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## Toward a Role for Protest in Environmental Law

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# TOWARD A ROLE FOR PROTEST IN ENVIRONMENTAL LAW

*Emily Hammond*<sup>†</sup>

## ABSTRACT

The story of environmental law closely coincides with that of the Environmental Protection Agency (EPA), which has doubtless made many contributions to improved governance and enhanced environmental protection. In this symposium tribute to the EPA's fiftieth anniversary, however, I invite a renewed look at the role of protest in environmental law—both as an integral part of the development of environmental law and as an enduring critique of it. This approach demands of traditional legal scholarship that it interrogate its discomfort with direct-action methods; in the environmental law arena, it asks for both a deeper theoretization of protest and a renewed commitment to principles of environmental justice. Using examples from the environmental protest traditions of central Appalachia, I explore how those traditions have shaped environmental law and how the promise of environmental law has fallen short. These examples also make plain that the narrative of civil disobedience as “outside” of the legal system in contrast to participatory activities “within” the system is a false dichotomy. Indeed, the coordinated efforts among civil disobedients, local environmental movements, and impact litigators suggests the further need to theorize and operationalize a role for protest in environmental law. Ultimately, this Article calls for such a research agenda.

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## INTRODUCTION

On the occasion of the Environmental Protection Agency's (EPA) golden anniversary, observers of both administrative and environmental law do well to consider the EPA's contributions to improved governance and enhanced environmental protection.<sup>1</sup> For example, in many ways the EPA has been a pioneer in regulatory innovations that incorporate public participation, both formally<sup>2</sup> and informally.<sup>3</sup> Still, the limitations of regularized means of public participation are widely recognized.<sup>4</sup> In this symposium contribution,<sup>5</sup> I offer some preliminary thoughts on civil disobedience, protest, direct action, and other forms of resistance as part of the fabric of environmental law.

This Article neared completion just prior to the declaration of the global COVID-19 pandemic, and as it goes to press, a nationwide antiracism protest movement has sounded alarms over the killing of Black people by police and our collective failure to reckon with deeply entrenched racism. The federal government, as well as some state and

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1. *E.g.*, Wendy Wagner, *It Isn't Easy Being a Bureaucratic Expert: Celebrating the EPA's Innovations*, 70 CASE W. RES. L. REV. 1093 (2020).
  2. The word "formally" here refers to agency actions taken according to predefined procedural requirements, not necessarily the narrow sense of the word used for agency actions governed by the Administrative Procedure Act, 5 U.S.C. §§ 556, 557 (2012). *See* LeRoy Paddock, *Environmental Accountability and Public Involvement*, 21 PACE ENVTL. L. REV. 243 (2004) (cataloging and noting limits of formal means of participation in environmental decision-making); Jonathan Poisner, *A Civil Republican Perspective on the National Environmental Policy Act's Process for Citizen Participation*, 96 ENVTL. L. 53, 53 (1996) ("Virtually every federal environmental law passed in the 1970s contains significant provisions for citizen participation in the decision making of implementing agencies."). Under President Obama's leadership, the EPA also invigorated its commitment to environmental justice. *See* EPA, PLAN EJ 2014 PROGRESS REPORT 1 (2014) (setting forth "EPA's roadmap for integrating environmental justice (EJ) into its programs, policies and activities.").
  3. *E.g.*, Emily Hammond & David L. Markell, *Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out*, 37 HARV. ENVTL. L. REV. 313, 340 (2013) (reporting on generally favorable results of study considering the EPA's treatment of petitions to revoke state authority).
  4. Paddock, *supra* note 2, at 243–44. The environmental-justice critique is particularly forceful, and not limited to public participation. *E.g.*, Eileen Guana, *The Environmental Justice Misfit: Public Participation and the Paradigm Paradox*, 17 STAN. ENVTL. L.J. 3 (1998) (explaining how environmental-justice considerations fit poorly into expertise, pluralistic, and civic republican models of agency decision-making).
  5. Case Western Reserve University School of Law held the symposium *The Environmental Protection Agency Turns 50* on October 18, 2019.

local governments, have met peaceful protestors with violence.<sup>6</sup> And although some jurisdictions have taken steps to address at least a few of the deep racial inequities embedded in law and policy,<sup>7</sup> there is significant long-term work to be done on both individual and societal bases.<sup>8</sup> This Article's focus on environmental protest may seem out-of-step with the urgency of the current context.<sup>9</sup> But the environmental justice critique of environmental law helps illuminate the deep-seated institutional deficiencies with which environmental protest reckons.

Salient examples of environmental protest abound. Consider the Native Americans who have among other things blocked the paths of the Dakota Access Pipeline and Keystone XL Pipeline in protest of the

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6. See, e.g., Philip Bump, *Timeline: the Clearing of Lafayette Square*, Washington Post (June 5, 2020, 9:01 PM), <https://www.washingtonpost.com/politics/2020/06/02/timeline-clearing-lafayette-square/> [<http://perma.cc/7437-9KHZ>] (“Officers from several agencies closed in on protesters, using smoke canisters, irritants, explosive devices, batons and horses to clear the area.”).
  7. See Giovanni Russonello, *Have Americans Warmed to Calls to ‘Defund the Police’?*, N.Y. TIMES (July 3, 2020), <https://www.nytimes.com/2020/07/03/us/politics/polling-defund-the-police.html> [<https://perma.cc/82YW-8RPK>] (describing movement to defund police and summarizing polling data); Erik Ortiz & Kaleigh O’Boyle, *The Next Wave of Statue Removals is Afoot. See Where They’re Being Taken Down Across the U.S.*, NBC NEWS (updated July 1, 2020, 1:37 PM), <https://www.nbcnews.com/news/us-news/2020-next-wave-statue-removals-afoot-map-n1230506> [<https://perma.cc/Y6PD-AGH5>] (providing interactive map of statue removals).
  8. As but one example, see The Association of American Law Schools, *Law Deans Antiracist Clearinghouse Project*, <https://www.aals.org/antiracist-clearinghouse/> [<https://perma.cc/N8T6-MZ7A>] (last visited July 8, 2020) (setting forth long-term vision for antiracist work in American law schools).
  9. This Article draws examples from central Appalachia; one might contend that those examples are further removed from the matter of racism because of the perception that the region is white. I both take the criticism and challenge readers to interrogate it. See Jillean McCommons, *Appalachian Hillsides as Black Ecologies: Housing, Memory, and The Sanctified Hill Disaster of 1972*, BLACK PERSPECTIVES, June 16, 2020, <https://www.aaihs.org/appalachian-hillsides-as-black-ecologies-housing-memory-and-the-sanctified-hill-disaster-of-1972/> [<https://perma.cc/LP8B-L2DX>] (detailing Kentucky disaster that “exposed racial inequalities embedded in Appalachian landscapes”); see also Nick Brumfield, *It’s Time to Talk About West Virginia’s Slaves*, EXPATALACHIANS, Jan. 29, 2019, <https://expatalachians.com/its-time-to-talk-about-west-virginias-slaves> [<https://perma.cc/FGT8-X2UV>] (detailing West Virginia’s dark legacy of slavery); *Mob Drives 200 Negroes Out of the City of Corbin*, THE COURIER-JOURNAL, Nov. 1, 1919 (relating to the expulsion of Black citizens from Corbin, Tennessee), available via Black in Appalachia, <https://www.blackinappalachia.org/corbin-expulsion> [<https://perma.cc/8RZS-D9WK>].

“bulldoz[ing] of indigenous rights and interests.”<sup>10</sup> Further, the climate-change crisis and the accompanying failure of meaningful action by government institutions has opened the door for urgent calls for drastic change.<sup>11</sup> Scientists are exhorted to undertake mass acts of civil disobedience;<sup>12</sup> Greta Thunberg and a host of other young people have shamed leaders for their seeming impotence;<sup>13</sup> individuals continue to lock down their bodies to slow the construction of natural gas pipelines<sup>14</sup>—the list goes on.<sup>15</sup> These activities draw on a strong tradition of direct action that has gone hand-in-hand with the development of environmental law, including many of the statutes that the EPA administers.<sup>16</sup> But given that these activities often take place outside of ordinary legal processes, how can they be reconciled with notions of environmental governance? And how can insights from these activities further the aims of environmental justice?

In this Article, I draw from a handful<sup>17</sup> of historical and contemporary examples of direct action in central Appalachia as a way to (1)

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10. Gabrielle Gurley, *Native Americans Hail Oil and Gas Pipeline Decisions*, THE AMERICAN PROSPECT (July 8, 2020), <https://prospect.org/environment/native-americans-hail-oil-and-gas-pipeline-decisions/> [<https://perma.cc/9LUZ-Q3MU>]; see also *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs*, No. 1:16-cv-01534-JEB (D.D.C. July 6, 2020) (vacating agency's grant of easement for Dakota Access pipeline and ordering pipeline to be shut down).
  11. Robert W. Adler, *Natural Resource and Natural Law Part I: Prior Appropriation*, 60 WM. & MARY L. REV. 739, 742 (2019) (referencing a “resurgence of civil disobedience to support natural law-based arguments regarding public lands and other resources”).
  12. Matthew Green, *Scientists Endorse Mass Civil Disobedience to Force Climate Action*, REUTERS (Oct. 13, 2019, 10:12 PM), <https://www.reuters.com/article/us-climate-change-scientists/scientists-endorse-mass-civil-disobedience-to-force-climate-action-idUSKBN1WS01K> [<https://perma.cc/4UK6-AWL7>] (describing efforts of the group Extinction Rebellion).
  13. *Transcript: Greta Thunberg's Speech at The U.N. Climate Action Summit*, NPR (Sept. 23, 2019, 1:58 PM), <https://www.npr.org/2019/09/23/763425863/transcript-greta-thunbergs-speech-at-the-u-n-climate-action-summit> [<https://perma.cc/UCH2-B5EW>] (“[Y]ou all come to us young people for hope. How dare you!”).
  14. In the words of one such protestor: “In times such as these, with the catastrophic effects of global warming accelerating at an alarming pace, it is imperative to act now.” Appalachians Against Pipelines, FACEBOOK (Oct. 7, 2019), <https://www.facebook.com/pg/appalachiansagainstpipelines/posts/2273237262788488> [<https://perma.cc/7X92-N9YQ>].
  15. See Charles R. DiSalvo, *Climate Disobedience*, U. FLA. J.L. & PUB. POL'Y (forthcoming) (offering a primer for effective climate-change disobedience).
  16. See Green, *supra* note 12.
  17. A more fulsome account is in progress, and in any event is beyond the scope of this symposium.

make concrete both the overlaps and the inherent tensions among protest activities and the environmental legal system,<sup>18</sup> and (2) develop a research agenda that considers how direct action can enhance the missions of environmental protection and justice.<sup>19</sup> Part I begins with definitional matters, orienting the reader to direct action and making note of its connection to the civil-society and environmental-justice literatures. Part II uses concrete examples to illustrate the heritage of protest in the Appalachian region and its relationship to the development of environmental law. Part III outlines a research agenda to consider how protest can be better accounted for as environmental law moves to reincorporate social justice.

### I. PROTEST, CIVIL DISOBEDIENCE, AND DIRECT ACTION

Protest, which is an act expressing disapproval, may take many forms. A familiar starting place is civil disobedience, which legal philosopher John Rawls defined as a public, nonviolent, conscientious political act done contrary to the law, with the purpose of bringing about change in the law or government policies.<sup>20</sup> Such acts are communicative—hence the *public* component of the definition—in that Rawls compares them to public speech.<sup>21</sup> These acts are necessarily nonviolent because otherwise they would conflict with their communicative force and, indeed, undermine it.<sup>22</sup>

Furthermore, civil disobedience is fundamentally committed to the legal system in several ways. First, the civil disobedient accepts the consequences of her legal violation—for example, a protestor who serves probation and completes community service as part of a sentence for trespass or interfering with others' property.<sup>23</sup> This attribute also demonstrates the sincerity and politically conscientious nature of the

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18. This work owes an immense debt to the rich literature on civil disobedience and civil rights and the many individuals who made the ultimate sacrifice in the furtherance of equal rights for all. *See, e.g.*, Mason Adams, *Appalachia's Deep History of Resistance, YES!* (Sept. 26, 2019), <https://www.yesmagazine.org/democracy/2019/09/26/resistance-protest-coal-appalachia/> [<https://perma.cc/T8MW-YS6Z>].
  19. A full exploration of these matters is the topic of a larger project in progress, tentatively titled *Appalachia, Power, and Place* (unpublished manuscript) (on file with author).
  20. JOHN RAWLS, A THEORY OF JUSTICE 364 (1st ed. 1971).
  21. *Id.* at 366.
  22. *Id.*
  23. *See* Mike Gangloff, *Pipeline Protest Brings Community Service*, ROANOKE TIMES (Aug. 30, 2018), [https://www.roanoke.com/news/crime/pipeline-protest-brings-community-service/article\\_844a8906-5cd3-550c-8da2-a0852ee5364f.html](https://www.roanoke.com/news/crime/pipeline-protest-brings-community-service/article_844a8906-5cd3-550c-8da2-a0852ee5364f.html) [<https://perma.cc/ZC2M-PWXK>] (recounting details of a Virginia Tech professor and Appalachian studies scholar Emily Satterwhite's plea agreement).

act.<sup>24</sup> Second, the civil disobedient's nonviolent action evinces a commitment to the rule of law by minimizing harm caused by the act.<sup>25</sup> Finally, one's commitment to the legal system is evinced by its ultimate purpose: to influence that system.<sup>26</sup>

Many contemporary activists speak in terms of direct action rather than civil disobedience. Most generally, one may conceive of direct action as an umbrella term, including legal<sup>27</sup> and illegal action, violent and nonviolent action.<sup>28</sup> For purposes of this Article, there is little need to distinguish among the types of direct action, though clearly more is at stake—liberty and sometimes even life—for some protestors as compared to others.<sup>29</sup> The point here is more basic. Though persistently prevalent in many conflicts over energy projects and the environment, direct action receives little attention in the mainstream environmental-law literature.<sup>30</sup> Indeed, the law-violating aspect of civil disobedience is uncomfortable for many who are committed to the rule of law.<sup>31</sup> And some states have ratcheted up their enforcement of criminal laws in response to acts of civil disobedience.<sup>32</sup> Yet the philo-

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24. RAWLS, *supra* note 20, at 367 (“To be completely open and nonviolent is to give bond of one’s sincerity . . .”).

25. *Id.* at 366.

26. *Id.* at 366–67.

27. For example, a public-interest group might obtain the necessary permits to hold a protest on the steps of the county courthouse or organize a boycott of a product. *See generally Civil Disobedience*, STAN. ENCYCLOPEDIA OF PHIL., <https://plato.stanford.edu/entries/civil-disobedience/> [<https://perma.cc/8N7K-D3WN>] (last revised Dec. 20, 2013).

28. *See generally id.*

29. The distributional consequences of societal lines between “acceptable” and “unacceptable” forms of protest are surely worthy of examination, but are regrettably beyond the scope of this Article. *Compare* Maia Niguel Hoskin, *The Whiteness of Anti-Lockdown Protests*, Vox (Apr. 25, 2020, 12:20 PM) (critiquing the white privilege evinced by shutdown protestors), *with* Caleb Ecarma, *Trump Doesn’t Think the Police Crackdown on Protests Has Been Brutal Enough*, Vanity Fair (June 1, 2020), <https://www.vox.com/first-person/2020/4/25/21234774/coronavirus-covid-19-protest-anti-lockdown>, <https://www.vanityfair.com/news/2020/06/donald-trump-brutal-police-protest-crackdown> [<https://perma.cc/A7FE-DRJ8>] (describing, *inter alia*, police violence against Black Lives Matter Protestors).

30. *Cf.* Adler, *supra* note 11.

31. For example, they may be “demonized as threats to social order.” KIMBERLEE BROWNLEE, CONSCIENCE AND CONVICTION: THE CASE FOR CIVIL DISOBEDIENCE 155 (2012).

32. *See U.S. Protest Law Tracker*, INT’L CTR. FOR NOT-FOR-PROFIT LAW (Mar. 11, 2020) <https://www.icnl.org/usprotestlawtracker/> [<https://perma.cc/5W5F-XV5S>] (depicting and describing state and federal initiatives since 2016 that “restrict the right to peaceful assembly”).

sophical literature finds moral justification for these activities;<sup>33</sup> and the historical, anthropological, and sociological literatures provide deep accounts of resistance.<sup>34</sup> I posit that we should engage with resistance as a fundamental component of a socially just civil society, letting it fill significant gaps left open by constitutional safeguards.<sup>35</sup>

Moreover, environmental resistance might be understood within the framework of what Professor Jed Purdy calls the “long environmental justice movement,” which he argues dates to well before the institutionalization of environmental law that took place in the 1970s.<sup>36</sup> Indeed, the environmental-justice critique of environmental law—which, among other things, is concerned with the distributional consequences of a legal regime that imposes disproportionate environmental harms on people of color and low-income communities<sup>37</sup>—takes aim at environmental law’s mostly white, mostly middle- or upper-class, professional paradigm that includes national nongovernmental organizations and relies on legal mechanisms such as participation in the administrative process and advocacy in the courts.<sup>38</sup> Protest in environmental law shares the environmental-justice movement’s long heritage of community activism;<sup>39</sup> and, in fact, protest persistently highlights the shortcomings of environmental law.

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33. BROWNLEE, *supra* note 31, at 159 (arguing that the protests of “conscientiously motivated campaigners” can “serve the interests of society by forcing a desirable re-examination of moral boundaries”).

34. *See* sources cited *infra* note 35.

35. *See*, e.g., Jon D. Michaels, *An Enduring, Evolving Separation of Powers*, 115 COLUM. L. REV. 515, 533–34 (2015) (describing civil society as a “subconstitutional counterweight” that constrains administrative agencies even when the judicial and legislative branches fall short); cf. Miriam Seifter, *Further from the People? The Puzzle of State Administration*, 93 N.Y.U. L. REV. 107, 108–10 (2018) (critiquing the role of civil society as a constraint on state government). Premised on respect for the positive law, civil society is thus consistent with the civil disobedient’s commitment to that same legal system. *See* Adler, *supra* note 11, at 779; cf. Dorothy Roberts, *The Moral Exclusivity of the New Civil Society*, 75 CHI.-KENT L. REV. 555, 556 (2000) (challenging views of civil society that fail to engage social justice and that engage a “conception of civil society more concerned with rescuing a disappearing way of life than with ending persistent economic and social disparities.”)

36. *See* Jedediah Purdy, *The Long Environmental Justice Movement*, 44 ECOLOGY L.Q. 809, 815 (2018).

37. SHANNON ELIZABETH BELL, *FIGHTING KING COAL: THE CHALLENGES TO MICROMOBILIZATION IN CENTRAL APPALACHIA* 34–35 (2016).

38. Purdy, *supra* note 36, at 818–24.

39. *See id.* at 819 (“The theoretical commitments that characterize the perspective of environmental justice also express its origins in community activism.”).

## II. FROM PROTEST TO LAW AND BACK AGAIN

The above definitions help outline the theory of protest and its place in law, but resistance stories vividly demonstrate the ways that such activities influence the very system being protested. In this Part, I draw from central Appalachia's rich heritage of resistance<sup>40</sup> to make plain the ways in which direct actions have influenced the development of law. Notably, these stories also resonate with the environmental-justice critique of environmental law—they are set within some of the nation's most impoverished counties<sup>41</sup>—and illuminate the ongoing role for resistance in the law's evolution. There are far too many such stories to catalog here, so I have chosen to emphasize the following: (1) surface-mining protest activities and the Surface Mining Control and Reclamation Act (SMCRA); (2) mountaintop-removal mining under the environmental laws and the ongoing role of protest; and (3) a brief mention of other contemporary resistance stories that set the stage for a broader research agenda that seeks a place for protest in reforming environmental law.

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40. Though regrettably beyond the scope of this Article, Central Appalachia's resistance stories reveal a region far more nuanced than prevailing stereotypes would acknowledge. For a sampling of historical, anthropological, and other social-science literature focusing on resistance, see generally COAL COUNTRY: RISING UP AGAINST MOUNTAINTOP REMOVAL MINING (Shirley Stuart Burns et al. eds., 2009); FIGHTING BACK IN APPALACHIA (Stephen L. Fisher ed., 1993); JOSEPH D. WITT, RELIGION AND RESISTANCE IN APPALACHIA: FAITH AND THE FIGHT AGAINST MOUNTAINTOP REMOVAL COAL MINING (2016); JESSICA WILKERSON, TO LIVE HERE, YOU HAVE TO FIGHT (2019). See also APPALACHIAN RECKONING: A REGION RESPONDS TO HILLBILLY ELEGY (Anthony Harkins & Meredith McCarroll eds., 2019) (comprehensively refuting the major themes of the pop-culture book *Hillbilly Elegy*); CONFRONTING APPALACHIAN STEREOTYPES: BACK TALK FROM AN AMERICAN REGION (Dwight B. Billings et al. eds., 1999) (comprehensively refuting the major themes of Robert Schenkkan's 1992 play *The Kentucky Cycle*).
41. *Relative Poverty Rates in Appalachia, 2013–2017*, APPALACHIAN REGIONAL COMMISSION, [https://www.arc.gov/research/MapsofAppalachia.asp?MAP\\_ID=151](https://www.arc.gov/research/MapsofAppalachia.asp?MAP_ID=151) [https://perma.cc/A3WS-NRT5] (last visited June 23, 2020). Moreover, Appalachians' health and medical issues are unique even when compared to others of similar racial and socioeconomic circumstances. Barbara Ellen Smith et al., *Appalachian Identity: A Roundtable Discussion—Thoughts on the Importance of Identifying Appalachians*, 38 APPALACHIAN J. 56, 63 (2010); see also Don Manning-Miller, *Racism and Organizing in Appalachia*, in FIGHTING BACK IN APPALACHIA, *supra* note 40, at 57, 57–66 (emphasizing that the matter of race has been neglected altogether in most community groups for Appalachia); Lisa R. Pruitt, *Place Matters: Domestic Violence and Rural Difference*, 23 WIS. J.L. GENDER & SOC'Y 347, 394–400 (2008) (collecting studies suggesting that incidents of domestic violence and an accompanying lack of social and legal infrastructure are particularly acute in Appalachia).

A. *The Broad Form Deed and SMCRA*

It is well known in U.S. law that a fee simple estate may be severed into its surface estate and mineral estate. But what is lost in introductory property courses is that central Appalachia's history cemented this axiom.<sup>42</sup> Across the region, and dating from the 1800s to present day, many mining and timber interests have purchased land and mineral rights in the region.<sup>43</sup> One particularly notorious agent in this ownership shift was John C.C. Mayo, architect of the broad form deed,<sup>44</sup> which was prevalent in the late 1800s and early 1900s. This deed—which influentially established boilerplate language for severing mineral estates—included in the granting clause the right to “pollute water,” and “remov[e] or otherwise utilize[e]” “telephone lines” and “timber,” plus the ability to erect anything on the surface “deemed necessary and convenient” to accomplish the use of the mineral estate,<sup>45</sup> “without any liability whatsoever for damages to said lands.”<sup>46</sup> These leases also included clauses reserving to the surface estate “free use of said land for agricultural purposes” consistent with the mineral rights being conveyed.<sup>47</sup>

Of course, at the time most of these deeds were granted, underground mining was the norm.<sup>48</sup> It was only later that surface mining became both practicable and widespread. Surface owners were thus alarmed when mineral owners increasingly stripped the surfaces,

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42. *E.g.*, Kincaid v. McGowan, 4 S.W. 802, 803–04 (Ky. 1887) (recognizing distinct surface and mineral estates).

43. This is true for both hard minerals (i.e., coal), and fugacious minerals (e.g., oil and natural gas). An influential study by the Appalachian Regional Commission found that 70% of mineral rights in eighty counties across six states were owned by corporations. *See* APPALACHIAN LAND OWNERSHIP TASK FORCE, LAND OWNERSHIP PATTERNS AND THEIR IMPACTS ON APPALACHIAN COMMUNITIES: A SURVEY OF 80 COUNTIES 37–40 (describing history of mineral purchasing); *id.* at 51 (reporting minerals acres owned by state and by type of owner).

44. *See* Ward v. Harding, 860 S.W.2d 280, 282–83 (Ky. 1993) (describing the origins and interpretations of broad form deeds, or “Mayo deeds”); *see also* Robert M. Pfeiffer, *Kentucky’s New Broad Form Deed Law—Is It Constitutional?*, 1 J. MIN. L. & POL’Y 57, 61 (1985) (describing Mayo’s rise from poverty to great wealth).

45. For a 1911 exemplar, see McIntire v. Marian Coal Co., 227 S.W. 298, 298–99 (Ct. App. Ky. 1921).

46. For a 1921 exemplar, see Pennsylvania v. Fitzmartin, 102 A.2d 893, 894 (Pa. 1954).

47. *McIntire*, 227 S.W. at 344.

48. Pfeiffer, *supra* note 44.

destroying homes, agriculture lands, family cemeteries, and more.<sup>49</sup> Consider this statement of one activist:

I didn't know much about strip mining. I don't guess that anybody did from the mountains until they got in there and started destroying. What I knew was deep mining. It wasn't so destructive. But then when we seen what strip mining could do, I think that's when people really got concerned and got afraid that they'd really just bury the mountain people alive.<sup>50</sup>

It is typical, when a mineral estate is conveyed, that there goes along with it a dominant easement over the surface; otherwise, there would be no way to effectuate the use of the mineral estate.<sup>51</sup> Today, this easement is subject to various reasonableness limitations that protect pre-existing uses (like agriculture and family dwellings),<sup>52</sup> and require paying damages to the surface owner should the use become unreasonable.<sup>53</sup> But such was not always the law, and in particular, Kentucky doggedly read the broad form deeds to obviate any need for reasonable use or damages. Consider this statement of Kentucky's highest court when it construed the broad form language referenced above: "Undoubtedly, under the plain terms of the deed, the Marian Coal Company has the right and could by showing the necessity or convenience thereof use and occupy the whole surface of the land in question even to excluding the plaintiff and taking his house and garden . . . ."<sup>54</sup>

The effect of this broad deed language and the courts' even broader construction of it was stunning. Surface owners found themselves without remedy for complete losses of their land, and the environmental destruction was unfathomable, causing "drastic reshaping of the surface,"<sup>55</sup> "massive landslides,"<sup>56</sup> water pollution, and isolation of land including "entire mountaintops."<sup>57</sup> Indeed, there arose a broad coalition

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49. See Mary Beth Bingman, *Stopping the Bulldozers: What Difference Did it Make?*, in *FIGHTING BACK IN APPALACHIA*, *supra* note 40, at 17, 20.

50. *Id.* at 19.

51. Pfeiffer, *supra* note 44, at 57.

52. *E.g.*, *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 622 (Tex. 1971) (describing the rule of accommodation for pre-existing surface uses).

53. *Id.* at 623 (referencing damages).

54. *McIntire v. Marian Coal Co.*, 227 S.W. 298, 300 (Ky. 1921).

55. U.S. DEP'T OF THE INTERIOR, *SURFACE MINING AND OUR ENVIRONMENT: A SPECIAL REPORT TO THE NATION* 51 (1967).

56. *Id.*

57. *Id.* at 54.

of activists hoping to abolish strip mining altogether.<sup>58</sup> As one Kentuckian protestor put it, “in the late 1960s and early 1970s, we wanted to stop, not regulate, strip mining.”<sup>59</sup>

Among these activists, the dual commitments to freedom in the use of one’s land<sup>60</sup> and protection of the environment ran deep.<sup>61</sup> An especially vivid story is that of a small group of individuals—mostly women—who occupied a strip mine into the night in Knott County, Kentucky in 1972.<sup>62</sup> They faced jeering miners, cold rain, and rumors of violence while camped in front of a bulldozer.<sup>63</sup> Ultimately, police escorted them off the mountain after one of their ranks—Doris Shepherd, who had left early to take her sisters home—called the police. Down in the town, she had been threatened with rape and murder, and had watched what appeared to be an organized mob terrorizing their community.<sup>64</sup>

Although these protestors succeeded in shutting down the Knott County mine, they later reflected that they “weren’t sure what difference it all made.”<sup>65</sup> Early efforts to abolish strip mining were vulnerable to the coal companies’ local use of violence and red-baiting;<sup>66</sup> gave way to corporate lobbying (western energy companies also rose in power during this period);<sup>67</sup> fell prey to geopolitics (the 1973 oil embargo led to a shift in emphasis on using coal for U.S. energy needs);<sup>68</sup> and battled economic pressures (central Appalachia had few other large employers).<sup>69</sup> Indeed, whereas the labor and environmental movements

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58. See Ken Hechler, *How Congress Enabled Mountaintop Removal, in* COAL COUNTRY: RISING UP AGAINST MOUNTAINTOP REMOVAL MINING, *supra* note 40, at 63, 63–65 (essay by former West Virginian member of U.S. House of Representatives describing early congressional efforts toward abolition of strip mining).
59. Bingman, *supra* note 49, at 27.
60. Here I refer to primarily agricultural and homestead-surface uses.
61. They continue to do so, as illustrated *infra* notes 82–88.
62. The story is recounted in the first person in Bingman, *supra* note 49.
63. *Id.* at 17–18.
64. *Id.* at 25–27; see also *id.* at 21 (documenting further examples of resistance, both violent and nonviolent).
65. *Id.* at 18–19.
66. *Id.* at 23; see also Guy Carawan & Candie Carawan, *Sowing on the Mountain: Nurturing Cultural Roots and Creativity for Community Change, in* FIGHTING BACK IN APPALACHIA, *supra* note 40, at 245, 251 (describing Edith Easterling, an outspoken critic of strip mining, being called before the Kentucky Un-American Activities Committee).
67. See Hechler, *supra* note 58, at 66–68 (describing efforts by western members to block abolition legislation).
68. *Id.* at 68.
69. Bingman, *supra* note 49, at 27–29.

had been aligned in opposing strip mining early on, the narrative of jobs versus the environment arose out of this period and persists today.<sup>70</sup> Overall, single-issue grassroots social movements found themselves ill-prepared to take on these myriad forces.<sup>71</sup>

Arising out of these events, SMCRA became law in 1977 at the behest of the coal industry,<sup>72</sup> and received a lukewarm endorsement from President Carter even just after he signed it.<sup>73</sup> It also garnered criticism from within central Appalachia, exemplified by the following perspective of the grassroots group Save Our Cumberland Mountains (SOCM):

Congress incorporated into the new law numerous compromises worked out between national environmental groups and the coal industry. SOCM never agreed to those compromises, and some members felt that they had been sold out by the national groups that had depended heavily on local groups . . . to lobby and provide testimony for Congressional study committees.<sup>74</sup>

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70. Hechler, *supra* note 58, at 66 (describing congressional witness Arnold Miller, a miner who later became president of the United Mine Workers and at the time held abolitionist views); Ann M. Eisenberg, *Just Transitions*, 92 S. CAL. L. REV. 273, 286 (2019) (describing activist Tony Mazzocchi's efforts to create "powerful labor-environmental alliances"); Purdy, *supra* note 36, at 846–47 (documenting early union opposition to strip mining and other despoliation of the environment); *cf.* Bragg v. W. Va. Mining Ass'n, 248 F.3d 275, 285 (4th Cir. 2001) (challenging a state agency's issuance of mountaintop removal permits in a case where the EPA aligned itself with the plaintiffs (individual citizens and environmental groups) against "the coal mining companies, who are allied with the United Mine Workers of America and the West Virginia State political establishment, all of whom favor current mining practices.").
71. Bingman, *supra* note 49, at 29.
72. Hechler, *supra* note 58, at 66 ("[T]he coal industry spread the word that it would agree to a mild form of regulation to quiet the public uproar for abolition."). The industry nevertheless challenged the statute on takings grounds. *See* Hodel v. Va. Surface Mining & Reclamation Ass'n, 452 U.S. 264 (1981) (rejecting challenges to SMCRA's constitutionality).
73. James A. McDaniel, *The Surface Mining and Reclamation Act of 1977: An Analysis*, 2 HARV. ENV'T'L L. REV. 288, 288 & n.4 (1978) (citing Remarks on Signing H.R. 2 into Law, 13 WEEKLY COMP. PRES. DOC. 1162 (Aug. 3, 1977) (reporting President Carter's statement that some of the Act's features had to be "watered down")). It was not until much later that Kentucky, as a result of an amendment to its constitution, finally put an end to the broad interpretations of the broad form deed. *See* Ward v. Harding, 860 S.W.2d 280 (Ky. 1993) (upholding the constitutional amendment and recounting its history).
74. Bill Allen, *Save Our Cumberland Mountains: Growth and Change Within a Grassroots Organization*, in FIGHTING BACK IN APPALACHIA, *supra* note 40, at 85, 89–90; *see also* BELL, *supra* note 37, at 25 (referencing the

What compromises does SMCRA make? Like most other environmental laws, it is designed to permit pollution, albeit in a regulated fashion (a point to which I return shortly).<sup>75</sup> SMRCA's means of regulating surface mining relies on the federal government as the initial standard-setter, but anticipates that state governments will apply for authority to implement federal law.<sup>76</sup> Once such authority is granted, it is further anticipated that the federal government will exercise only a very limited oversight role.<sup>77</sup> Even more than traditional cooperative federalism models,<sup>78</sup> therefore, this governance scheme is susceptible to industry capture at the state level—a problem that has plagued coal-producing states for more than a century.<sup>79</sup> Nevertheless,

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shift to national environmental movements dominated by middle-class professionals who espoused “the reformist goal of federal regulation policy, rather than abolition legislation”).

75. It is only the rare law that prohibits pollution. *But see* Robert V. Percival, *Who's Afraid of the Precautionary Principle?*, 23 PACE ENVTL. L. REV. 21, 57–66 (2005) (describing the ban on leaded gasoline and the phase-out of chlorofluorocarbons).
76. *See* 30 U.S.C. § 1201(f) (2012) (“because of the diversity in terrain, climate, biologic, chemical, and other physical conditions in areas subject to mining operations, the primary governmental responsibility for developing, authorizing, issuing, and enforcing regulations for surface mining and reclamation operations subject to this chapter should rest with the States”).
77. *See id.* § 1253(a) (providing that states have the exclusive authority, if they assume it, to regulate surface coal mining); *Bragg v. W. Va. Coal Ass'n*, 248 F.3d 275, 293 (4th Cir. 2001) (“[I]n contrast to other ‘cooperative federalism’ statutes, SMCRA exhibits extraordinary deference to the States.”).
78. The literature is vast in itemizing both pros and cons. For a comparison of the key provisions of SMCRA with those of the Clean Air Act, Clean Water Act, and Mine Safety & Health Act, see McDaniel, *supra* note 73, at 318–27.
79. *See, e.g.*, *W. Va. Highlands Conservancy v. Norton*, 161 F. Supp. 2d 676, 679 (W.D. W. Va. 2001) (“Since at least 1991, however, OSM has known officially that the West Virginia reclamation bonding program failed (and today continues to fail) to satisfy the federal statutory requirement for adequate funding.”); Ryan M. Yonk et al., *Exploring the Policy Implications of the Surface Mining Control and Reclamation Act*, 8 RESOURCES (SPECIAL ISSUE) 25, at 34–35 (describing public-choice incentives built into SMCRA’s bonding requirements that result in under-bonding). In fact, SMCRA was in part justified due to states’ failures to sufficiently regulate the coal industry. *See* McDaniel, *supra* note 73, at 294–96 (describing the significant shortcomings of state regulation of surface mining leading up to SMCRA); David B. Spence, *Federalism, Regulatory Lags, and the Political Economy of Energy Production*, 161 U. PA. L. REV. 431, 505 (2013) (noting the SMCRA licensing scheme was deemed necessary by Congress “because of the importance of the coal industry to the national economy and because state environmental regulation had failed”).

SMCRA relies on state mining agencies to issue permits to surface-mine operators, ensure they are properly bonded, conduct inspections, and set standards for restoring the surface of the mine once mining activities cease.<sup>80</sup> Additionally, SMRCA requires authorized states to administer a fund to restore abandoned mines.<sup>81</sup>

Should a citizen or other entity wish to challenge a state agency's compliance with the federal standards, prospects are quite constrained. Would-be plaintiffs are limited to suing in state court (if authorized) or to petitioning the Office of Surface Mining Reclamation and Enforcement (OSMRE) to revoke state authority.<sup>82</sup> Generally, because primacy states—those that have received authorization to administer SMCRA—bear the exclusive regulatory responsibility, their laws do not become federal laws and may not be enforced in federal court.<sup>83</sup> Kentucky, Virginia, and West Virginia are all primacy states.<sup>84</sup> Citizens do have a statutory right to request an inspection,<sup>85</sup> and OSMRE's annual oversight process contemplates citizen involvement.<sup>86</sup> And there are procedures available for OSMRE to withdraw a state's authority, though such a remedy is rare.<sup>87</sup>

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80. For a relatively contemporaneous overview, see generally McDaniel, *supra* note 73.

81. *Id.* at 301.

82. *Pa. Fed'n of Sportsmen's Clubs, Inc. v. Hess*, 297 F.3d 310, 317, 331–32 (3d Cir. 2002) (emphasizing that SMCRA does not waive state immunity from suit in federal court and noting that the federal government could revoke state authority); *Bragg*, 248 F.3d at 295–98 (concluding that suit filed against state agency was not within exception to Eleventh Amendment immunity identified in *Ex parte Young*, 209 U.S. 123 (1908), and noting that oversight could be obtained if either the federal government were to revoke the state's authority or the plaintiffs were to sue in state court).

83. This is a significant difference from true cooperative federalism regimes. *E.g.*, *Penn. Fed'n of Sportsmen's Clubs*, 297 F.3d at 326–27 (distinguishing the Clean Water Act on this basis).

84. *Regulating Coal Mines*, OFFICE OF SURFACE MINING RECLAMATION & ENF'T, <https://www.osmre.gov/programs/rcm.shtm> [<https://perma.cc/6SXT-LCLD>] (last modified July 9, 2019).

85. *See* 30 U.S.C. § 1267(h) (2012); OFF. OF SURFACE MINING RECLAMATION AND ENF'T, OMB No. 1029-0118, CITIZEN'S REQUEST FOR AN INSPECTION FORM (2011).

86. 30 U.S.C. §§ 1267, 1271 (2012).

87. This observation likely obscures a deeper story. *See, e.g.*, *W. Va. Highlands Conservancy v. Norton*, 161 F. Supp. 2d 676, 682–83 (W.D. W. Va. 2001) (holding unlawful OSM's ten-year delay in failing to initiate withdrawal proceedings); *Termination of Federal Enforcement of Parts of the Missouri Permanent Regulatory Program and Return of Full Regulatory Authority to the State of Missouri*, 71 Fed. Reg. 5548, 5548 (Feb. 1, 2006) (to be codified at 30 C.F.R. pt. 925) (returning full

Despite that SMCRA created a baseline regulatory process with avenues for federal enforcement and citizen participation, SOCM's critique continues to hold force. Not only are the state regulatory programs open to a variety of general criticisms,<sup>88</sup> but SMCRA enables rather than halts the most destructive methods of surface mining, which continue to devastate Appalachian communities, destroy mountains, and eradicate species. The culprit is mountaintop-removal mining, which returns this story once again to the role of protest.

*B. Mountaintop-Removal Mining and the Continuing Role of Protest*

Mountaintop-removal mining is a particularly destructive surface mining method, the use of which increased in the 1990s and 2000s due to the availability of very heavy equipment and the market push for low-sulfur coal.<sup>89</sup> It involves, quite literally, blowing the tops off of mountains and placing the overburden—that is, the sixteen tons of removed earth for every ton of extracted coal—into adjacent valleys as “valley fills.”<sup>90</sup> But those adjacent valleys hold the headwaters of streams, which are part of the rich ecosystems that contribute to Appalachia's reputation as the “Noah's Ark of North America.”<sup>91</sup> To

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authority to Missouri after withdrawing partial authority for failure to fund and staff several state program areas); Return of Full Regulatory Authority to the State of Oklahoma, 52 Fed. Reg. 36,922, 36,922 (Oct. 2, 1987) (to be codified at 30 C.F.R. pt. 936) (returning authority to Oklahoma after withdrawal for numerous deficiencies in state's implementation). *See generally* Hammond & Markell, *supra* note 3 (presenting the findings of a study that considered all known petitions to the EPA to revoke state authority, including results demonstrating that such petitions can result in improved state regulatory performance even if the petitions are not granted).

88. Under President Reagan, Interior Secretary James Wyatt removed environmentalists from the Office of Surface Mining's key leadership positions and developed numerous industry-friendly policies that continued to harm communities and owners of the land's surface. Hechler, *supra* note 58, at 69; *see also* Robert A. Beck, *The Current Effort in Congress to Amend the Surface Mining Control and Reclamation Act of 1977 (SMCRA)*, 8 FORDHAM ENV'T'L L.J. 607, 607–10 (1997) (describing early political efforts to dial back protections).
89. *See* BELL, *supra* note 37, at 25–26 (2016) (describing dragline excavators, which are more than twenty stories tall).
90. *Earthshots: Satellite Images of Environmental Change: Mountaintop Mining*, U.S. GEOLOGICAL SURVEY, <https://earthshots.usgs.gov/earthshots/node/103#ad-image-0-0> [<https://perma.cc/NDN5-LAZU>] (last visited June 23, 2020).
91. Patrick Reis, *Are Endangered Species Being Sacrificed for Coal in Appalachia?*, SCI. AM. (Aug. 10, 2009), <https://www.scientificamerican.com/article/endangered-species-coal-appalachia-mountaintop-removal/> [<https://perma.cc/D9KE-6NT6>]. *See generally* Notice of the Release of Final Reports on the Effects Of Mountaintop Mines and Valley Fills on Aquatic

date, some 2,000 miles of Appalachian headwaters have been destroyed, over a million acres of forest have been removed, and the rich biodiversity of the region has been imperiled.<sup>92</sup> Moreover, the destruction of vegetation and natural water courses has led to pronounced and deadly flash flooding in the valleys at the bases of the mountains.<sup>93</sup>

Perhaps SMCRA's greatest blow to the environment is that it permits mountaintop-removal mining. This was not a surprise or accident:

This amendment would permit the mountaintop and valley fill type of surface mining presently used at several model mines in West Virginia creating useful plateaus without highwalls. Mountaintop mining produces flat land needed in many hilly regions with minimum damage to the environment. This is a form of mining which should increase, not decline . . . .<sup>94</sup>

This approach was not born of naiveté, a lack of scientific information, or a lack of local citizen engagement.<sup>95</sup> It was an intentional component of the SMCRA model.

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Ecosystems of the Central Appalachian Coalfields and a Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams, 76 Fed. Reg. 30,938, 30,938 (May 27, 2011) (documenting loss of headwaters resources, degraded water quality, water toxicity, harm to aquatic ecosystems, and limitations of restoration). Streams do not recover following reclamation. *See generally* Emily S. Bernhardt & Margaret A. Palmer, *The Environmental Costs of Mountaintop Mining Valley Fill Operations for Aquatic Ecosystems of the Central Appalachians*, 1223 ANNALS N.Y. ACAD. SCI. 39–57 (2011) (explaining effects of mountaintop removal).

92. *Ecological Impacts of Mountaintop Removal*, APPALACHIAN VOICES, <https://www.appvoices.org/end-mountaintop-removal/ecology> [<https://perma.cc/4GSC-AY6b>] (last visited June 23, 2020); *see also* James Wickham et al., *The Overlooked Terrestrial Impacts of Mountaintop Mining*, 63 BIOSCIENCE 335, 336 (2013) (describing significantly high biodiversity in the region).

93. BELL, *supra* note 37, at 26–28.

94. Hechler, *supra* note 58, at 68 (quoting West Virginia representative, John M. Slack); *see also* *Surface Mining Control and Reclamation Act of 1977: Hearings on S. 7 Before the Subcomm. on Public Lands and Resources of the S. Comm. on Energy and Natural Resources*, 95th Cong. 520 (1977) (statement of Gov. John D. Rockefeller) (“The proposed legislation does not, in my judgment, adequately allow for the mountaintop removal method, proven through practice in West Virginia, to be environmentally equivalent to the contour method of surface mining.”).

95. *See* Hechler, *supra* note 58, at 68 (noting that the author raised the issue of environmental and social damages during debates); H.R. REP. NO. 95-218 (1977), *reprinted in* 1977 U.S.C.C.A.N. 593, 615 (“In recent years, some mountaintop removal operations have caused serious environmental problems in the Appalachian area.”).

SMCRA's approach to mountaintop-removal mining is to rely on exceptions. The state generally requires that reclamation activities must "restore the approximate original contour of the land,"<sup>96</sup> unless "the volume of overburden is large relative to the thickness of the coal deposit."<sup>97</sup> In such circumstances, the surface is to be graded and revegetated, but the permit need only require a "level plateau."<sup>98</sup> At the very end of the Obama Administration, OSMRE briefly strengthened its interpretation of SMCRA's requirements via the Stream Protection Rule, which required deeper protections for hydrologic areas outside the permit areas, restoration of a 100-foot buffer zone along waterways, and additional actions by mining operators to protect natural resources.<sup>99</sup> Congress, however, quickly killed the rule using the truncated procedures set forth in the Congressional Review Act.<sup>100</sup>

The exceptions run beyond SMCRA. For example, the Endangered Species Act requires that federally licensed activities must not jeopardize endangered or threatened species.<sup>101</sup> But a 1996 biological opinion issued by the Department of Interior and OSMRE concludes that so long as a coal operator complies with SMCRA's requirements, "surface coal mining and reclamation operations . . . are not likely to jeopardize the continued existence of listed or proposed species, and are not likely to result in the destruction or adverse modification of designated or proposed critical habitats."<sup>102</sup> This opinion was briefly withdrawn under the Obama Administration, but has since been reinstated.<sup>103</sup> Meanwhile,

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96. 30 U.S.C. § 1265(b)(3) (2012).

97. *Id.*

98. *Id.* § 1265(c)(2).

99. *See generally* Stream Protection Rule, 81 Fed. Reg. 93,066, 93,066, 93,074 (Dec. 20, 2016) (to be codified at 30 C.F.R. pts. 700, 701, 773, 774, 777, 779, 780, 783, 784, 785, 800, 816, 817, 824, and 827).

100. Congressional Nullification of the Stream Protection Rule Under the Congressional Review Act, 82 Fed. Reg. 54,924 (Nov. 17, 2017) (to be codified at 30 C.F.R. pts. 700, 701, 773, 774, 777, 779, 780, 783, 784, 785, 800, 816, 817, 824, and 827) (effectuating administrative removal of agency rules related to Stream Protection Rule).

101. Endangered Species Act § 1(c), 16 U.S.C. § 1531(c) (2012).

102. U.S. DEP'T OF THE INTERIOR, BIOLOGICAL OPINION AND CONFERENCE REPORT 10 (1996).

103. *See* U.S. FISH AND WILDLIFE SERV., MEMORANDUM OF UNDERSTANDING REGARDING IMPROVED ESA COORDINATION ON SURFACE COAL MINING AND RECLAMATION OPERATIONS 2 n.2 (2016) (referencing superseded biological opinion); *Lawsuit Launched to Force Trump Administration to Protect Endangered Species from Coal Mining in Appalachia*, CTR. FOR BIOLOGICAL DIVERSITY (May 10, 2019), <https://biologicaldiversity.org/>

numerous proposed and listed species are vulnerable to ongoing mining operations.<sup>104</sup>

The Clean Water Act (CWA) also has a role to play, given how mountaintop-removal mining impacts waterways. When overburden is placed into mountain waters, it triggers the permitting requirements in CWA § 404, which are administered by the Army Corps of Engineers.<sup>105</sup> Even if the Corps grants a 404 permit, however, the EPA can veto the permit if it finds there will be an “unacceptable adverse effect” on environmental resources.<sup>106</sup> The EPA has exercised its veto authority once, as described in the saga of *Mingo Logan Coal Co. v. EPA*.<sup>107</sup> There, the Corps approved a coal company’s permit application to dispose of fill from a mountaintop coal mine into three streams and their tributaries. During the National Environmental Protection Act (NEPA) process in 2002, the EPA voiced concerns about the impacts of mountaintop removal; but in 2006, the EPA declined to exercise its veto power, and the Corps issued the permit in 2007.<sup>108</sup>

Then, in 2009, the EPA initiated proceedings to exercise its veto authority,<sup>109</sup> and thereafter withdrew its approval of two of the streams as disposal sites, which effectively prohibited the coal company from using them.<sup>110</sup> The EPA’s final determination provides a sense of the scope of the project: as “one of the largest mountaintop mining projects ever authorized in West Virginia,” it stood poised to bury nearly seven-

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w/news/press-releases/appalachian-endangered-species-and-coal-mining-2019-05-10/ [https://perma.cc/G7S2-52QM] (describing facts alleged in lawsuit).

104. See Endangered and Threatened Wildlife and Plants; Review of Native Species That Are Candidates for Listing as Endangered or Threatened; Annual Notification of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions, 81 Fed. Reg. 87,246 (Dec. 2, 2016) (to be codified at 50 C.F.R. pt. 17).
105. 33 U.S.C. § 1344(a) (2012) (setting forth the Secretary of the Army’s permitting authority).
106. *Id.* § 1344(c) (setting forth the EPA’s authority to prohibit or withdraw the specified disposal site whenever, following notice and a hearing, the Administrator determines that the specification will have an “unacceptable adverse effect” on specified environmental resources).
107. 714 F.3d 608, 609 (D.C. Cir. 2013).
108. *Id.* at 610.
109. *Id.*; see also Notice of Final Determination of the Assistant Administrator for Water Pursuant to Section 404(c) of the Clean Water Act Concerning the Spruce No. 1 Mine, Logan County, WV, 76 Fed. Reg. 3126, 3126 (Jan. 19, 2011).
110. *Mingo Logan Coal Co.*, 714 F.3d at 609.

and-a-half miles of streams with 110 million cubic yards of excess soil.<sup>111</sup> Among the comments collected by the EPA were those of the Fish & Wildlife Service (FWS), which agreed with the EPA's concerns and noted its persistent concerns about the loss of headwater streams and habitat.<sup>112</sup> The EPA's final determination described the "direct burial" of "all wildlife in this watershed that utilize these streams for all or part of their life cycles," and noted that the streams were "consistent with the ecological richness of high-quality Appalachian headwater stream systems"<sup>113</sup>—some of the "last remaining" in that area.<sup>114</sup> Further, the fills would result in significant releases of downstream pollution, causing additional harm to downstream wildlife communities.<sup>115</sup>

The coal company challenged the EPA's post-permit-issuance exercise of its veto and argued that the EPA's decision was arbitrary and capricious.<sup>116</sup> In the first phase of litigation, the D.C. Circuit reversed the lower court's grant of summary judgment to Mingo Logan, holding that the statutory text permitted the EPA's post-permit veto.<sup>117</sup> In the second phase of litigation, the D.C. Circuit upheld the district court's grant of summary judgment to the EPA on the basis that the EPA had not acted arbitrarily and capriciously.<sup>118</sup>

This recounting of legal developments underscores the tenacity and commitment of a variety of public interest attorneys and environmental non-governmental organizations.<sup>119</sup> Consider, however, that protest too has played a critical role in the long, slow battle against destructive mining practices, a battle that dates to the earliest days of strip mining. Just as in the days prior to the passage of SMCRA, mountaintop-removal mining has inspired civil disobedience and other protest

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111. Notice of Final Determination of the Assistant Administrator for Water Pursuant to Section 404(c) of the Clean Water Act Concerning the Spruce No. 1 Mine, Logan County, WV, 76 Fed. Reg. at 3127.

112. *Id.*

113. *Id.*

114. *Id.* at 3127–28. The EPA also made note of the 404(b)(1) requirements and offered that the mine would "cause or contribute to significant degradation of waters of the United States (especially when considered in the context of the significant cumulative losses and impairment of streams across the Central Appalachian ecoregion)." *Id.* at 3128.

115. *Id.* at 3127.

116. *Mingo Logan Coal Co. v. EPA*, 714 F.3d 608, 609 (D.C. Cir. 2013).

117. *Id.*

118. *Mingo Logan Coal Co. v. EPA*, 829 F.3d 710, 713 (D.C. Cir. 2016).

119. *E.g.*, *Mountaintop Removal Mining*, APPALACHIAN MOUNTAIN VOICES, <http://www.appalmad.org/our-work/coal/mountaintop-removal/> [https://perma.cc/7PBU-HTNG] (last visited June 23, 2020); *End Mountaintop Removal Coal Mining*, APPALACHIAN VOICES <http://appvoices.org/end-mountaintop-removal/> [https://perma.cc/4CY9-GTES] (last visited June 23, 2020).

activities—instances of individuals locking themselves to equipment, standing in the paths of equipment, and picketing coal companies' shareholder meetings.<sup>120</sup> Just as Doris Shepherd and her fellow activists hoped to do, many of the anti-mountaintop-removal activists raised awareness of the problem on a national scale—and have kept it there.<sup>121</sup> In some circumstances, these activities have bought time: the *Mingo Logan* saga began in 2002 and did not end until 2016, when the D.C. Circuit finally upheld the EPA's veto.<sup>122</sup> Meanwhile, activists blocked equipment, lobbied state agencies and office-holders, and pushed the Obama Administration to put a stop to mountaintop-removal mining.<sup>123</sup> In an echo of the past, it is notable that abolition continues to seem out of grasp: the short-lived Stream Protection Rule permitted continued mountaintop removal, much to the frustration of activists.

Another development in protest activities bears emphasis and brings this Article back to where it began: public engagement in environmental decision-making. The mountaintop-removal resistance has extended beyond “traditional” protest activities and marshalled citizen science as a powerful tool that fills gaps and strengthens civil society oversight of governance activities.

### C. Citizen Science as Protest

Citizen science is broadly defined as the involvement of the public in scientific research. Researchers have documented a boom in citizen science, owing to advances in technology, an increasingly sophisticated public, limited agency capacity, data gaps, and growing attention to community-level conditions and environmental justice.<sup>124</sup> Citizen science is powerful: according to one report, “[h]alf of what we know about the effect of climate change on bird migrations comes from citizen science, though it may not be named as such.”<sup>125</sup> Even so, in the environmental field it is often associated with river-keeper groups,<sup>126</sup>

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120. Consider the list of Mountain Justice activities set forth on Wikipedia. *Mountain Justice*, WIKIPEDIA, [https://en.wikipedia.org/wiki/Mountain\\_Justice\\_\(organization\)](https://en.wikipedia.org/wiki/Mountain_Justice_(organization)) [<https://perma.cc/9HRK-PRVE>] (last edited Apr. 20, 2020).

121. See WITT, *supra* note 40, at 38 (emphasizing success in increasing awareness, but noting a continuing inability to stop mountaintop removal mining).

122. *Mingo Logan Coal Co.*, 714 F.3d at 610–16.

123. See *Mountain Justice*, *supra* note 120.

124. See George Wyeth et al., *The Impact of Citizen Environmental Science in the United States*, 49 ENVTL. L. REP. 10,237, 10,241–43 (2019).

125. *Id.* at 10,239.

126. See, e.g., Friends of the Cheat, *Straight from the River—Continuous Water Quality Data*, CHEAT.ORG, <https://www.cheat.org/our-work/mapping-monitoring-program/straight-from-the-river-continuous-water-quality-data/>

which leverage the EPA's regulatory demand that states must consider citizen-generated water-quality information when maintaining their lists of impaired waters pursuant to the CWA.<sup>127</sup> In addition to being an indicator of natural conditions, however, citizen science can also further community engagement, promote education, and impact regulatory decisions and enforcement.<sup>128</sup>

Returning to the story of mountaintop mining, note these examples of citizen science conducted by community groups whose members are also active in traditional protest activities. The Appalachian Mountain-top Patrol is an initiative of Radical Action for Mountains' and Peoples' Survival (RAMPS) that uses drones, video cameras, and water-quality meters to both collect data and enhance the ability of citizens to tell their stories.<sup>129</sup> A collaboration between researchers at SkyTruth, Duke University, and Appalachian Voices has created a map depicting locations of surface mines in central Appalachia, making powerful visual data available to all.<sup>130</sup> And the Appalachian Citizens Enforcement Project makes public the results of citizens' water-quality monitoring throughout coal country.<sup>131</sup> The list goes on.

Indeed, some of these same organizations are also actively opposing the Mountain Valley Pipeline (MVP) and Atlantic Coast Pipeline (ACP) projects, which have been embroiled in substantial litigation.<sup>132</sup>

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[<https://perma.cc/FN7K-4F3T>] (last visited June 23, 2020) (presenting examples of citizen science). *See also* WATERKEEPER ALLIANCE, <https://waterkeeper.org/what-we-do/> [<https://perma.cc/Y3MJ-D3SA>] (last visited Apr. 27, 2020). The story of the Cheat River's restoration is part of a larger project that is regrettably beyond the scope of this Article.

127. 40 C.F.R. § 130.7 (2011); *see also* Wyeth et al., *supra* note 124, at 10,243 (describing the Clean Water Act's provisions and implementing regulations).
128. Wyeth et al., *supra* note 124, at 10,254 (noting its use for research, management, and, perhaps, regulatory standard-setting as well).
129. *Projects*, RADICAL ACTION FOR MOUNTAINS' & PEOPLE'S SURVIVAL, <http://rampscampaign.org/projects/> [<https://perma.cc/JP4G-HMHG>] (last visited June 23, 2020).
130. *Mountain Top Mining*, SKYTRUTH, <http://skytruthmtr.appspot.com/#> [<https://perma.cc/C4C3-D6YU>] (last visited June 23, 2020).
131. APPALACHIAN CITIZENS ENFORCEMENT PROJECT, <http://www.ace-project.org> [<https://perma.cc/E3SW-JA5B>].
132. On July 5, 2020, Dominion Energy and Duke Energy announced their decision to cancel the Atlantic Coast Pipeline, citing legal uncertainties. Press Release, *Dominion Energy and Duke Energy Cancel the Atlantic Coast Pipeline*, July 5, 2020, at <https://news.duke-energy.com/releases/dominion-energy-and-duke-energy-cancel-the-atlantic-coast-pipeline> [<https://perma.cc/5GGW-ECGM>]. This development has been widely celebrated as a triumph of grassroots resistance. *See, e.g.*, Podcast, Slate, *How Activists Brought Down a Massive Gas Pipeline* (July 8, 2020, 5:00 PM), <https://news.duke-energy.com/releases/dominion-energy-and-duke-energy->

The entire MVP, for example, is under a stop-work order by FERC while further endangered species analyses are completed.<sup>133</sup> Among the MVP protest activities are a prolonged tree-sit—the Yellow Finch sit near Yellow Finch Lane in Elliston, Virginia, marked its one-year anniversary in the fall of 2019, and was still in operation as of summer 2020, thanks to the help of supporters on the ground.<sup>134</sup> Further, over forty people have been arrested for their direct actions associated with

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cancel-the-atlantic-coast-pipeline [<https://perma.cc/M8NS-75GC>]. Litigation has also been fierce and persistent. *See* U.S. Forest Serv. v. Cowpasture River Preservation Ass'n (Nos. 18-1584 & 18-1587 (U.S. June 15, 2020) (holding that the Forest Service has the authority under the Mineral Leasing Act to grant rights-of-way through lands that are traversed by the Appalachian Trail in national forests); Emily Hammond, U.S. Forest Serv. v. Cowpasture River Preservation Association: *A Limited—And Perhaps Hollow—Victory for a Pipeline*, GEO. WASH. L. REV. On the Docket (Oct. Term 2019), at [https://www.gwlr.org/u-s-forest-service-v-cowpasture-river-preservation-association-a-limited-and-perhaps-hollow-victory-for-a-pipeline/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=u-s-forest-service-v-cowpasture-river-preservation-association-a-limited-and-perhaps-hollow-victory-for-a-pipeline](https://www.gwlr.org/u-s-forest-service-v-cowpasture-river-preservation-association-a-limited-and-perhaps-hollow-victory-for-a-pipeline/?utm_source=rss&utm_medium=rss&utm_campaign=u-s-forest-service-v-cowpasture-river-preservation-association-a-limited-and-perhaps-hollow-victory-for-a-pipeline) [<https://perma.cc/H7AM-2HJA>] (discounting impact of favorable ruling for ACP given numerous remaining hurdles); *see also* Friends of Buckingham v. Air Pollution Control Bd., 947 F.3d 68, 92–93 (4th Cir. 2020) (invalidating a state agency's permit for an Atlantic Coast Pipeline compressor station for failure to adequately consider the environmental-justice implications); Sierra Club v. Army Corps of Eng'rs, 909 F.3d 635, 655 (4th Cir. 2018) (holding that the Corps lacked authority to allow the MVP to proceed with construction under terms of nationwide permit); Sierra Club, Inc. v. U.S. Forest Serv., 897 F.3d 582, 602–03 (4th Cir. 2018) (holding that the Forest Service failed to comply with the NEPA and other statutory mandates in allowing pipeline construction across the Jefferson National Forest); Appalachian Voices v. Fed. Energy Regulatory Comm'n (FERC), No. 17-1271, 2019 WL 847199, at \*1–3 (D.C. Cir. Feb. 19, 2019) (rejecting a challenge to the FERC's issuance of a Certificate of Public Convenience and Necessity to the Mountain Valley Pipeline). In other significant pipeline news, on July 6, 2020, the District Court for the District of Columbia ordered the Dakota Access Pipeline's permit vacated and operations to cease given the court's prior holding that the U.S. Army Corps of Engineers had violated NEPA in permitting the pipeline. Standing Rock Sioux Tribe v. U.S. Army Corps of Engr'rs, No. 1-16-CV-01534-JEB (D.D.C. July 8, 2020). This development was also a triumph of sustained resistance. Maia Wikler, *The Fate of the Dakota Access Pipeline Proves Activism Works*, INSTYLE (July 9, 2020, 6:22 PM), <https://www.instyle.com/lifestyle/dakota-access-pipeline-activism-works>.

133. Letter from FERC to Matthew Eggerding, Counsel, Mountain Valley Pipeline LLC 2 (Oct. 15, 2019) (ordering work stoppage pending consultation with the Fish and Wildlife Service).
134. *See* Michael Sainato, *Through Snow and Rain, Tree Sitters Continue to Fight a Gas Pipeline*, AM. PROSPECT (Dec. 23, 2019), <https://prospect.org/environment/through-snow-rain-tree-sitters-fight-gas-pipeline/> [<https://perma.cc/LQW6-CMBJ>].

the protest movement.<sup>135</sup> And finally, citizens in both Virginia and West Virginia have received training and regularly conduct data collection to monitor the pipeline's construction route, detect apparent water-quality violations, share the data with enforcement authorities and the public, and use it in impact litigation.<sup>136</sup>

It should be clear that these activities do not take place in a vacuum; they are part of coordinated efforts to resist fossil-fuel development in central Appalachia. They are the continuing legacy of Appalachian resistance, a movement that extends far beyond the stories collected in this Article.<sup>137</sup> Viewed against the paradigmatic ideal of civil disobedience and direct action, citizen science aligns with the communicative, nonviolent, and conscientious nature of political acts that are intended to bring about change in the law or government policies.<sup>138</sup> By openly collecting data and making it public, these citizens communicate information. It is nonviolent and undertaken as part of a conscientious commitment to environmental and social-justice principles. And its purpose is to change the legal regime such that goals of environmental protection and justice will be achieved.

### III. TOWARD A RESEARCH AGENDA FOR PROTEST AND THE ENVIRONMENT

The foregoing discussion suggests a number of avenues for further exploration and illuminates several gaps in the dominant theory of environmental protection that has developed over the past fifty years. First, it is notable that the stories recounted here appear to follow two distinct paths. One is that of the law—the broad form deed, the development of SMRCA, litigation surrounding mountaintop mining, and litigation around the MVP and ACP. But the other is that of the individuals who live, work, and play in the very environment at stake—

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135. *Id.*

136. See Brittany Patterson, *As Pipeline Construction Booms, Citizens Take Inspections into Their Own Hands*, W. VA. PUB. BROADCASTING (Aug. 29, 2019), <https://www.wvpublic.org/post/pipeline-construction-booms-citizens-take-inspections-their-own-hands#stream/0> [<https://perma.cc/LAZ3-YUMG>]; *About Mountain Valley Watch*, MOUNTAIN VALLEY WATCH, <https://www.newrivergeographics.com/mvw/> [<https://perma.cc/K6MN-UY8P>] (“Mountain Valley Watch is a collaboration of volunteers and experts who observe, document, and report environmental issues related to the construction of the Mountain Valley Pipeline between Wetzel County, West Virginia, and Pittsylvania County, Virginia.”) (last visited June 23, 2020); *December 2019 Report to the Virginia Water Control Board*, MOUNTAIN VALLEY WATCH, <https://www.newrivergeographics.com/mvw/december-2019-report-to-the-virginia-water-control-board/> [<https://perma.cc/38JF-7DXE>] (last visited June 23, 2020).

137. See sources cited *supra* note 40.

138. See *supra* Part I.

protestors who risk their safety and liberty and who dedicate their time to fighting energy projects that are fundamentally allowable under the legal system. Each path influences the other, but the legal literature has lagged in theorizing and incorporating a role for protest in environmental law.

This critique resonates heavily with the environmental-justice literature, and efforts should be made to more fully account for protest as it relates to environmental justice and influences environmental law. Moreover, the civil-society literature insists on its role in constitutional ordering, but it should more earnestly roll up its sleeves to engage protest as an aspect of civil society. Other literatures are relevant, too, including procedural justice, administrative law, and the conundrum of NIMBY-ism in environmental law.<sup>139</sup>

Finally, I observe that these insights need both theorization and operationalization. At its fifty-year anniversary, the EPA has in place several tools that hold promise, if fully deployed, for promoting environmental justice and better incorporating local knowledge into decision-making.<sup>140</sup> But these basic principles lag much further behind at other agencies charged with environmental protection—and the fact remains that environmental law does not fully offer protection. As the climate imperative looms ever more heavily, the need to engage, learn from, and follow the lead of those directly impacted becomes all the more acute. It is not overstatement to remark that the next fifty years depend on it.

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139. See, e.g., Ori Sharon, *Fields of Dreams: An Economic Democracy Framework for Addressing NIMBYism*, 49 ENVTL. L. REP. 10,264, 10,267–70 (2019) (connecting NIMBY and environmental justice, and collecting sources).

140. See EPA, *supra* note 2.