

## Advancing Positive Water Rights

Allyson E. Gold

Srinivas Parinandi

Allen Slater

Tyler Garrett

Follow this and additional works at: <https://digitalcommons.law.umaryland.edu/mlr>



Part of the [Environmental Law Commons](#)

---

### Recommended Citation

Allyson E. Gold, Srinivas Parinandi, Allen Slater & Tyler Garrett, Advancing Positive Water Rights, 81 MD. L. REV. 449 (2022).

This Article is brought to you for free and open access by the Academic Journals at DigitalCommons@UM Carey Law. It has been accepted for inclusion in Maryland Law Review by an authorized editor of DigitalCommons@UM Carey Law. For more information, please contact [smccarty@law.umaryland.edu](mailto:smccarty@law.umaryland.edu).

---

---

## ADVANCING POSITIVE WATER RIGHTS

ALLYSON E. GOLD, SRINIVAS PARINANDI, ALLEN SLATER & TYLER GARRETT\*

*Despite its necessity to survival, the United States does not recognize a positive right to water. Instead, access is determined largely by the free market. Consequently, millions have historically lacked reliable access to clean water, a crisis that disproportionately affects minority and low-income households. Then came the COVID-19 pandemic. Record unemployment resulting from pandemic shutdowns pushed millions more to their financial breaking points, risking water utility shutoffs at a time when hand hygiene was critical to slow the spread of the virus. Exercising their police powers, thirty-three jurisdictions enacted disconnection moratoria, preventing water utility providers from terminating service even if a consumer was unable to pay. By forcing redistribution of private property, states disrupted existing contracts between consumers, water utility providers, and public utility commissions, raising complex constitutional questions.*

*This Article is the first to empirically examine water utility disconnection moratoria enacted in response to COVID-19. This analysis seeks to identify the conditions favorable for the United States to advance a positive right to water, even after the pandemic ends. Estimating a multivariate regression model, this Article finds that the higher a state's unemployment rate, the more likely the state was to adopt a moratorium, suggesting that mitigating the effects of rising unemployment motivates state action. Following the analysis, the Article evaluates the applicability of the Fifth Amendment and the Contract Clause to determine the constitutional contours of a positive right to water. Finally, the Article assesses and*

---

© 2022 Allyson E. Gold, Srinivas Parinandi, Allen Slater & Tyler Garrett.

\* Allyson E. Gold, JD is an Associate Clinical Professor of Law at Wake Forest University School of Law. Srinivas Parinandi, PhD is an Assistant Professor at the University of Colorado Boulder. Allen Slater, JD is a law clerk to the Honorable Judge Rebecca R. Freyre of the Colorado Court of Appeals; the ideas expressed here reflect the views of the authors, and do not reflect the views of Judge Freyre or the Colorado courts. Tyler Garrett is a doctoral student at the University of Colorado, Boulder. Thank you to Emily Benfer, Courtney Cross, Heather Elliot, Tara Leigh Grove, Amy Kimpel, Ron Krotoszynski, Benjamin McMichael, Shalini Ray, and participants in the New York University Law School Clinical Writers Workshop and the University of Alabama Junior Faculty Workshop for thoughtful feedback. Thank you to the University of Maryland editing team for their fantastic work.

*suggests improvements to current American water policies to expand water access without exceeding constitutional limitations.*

INTRODUCTION .....	450
I. THE RIGHT TO WATER .....	455
A. Water Rights Frameworks .....	457
B. American Water Rights and COVID-19 .....	465
II. STATE ACTION TO INCREASE WATER ACCESS .....	468
A. Potential Factors Motivating Adoption of Moratoria .....	471
B. Data Analysis .....	474
III. CONSTITUTIONAL LIMITATIONS ON A POSITIVE RIGHT TO WATER....	476
A. The Takings Clause .....	477
1. Regulatory Takings and Water Use .....	480
2. Confiscatory Rate Setting .....	482
B. The Contract Clause .....	486
C. Permissible Pandemic Police Powers .....	491
IV. RECOMMENDATIONS TO EXPAND WATER ACCESS .....	495
A. Increase Funding for Vulnerable Households .....	496
B. Temporary Rate Decrease .....	499
C. Reconnect Water Services for Vulnerable Populations .....	500
CONCLUSION .....	502

## INTRODUCTION

In April 2013, government officials in Flint, Michigan, entered into an agreement to stop purchasing water from the city of Detroit, hoping to save millions of dollars by pumping water directly from Lake Huron instead.<sup>1</sup> Though the Lake Huron project would take three years to complete, Detroit decided to discontinue its services to Flint after only one year.<sup>2</sup> In 2014, Flint started to use water from the Flint River as its main water source until the Lake Huron pipeline was completed.<sup>3</sup> Later that year, residents noted a decrease in the quality of their tap water, but their complaints were dismissed by city officials.<sup>4</sup> Shortly afterward, the city issued a boil advisory for water

---

1. Lisa Riordan Seville, Hannah Rappleye & Tracy Connor, *Bad Decisions, Broken Promises: A Timeline of the Flint Water Crisis*, NBC NEWS (Jan. 19, 2016, 2:13 PM), <http://www.nbcnews.com/news/us-news/bad-decisions-broken-promises-timeline-flint-water-crisis-n499641>.

2. *Id.*

3. *Id.*

4. *Id.*

in parts of Flint due to the presence of *E. coli* bacteria.<sup>5</sup> By the end of the year, residents of Flint were drinking water that had been previously deemed inadequate for car manufacturing because of its detrimental effect on vehicle components.<sup>6</sup> Over the course of the next year, residents were repeatedly told that everything was fine, even as they reported discolored and foul-smelling water, skin rashes, and hair loss.<sup>7</sup> The people of Flint, and the world, would eventually learn that through substandard infrastructure and a cascade of poor and corrupt decisions—like failing to treat the Flint River water with anti-corrosives—the local and state governments exposed the people of Flint to toxic lead contamination and disease through their water supply, causing lifelong health problems,<sup>8</sup> and in severe cases, death.<sup>9</sup> Even worse, because state officials used flawed testing and knowingly falsified testing records, the danger of Flint’s water supply was concealed from residents.<sup>10</sup> Government failure to affirmatively provide clean water literally poisoned a generation of an American city’s residents.<sup>11</sup>

Nearly 900 miles south of Flint, the predominantly low-income and Black population of Lowndes County, Alabama, lives with daily exposure to raw sewage.<sup>12</sup> The county—rural, sparsely populated land between Selma

---

5. *Id.*

6. *Id.*

7. *Id.*; see also UNIFIED COORDINATION GRP., FLINT RASH INVESTIGATION, 14, 23, 37 (2016), <https://www.phe.gov/emergency/events/Flint/Documents/rash-report.pdf>.

8. Samantha Raphelson, *Flint Residents Confront Long-Term Health Issues After Lead Exposure*, NPR (Oct. 31, 2017, 4:00 PM), <https://www.npr.org/2017/10/31/561155244/flint-residents-confront-long-term-health-issues-after-lead-exposure>.

9. The deaths are tied to Legionnaire’s disease, a severe form of pneumonia caused by waterborne bacteria, and researchers assert that the actual death toll is much higher than the state’s official claim. See Kim Bellware, *There May Have Been Dozens More Deaths Linked to the Flint Water Crisis Than Previously Known*, WASH. POST (Sept. 12, 2019), <https://www.washingtonpost.com/nation/2019/09/12/there-may-have-been-dozens-more-deaths-linked-flint-water-crisis-than-previously-disclosed/>. The state’s official count claims that over the course of an eighteen-month outbreak, twelve people died. *Id.* However, journalists who re-investigated medical records from the outbreak assert that over one hundred deaths from Legionnaire’s disease may have gone uncounted. *Id.*

10. Josh Keller & Derek Watkins, *How Officials Distorted Flint’s Water Testing*, N.Y. TIMES (July 29, 2016), <https://www.nytimes.com/interactive/2016/04/21/us/flint-lead-water-testing-distortions.html>.

11. Raphelson, *supra* note 8; see also Mona Hanna-Attisha et al., *Elevated Blood Lead Levels in Children Associated with the Flint Drinking Water Crisis: A Spatial Analysis of Risk and Public Health Response*, 106 AM. J. PUB. HEALTH 283, 285 (2016); Nicole Carroll, *Lead Was Poisoning the Water in Flint, Mich. Dr. Mona Hanna-Attisha Put Her Reputation on the Line to Prove It.*, USA TODAY (Aug. 27, 2020, 12:26 PM), <https://www.usatoday.com/in-depth/life/women-of-the-century/2020/08/11/19th-amendment-flint-water-crisis-elevated-dr-mona-hanna-attisha/5535823002/>.

12. Alexis Okeowo, *The Heavy Toll of the Black Belt’s Wastewater Crisis*, NEW YORKER (Nov. 23, 2020), <https://www.newyorker.com/magazine/2020/11/30/the-heavy-toll-of-the-black-belts-wastewater-crisis>; Inga T. Winkler & Catherine Coleman Flowers, “America’s Dirty Secret”: *The*

and Montgomery—is located in Alabama’s Black Belt, named for its dark and fertile clay soil.<sup>13</sup> While ideal for agriculture,<sup>14</sup> water cannot easily percolate through clay, meaning that the Black Belt’s soil has poor drainage.<sup>15</sup> In Lowndes County, poor drainage, combined with a lack of wastewater infrastructure, has led to a public health disaster. When it rains, the available wastewater systems send sewage back up the pipes into residents’ homes or onto their lawns, where it pools, unable to drain.<sup>16</sup> One resident was cautioned not to let her children play in their own yard because of wastewater contamination.<sup>17</sup> Due to a combination of factors, including state law and local ordinances, poverty, and geography, the residents of Lowndes County and many other rural communities are responsible for the installation and maintenance of their own sewage disposal systems.<sup>18</sup> A survey by ACRE, a non-profit organization that advocates for Black Belt Alabamians, reported that approximately half of the households in Lowndes County have failing or nonexistent sewage systems.<sup>19</sup> A recent medical study found that more than thirty percent of Lowndes County’s population suffered from infection by gastrointestinal parasites,<sup>20</sup> owing in part to the lack of adequate wastewater infrastructure.<sup>21</sup> Worse still, because individuals, rather than the government, are responsible for providing water sanitation services in Lowndes County, these residents have no legal remedy and no one to look to for help.<sup>22</sup> Quite the opposite in fact; Alabama’s government has jailed and fined Lowndes County residents for failing to provide adequate sanitation.<sup>23</sup> Both Flint and Lowndes County demonstrate the devastating consequences that can occur absent a positive right to water, which is an affirmative government commitment to universal clean water access.

Reliable access to clean water has a demonstrable impact on health outcomes and disease mitigation. Broad access to clean water has been a

---

*Human Right to Sanitation in Alabama’s Black Belt*, 49 COLUM. HUM. RTS. L. REV. 181, 182 (2017).

13. Winkler & Coleman Flowers, *supra* note 12, at 185.

14. Audrey Gamble, *Alabama Soils: Blackland Prairie*, EXTENSION: ALA. A&M & AUBURN UNIVS. (Aug. 21, 2018), <https://www.aces.edu/blog/topics/healthy-soils/alabama-soils-blackland-prairie/>.

15. *Id.*

16. Ashley Cleek, *Filthy Water and Shoddy Sewers Plague Poor Black Belt Counties*, AL JAZEERA AM. (June 3, 2015, 5:00 AM), <http://america.aljazeera.com/articles/2015/6/3/filthy-water-and-poor-sewers-plague-poor-black-belt-counties.html>.

17. *Id.*

18. Winkler & Coleman Flowers, *supra* note 12, at 187–88.

19. Megan L. McKenna et al., *Human Intestinal Parasite Burden and Poor Sanitation in Rural Alabama*, 97 AM. J. TROPICAL MED. HYGIENE 1623, 1624 (2017).

20. *Id.* at 1627.

21. *Id.* at 1625.

22. Winkler & Coleman Flowers, *supra* note 12, at 188–89.

23. *Id.* at 191–92.

critical public health measure in global disease management efforts.<sup>24</sup> In recognition of the water-health nexus, the United Nations has advocated for a positive human right to water, urging governments to, at minimum, create structures that enable universal access to clean water.<sup>25</sup> Through domestic courts, international resolutions, and public-private partnerships, several nations have moved toward expanding water access as a human right.<sup>26</sup> The United States, in contrast, neither espouses a human right to water at the federal level nor attempts to provide water access, contributing to water crises like those in Flint and Lowndes County.

The coronavirus (“COVID-19”) pandemic presented an opportunity for American policymakers to employ a different approach to the right to water, placing a new emphasis on the importance of water access. The pandemic pointedly “reveals why household water for drinking and basic hygiene is not only critical for ‘life,’ but also necessary to achieving one of the Constitution’s fundamental goals, the nation’s ‘general Welfare.’”<sup>27</sup> When the pandemic started in March 2020, the Centers for Disease Control and Prevention (“CDC”) and the World Health Organization (“WHO”) recommended that all persons, with or without COVID-19 symptoms, wash their hands regularly with soap and water.<sup>28</sup> Of course, without reliable access to clean water, this is an impossibility. Even prior to the pandemic, more than two million people in the United States lacked “basic access to safe drinking water and sanitation.”<sup>29</sup>

Moreover, because many Americans must pay for access to water, the explosion of unemployment caused by the pandemic—with rates reaching

---

24. See, e.g., Paul Christopher Webster, *Lack of Clean Water Exacerbates Cholera Outbreak in Haiti*, 183 CAN. MED. ASS’N J. 83, 83 (2011); Junaid Zahid, *Impact of Clean Drinking Water and Sanitation on Water Borne Diseases in Pakistan*, SUSTAINABLE DEV. POL’Y INST. (2018), <https://www.jstor.org/stable/resrep17223>.

25. G.A. Res. 70/1, at 18–19 (Oct. 21, 2015), [https://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1](https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1).

26. See e.g., *infra* notes 48–50, 89–90, 92 and accompanying text.

27. Martha F. Davis, *Freedom from Thirst: A Right to Basic Household Water*, 42 CARDOZO L. REV. 879, 882 (2021) (quoting U.S. CONST. pmbl.).

28. *How to Protect Yourself & Others*, CTRS. FOR DISEASE CONTROL AND PREVENTION, <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html#print> (last visited Jan. 31, 2022); *Hand Hygiene: Why, How & When?*, WHO (Aug. 2009), [https://www.who.int/gpsc/5may/Hand\\_Hygiene\\_Why\\_How\\_and\\_When\\_Brochure.pdf](https://www.who.int/gpsc/5may/Hand_Hygiene_Why_How_and_When_Brochure.pdf).

29. Zoë Roller et al., *Closing the Water Access Gap in the United States: A National Action Plan*, U.S. WATER ALL. 12 (Nov. 2019), [http://uswateralliance.org/sites/uswateralliance.org/files/Closing%20the%20Water%20Access%20Gap%20in%20the%20United%20States\\_DIGITAL.pdf](http://uswateralliance.org/sites/uswateralliance.org/files/Closing%20the%20Water%20Access%20Gap%20in%20the%20United%20States_DIGITAL.pdf) (“This number includes: 1.4 million people in the United States [who] lack access to indoor plumbing (hot and cold running water, a sink, a shower/bath, or a flush toilet); 250,000 people in Puerto Rico; [and] 553,000 homeless people in the United States who may lack equitable water and sanitation access.”).

levels not seen since the Great Depression<sup>30</sup>—threatened many Americans’ ability to pay for continued water access. At a time when “the provision of clean water to residences [was] essential to human health and hygiene, and to the public health and safety,”<sup>31</sup> a record number of people were at risk of losing access to water because they could not afford it. Furthermore, many of the communities that lack water access and who became unemployed are also disproportionately vulnerable to COVID-19.<sup>32</sup> Rarely has the connection between water and life been more concrete: The COVID-19 pandemic has, as of this writing, resulted in at least 900,000 deaths in the United States.<sup>33</sup>

In response to the pandemic’s economic effects, and in an effort to slow virus transmission, thirty-three jurisdictions around the country enacted water utility disconnection moratoria.<sup>34</sup> Relying on states’ heightened police powers during a state of emergency,<sup>35</sup> these jurisdictions adopted regulations preventing utility companies from disconnecting water services even if a consumer could not afford to pay, approaching constitutional limits of forced redistribution of private property. The obligation of a utility company to continue to provide water services, even if it resulted in financial loss, raises important constitutional and empirical questions: (1) Under what legal authority can states enact a de facto positive right to water; (2) even if acting with authority, must states pay compensation to water utility providers; and (3) what factors influence that decision?

Analyzing COVID-19 water utility disconnection moratorium data, this Article investigates the conditions that galvanize state governments to advance positive water rights, and proceeds in four parts. Part I discusses the right to water, exploring the dichotomy between positive and negative rights approaches to water access and distribution. This Part examines how the crisis presented by the COVID-19 pandemic and accompanying recession upended the United States’ historic negative rights approach by motivating

---

30. GENE FALK ET AL., CONG. RSCH. SERV., R46554, UNEMPLOYMENT RATES DURING THE COVID-19 PANDEMIC (2021), <https://fas.org/sgp/crs/misc/R46554.pdf>.

31. Mich. Exec. Order No. 2020-28 (Mar. 30, 2020), *repealed by* Mich. Exec. Order No. 2020-144 (July 8, 2020).

32. *Health Equity Considerations and Racial and Ethnic Minority Groups*, CTRS. FOR DISEASE CONTROL AND PREVENTION, <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html> (last visited Jan. 31, 2022).

33. Johns Hopkins Univ., *COVID-19 Dashboard*, <https://coronavirus.jhu.edu/map.html> (last visited Feb. 21, 2021).

34. The remaining states did not enact statewide moratoria. In some instances, individual utility providers in these jurisdictions chose on their own to suspend disconnection. As this is a company decision, it can be reversed at any time.

35. *Wilson v. New*, 243 U.S. 332, 348 (1917) (“[A]lthough an emergency may not call into life a power which has never lived, nevertheless emergency may afford a reason for the exertion of a living power already enjoyed.”).

the majority of states to adopt water utility disconnection moratoria. Part II presents original data collection and empirical analysis of utility disconnection moratoria enacted after the WHO declared COVID-19 a pandemic on March 11, 2020. Using statistical analysis, this Part assesses several factors—including state unemployment rate, per capita income, diversity, and percent of the population that voted for Donald Trump in 2016, among others—that may have an effect on whether a jurisdiction adopted a water utility disconnection moratorium. In doing so, this Part identifies the reasoning that most strongly influenced policymakers.

Part III evaluates the constitutional limitations on a positive right to water. This Part begins by defining water property rights. Next, Part III assesses the applicability of two distinct frameworks—regulatory takings and confiscatory utility rate setting—to determine what, if any, obligations a state has to compensate utility companies for losses incurred through compliance with disconnection moratoria. This Part also discusses whether advancing positive water rights through disconnection moratoria violates Article I’s prohibition on contract impairment, considering both the effect on the contract between water utility providers and consumers as well as the relationship between providers and public utility commissions. Part IV concludes that disconnection moratoria neither effect a Fifth Amendment taking nor violate the Contract Clause and proposes additional measures for policymakers to adopt to advance a positive right to water even after the pandemic ends.

## I. THE RIGHT TO WATER

“A safe, reliable, affordable, and easily accessible water supply is essential for good health.”<sup>36</sup> At the most basic level, an individual needs access to at least 7.5 liters of water in the home each day for drinking, food preparation, and personal hygiene.<sup>37</sup> Ideally, everyone would have access to a minimum of one hundred liters of water each day to ensure that all consumption, hygiene, and laundering needs could be met.<sup>38</sup> Six factors determine whether a water supply is sufficient to effectively maintain good health: (1) quality of the water; (2) quantity of water available; (3) access to water supply; (4) reliability of the supply; (5) cost of water use; and (6) ease

---

36. Paul R. Hunter, Alan M. MacDonald & Richard C. Carter, *Water Supply and Health*, PLOS MED. (Nov. 2010), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2976720/pdf/pmed.1000361.pdf>. “Access to a safe and continuous supply of water for drinking, cooking, and personal hygiene is an essential prerequisite for health.” *Id.* at 8.

37. *Id.* at 1; see also Guy Howard & Jamie Bartram, *Domestic Water Quantity, Service Level and Health*, WHO (2003), [https://www.who.int/water\\_sanitation\\_health/diseases/WSH03.02.pdf](https://www.who.int/water_sanitation_health/diseases/WSH03.02.pdf).

38. Howard & Bartram, *supra* note 37.



of use by consumers.<sup>39</sup> Inadequacies in any of the six factors can be associated with significant health risks,<sup>40</sup> including infection or even death.

Despite water's importance, many Americans have historically lacked access to a safe, reliable, and affordable source. A 2017 study by human rights non-profit DigDeep and the U.S. Water Alliance found that more than two million people in the United States did not have access to clean water.<sup>41</sup> Lack of water access disproportionately affects low-income people of color. Race is the single variable "most strongly associated with access to complete plumbing."<sup>42</sup> African American and Latino households are twice as likely to lack complete plumbing than white households,<sup>43</sup> while Native American households are nineteen times more likely to lack complete plumbing than white households.<sup>44</sup> A 2021 study on water affordability found that census tracts with a majority Black, Hispanic, and/or Asian population spend a greater percentage of the household's income on water bills, "*while using comparatively less water,*" than households in majority white census tracts.<sup>45</sup> However, socioeconomic status is also an important predictor in access to public water utilities.<sup>46</sup> Low household income and high unemployment rates are correlated with decreased access to complete plumbing.<sup>47</sup> This Part first defines positive and negative rights approaches to water. It then examines the effects of these approaches on water access, focusing on how the United

---

39. Hunter et al., *supra* note 36, at 3 ("[I]mprovements in water supply are essential prerequisites for improved personal and home hygiene . . .").

40. Howard & Bartram, *supra* note 37, at 8.

41. Roller et al., *supra* note 29.

42. *Id.* at 22. "Indoor plumbing refers to the presence of hot-and-cold running water, a shower or bath, and a flush toilet in the home. Until recently, the Census Bureau used the term 'complete plumbing' to refer to these components. In 2016 the Census Bureau removed toilets from its definition of complete plumbing." *Id.* at 17. For a detailed overview of the history of segregated water access, see Coty Montag, *Water/Color: A Study of Race & the Water Affordability Crisis in America's Cities*, NAACP LEGAL DEF. & EDUC. FUND 3 (2019), [https://www.naacpldf.org/wp-content/uploads/Water\\_Report\\_FULL\\_5\\_31\\_19\\_FINAL\\_OPT.pdf](https://www.naacpldf.org/wp-content/uploads/Water_Report_FULL_5_31_19_FINAL_OPT.pdf) ("Our research confirmed a clear connection between racial residential segregation and Black access to water systems.").

43. Roller et al., *supra* note 29, at 22 ("Nationwide, 0.3 percent of white households lack complete plumbing, as compared to 0.5 percent of African-American and Latinx households . . . . In fact, our analysis showed that the larger the share of Native American, African-American, Latinx, or Pacific Islander residents living in a census tract, the higher the percentage of homes that lack complete plumbing.").

44. *Id.* The analysis found that 5.8% of Native American households lack access to complete plumbing. *Id.* "For Native American and Pacific Islander communities, race is a more significant predictor of plumbing access than any other factor. That means that these groups are equally likely to lack complete plumbing whether they are high- or low-income, and whether they live in urban or rural areas." *Id.* (footnote omitted).

45. *City of Chicago Water Affordability Analysis*, METRO. PLAN. Council (Jan. 18, 2022), <https://www.metroplanning.org/multimedia/publication/2029> (emphasis added) ("[C]ensus tracts with a majority Black population pay on average 19% of their income on water bills.").

46. *Id.*

47. *Id.*

States' negative rights framework has been tested by the COVID-19 pandemic.

### A. *Water Rights Frameworks*

World leaders have cooperatively undertaken a variety of initiatives to expand water access and to recognize a human right to water.<sup>48</sup> Two methodologies dominate these initiatives: public proclamations and international treaties. Public proclamations are cooperative international statements. Two well-known examples are the Universal Declaration of Human Rights (“UDHR”)<sup>49</sup> and United Nations Resolution 64/292,<sup>50</sup> which together assert that human beings have a right to water. Though widely regarded as the foundation of international human rights law,<sup>51</sup> the UDHR is not legally binding;<sup>52</sup> while aspirational, it does not make individual countries responsible for meeting the obligations of their citizens' water rights. U.N. resolutions, on the other hand, must be approved by a majority vote in the General Assembly and can be binding on U.N. member states in certain circumstances.<sup>53</sup> However, many resolutions are written in ways that allow

---

48. Cf. Rhett B. Larson, *Water Security*, 112 NW. U. L. REV. 139, 145 (2017) (noting that war, immigration, disease management, energy production, and food production are all dependent on a stable supply of water); see, e.g., Press Release, World Bank, 12 World Leaders Issue Clarion Call for Accelerated Action on Water (Mar. 14, 2018), <https://www.worldbank.org/en/news/press-release/2018/03/14/12-world-leaders-issue-clarion-call-for-accelerated-action-on-water>.

49. G.A. Res. 217 (III) A, Universal Declaration of Human Rights, art. 25 ¶ 1 (Dec. 10, 1948) (stating that “[e]veryone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services”); see also U.N. Econ. & Soc. Council, Comm. on Econ., Soc. & Cultural Rts., General Comment No. 15, ¶ 1, U.N. Doc. E/C.12/2002/11 (Jan. 20, 2003) (“The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights.”).

50. G.A. Res. 64/292, U.N. Doc. A/RES/64/292, at 1–2 (July 28, 2010) (“The General Assembly . . . [r]ecalling also the Universal Declaration of Human Rights . . . [r]ecognizes the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights . . .”).

51. George E. Edwards, *Assessing the Effectiveness of Human Rights Non-Governmental Organizations (NGOs) from the Birth of the United Nations to the 21<sup>st</sup> Century: Ten Attributes of Highly Successful Human Rights NGOs*, 18 MICH. ST. J. INT’L L. 165, 172 n.14 (2010) (“The U.N. intended the UDHR to be a ‘common standard of achievement for all peoples and all nations.’ . . . These rights form the bases for over 100 U.N. treaties, declarations and other instruments, and for many national constitutions and other domestic law sources.”).

52. See generally *Human Rights Law*, UNITED NATIONS, <https://www.un.org/ruleoflaw/thematic-areas/international-law-courts-tribunals/human-rights-law/> (last visited Nov. 4, 2021).

53. See generally *Are UN Resolutions Binding?*, U.N. DAG HAMMARSKJÖLD LIBR. (May 12, 2021), <https://ask.un.org/faq/15010> (stating that “[t]he nature of the resolution determines if it is considered binding on States.”).

wide latitude for member state compliance.<sup>54</sup> For example, U.N. resolution 64/292 calls on members<sup>55</sup> to “provide financial resources, capacity-building and technology transfer . . . in order to scale up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all.”<sup>56</sup> But the resolution does not state how much money members should contribute, what kinds of technology should be shared, or address any number of other logistical concerns inherent in the resolution. Implementation of the resolution is entirely dependent on how each member state voluntarily incorporates the resolution’s obligations into binding domestic law and policy.<sup>57</sup> Thus, while these public proclamations signal that broad water access is an important priority to leaders, they do not create legal causes of action for failure to comply.<sup>58</sup>

International treaties also promote water access. Several treaties—the Convention on the Rights of the Child (“CRC”),<sup>59</sup> the Convention on the Elimination of All Forms of Discrimination against Women (“CEDAW”),<sup>60</sup> and the Convention on the Rights of Persons with Disabilities (“CRPD”)<sup>61</sup>—provide qualified support for a human right to water.<sup>62</sup> These treaties are binding on signatories who ratify them. The United States is a signatory to each of these treaties, but has refused to ratify them,<sup>63</sup> meaning that the United States symbolically supports and will not undermine these agreements, but has not consented to be bound by them.<sup>64</sup> However, much like UN resolutions, these treaties use language that provides substantial discretion in compliance. For example, the CRC declares that signatories

---

54. Doug Donoho, *Some Critical Thinking About a Human Right to Water*, 19 ILSA J. INT’L & COMP. L. 91, 98 (2012).

55. The United States abstained from voting on this resolution and thus does not consent to be bound by it. See Emily M. Thor, Comment, *The Human Right to Water in the United States: Why So Dangerous?*, 26 PAC. MCGEORGE GLOB. BUS. & DEV. L.J. 315, 317 n.15 (2013).

56. G.A. Res. 64/292, *supra* note 50, at 3.

57. Donoho, *supra* note 54, at 96.

58. *Id.* at 98–102.

59. Convention on the Rights of the Child art. 24, Nov. 20, 1989, 1577 U.N.T.S. 3 [hereinafter CRC].

60. Convention on the Elimination of All Forms of Discrimination Against Women art. 14, Dec. 18, 1979, 1249 U.N.T.S. 13.

61. Convention on the Rights of Persons with Disabilities art. 28, Dec. 13, 2006, 2515 U.N.T.S. 3.

62. Donoho, *supra* note 54, at 94–98.

63. Arlene S. Kanter, *Let’s Try Again: Why the United States Should Ratify the United Nations Convention on the Rights of People with Disabilities*, 35 TOURO L. REV. 301, 301–02 (2019).

64. *What is the Difference Between Signing, Ratification and Accession of UN Treaties?*, U.N. DAG HAMMARSKJÖLD LIBR. (Apr. 26, 2018), <https://ask.un.org/faq/14594>; KEVIN MURRAY & SARA KOMINERS, *THE HUMAN RIGHT TO WATER IN THE UNITED STATES: A PRIMER FOR LAWYERS & COMMUNITY LEADERS* 2–3 (2018) (stating that “[w]here the U.S. has signed, but not ratified a treaty, it is obligated ‘to refrain from acts which would defeat the object and purpose of [the] treaty’”) (second alteration in original).

recognize the right of a child to enjoy the highest attainable standard of health, which obligates national leaders to take appropriate measures to ensure that children have access to clean drinking water.<sup>65</sup> But that obligation is limited to the “maximum extent of [a country’s] *available* resources.”<sup>66</sup> This caveat creates a significant loophole that a state can use to remain compliant with the treaty in letter while violating it in spirit. Consider the following hypothetical scenario: Nation A may decide that military security is its highest priority, and thus deserving of the bulk of resources—say 80% of its annual budget. The remaining 20% of Nation A’s budget would need to be used to meet various other societal needs, like transportation or infrastructure. In the end, perhaps only a fraction of that 20% would be “available” to provide water for children. Thus, under the CRC’s language, Nation A can allocate a nominal amount of resources toward providing water for children and still meet their treaty obligations. This example is extreme, but underscores a larger point—however well-intentioned these public proclamations and international treaties, their broad assertions and hedged support for water access do not create a legal right to water; mechanisms of enforcement do. Because the aforementioned proclamations and treaties lack enforcement mechanisms, they are better regarded as aspirational, an expression of “how the world ought to be,” rather than an assertion of cognizable legal claims to water.<sup>67</sup> An international aspiration for a human right to water is undoubtedly a good thing, but to meaningfully provide water access requires cognizable rights coupled with enforcement.

How a particular government approaches the apportionment of water is largely a function of whether the nation views the right to water as a positive or negative right.<sup>68</sup> A positive right is “freedom to”—a guarantee that the government will provide a certain quality or quantity of a good or service to its citizens.<sup>69</sup> Negative rights, in contrast, are “freedom from”—prohibiting state interference with a particular interest unless the government meets minimum standards of due process and public consent.<sup>70</sup> In the context of water, positive rights impose an affirmative obligation on the government to provide clean water for citizens, while negative rights restrict the government from interfering with water access without due process and public accountability. Each approach provides benefits and challenges for a government working to ensure broad access to water.

---

65. CRC, *supra* note 59.

66. *Id.* art. 4 (emphasis added).

67. Donoho, *supra* note 54, at 95.

68. Frank B. Cross, *The Error of Positive Rights*, 48 UCLA L. REV. 857, 864 (2001).

69. Rhett B. Larson, *The New Right in Water*, 70 WASH. & LEE L. REV. 2181, 2187–203 (2013).

70. *Id.*

Under a positive rights approach, broad water access is a government priority that necessitates physical and bureaucratic infrastructure to support large scale transportation and distribution of water. The ability to leverage that infrastructure can lead to faster, more agile government responses during outbreaks (e.g., being able to provide free, potable water quickly). As a result, a positive right to water provides both health and environmental benefits; stable access to clean water eases disease prevention and management.<sup>71</sup> The 1918 Spanish flu pandemic,<sup>72</sup> cholera outbreaks in London<sup>73</sup> and Haiti,<sup>74</sup> and the COVID-19 pandemic<sup>75</sup> demonstrate that broad access to clean water is critical to preventing and containing disease. In contrast, systems where broad public water distribution is not a top priority may be less agile, both due to lack of infrastructure and the need to negotiate with private parties. Additionally, a positive right to water requires proactive anti-pollution efforts and responsible resource management by the government, thereby improving the surrounding environment. A nation cannot meet its water provision obligations if its supply is too contaminated for consumption<sup>76</sup> or dries up because of unsustainable environmental policy choices.<sup>77</sup>

Even though a positive right to water brings desirable benefits, it comes with complex barriers to implementation. Government action in service of a positive right to water is expensive and a significant logistical challenge. Policymakers must first determine a sustainable water source. In some instances, water must be redistributed from areas that have abundant water to areas that have little.<sup>78</sup> Those decisions must take into account environmental, sociocultural, and economic impacts that such redistribution would have on people and animals living near the water source. In some places, those considerations might render a positive right to water unsustainable.

---

71. Rhett B. Larson, *Law in the Time of Cholera*, 92 NOTRE DAME L. REV. 1271, 1290–99 (2017) (discussing the “Red Agenda” of water law and policy, which focuses on “preventing and mitigating the outbreak of communicable diseases”).

72. Nancy Tomes, “*Destroyer and Teacher*”: *Managing the Masses During the 1918–1919 Influenza Pandemic*, 125 PUB. HEALTH REPS. 48 (2010).

73. Larson, *supra* note 71, at 1272–73.

74. *Id.* at 1273–74.

75. See generally Aparna Lal, Robyn M. Lucas & Anthony Slatyer, *Water Access as a Required Public Health Intervention to Fight COVID-19 in the Pacific Islands*, LANCET REG’L HEALTH – W. PAC. (July 24, 2020), <https://www.thelancet.com/action/showPdf?pii=S2666-6065%2820%2930006-7>.

76. See Yuliya Vystavna & Dmytro Diadin, *Water Scarcity and Contamination in Eastern Ukraine*, 366 PROC. INT’L ASS’N HYDROLOGICAL SCI. 149, 150 (2015).

77. Peter Brabeck-Letmathe, *The Damage Caused by Water Overuse*, WORLD ECON. F. (Dec. 10, 2014), <https://www.weforum.org/agenda/2014/12/the-damage-caused-by-water-overuse/>.

78. Donoho, *supra* note 54, at 108–10.

Moreover, a positive right to water places the onus of water transportation on the government. The logistical challenge—pumping, treating, and transporting the water—is significant.<sup>79</sup> Water is markedly more expensive to transfer over distances than other resources.<sup>80</sup> To illustrate, if a government needed to deliver water to citizens 100 kilometers from its source, approximately 50% of the wholesale cost of the water would come from the transportation alone, in contrast to 2.5% for natural gas, and 5% for electricity.<sup>81</sup> The costs of building infrastructure and transporting water can have an outsized negative impact on rural areas if recipients are charged directly for transportation as opposed to a general tax fund or state subsidy.<sup>82</sup> This is due to the fact that rural areas have smaller populations (compared with urban areas), meaning that fewer people are available to generate revenue for the water distribution system’s infrastructure construction and maintenance.<sup>83</sup> Further, there is an inverse relationship between the size of a water system and the length of its distribution pipes; smaller rural systems have to spend more per connection to maintain a stable water supply than urban areas, and with a smaller revenue base.<sup>84</sup> In a nation with a positive right to water, funding for rural water systems might be offset by higher water rates in urban areas. Such resource redistribution can build resentment and sap political will to invest in rural infrastructure.<sup>85</sup> These challenges make it difficult to garner the political will necessary to effectuate a positive right to water.

Despite the challenges and costs inherent to a positive right to water, a few countries have adopted this approach.<sup>86</sup> South Africa’s constitution was one of the first to codify a positive right to water.<sup>87</sup> Section 27 of the South African constitution provides that “[e]veryone has the right to have access to . . . sufficient food and water.”<sup>88</sup> However, Section 27 also states the government is only obligated to take reasonable measures to achieve the

---

79. *Id.*

80. Vanessa Casado Perez, *Liquid Business*, 47 FLA. ST. U. L. REV. 201, 215–16 (2019).

81. *Id.* at 216.

82. Faqir Singh Bagi, *Small Rural Communities’ Quest for Safe Drinking Water*, 17 RURAL AM. 40, 40 (2002).

83. *Id.* at 42–43.

84. *Id.* at 40–41.

85. See generally Camille Pannu, *Drinking Water and Exclusion: A Case Study from California’s Central Valley*, 100 CALIF. L. REV. 223, 224–25 (2012) (discussing the challenges associated with rural water provision); Camille Pannu, *Bridging the Safe Drinking Water Gap for California’s Rural Poor*, 24 UC HASTINGS ENV. L.J. 253, 256 (2018) (same).

86. Larson, *supra* note 48, at 182–84 (listing Ecuador, India, and South Africa as examples).

87. Andrew L. Magaziner, *The Trickle Down Effect: The Phiri Water Rights Application and Evaluating, Understanding, and Enforcing the South African Constitutional Right to Water*, 33 N.C. J. INT’L L. 509, 580 (2008).

88. S. AFR. CONST., 1996 ch. 2 § 27(1)(b).

“progressive realisation” of that right.<sup>89</sup> South Africa uses a multi-tiered structure to accomplish this “progressive realisation”; the national government is responsible for managing water resources through various boards, and municipalities are responsible for the actual delivery of water and sanitation services.<sup>90</sup> In interpreting Section 27, the South African Constitutional Court has written that an individual’s right to water is not “a self-standing and independent positive right enforceable irrespective of” the government’s available resources.<sup>91</sup> Rather, South Africans have a right to water, and the government is responsible for “creat[ing] [the physical and economic] mechanisms that enable people to have access to sufficient water.”<sup>92</sup> If South Africa’s resources are unavoidably constrained, the government is still responsible for providing “a plan of action that demonstrates that the full realisation of the right [to water] shall be achieved over time.”<sup>93</sup>

This commitment was put to the test in 2018 when Cape Town, after a three-year drought, was in danger of becoming the first major city in the world whose taps ran dry.<sup>94</sup> To avoid the coming catastrophe, the national Department of Water and Sanitation released a national master plan to the public,<sup>95</sup> and the rest of the government got to work.<sup>96</sup> Through a combination of public education campaigns, aggressive water conservation policies, and much needed rain, Cape Town was able to continue providing water to all residents.<sup>97</sup> Across the country, approximately 93% of South Africans have access to at least basic water services and approximately 76% have access to basic sanitation services.<sup>98</sup>

---

89. *Id.*

90. S. Afr. Hum. Rts. Comm’n, *The Right to Water & Sanitation*, <https://www.sahrc.org.za/home/21/files/SAHRC%20Water%20and%20Sanitation%20revised%20pamphlet%2020%20March%202018.pdf> (last visited Oct. 2, 2021).

91. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at 25 para. 49 (S. Afr.).

92. S. AFR. HUM. RTS. COMM’N, 3RD ECONOMIC AND SOCIAL RIGHTS REPORT 298 (2003), <https://www.sahrc.org.za/home/21/files/Economic%20and%20Social%20Rights%202000.pdf>.

93. *Id.*; see also *Gov’t of the Republic of South Africa v. Grootboom* 2000 (11) (CC) at 31 para. 39 (S. Afr.).

94. William Saunderson-Meyer, *Commentary: In Drought-Hit South Africa, the Politics of Water*, REUTERS (Feb. 5, 2018, 1:15 PM), <https://www.reuters.com/article/us-saundersonmeyer-drought-commentary/commentary-in-drought-hit-south-africa-the-politics-of-water-idUSKBN1FP226>.

95. See generally Trevor Balzer, *National Water & Sanitation Master Plan: Water Security and Water Governance in South Africa*, S. AFR. DEP’T OF WATER & SANITATION (June 8, 2018), <https://agbiz.co.za/uploads/2018-Congress/Trevor.pdf>.

96. *Avoiding a Water Crisis: How Capetown Avoided ‘Day Zero,’* GLOBAL RESILIENCE INST. AT NE. U., <https://globalresilience.northeastern.edu/avoiding-a-water-crisis-how-capetown-avoided-day-zero> (last visited Nov. 4, 2021).

97. *Id.*

98. WHO & UNICEF, PROGRESS ON HOUSEHOLD DRINKING WATER, SANITATION, AND HYGIENE 2000–2017: SPECIAL FOCUS ON INEQUALITIES 102, 122 (2019),

In contrast to the positive water rights approach typified by South Africa, the majority of jurisdictions take a negative rights approach to water. Governments that approach water as a negative right are free from the financial pressures created by an obligation to provide water to all residents. Instead, these governments can choose to spend money building and maintaining water infrastructure, but are not forced to do so.<sup>99</sup> Absent a government obligation to provide water to all residents, wealth determines access, and anyone who cannot afford to pay for water is left behind. Residents without access to water are vulnerable to crises like disease and/or drought.<sup>100</sup>

The United States does not recognize a positive right to water. Instead, it recognizes water rights as property rights, centered around an owner's right to use and to exclude others. While not legally the same as a negative right, the practical effect is much the same. Most rights in the United States are negative rights, called upon as a response to government abuse or to curtail restrictions of personal liberties.<sup>101</sup> Negative rights are foundational to the American legal framework; many of the rights enshrined in the Bill of Rights are negative. The Constitution guarantees freedom *from* several things—Americans are free from government infringement on speech and religious expression, and free from unreasonable government searches, for example.<sup>102</sup> At the same time, the U.S. government does not have to provide citizens with a platform to speak, or churches to worship in. Likewise, the U.S. legal system protects individual property owners' water rights from encroachment, but is under no obligation to provide water itself.

---

<https://washdata.org/sites/default/files/documents/reports/2019-07/jmp-2019-wash-households.pdf>. Ecuador, a nation that recognized a human right to water in its 2008 constitution, has provided 94% of its population with basic water and 88% with basic sanitation as of 2017. *Id.* at 92, 110; *see also* Cristy Clark, *Of What Use is a Deradicalized Human Right to Water?*, 17 HUM. RTS. L. REV. (UK) 231, 252–53 (2017). India, a nation that recognized a human right to water in its constitution has provided 93% of its population with basic water and 60% with basic sanitation as of 2017. *Id.* at 94, 114. Despite the challenges inherent in providing a universal right to water, these nations have demonstrated that it is possible to successfully undertake a positive rights approach to the right to water. Moreover, they have done so with significantly less resources than the United States.

99. Larson, *supra* note 69, at 2184–87.

100. In extreme cases, water scarcity can lead to political instability. *See, e.g.*, Peter H. Gleick, *Water, Drought, Climate Change, and Conflict in Syria*, 6 WEATHER, CLIMATE, & SOC'Y 331, 332–36 (2014); Collin Douglas, *A Storm Without Rain: Yemen, Water, Climate Change, and Conflict*, CTR. FOR CLIMATE & SEC. (Aug. 3, 2016), [https://climateandsecurity.org/wp-content/uploads/2017/11/a-storm-without-rain\\_yemen-water-climate-change-and-conflict\\_briefer-40.pdf](https://climateandsecurity.org/wp-content/uploads/2017/11/a-storm-without-rain_yemen-water-climate-change-and-conflict_briefer-40.pdf); Margaret Suter, *Running Out of Water: Conflict and Water Scarcity in Yemen and Syria*, ATL. COUNCIL (Sept. 12, 2017), <https://www.atlanticcouncil.org/blogs/menasource/running-out-of-water-conflict-and-water-scarcity-in-yemen-and-syria>.

101. Donoho, *supra* note 54, at 105.

102. U.S. CONST. amends. I, IV.



In the United States, water is subject to private ownership, though regulated by public entities; thus, water rights discussions and disputes typically concern property rights, rather than human rights.<sup>103</sup> Further, property rights in water in the United States operate under a decentralized system based primarily on state law, rather than federal law.<sup>104</sup> Even though the Clean Water Act and the Safe Drinking Water Act create water quality protections at the federal level, neither law creates a right to water for residents.<sup>105</sup> Individual state approaches to water property rights generally fall into one of two categories based on geography: riparian regimes in the east and prior appropriation regimes in the west.<sup>106</sup>

Because clean water access in the United States is largely predicated on the ability to pay for it, the number of people without water access can drastically increase during events that cause an economic downturn. From rural California<sup>107</sup> and Appalachia<sup>108</sup> to the inner cities of Baltimore, Cleveland, and Detroit,<sup>109</sup> the unaffordability and unavailability of clean water has been a longstanding problem for millions of disadvantaged Americans. Access to water under a negative rights framework may appear to circumvent thorny arguments and expensive infrastructure spending involved in the positive rights approach, but beneath that veneer of simplicity are cracks for people to fall through. For many, economic hardship is enough to jeopardize continuing access to potable water; they are collateral damage to the American negative rights approach. The COVID-19 pandemic demonstrated that when pushed, American governments can (and do) enact policies that limit the damage—policies that come strikingly close to recognizing a positive right to water.

---

103. However, some scholars have argued that “water should be treated as a ‘constitutive commitment’” (something “that falls short of a constitutional right but that has attained near-constitutional significance” and therefore “worthy of protection through legislation”). See, e.g., Sharmila L. Murthy, *A New Constitutive Commitment to Water*, 36 B.C. J.L. & SOC. JUST. 159, 159–60 (2016).

104. See generally Joseph W. Dellapenna, *The Evolution of Riparianism in the United States*, 95 MARQ. L. REV. 53, 53 (2011).

105. Clean Water Act, 33 U.S.C. § 1251; Safe Drinking Water Act, 42 U.S.C. § 300f; Catarina de Albuquerque (Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation); *Mission to the United States of America*, ¶¶ 8–9, U.N. Doc. A/HRC/18/33/Add.4 (Aug. 2, 2011).

106. Discussed in more detail *infra* notes 183–186 and accompanying text.

107. Pannu, *supra* note 85, at 224–27.

108. Sydney Boles, *Water is Unaffordable for Nearly Half of This Kentucky County’s Residents*, 100 DAYS IN APPALACHIA (Oct. 3, 2019), <https://www.100daysinappalachia.com/2019/10/water-is-unaffordable-for-nearly-half-of-this-kentucky-countys-residents/>.

109. Montag, *supra* note 42, at 31–33.

*B. American Water Rights and COVID-19*

The COVID-19 pandemic tested the limits of the United States' commitment to a negative rights approach to water. Facing a highly contagious virus with the potential to overwhelm the medical capacity of American hospitals, health education campaigns urged the public to “flatten the curve”—slowing the spread of the virus through preventative measures like social distancing and hand hygiene.<sup>110</sup> To combat the spread of COVID-19, the CDC recommended that all individuals “wash [their] hands often with soap and water for at least 20 seconds.”<sup>111</sup> Soap and water are an effective means of combatting the spread of viruses in two ways. First, soap molecules insert themselves into the lipid envelopes of some microbes and viruses, thereby tearing them apart.<sup>112</sup> Once broken, “[e]ssential proteins spill from the ruptured membranes into the surrounding water, killing the bacteria and rendering the viruses useless.”<sup>113</sup> Second, some soap molecules disturb the bonds that permit bacteria and viruses to adhere to surfaces.<sup>114</sup>

While there is not yet data on the reduction of COVID-19 cases attributable to handwashing, studies on the effect of hand hygiene on other viruses underscore its effectiveness. Handwashing can prevent nearly 30% of diarrhea-related illness and nearly 20% of respiratory infections.<sup>115</sup> For individuals with compromised immune systems, handwashing reduces diarrheal illness by 58%.<sup>116</sup> The ability of handwashing to prevent infection and illness increases with frequency; the more an individual washes their hands, the greater the protection.<sup>117</sup> Further, handwashing is more effective

---

110. *Hand-Washing in the Time of COVID-19*, U.C. BERKELEY SOC. SCI. MATRIX (Apr. 13, 2020), <https://matrix.berkeley.edu/research/hand-washing-time-covid-19>.

111. *How to Protect Yourself and Others*, CTRS. FOR DISEASE CONTROL AND PREVENTION, <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html> (last visited Jan. 31, 2022) (“If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol.”). *But see* Ferris Jabr, *Why Soap Works*, N.Y. TIMES (Mar. 13, 2020), <https://www.nytimes.com/2020/03/13/health/soap-coronavirus-handwashing-germs.html> (“On the whole, hand sanitizers are not as reliable as soap. Sanitizers with at least 60 percent ethanol do act similarly, defeating bacteria and viruses by destabilizing their lipid membranes. But they cannot easily remove microorganisms from the skin.”).

112. Jabr, *supra* note 111 (citing Professor Pall Thordarson, acting head of chemistry at the University of New South Wales, who noted, “[soap molecules] act like crowbars and destabilize the whole system”).

113. *Id.*

114. *Id.* (“When you rinse your hands, all the microorganisms that have been damaged, trapped and killed by soap molecules are washed away.”).

115. *Show Me the Science – Why Wash Your Hands*, CTRS. FOR DISEASE CONTROL AND PREVENTION, <https://www.cdc.gov/handwashing/why-handwashing.html#two> (last visited Jan. 31, 2022).

116. *Id.*

117. Elaine Larson et al., *Short- and Long-Term Effects of Handwashing with Antimicrobial or Plain Soap in the Community*, 28 J. CMTY. HEALTH 139, 148 (2003) (“[T]he results of this study

in reducing illness than alcohol-based hand sanitizers.<sup>118</sup> This is consistent with CDC and WHO guidelines, which recommend using hand sanitizer to clean hands only if soap and water are unavailable.<sup>119</sup> Given the ease of transmission of COVID-19, regular and frequent handwashing is necessary to protect against infection.

While the CDC and WHO stressed the importance of frequent handwashing, the contagiousness of COVID-19 required governments to concurrently take drastic steps to slow the spread of the virus. In the United States, schools and businesses were closed, events were canceled, and the population was encouraged to shelter in place.<sup>120</sup> The measures were successful in their goal of curbing transmission rates.<sup>121</sup> However, in doing so, businesses around the country laid off workers, and nearly sixty million Americans filed for unemployment insurance.<sup>122</sup> After achieving a fifty-year record of 3.5% unemployment in February 2020, the pandemic-induced unemployment rate peaked at 14.8% in April 2020,<sup>123</sup> dropping total GDP by a record 35.5%.<sup>124</sup> Unemployment was higher than it had been at any time

---

demonstrate the minimal effect of a single handwash with either plain or antimicrobial soap on the quantity of hand flora. On the other hand, the significant reduction in [microbial] counts after one year of use . . . indicates that sustained and consistent hand hygiene practices significantly reduce microbial counts over time.”).

118. Allison E. Aiello et al., *Effect of Hand Hygiene on Infectious Disease Risk in the Community Setting: A Meta-Analysis*, 98 AM. J. PUB. HEALTH 1372, 1378 (2008) (“This was unexpected given that alcohol-based antiseptics containing 60% to 80% weight per volume have been shown to be effective against a range of viruses and bacteria, including agents that cause diarrhea or respiratory infections.”).

119. *When and How to Wash Your Hands*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://web.archive.org/web/20220112093704/https://www.cdc.gov/handwashing/when-how-handwashing.html> (last updated Aug. 10, 2021); see also *Clean Hands Protect Against Infection*, WHO, [https://web.archive.org/web/20200708082927/https://www.who.int/gpsc/clean\\_hands\\_protection/en/](https://web.archive.org/web/20200708082927/https://www.who.int/gpsc/clean_hands_protection/en/) (last visited July 20, 2020).

120. *Lockdowns, Closures: How is Each US State Handling Coronavirus?*, AL JAZEERA (Apr. 14, 2020), <https://www.aljazeera.com/news/2020/03/emergencies-closures-states-handling-coronavirus-200317213356419.html>.

121. James H. Fowler et al., *Stay-at-Home Orders Associate with Subsequent Decreases in COVID-19 Cases and Fatalities in the United States*, PLOS ONE (June 10, 2021), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0248849>.

122. Jack Kelly, *Jobless Claims: 57.4 Million Americans Have Sought Unemployment Benefits Since Mid-March—Over 1 Million People Filed Last Week*, FORBES (Aug. 20, 2020, 11:13 AM), <https://www.forbes.com/sites/jackkelly/2020/08/20/jobless-claims-574-million-americans-have-sought-unemployment-benefits-since-mid-marchover-1-million-people-filed-last-week/?sh=317c23b66d59>.

123. FALK ET AL., *supra* note 30, at 2, 5.

124. *GDP Now*, FED. RSRV. BANK OF ATLANTA, <https://web.archive.org/web/20200716231255/https://www.frbatlanta.org/cqer/research/gdpnow> (last visited July 16, 2020).

since the Great Depression.<sup>125</sup> In March 2020, Congress passed the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which provided many with a one-time \$1,200 stimulus payment and temporarily expanded unemployment benefits.<sup>126</sup> The Act was designed to “provide emergency assistance and health care response for individuals, families, and businesses affected by the 2020 coronavirus pandemic” and address the staggering number of unemployment claims caused by the closing of nonessential businesses in response to COVID-19.<sup>127</sup> Perhaps assuming the United States would gain control of COVID-19’s spread by the end of summer 2020, the increased unemployment insurance provided by the CARES Act expired on July 31, 2020.<sup>128</sup>

Unfortunately, rather than decreasing over the summer of 2020, the number of COVID-19 cases spiked dramatically and continued to climb.<sup>129</sup> Many states attempted to re-open their economies in late May 2020, and the resulting social contact gave the initial outbreak new life.<sup>130</sup> As a result, some states paused or rolled back their economic reopening while the support provided by the CARES Act simultaneously approached its expiration.<sup>131</sup> For unemployed individuals, the rollbacks made it even more difficult to find replacement employment. For those who went back to work after the reopening, the spike in COVID-19 cases jeopardized their employment security and economic stability. After losing a steady source of income,

---

125. Paul Hannon, *Unemployment Expected to Reach Highest Level Since Great Depression*, WALL ST. J. (July 7, 2020, 5:00 AM), <https://www.wsj.com/articles/unemployment-expected-to-reach-highest-level-since-great-depression-11594112400>.

126. Coronavirus Aid, Relief, and Economic Security (CARES) Act, Pub. L. No. 116-136, § 2201, 134 Stat. 318 (2020) (codified at I.R.C. § 6428). The amount of money that each person received under this legislation is inversely related to their earnings as reported on their most recent tax filing; those who made the least money received the maximum \$1200 payment per adult, and \$500 per dependent. *Id.*

127. S. 516 116th Cong. (2020).

128. 15 U.S.C. § 9023.

129. *Key Updates for Week 34 Ending August 22, 2020*, COVIDVIEW 2 (Aug. 22, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/pdf/covidview-08-28-2020.pdf>; Will Feuer & Nate Rattner, *U.S. Reports Record 67,400 Single-Day Spike of New Coronavirus Cases*, CNBC (July 15, 2020, 10:25 AM), <https://www.cnbc.com/2020/07/15/us-reports-record-67400-single-day-spike-of-new-coronavirus-cases.html>; Will Stone, *U.S. Coronavirus Cases Surpass Summer Peak and Are Climbing Higher Fast*, NPR (Oct. 27, 2020, 10:14 AM), <https://www.npr.org/sections/health-shots/2020/10/27/928062773/u-s-cases-surpass-summer-peak-and-are-climbing-higher-fast>.

130. Lazaro Gamio, *How Coronavirus Cases Have Risen Since States Reopened*, N.Y. TIMES (July 9, 2020), <https://www.nytimes.com/interactive/2020/07/09/us/coronavirus-cases-reopening-trends.html>.

131. Griff Witte, *Time to Shut Down Again? As Coronavirus Cases Surge, a Growing Chorus Makes the Case*, WASH. POST (July 9, 2020), [https://www.washingtonpost.com/national/time-to-shut-down-again-as-coronavirus-cases-surge-a-growing-chorus-makes-the-case/2020/07/09/f0f0a950-c21b-11ea-9fdd-b7ac6b051dc8\\_story.html](https://www.washingtonpost.com/national/time-to-shut-down-again-as-coronavirus-cases-surge-a-growing-chorus-makes-the-case/2020/07/09/f0f0a950-c21b-11ea-9fdd-b7ac6b051dc8_story.html).

many families were forced to make difficult choices about how to allocate limited resources, including whether to pay for utilities, put food on the table, or pay rent.<sup>132</sup> Moreover, given historic occupational segregation that resulted in “workers of color [being] overrepresented in the lowest-paid agricultural, domestic, and service vocations [with] the least job security,” the pandemic’s economic toll disproportionately affected minorities.<sup>133</sup> Given that water access in the United States is contingent on ability to pay, unemployment and loss of income threatened consumer access to water at a time when hand hygiene was critical to slow the spread of the virus. As the next Part discusses, this perfect storm galvanized states to take extraordinary steps to increase water access, edging the United States toward a positive right to water.

## II. STATE ACTION TO INCREASE WATER ACCESS

In response to the rapid spread of COVID-19, states took action to increase water access over the course of early-to-mid 2020. Within that span of time—starting at the end of January 2020, when COVID-19 appeared in the United States, and continuing through early May, when the initial wave of the virus began to subside—thirty-three states adopted water utility disconnection moratoria.<sup>134</sup> Temporary suspension of water utility disconnection in response to the pandemic shifted states toward actualizing positive water rights; by prohibiting water utility providers from terminating service, the government abandoned its consumer-driven approach and instead proactively ensured, at least temporarily, that residents could access clean water.<sup>135</sup> Ultimately, utility disconnection moratoria successfully

---

132. This is similar to the “heat or eat” phenomenon wherein low-income families must make “stark choices” in response to increased fuel expenditures. Jayanta Bhattacharya et al., *Heat or Eat? Cold Weather Shocks and Nutrition in Poor American Families* 20 (Nat’l Bureau of Econ. Rsch., Working Paper No. 9004, 2002), [https://www.nber.org/system/files/working\\_papers/w9004/w9004.pdf](https://www.nber.org/system/files/working_papers/w9004/w9004.pdf). “We find that both rich and poor families increase fuel expenditures in response to unusually cold weather . . . . At the same time, poor families reduce food expenditures by roughly the same amount as the increase in fuel expenditures, while rich families increase food expenditures.” *Id.* at 2.

133. Connor Maxwell & Danyelle Solomon, *The Economic Fallout of the Coronavirus for People of Color*, CTR. FOR AM. PROGRESS (Apr. 14, 2020, 9:20 AM), <https://www.americanprogress.org/issues/race/news/2020/04/14/483125/economic-fallout-coronavirus-people-color/>.

134. *State Response Tracker*, NAT’L ASS’N REGUL. UTIL. COMM’RS, <https://www.naruc.org/compilation-of-covid-19-news-resources/state-response-tracker/> (last updated Mar. 23, 2021).

135. *Id.*

reduced the rate of COVID-19 infections by nearly 4% and mortality by more than 7%.<sup>136</sup>

The moratoria provide a foundation upon which positive water rights can be advanced in the future. This Part reports the results of the authors' statistical analysis. The goal of this analysis is to determine why governments adopted COVID-19 water utility disconnection moratoria. It begins with an overview of state water disconnection moratoria before delving into statistical analysis to understand the factors that motivate state action.

Within individual states, moratoria on water utility disconnections were ordered either through public utility commissions ("PUCs") or as an executive order from governors.<sup>137</sup> PUCs play an important role in whether a state enacts a moratorium on any public utility. PUCs either enacted the moratorium through their own delegated powers or advised governors on whether to enact a moratorium through executive order.<sup>138</sup>

Of the thirty-three jurisdictions that enacted moratoria, the majority included language stating that the moratoria would be in effect for the duration of the state's declared state of emergency.<sup>139</sup> All of the moratoria forbade providers from terminating water service, though some went further, directing utility providers to return service to those that had previously been disconnected for nonpayment.<sup>140</sup> Almost every state that adopted a moratorium included additional language that instructed utility providers to offer reasonable repayment options for customers and encouraged these customers to reach out to their utility providers to discuss repayment.<sup>141</sup>

---

136. Kay Jowers et al., *Housing Precarity & the COVID-19 Pandemic: Impacts of Utility Disconnection and Eviction Moratoria on Infections and Deaths Across US Counties* 1 (Nat'l Bureau of Econ. Rsch., Working Paper No. 28394, 2021), <https://www.nber.org/papers/w28394>.

137. See *State Response Tracker*, *supra* note 134.

138. See, e.g., Ky. P.U.C. Order No. 2020-00085 (Sept. 21, 2020) (PUC used their delegated powers). But see, e.g., Colo. Exec. Order No. D 2020 012 (Mar. 20, 2020), [https://www.colorado.gov/governor/sites/default/files/inline-files/D%202020%20012%20Order%20Limiting%20Evictions%2C%20Foreclosures%2C%20and%20Public%20Utility%20Disconnections\\_0.pdf](https://www.colorado.gov/governor/sites/default/files/inline-files/D%202020%20012%20Order%20Limiting%20Evictions%2C%20Foreclosures%2C%20and%20Public%20Utility%20Disconnections_0.pdf) (governor was advised to do so via executive order).

139. *State Response Tracker*, *supra* note 134.

140. *Id.* According to the moratoria found on the National Association of Regulatory Utility Commissioner's State Response Tracker, the original moratoria of the following states required that utility providers reconnect water services for those that had previous disconnections: Alaska, Arkansas, California, Colorado, Connecticut, Hawaii, Massachusetts, Michigan, and Tennessee. *Id.*

141. See, e.g., N.H. Emergency Order No. 3 Pursuant to Exec. Order No. 2020-04 para. 3 (Mar. 17, 2020), <https://www.governor.nh.gov/sites/g/files/ehbemt336/files/documents/emergency-order-3.pdf> ("At the end of the State of Emergency, customers having arrearages accrued during the State of Emergency shall be provided the opportunity to make a reasonable payment arrangement over no less than a six-month period and shall not be charged any fees for late payment for arrearages accrued during the State of Emergency."); Ark. P.U.C. Order No. 1 (Apr. 10, 2020) (writing on Docket No. 20-012-A) ("The Commission encourages Utilities to offer reasonable payment

While the enacted moratoria prohibited service disconnection, they did not waive the obligation to repay.

Analysis of moratoria adoption reveals geographic trends.<sup>142</sup> Within the Northeast Region,<sup>143</sup> eight out of nine states<sup>144</sup> enacted a moratorium. The Northeast had the greatest share of states that enacted a moratorium. While a majority of states in other regions enacted moratoria, in contrast to the Northeast, the majorities within those regions were slight. In the Southern Region,<sup>145</sup> ten out of sixteen states enacted a moratorium and six did not.<sup>146</sup> In the Midwest Region,<sup>147</sup> seven out of twelve states halted water disconnections through the use of a moratorium.<sup>148</sup> Finally, in the Western Region,<sup>149</sup> eight out of thirteen states enacted a moratorium on water disconnections.<sup>150</sup> Map 1 displays the states that adopted moratoria by early May 2020 in dark blue.

---

arrangements once the prohibition on disconnections is lifted.”); Haw. P.U.C. Order No. 37125 (May 4, 2020) (“The Commission encourages Utilities to offer payment plans or other reasonable arrangements to customers once the suspension of disconnections or terminations of service are lifted.”). Some states, such as Iowa, Kansas, and Maryland, were vague about repayment options or did not mention repayment options in their orders.

142. *Census Regions and Divisions of the United States*, U.S. CENSUS BUREAU, [https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us\\_regdiv.pdf](https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf) (last visited Sept. 10, 2021) [hereinafter *Census Regions*]. The United States Census Bureau broadly classifies the geographic regions of the United States as Northeast, South, Midwest, and West. *Id.*

143. *Id.* These states include Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. *Id.*

144. Northeast Region states that enacted moratoria: Connecticut, Maine, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, and Vermont. Northeast Region states that did not enact a moratorium: New Jersey (note, however, that New Jersey enacted a moratorium after the time of this data collection on August 15, 2020). See *State Response Tracker*, *supra* note 134.

145. *Census Regions*, *supra* note 142. These states include Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. *Id.*

146. Southern Region states that enacted moratoria: Arkansas, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. Southern Region states that did not enact moratoria: Alabama, Delaware, Florida, Georgia, Oklahoma, and West Virginia. *State Response Tracker*, *supra* note 134.

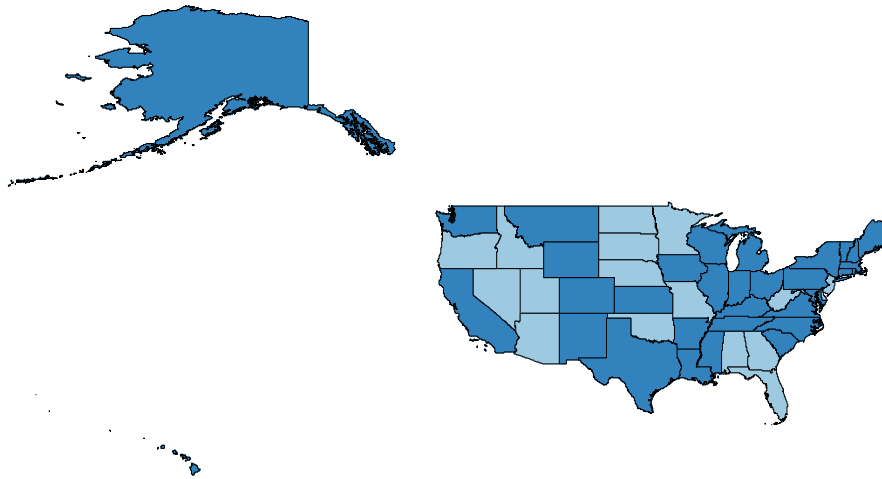
147. *Census Regions*, *supra* note 142. These states include Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. *Id.*

148. Midwest Region states that enacted moratoria: Illinois, Indiana, Iowa, Kansas, Michigan, Ohio, and Wisconsin. Midwest Region states that did not enact moratoria: Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. *State Response Tracker*, *supra* note 134.

149. *Census Regions*, *supra* note 142. These states include Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. *Id.*

150. Western Region states that enacted moratoria: Alaska, California, Colorado, Hawaii, Montana, New Mexico, Washington, and Wyoming. Western Region states that did not enact moratoria: Arizona, Idaho, Nevada, Oregon, and Utah. *State Response Tracker*, *supra* note 134.

Map 1: States with Water Disconnection Moratoria by May 2020



#### A. Potential Factors Motivating Adoption of Moratoria

The goal of this regression analysis is to examine causal factors of state adoption of COVID-19-related water utility disconnection moratoria. This entails identifying potential explanations that could influence state adoption of water disconnection moratoria as well as including those explanations within our statistical regression analysis. This Section begins by briefly summarizing potential explanations.

One set of possible factors influencing adoption of moratoria pertains to a state's level of poverty. Increased poverty in a state should correspond with a reduced capacity to pay for water and a concomitant increased likelihood of a state issuing a water disconnection moratorium. There are four pieces of data that would reveal this potential linkage: (1) unemployment claims; (2) the percentage of the population receiving Temporary Assistance to Needy Families (TANF) benefits; (3) per capita income; and (4) diversity.

The *unemployment claims* data is based on the United States Department of Labor's "Unemployment Insurance Weekly Claims Data."<sup>151</sup> Higher unemployment claims indicate greater economic stress on a state's residents. The *TANF benefits* data was gathered from the United States Department of Health and Human Services.<sup>152</sup> TANF provides material benefits to households with children whose income falls beneath a certain

---

151. *Unemployment Insurance Weekly Claims Data*, U.S. DEP'T OF LABOR, <https://oui.doleta.gov/unemploy/claims.asp> (last updated Jan. 12, 2022).

152. *TANF Caseload Data 2019*, U.S. DEP'T OF HEALTH & HUM. SERVS. (Aug. 25, 2020), <https://www.acf.hhs.gov/ofa/resource/tanf-caseload-data-2019>.



threshold.<sup>153</sup> Unlike unemployment claims, which can include individuals who are quite wealthy, TANF data is more likely to capture the number of a state's residents who are chronically poor.

Data on states' *per capita income*, indicating the general amount of wealth in a state's population, comes from the United States Department of Commerce's Bureau of Economic Analysis.<sup>154</sup> State per capita income information was recorded for the fourth quarter of 2019, and the variable was standardized across states (thereby allowing for better cross-state comparison) by capturing each state's income as a percentage of the national income level.

Finally, the *diversity* of a state, defined as the difference in the percentage of a state's white and non-white population, was provided by the Kaiser Family Foundation and the United States Census Bureau.<sup>155</sup> A higher non-white population may correspond with greater poverty and an increased likelihood of need for a state adopting a water moratorium. At the same time, however, minorities might have less political efficacy, translating into an inverse relationship between state diversity and the likelihood of a state adopting a moratorium.

With poverty factors accounted for, political considerations are the next possible explanation for the decision to enact moratoria. The decision to enact a water moratorium must ultimately be made by politicians, and is therefore subject to potential influence by political factors. This analysis accounts for political considerations by using the percentage of a state's presidential vote that was received by Donald Trump in the 2016 election, as

---

153. *Temporary Assistance for Needy Families (TANF)*, U.S. DEP'T OF HEALTH & HUM. SERVS.: ADMIN. FOR CHILDREN & FAMILIES, <https://www.acf.hhs.gov/ofa/programs/tanf> [<https://web.archive.org/web/20220108172802/https://www.acf.hhs.gov/ofa/programs/temporary-assistance-needy-families-tanf>] (last updated Nov. 17, 2020) ("The Temporary Assistance for Needy Families (TANF) program provides state and territories with flexibility in operating programs designed to help low-income families with children achieve economic self-sufficiency."); *State TANF Data and Reports*, U.S. DEP'T OF HEALTH & HUM. SERVS., <https://www.acf.hhs.gov/ofa/programs/tanf/data-reports> (last updated Aug. 25, 2021) ("States receive block grants to design and operate programs that accomplish the purposes of the TANF program.").

154. *State Annual Personal Income, 2019 (Preliminary) and State Quarterly Personal Income, 4th Quarter 2019*, U.S. BUREAU OF ECON. ANALYSIS (Mar. 24, 2020), <https://www.bea.gov/news/2020/state-annual-personal-income-2019-preliminary-and-state-quarterly-personal-income-4th>. This data is examined because rich states may be more willing to afford moratoria but poor states' residents may be more likely to need moratoria.

155. *2019 National and State Population Estimates*, U.S. DEP'T OF HEALTH & HUM. SERVS., <https://www.census.gov/newsroom/press-kits/2019/national-state-estimates.html> (last updated Dec. 30, 2019) (Under the "Datasets" heading, click "Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2010 to July 1, 2019"); *Population Distribution by Race/Ethnicity*, KAISER FAMILY FOUND. (2019), <https://www.kff.org/other/state-indicator/distribution-by-raceethnicity/>.

provided by the Federal Election Commission.<sup>156</sup> A higher level of state vote share earned by Trump might correspond with reduced support for redistributive policies,<sup>157</sup> like water utility disconnection moratoria, which temporarily force utility providers to provide water access regardless of a consumer's ability to pay.

After considering poverty and political factors, the model finally considers institutional factors. States have different institutional milieus through which water connection administration occurs, and these different institutional parameters can influence the likelihood of a state issuing a water disconnection moratorium. The model recognizes two major categories: (1) the selection process for PUC commissioners; and (2) public vs. private ownership of utilities. Whether a state's public utilities commissioners are *elected* or *appointed* is a significant consideration at the state level. Direct election of commissioners creates a situation where low price-setting is maximally important, as voters prioritize low prices over other utility-related regulatory issues.<sup>158</sup> Needing to set low prices for voters may reduce the ability of elected commissioners to impose moratoria since voters who do not face disconnection may be unwilling to shoulder water fees while other residents are allowed to defer payment. Lastly, the percentage of a state's water districts that are *privately owned* may influence that state's likelihood of adopting a disconnection moratorium, as private enterprises may be less likely than public entities to stomach deferred payment from customers.<sup>159</sup> Moreover, for the purposes of constructing this variable, water districts that are jointly owned by private and public ventures are considered to be private.

The following table provides a list of the variables utilized in the statistical analysis. The first variable is the dependent variable that we seek to explore: whether or not a state enacts a water disconnection moratorium. The other variables are potential explanations influencing whether a state enacts a water disconnection moratorium.

---

156. FED. ELECTION COMM'N, FEDERAL ELECTIONS 2016: ELECTION RESULTS FOR THE U.S. PRESIDENT, THE U.S. SENATE AND THE U.S. HOUSE OF REPRESENTATIVES 6 (2017), <https://www.fec.gov/resources/cms-content/documents/federalections2016.pdf>.

157. See generally Stephen Ansolabehere & James M. Snyder, Jr., *Party Control of State Government and the Distribution of Public Expenditures*, 108 SCANDINAVIAN J. ECON. 547, 547 (2006).

158. Timothy Besley & Stephen Coate, *Elected Versus Appointed Regulators: Theory and Evidence*, 1 J. EUR. ECON. ASS'N 1176, 1177 (2003).

159. *SDWIS Federal Reports Search*, U.S. EPA (May 19, 2017), <https://ofmpub.epa.gov/apex/sfdw/f?p=108:200:::NO:::>

Table 1: Variables Used in Analysis

VARIABLE NAME	DESCRIPTION
Moratorium Adoption	Did a state adopt a moratorium that restricted water districts from disconnecting water utilities? 0 = no and 1 = yes.
Unemployment Claims	Initial state unemployment claims per week.
TANF	Percentage of the state's residents that receive Temporary Assistance for Needy Families (TANF).
Per Capita Income	The standardized income of individuals within the state. This is the percentage of state per capita income of the national per capita income.
Diversity	The percent of non-white citizens within a state.
Trump	The percent of the presidential vote in 2016 that went to Donald Trump by state.
Elected/ Appointed	Signifies whether a public utility commission's members are appointed by the governor/legislature or if they are elected by the people. 0 = elected and 1 = appointed.
Private Ownership	The percent of water districts that are owned by non-public entities (includes entities jointly owned by public and private interests).

### B. Data Analysis

Multivariate regression was used to analyze the relationships between the dependent variable—whether a state adopted a moratorium—and each of the independent variables discussed in Section II.A. Multivariate regression is a standard analytical tool used to estimate the association between the dependent variable and various independent variables.<sup>160</sup> This technique uncovers how much a given independent variable influences the dependent variable in relation to other independent variables, and the certainty of the relationship (certainty describes how much randomness could explain the statistical results). This Article's specific analysis utilized a technique called the logistic estimator.<sup>161</sup>

160. See generally WILLIAM H. GREENE, *ECONOMETRIC ANALYSIS* ch. 2 (8th ed. 2018).

161. J. SCOTT LONG & JEREMY FREESE, *REGRESSION MODELS FOR CATEGORICAL DEPENDENT VARIABLES USING STATA 8* (3d ed. 2014). The logistic estimator is well-suited for situations where the dependent variable is binary (adopt versus do not adopt a moratorium) and estimated

In total, the analysis examined 601 observations across the 50 states, with 568 occurrences of non-adoption and 33 occurrences of adoption.<sup>162</sup> The analysis tracked each state weekly for the entirety of the study period, and inferences were made about what makes the states that adopted moratoria different from those that did not. In estimating a multivariate logistic regression with these 601 observations, only one explanation—unemployment claims—is associated with a statistically significant increase in the likelihood that a state adopted a water disconnection moratorium.<sup>163</sup> In other words, no variable other than unemployment is statistically likely to lead to adoption of a moratorium. A positive relationship simply means that higher amounts of initial weekly unemployment claims correspond to a greater likelihood of a state adopting a water disconnection moratorium. Figure 1 visualizes this relationship by plotting how increases in unemployment influence the probability that a state adopts a water disconnection moratorium.

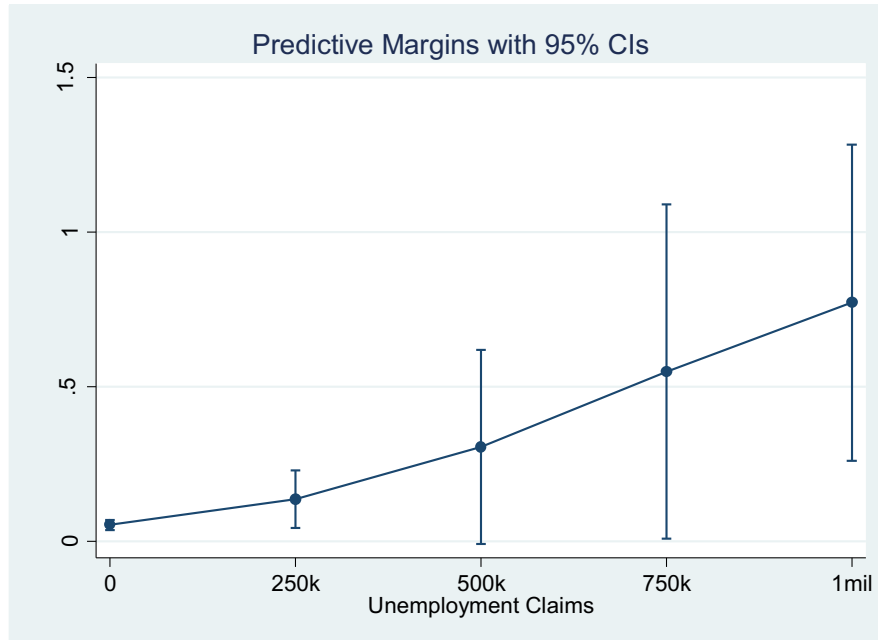
---

relationships give us a sense of what makes adoption more likely, with a positive value indicating greater likelihood and a negative value indicating lesser likelihood. *Id.*

162. The collected data follows what is called an event history format, a health sciences method that has been adopted by the social sciences. In the event history format, each state has an opportunity to adopt a moratorium at the beginning of the timeframe of the analysis and receives a 0 (corresponding to not adopting a moratorium when it had a chance to do so) for each week in which it does not adopt a moratorium. When a state adopts a moratorium, it receives a 1 (corresponding to adopting a moratorium when it had a chance to do so) for the week in which it made this action. For the following week and every week thereafter following that state's adoption of the moratorium, that state is excluded from the analysis. This is because the state has already adopted a moratorium, so we cannot credibly say that it still has the opportunity to adopt a moratorium. Of course, those states that still have not adopted moratoria remain in the analysis and are similarly excluded in the week(s) following their adoptions (if they choose to do so).

163. This is based on a standard statistical critical value (or “p-value”) threshold of less than 1%. This means that there is less than a 1% chance that the estimated relationship was obtained through chance or randomness.

Figure 1: How Unemployment Claims Influence Water Disconnection Moratorium Adoption



The figure above displays the number of initial weekly unemployment claims on the x-axis and the probability of a state adopting a water disconnection moratorium on the y-axis. Increased weekly unemployment claims are associated with an increased likelihood of a state adopting a water disconnection moratorium. We find that policymakers sometimes issue moratoria in order to help disadvantaged segments of the public. However, the fact that unemployment influences moratoria decision-making while other poverty-related variables do not (e.g., TANF) suggests that policymakers are more attuned to sudden shifts in need among the general population than need among the chronically disadvantaged.<sup>164</sup>

### III. CONSTITUTIONAL LIMITATIONS ON A POSITIVE RIGHT TO WATER

The ability of individual jurisdictions to move toward a positive right to water by enacting utility disconnection moratoria is predicated on a state's

164. A caveat here is that social science uses the language of probability; thus, the result suggests that there is greater probability of an association between unemployment and moratorium adoption (i.e., greater unemployment increases the likelihood of moratorium adoption) than there is of an association between the other variables (e.g., TANF or diversity) and moratorium adoption.

valid exercise of its police powers.<sup>165</sup> Chief Justice Taney described state police powers as “nothing more or less than the powers of government inherent in every sovereignty to the extent of its dominions.”<sup>166</sup> The scope of the police powers is subject to ongoing debate among judges and academics alike.<sup>167</sup> One interpretation of the police power is broad, comprising the entire panoply of powers remaining with the states after the passage of the Constitution.<sup>168</sup> Under this framework, the police power is simply another name for a state’s ability to govern itself, in essence, a state’s “sovereignty.”<sup>169</sup> Another interpretation defines the police power “as the authority to provide for the public health, safety, and morals.”<sup>170</sup> Under both frameworks, the police power grants a state the authority to regulate essential public utilities, like water, during a pandemic. While police powers provide jurisdictions with wide latitude to enact policies in the interest of health, safety, and welfare, the ability of policymakers to expand the right to water remains subject to limitations imposed by the Fifth Amendment’s prohibition on taking private property for public use without just compensation and the prohibition against interference with private contracts in Article I of the Constitution.

#### A. *The Takings Clause*

The Takings Clause of the Constitution prevents the government from seizing private property for public use without just compensation.<sup>171</sup> Takings law is derived from eminent domain, “the inherent power of the sovereign to take private property, as principally constrained by the ‘public use’ and ‘just compensation’ prerequisites of the Takings Clause.”<sup>172</sup> However, “not every

---

165. See RICHARD A. EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* 107 (1985) (defining police powers as “those grants of power to the federal and state government that survive the explicit limitations found in the Constitution”); *Gibbons v. Ogden*, 22 U.S. 1, 203 (1824) (“[T]hat immense mass of legislation, which embraces every thing within the territory of a State, not surrendered to the general government: all which can be most advantageously exercised by the States themselves. Inspection laws, quarantine laws, health laws of every description, as well as laws for regulating the internal commerce of a State, and those which respect turnpike roads, ferries, &c., are component parts of this mass.”).

166. *Thurlow v. Massachusetts*, 46 U.S. (5 How.) 504, 583 (1847).

167. For a more detailed overview of police power, see Santiago Legarre, *The Historical Background of the Police Power*, 9 UNIV. PA. J. CONST. L. 745, 747 (2007).

168. See generally D. Benjamin Barros, *The Police Power and the Takings Clause*, 58 U. MIA. L. REV. 471, 472 (2004).

169. *Id.* at 475–76 (noting that at the time the Constitution was drafted, courts and commentators spoke broadly regarding states’ powers to promote public justice or enact regulations, and the term “internal police” described state sovereignty during the constitutional debates).

170. *Barnes v. Glen Theatre, Inc.*, 501 U.S. 560, 569 (1991).

171. U.S. CONST. amend. V.

172. Robert Meltz, *Takings Law Today: A Primer for the Perplexed*, 34 *ECOLOGY L.Q.* 307, 310 (2007) (citing *United States v. Carmack*, 329 U.S. 230, 241–42 (1946)).

destruction or injury to property by governmental action has been held to be a ‘taking’ in the constitutional sense.”<sup>173</sup> Describing the purpose of the Takings Clause, Justice Hugo Black stated that the “Fifth Amendment’s guarantee . . . [is] designed to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.”<sup>174</sup>

At the heart of Fifth Amendment analysis is a need to first define the nature of the taking and the type of private property at issue. Eminent domain is the classic example of a land use taking.<sup>175</sup> In eminent domain cases, “[t]he government effects a physical taking only where it requires the landowner to submit to the physical occupation of his land.”<sup>176</sup> For example, a government may take title to a property to construct a highway, take possession of a mine owned by a private company,<sup>177</sup> or appropriate private land to build a border wall. In each instance, the government affects a direct appropriation or permanent physical occupation. These actions—appropriation or occupation—per se require compensation under the Fifth Amendment.<sup>178</sup> Additionally, “regulatory actions that are functionally equivalent to the classic taking in which the government directly appropriates private property or ousts the owner from his domain”<sup>179</sup> require compensation.<sup>180</sup> There are

---

The power of eminent domain is essential to a sovereign government. If the United States has determined its need for certain land for a public use that is within its federal sovereign powers, it must have the right to appropriate that land. Otherwise, the owner of the land, by refusing to sell it or by consenting to do so only at an unreasonably high price, is enabled to subordinate the constitutional powers of Congress to his personal will. The Fifth Amendment, in turn, provides him with important protection against abuse of the power of eminent domain by the Federal Government.

*Carmack*, 329 U.S. at 236–37.

173. *Armstrong v. United States*, 364 U.S. 40, 48 (1960).

174. *Id.* at 49.

175. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 537 (2005) (“The paradigmatic taking requiring just compensation is a direct government appropriation or physical invasion of private property.”).

176. *Yee v. City of Escondido*, 503 U.S. 519, 527 (1992) (emphasis omitted). The *Yee* Court noted that a physical taking also occurs, and “the Takings Clause generally requires compensation,” when the government actually takes title to the subject property. *Id.* at 522. *See also* *United States v. Causby*, 328 U.S. 256, 261–62 (1946) (discussing how a non-physical easement created by use of airspace above private property could be a taking if it were permanent).

177. *See generally* *United States v. Pewee Coal Co.*, 341 U.S. 114, 115 (1951).

178. *See, e.g., Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 426–27 (1982) (“When faced with a constitutional challenge to a permanent physical occupation of real property, this Court has invariably found a taking.”).

179. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 539 (2005).

180. *Yee*, 503 U.S. at 522–23 (“[W]here the government merely regulates the use of property, compensation is required only if considerations such as the purpose of the regulation or the extent to which it deprives the owner of the economic use of the property suggest that the regulation has unfairly singled out the property owner to bear a burden that should be borne by the public as a whole.”).

two categories of regulatory takings that per se require compensation under the Fifth Amendment: (1) a physical taking or appropriation “where government requires an owner to suffer a permanent physical invasion of her property”;<sup>181</sup> and (2) a per se “total taking” that eliminates the economic use or value of private land.<sup>182</sup>

Applying this takings framework to a positive right to water first requires an understanding of water property law. While a full discussion of water property law is beyond the scope of this Article, a general overview is instructive. Water property law in the United States developed along two tracks. To the east of Kansas City, where water is abundant, regulated riparian rights emerged; to the west, where water is a scarce resource, water is regulated under the doctrine of appropriative rights.<sup>183</sup> Under the eastern riparian view, in most states water use is regulated by time-limited permits, and the water must be put to a “reasonable use.”<sup>184</sup> In contrast, under the western appropriative rights approach, western state agencies administer water rights “for the sole purpose of enforcing the previously defined property rights.”<sup>185</sup> But for the fact that the water rights are non-transferable, this system operates very similarly to the organization of private property.<sup>186</sup> In these jurisdictions, “the public owns the water—that is, the physical molecules themselves—while private appropriators possess ‘usufructuary’ interests in the water.”<sup>187</sup>

The usufructuary nature of private water interests is significant for takings analysis. As Professor John D. Echeverria notes, “the per se physical takings theory is especially inapt in takings cases involving water because a water-right holder has neither a legal right to the physical molecules themselves nor a legal right to exclude others from using the water.”<sup>188</sup> As

---

181. *Lingle*, 544 U.S. at 538.

182. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1017–19 (1992) (“[R]egulations that leave the owner of land without economically beneficial or productive options for its use . . . carry with them a heightened risk that private property is being pressed into some form of public service under the guise of mitigating serious public harm.”).

183. Dellapenna, *supra* note 104, at 53–54; A few states developed along a different, common law track (e.g., Alabama and Tennessee). For detailed overview of water law, see ROBERT E. BECK, *WATERS AND WATER RIGHTS*; A. DAN TARLOCK, *LAW OF WATER RIGHTS & RESOURCES*.

184. Dellapenna, *supra* note 104, at 87–88 (“Upon expiration of a permit, the continued reasonableness of the use is reexamined, introducing a desirable flexibility into the development, use, and protection of water resources. Regulated riparian statutes also include numerous provisions for the protection of the public interest.”).

185. *Id.* at 54.

186. *Id.*

187. John D. Echeverria, *Is Regulation of Water a Constitutional Taking?*, 11 VT. J. ENV'T L. 579, 591 (2010); see also *Eddy v. Simpson*, 3 Cal. 249, 252 (1853) (“[T]he right of property in water is usufructuary, and consists not so much of the fluid itself as the advantage of its use. . . . The right is not in the corpus of the water, and only continues with its possession.”) (emphasis omitted).

188. Echeverria, *supra* note 187, at 592.



such, the regulatory takings analysis is appropriately applied in instances where a regulation changes *how* a private party uses water rights. Thus, discussing regulatory takings is essential to understand both the limits of American state and federal governments' ability to provide water, and how much more governments could do to enable broad water access.

### 1. Regulatory Takings and Water Use

If a regulation does not constitute a physical invasion of the property or completely eliminate the economic use of a property, but nevertheless invites concern that some people are being asked to bear an unfair burden, then the balancing test set forth in *Penn Central Transportation Co. v. City of New York*<sup>189</sup> ("the *Penn Central* test") is used.<sup>190</sup> In *Penn Central*, the Court developed a multi-factor balancing test to determine whether a partial taking necessitated compensation under the Fifth Amendment. The Court articulated three factors: (1) economic impact on the property owner; (2) the extent to which the regulation interfered with distinct<sup>191</sup> investment-backed expectations;<sup>192</sup> and (3) character<sup>193</sup> of the governmental action.<sup>194</sup> All elements of the *Penn Central* test must be considered; no single factor is

---

189. 438 U.S. 104, 123 (1978).

190. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538 (2005).

191. Meltz, *supra* note 172, at 330 n.150 (noting "the majority of Supreme Court takings decisions since *Penn Central* use [the term 'reasonable' rather than 'distinct']. The Court has never explained its alternations between the two terms. . . . 'Distinct' suggests a subjective standard. 'Reasonable' . . . redirected the inquiry toward the appropriateness of the plaintiff's expectations, particularly in the context of the regulatory landscape at the time the property was acquired.").

192. Essentially, the second prong asks whether the enactment of "unanticipated change in regulations" "erode[s] economic viability of the investment in the whole property." William W. Wade, "Sophistical and Abstruse Formulas" Made Simple: Advances in Measurement of *Penn Central*'s Economic Prongs and Estimation of Economic Damages in Federal Claims and Federal Circuit Courts, 38 URB. LAW. 337, 349 (2006). See *Palazzolo v. Rhode Island*, 533 U.S. 606, 633 (2001) (O'Connor, J., concurring) ("Today's holding does not mean that the timing of the regulation's enactment relative to the acquisition of title is immaterial to the *Penn Central* analysis. . . . Further, the regulatory regime in place at the time the claimant acquires the property at issue helps to shape the reasonableness of those expectations."); *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Plan. Agency*, 535 U.S. 302, 336 (2002) (adopting Justice O'Connor's concurrence in dicta); see also *Appollo Fuels, Inc. v. United States*, 381 F.3d 1338, 1349 (Fed. Cir. 2004); *Concrete Pipe & Prods. of Cal., Inc. v. Constr. Laborers Pension Trust*, 508 U.S. 602, 645 (1993) ("[T]hose who do business in the regulated field cannot object if the legislative scheme is buttressed by subsequent amendments to achieve the legislative end.") (quoting *FHA v. The Darlington, Inc.*, 358 U.S. 84 (1958)).

193. A court is less likely to find a taking "when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good." *Penn Cent.*, 438 U.S. 104, 124 (1978). Furthermore, the *Penn Central* Court recognized that laws designed to promote the general welfare "commonly burden[]" some property owners more than others. *Id.* at 133-34.

194. *Id.* at 124.

dispositive.<sup>195</sup> However, despite the Court's articulated multi-part test, partial regulatory takings are "essentially ad hoc, factual inquiries."<sup>196</sup> The *Penn Central* analysis "turns in large part, albeit not exclusively, upon the magnitude of a regulation's economic impact and the degree to which it interferes with legitimate property interests."<sup>197</sup> The impact must be more than some diminution in value arising from a regulation.<sup>198</sup> Even if a regulation deprives a property owner of the land's "highest and best use," it is not, without more, a taking that requires compensation.<sup>199</sup> The Supreme Court has not articulated a percentage threshold beyond which there is a *Penn Central* taking. The Court of Federal Claims, which possesses exclusive jurisdiction over all takings claims against the federal government in excess of \$10,000,<sup>200</sup> notes that "several Supreme Court decisions suggest that diminutions in value approaching 85 to 90 percent do not necessarily dictate the existence of a taking."<sup>201</sup> There is, however, variability. Some state courts have found a taking when there was merely a 40% diminution in value.<sup>202</sup>

The categories of regulatory takings that per se require just compensation under the Fifth Amendment as well as the *Penn Central* ad hoc analysis are concerned with takings that will endure for the foreseeable future. In contrast, in *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*,<sup>203</sup> the Court considered whether a regulation imposing a thirty-two month land-use moratorium constituted a taking.<sup>204</sup> The court held that moratoria, even when they eliminate any economic use of a property, are subject to the *Penn Central* test because they are

---

195. *Lingle*, 544 U.S. at 538–39.

196. *Penn Cent.*, 438 U.S. at 124; *Tahoe-Sierra Pres. Council, Inc.*, 505 U.S. at 326 ("In the decades following [*Penn Central*], we have 'generally eschewed' any set formula for determining how far is too far, choosing instead to engage in 'essentially ad hoc, factual inquiries.'").

197. *Lingle*, 544 U.S. at 540.

198. See J. Gregory Sidak & Daniel F. Spulber, *Deregulatory Takings and Breach of the Regulatory Contract*, 71 N.Y.U. L. REV. 851, 943 (1996) (discussing "Justice Holmes's remark in *Pennsylvania Coal* that government 'hardly could go on' if made to compensate every diminution in value arising from its regulation").

199. Meltz, *supra* note 172, at 335; see *Penn Central*, 438 U.S. at 125.

200. Meltz, *supra* note 172, at 312 (citing 28 U.S.C. §§ 1346(a)(2), 1491(a)(1) (2007)).

201. *Brace v. United States*, 72 Fed. Cl. 337, 357 (2006). While this case was not analyzed under the *Penn Central* factors, it is noteworthy that "the Supreme Court held that a diminution of 93.7 percent did not constitute a categorical takings [sic]." *Id.* (citing *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027–31 (1992)). See also *id.* at 357 n.31 (citing *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926) (no taking despite 75% diminution); *Hadacheck v. Sebastian*, 239 U.S. 394 (1915) (no taking despite 87.5% diminution)).

202. Meltz, *supra* note 172, at 335 n.191 (citing *San Antonio v. El Dorado Amusement Co.*, 195 S.W.3d 238, 247 (Tex. Ct. App. 2006) (40% loss in rental income from rezoning supports taking)).

203. 535 U.S. 302 (2002).

204. *Id.* at 306.

temporary.<sup>205</sup> Applying this test, the Court held that “the duration of the restriction is one of the important factors that a court must consider in the appraisal of a regulatory takings claim, but . . . [t]he ‘temptation to adopt what amount to *per se* rules in either direction must be resisted.’”<sup>206</sup> While *Tahoe-Sierra* rejected the formation of a *per se* rule for land-use moratoria, it includes several limitations for future courts to consider when evaluating similar regulations. Speaking to the duration of moratoria, the Court stated, “[i]t may well be true that any moratorium that lasts for more than one year should be viewed with special skepticism. . . . [But] we could not possibly conclude that every delay of over one year is constitutionally unacceptable.”<sup>207</sup>

Since water utility disconnection moratoria and other positive water rights policies expand water access by constricting usufructuary water rights, they invoke the *Penn Central* analysis. In the words of the Court, “[g]iven that regulatory takings analysis focuses on how use rights have been restricted, and usufructuary water interests consist only of use rights, regulatory takings analysis applies in very straightforward fashion in takings cases involving regulation of water interests.”<sup>208</sup> However, expanding water utility access not only implicates private water use rights, but also economic investments of rightsholders. The provision of water in the United States requires financial investment by a utility provider, and novel takings concerns arise when a regulation affects a utility provider’s rate of return. A separate judicial doctrine evolved around utility rate setting to address this issue.

## 2. Confiscatory Rate Setting

In addition to regulatory takings, using utility disconnection moratoria to expand access to water raises judicial analysis of “government rate regulation in the context of public utilities.”<sup>209</sup> A public utility is a “company

---

205. *Id.* at 337 (“In rejecting [the] *per se* rule [described in *Lucas v. South Carolina Coastal Council*], we do not hold that the temporary nature of a land-use restriction precludes finding that it effects a taking; we simply recognize that it should not be given exclusive significance one way or the other.”). *But see* *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1018 (1992) (stating “regulations that leave the owner of land without economically beneficial or productive options for its use . . . carry with them a heightened risk that private property is being pressed into some form of public service under the guise of mitigating serious public harm”).

206. *Tahoe-Sierra Preservation Council, Inc.*, 505 U.S. at 342 (alteration in original) (quoting *Palazzolo v. Rhode Island*, 533 U.S. 606, 636 (2001) (O’Connor, J., concurring)).

207. *Id.* at 341–42. The Court also acknowledged that a “series of rolling moratoria” may serve as the functional equivalent of a permanent taking. *Id.* at 333.

208. Echeverria, *supra* note 187, at 592 (emphasis omitted).

209. Susanne Cordner, Note, *Adjusting the Benefits and Burdens of Economic Life for the Public Good: The ACA’s Medical Loss Ratio as a Constitutional Regulation of Health Insurance Companies*, 24 WM. & MARY BILL RTS. J. 213, 228 (2015).

that provides necessary services to the public, such as telephone lines and service, electricity, and water. Most utilities operate as monopolies but are subject to governmental regulation.”<sup>210</sup> The United States uses a dual-tiered, decentralized regulatory system to administer the provision of public utilities like electricity, telecommunications, gas, and water.<sup>211</sup> Within one tier, the federal government exercises control over some interstate aspects of electricity and natural gas supplies through the Federal Energy Regulatory Commission.<sup>212</sup> The other tier, comprised of each of the fifty states and the District of Columbia, uses PUCs to regulate the local supply and distribution.<sup>213</sup> While all states have a PUC structure, there is variation in the rate of public versus private ownership of water systems within the United States. Alabama has the lowest percent of private ownership, at less than 3%, while over 80% of Delaware’s water supply is privately owned.<sup>214</sup>

The number of commissioners on a PUC varies by state, as does the way that they are seated. In thirty-eight states and the District of Columbia, commissioners are appointed by the governor (or the mayor in the case of D.C.); two states elect commissioners via the legislature; and in the eleven other jurisdictions, commissioners are elected.<sup>215</sup> Regardless of how they are selected, PUC commissioners are responsible for making a variety of decisions about utilities, including the placement of necessary infrastructure and rate setting.<sup>216</sup> Though the scope of an individual PUC’s authority is established by its state legislature,<sup>217</sup> all PUC commissioners exercise “both

---

210. *Public Utility*, BLACK’S LAW DICTIONARY (10th ed. 2014).

211. Douglas J. Howe, *Governance Models of Public Utility Commissions in the United States*, 20 COMPETITION & REGUL. NETWORK INDUS. 229, 229–30 (2019).

212. *Id.* at 229.

213. *Id.*; U.S. EPA, AN OVERVIEW OF PUCs FOR STATE ENVIRONMENT AND ENERGY OFFICIALS 1–2 (2010).

214. *Water Systems Search Results*, U.S. EPA, <https://ofmpub.epa.gov/apex/sfdw/f?p=108:103:0::NO:RP> (information obtained on June 9, 2020). Alabama’s rate of private water ownership is 2.946% while Delaware’s is 81.250%. *Id.* The median private ownership of water providing organizations in the U.S. is 45.684%. *Id.* To determine ownership type, we downloaded the dataset from the website listed above. When downloading the information, there is an option to add additional columns of data than what is listed on the main page of the website. A summation of the ownership types by state was then conducted.

215. Howe, *supra* note 211, at 231.

216. Danielle Sass Byrnett & Daniel Shea, *Engagement between Public Utility Commissions and State Legislatures*, NAT’L COUNCIL ON ELEC. POL’Y 1–2 (2019), [https://www.ncsl.org/Portals/1/Documents/energy/NCSL\\_NARUC\\_Engage\\_Leg\\_PUCs\\_34251.pdf](https://www.ncsl.org/Portals/1/Documents/energy/NCSL_NARUC_Engage_Leg_PUCs_34251.pdf).

217. Jonathan Armiger, Note, *Judicial Review of Public Utility Commissions*, 86 IND. L.J. 1163, 1167 (2011) (noting that state legislatures promulgate the statutes that determine the bounds of a PUC’s legal authority). For example, the Pennsylvania legislature excluded a number of entities from being considered public utilities under 66 PA. CONS. STAT. § 102 (2019), thus removing the PUC’s authority over those entities.

legislative and judicial powers.”<sup>218</sup> PUCs exercise legislative powers by promulgating regulations and rules for particular utilities, and they exercise judicial powers when investigating whether a regulated utility provider has violated those rules and regulations.<sup>219</sup>

There are three parties relevant to public utility service: (1) the private utility provider; (2) the government that regulates the utility; and (3) local residents who receive services from the private utility provider at rates set by the local public utility commission. Private utility companies are required to provide service to all in the area who register and pay to receive service. To satisfy that obligation and in expectation of future demand for services, public utility companies purchase and maintain equipment that allow them to service a given area.<sup>220</sup> In exchange for private company provision of utility service, the state PUC sets utility rates that enable private companies to receive adequate compensation.<sup>221</sup> Compensation is adequate if it is “just and reasonable.”<sup>222</sup> Conversely, compensation that is inadequate can be construed as “confiscatory”; this can effect a taking.<sup>223</sup>

Judicial doctrine on confiscatory utility rate setting has evolved over the last hundred years. In *Smyth v. Ames*,<sup>224</sup> the Supreme Court stated that a “company is entitled to ask [for] a fair return upon the value of that which it employs for the public convenience”,<sup>225</sup> anything less was confiscatory.<sup>226</sup> Nearly fifty years later, the Supreme Court’s decision in *Federal Power*

---

218. Armiger, *supra* note 217, at 1165 (quoting *In re Request for Serv. in Qwest’s Tofte Exch.*, 666 N.W.2d 391, 395 (Minn. Ct. App. 2003)); *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 313 (1989) (“[S]tate legislatures are competent bodies to set utility rates. And the [public utility commission] is essentially an administrative arm of the legislature.”).

219. Armiger, *supra* note 217, at 1166; *The Minnesota Rate Cases*, 230 U.S. 352, 433 (1913) (“The rate-making power is a legislative power and necessarily implies a range of legislative discretion.”); *see also* *Permian Basin Area Rate Cases*, 390 U.S. 747, 768 (1968) (“A legislative power to create price ceilings has, in ‘countries where the common law prevails,’ been ‘customary from time immemorial . . .’” (citations omitted)).

220. *Sidak & Spulber*, *supra* note 198, at 953–54.

221. *Id.* at 953 (“Without adequate compensation, the utility will not seek to make investments for expansion or replacement of plant and property and will not be able to raise the necessary capital. . . . Furthermore, the establishment of formal regulatory proceedings with hearings on the record by administrative regulatory agencies reflects the constitutional guaranty that the utility receive due process in ratemaking.”).

222. *Fed. Power Comm’n v. Hope Nat. Gas Co.*, 320 U.S. 591, 601–02 (1944).

223. Rate regulation is only unconstitutional “if the government sets the utility’s charges . . . at a level that is judicially determined to be unjust and confiscatory.” RONALD D. ROTUNDA & JOHN E. NOWAK, *TREATISE ON CONSTITUTIONAL LAW* 1010–11 (5th ed. 2012); *see also* *Covington & Lexington Tpk. Rd. Co. v. Sandford*, 164 U.S. 578, 597 (1896) (stating that a rate is too low if it is “so unjust as to destroy the value of [the] property for all the purposes for which it was acquired,” and “practically deprive[s] the owner of property without due process of law”).

224. 169 U.S. 466 (1898).

225. *Id.* at 547.

226. Richard Goldsmith, *Utility Rates and “Takings,”* 10 ENERGY L.J. 241, 243 (1989).

*Commission v. Hope Natural Gas Co.*<sup>227</sup> replaced *Smyth*'s "fair value" standard with a mandate that ratemaking need only be "just and reasonable."<sup>228</sup> Under *Hope*, rates are "just and reasonable" if they "enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risks assumed."<sup>229</sup> The *Hope* decision is results-oriented. Whether utility rates are "just and reasonable" is not based on the methodology by which the rate was computed; instead the focus is on whether the end result balances consumer and investor interests.<sup>230</sup> Value x return determines confiscation.

The Court had the opportunity to reconsider rate methodology in the *Permian Basin Area Rate Cases*.<sup>231</sup> The Court reiterated that PUCs have freedom to set rates so long as the rate is within a "zone of reasonableness," which is determined by examining (1) whether the PUC abused or exceeded its broad authority; (2) how the PUC employed its methodology and whether it is "supported by substantial evidence"; and (3) "whether the order may reasonably be expected to maintain the financial integrity, attract necessary capital, and fairly compensate investors for the risks they have assumed, and yet provide appropriate protection to the relevant public interests, both existing and foreseeable."<sup>232</sup> Taking these factors into consideration, the zone of reasonableness gives PUCs broad latitude in rate setting methodology while balancing investor and public interests.

The Court again endorsed "overall impact" analysis in *Duquesne Light Co. v. Barasch*.<sup>233</sup> In that case, the Supreme Court considered the constitutionality of a Pennsylvania law prohibiting a utility company from recovering stranded costs through higher utility rates.<sup>234</sup> To recover these costs, Duquesne petitioned the Pennsylvania Public Utility Company to increase utility rates, which the commission repeatedly declined.<sup>235</sup> The

---

227. 320 U.S. 591 (1944).

228. *Id.* at 601–02.

229. *Id.* at 605.

230. *Id.* at 602.

231. 390 U.S. 747 (1968).

232. *Id.* at 791–92 ("The court's responsibility is not to supplant the Commission's balance of these interests with one more nearly to its liking, but instead to assure itself that the Commission has given reasoned consideration to each of the pertinent factors."); *id.* at 767 ("No other rule would be consonant with the broad responsibilities given to the Commission by Congress; it must be free, within the limitations imposed by pertinent constitutional and statutory commands, to devise methods of regulation capable of equitably reconciling diverse and conflicting interests.").

233. 488 U.S. 299, 312 (1989).

234. *Id.* at 303–04. In anticipation of future increase in electricity demands, the Duquesne Light Company (Duquesne) spent money to build nuclear generating units. Following the 1970s oil embargo and the nuclear accident at Three Mile Island, Duquesne cancelled its plans. At the time of cancellation, it had spent nearly thirty-five million dollars. *Id.* at 302.

235. *Id.* at 303–04. Specifically, Duquesne wanted to amortize its expenditures on the canceled plants over a ten-year period. The PUC's rejection of the request was predicated on a section of the

Court held that the PUC's rejection of Duquesne's request did not effect a Fifth Amendment taking. Reaffirming its decision in *Hope*, the Court expressly stated "[i]t is not theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unreasonable, judicial inquiry . . . is at an end."<sup>236</sup> Ultimately, in *Duquesne*, the Court looked to the "overall impact" of regulations to determine that the rates were not "inadequate to compensate current equity holders for the risk associated with their investments under a modified prudent investment scheme."<sup>237</sup>

The Court has expressly recognized that there is "a legitimate concern with the financial integrity of the company whose rates are being regulated . . . [and] return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital."<sup>238</sup> A public utility taking does not divest owners from their interest in physical utility assets nor their ownership share in the company; instead such a taking affects the expected financial returns from ownership.<sup>239</sup> However, utility rates are not confiscatory if there is a "reasonable rate of return on equity given the risks,"<sup>240</sup> and the Constitution gives broad latitude to states to determine rate setting methodologies that balance the interests of utility companies and the public.<sup>241</sup> Conversely, if there is not a reasonable rate of return, then a taking has occurred, and the government is obligated to compensate the private owner for their loss. Just compensation should leave the affected party in the same economic position they would be in in the absence of the involuntary taking.<sup>242</sup>

### *B. The Contract Clause*

The Contract Clause also imposes limitations on the expansion of positive water rights. This clause prevents *states* from enacting laws that

---

Pennsylvania Utility Code that limited "the consideration of certain costs in the rate base." *Id.* at 303 (quoting 66 PA. CONS. STAT. § 1315 (1982)).

236. *Id.* at 310 ("The fact that the method employed to reach that result may contain infirmities is not then important." (citing *Fed. Power Comm'n v. Hope Nat. Gas Co.*, 320 U.S. 591, 602 (1944))).

237. *Id.* at 312.

238. *Hope Nat. Gas Co.*, 320 U.S. at 603.

239. *Sidak & Spulber*, *supra* note 198, at 993–94.

240. *Duquesne*, 488 U.S. at 315.

241. *Id.* at 316.

242. *Sidak & Spulber*, *supra* note 198, at 968 ("Compensation for involuntary exchange is 'just' when it is equivalent to the compensation that could be derived from voluntary exchange.") (emphasis omitted); EPSTEIN, *supra* note 165, at 182 ("In principle the ideal solution is to leave the individual owner in a position of indifference between the taking by the government and retention of the property."); *United States v. 564.54 Acres of Land*, 441 U.S. 506, 511 (1979) ("[M]arket-value standard is a useful and generally sufficient tool for ascertaining the compensation required to make the owner whole.").

affect the terms of pre-existing contracts.<sup>243</sup> Like the Takings Clause, the Contract Clause recognizes the legitimacy and necessity of state police power, but prohibits the state from taking actions that unduly burden private parties.<sup>244</sup> The threshold question in assessing whether a state has violated the Contract Clause is “whether the state law has, in fact, operated as a substantial impairment of a contractual relationship.”<sup>245</sup> The Court looks to several factors when considering whether an impairment is “substantial,” including (1) the severity of the impairment;<sup>246</sup> (2) the magnitude of destruction of contractual expectations;<sup>247</sup> (3) reasonably expected gains from the pre-existing contract;<sup>248</sup> and when applicable, (4) whether the complaining party’s industry has been previously regulated.<sup>249</sup>

After finding that the state action is “substantial,” the Court next considers whether the state has a “significant and legitimate public purpose behind the regulation.”<sup>250</sup> This requirement ensures that the state is truly exercising its police power and not “providing a benefit to special interests.”<sup>251</sup> If there is a significant and legitimate public purpose, then the final inquiry is whether the state action furthers an appropriate state purpose.<sup>252</sup> If the challenged regulation “reasonabl[y] and appropriat[e]ly”

---

243. *Pension Benefit Guar. Corp. v. R. A. Gray & Co.*, 467 U.S. 717, 733 (1984); U.S. CONST. art. I, § 10, cl. 1 (“No State shall . . . pass any . . . Law impairing the Obligation of Contracts.”).

244. *Energy Rsrvs. Grp., Inc. v. Kan. Power & Light Co.*, 459 U.S. 400, 410 (1983) (“Although the language of the Contract Clause is facially absolute, its prohibition must be accommodated to the inherent police power of the State ‘to safeguard the vital interests of its people.’”) (quoting *Home Bldg. & Loan Ass’n v. Blaisdell*, 290 U.S. 398, 434 (1934)); *see also* *U.S. Trust Co. of N.Y. v. New Jersey*, 431 U.S. 1, 22 (1977) (“The States must possess broad power to adopt general regulatory measures without being concerned that private contracts will be impaired, or even destroyed, as a result. Otherwise, one would be able to obtain immunity from state regulation by making private contractual arrangements. This principle is summarized in Mr. Justice Holmes’ well-known dictum. ‘One whose rights, such as they are, are subject to state restriction, cannot remove them from the power of the State by making a contract about them.’”) (quoting *Hudson Cnty. Water Co. v. McCarter*, 209 U.S. 349, 357 (1908)).

245. *Allied Structural Steel Co. v. Spannaus*, 438 U.S. 234, 244–45 (1978) (“The severity of the impairment measures the height of the hurdle the state legislation must clear. Minimal alteration of contractual obligations may end the inquiry at its first stage.”).

246. *Id.*

247. *Energy Rsrvs. Grp.*, 459 U.S. at 411 (citing *U.S. Trust Co.*, 431 U.S. at 26–27).

248. *Id.* (citing *U.S. Trust Co.*, 431 U.S. at 31); *Allstate Life Ins. Co. v. Hanson*, 200 F. Supp. 2d 1012, 1018 (E.D. Wis. 2002) (“To establish a contractual relationship subject to the Contract Clause, the party must demonstrate that the contract gave her a vested interest, not merely an expectation.”).

249. *Allied Structural Steel*, 438 U.S. at 242; *see also Hudson Cnty. Water Co.*, 209 U.S. at 357.

250. *Energy Rsrvs. Grp.*, 459 U.S. at 411; *see also Allied Structural Steel*, 438 U.S. at 245 (“Severe impairment . . . will push the inquiry to a careful examination of the nature and purpose of the state legislation.”).

251. *Energy Rsrvs. Grp.*, 459 U.S. at 412.

252. *Id.* (citing *U.S. Trust Co.*, 431 U.S. at 22); *see also Susan Rose-Ackerman & Jim Rossi, Disentangling Deregulatory Takings*, 86 VA. L. REV. 1435, 1462 (2000) (“Under the Contracts Clause, the state cannot unilaterally void a particular contract unless it pays damages analogous to



serves “a significant and legitimate public purpose” as compared to the impairment, then it will not be found to violate the Contract Clause.<sup>253</sup> For example, in *Home Building & Loan Association v. Blaisdell*,<sup>254</sup> the Supreme Court held that Minnesota’s two-year mortgage moratorium enacted amid a widespread economic depression did not violate the Contract Clause because it was a valid exercise of the State’s police power to promote the general good of the public.<sup>255</sup> More recently, in analyzing whether the City of Los Angeles’ eviction moratorium, imposed in response to the COVID-19 pandemic, violated the Contract Clause, the U.S. Court of Appeals for the Ninth Circuit noted that “even if the eviction moratorium was a substantial impairment of contractual relations, the district court did not err in determining that the moratorium’s provisions were likely ‘reasonable’ and ‘appropriate’ given the circumstances of the COVID-19 pandemic.”<sup>256</sup>

---

those faced by private parties. However, the state can take actions that affect a multitude of contractual relations without being accused of ‘impairing the obligations of contracts.’”)

253. *Chi. Bd. of Realtors, Inc. v. City of Chicago*, 819 F.2d 732, 736 (7th Cir. 1987) (“[T]he Supreme Court has suggested that a sort of sliding scale is appropriate [whereby] . . . the level of scrutiny given the law varies directly in accordance with the severity of the impairment of existing contracts, and varies inversely in accordance with the degree of prior regulation in a particular field of activity.” (citations omitted)); *see also Sveen v. Melin*, 138 S. Ct. 1815, 1821–22 (2018) (stating that the first issue is whether a state has “operated as a substantial impairment of a contractual relationship,” and if so, the court must determine whether the law is “reasonable” and “appropriate”) (first quoting *Allied Structural Steel*, 438 U.S. at 244; then quoting *Energy Rsrvs. Grp.*, 459 U.S. at 412).

254. *Home Bldg. & Loan Ass’n v. Blaisdell*, 290 U.S. 398 (1934).

255. *Id.* at 447.

The economic interests of the State may justify the exercise of its continuing and dominant protective power notwithstanding interference with contracts. . . .

It is the settled law of this court that the interdiction of statutes impairing the obligation of contracts does not prevent the State from exercising such powers as are vested in it for the promotion of the common weal, or are necessary for the general good of the public, though contracts previously entered into between individuals may thereby be affected. This power, which in its various ramifications is known as the police power, is an exercise of the sovereign right of the Government to protect the lives, health, morals, comfort and general welfare of the people, and is paramount to any rights under contracts between individuals.

*Id.* at 437 (quoting *Manigault v. Springs*, 199 U.S. 473, 480 (1905)).

256. *Apt. Ass’n of L.A. Cnty. v. City of Los Angeles*, 10 F.4th 905, 914 (9th Cir. 2021) (“The City fairly ties the moratorium to its stated goal of preventing displacement from homes, which the City reasonably explain[ed] can exacerbate the public health-related problems stemming from the COVID-19 pandemic. . . . In turn, each of the provisions of the eviction moratorium that [Plaintiff] challenge[d] may be viewed as reasonable attempts to address that valid public purpose.” (citations omitted)). In its own analysis of the national eviction moratorium, the Supreme Court of the United States limited its analysis to the ability of the CDC to impose such an order, as opposed to Congress. *Ala. Ass’n of Realtors v. Dep’t of Health & Hum. Servs.*, 141 S. Ct. 2485, 2490 (2021) (“If a federally imposed eviction moratorium is to continue, Congress must specifically authorize it.”).

The nature of contract at issue—that is, whether the contract is private or public—is also important for the Court’s analysis.<sup>257</sup> Deference to a legislature’s assessment of a significant public purpose is appropriate when considering private contracts.<sup>258</sup> However, the same is not true of public contracts to which the state is a party; by their nature, public contracts affect the state’s self-interest.<sup>259</sup> Given the state’s stake in public contracts, the Court considers whether there might have been “a less drastic modification,” or alternative means that did not require modification at all in order to achieve the state’s goals.<sup>260</sup>

Perhaps, unsurprisingly, whether the contract terms are express or implied affects the finding of a Contract Clause violation and subsequent damages. In *United States v. Winstar Corp.*,<sup>261</sup> the Supreme Court considered the “enforceability of contracts between the Government and participants in a regulated industry, to accord them particular regulatory treatment in exchange for their assumption of liabilities . . . [when] Congress subsequently changed the relevant law, and thereby barred the Government from specifically honoring its agreements.”<sup>262</sup> A plurality of justices found that the government had breached a contract with private financial institutions,<sup>263</sup> underscoring the importance of “cost recovery, incentive for

---

257. See generally *U.S. Trust Co. of N.Y. v. New Jersey*, 431 U.S. 1 (1977).

258. *Id.* at 25–26.

As with laws impairing the obligations of private contracts, an impairment [of a public contract] may be constitutional if it is reasonable and necessary to serve an important public purpose. In applying this standard, however, complete deference to a legislative assessment of reasonableness and necessity is not appropriate because the State’s self-interest is at stake.

*Id.*; see also *Energy Rsrvs. Grp., Inc. v. Kan. Power & Light Co.*, 459 U.S. 400, 412–13 (1983) (“Unless the State itself is a contracting party . . . courts properly defer to legislative judgment.”) (citation omitted) (quoting *U.S. Trust Co.*, 431 U.S. at 23).

259. *U.S. Trust Co.*, 431 U.S. at 25–26. For example, “[i]f a State could reduce its financial obligations whenever it wanted to spend the money for what it regarded as an important public purpose, the Contract Clause would provide no protection at all.” *Id.* at 26.

260. *Id.* at 30–31 (“[A] State is not completely free to consider impairing the obligations of its own contracts on a par with other policy alternatives. Similarly, a State is not free to impose a drastic impairment when an evident and more moderate course would serve its purposes equally well.”)

261. 518 U.S. 839, 843 (1996) (plurality opinion) (holding that the U.S. government could be in breach of contract after encouraging healthy thrifts to merge with failing thrifts when subsequent legislation eliminated financial benefits for healthy thrifts).

262. *Id.* at 843. In *Winstar*, three financial institutions sued the United States for breach of contract after the government had previously encouraged the banks to take over “ailing institutions in a series of ‘supervisory mergers.’” *Id.* at 847, 858. Healthy banks were induced to take over ailing financial institutions by the government’s promise to engage in certain accounting practices. *Id.* at 845–46. Congress’s subsequent enactment of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 eliminated these practices, and penalized the banks. *Id.* at 856–58.

263. *Id.* at 843. *Winstar* has an interesting holding due to the fact that three opinions claim to represent the seven-person majority: Justice Souter authored the main opinion, joined by Justices

investment, opportunism, and the government's need to make credible commitments."<sup>264</sup> Some scholars argue these elements of the *Winstar* holding demonstrate "the rights and remedies of public utilities under their regulatory contracts with municipalities."<sup>265</sup>

In *Winstar*, Justice Souter expressly noted that there exist "special rules, not generally applicable to private contracts [that] govern enforcement of the governmental contracts."<sup>266</sup> These include: (1) surrenders of sovereign authority must be made in unmistakable terms; (2) the surrender of sovereign authority must be done in express terms; (3) the government may not contract away certain reserved powers; and (4) a government's sovereign acts may not serve as the basis for a breach of contract claim.<sup>267</sup> However, despite these "special rules," when Congress changed the relevant law, "the Government was unable to perform its promise and, therefore, became liable for breach."<sup>268</sup> Notably, Justice Souter wrote that the application of the unmistakability doctrine to all contracts "would place the doctrine at odds with the Government's own long-run interest as a reliable contracting partner in the myriad workaday transaction of its agencies."<sup>269</sup> Ultimately, *Winstar* endorsed the finding of the lower courts, that in entering the contract at issue, "the Government agreed to do something that did not implicate its sovereign powers at all," and, as a result, "the Federal Circuit correctly refused to apply the unmistakability doctrine."<sup>270</sup> In doing so, the case "reaffirmed the unmistakability doctrine—that promises by the government to forgo certain types of future regulatory action will be enforced by courts only if these are

---

Stevens, O'Connor, and Breyer; Justice Breyer wrote a concurrence; Justice Scalia wrote an opinion joined by Justices Kennedy and Thomas, who concurred in the judgement, but not the reasoning of Justice Souter's opinion; Chief Justice Rehnquist authored the dissent, joined by Justice Ginsburg. *Id.* at 843, 910, 919, 924.

264. J. Gregory Sidak & Daniel F. Spulber, *Givings, Takings, and the Fallacy of Forward-Looking Costs*, 72 N.Y.U. L. REV. 1068, 1152 (1997).

265. *See id.*

266. *Winstar*, 518 U.S. at 860.

267. *Id.*

268. *Id.* at 870.

269. *Id.* at 883; *see also id.* at 871 ("The question, then, is not whether Congress could be constrained but whether the doctrine of unmistakability is applicable to any contract claim against the Government for breach occasioned by a subsequent Act of Congress. *The answer to this question is no.*") (emphasis added).

270. *Id.* at 886–87 ("[The dissent's] failure to advance any limiting principle at all would effectively compromise the Government's capacity as a reliable, straightforward contractor whenever the subject matter of a contract might be subject to subsequent regulation, which is most if not all of the time. Since the facts of the present case demonstrate that the Government may wish to further its regulatory goals through contract, we are unwilling to adopt any rule of construction that would weaken the Government's capacity to do business by converting every contract it makes into an arena for unmistakability litigation.").

set forth in unmistakably unambiguous language, which a plaintiff bears the burden of proving.”<sup>271</sup>

Likewise, a history of regulation does not effect a contract between parties. The Supreme Court has continually maintained “that absent some clear indication that the legislature intends to bind itself contractually, the presumption is that ‘a law is not intended to create private contractual or vested rights but merely declares a policy to be pursued until the legislature shall ordain otherwise.’”<sup>272</sup> Put simply, prior legislation does not bind subsequent regulations.

### *C. Permissible Pandemic Police Powers*

Tellingly, in response to COVID-19 water disconnection moratoria, utility companies did not attempt to advance claims that the moratoria went “too far” under *Penn Central*, effected a confiscatory rate setting, or functioned as impermissible contract impairment. This is thanks largely to the fact that the moratoria were an exercise of the government’s police power to protect health, safety, and welfare. At the same time, the moratoria never eliminated consumer obligations to repay. Moreover, the Takings Clause only requires compensation when the government takes *private property* for public use.<sup>273</sup> In many jurisdictions,<sup>274</sup> water utilities are publicly controlled and operated. As such, these utility providers were ineligible to advance a claim under the Takings Clause. While private utility companies would meet the threshold criteria to allege a violation of the Fifth Amendment, they chose not to, perhaps knowing that they were unlikely to succeed. The applicable legal framework to determine whether water utility disconnection moratoria effect a taking turns on whether one views the moratoria as (1) a regulation

---

271. Rose-Ackerman & Rossi, *supra* note 252, at 1463–64 (emphasis omitted); *id.* at 1464 (“Classic cases, such as *Charles River Bridge v. Warren Bridge*, in which the Court refused to imply a protection against new competitors for a chartered bridge, advise against recovery.”) (footnote omitted).

272. Nat’l R.R. Passenger Corp. v. Atchison, Topeka, & Santa Fe Ry. Co., 470 U.S. 451, 465–66 (1985) (citing *Dodge v. Bd. of Educ.*, 302 U.S. 74, 79 (1937)).

273. U.S. CONST. amend. V.

274. *SDWIS Federal Reports Search*, *supra* note 159. According to the Safe Drinking Water Information System (“SDWIS”), of the 49,011 water-providing organizations in the United States, 25,499 are publicly controlled and operated (there are an additional 1,208 organizations that are jointly controlled and operated by public and private entities). *Id.* For reference, the SDWIS classifies public water-providing organizations as those that are owned by the federal government, state governments, local governments, and Native American tribes. Owner type does not initially show up when a search is run on all water districts. To access this information, run a search on all districts (you do not need to change any of the initial search settings). Then, you will need to include owner type in the columns listed by selecting “Select Columns” on the top right side of the screen and moving “Owner Type” from “Do Not Display” to “Display in Report.”

that goes “too far” to deprive the public utility owners of their property’s economic use; or (2) an act of the PUC to set water utility rates at zero dollars.

A utility company would not prevail on a claim that disconnection moratoria go “too far” in depriving utility owners of the economic use of their property. Because water disconnection moratoria do not involve a physical invasion of property or a 100% diminution of use or value, addressing this claim necessitates the application of the *Penn Central* factors. Under this framework, the court largely considers the economic impact on the property owner.<sup>275</sup> A utility company may claim that the water disconnection moratorium functioned to force distribution of a commodity without compensation. This reasoning is flawed. The moratorium does not eliminate the obligation of utility consumers to pay for water services. Many consumers are continuing to pay for water as it is supplied during the pandemic and state of emergency. Even among consumers that stopped paying for services due to financial hardship, there is still an obligation to repay the utility company after the expiration of the moratorium.<sup>276</sup> The obligation to repay ensures the utility company will still realize the economic benefit of its property. Moreover, consumers will have a strong incentive to pay for outstanding services after the moratoria expire, as failure to repay will result in future termination of water services. In many instances, after utility services are disconnected, the account will not be reconnected, even at a new address, until the outstanding amount is repaid. Moreover, given that “diminutions in value approaching 85 to 90 percent do not necessarily dictate the existence of a taking,”<sup>277</sup> it is unlikely that the financial losses will be substantial enough to effect a taking under the *Penn Central* analysis. Utility companies may make an argument that the duration of the moratoria supports the finding of a taking. At the time of collection of moratoria data in early summer 2020, no moratorium included language that it would be in effect

---

275. *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

276. *See, e.g.*, N.H. Emergency Order #3 Pursuant to Executive Order 2020-04 para. 3 (Mar. 17, 2020). The State of New Hampshire’s moratorium states:

At the end of the State of Emergency, customers having arrearages accrued during the State of Emergency shall be provided the opportunity to make a reasonable payment arrangement over no less than a six-month period and shall not be charged any fees for late payment for arrearages accrued during the State of Emergency.

*Id.*

277. *Brace v. United States*, 72 Fed. Cl. 337, 357 (2006). While this case was not analyzed under the *Penn Central* factors, it is noteworthy that “the Supreme Court held that a diminution of 93.7 percent did not constitute a categorical taking.” *Id.* (citing *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1027–31 (1992)). *See id.* at 357 n.31 (citing *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926) (no taking despite 75% diminution); *Hadacheck v. Sebastian*, 239 U.S. 394 (1915) (no taking despite 87.5% diminution)).

longer than eight months,<sup>278</sup> falling short of the twelve months that the Court in *Tahoe-Sierra* found to give rise to “skepticism.”<sup>279</sup>

Expanding access to water through disconnection moratoria is also subject to judicial limitations on confiscatory rate setting, as the moratoria may be considered an act by the PUC to set water utility rates at zero dollars, at least for certain customers. Providing access to water by enacting water utility disconnection moratoria did not change how a utility provider used its water rights. Nothing about the disconnection moratoria required a utility provider to change its operation; there was no change to how it was extracting or distributing water. Rather, the moratoria only changed when the utility provider was compensated. Viewed through this lens, the Court’s analytical framework in *Duquesne* applies. *Duquesne* urges the Court to evaluate how the rate at issue affects a utility company’s return on investment.<sup>280</sup> To demonstrate an unreasonable return on investment, a utility company may point to its financial losses incurred by continuing to provide water services that, but for the moratorium, would have been disconnected. This includes not only the cost of providing water itself, but also infrastructure costs associated with managing a water utility system. Though utility companies experienced financial losses during the pandemic, the unreasonable return argument fails for two reasons. First, the moratoria were temporary; utility companies were not forced to indefinitely use their water property interests to distribute a resource without compensation. Second, the moratoria did not eliminate consumers’ obligation to pay for services; moratoria only delayed payment. Since the utility companies will be paid after the expiration of the moratoria, investors will eventually receive a reasonable rate of return.

Water utility disconnection moratoria are likewise limited by the bounds of the Contract Clause. The moratoria affected three parties: (1) the utility provider; (2) the utility consumer; and (3) the PUC, a state actor. Between these parties, there are two contracts at issue. The first exists between the utility provider and the utility consumer. The second concerns the utility provider and the PUC. Utility consumers enter into an agreement with a utility provider.<sup>281</sup> In areas with private utility providers, the contract

---

278. California’s moratorium was enacted on April 2, 2020, and was not set to expire until the end of 2020. The moratorium was extended until June 30, 2021.

Cal. Exec. Ord. N-42-20 (Apr. 2, 2020), <https://www.gov.ca.gov/wp-content/uploads/2020/04/4.2.20-EO-N-42-20.pdf>.

279. *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg’l Plan. Agency*, 535 U.S. 302, 341–42 (2002) (“[But] we could not possibly conclude that every delay of over one year is constitutionally unacceptable.”).

280. *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 310 (1989).

281. *Sidak & Spulber*, *supra* note 198, at 879 (“Consumers and businesses voluntarily participate in a market transaction only if they receive gains from trade—that is, only if the transaction yields positive net benefits for them”) (emphasis omitted).

between the parties is private. Alternatively, if the water is provided by the local jurisdiction,<sup>282</sup> then the agreement is a public contract. As discussed above, when a contract is public, the court considers additional factors to determine whether state action substantially impairs the agreement such that it violates the Contract Clause.<sup>283</sup> In exchange for the provision of water, the consumer agrees to remit payment to the utility provider. These service agreements generally include provisions that detail the circumstances under which the utility company will terminate service, such as nonpayment by the consumer.

In thirty-three jurisdictions, water disconnection moratoria prevented utility companies from exercising their contractual rights under a standard termination clause.<sup>284</sup> Whether the moratorium is substantial, however, would depend on the losses incurred by the utility provider for uncompensated water services. None of the moratoria eliminated the consumer's obligation to repay the provider for services; instead, the consumer was merely given additional time to compensate the utility company.<sup>285</sup> Few moratoria specified the duration of the repayment period. Ten states included language urging a "reasonable" or "flexible" repayment plan.<sup>286</sup> Only three—North Carolina, New Hampshire, and Alaska—included specific time provisions; in North Carolina and New Hampshire the repayment period could not be shorter than six months, while Alaska's moratorium mandated that the repayment not be shorter than the duration of the COVID-19 state of emergency. However, for example, the government of the State of Michigan demonstrated that it was acting pursuant to its police power to further a legitimate public interest: the moratorium functioned to ensure access to essential water services to residents during a pandemic.<sup>287</sup> The jurisdictions that adopted water disconnection moratoria did so against the backdrop of a pandemic, with record unemployment being the factor most strongly correlated with the enactment of moratoria.<sup>288</sup> Given the importance of handwashing to prevent the transmission of, and infection from, COVID-

---

282. See, e.g., BIRMINGHAM WATER WORKS, [www.bwwb.org](http://www.bwwb.org) (last visited Nov. 5, 2021).

283. See *supra* notes 245–249 and accompanying text.

284. *State Response Tracker*, *supra* note 134.

285. See, e.g., *supra* note 276.

286. These states include Connecticut, Hawaii, Arkansas, Indiana, Kentucky, Rhode Island, Texas, Washington, Wisconsin, and New York. As an example, Hawaii stated: "Utilities should strongly consider offering payment plans or other reasonable arrangements to customers once the suspension of disconnections or terminations of service are lifted." Haw. Pub. Utils. Comm'n Order No. 37,284 para. 2 (Aug. 24, 2020).

287. See, e.g., Mich. Exec. Order No. 2020-28 (Mar. 30, 2020), *repealed by* Mich. Exec. Order No. 2020-144 (July 8, 2020) ("To mitigate the spread of COVID-19, protect the public health, and avoid needless deaths, it is crucial that all Michiganders remain in their homes or residences to the greatest extent possible and wash their hands thoroughly and regularly.").

288. See *supra* Section II.B.

19, the government can not only establish that it had a legitimate public purpose, but as in *Blaisdell*, that the action is appropriate to address the need.<sup>289</sup>

In addition to its contract with the utility consumer, there also exists a relationship between the utility provider and the public utility commission. This is generally not a written agreement, but rather a regulatory contract. Professors Sidak and Spulber state that there are three components of a regulatory contract: (1) entry controls; (2) rate regulation; and (3) utility service obligations.<sup>290</sup> In exchange for tightly controlled entry into the utility market by the PUC and the opportunity for investors to “earn a fair rate of return on their investments,” the utility company complies with regulations governing its operations and pricing.<sup>291</sup> Disconnection moratoria raise the question of whether there is impermissible interference with utility investors’ opportunity to earn a “fair” rate of return. In the unique circumstances created by the pandemic, that answer is no. The moratoria were quickly and successfully implemented because they did not exceed constitutional bounds. The following Part discusses what lessons the moratoria teach about expanding a positive right to water going forward.

#### IV. RECOMMENDATIONS TO EXPAND WATER ACCESS

In addition to temporarily expanding access to water, the moratoria provide insight into the circumstances favorable to achieving positive water rights in the United States. As COVID-19 demonstrated, preparation before catastrophe strikes can lessen its impact and aid in recovery. Or, to paraphrase the late Justice Ginsburg, to avoid getting wet, your umbrella should be up before the rainstorm begins.<sup>292</sup> Across America, disaster planners invest in culverts and levees to protect people from floods and hurricanes, or put sprinklers in buildings in case of fires.<sup>293</sup> These investments are a necessary expense, not to prevent disasters altogether, but to mitigate their damage. That investment in mitigation, made before the disaster begins, leads to faster cleanup and lower economic recovery costs. Likewise, actions that shift the United States toward positive water rights are a disaster mitigation investment. Sustainable, broad access to clean water is

---

289. *Home Bldg. & Loan Ass’n v. Blaisdell*, 290 U.S. 398, 447 (1934).

290. For a detailed overview of the regulatory contract, see Sidak & Spulber, *supra* note 198, at 907–16.

291. *Id.* at 908.

292. *Shelby Cnty. v. Holder*, 570 U.S. 529, 590 (2013) (Ginsburg, J., dissenting) (“Throwing out preclearance when it has worked and is continuing to work to stop discriminatory changes is like throwing away your umbrella in a rainstorm because you are not getting wet.”).

293. Robert H. Jerry, II, *Managing Hurricane (and Other Natural Disaster) Risk*, 6 TEX. A&M L. REV. 391, 407–12 (2018).



an insurance policy against disasters made worse by a lack of water access, like drought, fire, or even another pandemic.

The Virginia General Assembly is making policy changes in response to issues raised by the pandemic. Like many other states, Virginia faced an avalanche of economic issues in the first quarter of 2020: the state experienced a decrease in its labor force participation rate between January and April, 2020; a decrease in its employment-population ratio during that same interval; and a spike in unemployment of over 400%, with unemployment rates increasing from 2.7% in January to 11.2% by April.<sup>294</sup> The deteriorating economic conditions created a pretext for increasing access to water even after the pandemic. In the 2021 legislative session, the Virginia House of Delegates introduced a resolution recognizing that access to clean, potable, and affordable water is a necessary human right.<sup>295</sup> Though the resolution does not create a private right of action, it evidences the realization that the state must take a proactive role to provide water access and serves as a foundation for future laws that effect a positive right to water.

The moratoria were modest measures that successfully expanded water access during a public health and unemployment crisis. These events suggest that future work to expand a positive right to water will be most successful when there is a clear nexus between water access, community health outcomes, and economic hardship. The following proposals are a starting point for policymakers to incorporate the lessons learned from the pandemic data to advance positive water rights beyond the pandemic.

#### *A. Increase Funding for Vulnerable Households*

First and foremost, policymakers should increase funding opportunities for low-income residents to pay for utility access. There is no way to expand access to water without someone incurring the cost. Prior to the pandemic, the cost was largely placed on the individual consumer. The water utility moratoria temporarily upended the status quo, placing the burden temporarily on water utility providers. Had the moratoria permanently suspended the obligation of consumers to repay, then the government would have been constitutionally responsible for compensating utility providers for their losses.<sup>296</sup> Moving forward, the government should expand existing programs to provide financial resources to increase reliable access to water. All jurisdictions already participate in the Low Income Household Energy

---

294. *Local Area Unemployment Statistics*, U.S. BUREAU LAB. STAT., [https://data.bls.gov/timeseries/LASST510000000000003?amp%253bdata\\_tool=XGtable&output\\_view=data&include\\_graphs=true](https://data.bls.gov/timeseries/LASST510000000000003?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true) (last visited Oct. 22, 2021) (data extracted on Feb. 18, 2021).

295. H.J. Res. 538, 2021 Gen. Assemb., 1st Spec. Sess. (Va. 2021).

296. *See supra* Section III.A.

Assistance Program (LIHEAP).<sup>297</sup> An outgrowth of the Low Income Home Energy Assistance Act of 1981,<sup>298</sup> LIHEAP provides grants to states “to assist low-income households . . . primarily in meeting their immediate home energy needs.”<sup>299</sup> States applying for these grants must certify that the state will use the grant to help low-income households meet their energy costs and intervene during energy crises.<sup>300</sup> The Act also provides stipulations about the income levels of consumers.<sup>301</sup> Additionally, there are state programs available that supplement federal programs like LIHEAP. These programs subsidize low-income households with rates imposed on high-income consumers.<sup>302</sup> While LIHEAP is a needed program that helps millions, COVID-19 has illustrated that the program must be improved upon and expanded.

LIHEAP defines “home energy” as “a source of heating or cooling in residential dwellings.”<sup>303</sup> This definition excludes water, preventing low-income families from using LIHEAP to gain access to this critical resource. At the federal level, Congress can take action to expand the definition of “home energy” to include water, or grant a temporary exception for the use of LIHEAP funds to be used toward water utilities in the event of a pandemic or national crisis. Failing that, the federal government, or even states, can create an analogous program to address water accessibility. Indeed, many jurisdictions operate water utility hardship programs, under which households that have experienced a crisis or extenuating circumstances can apply for water payment assistance.<sup>304</sup> The COVID-19 crisis makes clear

---

297. For an in-depth discussion of LIHEAP and other energy assistance programs, see Benjamin P. Mayers, Article, *Low Income Household Energy Assistance Program: Working to Ensure Protection for the Future*, 29 LOY. CONSUMER L. REV. 309, 309–14 (2017); Adrienne L. Thompson, *Protecting Low-Income Ratepayers as the Electricity System Evolves*, 37 ENERGY L.J. 265, 270–78 (2016).

298. 42 U.S.C. §§ 8621–30.

299. *Id.* § 8621(a).

300. *Id.* § 8624(b)(1)(A)–(D). The statute also provides that states must use the funds to “conduct outreach activities and provide assistance to low income households in meeting their home energy costs, particularly those with the lowest incomes that pay a high proportion of household income for home energy” and “provide low-cost residential weatherization and other cost-effective energy-related home repair.” *Id.* § 8624(b)(1)(A), (C).

301. *Id.* § 8624(b)(2)(A)–(B).

302. Thompson, *supra* note 297, at 285–99 (explaining, in depth, different legislative schemes for expanding budgets for ratepayer assistance programs). In one example, low-income ratepayer financial assistance is funded by adding small surcharges to non-low-income customers’ bills. *Id.* at 286–87.

303. 42 U.S.C. § 8622(6).

304. See, e.g., Joseph Bamat, *Get Water Bill Help When Facing a “Special Hardship,”* CITY OF PHILA. DEP’T OF REVENUE (Feb. 26, 2019), <https://www.phila.gov/2019-02-26-get-water-bill-help-when-facing-a-special-hardship/>. In the City of Philadelphia, low-income households, senior citizens, and residents experiencing a “special hardship” can receive temporary financial assistance.

that access to water is just as essential as access to heat. As such, including water in the existing program is consistent with the underlying purpose and reasoning of LIHEAP.

The recent passage of both the Consolidated Appropriations Act and the American Rescue Plan Act created the Low Income Household Water Assistance Program (LIHWAP), an emergency program to expand water access.<sup>305</sup> Together, these Acts provided over \$1.1 billion in funding to support emergency water accessibility by awarding grants to states, territories, and eligible Native American Tribes to assist low-income families in need of drinking and sanitation water services.<sup>306</sup> The grants can be used to pay the owners or operators of water systems in order to either decrease rates charged to low-income households, or assist in lowering past-due balances on water service bills.<sup>307</sup> Like LIHEAP, this program is income-based, with grantees including states, territories, and Tribes making decisions about eligibility criteria.<sup>308</sup> These Acts also created the Emergency Rental Assistance Program (ERAP).<sup>309</sup> A temporary program for emergency assistance, ERAP provides funding to families to pay rent or utilities, including water utility payments. Due to limited funding and grantee prioritization, many households may not receive assistance. Increasing funding for these programs, as well as expanding eligibility requirements, and crucially, making them permanent, will increase water access going forward.

---

Special hardships include: changes in household composition, job loss, serious illness, family loss, domestic violence, and changes to household expenses. *Id.*

305. Lanique Howard, *Water is Life: Spotlighting OCS' New Emergency Water Assistance Program*, ADMIN. FOR CHILDREN & FAMILIES (Mar. 23, 2021), <https://www.acf.hhs.gov/blog/2021/03/spotlighting-ocs-new-emergency-water-assistance-program>; Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, § 533, 134 Stat. 1474; American Rescue Plan Act of 2021, Pub. L. 117-2, § 2912, 135 Stat. 51 (codified at 15 U.S.C. 9058b).

306. *See supra* note 305.

307. *See supra* note 305.

308. *See, e.g., New Low-Income Household Water Assistance Program to Launch in October*, MESKWAKI NATION, <https://www.meskwaki.org/new-low-income-household-water-assistance-program-to-launch-in-october/> (last visited Jan. 3, 2022) (eligible households must have an income at or below 200% of the federal poverty guidelines); *Colorado Low-income Energy Assistance Program (LEAP)*, COLORADO DEP'T OF HUM. SERVS. (last visited Jan. 3, 2022), <https://cdhs.colorado.gov/leap> (eligible households must not exceed 60% of the state median income level); *Low Income Home Energy Assistance Program (LIHEAP)*, TENN. HOUS. DEV. AGENCY, <https://thda.org/help-for-homeowners/energy-assistance-programs/low-income-home-energy-assistance-program-liheap> (last visited Jan. 3, 2022) (eligible households must not exceed 60% of the state median income level in model plan).

309. *See Emergency Rental Assistance Program*, U.S. DEP'T OF TREASURY, <https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/emergency-rental-assistance-program> (last visited Feb. 25, 2022).

*B. Temporary Rate Decrease*

Given the connection between unemployment and the likelihood of a jurisdiction enacting a water utility moratorium, PUCs could implement economic triggers that function to automatically decrease rates should the two events simultaneously occur in the future. For example, in the event of a future recession, when residents will have to make difficult choices about what expenses to prioritize, PUCs could decrease rates for eighteen months, or until their state's unemployment numbers return to below a certain percentage. These rate decreases would shift some economic pain from utility consumers to utility providers, but still provide utility companies with some financial compensation. Under a moratorium, some utility consumers are temporarily relieved from paying, while others continue their scheduled payments, meaning that utility providers receive less compensation overall. Rate decreases across-the-board increase the likelihood that a greater number of utility consumers will be able to make payments while eliminating the need for utility companies to place some accounts in forbearance, thereby decreasing the likelihood of repayment. Considering economic benchmarks before the next crisis encourages state and local governments to anticipate resident needs and become better situated to handle future economic shockwaves.

Critics of this proposal may point out that it could benefit those who are not struggling economically during a crisis. For example, not everyone was financially affected by the pandemic. While this could be implemented as a regressive policy—i.e., only available to consumers in a particular socioeconomic group—administrative burdens compel across-the-board action. Utility providers do not regularly collect information about consumers' finances. Therefore, implementing a regressive policy would require utility companies to establish and operate new processes to determine which consumers qualify. Even if utility companies required consumers to submit application materials to receive this benefit, there would still be heavy administrative costs shouldered by companies and delays for consumers at times of crisis.

This policy is consistent with the broad latitude afforded to PUCs in utility rate-setting. As discussed in Part III, PUCs have the authority to set rates within a “zone of reasonableness” that considers several factors, including “provid[ing] appropriate protection to the relevant public interests, both existing and foreseeable.”<sup>310</sup> Here, the relevant public interest is making sure that financially vulnerable residents have continued water access, thereby helping to protect household and community health and safety.

---

310. *Permian Basin Area Rate Cases*, 390 U.S. 747, 770, 792 (1968); see *supra* notes 231–232 and accompanying text.

Utility rates are not confiscatory when there is a “reasonable rate of return on equity given the risks.”<sup>311</sup> Because the Supreme Court gives PUCs such wide latitude in setting rates, each state can conduct a financial analysis to determine the appropriate decrease for its jurisdiction. Rates around the country are not uniform, so it follows that the rate decreases under this policy would not be uniform either. Additionally, some states like Pennsylvania<sup>312</sup> provide a hard limit on the amount that temporary rates can be reduced, further protecting utility providers from takings under this policy.<sup>313</sup>

### *C. Reconnect Water Services for Vulnerable Populations*

In times of crisis, PUCs should require utilities to reconnect water utility services to vulnerable residents who were previously disconnected. This is consistent with existing laws and policies to prevent utility disconnections in conditions that threaten health and safety, even if an account has an outstanding balance. For example, forty states have enacted regulations that ban utility companies from disconnecting essential services—electricity or gas—for heating or cooling purposes during extreme weather.<sup>314</sup> These states take a variety of approaches to determine which households are eligible. Some, like Alabama,<sup>315</sup> center their policies around a temperature threshold, while others, like Connecticut,<sup>316</sup> limit utility disconnection during certain times of the year. Delaware typifies a third approach, taking both

---

311. *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 315 (1989); see *supra* notes 233–237 and accompanying text.

312. 66 PA. CONS. STAT. § 1310(a) (2020) (stating that temporary rates “shall be sufficient to provide a return of not less than 5% upon the original cost, less accrued depreciation, of the physical property, when first devoted to public use, of such public utility”). This rate limit is triggered by the PUC’s decision to temporarily decrease or increase rates based on the public interest. *Id.*

313. Moreover, statutory authority to temporarily adjust rates in the public interest exists around the country. See, e.g., 66 PA. CONS. STAT. § 1310(a) (2021); N.H. REV. STAT. ANN. § 378:27 (2021); 39 R.I. GEN. LAWS § 39-3-13 (2021); HAW. REV. STAT. ANN. § 269-16(b)(1) (2017).

314. *State Disconnection Policies*, U.S. DEP’T OF HEALTH AND HUM. SERVS., <https://liheapch.acf.hhs.gov/Disconnect/disconnect.htm> (last visited Jan. 3, 2022).

315. ALA. ADMIN. CODE r. 770-X-1-.12(2)(e) (2021) (stating that “[n]o residential electric or natural gas service shall be disconnected for nonpayment when the temperature at that location is forecasted to be 32 degrees Fahrenheit or below for that calendar day”).

316. CONN. GEN. STAT. § 16-262c(b)(1) (2020) (stating that “[f]rom November first to May first, inclusive, no electric distribution company, as defined in section 16-1, no electric supplier and no municipal utility furnishing electricity shall terminate, deny or refuse to reinstate residential electric service in hardship cases where the customer lacks the financial resources to pay his or her entire account. From November first to May first, inclusive, no gas company and no municipal utility furnishing gas shall terminate, deny or refuse to reinstate residential gas service in hardship cases where the customer uses such gas for heat and lacks the financial resources to pay his or her entire account” with a limited exception for gas companies in cases where this statute was used the previous year, and payment still has not been rendered).

temperature and time of year into account.<sup>317</sup> Finally, others like Idaho base their policies around protecting vulnerable populations, such as children under the age of eighteen, or elderly or infirm adults.<sup>318</sup> These policies are predicated on the acknowledgment that under certain conditions, some utilities are so essential to life and health that people cannot go without them. Recently, of the thirty-three states that enacted disconnection moratoria, only a few also mandated reconnection of previously terminated services.<sup>319</sup> Some, like the City of Los Angeles, took further steps to provide water access to persons experiencing homelessness by setting up free handwashing stations on city streets.<sup>320</sup> For the two million people living in America who lacked water access even prior to the pandemic,<sup>321</sup> reconnection is essential.

Requiring PUCs to reconnect all water utility services merges the logic of weather-related utility disconnection bans with the realities of water necessity underscored by the COVID-19 pandemic. Handwashing and proper sanitation are critical to preventing the spread of diseases like COVID-19. Policymakers have recognized the critical need for heating and cooling; water must be included in these considerations to protect individual and community health. Further, in recognition of the threat to health posed by lack of water, policymakers must also take affirmative steps to reconnect services for those who were previously disconnected. Coupling this proposal with the recommendation to increase funding will expand access to water, while at the same time providing compensation to utility providers.

At their core, these proposals encourage community resilience in the face of catastrophe, both during the COVID-19 pandemic and beyond. Americans will always need water, and as in the past, the United States will endure events that strain or disrupt water access. The nature of those events—civil unrest, natural disasters, or economic upheaval—are unpredictable, but water vulnerability is not. By investing in water access

---

317. 26 DEL. ADMIN. CODE §§ 3000-2.0, 3000-6.1 (2018) (stating that the cooling season is between June 1 and September 30, and the heating season is between November 15 and March 31. During the cooling season, utility service cannot be terminated if a residence is within 50 miles of an area with a heat index equal to or above 105°F, and during the heating season, the same is true for temperatures equal to or below 32°F).

318. IDAHO ADMIN. CODE r. 31.21.01.306.01 (2020) (stating that “[e]xcept as provided in Rule 303, no gas or electric utility may terminate service or threaten to terminate service during the months of December through February to any residential customer who declares that he or she is unable to pay in full for utility service . . . and whose primary household includes children [18 or younger], elderly [62 or older] or infirm persons”).

319. See, e.g., Mich. Exec. Order No. 2020-28 (Mar. 30, 2020), *repealed by* Mich. Exec. Order No. 2020-144 (July 8, 2020).

320. James Queally, ‘*She hadn’t Showered in Nine Days.*’ *L.A. Makes it Hard to be Homeless, Avoid Coronavirus*, L.A. TIMES (Mar. 29, 2020), <https://www.latimes.com/homeless-housing/story/2020-03-29/coronavirus-homeless-wash-hands-hygiene-los-angeles-shutdown-shower-of-hope>.

321. See *supra* note 29 and accompanying text.

---

---

expansion on the front end, policymakers take one major concern off of their plates before the crisis begins.

#### CONCLUSION

At the federal level, the United States does not guarantee a right to water. Instead, the federal government operates a pay-to-play scheme that hinges on individual consumers' ability to pay for access to a critical resource. The system is administered under a hodgepodge of state regulations, leaving millions of people behind in the process. But water access in the United States does not have to be this way; when faced with a public health crisis and historic levels of unemployment, the majority of states quickly enacted water utility disconnection moratoria. These moratoria prevented water utility providers from terminating services to consumers, regardless of ability to pay. In doing so, they disrupted existing contracts between consumers, service providers, and public utility commissions, creating a *de facto* positive right to water in a time of public need. While the moratoria did not exceed the bounds imposed by the Constitution's Takings and Contract Clauses, they illuminated the tension between expanding positive water rights and constitutional limitations on government interference with private property.

This Article's analysis of water utility disconnection moratoria data found that a state's unemployment rate was the factor most closely correlated with moratorium adoption, signifying that mitigating widespread unemployment provokes state action. But it should not take large-scale societal disruption amidst a global pandemic for governments to act. The COVID-19 pandemic provided an opportunity for federal and state governments to reevaluate the United States' approach to water, and take measures to ensure that all have access to this critical resource going forward. The pandemic was a wake-up call to water access issues for many Americans; for people in Flint, Lowndes County, rural California, and Appalachia, the nation's collective awakening—and the need for government action—is long overdue.