. 7, 2020), <https://www.washingtonpost.com/graphics/2020/national/climate-environment/climate-change-colorado-utah-hot-spot> [https://perma.cc/L3HY-3JWP]; Chloe Sorvino, *Amid Drought, Billionaires Control a Critical California Water Bank*, FORBES (Sept. 20, 2021, 10:35 AM EDT), <https://www.forbes.com/sites/chloesorvino/2021/09/20/amid-drought-billionaires-control-a-critical-california-water-bank> [https://perma.cc/7SEL-CQFN]; Isaac Stanley-Becker, Joshua Partlow & Yvonne Wingett Sanchez, *How a Saudi Firm Tapped a Gusher of Water in Drought-Stricken Arizona*, WASH. POST (July 16, 2023, 5:00 AM EDT), <https://www.washingtonpost.com/politics/2023/07/16/fondomonte-arizona-drought-saudi-farm-water> [https://perma.cc/E67U-LV39]; Ben Tracy, Andy Bast & Chris Spinder, *New York Investors Snapping Up Colorado River Water Rights, Betting Big on an Increasingly Scarce Resource*, CBS NEWS (Jan. 31, 2023, 7:41 AM), <https://www.cbsnews.com/news/new-york-investors-snapping-up-colorado-river-water-rights-betting-big-on-an-increasingly-scarce-resource> [https://perma.cc/L34L-MHL3].

rightsholders may even stop selling altogether and use all the water themselves.⁴⁰

On the other hand, water agencies that effect largescale changes to existing water rights will face litigation and risk incurring a mass of liability. Water agency actions are themselves “subject to constitutional due process protections and statutory procedural protections,”⁴¹ and any state action that breaches water delivery obligations is considered a physical taking that may require compensation under the Fifth and Fourteenth Amendments.⁴² Consequently, complex multiparty litigations have followed prior efforts to clarify common law water rights or grandfather them into a replacement permitting system.⁴³

⁴⁰ Cf. Vivian Yee & Leily Nikounazar, *In Iran, Some Are Chasing the Last Drops of Water*, N.Y. TIMES (June 21, 2023), <https://www.nytimes.com/2023/06/21/world/middleeast/iran-drought-water-climate.html> [<https://perma.cc/74LD-X5SK>] (describing the Iranian government’s “struggle to reverse Iran’s rapid descent into water bankruptcy”).

⁴¹ CRAIG ET AL., *supra* note 21 at 104.

⁴² *See id.* at 82 (“Because water rights are considered property under state law, state legislatures cannot destroy them constitutionally without paying just compensation, under both the U.S. Constitution and state constitutions.”). To that point, the “two most important contemporary physical takings cases involving water rights” together “suggest that any government action that diminishes the amount of water available to a water right holder should be evaluated as a physical taking, automatically requiring compensation for any diminishment in the amount of water that the right holder could put to beneficial use.” *Id.* at 311-313; *see also* Tarlock, *supra* note 19, at 14-15 (“[A]ny change that reduces that amount of water previously available is potentially unconstitutional . . . [E]xisting users will resist the consequences of any curtailment of withdrawals in both riparian and appropriative states.”).

⁴³ *See, e.g.*, CRAIG ET AL., *supra* note 21, at 82-84; Robin Kundis Craig, *Climate Change, Regulatory Fragmentation, and Water Triage*, 79 U. COLO. L. REV. 825, 884-85 (2008) (“One need only look at the decades-long battle over the Colorado River, or the growing conflict between Georgia and Florida over the Apalachicola-Chattahoochee-Flint River Basin, or even one of the earliest water conflicts between New York and New Jersey over the Delaware River, to lose all sense of optimism about cooperative watershed-level management in times of water shortage.”). This is consistent with water scarcity’s historical tendencies to exacerbate conflicts among water users and administrators and to generate stricter, more circumscribed, and more conditional regulation of private water use. *See* Smith, *supra* note 18 at 452, 456.

Indeed, water scarcity caused by climate change has led to a recent uptick in such aggregate litigations.⁴⁴ Water litigants, shunning bilateral and “piecemeal private litigation,” have gravitated to voluntary negotiations and multiparty suits in state courts, both of which (in theory) allow individualized participation by multiple water agencies and water users in one comprehensive proceeding.⁴⁵ Still, these “cumbersome” processes “can take a long time” to resolve, mainly because they are meant to facilitate resolution of each individual claim and thus require the participation of each individual claimant.⁴⁶ As the next Section elaborates, water bankruptcy provides a conceptual roadmap for resolving these complex litigations over water rights.

C. *The Need for Water Bankruptcy*

Water bankruptcy offers a “common vocabulary and framework” for understanding bankruptcy cases and water rights suits, which are two distinct types of multiparty litigation that use similar concepts of priority, preference, and going-concern value.⁴⁷ In both water and

⁴⁴ Rossi & Rahul, *supra* note 3, at 850-51 (discussing the increase in private disputes due to water shortages and rising seawaters, among other climate changes); see Adler, *supra* note 32, at 49 (predicting increase in interstate disputes over water use); Brown et al., *supra* note 1, at 227 (“As shortages become more common and severe, users in high-value sectors — typically the municipal, industrial, and energy sectors — look to lower-valued uses for additional supply.”); Craig, *U.S. Water Law*, *supra* note 1, at 6 (noting an “increase in eastern state litigation before the U.S. Supreme Court over shared water resources”).

⁴⁵ Joseph W. Dellapenna, *Interstate Struggles over Rivers: The Southeastern States and the Struggle over the Hooch*, 12 N.Y.U. ENV'T L.J. 828, 882 (2005); Larson & Kennedy, *supra* note 6, at 1345-47. Typical state-court water suits include “change of rights” proceedings, which resolve multiple conflicting claims to the same source. Also, they include “general stream adjudications,” creatures of state statute that provide administrators the chance to gather comprehensive data on claims to, and actual use of, an entire water source. Klein, *supra* note 6, at 590-91; Larson & Kennedy, *supra* note 6, at 1357-58. General stream adjudications were not possible until the Supreme Court held that state courts could adjudicate federal and Native American water rights. *Id.* at 1351.

⁴⁶ CRAIG ET AL., *supra* note 21, at 82-84 (“[G]eneral stream adjudications are essentially the water law version of interpleader — everyone with a claim to the same river or linked water resources is joined in the same legal proceeding, where they and the court hash out everyone’s relative rights to the water.”).

⁴⁷ Klein, *supra* note 6, at 598-99 (arguing that water rights suits have a “clear counterpart” in bankruptcy cases, which is an “intuitive and apt comparison”); *accord*

bankruptcy litigations, the core challenge is both respecting *and* readjusting the existing “priority” of claims to the same resource supply — that is, using one proceeding to resolve a large bundle of various claims in a way that somehow reflects their relative (pre-litigation) merits.⁴⁸ The resource owner, whether a state water agency or a commercial debtor, must resort to litigation if its total resource supply is not enough to satisfy every outstanding claim to that supply. Rather than sell everything, pay whom they can, and shut down, the resource owner can try through litigation to reduce what they owe to some claimants, increase what they owe to other claimants (through “preferences”), and establish a new structure for financing and operations that maximizes the future value of the resource.⁴⁹

Scholars developed water bankruptcy after diagnosing why the existing vehicles for resolving largescale water-use conflicts — voluntary negotiations and multiparty lawsuits in state court — rarely conclude in comprehensive settlements. First, neither vehicle ensures comprehensive adjudication because both are *inter se* — they concern only the obligations between the parties that participate and cannot have a formal effect on any non-party obligations.⁵⁰ There is no legal or practical way to make sure one lawsuit or negotiation encompasses every claimed interest in a particular body of water.⁵¹

Second, any comprehensive settlement of claims to shared water requires the consent and cooperation of every administrator and user of that water. Some users will not volunteer information about their actual water use, and most would not volunteer to a settlement that entitles them to less water without compensation.⁵² Because every individual claimant has the choice of whether to settle their water claim, any global settlement of a multiparty state lawsuit requires the unanimous consent

Larson & Kennedy, *supra* note 6, at 1358 (arguing that general stream adjudications and bankruptcy suits have “the same purpose” of adjudicating competing claims to “an over-allocated scare resource” and facilitating comprehensive settlement).

⁴⁸ Klein, *supra* note 6, at 602.

⁴⁹ *Id.* at 596.

⁵⁰ Dellapenna, *Global Water Law Reform*, *supra* note 18, at 425-26.

⁵¹ See Klein, *supra* note 6, at 597; Larson & Kennedy, *supra* note 6, at 1365-67.

⁵² Klein, *supra* note 6, at 596-97 (noting that senior water claimants are unlikely to join a bankruptcy-like negotiation voluntarily).

of every claimant.⁵³ Especially where a shrinking water supply is subject to many dispersed and variable uses, it is unlikely that any settlement will have universal appeal to every claimant.⁵⁴

In principle, water bankruptcy solves the problems of existing water-rights litigation. First and foremost, a bankruptcy approach enables watershed-based planning by empowering administrators to commence a single lawsuit that provides for comprehensive adjudication of all obligations to specific water sources.⁵⁵ By funneling every user of a water source into the same proceeding and requiring disclosure from both the municipal and user sides, bankruptcy-style adjudication would generate a full catalog of claimed uses to the existing water supply and provide every type of creditor or party in interest with opportunities to be heard.⁵⁶ More importantly, water bankruptcy would replace individualized consent with class-based voting and judicial oversight, greatly enhancing the chances that water-starved agencies could implement largescale readjustments to their water obligations.⁵⁷

To date, water bankruptcy has been presented as either an aspirational guide for willing negotiators or a model for state lawmakers to propose new legislation. Professor Christine Klein first conceived of water bankruptcy as a “roadmap” to help willing parties who have rejected “traditional processes” in favor of “voluntary, stakeholder negotiations.”⁵⁸ Professors Larson and Kennedy followed up by using “bankruptcy principles” as the basis for proposed legislative changes to

⁵³ Larson & Kennedy, *supra* note 6, at 1362-64 (describing “hold out” problems in general stream adjudications).

⁵⁴ See Rhett B. Larson, *Overcoming Constitutional Obstacles to the Resolution of General Stream Adjudications*, 8 ARIZ. J. ENV'T L. & POL'Y 52, 66 (2018) (“A broad, global settlement, or even broad consensus for contingent legislation, would be difficult given the scope and diversity of interests of the claimants in the [general stream adjudication].”).

⁵⁵ Klein, *supra* note 6, at 608-11.

⁵⁶ See *id.* at 620-22; Larson & Kennedy, *supra* note 6, at 1369-71.

⁵⁷ See Klein, *supra* note 6, at 622-23; Larson & Kennedy, *supra* note 6, at 1341, 1342-43 (arguing that water rights adjudication should proceed by “dividing claims into [classes] based on amount of water claimed and uses” and resolving disputes by majority consent at the class, not individual claimant, level); *id.* at 1375-76 (recommending courts in water rights adjudication be allowed to mandate “settlement for holdouts when similarly situated classes of creditors vote to accept”).

⁵⁸ Klein, *supra* note 6, at 583, 598-99.

general-stream-adjudication statutes.⁵⁹ They proposed adding bankruptcy-like statutory provisions to “facilitate equitable and efficient” resolutions that have so far eluded general stream adjudications.⁶⁰ This includes measures to streamline cataloging and classifications of claimants, replace individual consent with procedures for group voting and judicial oversight, and require post-adjudication efforts at water conservation.⁶¹

Water bankruptcy scholars have recognized a “promising avenue for comparison” in Chapter 9 of the Federal Bankruptcy Code, which allows local government units to readjust their debt obligations into more sustainable arrangements.⁶² But they have not yet urged water administrators to use Chapter 9 directly to accomplish water bankruptcy.⁶³ Perhaps one reason is that local water districts, which long have used Chapter 9 to readjust their finances, have not used it to restructure use and management of large or interstate water bodies.⁶⁴

⁵⁹ Larson & Kennedy, *supra* note 6, at 1367.

⁶⁰ *Id.* at 1343.

⁶¹ See Larson & Kennedy, *supra* note 6, at 1373 (suggesting state-level water adjudications should mimic a bankruptcy by including “a streamlined dispute resolution process,” an “improved claimant database,” and reforms that “eliminate or avoid hold-outs”).

⁶² See Klein, *supra* note 6, at 600-01.

⁶³ Instead, scholars have looked to Chapter 9 only as a source of inspiration. See, e.g., Larson & Kennedy, *supra* note 6, at 1361 (discussing Chapter 9 to urge increased financing and expertise in state-based lawsuits); *id.* at 602-04 (offering Chapter 9 provisions as “guidance to water-stakeholder groups” conducting voluntary negotiations).

⁶⁴ Given their exclusive focus on *financial* insolvency, prior Chapter 9 bankruptcies of water districts are little different from Chapter 9 bankruptcies of other special purpose districts like public hospitals and utilities. Cf. Joseph Flaherty, *Central Arkansas Water Ready to Operate Troubled Water Utility if Court Grants It Control, CEO Says*, ARK. DEMOCRAT GAZETTE (Nov. 12, 2021 3:41 AM CDT), <https://www.arkansasonline.com/news/2021/nov/12/central-arkansas-water-ready-to-operate-troubled/> [<https://perma.cc/G3ZA-TS8G>] (giving account of Perla’s Chapter 9 bankruptcy arising out of Perla Water Association’s failure to pay water bills owed to neighboring city); Joseph Flaherty, *Judge Denies Malvern’s Request to Put Perla Water System into Receivership, Orders Insolvent System to Pay*, ARK. DEMOCRAT GAZETTE (Dec. 3, 2021 7:04 AM CDT), <https://www.arkansasonline.com/news/2021/dec/03/judge-denies-malverns-request-to-put-perla-water/> [<https://perma.cc/7TUV-U7ZL>] (same).

More likely, though, the hesitancy to use Chapter 9 stems from the fact that roughly half of the fifty states do not currently permit their municipalities to petition for Chapter 9 relief.⁶⁵ To be sure, this is an important caveat to the assertion that using Chapter 9 is the only avenue for water bankruptcy that does not require new legislation. Even still, it seems far more plausible that recalcitrant states would enact simple provisions that authorize in-state water agencies to use Chapter 9, rather than coordinate with other states to enact substantive reforms that make their respective water laws more closely resemble bankruptcy. For that reason, and those set out in the next Part, advocates of water bankruptcy should understand Chapter 9's promise for water bankruptcy in practice.

II. WATER BANKRUPTCY AS PRACTICE

What follows is the first attempt to elaborate a process of water bankruptcy under Chapter 9 of the Federal Bankruptcy Code. As it turns out, the Code makes available a litigation process that is ready-made for water bankruptcy. The Code maximizes flexibility for water agencies to consolidate in a single forum all claims to specific water sources, to compensate breached obligations owed to large groups of water users, and even to pay for emergency water supplies. Using the Code also allows water bankruptcy to draw on the practice and legal culture of municipal bankruptcy and corporate reorganization, which inform how actual water bankruptcy would work and what it can accomplish in at least two ways.

First, the federal law of municipal bankruptcy is best used for reorganizations of discrete “special purpose” municipal districts like water agencies. Special purpose entities are the paradigmatic and most common type of Chapter 9 debtor.⁶⁶ Implicit in recent scholarship on mega bankruptcies filed by “general” municipalities like Detroit is

⁶⁵ Municipal bankruptcy is the unique type of federal bankruptcy that requires debtors to receive explicit state authorization. See Vincent S.J. Buccola, *The Logic and Limits of Municipal Bankruptcy Law*, 86 U. CHI. L. REV. 817, 823-824 (2019) [hereinafter *The Logic and Limits*].

⁶⁶ *Id.* at 823 (“[T]hose municipalities that do file are disproportionately ‘special purpose’ entities — utilities; hospitals; water, sewer, and school districts; and the like.”).

consensus that Chapter 9 works best for discrete, single-service municipal debtors.⁶⁷

Second, a collective interest in preserving going-concern value, the hallmark of corporate reorganization, makes just as much sense (or more) in the context of restructuring providers of essential municipal services. Whereas business firms can simply close up shop and liquidate, local government units in financial distress effectively *must* reorganize: the Bankruptcy Code expressly prohibits liquidation by municipal debtors, and municipal creditors are not legally permitted to foreclose on government property.⁶⁸ This is why the Bankruptcy Code sets forth virtually the same “structure” for municipal bankruptcy and corporate reorganization and why scholars have started to explore ways Chapter 9 can be used to reform municipal operations (and not just readjust municipal finances).⁶⁹ Accordingly, as the forthcoming Part explores, Chapter 9 debtors and courts can borrow amply from corporate practice to implement bankruptcy plans that seek, above all, to conserve essential resources.⁷⁰

⁶⁷ See *id.* at 854 n.136 (suggesting that “Chapter 9 may work reasonably well for most special purpose debtors” because they “resemble the commercial firms that file under Chapter 11 more than they do general purpose municipalities”).

⁶⁸ See, e.g., David L. Dubrow, *Chapter 9 of the Bankruptcy Code: A Viable Option for Municipalities in Fiscal Crisis?*, 24 URB. L. 539, 546 (1992) (noting that “liquidation is not an option for a municipality” and that municipalities “must continue . . . to provide essential services”).

⁶⁹ Vincent S.J. Buccola, *Law and Legislation in Municipal Bankruptcy*, 38 CARDOZO L. REV. 1301, 1315 (2017) [hereinafter *Law and Legislation*] (“Chapter 9 explicitly incorporates many of Chapter 11’s most prominent features.”); Juliet M. Moringiello, *Decision-Making and the Shaky Property Foundations of Municipal Bankruptcy Law*, 12 BROOK. J. CORP. FIN. & COM. L. 5, 34 (2017) (recognizing that corporate, individual, and municipal bankruptcy share some “identical” goals, including “establish[ing] a binding collective proceeding” and “solv[ing] the problem of holdout creditors”).

⁷⁰ See, e.g., *In re Fin. Oversight & Mgmt. Bd.*, 954 F.3d 1, 8 (1st Cir. 2020) (noting that Chapter 9’s “principal purpose” is giving “municipal debtors the opportunity to continue operations while adjusting or refinancing their creditor obligations”); *In re Addison Cmty. Hosp. Auth.*, 175 B.R. 646, 648-49 (Bankr. E.D. Mich. 1994) (“[I]t is crucial that chapter 9 relief allow these entities enough flexibility to remain viable. Congress specifically focused, in drafting chapter 9, on the debt adjustment of municipalities as a way to allow municipalities to continue in existence The general policy considerations underlying the municipal debt adjustment plan of chapter 9 are the same

A. *The Promise of Water Bankruptcy Through the Bankruptcy Code*

As a vehicle for water bankruptcy, Chapter 9 offers three significant benefits. First, water planning can be performed on a source-by-source basis, as the Code would allow water debtors to consolidate all their outstanding water service obligations into a single forum for one comprehensive process of readjustment. Second, under the Code, water debtors would have significant flexibility to reallocate their water supplies into more sustainable arrangements. Third, using the Code provides the opportunity to implement water bankruptcy plans without the specter of aggressive judicial review or the need to obtain individualized consent of every individual claimant.

1. Comprehensive Source-Based Adjudication

To start, water bankruptcy under the Bankruptcy Code would not require any changes to the organizational structures of local water governance. Virtually any existing water agency would be an eligible “debtor” under Chapter 9’s broad definition of “municipality” (as any “public agency or instrumentality of a State”), which easily accommodates the variety of ways in which states structure local water delivery.⁷¹ The Code’s similarly inclusive definition of “special revenue” means most water agencies, regardless of technical differences in how they finance their water systems, can file for Chapter 9 without putting other municipal property at risk.⁷²

as that of chapter 11 reorganization: to give the debtor a breathing spell from debt collection efforts and establish a repayment plan with creditors.”).

⁷¹ 11 U.S.C. §§ 101(40), 109(c); see also Fred L. Morrison, *The Insolvency of Public Entities in the United States*, 50 AM. J. COMP. L. 567, 569 (2002); cf. *In re N.Y.C. Off-Track Betting Corp.*, 427 B.R. 256, 266 (Bankr. S.D.N.Y. 2010) (holding that public benefit corporation qualified as a municipality because it was “a creation of the state, made for the purpose of operating a ‘revenue producing enterprise’” and “Congress[] desire[d] to broaden the application of chapter 9”).

⁷² See 11 U.S.C. § 902(2) (“special revenue” definition); H.R. REP. NO. 100-1011, at 6 (1988) (listing, as example, revenues and borrowed proceeds from operation of water system). Chapter 9 allows creditors to recover only from those assets pledged to the special district, and not from any other municipal property, and the “public trust” doctrine prohibits creditors from seizing municipal property as collateral. See, e.g., Buccola, *Law and Legislation*, supra note 69, at 1319-20 (“Under the public trust doctrine, creditors may not seize municipal property that is in some sense ‘public.’ Courts have

That said, eligibility is no sure thing because Chapter 9 makes bankruptcy available only to those debtors that can show proof of “insolvency.”⁷³ To qualify for Chapter 9 relief, municipal debtors must demonstrate an inability to pay debts, a much-criticized requirement that does not apply to any other type of bankruptcy debtor.⁷⁴ However, because the Code does not insist on a strict, mechanistic determination of municipal insolvency, bankruptcy courts recently have developed the concept of “service delivery insolvency” for special use in complex municipal bankruptcy cases.⁷⁵

Judicial use of “service delivery insolvency,” albeit limited to date, offers hope to water agencies that want to use Chapter 9.⁷⁶ Developed by courts overseeing recent mega-city bankruptcies, “service delivery insolvency” defines Chapter 9 insolvency “in terms of a significant reduction in the availability of city services,” requiring a “qualitative”

construed the scope of the doctrine broadly to cover . . . any municipal property held for a ‘public purpose.’”); *see also* Moringiello, *supra* note 69 at 27 (“[T]he revenue bond does not put a municipality’s taxpayers at risk because payment is made solely from revenues generated from a specific project.”). In addition, the broad “special revenue” definition should give water agencies confidence that they can file for Chapter 9 relief without destroying their ability to finance and operate infrastructure critical to water delivery itself. *Cf.* Buccola, *Law and Legislation*, *supra* note 69, at 1320 (citing 11 U.S.C. § 922) (explaining that holders of claims secured by “special revenues” are the most senior of all municipal creditors and entitled to receive their full debt service even during the course of the Chapter 9 case); Moringiello, *supra* note 69, at 27-28 (“Even revenue bonds are secured only by a stream of income from a project, not by the physical project itself.”).

⁷³ See 11 U.S.C. § 109(c)(3).

⁷⁴ See, e.g., Tejas Dave, *Rethinking Roadblocks to Municipal Bankruptcy*, 38 EMORY BANKR. DEV. J. 277, 311 (2022) (noting that non-municipal debtors do not have to prove “insolvency” and recommending Congress remove the requirement from Chapter 9); Clayton P. Gillette, *How Cities Fail: Service Delivery Insolvency and Municipal Bankruptcy*, 2019 MICH. STATE L. REV. 1211, 1217 (2019) (reviewing “various recommendations to modify the insolvency requirement”).

⁷⁵ Observing that while the Code “does not necessarily limit a bankruptcy court to the current or next fiscal year” in determining insolvency, “the bankruptcy courts used the service delivery insolvency test to aid in their analysis of the debtor’s future inability to pay debts.” ANNE LAWTON, *MUNICIPAL BANKRUPTCY IN A NUTSHELL* 88-89 (2022).

⁷⁶ *Cf. id.* at 90-91 (“With so little case law, it is unclear how the test will operate in cases involving a single-service municipal debtor, e.g., a water district, or a municipal debtor whose failure to deliver services is far less dramatic than that in either the Stockton or Detroit bankruptcies.”).

finding that the municipality is failing to provide promised services.⁷⁷ Thus, to establish its looming inability to pay debts, a water agency could fashion its petition for bankruptcy relief as a declaration of intent to breach many (or all) of its existing obligations to deliver water services.⁷⁸ The issue would be whether, in any given case, evidence of recent cuts in water service, projections of imminent water scarcity, and the petition's declaration of mass service breaches would together be sufficient to show that the water agency was on the verge of failure to pay debts as they come due.⁷⁹

If the water agency can show “insolvency” and qualify as a water debtor, it could use Chapter 9 to force a comprehensive adjudication of all its water-related debts. Under the Code, a water debtor could stay all pending lawsuits against it in any forum nationwide and consolidate all

⁷⁷ Gillette, *supra* note 74, at 1218-19; see also Buccola, *The Logic and Limits*, *supra* note 65, at 864 (“[The Code’s insolvency] standard was perhaps relaxed modestly in the Stockton and Detroit cases, which introduced the notion of ‘service delivery insolvency.’ If, the judges in these cases held, a municipality can service its debts in the near term only at the expense of basic municipal functions, such as providing sanitation and police and fire protection, then the municipality is ‘unable to pay its debts’ within the Code’s meaning.”); Moringiello, *supra* note 69, at 13 (“Courts in recent chapter 9 cases have recognized that . . . a municipality’s ability to pay debts as they become due is tied to a status unique to municipalities — the ability to provide essential government services going forward. These courts have coined the term ‘service delivery insolvency’ to describe the inability to provide these services and support a finding of insolvency as defined in the Code.”).

⁷⁸ Cf. DOUGLAS G. BAIRD, *ELEMENTS OF BANKRUPTCY* 83 (2014) (“The best way to understand the [claim valuation] process is to imagine that the filing of a bankruptcy petition is a presumptive event of default that accelerates all the debtor’s obligations.”).

⁷⁹ Since its value “depends on judicial capacity to detect” service shortfalls, service delivery insolvency is better suited to municipal units that provide a single critical resource, like water agencies, than it is suited to general-purpose municipal debtors. Gillette, *supra* note 74, at 1224. Single-service municipal debtors avoid a key difficulty with assessing “service delivery insolvency” for general municipal debtors — the “non-representativeness of one service for the entire bundle of municipal services.” *Id.* at 1248. Water delivery shortfalls also are easier to measure compared to other municipal services. See *id.* at 1234-36 (discussing difficulties quantifying delivery shortfalls in policing and education services). Indeed, courts over time have developed experience and legal tools to quantify and value scarce water supplies. See Larson & Kennedy, *supra* note 6, at 1361 (arguing that federal bankruptcy courts are better at water valuation than state courts because of their experience in prior Chapter 9 municipal bankruptcies involving water districts).

those suits, along with any other disputes related to obligations owed by or to the water debtor, into a single bankruptcy proceeding in federal court.⁸⁰ The water debtor would then be required to provide a comprehensive list of “claims” arising from its declared breach of service obligations, including the promised amounts, purposes, sources, and users associated with each breached obligation.⁸¹ Based on the Code’s broad definition, any action that seeks monetary relief for breached water obligations would qualify as a “claim” that could be included in the bankruptcy case.⁸²

Notably, local water users and other creditors would have their interests represented from the start of the case. The United States Bankruptcy Trustee can appoint committees to represent different creditor interests, and those creditor committees have opportunities to protect their interests as a debtor formulates its proposed plan.⁸³ Additionally, parties-in-interest have the right to appear and be heard

⁸⁰ See 11 U.S.C. §§ 362(a), 901(a); Troy A. McKenzie, *Toward a Bankruptcy Model for Nonclass Aggregate Litigation*, 87 N.Y.U. L. REV. 960, 1003-04 (2012) (explaining how the Code’s stay provisions “greatly aid[] the coordination of aggregate litigation”). The stay extends to actions against the debtor’s officers or inhabitants that seek to collect debts owed by the debtor or tax revenues owed to the debtor. 11 U.S.C. § 922(a).

⁸¹ The water debtor would enjoy the best of both worlds. The claim list is comprehensive due to the Code’s broad definition of “claim,” which includes any legal or equitable “right to payment,” even if “contingent,” “unmatured,” or “unliquidated,” but under the Code the claim list need not include anything like precise valuations of each claim. See BAIRD, *supra* note 78, at 87 (explaining that “claim” definition is meant to include any type of remedy that may give rise to damages action); McKenzie, *supra* note 80, at 1005 (discussing leeway in “claim” valuation). Chapter 9 debtors are required to provide a comprehensive list of every “claim” that may be asserted by or against the debtor, and to publish notice of the bankruptcy in local and national publications. See 11 U.S.C. §§ 923, 924. Upon receiving notice of the bankruptcy, local water users that appear as creditors would have to disclose their actual uses (amounts, purpose, diversion point) and claimed legal priorities. Klein, *supra* note 6, at 601, 605.

⁸² See *In re Sugarloaf Holdings, LLC*, 640 B.R. 270, 282 (Bankr. D. Utah 2022) (holding that forfeiture of water right did not give rise to bankruptcy “claim” because Utah law did not entitle forfeiture defendant to any relief “that could be satisfied through the payment of money”); see also *In re Jefferson Cnty.*, 484 B.R. 427, 450 (Bankr. N.D. Ala. 2012) (holding that failure to deliver medical care gave rise to bankruptcy “claim” because only available remedy under Alabama law was “a right to payment” and not a right to injunctive relief).

⁸³ 11 U.S.C. §§ 901(a), 1103.

on any issue in a Chapter 9 case, which allows participation by niche water users or other interests not represented by creditors.⁸⁴

2. Adjustment Plans that Conserve Water Supplies

With all its obligees brought before the bankruptcy court, a water debtor can largely dictate the terms of how the bankruptcy will proceed. Chapter 9 debtors have exclusive power to propose comprehensive changes to its water service obligations in what the Bankruptcy Code calls a “plan for the adjustment of the debtor’s debts,” the equivalent of a plan of reorganization in corporate bankruptcy.⁸⁵ Within the plan, Chapter 9 gives debtors flexibility to group “substantially similar” creditors together into different classes, alleviating the need to adjudicate each individual water service obligation one by one.⁸⁶ This powerful classification tool means water bankruptcy plans can propose readjustments to water use at the group and population levels, taking

⁸⁴ *Id.* §§ 901(a), 1109.

⁸⁵ *Id.* § 941. Upon proposing a plan of adjustment, Chapter 9 debtors must work with the bankruptcy court to notify all creditors of the plan’s content and their rights to vote on and object to plan approval. *See id.* §§ 901(a) (incorporating §§ 1125, 1129(a)(2)), 943(b); *see also* 5 WILLIAM L. NORTON III, NORTON BANKRUPTCY LAW AND PRACTICE § 90:27 (3d ed. 2008) (“[T]he municipal debtor . . . will be required to file and obtain approval of a disclosure statement . . . and transmit the disclosure statement to all creditors entitled to vote on the plan, along with a ballot and other materials required by Bankruptcy Rules.”). In addition to users and other creditors, parties-in-interest with sufficient stakes in the outcome also have the right to be heard on objections to a proposed plan. Christine Sgarlata Chung, *Municipal Bankruptcy, Essential Municipal Services, and Taxpayers’ Voice*, 24 WIDENER L.J. 43, 77-78 (2015) (discussing application of “party-in-interest” rules to Chapter 9 plan confirmations).

⁸⁶ Chapter 9 plans can “impair . . . any class of claims” against the debtor. *See* 11 U.S.C. §§ 901(a), 1123(b) (section 901(a) incorporates 1123(b)). The Code’s requirement that claims in the same class be “substantially similar” is a loose one, which would allow water debtors to organize different water uses into different classes for purposes of claim impairments and plan approval. *See, e.g., In re Frascella Enters.*, 360 B.R. 435, 442 (Bankr. E.D. Pa. 2007) (requiring claims classed together to share “similar legal status in relation to the assets of the debtor”); McKenzie, *supra* note 80, at 1007-08 (“Claims do not need to be identical in all respects to be placed in the same class for plan voting purposes, and claims that may share similar features do not always need to be put in the same class.”).

advantage of the ways in which different types of water use do or do not share attributes with each other.⁸⁷

Critically, Chapter 9 would offer water debtors broad leeway to propose plans that favor certain groups of water users over others.⁸⁸ Priorities set by water permits and common law are not secured by physical water or any other municipal property.⁸⁹ They do not guarantee recourse to discrete and specific water supplies but rather grant only circumscribed access and use privileges that are subject to other conditions and users.⁹⁰ Therefore, claims arising from breached obligations to deliver water would be treated as “unsecured” under the Bankruptcy Code, which means they would not take priority over any other claim and could be at risk of complete elimination in a plan of adjustment.⁹¹

⁸⁷ Some uses require certain minimum flows or require flows at certain times, while other uses reduce proportionately to supply or depend on alternative supply or storage. See Dellapenna, *Global Water Law Reform*, *supra* note 18, at 425; Smith, *supra* note 18, at 467-68. Individual domestic uses tend to be small and uniform: each person needs roughly the same amount of water for necessities like hydration, bathing, and toiletry. While some methods of water-powered electricity do not actually divert and consume water away from its natural flow, most methods are consumptive and vary significantly based on circumstances. See Adler, *supra* note 32, at 36. Domestic uses in dense urban areas are somewhat uniform, whereas irrigation and industrial uses can fluctuate wildly depending on the specific location, duration, and purpose. See *id.*

⁸⁸ In other words, Chapter 9 would not obligate water debtors to protect or compensate any particular water claim over another. See Michelle Wilde Anderson, *The New Minimal Cities*, 123 YALE L.J. 1118, 1123 (2014) (explaining that, unlike contract and tort creditors that have “quantif[iable]” claims to debtor assets, municipal residents have neither an “enforceable right to water and water infrastructure” nor any “guidance” as to what services they may claim “as a practical matter” in a municipal bankruptcy); Moringiello, *supra* note 69, at 33 (noting that Chapter 9 provides “flexibility to fashion priorities” because it omits priorities that apply to unsecured creditors in personal and business bankruptcy).

⁸⁹ See Moringiello, *supra* note 69, at 18 (“The security that supports public promises to repay is not security in the form of access to property, it is security based on trust in various types of promises.”).

⁹⁰ See *id.* (“Public debtors are unique in that their assets are not available to creditors. Not only does this limit creditor remedies against municipalities, it deprives the bankruptcy system of its traditional baseline against which to measure a municipality’s ability to pay creditors.”); see *supra* note 19 and accompanying text.

⁹¹ See Moringiello, *supra* note 69, at 29 (noting that “service claims on municipal resources are unsecured” and that, “because municipal obligations to persons harmed

So empowered, water debtors could propose plans that transform the local character of water use by taking water promised to one group of users and giving it to another group.⁹² The likely first target would be irrigated agriculture, which is the largest user in most water basins and regularly consumes over three quarters of annual water supply.⁹³ A water bankruptcy plan could breach service obligations owed to different groups of agricultural creditors to satisfy the claims of other smaller but more important sectors, such as domestic and public uses for drinking and sanitation, or thermoelectric uses for power.⁹⁴ The plan could further breach or satisfy service obligations between and among specific commercial and non-profit sectors in the area, clarifying which

by municipal actors are not backed by any property, courts tend to view these as low-level claims undeserving of any special priority”); *cf.* Anderson, *supra* note 88, at 1195 (“Americans do seem to have legally defensible, affirmative rights to basic local services in the context of insolvency law . . . even when residents are not defined simply as ‘pay-for-what-you-get’ taxpayers.”). It is possible, given the use-based nature of water claims, that a water debtor’s service obligations would be deemed “executory contracts” under the Code. *See* 11 U.S.C. § 901 (incorporating section 365 of the Code into Chapter 9 and enabling assumption and rejection of executory contracts); Klein, *supra* note 6, at 601, 603 (suggesting water service obligations are executory contract claims). *But see* Lyda v. City of Detroit (*In re City of Detroit*), 841 F.3d 684, 690 (6th Cir. 2016) (noting that city residents did not appeal the lower court’s holding that the city’s water service obligations were not “executory contracts”). Even then, the Code empowers Chapter 9 debtors to reject executory contracts unilaterally, the result of which simply gives the counterparty the chance to pursue damages for breach of contract and to be lumped in with every other unsecured claim unlikely to see meaningful recovery. *See* 11 U.S.C. §§ 365(g), 502(g); *see also In re City of Vallejo*, 403 B.R. 72, 76 (Bankr. E.D. Cal. 2009).

⁹² *See* Reiblich & Klein, *supra* note 2, at 470 (“[W]ater transfers — at their core — are a mechanism for the reallocation of water rights from one purpose to another.”).

⁹³ Brown et al., *supra* note 1, at 227; Reiblich & Klein, *supra* note 2, at 471 (“Agricultural irrigation, alone, uses a hefty eighty percent of western water supplies.”).

⁹⁴ *See* Brown et al., *supra* note 1, at 227-28 (“[F]uture water transfers from agriculture are very likely. . . given the large quantities of water used in agriculture and the fact that most of that water is used to grow relatively low-value crops.”); Reiblich & Klein, *supra* note 2, at 470-71 (“In the western states . . . most of the oldest and most reliable water rights are locked into traditional uses — such as mining, ranching, and farming In some cases, these uses have not kept pace with society’s values and needs.”). In some Southwest and Great Plains basins, water shortages may require a 30% reduction of overall agricultural use. Brown et al., *supra* note 1, at 228.

natural and market environments will continue to receive ample water supplies and which will not.⁹⁵

Water debtors could also propose plans that favor creditors best situated to maximize the overall supply of water as a going-concern.⁹⁶ Taking advantage of a judicial innovation from corporate reorganization, water debtors could treat *other* government water agencies as a special kind of creditor — “critical vendors” — and use the bankruptcy process to pay them for water transfers, all before paying off debt owed to any other creditor.⁹⁷ Whether the water debtor contracts to pay for water transfers before or after filing for bankruptcy, Chapter 9 would not impose any restrictions or judicial oversight on the timing or methods of payment.⁹⁸ Water debtors would be free to raise funds

⁹⁵ Water debtors could increase or decrease service delivery obligations to such uses as irrigation for commercial farming and aquaculture, industrial manufacturing, commercial livestock, and environmental protection. See Brown et al., *supra* note 1, at 224; Reiblich & Klein, *supra* note 2, at 471 (“[M]ost of the oldest western priorities were established well before society thought about saving some water for environmental, recreational, and aesthetic uses. In other cases, agricultural industries may have been established in relatively inhospitable regions that are no longer viable, or irrigation methods may be wasteful or outdated.”).

⁹⁶ See David A. Skeel, Jr., *The Empty Idea of “Equality of Creditors,”* 166 U. PENN. L. REV. 699, 730 & n.173 (2018) (suggesting municipal debtors especially may be justified in favoring certain creditors over others).

⁹⁷ See Vincent S.J. Buccola, *Unwritten Law and the Odd Ones Out*, 131 YALE L.J. 1559, 1578-79 (2022) (citing critical vendor payments as a “well-known” example of how “going-concern preservation is the dominant value in reorganization culture”); David A. Skeel, *States of Bankruptcy*, 79 U. CHI. L. REV. 677, 703 (2012) (referring to critical vendor doctrine as a tool for municipal debtors to shape the “fairness” of an adjustment plan). Realistically, the critical vendor of water supplies will always be another nearby unit of state or local government. See Goodwin, *supra* note 30, at 763-64, 764 n.160 (explaining that only government actors have enough water to participate as transferors of water across state lines).

⁹⁸ See 11 U.S.C §§ 903-04 (prohibiting judicial interference with municipal debtor’s use or disposition of assets); Buccola, *The Logic and Limits*, *supra* note 65, at 825-26 (“[T]wo features of Chapter 9 are particularly remarkable: the debtor’s broad discretion to use property as it wishes and to control the course of proceedings . . . [T]he debtor retains during bankruptcy all of its authority to conduct its affairs as it wishes.”); Dave, *supra* note 74, at 283-84 (“A bankruptcy court cannot, without the municipal debtor’s consent, interfere with the debtor’s political or governmental powers, property or revenues, or use or enjoyment of income-producing property.”).

and pay critical vendors all while using the bankruptcy process to deny service and delay compensation to other creditors.⁹⁹

State-level water transfer statutes could provide the substantive law under which water debtors compensate other water agencies for geographic water transfers.¹⁰⁰ Although some restrict water transfers, many state law measures facilitate transfers by “imposing prerequisites or conditions” that ensure “the receiving basin provides sufficient compensation to the basin of origin.”¹⁰¹ Compensation could be purely

⁹⁹ See NORTON, *supra* note 85, § 90:10 (“A distinction between Chapter 9 and Chapter 11 is that the municipal debtor retains authority to pay pre-petition claims Accordingly, the debtor may choose to pay pre-petition claims without a critical vendor motion. In practice, most municipal debtors have chosen to remain current on general operating expenses.”); Moringiello, *supra* note 69, at 14 (“[C]hapter 9 does not require that a municipal debtor obtain court approval before disposing of property [and] does not mandate court approval of post-petition transfers and protects a municipality’s control over its property from bankruptcy court interference.”). There is one possible limitation: should a water debtor try to pay for water transfers post-petition using funds borrowed as “administrative expenses,” a court cannot approve any plan of adjustment until all of that debt is paid back in full (or the lender agrees otherwise). See 11 U.S.C. § 943(b)(5). In any event, it is unlikely a water debtor would use this strategy because operating expenses (such as the costs of water delivery) do not qualify as an “administrative expense” under Chapter 9’s restrictive definition. See *In re N.Y.C. Off-Track Betting Corp.*, 434 B.R. 131, 141-42 (Bankr. S.D.N.Y. 2010) (noting that “administrative expenses” are limited only to costs of the municipal bankruptcy process itself and “not operating expenses”).

¹⁰⁰ See Reiblich & Klein, *supra* note 2, at 442 (“[W]ater transfer’ . . . refers generally to the severance of water from its natural basin or aquifer, and its subsequent broad-scale transport through pipes or ditches for use in a distant watershed, county, or perhaps even state.”). Western water law long has “embrace[d] the right to move scarce water resources long distances to the places where they are needed most,” and despite the fact that riparian laws inherently favor appurtenant use and “frown[] upon geographic water transfers,” it is still the case that “municipalities — including New York City, Virginia Beach, and Atlanta — have made use of distant waters, either through condemnation or through various other legal mechanisms.” *Id.* at 452-54; accord Goodwin, *supra* note 30, at 754-56 (detailing the history of interstate water transfers from eastern and western states). To be sure, though, potential transferor states would face tremendous “political, social, and environmental” pressures to resist demands for water from other state governments. Goodwin, *supra* note 30, at 756-57.

¹⁰¹ Reiblich & Klein, *supra* note 2, at 442; see also Goodwin, *supra* note 30, at 774 (“If a region intends to pry water away from its neighbor, it must create a willing seller. The best way to do that is through a price that compensates the seller for costs, direct and indirect impacts, and third-party spillover effects.”).

monetary, whether at negotiated “market” price or a judicially-set amount of damages or penalties, or it could be “structural,” in that the water debtor could promise to finance infrastructure that makes longer-term improvements to the source basin’s water supplies.¹⁰²

To be sure, the water debtor’s freedom to *propose* a Chapter 9 plan does not translate into exclusive say over the proposed plan’s final content. Existing water users, critical vendors, and any other types of creditors or obligees can object to the proposed adjustment plan’s treatment of their water claims.¹⁰³ The objection process thus provides a forum for litigating the validity and value of disputed claims, ultimately producing a rough valuation of the water debtor’s overall liability arising from breached obligations to deliver water.¹⁰⁴ The water debtor’s overall liability and its proportional distribution among different groups of creditors provide a baseline from which creditors and the court can evaluate the plan’s proposed adjustments.¹⁰⁵

In crafting adjustment plans, water debtors could minimize their liability by invoking preexisting restrictions on private water use meant to protect more important public uses.¹⁰⁶ Such restrictions can be found

¹⁰² Reiblich & Klein, *supra* note 2, at 477; *see also* Goodwin, *supra* note 30, at 773 (“Selling states may want to know how the purchasing states will use their water and might agree to sales so long as the water is used to satisfy only certain types of demand — for example, municipal supply or health care — or so long as the purchaser educates its consumers about best consumption practices.”).

¹⁰³ In its list of creditors accompanying the bankruptcy petition, the water debtor identifies which claims it concedes and which it plans to dispute in bankruptcy proceedings. *See* 11 U.S.C. §§ 924-925.

¹⁰⁴ *Cf.* Melissa B. Jacoby, *Federalism Form and Function in the Detroit Bankruptcy*, 33 YALE J. ON REG. 55, 96-97 (2016) (detailing adversary proceedings and mediation regarding municipal debtor’s shutoff of residential water services).

¹⁰⁵ *See* Morrison, *supra* note 71, at 574-75 (“The bankruptcy court provides a consolidated venue in which to resolve and dispose of all of these claims simultaneously . . . [and] also provides a statutory method to impose a uniform level of settlement on all creditors.”); *cf.* BAIRD, *supra* note 78, at 80 (analogizing the process to “a coerced settlement” that “reflects an estimate by both parties of their chances of success on the merits”).

¹⁰⁶ *See* Reiblich & Klein, *supra* note 2, at 474-75 (“[S]tate water doctrines — such as beneficial use, the prohibition of waste, abandonment and forfeiture, and the public trust doctrine — can already do the work of freeing up excess water for new uses.”); *see also* Martha F. Davis, *Freedom from Thirst: A Right to Basic Household Water*, 42 CARDOZO

in the various ways water laws authorize administrative reductions to existing claims “because of a drought, the wasteful or non-beneficial use of water, and total or partial displacement by a ‘higher’ or subsequent use, including public rights.”¹⁰⁷ Through the water bankruptcy process, water debtors and users can litigate which of these protections (if any) authorize the plan’s proposed priority adjustments.¹⁰⁸

For instance, although western water debtors would necessarily propose plans that impair existing priorities, they may not necessarily incur liability as a result. Common law “public trust,” “public necessity,” and “beneficial use” doctrines are inherent limitations on all private appropriative rights.¹⁰⁹ Many western water codes also include

L. REV. 879, 907 (2021) (gathering examples to show that “access to basic household water for drinking and hygiene is a deeply rooted American value”).

¹⁰⁷ Tarlock, *supra* note 19, at 7-8 (“The state has great discretion to establish the ground rules for the acquisition and exercise of water rights and to recognize private rights, as well as to subordinate them to public rights and public interest limitations.”).

¹⁰⁸ Takings litigation, for example, would require the court to first adjudicate the preexisting scope of water rights under the operative state laws and then determine whether the water debtor had the legal authority to violate those rights. *See* CRAIG ET AL., *supra* note 21, at 302 (“[I]f a water right holder is trying to do something outside the scope of the water right, like a wasteful or unreasonable use, . . . there can be no constitutional taking. As such, defining the exact scope of a state water right under the relevant state’s law is a critical first step in any water right takings case.”). For example, in takings challenges to new water permit systems, both the Florida and Oregon Supreme Courts held that landowners did not have constitutionally protected rights to water itself and, therefore, that permit conversion could eliminate unexercised common law riparian rights without compensation. *Id.* at 86-87.

¹⁰⁹ Craig, *Western Water Law*, *supra* note 25, at 100-01. Public necessity may allow a city, for example, to reroute water from existing users to protect domestic supplies without paying compensation but may also require the city to compensate for diversions meant to protect water-powered energy. *See id.* at 97-99, 101 (“[P]ublic necessity . . . empowers state water agencies to allow a municipality to continue receiving the amount of water minimally necessary to keep residents alive and healthy, despite actual legal priorities among water rights It is thus difficult to argue that a state water agency could not justify temporarily suspending senior water rights during a drought when lives and public health are actually at risk.”). All appropriative regimes employ beneficial use requirements that may allow clawbacks of under-used water via doctrines of abandonment and waste. *See id.* at 100-01 (“[A]ppropriative water rights have always been contextual and contingent, and no water right holder has an absolute entitlement to a specific amount of water regardless of the status of the supply. . . . [W]ater rights holders must put the water to beneficial use and cannot waste water.”); *see also* Pearah, *supra* note 29, at 163 (arguing that “takings claims arising from reallocation of [post-

“minimum flow” (streams) and “minimum level” (aquifers) protections for sources that are endangered or fully appropriated.¹¹⁰

Riparian administrators also may be within their authority to reallocate water permits and common law rights, but for a different reason. Whereas impairments to western priorities are inevitable (and the litigation issue is whether such impairments are legal), priorities in eastern states are themselves ill-defined and malleable.¹¹¹ Riparian rights, including the right to take and use fresh water, inherently are shared co-equally among all users and adjustable based on new users and conditions.¹¹² In addition, many riparian statutes contain explicit protections for “natural” or “minimum” flows “necessary to protect human health,” which can be used lawfully to restrict existing private uses.¹¹³

3. Class-Based Consent and Minimal Judicial Oversight

Perhaps the single most critical advantage of Chapter 9 is that confirmation of adjustment plans does not require unanimous consent

1928 riparian] water rights . . . should be barred” because California’s “reasonable use” requirement “prohibits unreasonable use of water and authorizes the courts and [the state water board] to determine which uses are reasonable and which are unreasonable”); Tarlock, *supra* note 19, at 17-19 (providing examples of reasonable use doctrine being used to “claw back” appropriated water resources).

¹¹⁰ CRAIG ET AL., *supra* note 21, at 95-96.

¹¹¹ See Tarlock, *supra* note 19, at 11-12 (“Regulated riparian permits are potentially more adaptive compared to prior appropriation permits because legislation often gives state water administrators some flexibility to condition new uses, use public interest considerations in deciding among competing applicants, and refuse, in whole or part, to renew time-limited permits.”).

¹¹² See Craig, *U.S. Water Law*, *supra* note 1, at 6; Dellapenna, *Global Water Law Reform*, *supra* note 18, at 423 (describing riparian rights as vague and uncertain); Tarlock, *supra* note 19, at 10 (“[I]n theory, courts can displace prior users to make room for subsequent or higher valued uses. This does not allow existing nor prospective users to have a high expectation that the amount of water they withdraw will remain constant over time.”).

¹¹³ Dellapenna, *Global Water Law Reform*, *supra* note 18, at 421-22, 444; see Klein, *supra* note 6, at 606-07, 606 n.286 (suggesting system-preserving preferences based on existing water law concepts such as “minimum stream flows” and “upside down” water rights).

from every individual creditor.¹¹⁴ Each impaired class of creditors must vote to approve a plan of adjustment, but a class is deemed to approve a plan if a majority of the class's claimholders (by number) and two-thirds of its claims (by value) vote for the plan.¹¹⁵ If every impaired class approves, the Code requires the court to confirm the plan if it satisfies certain substantive requirements.¹¹⁶ But even if one or more impaired class rejects the plan, the Code allows the court to approve the plan anyway under what is known as a "cramdown."¹¹⁷

As for judicial oversight, there are two substantive requirements that any proposed plan must meet (cramdown or not), but they are both easy to satisfy. First, the court must find that the plan is in "the best interests of creditors," a low bar that effectively would require nothing more than a good-faith attempt by the water debtor to make creditors better off than they would be were the bankruptcy dismissed.¹¹⁸ Next, after ensuring the plan meets that bare minimum, the court must find that the proposed plan is "feasible," which would prevent the water debtor from overpromising based on unrealistic expectations.¹¹⁹

¹¹⁴ See, e.g., Morrison, *supra* note 71, at 575 ("An obstinate creditor may not hold out against an overall settlement, demanding additional compensation.").

¹¹⁵ See 11 U.S.C. § 1126; see also McKenzie, *supra* note 80, at 1008. Should the plan go into effect, it would bind (among others) creditors who voted to reject the plan and out-of-state creditors who never participated in the case. 11 U.S.C. § 944(a); see also McKenzie, *supra* note 80, at 1006 ("In effect, the debtor's plan of reorganization becomes the governing document setting forth the treatment of the rights and obligations of interested parties after confirmation of the plan In addition to the binding effect of a plan of reorganization, bankruptcy courts may enjoin future proceedings against the debtor that seek to collect on debts resolved by the plan.").

¹¹⁶ See 11 U.S.C. § 943.

¹¹⁷ See *id.* §§ 1129(a)(10), 1129(b).

¹¹⁸ See Buccola, *The Logic and Limits*, *supra* note 65, at 827; Moringiello, *supra* note 69, at 15-16 ("Chapter 9 uses the term 'best interests' without defining it. Courts applying the test in chapter 9 find that the best interests test is satisfied if the creditors would receive more under the plan of adjustment than they would if the case were dismissed.").

¹¹⁹ Moringiello, *supra* note 69, at 15-16 ("The common understanding of this pairing is that it provides a floor and a ceiling with the best interests test requiring only that the creditors receive at least as much as they would outside of bankruptcy (perhaps nothing) and the feasibility test preventing the municipality from promising too much."). Municipal bankruptcy scholars have suggested courts could use the "feasible" standard to impose, not a ceiling, but another floor that requires plans to ensure some level of "sufficient" resource adjustments. Buccola, *Law and Legislation*, *supra* note 69, at 1319. If

Under the “cramdown” provision, even if one or more classes of impaired creditors reject the plan, the court can still approve it, so long as at least one impaired class of creditors approves, the plan does not “discriminate unfairly” against dissenting classes, and it gives them “fair and equitable” treatment.¹²⁰ Again, water debtors will be held to a relatively low bar, mainly due to Chapter 9’s failure to elaborate on what constitutes fair, non-discriminatory treatment.¹²¹ All that a water debtor must show is some rational reason to depart from the default baseline of equal treatment of similar claims.¹²² There is little question, for example, that favoring critical vendors out of necessity is an acceptable form of “discrimination” against other creditors.¹²³

Lastly, the Code provides extensive post-bankruptcy jurisdiction to implement approved plans.¹²⁴ Under these provisions, courts have confirmed corporate bankruptcy plans that use injunctions to control

so, water debtors would perhaps benefit from a judge trying to ensure the viability of local water supplies the same way corporate debtors benefit from judges that push for reorganizations that preserve going-concern value. *Cf.* Anderson, *supra* note 88, at 1201 & n.317 (including municipality’s costs of maintaining water infrastructure as a “critical aspect” of determining “feasibility” of a bankruptcy plan).

¹²⁰ 11 U.S.C. §§ 1129(a)(10), 1129(b); *accord* Moringiello, *supra* note 69 at 16 (“[I]f a class of creditors objects to the plan, the court can confirm the plan only if it does not discriminate unfairly and is fair and equitable with respect to each dissenting class.”).

¹²¹ *See* Moringiello, *supra* note 69 at 16 (“[T]he search for a clear fair and equitable standard in chapter 9 comes up short. Even the truncated chapter 9 fair and equitable standard references priorities that are hard to find.”). *But see* Buccola, *The Logic and Limits*, *supra* note 65, at 827 (“As commentators have long pointed out, a judge could leverage her discretion with respect to plan confirmation, turning it into de facto influence over debtor conduct.”).

¹²² Chapter 9 does not mandate priorities in the same way Chapter 11 does for corporate bankruptcies. As the judge that confirmed Detroit’s bankruptcy plan stated, without any direction in the statute itself, the decision to confirm the plan was driven by Chapter 9’s purposes and “a judgment of conscience.” Moringiello, *supra* note 69, at 36.

¹²³ *See* Richard M. Hynes & Steven D. Walt, *Fair and Unfair Discrimination in Municipal Bankruptcy*, 37 CAMPBELL L. REV. 25, 39-40 (2015) (discussing the intersection between “critical vendor” doctrine and necessity justification for “fair discrimination” standard for Chapter 9 confirmation of plan).

¹²⁴ *See* 11 U.S.C. § 945(a); Morrison, *supra* note 71, at 574 (“The court may then retain jurisdiction of the case until the plan is implemented, continuing the stay of proceedings and thus protecting the municipality from collateral attack upon its action.”).

post-bankruptcy conduct of both debtor and creditor.¹²⁵ A water bankruptcy plan could do the same by requiring post-bankruptcy conduct to augment the water supply, like water trust and holdback programs, which could be used to both conserve water and compensate users for losses imposed by the bankruptcy process.¹²⁶ If limited to the water debtor's own jurisdiction, however, these programs likely would bring only marginal benefits. Ultimately, arid localities would need to enlist regions without water shortages to have any lasting impact.¹²⁷

Water agencies may discover that Chapter 9 provides advantages over state-based litigation of water scarcity.¹²⁸ Most importantly, municipal debtors that rely on state-based insolvency laws cannot do anything constructive with respect to out-of-state waters.¹²⁹ Thus, states that refuse to let localities use Chapter 9 for water bankruptcy risk limiting their own water supplies to in-state sources only.¹³⁰

All told, then, Chapter 9 may offer a vehicle ready-made for water bankruptcy. It does not necessarily follow, however, that water bankruptcy is a wise use of Chapter 9. The next Section turns to address possible problems with using Chapter 9 for water bankruptcy.

¹²⁵ McKenzie, *supra* note 80, at 1014.

¹²⁶ See, e.g., Larson & Kennedy, *supra* note 6, at 1378-79 (explaining Washington's statewide Trust Water Rights Program).

¹²⁷ See Brown et al., *supra* note 1, at 230-31 (concluding that "increasing reservoir storage capacity has little or no impact on water shortages in basins with the highest shortage volumes . . . largely because those basins, while being the ones most in need, are also ones most lacking in water").

¹²⁸ See Morrison, *supra* note 71, at 573.

¹²⁹ E.g., Richard M. Hynes, *State Default and Synthetic Bankruptcy*, 87 WASH. L. REV. 657, 703 (2012) (noting that federal bankruptcy for insolvent municipalities, unlike any state-created process, can bind out-of-state claimants). Because state laws cannot bind out-of-state creditors to adjustments of municipal debt, 11 U.S.C. § 903(1), Chapter 9 may be the "only means" to readjust special obligation debts held by a large group of bondholders dispersed across state lines. Morrison, *supra* note 71, at 578.

¹³⁰ Cf. Goodwin, *supra* note 30, at 745 ("[R]iparian jurisdictions bordering the country's water divide face intense scrutiny of their decisions to send, or not send, water into the American West.").

B. *The Perils of Water Bankruptcy Through the Bankruptcy Code*

There are two notable concerns about using Chapter 9 for water bankruptcy. First, water bankruptcy may be ineffective either because Chapter 9 does not give municipal debtors clear guidance on how to resolve financial distress or because Chapter 9 is ill-suited to relieve localities from the burden of water shortages. Second, some may worry that water bankruptcy is unconstitutional either because it intrudes on the sovereignty of out-of-state water agencies forced to participate as critical vendors or because it allows water debtors to take away claims to water without just compensation. As the next two subsections explain, neither concern undermines the promise of using Chapter 9 for water bankruptcy.

1. Efficacy Concerns

One possible concern is with Chapter 9's overall ability to facilitate adjustments of municipal debt. Whereas the Code is relatively detailed in its requirements for business bankruptcy plans, it is effectively silent with respect to most features of municipal bankruptcy plans.¹³¹ There is no discrete collection of municipal assets that is marshaled and set aside specifically for municipal creditors, nor any guidance on how a bankruptcy plan should prioritize between those creditors.¹³² Given this lack of substantive guidance, and the corresponding freedom and control provided to Chapter 9 debtors, municipal creditors face significant uncertainty not typical of private bankruptcy cases.¹³³

¹³¹ See Moringiello, *supra* note 69, at 6 (“Chapter 9 . . . deprives bankruptcy judges of some of the decisions that they make in private bankruptcy cases. It also lacks some of the guidance that informs parties as they develop their plans of adjustment (the chapter 9 analog to a plan of reorganization).”).

¹³² Unlike the Code's chapters for individual and corporate bankruptcy, Chapter 9 does not provide an “estate” benchmark or substantive priority rules, leaving creditors and residents without meaningful guidance on how to measure their “collective right to recovery” from the municipal debtor or their resource entitlements relative to each other. See Buccola, *Law and Legislation*, *supra* note 69, at 1317; Laura N. Coordes, *Formalizing Chapter 9's Experts*, 116 MICH. L. REV. 1249, 1263-64 (2018); Moringiello, *supra* note 69, at 20.

¹³³ See Coordes, *supra* note 132, at 1251 (“The complex nature of municipalities, and notably their intertwined relationship with their state, make it difficult for judges and creditors to understand a municipality's ability to navigate the bankruptcy system.”);

Compared to the amorphous nature of what constitutes the assets of an entire municipality, water bankruptcy is perhaps the rare situation in which a municipal debtor comes with a naturally fixed “estate,” namely the total supply of available water.¹³⁴ Since water is both essential and scarce, substantive water law has already adopted various mechanisms of pro-rata risk sharing and guaranteed minimums, guidance akin to what the Bankruptcy Code and state debtor-creditor laws provide in the business bankruptcy context.¹³⁵ Water agreements, for example, often avoid commitments based on absolute quantities and, instead, are stated in terms of percentage of the total supply of available water, which spreads the risks of unpredictable supply changes equitably across all users.¹³⁶ For uses with strict minimum water requirements, pro rata distributions may become “too small to be of any use,” which is why water law is full of protections for guaranteed minimums.¹³⁷

Water bankruptcy plans can plug these preexisting tools of pro rata and minimum distributions into a Chapter 9 adjustment plan, resulting in something like an overall expression of how a locality will value different water uses.¹³⁸ For the most important and basic uses, such as

Moringiello, *supra* note 69, at 7 (“The patchwork nature of municipal bankruptcy law gives little guidance . . . [to] legislatures . . . [n]or does it give comfort to the market that municipal bankruptcy law was originally developed to protect.”).

¹³⁴ In addition, Chapter 9’s lack of an “estate” is less of an obstacle in bankruptcies of special purpose districts because both pledged “special revenue” and physical assets owned by the water agency provide a cognizable limited fund. See Buccola, *Law and Legislation*, *supra* note 69, at 1338; see also Buccola, *The Logic and Limits*, *supra* note 65, at 854 n.136 (“Chapter 9 may work reasonably well for most special purpose debtors.”); Morrison, *supra* note 71, at 574 (noting that creditors will have claims against the “revenues and assets” pledged to a special purpose debtor).

¹³⁵ Cf. Moringiello, *supra* note 69, at 37 (“Bankruptcy law permits such reliance on statutory signals; indeed, it incorporates them in private bankruptcies.”).

¹³⁶ Adler, *supra* note 32, at 41-42.

¹³⁷ Dellapenna, *Global Water Law Reform*, *supra* note 18, at 425; see *supra* notes 102, 113 (noting guaranteed water minimums in both riparian and prior appropriation jurisdictions).

¹³⁸ See Moringiello, *supra* note 69, at 33 (“The absence of priorities in chapter 9 may give courts the flexibility to fashion priorities based on the statutory protections given to some types of municipal obligations by state and federal law.”); cf. Buccola, *The Logic and Limits*, *supra* note 65, at 844 (“Locations compete with one another for economic activity, whether explicitly or not. As a location’s spatial economies are dissipated by

water for drinking, hygiene, and sanitation, a plan could dedicate either a guaranteed minimum quantity or a certain percentage of annual supply, whichever is larger. Other critical uses, like water-generated power, could likewise be protected with guaranteed minimums, whereas water for irrigation, manufacturing, or other non-essential uses could be promised percentage shares of whatever supply remains *without* any guarantees of actual quantities.¹³⁹

A more worrying concern questions the wisdom of trying to address water shortages via municipal bankruptcy law. The core goal of municipal bankruptcy is to relieve debt that is scaring off investment into either (i) essential municipal services or (ii) distinctive services that take advantage of specific geographic resources.¹⁴⁰ A critic may argue that water shortages, or any other “exhaustion of an important natural resource” for that matter, is the municipal equivalent of a fatal flaw in a commercial firm’s business model, which is not the type of temporary financial distress that bankruptcy can or should try to fix.¹⁴¹

Airing this concern is valuable because it identifies both the general need for water bankruptcy and its inherent limitations. The concern does not quite work with respect to water bankruptcy as a general matter because drought-induced water shortages do not signal faults with the “business model” of municipal water delivery.¹⁴² As the persistence of public water administration and lack of water markets suggest, there is no viable way to deliver water on a large scale other

underinvestment, the people and firms most sensitive to its productivity loss will be tempted to leave.”).

¹³⁹ See *supra* notes 99, 102 (noting protections for essential water uses that may allow alterations to existing priorities). Certain irrigation uses are important, of course, but the vast amounts of water currently dedicated to agriculture writ large makes this sector an inevitable target of water conservation efforts. See, e.g., Brown et al., *supra* note 1, at 227 (noting that “future water transfers from agriculture are very likely” because it is the “primary user in most basins, often accounting for over 75% of annual consumption”).

¹⁴⁰ Buccola, *The Logic and Limits*, *supra* note 65, at 833-34.

¹⁴¹ *Id.* at 841-43 (sketching out process by which a “negative productivity shock” could eventually cause a locality economic distress that bankruptcy could not relieve).

¹⁴² See *id.* at 840 (“A local government, like a company, has a kind of business model. It offers a suite of services, charges for them, and can sustain unbalanced budgets only as long as its credit will last. That credit depends, in turn, on the perceived viability of the business model.”).

than the municipal model.¹⁴³ Instead, water shortages are more analogous to an external supply chain shock. Just as the Code gives bankrupt businesses time to reorganize, municipal bankruptcy can give time for water agencies to readjust their obligations and augment their water supplies for the sake of preserving the system's overall solvency. The stigma normally associated with bankruptcies may not ensue if everyone recognizes that the problem is climate-induced water shortages, not the municipality's creditworthiness in the financial sense.

Of course, some supply shocks are survivable, while some are not. Water shortages do not undermine the municipal model of water delivery in general, but they may signal problems with sustaining water use in specific locations.¹⁴⁴ As a response, water bankruptcy provides a way to shrink or wind down entire categories of water usage at the population level. By facilitating the process by which a locality protects the water services that are most essential to residents going forward, water bankruptcy can accomplish the core goal of municipal bankruptcy — to preserve the debtor's competitive advantages compared to other

¹⁴³ See Buccola, *The Logic and Limits*, *supra* note 65, at 838 (“[M]unicipal governments are generally well positioned to provide efficient levels of public and quasi-public goods — street repair, sanitation, police and fire protection, and so forth.”); Gillette, *supra* note 74, at 1220-21 (describing the market failures that require local governments to provide local public goods like water); Goodwin, *supra* note 30, at 757, 763 (summarizing the numerous barriers to private water markets and noting that “market” is a misnomer because water transfers are necessarily “one-time” transactions between “highly regulated” government actors); Moringiello, *supra* note 69, at 23 (“Public entities step in to provide goods and services when private markets cannot do so. Public entities are better situated to provide public goods and services than are private entities.”); Reiblich & Klein, *supra* note 2, at 466 (observing that advantages of local water governance are “particularly obvious” because climate change will have different effects on water resources in different regions); Sinden, *supra* note 20, at 578 (“[M]any of the cumbersome legal requirements surrounding the transfer of water rights stem at least in part from the unique nature of the resource and are therefore difficult to abandon entirely.”).

¹⁴⁴ Cf. Buccola, *The Logic and Limits*, *supra* note 65, at 844 (“Locations compete with one another for economic activity, whether explicitly or not. As a location's spatial economies are dissipated by underinvestment, the people and firms most sensitive to its productivity loss will be tempted to leave.”).

localities.¹⁴⁵ Water bankruptcy cannot create new water, but it does allow localities to prioritize the worthiest uses of shrinking water supplies.¹⁴⁶

Finally, it is worth noting that water bankruptcy's reliance on "service delivery insolvency" reinforces the responses to the two concerns addressed above.¹⁴⁷ Guaranteed basic minimums are a particularly apt response to "service delivery insolvency," which is premised on a basic commitment to equal provision of core municipal services.¹⁴⁸ Just as a case of "service delivery insolvency" can signal fiscal incapacity warranting debt adjustment, so too can it signal supply-chain disruptions warranting service adjustments at the population level.¹⁴⁹

2. Constitutional Concerns

Constitutional tensions may arise along three different dimensions. The first dimension is between federal court and municipal debtor, specifically the degree of federal power that the bankruptcy court can impose on the municipal debtor and its authorizing state. The second is between the municipal debtor and the other government water agencies from whom transfers are being demanded, the latter of whom may try to claim sovereign immunity from federal suit. The third is between water debtors and resident water users with claims of impairment by the water bankruptcy plan.

¹⁴⁵ See *id.* at 833 (arguing that municipal bankruptcy can "preserve [spatial] economies by writing down debts likely to discourage local investment," but not if those debts are "a consequence, or symptom, of . . . natural decay" that prevent a location from "generat[ing] revenues sufficient to pay for basic social services").

¹⁴⁶ Cf. Anderson, *supra* note 88, at 1197 ("Measures to protect residents might include opportunities for resident relocation, or household grants to establish alternate mechanisms for basic household water and sanitation for those who stay.").

¹⁴⁷ See *supra* notes 76–79 (discussing service delivery insolvency).

¹⁴⁸ See Gillette, *supra* note 74, at 1221–22 (noting that localities can violate "principles of . . . equal service provision" through non-discriminatory failure "to deliver promised services through fiscal incapacity").

¹⁴⁹ Cf. Buccola, *The Logic and Limits*, *supra* note 65, at 864 (implying use of "service delivery insolvency" could lead to earlier and more effective use of Chapter 9); *id.* at 1223–24 (summarizing why "[s]ervice delivery below a baseline . . . is a plausible proxy for fiscal distress").

Combining water scarcity and municipal bankruptcy may seem at first glance like a recipe for a federalism disaster. Climate change will pay no heed to state lines as it wreaks havoc on water supplies, and state-centric governance will likely not prove an effective response to national water scarcity.¹⁵⁰ At the same time, the Tenth Amendment's protection of state sovereignty always has limited the scope of federal municipal bankruptcy.¹⁵¹ Recent scholarship examining large bankruptcies of general municipalities has debated the constitutional leeway that federal courts have under Chapter 9 to pressure states into enacting city-wide reforms.¹⁵²

Because it envisions discrete water agencies that are willing and eager debtors, water bankruptcy can likely go through Chapter 9 without federalism concerns typical of the most controversial municipal bankruptcy cases. In those municipal bankruptcies, controversy arises from the debtor's nature as a general municipality suffering structural budget crises across a range of services.¹⁵³ When a municipality seeks readjustments on that vast a scale, significant disagreements between the municipal debtor and the overseeing bankruptcy judge are far likelier to occur, which, in turn, exacerbates the core federalism concern about municipal bankruptcy — that it can result in a federal court

¹⁵⁰ See Craig, *U.S. Water Law*, *supra* note 1, at 11 (“Climate change will likely exacerbate these federalism tensions in water law by creating adaptation needs at geographic and political scales larger than the state.”).

¹⁵¹ See Moringiello, *supra* note 69, at 6 (“Many have analyzed the interplay between state law and decision-makers and federal law and decision-makers in the chapter 9 context. . . . [B]ecause the Tenth Amendment limits the federal powers over states, the use of bankruptcy law over municipalities, which are created by and exist at the pleasure of their states, must also be limited.”); see, e.g., Buccola, *The Logic and Limits*, *supra* note 65, at 822 (noting that municipal bankruptcy scholarship “has been mainly concerned with the appropriate balance of power, in bankruptcy, between the federal judge overseeing the case and the local officials whom state law charges with managing municipal affairs in the ordinary course”).

¹⁵² See Buccola, *The Logic and Limits*, *supra* note 65, at 829-31 (summarizing recent scholarship debating Chapter 9's “capacity to improve municipal policy”).

¹⁵³ See, e.g., Colin McGrath, *Municipal Bankruptcy and the Limits of Federalism*, 18 J. CONST. L. 1265, 1273 (2016) (“Chapter 9 filings from Vallejo, Jefferson, Stockton, San Bernardino, and Detroit indicated that general municipalities embraced debt adjustment as a means for resolving structural budget crises.”).

dictating the operations of a state government.¹⁵⁴ However, in the water bankruptcy context, the judge's role would be limited to overseeing adjustments to the delivery of one discrete local service, making it far less likely that schisms between a cooperative water debtor and the judge would risk any meaningful intrusion of state sovereignty.¹⁵⁵

Nor are there constitutional issues with Chapter 9 suits against out-of-state water agencies given critical vendor status. If a unit of state government gets sued as part of a federal bankruptcy case, it may try to invoke sovereign immunity from suit under the Eleventh Amendment.¹⁵⁶ As the Supreme Court recently reaffirmed, however, sovereign immunity does not shield state governments from debtor suits under the federal bankruptcy laws.¹⁵⁷ Congress abrogated state sovereignty by enacting the Bankruptcy Code, which means that, just like any other private party, all government units are subject to bankruptcy jurisdiction and must defend against suits to augment the debtor's property or enforce equitable treatment among creditors.¹⁵⁸ Indeed,

¹⁵⁴ See, e.g., Andrew B. Dawson, *Beyond the Great Divide: Federalism Concerns in Municipal Insolvency*, 11 HARV. L. & POL'Y REV. 31, 35 (2017) ("Scholars have long understood that the municipal bankruptcy laws provide indirect means for courts to interfere with local governance even though courts cannot directly mandate operational reforms. . . . Recent bankruptcy cases illustrate that this indirect control may be occurring to an even greater extent than previously contemplated."); *id.* at 1266 ("The judicial imposition of tax increases and governance restructuring would allow federal power to reach core elements of local self-rule.").

¹⁵⁵ Cf. Buccola, *The Logic and Limits*, *supra* note 65, at 831 (noting that proponents of using Chapter 9 for "federal intervention in municipal governance" concede the necessity of an eligible and willing municipal debtor).

¹⁵⁶ See, e.g., BAIRD, *supra* note 78, at 24 ("A state can also appear as a simple creditor. . . . A state is ordinarily immune from suit under the Eleventh Amendment and ordinarily restricts the ability of a litigant to bring it into a [federal] forum.").

¹⁵⁷ *Allen v. Cooper*, 140 S. Ct. 994, 1002-03 (2020) (reaffirming *Cent. Va. Cmty. Coll. v. Katz*, 546 U.S. 356 (2006)); see BARRY E. ADLER, ANTHONY J. CASEY & EDWARD R. MORRISON, *BAIRD & JACKSON'S BANKRUPTCY: CASES, PROBLEMS, AND MATERIALS ON BANKRUPTCY* 42 (5th ed. 2020). (In *Katz*, "the Supreme Court held that the Constitution's Article I Bankruptcy Clause empowered Congress to establish actions by a debtor against a State to recover past payments"). Sovereign immunity may protect a state from having to defend in a bankruptcy filed by *its own in-state municipality*, but not a bankruptcy filed by another state's municipality. See McGrath, *supra* note 153, at 1302-05.

¹⁵⁸ See *Lac du Flambeau Band of Lake Superior Chippewa Indians v. Coughlin*, 143 S. Ct. 1689, 1696 (2023) ("We conclude that the Bankruptcy Code unequivocally abrogates

although admittedly far from clear, states that flat-out refuse to participate as critical water vendors in water bankruptcy may themselves risk constitutional violations.¹⁵⁹

Finally, although local water users likely have a constitutionally protected property interest in water service, it is less clear that they could successfully block a proposed water bankruptcy plan as violation of due process.¹⁶⁰ Recently, the Sixth Circuit Court of Appeals declined

the sovereign immunity of any and every government that possesses the power to assert such immunity.”); *In re Veneco LLC*, 998 F.3d 94, 110 (3d Cir. 2021).

¹⁵⁹ Cf. *Tarrant Reg'l Water Dist. v. Herrmann*, 569 U.S. 614, 632 n.11 (2013) (“[T]he power of States to control water within their borders may be subject to limits in certain circumstances.”). For example, states would violate the Dormant Commerce Clause were they to ban or otherwise regulate water transfers in ways that discriminate against interstate commerce. See Adler, *supra* note 32, at 50-51 (noting that Dormant Commerce Clause could mitigate effects of state laws restricting water transfers out of state); Goodwin, *supra* note 30, at 745 (“Current United States Supreme Court jurisprudence prevents states from banning such massive water diversions outright. States must manage their water resources while, at the same time, considering proposals to sell water across state lines.”); Reiblich & Klein, *supra* note 2, at 457 (“Some statutes ban exports of water to other states, although legislators must take care to avoid running afoul of the Dormant Commerce Clause.”). States would also potentially violate the Privileges and Immunities Clause if they made water service decisions based solely on state citizenship. See Martha F. Davis, *Let Justice Roll Down: A Case Study of the Legal Infrastructure for Water Equality and Affordability*, 25 GEO. J. ON POVERTY L. & POL’Y 355, 374 (2016) (noting that the Privileges & Immunities Clause “bar[s] states from discriminating as between citizens of one state or another” and “create[s] a baseline of national rights that are available to all citizens,” including the right to “access to navigable waters”).

¹⁶⁰ See Davis, *supra* note 106, at 880-81 (“[A]ccess to household water in the United States is legally protected only at the margins, if at all. The U.S. Constitution does not directly mention water. Procedural due process protections may apply to water service but do nothing to prevent shutoffs for nonpayment.”); Sharmila L. Murthy, *A New Constitutive Commitment to Water*, 36 B.C. J.L. & SOC. JUST. 159, 186-89 (2016) (arguing that household water connections should be considered a property interest protected under the Due Process Clause). Even if water service is a protected property interest, blocking a proposed plan would require local water users to establish that Chapter 9 allows deprivations of water service without sufficient due process. So long as the water debtor provides local water users with adequate notice and an opportunity to be heard, the due process challenge will fail. See, e.g., David S. Kupetz, *Standards for Confirming a Chapter 9 Plan of Debt Adjustment: Incorporating and Diverging from Chapter 11 Plan Standards*, 32 CAL. BANKR. J. 289, 334 (2012) (“Due process requirements are satisfied and the discharge under a Chapter 9 plan is effective as long as the claimant had an

to recognize a constitutional right to water access in a suit by Detroit residents seeking relief from water shutdowns.¹⁶¹ Notably, the case arose in the water-rich, money-poor state of Michigan, which shows the possible limits of its applicability to water bankruptcy.¹⁶² According to the Sixth Circuit, the Constitution does not guarantee water access in that it does not prevent cash-strapped localities from shutting off individualized domestic water deliveries *that they cannot afford financially*.¹⁶³ It is a different and open question whether a financially solvent locality, in an effort to protect its shrinking water supply, can flat out deny residents access to water necessary for survival.¹⁶⁴

Still, in the (unlikely) event that a proposed water bankruptcy plan is found to violate constitutional rights, the plan itself can be amended to provide compensation for those violations.¹⁶⁵ Legacy users who lose out on promised water could be compensated for such takings, and out-of-

opportunity to participate in the Chapter 9 case prior to confirmation of the plan.” (citing *Neb. Sec. Bank v. Sanitary & Imp. Dist. No. 7*, 119 B.R. 193, 195 (D. Neb. 1990)).

¹⁶¹ *Lyda v. City of Detroit (In re City of Detroit)*, 841 F.3d 684, 699-700 (6th Cir. 2016); *see also* Davis, *supra* note 106, at 885 n.31 (“As recently as 2016, the Sixth Circuit Court of Appeals rejected the claim that shutoffs of household water violated a fundamental constitutional right.”).

¹⁶² *See* Brown et al., *supra* note 1, at 225 figs. a & b (reporting high past water yields and projecting little change in future water yields in the northern region of the Great Lakes); *cf.* Craig, *U.S. Water Law*, *supra* note 1, at 12 (theorizing possible future population and industry shifts from California “*en masse* to Michigan and Wisconsin”).

¹⁶³ *In re City of Detroit*, 841 F.3d at 700. The plaintiffs were Detroit residents who had defaulted on their water bills, and the water shutoffs were (one tiny) part of a larger effort to stabilize the City’s entire financing structure; had these residents paid their bills, the City likely would have had sufficient water supplies to deliver basic household service. *See* Erin Mette, *A Constitutional Right to Safe, Affordable, Accessible Drinking Water*, 32 TUL. ENV’T L.J. 189, 192-93 (2019) (noting that water turnoffs were justified by maintenance of city’s financial stability).

¹⁶⁴ *See* Davis, *supra* note 106, at 885-86 (arguing that constitutional protections for “life,” “liberty,” and the “general Welfare” together “support[] an implicit ‘freedom from thirst,’ *i.e.*, a right to basic household water needed to support life . . . that takes account of community-wide impacts of denying basic water.”); Murthy, *supra* note 160, at 162 (marshaling authority for “the idea that the denial of water amounts to a literal deprivation of life” that violates the Constitution).

¹⁶⁵ *Cf.* Davis, *supra* note 106, at 883 (“Were it recognized as a constitutional right, sufficient water to meet basic human needs could only be denied if the government met the highest standards of proof, showing that any denial of household water was narrowly limited to instances that are ‘compelling.’”).

state water agencies could be compensated for the costs and damages of providing compulsory water transfers.¹⁶⁶ Were water bankruptcy to proceed through Chapter 9, all of these controversies could be negotiated or litigated during the bankruptcy and implemented as part of the plan of adjustment, demonstrating once again the great advantage of the Bankruptcy Code's comprehensive system of collective adjudication.¹⁶⁷

Bankruptcy is insurance against unpredictable financial disaster, a safety net for people and businesses that owe more than they own.¹⁶⁸ Why not, then, use bankruptcy as insurance against dire environmental loss?¹⁶⁹ The causes and contexts of financial loss are innumerable, yet bankruptcy provides a readymade framework for salvaging a debtor's future by reducing or eliminating what is owed to creditors. That framework, as the above tried to demonstrate, works just as well in conserving a resource like water that is depleting due to unpredictable natural causes.¹⁷⁰ Indeed, as the Article's final Part explains, bankruptcy provides a workable template for using aggregate litigation to regulate conservation of all manner of collective resources.

III. AGGREGATING CLAIMS TO COMMON RESOURCES

This final Part uses water bankruptcy as a jumping off point for understanding the need and structure of other instances of aggregate litigation. By analyzing aggregate litigation as a solution to the problem

¹⁶⁶ See Klein, *supra* note 6, at 618 (discussing successful takings claim brought by irrigation users in wake of regulation by California water agency); see *supra* notes 100–102 (discussing inclusion of compensation for water transfers as part of bankruptcy plan).

¹⁶⁷ Indeed, the Sixth Circuit's ruling on the constitutional right to water access was part of an appeal from the Bankruptcy Court overseeing the City of Detroit's Chapter 9 bankruptcy case. See Mette, *supra* note 163, at 192.

¹⁶⁸ See generally John Fabian Witt, *Narrating Bankruptcy/Narrating Risk*, 98 NW. U. L. REV. 303, 320 (2003) (elaborating on the view of bankruptcy as insurance).

¹⁶⁹ Cf. Moringiello, *supra* note 69, at 18 (“[A] bankruptcy process can operate without reference to property.”).

¹⁷⁰ See Dave, *supra* note 74, at 295 (arguing that Chapter 9 should strive to “ensure residents have access to certain minimum services that promote habitability”).

of “anticommons,” this Part offers a lens for assessing the need for, and legitimacy of, aggregate litigation in different contexts. In short, aggregation is least justified when the disputed claims are to resources that most resemble traditional private property and most justified when reallocating claims to natural resources and other common property, like water.

A. *Attacking the Anticommons with Aggregate Litigation*

The anticommons describes scenarios in which existing allocations are causing under or overuse of a resource system, but alternative allocations cannot materialize due to legal or practical obstacles.¹⁷¹ Most often, the dynamic stems from the ability of some individual resource users to veto any proposed reconfiguration no matter how beneficial it would be to other resource users.¹⁷² Overcoming the anticommons, then, requires some method of “overriding the consent of the parties affected” and reallocating claims in a manner that increases the value of the entire resource system.¹⁷³

As a general matter, anticommons regulation is a two-step process. The first entails gaining authority over all existing claims to a resource, which allows for an assessment of what changes are required to maximize the total resource supply.¹⁷⁴ In the second step, using procedures of claimant consent and public oversight, new resource allocations are implemented, and the resulting joint gains are

¹⁷¹ D. Theodore Rave, *Governing the Anticommons in Aggregate Litigation*, 66 VAND. L. REV. 1183, 1201-03 (2013) (identifying barriers to collective action by dispersed claimants, including legal doctrines, ethics rules, and practical transaction costs of coordination among many claimants).

¹⁷² See LEE ANNE FENNELL, COMMONS, ANTICOMMONS, SEMICOMMONS, *in* RESEARCH HANDBOOK ON THE ECONOMICS OF PROPERTY LAW 35, 46 (Kenneth Ayotte & Henry E. Smith eds., 2011) (“Solving the tragedy of the commons in any manner, whether through redrawing property lines or otherwise, requires actors to give up something — their current untrammelled access to the resource in question. To the extent that such access represents something like a property interest, an effort to aggregate consent to a plan of forbearance may itself present an anticommons dynamic.”).

¹⁷³ *Id.* at 48.

¹⁷⁴ See Rave, *supra* note 171, at 1213-15 (describing the two-stage anticommons dynamic).

distributed equitably among claimants.¹⁷⁵ The procedures are an attempt to legitimize the new resource allocations by protecting those claimants who did not consent to the loss of their resource claims.¹⁷⁶

Aggregate litigation provides just this type of two-step response to anticommons dynamics.¹⁷⁷ Where a mass of claims seeks the same resources from the same defendant, aggregating all such claims into a single lawsuit allows a defendant to forego the individualized consent usually required to settle claims and instead to pursue one collective settlement that uses group-based classifications, requires only a majority of claimants for approval, and is subject to judicial review.¹⁷⁸ By resolving all of the outstanding claims to a common resource through a process of voting and judicial review, aggregate litigation frees up the defendant to reallocate its resources in a manner that makes most users better off.¹⁷⁹

Bankruptcy is “perhaps the most well-developed” example of using aggregate litigation to reallocate claims to threatened resources.¹⁸⁰ Under the Bankruptcy Code’s provisions for consolidating claims and

¹⁷⁵ See *id.*; see also Fennell, *supra* note 172, at 48 (“Accomplishing the reconfiguration of property rights . . . requires either obtaining or overriding the consent of the parties affected, and somehow distributing the resulting surplus. This is where the anticommons comes in. If the parties are given a veto over the reconfiguration, an anticommons dynamic may keep it from happening.”).

¹⁷⁶ See Rave, *supra* note 171, at 1219 (“As long as there are adequate governance procedures in place to ensure that the burdens and gains from cooperation are fairly allocated at the second stage, the use of coercion at the first stage can be justified. Thus the legitimacy . . . strategies for overcoming an anticommons depends on (1) their ability to generate a surplus through aggregation and (2) the presence of an internal governance procedure that will address the agency and tyranny-of-the-majority problems and allow the parties to the aggregation to fairly divide up the surplus.”).

¹⁷⁷ See *id.* at 1201 (“Aggregate litigation thus presents a familiar anticommons problem: the plaintiffs’ rights are worth more if they can be assembled into a single unit for sale to the defendant, but because ownership of those rights is dispersed, transaction costs and holdout problems can prevent successful value-generating aggregation.”).

¹⁷⁸ *Id.* at 1238-39.

¹⁷⁹ See Alexandra D. Lahav, *The Continuum of Aggregation*, 53 GA. L. REV. 1393, 1404-05 (2019) (explaining that all examples of aggregate litigation “strive for the . . . efficient and fair resolution of large numbers of claims,” share similar procedures, and class individuals together for group treatment in a manner that “invites or requires justification”).

¹⁸⁰ Rave, *supra* note 171, at 1223.

cramming down reorganization plans without unanimous creditor consent, a debtor can use the bankruptcy process to rearrange its physical assets, financial resources, and legal obligations into an overall more sustainable venture.¹⁸¹ The bankruptcy judge is there to make sure the proposed compulsion is justified, both by assessing whether it, in fact, maximizes the firm's overall value and by ensuring that there is no discrimination against the minority of dissenting creditors.¹⁸² Just as business bankruptcy attempts to alter entitlements to underutilized commercial property and money, water bankruptcy could likewise attack the anticommons tragedy of shrinking over-allocated water supplies.¹⁸³

Yet the differences between business and water bankruptcy also reveal an insight about aggregate litigation. Although the Code provides some of the same checks and balances on proposed plans of reorganization, business creditors receive more representation and judicial protection.¹⁸⁴ In other words, using aggregation to reorganize claims to business assets, as opposed to assets of municipal governments, requires more justification, and a higher bar must be met.¹⁸⁵ Understanding the differential treatment of business and municipal creditors in bankruptcy, therefore, can shed light on the legitimacy of claim aggregation in a variety of other contexts.

Business creditors are better off, as it turns out, because the Code provides more guidance and protection the more that claims resemble traditional private property interests.¹⁸⁶ The reason is that commercial

¹⁸¹ See, e.g., McKenzie, *supra* note 80, at 1002-08 (describing Code features that facilitate coordination, finality, and consent in large business bankruptcies).

¹⁸² See Rave, *supra* note 171, at 1223 (“[B]ankruptcy legitimizes this compelled participation at the first stage with a well-developed set of governance procedures designed to protect the minority, control agency costs, and fairly allocate the resulting surplus at the second stage.”).

¹⁸³ See Sinden, *supra* note 20, at 576 (“Fresh water is a resource that is hard to pin down within fixed property boundaries and is, thus, particularly vulnerable to the tragedy of the commons.”).

¹⁸⁴ See Buccola, *Law and Legislation*, *supra* note 69, at 1318-19 (comparing “best interests” and “fair and equitable” standards in Chapter 9 and Chapter 11).

¹⁸⁵ *Id.*

¹⁸⁶ See Moringiello, *supra* note 69, at 10-11 (describing the ways in which the Code incorporates a “property foundation” in individual and business bankruptcies).

creditors exercise a large degree of individual autonomy over claims to typical private property (like secured debt or stock), and non-consensual interference with that individual autonomy must be justified by a representative process of claimant consent and stringent judicial oversight.¹⁸⁷ Chapter 9 tries to incorporate this framework, but it does little for municipal creditors who exercise no independent control over claims that bear little resemblance to typical private property interests.¹⁸⁸

As this comparison suggests, aggregate litigation's legitimacy may peak when individualized claimant control over the disputed resource is minimal. The next Subsection elaborates on this proposition with other examples of aggregation beyond bankruptcy.

B. *Aggregate Legitimacy and Individual Control*

Aggregate lawsuits pervade in wide variety, from bankruptcy to class actions to multi-district litigation, but every instance of aggregation shares some core structural features that allow for comparisons.¹⁸⁹ One such comparison, between business and municipal bankruptcy, suggests that aggregate litigation is most legitimate — that is, requires the least amount of claimant consent and judicial oversight — when the underlying claims do not grant individuals autonomous control of the disputed resource. The following survey of other examples of aggregate litigation seems to confirm the inverse relationship between aggregate legitimacy and individual resource control.

To start, aggregate litigation is easily legitimized when the claims are to “fugitive” resources, supplies of which are both mobile and unpredictable, like natural water.¹⁹⁰ Individual private use of these

¹⁸⁷ See *id.* at 12-16.

¹⁸⁸ See *id.* at 7-8 (“In private bankruptcy, that basis [for decisions] is [private] property. Yet property does not and cannot serve as a basis for decision-making in a [municipal] bankruptcy.”).

¹⁸⁹ See Lahav, *supra* note 179, at 1408-09 (“[T]here are insurmountable tensions between the common threads that tie aggregate litigation together, which every aggregate process must address.”).

¹⁹⁰ Natural water sources are difficult to keep in the same location or exclusively to oneself, and natural water supplies grow or shrink based on unpredictable weather patterns and geographic conditions. See, e.g., Stephen E. Draper, *The Unintended*

resources is highly circumscribed by public regulation, often because a regime of individual private property either is not viable or creates perverse incentives to overuse the resource.¹⁹¹ The terms of access and use of water, largely immutable at the individual level, are a case in point.¹⁹² Because the substantive law has already shifted away from private-property-based forms of ownership and towards public administration of uses, aggregate litigation provides an effective and legitimate method of reallocating claims to fugitive resources, especially those subject to “ecological degradation.”¹⁹³

Take oil and gas, two other examples of fugitive resources that would be squandered were individuals free to extract and own them as pure private property. To prevent overextraction, states have enacted compulsory unitization laws that replace individualized ownership with collective management by a single committee, which regulate the entire reserve to maximize its overall value and distribute oil and gas to individuals based on predetermined priorities.¹⁹⁴ To justify that compulsory takeover, laws condition unitization on approval by a supermajority of the reserve’s claimants and review by a public agency to ensure the proposal is feasible, adds value to the overall unit, and

Consequences of Tradable Property Rights to Water, 20 NAT. RES. & ENV’T 49, 49 (2005) (“Unlike oil or minerals, life-sustaining flowing water is a shared, mobile, common-pool resource that is used and reused for different purposes as it moves through the hydrological cycle.”); Sinden, *supra* note 20, at 578 (“Water flows across boundaries, seeps under the earth, evaporates into the air, and fluctuates drastically in quantity depending on random and unpredictable weather patterns.”).

¹⁹¹ See Smith, *supra* note 18, at 476-77 (“The rapid shift to governance and other moves away from simple exclusion . . . trace back to the nature of fugitive resources. Almost by definition, a fugitive resource is difficult to subject to exclusion rights, and this problem impacts the shape of rights to water, wild animals, oil and gas, and the broadcast spectrum.”).

¹⁹² See *id.* at 477 (“[W]ater law exemplifies the combination of minimal exclusion and extensive governance with a corresponding tendency toward a semicommons that are characteristic of property regimes over fugitive resources.”).

¹⁹³ See Sinden, *supra* note 20, at 585 (examining regulation of land, oceans, and animals to demonstrate that “the dynamics of ecological degradation make it impossible to achieve in practice . . . conditions necessary to make either a private property or a market solution succeed”).

¹⁹⁴ See Rave, *supra* note 171, at 1226-27.

distributes resources to owners on a fair and equitable basis.¹⁹⁵ Oil and gas unitization imposes the required check to legitimize a “necessary” shift from individual to reserve-based management, just as water bankruptcy does to legitimize the shift to source-based adjudication.¹⁹⁶

Beyond fugitive resources, aggregate litigation can also help when personal property, usually subject to near-absolute control by owners, is at risk of complete destruction due to unpredictable natural disasters. An example is the maritime law of “general average contribution,” which permits the captain of a storm-struck ship at risk of sinking to take control of the entire crew’s personal property and jettison the bulkiest and least valuable items.¹⁹⁷ Once the seas are calm and the crisis averted, those lucky crewmembers who still have their stuff are forced to compensate unlucky shipmates whose stuff was thrown overboard.¹⁹⁸ Water bankruptcy, or really any type of bankruptcy, can be understood as serving this same function in response to existential “insolvency.”¹⁹⁹

Even real property claims are susceptible to aggregation, especially when individualized allocations prevent alternative collective allocations that would generate more overall value. One controversial example is eminent domain, in which a state entity decides to combine multiple land parcels belonging to individual owners into one bigger contiguous parcel, sell the new parcel to a new single owner, and use the sale proceeds to compensate the previous owners forced to give up their land.²⁰⁰ In contrast to efforts to alleviate under-use of a resource (like

¹⁹⁵ *Id.* at 1228.

¹⁹⁶ The shift is “necessary” because the status quo will lead to total extinguishment of the resource supply. See W. TODD JARVIS, *CONTESTING HIDDEN WATERS: CONFLICT RESOLUTION FOR GROUNDWATER AND AQUIFERS* 28-29 (2014) (discussing possible adaptation of oil unitization for groundwater and aquifers).

¹⁹⁷ Rave, *supra* note 171, at 1221.

¹⁹⁸ See *id.* at 1221-23.

¹⁹⁹ See Vincent S.J. Buccola, *Bankruptcy’s Cathedral: Property Rules, Liability Rules, and Distress*, 114 NW. U. L. REV. 705, 708-09 (2019) (arguing that bankruptcy’s value is the ability to “toggle” from property rules to liability rules in times of distress); Fennell, *supra* note 172, at 49 (noting that liability rules can alleviate holdout problems so long as asset valuation is accurate).

²⁰⁰ See Rave, *supra* note 171, at 1220 (“The use of government coercion to make the aggregation possible is justified by the anticommons dynamic; the land assembly will create value but the potential for holdouts prevents assembly through market transactions.”).

eminent domain), environmental land-use regulations are collectively decided terms that try to alleviate over-use by restricting what every individual owner does with their land — a replacement for the unmitigated individual control that was generating significantly more damage to neighboring parcels.²⁰¹ In both contexts, the legitimacy of replacing one set of resource allocations with another depends on whether such decisions are made pursuant to procedures that require input and impose oversight.²⁰²

The takeaway from all these examples is also the core reason why anticommons requires regulation: shared resources are best used over time in multiple different ways at multiple different scales.²⁰³ End consumption of a resource may be individualized, but the terms of access and control over that resource can still be immutable at the individual level — each person drinks their own water, but no individual person can decide the cost, duration, location, or method of their own water access. In these cases, a prior entitlement to individualized resource consumption is not a valid objection to aggregate litigation meant to alter collective terms of resource access and use.

CONCLUSION

Aggregate litigation is most appropriate and requires the least amount of claimant consent and judicial oversight when reallocating claims to natural resources and other common property. Water bankruptcy through Chapter 9 provides a case in point. A locality facing water shortages can use bankruptcy to make wholesale readjustments to the way it delivers water, without the unanimous consent of those already

²⁰¹ Cf. Sinden, *supra* note 20, at 593-94 (“[W]hile it is relatively easy to privatize land ownership because it is a resource that lends itself in physical terms to being divided into discrete, well-defined parcels, it does not follow that privatization necessarily solves the tragedy of the commons.”).

²⁰² See Rave, *supra* note 171, at 1221 (noting controversies when use of eminent domain lacks “procedure[s] at the allocation stage to ensure that the original landowners share in the surplus”).

²⁰³ See Fennell, *supra* note 172, at 49 (“[I]t is efficient to have property configured in different ways under different circumstances, whether those circumstances occur at the same time or at different times. Allowing those different property arrangements to coexist (whether in space or over time) requires defeating or precluding strategic behavior.”).

promised water. It can do so under minimal judicial scrutiny and all within the confines of a single legal proceeding. Thus, when the status quo threatens a resource supply critical to human life, aggregate litigation may well be the response that best combines expedience and fairness.