

VOICES FROM THE DESECRATED PLACES: A JOURNEY TO END MOUNTAINTOP REMOVAL MINING

*Sam Evans**

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*There are no unsacred places;
there are only sacred places
and desecrated places.¹*

At its most general, this is a story about words. Poets know the moral of this story already — that the wrong word can destroy something beautiful. We trip over it, stumble around it, *notice* it. "Overburden" is a word like that. It's the word used to describe the soil and rock above a seam of coal. After this paragraph, it is a word I will not use. They used to be called mountains. But where there was coal underneath, Big Coal² changed the name. With this lexical alchemy, the mountains have been turned upside down, and the sacred places have been covered over.

But the most important word in the story — the word where the story begins — is "fill." It is the word that delineates the jurisdiction of the Environmental Protection Agency ("EPA") and the Corps of Engineers under the Clean Water Act ("CWA").³ On January 9, 2009, I mounted my bicycle and pedaled away from my home in Knoxville, Tennessee, to deliver a petition for rulemaking asking EPA to change the definition of fill to conform to the letter and spirit of the CWA.⁴ I was beginning a journey through Appalachia

¹ Wendell Berry, *How To Be a Poet (To Remind Myself)*, 177 *POETRY* 269, 270 (2001).

² For the purposes of this Article, "Big Coal" is comprised of the companies engaged in mountaintop removal mining ("MTR") in Central Appalachia. They include Patriot Coal, which owns the mine on Kayford Mountain, and Massey Energy, which plans to level the adjacent Coal River Mountain. See Vicki Smith, *Coal vs. Wind Power: Energy, Conservation Fight Rages In West Virginia Countryside*, GRAND RAPIDS PRESS, NOV. 16, 2008, at B5. Both mountains are discussed herein. Massey Energy is the largest producer of Central Appalachian coal. JOHN H. HILL & GRAHAM WARK, *COAL: MISSING THE WINDOW* 27 (2007), available at <http://switchboard.nrdc.org/blogs/ngreene/media/Citibank%20071807.pdf>.

³ See CWA § 402(a)(1), 33 U.S.C. § 1342(a)(1) (2006) (authorizing EPA to issue permits for the discharge of any pollutant, except as provided in CWA § 404); *id.* § 404(a), 33 U.S.C. § 1344(a) (authorizing the Corps to issue permits for discharge of dredged or fill material).

⁴ See Sam Evans, Petition to U.S. EPA for Rulemaking to Exclude "Overburden" from the Definition of "Fill" Under the CWA (submitted Mar. 2009) (on file with the Harvard Law

to change the definition of a word. On my journey I learned just how much the definition of that word had changed Appalachia.

This Article tells the story of my journey and explains what I learned: what mountaintop removal mining (“MTR”) has done to the people and places of Appalachia, how such a devastating practice has been ratified by the agencies charged with protecting our environment, what those agencies can do to end it, and why they must.

I. THE HISTORY OF MOUNTAINTOP REMOVAL IN APPALACHIA

A. *Mountaintop Removal Mining: A Primer*⁵

On January 11, 2009, I woke up at Adam Wells’s home in Wise County, Virginia. Adam’s family has lived there for generations. Looking out Adam’s window, the scene was idyllic: a narrow strip of farmland nestled between the two long ridges that form the Guest River Valley, a dusting of snow on the spruce trees and the windowsills of the ancient log cabin where Adam’s grandfather and great-grandfather were born. But with a closer look, it was clear that something was wrong; something smelled wrong. The water from Adam’s tap smelled of rotten eggs, and the washbasin and tub were stained with dark streaks. A carpet of tiny black crystals was growing on the basement floor where water from the hot water heater had been leaking. Adam’s pickup truck was full of the empty plastic jugs he uses to carry drinking water home for himself and his grandmother.

We rode from Adam’s house to the headwaters of his valley, where the ridgeline was missing and there was a deep gash in the earth — a “high wall.” The scene gave me a feeling of vertigo: the horizon had been flattened and lowered; the rest of the world tilted awkwardly toward the piles of orange rubble where the mountaintops had once been. When we reached the apex of the road, the scene stretched as far in either direction as we could see. The mountains were simply gone.

What took eons to form had taken only a few years to destroy. In the 1990s, a new form of surface mining called MTR became “the dominant

School Library). I arrived in Washington, D.C. with the petition on January 20, 2009, Inauguration Day. The petition was delivered to EPA in March, 2009, after the transition, by staff for the Natural Resources Defense Council (“NRDC”). Many environmental advocacy groups, including the Sierra Club and NRDC, had been trying to bend the new administration’s ear to the problem of fill, and my petition was just one small part of that larger effort. *See, e.g.*, Posting of Rob Perks to Switchboard, http://switchboard.nrdc.org/blogs/rperks/tell_president_obama_to_keep_d.html (March 15, 2010). In September 2009, EPA took its first significant step toward protecting Appalachia from MTR, announcing it would place many pending MTR permits on hold. *See infra* note 338 and accompanying text.

⁵ As noted by the Government Accountability Office (“GAO”), there is “limited public access to information on the size, location, and life span of [MTR] operations.” GOV’T ACCOUNTABILITY OFFICE, GAO-10-21, SURFACE COAL MINING: CHARACTERISTICS OF MINING IN MOUNTAINOUS AREAS OF KENTUCKY AND WEST VIRGINIA (2009) [hereinafter GAO REPORT]. This primer draws from some of the best data available and relies on the accounts of coalfield residents to fill in the gaps.

driver of land-use change” in Kentucky, southwest Virginia, and West Virginia.⁶ It has now claimed over 470 mountains⁷ and nearly 2000 miles of streams,⁸ and it is expanding into Tennessee.⁹ MTR is the most destructive form of coal mining ever imagined — both to the natural environment and to local communities. Such a superlative should mean something to anyone familiar with the history of exploitation in the Appalachian coalfields.¹⁰

To expose a seam of coal, the tops of the mountains are denuded and blasting holes are drilled in a grid. The holes are filled with as much as ten times the explosives used in the Oklahoma City bombing,¹¹ then detonated in series.¹² Every day in West Virginia, nearly four million pounds of explosives are used.¹³ MTR operators have blasted over 380,000 acres of mountains,¹⁴ or over 4.85 billion cubic yards,¹⁵ and dumped them into countless headwater streams.¹⁶ It is terrifying to see a mountaintop mine. It is terrifying to know that man has the power to unmake the oldest mountains on the

⁶ M.A. Palmer et al., *Mountaintop Mining Consequences*, 327 *SCIENCE* 148, 148 (2010). The first MTR mine in West Virginia opened in 1970. Patrick C. McGinley, *From Pick and Shovel to Mountaintop Removal: Environmental Injustice in the Appalachian Coalfields*, 34 *ENVTL. L.* 21, 69 (2004). But it was not until the 1990s that the practice really took off. See SHIRLEY STEWART BURNS, *BRINGING DOWN THE MOUNTAINS: THE IMPACT OF MOUNTAINTOP REMOVAL ON SOUTHERN WEST VIRGINIA COMMUNITIES* 13, 17 (2007).

⁷ See End Mountaintop Removal Action & Resource Center, National Memorial for the Mountains, <http://www.ilovemountains.org/memorial> (last visited June 24, 2010) (on file with the Harvard Law School Library) (identifying and memorializing 470 destroyed mountains).

⁸ See Memorandum from Peter S. Silva, Assistant Admin. for Water, and Cynthia Giles, Assistant Admin. for Enforcement and Compliance Assurance, to Shawn Garvin, Reg'l Admin., EPA Region 3, et al. 2 (Apr. 1, 2010) [hereinafter EPA Guidance], available at http://www.epa.gov/wetlands/guidance/pdf/appalachian_mnttop_mining_detailed.pdf. Older estimates of the mileage of filled streams were more conservative. See EPA, *DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT ON MOUNTAINTOP MINING/VALLEY FILLS IN APPALACHIA at III.D-2* (2003) [hereinafter MOUNTAINTOP MINING DEIS] (calculating that 1208 miles of streams had been “directly impacted” by valley fills between 1992 and 2002); OFFICE OF SURFACE MINING, U.S. DEP'T OF THE INTERIOR, OSM-EIS-34, *DRAFT ENVIRONMENTAL IMPACT STATEMENT ON EXCESS SPOIL MINIMIZATION—STREAM BUFFER ZONES III-117* (2007) (noting that, in 2001, 724 miles of streams had been actually buried by valley fills and estimating that another 724 miles would be buried between 2001 and 2018).

⁹ Big Coal is making a big investment in Tennessee's gubernatorial campaign. See Ben Hall, *Lt. Governor Benefits from Coal Contributions*, NEWS CHANNEL 5, Mar. 23, 2010, <http://www.newschannel5.com/global/story.asp?s=12191996> (on file with the Harvard Law School Library).

¹⁰ For an insightful history of coal mining in Appalachia, see McGinley, *supra* note 6, at 25–46.

¹¹ See Harvard Ayers et al., *Appalachian Coalfield Delegation Position Paper on Sustainable Energy 9* (U.N. Comm'n on Sustainable Dev. 15th Session, 2007), available at http://www.ohvec.org/issues/mountaintop_removal/articles/2007_05_09_CSD.pdf.

¹² Interview with Larry Gibson, resident of Kayford Mountain, in Charleston, W. Va. (Jan. 15, 2009) [hereinafter Gibson Interview]. Larry has watched the blast holes being drilled, and he has felt the ground shake as Volkswagen-sized rocks fell on his property.

¹³ Ayers et al., *supra* note 11, at 3.

¹⁴ MICHAEL SHNAYERSON, *COAL RIVER* 9 (2008).

¹⁵ GAO REPORT, *supra* note 5, at 29. This figure represents the amount of dumping authorized by permits between 2000 and 2008.

¹⁶ The number of streams filled in is literally countless. The GAO reports that 2000 valley fill permits were issued from 2000 to 2008 in the study area, but data before 2000 is not available. *Id.* at 54.

continent — even more, to know that his conscience would allow it. Of our propensity to alter our environment, Wendell Berry writes:

*[P]raise, in knowing this,
The genius of the place,
Whose ways forgive your own,
And will resume again
In time, if left alone.*¹⁷

But some bells cannot be unrung,¹⁸ and the mountains and streams erased by MTR will never resume their rich biological commerce.¹⁹ Though the mountains can forgive most of man's missteps, they cannot forgive this desecration. Their ecologies are forever altered,²⁰ the land, and our place in it, made forever poorer by the change. To use Berry's word, MTR is ecologically *unforgiveable*.

Still, the impact of MTR mines on the natural environment is outpaced by its impact on the people who live nearby. Every afternoon in Rock Creek, West Virginia, at about 3:00, the valley shakes and rumbles as if from a thunderstorm, and each peal threatens the communities in the mountains' shadows. Every hollow in these mountains has a history and a community with deep roots of place,²¹ but they are being systematically erased. Communities disintegrate when Big Coal is their neighbor: the noise, dust, vibrations, and "fly rock" from blasting make them uninhabitable, and make the land worthless.²² The coal companies buy out the residents, the community dies, and no one is left to complain.²³

Blasting is not the only threat. Incessant coal truck traffic makes living near the mines almost intolerable.²⁴ Additional runoff from denuded moun-

¹⁷ WENDELL BERRY, *A TIMBERED CHOIR* 146 (1998).

¹⁸ SHNAYERSON, *supra* note 14, at 108 (quoting comment of District Judge Haden, just before issuing a temporary restraining order against a MTR mine, that "this is an area where you cannot unring the bell.").

¹⁹ In addition to the streams permanently buried under valley fills, the effects of mountaintop mining wastes are felt far downstream. See Palmer et al., *supra* note 6, at 148; POND ET AL., *DOWNSTREAM EFFECTS OF MOUNTAINTOP COAL MINING* (2008), available at <http://www.epa.gov/Region3/mntnptop/pdf/downstreameffects.pdf>.

²⁰ See Palmer et al., *supra* note 6, at 149 (concluding that MTR "impacts are pervasive and irreversible and . . . mitigation cannot compensate for losses [of ecological values]").

²¹ Larry Gibson's family, for instance, has lived in the gap on Kayford Mountain since the 1700s. Gibson Interview, *supra* note 12. Similarly, Terry and Wilma Steele trace their family roots in the Matewan, West Virginia, area, home of the famous Hatfield and McCoy feud, back into the 1600s. Interview with the Steeles, Meador, W. Va. (Jan. 12, 2009).

²² Gibson Interview, *supra* note 12; see also McGinley, *supra* note 6, at 56 n.180 (noting vibration, dust, and damage to homes); BURNS, *supra* note 6, at 109–11 (describing how property values in Sylvester, West Virginia, decreased by eighty percent).

²³ See McGinley, *supra* note 6, at 79–85.

²⁴ Aside from the noise and dust they produce, coal trucks are dangerous. Accidents involving coal trucks killed fifty-three people in Kentucky between 2000 and 2004 and injured five hundred more. The drivers are not unionized, and there is a shortage of jobs in the area, so the drivers are willing to take illegal drugs and act recklessly to get their overweight trucks down the mountain faster. The more loads they transport, the more they earn. See ERIC REECE, *LOST MOUNTAIN* 158–61 (2006).

tains and silt-filled river channels increases the damage from flooding, though it is difficult to place a price tag on the costs.²⁵ Valley fills occasionally give way, creating massive mudslides.²⁶ In addition, coal is washed of impurities before being sold, producing a “sludge” containing high levels of carcinogens and heavy metals.²⁷ Although there is a practical (and only slightly more expensive) way to turn the sludge into solid waste,²⁸ regulations allow it to be stored in ponds at the heads of valleys or injected into old underground mines.²⁹ Those living below the sludge dams — of which there are approximately 650 in the coalfields³⁰ — know that they are unstable. Residents in Mingo and Wyoming Counties, West Virginia, are literally afraid for their lives, displaying an “overriding concern” about the dangers of sludge.³¹ Their fears are not unfounded: the dams leak and accidental spills are common.³² For those living below the sludge ponds, it is hard to forget the 1972 Buffalo Creek disaster that killed 125 people.³³ Although sludge spills can be ecologically catastrophic, even large spills receive little media attention.³⁴ Compared to the media blitz following the recent coal fly

²⁵ BURNS, *supra* note 6, at 121, 123; REECE, *supra* note 24, at 109–13; SHNAYERSON, *supra* note 14, at 239–40; Tara Tuckwiller, *Residents Blame Lack of Dredging*, CHARLESTON GAZETTE, July 31, 2001, at A1; Ken Ward, Jr., *Agency Fought Full-Year Flood Studies at Mines*, CHARLESTON GAZETTE, July 22, 2001, at B1.

²⁶ See Brian Bowling, *Official Worries About Fill Stability*, CHARLESTON DAILY MAIL, Jan. 16, 2004, at D2 (citing concerns of Brent Wahlquist, Regional Office of Surface Mining (“OSM”) Director). This is due in part to the laxity with which safety regulations are enforced. REECE, *supra* note 24, at 210 (reporting the admission of a Mine Safety and Health Administration (“MSHA”) official that “[n]one of the fills are 70 percent durable rock,” as required by the regulations).

²⁷ SLUDGE SAFETY PROJECT, UNDERGROUND INJECTION OF COAL SLURRY: WATER, HEALTH, AND ALTERNATIVES 3, 5–7 (2009), available at <http://wvgazette.com/static/coal%20tattoo/citizenslurrystudy.pdf>; EPA, THE CLASS V UNDERGROUND INJECTION CONTROL STUDY, VOLUME 10, MINING, SAND, OR OTHER BACKFILL WELLS 23 (1999).

²⁸ For one extra dollar per ton of coal, sludge can be reduced to a solid cake for safe disposal. REECE, *supra* note 24, at 131; COMM. ON COAL WASTE IMPOUNDMENTS ET AL., COAL WASTE IMPOUNDMENTS: RISKS, RESPONSES, AND ALTERNATIVES 135–41 (2002).

²⁹ 30 C.F.R. §§ 77.216–.216-5 (MSHA regulations for impoundments); *id.* §§ 780.25, 816.49, 816.84 (OSM regulations for impoundments); see also EPA, *supra* note 27, at 47–49 (regulations governing injection wells).

³⁰ REECE, *supra* note 24, at 124.

³¹ STEPHANIE MCSPIRIT, COAL IMPOUNDMENT RISK ASSESSMENT: A SURVEY OF MINGO AND WYOMING COUNTY, WEST VIRGINIA HOUSEHOLDS 5–6 (2005), available at http://www.sludgesafety.org/what_me_worry/cip_survey_report_12_05.pdf.

³² BURNS, *supra* note 6, at 135–36 (noting that there is documentation of 478,370,700 gallons of spilled slurry impacting eighty miles of West Virginia streams); see also *infra* note 34 (Martin County spill); STANLEY J. MICHALEK ET AL., MINE SAFETY & HEALTH ADMIN., ACCIDENTAL RELEASES OF SLURRY AND WATER FROM COAL IMPOUNDMENTS THROUGH ABANDONED UNDERGROUND COAL MINES, available at <http://www.msha.gov/s&hinfo/techrpt/minewste/asds02.pdf>.

³³ REECE, *supra* note 24, at 124.

³⁴ For example, the 2000 spill in Martin County, Kentucky dumped 300 million gallons — thirty times more than the Exxon Valdez spill. The sludge is still there, making the ground unsuitable for farming and the water unsafe to drink. The *New York Times* didn’t print a word about the story for months afterward. REECE, *supra* note 24, at 124–29. There is even less coverage of the frequent “blackwater” releases, in which smaller amounts of sludge are spilled, by some reports intentionally, on rainy nights.

ash spill in Kingston, Tennessee,³⁵ it is easy to get the impression that nobody cares what happens in the coalfields.

Sludge is a byproduct of coal processing whether the coal was mined underground or by MTR, but MTR multiplies the risks associated with sludge. For example, one leaking dam sits a quarter-mile above Marsh Fork Elementary School, and holds back 2.8 billion gallons of sludge.³⁶ Blasting recently began on the same ridge that has, so far, kept this sludge from burying the valley below.³⁷ Catastrophic dam failures aren't common, but blasting from MTR can also cause fractures that allow sludge in ponds or injection wells to seep into the groundwater,³⁸ and most residents in the coalfields, like Adam and his family, are dependent on wells for their water.³⁹ The obvious effects on the water — rotten egg smells and dark stains — are not merely inconveniences; they are health hazards.⁴⁰ The day I met Mat Louis-Rosenberg of Coal River Mountain Watch, he had been in nearby Prenter Hollow, delivering drinking water by truck to residents who can't drink from their taps anymore. In Prenter, over two billion gallons of slurry have been injected into abandoned underground mines,⁴¹ and some of

³⁵ E.g., Shaila Dewan, *Coal Ash Flood Revives Debate About Hazards*, N.Y. TIMES, Dec. 25, 2008, at A1; Jeff Goodell, *Coal's Toxic Sludge*, ROLLING STONE, Apr. 1, 2010, at 46–47; Juliet Eilperin, *Disposal of Coal Ash Rises as Environmental Issue; Recent Coal Spill Spurs Proposals for Tighter Controls*, WASH. POST, Jan. 16, 2009, at A4 (noting that, “[i]n less than a month, the question of how to dispose of coal combustion waste has gone from a largely ignored issue to a pressing national environmental concern that has already sparked legislative proposals and the prospect of new regulation.”).

³⁶ *Coalfield Residents Banding Together to Save School From Impoundment*, WINDS OF CHANGE (Ohio Valley Env'tl. Coal., Huntington, W. Va.), Feb. 2006, at 24, available at http://www.ohvec.org/newsletters/woc_2006_02/woc.pdf.

³⁷ Julie Johnson, *Blasting Begins on Coal River Mountain*, APPALACHIAN VOICE (Appalachian Voices, Boone, N.C.), Dec. 2009–Jan. 2010, at 13.

³⁸ SLUDGE SAFETY PROJECT, *supra* note 27, at 3; Ben M. Stout III & Jomana Papillo, *Well Water Quality in the Vicinity of a Coal Slurry Impoundment near Williamson, West Virginia* (Dec. 10, 2004) (on file with the Harvard Law School Library). Dr. Stout reports an EPA investigation in 1985 which resulted in an order to Eastern Coal Corporation to “cease injecting slurry . . . because ‘the slurry being injected . . . contained contaminants which were likely to enter a public water supply and may present an imminent and substantial endangerment to human health.’” *Id.* at 23. Dr. Stout found contaminants, known to exist in sludge, far exceeding EPA’s drinking water standards. *Id.* at 21–22; see EPA, *supra* note 27, at 23 tbl.8.

³⁹ Ayers et al., *supra* note 11, at 10.

⁴⁰ Residents are exposed to the harmful substances in the water not only through drinking, but also through breathing the gases while showering or washing dishes. Stout & Papillo, *supra* note 38, at 21. Dr. Stout noted the observations of Dr. Diane Schafer, a local physician, that her patients experience illnesses caused by poor water quality including “kidney stones and kidney failure, environmental toxic poisoning, arsenic poisoning, dementia, birth defects, cancer, thyroid problems, and gastrointestinal problems,” and Dr. Stout commented that area residents experience “high incidences of Alzheimer’s disease, blood problems, cancers not related to smoking, diseases of the environment, and Attention Deficit Disorder.” *Id.* at 3; see also ALAN H. LOCKWOOD ET AL., PHYSICIANS FOR SOC. RESPONSIBILITY, *COAL’S ASSAULT ON HUMAN HEALTH* (2009), available at <http://www.psr.org/resources/coal-assault-on-human-health.html> (describing health impacts from coal contaminant exposure throughout the life cycle of the fuel).

⁴¹ Maureen Halsema, *Prenter Hollow Sues Coal Companies Over Contaminated Water*, APPALACHIAN VOICE (Appalachian Voices, Boone, N.C.), Dec. 2009–Jan. 2010, at 18.

it has migrated into residents' wells.⁴² A recent health survey revealed that ninety-eight percent of adults in Prenter have gallbladder disease or kidney problems.⁴³ Children's teeth are dissolving from the acid in the water, too: a five-year old girl who lives in Prenter already has a full set of dentures.⁴⁴ Not surprisingly, cancer rates are also disproportionately high: on one 500-yard stretch of road, there have been six new cases of brain cancer.⁴⁵ Prenter Hollow may be unusually well-documented, but it is not unusual: there are untold numbers of injection wells that may be contaminating drinking water supplies.⁴⁶

Even breathing the air near MTR mines carries a significant health risk. Coal dust and silica from the blasts and the processing facilities fall on the towns near active mine sites every day.⁴⁷ The same dust that causes black lung settles on the playgrounds of elementary schools; the tattered American flag above the playground at Marsh Fork Elementary is stained coal-gray.⁴⁸ In 2004, one firsthand account of the school "sign-out" book found that "15 to 20 students [at Marsh Fork] went home sick every day because of asthma problems, severe headaches, blisters in their mouths, constant runny noses, and nausea."⁴⁹ Whether residents are exposed to coal contaminants by water, air, or a combination of both, it is beyond dispute that residents of areas where MTR is prevalent have much poorer health than those living in areas where it is not.⁵⁰

Big Coal argues that this is an acceptable price to pay for cheap energy.⁵¹ In essence, coal producers argue that Appalachia's health and history are worth less than some marginal, short-term savings in energy costs. And

⁴² Interview with Mathew Louis-Rosenberg, Rock Creek, W. Va., Jan. 14, 2009 [hereinafter Louis-Rosenberg Interview].

⁴³ Eric Eyre, *Water Problems in Boone County: Community Imports Water, Says Wells Contaminated*, CHARLESTON GAZETTE, Dec. 17, 2008, at A1.

⁴⁴ *Id.*

⁴⁵ Louis-Rosenberg Interview, *supra* note 42. A recent study concludes that "ecological disintegrity" (measured by stream health) in West Virginia is associated with higher rates of human cancer mortality, even after accounting for other risk factors. Nathaniel P. Hitt & Michael Hendryx, *Ecological Integrity of Streams Related to Human Cancer Mortality Rates*, ECOHEALTH: ONLINE FIRST 10 (April 2, 2010).

⁴⁶ The number of injection wells is unknown because many are undocumented, but there are at least 401 in West Virginia. EPA, *supra* note 27, at 4–5. Before injection was regulated, as much as twenty-eight million gallons of sludge per month were pumped underground. *Something's In the Water*, WINDS OF CHANGE (Ohio Valley Envtl. Coal., Huntington, W. Va.), Feb. 2006, at 3–4, available at http://www.ohvec.org/newsletters/woc_2006_02/woc.pdf.

⁴⁷ Ayers et al., *supra* note 11 at 9.

⁴⁸ Observed by author at Marsh Fork Elementary School, Sundial, W. Va., Jan. 14, 2009.

⁴⁹ Ayers et al., *supra* note 11, at 9 (quoting Ed Wiley, a West Virginia resident).

⁵⁰ Michael Hendryx & Melissa M. Ahern, *Mortality in Appalachian Coal Mining Regions: The Value of Statistical Life Lost*, 124 PUB. HEALTH REP. 541, 547 (2009) [hereinafter Hendryx & Ahern, *Mortality*] (finding the highest mortality rates in areas with the highest levels of mining); Michael Hendryx & Melissa M. Ahern, *Relations Between Health Indicators and Residential Proximity to Coal Mining in West Virginia*, 98 AM. J. PUB. HEALTH (2008); Palmer et al., *supra* note 6, at 149 (citing "evidence that the health of people living in surface-mining regions of the central Appalachians is compromised by mining activities").

⁵¹ See, e.g., George Hohmann, *Polarized Speakers Address Full House: Blankenship Calm, Kennedy Passionate*, CHARLESTON GAZETTE, Jan. 22, 2010, at A1.

for too long, lawmakers in Washington have agreed. The November 2008 election, however, symbolized the idea that the voices that haven't mattered before can make all the difference. The bike ride was my way of helping to make those voices heard, by physically delivering them to the policymakers who have the power to stop this "assault" on Appalachia.⁵²

So, I left Knoxville and rode into the coldest winter snap in many years. Eleven days and 750 miles later, I crossed the Potomac into Washington, D.C., carrying my petition with signatures, letters, pictures, and stories from the people I met in the coalfields of Virginia, Kentucky, and West Virginia. The people who signed the petition are grassroots opponents of MTR. They are retired miners, schoolteachers, and deans of universities. Some trace their roots in the area to the 1600s, and others have lived in the coalfields for only a few years. But all of them are fighting the most environmentally and socially devastating practice that we allow in the United States. They are, as Larry Gibson calls them, "the forgotten people of Appalachia."⁵³ They are now my friends.

B. *The Socio-Political Climate in the Coalfields*

1. *The Current Permitting Authorities*

The petition that they signed asks EPA to assert its jurisdiction over valley fills composed of coal mining waste.⁵⁴ EPA has not been the primary actor in the regulation of valley fills, nor even an important one.⁵⁵ Instead, the Corps has been (illegally) issuing federal permits for these activities under section 404 of the CWA,⁵⁶ while state environmental agencies issue water quality certifications under section 401 of the CWA and surface mining permits under the Surface Mining Control and Reclamation Act of 1977 ("SMCRA").⁵⁷ Neither the Corps nor the states have been willing to say no to the coal companies. It is fair to say that the Corps sees its mission as *facilitating* the activities it permits, and it defers to a state's determination

⁵² Interview by Jeff Barrie with Judy Bonds, Coal River Valley resident and anti-MTR activist, in Kayford Mountain, W. Va. (2008), available at http://www.kilowattours.org/script_chapter1.php.

⁵³ Gibson Interview, *supra* note 12.

⁵⁴ EPA, as the primary agency charged with administering the CWA, has the authority to determine the jurisdictional reach of the Corps' regulatory program. Cf. 43 Op. Att'y Gen. 197 (1979) (noting EPA can determine Corps' reach over "navigable waters").

⁵⁵ In an encouraging turn of events, however, EPA has indicated it will insert itself more directly into the permitting process. See EPA Guidance, *supra* note 8.

⁵⁶ The pre-2002 practice of the Corps was illegal under its own regulations, and the 2002 rule change that purported to legitimize those practices is an unlawful interpretation of the CWA. See *infra* Parts I.C.3 & II.

⁵⁷ Kentucky, West Virginia, and Virginia have assumed primary responsibility for SMCRA permitting, but Tennessee has not. OFFICE OF SURFACE MINING, DEP'T OF THE INTERIOR, ANNUAL REPORT 2008, at 7 fig.1 (2008) (data current as of Oct. 1, 2008).

that water quality laws are satisfied.⁵⁸ The laws and rules enforced by the state agencies, similarly, have been developed to ease the permitting process rather than to limit it.⁵⁹ West Virginia's policymakers recognized that "choosing to pass laws to reduce the adverse consequences of coal mining would impose increased costs on [the state's] own coal industry," making West Virginia's industry less competitive relative to that of other coal-producing states.⁶⁰

Without the Corps to look over their shoulders, the state permitting authorities have ignored egregious violations of law.⁶¹ Worse still, the state agencies have themselves violated the CWA. A recent EPA review of valley fill permits revealed "consistent and serious issues with underlying data quality" in the analyses supporting permitting decisions.⁶² State agencies have often not assessed whether known pollutants might cause a violation of water quality standards.⁶³ Even when the agencies have found a potential for violation, they have sometimes omitted from the permits the standards in danger of being violated.⁶⁴ The state agencies have routinely neglected to incorporate standards for conductivity, total dissolved solids, and sulfates into their permits, as required by regulations promulgated under the CWA.⁶⁵

Without anyone to say no, the result has been a "race to the bottom" among the eastern coalfield states. In an era of cooperative federalism, the "bottom" should theoretically be set by federal standards. But the lack of federal enforcement has meant that the residents of the coalfields have had no meaningful protections from MTR. Fortunately, although the Corps has looked the other way, the CWA places discharges of waste to waters under the jurisdiction of EPA, not the Corps. All that is necessary is that EPA assert its authority over such discharges.

⁵⁸ 33 C.F.R. § 320.4(d) (2009) (stating that a state's section 401 certification "will be considered conclusive with respect to water quality considerations" unless EPA advises otherwise). For further discussion of the Corps' oversight failures, see *infra* Part II.C.

⁵⁹ In the words of one West Virginia Department of Environmental Protection ("WVDEP") lawyer, responding to a request to help enforce the law against blatant violations of a court injunction, "[w]e prefer not to be caught in the middle." SHNAYERSON, *supra* note 14, at 74. Of course, the "middle" is exactly where regulatory agencies should theoretically be, but WVDEP is firmly on the side of coal.

⁶⁰ Zoe Gamble, *Injustice in the Fourth Circuit: Bragg v. West Virginia Coal Association Is Moving Mountains for Industry*, 30 VT. L. REV. 393, 398 (2006) (quoting McGinley, *supra* note 6, at 50).

⁶¹ See, e.g., *id.* at 405 (describing the failure of WVDEP to enforce SMCRA's "plan for future development" requirement for all but a quarter of permitted mines).

⁶² EPA Guidance, *supra* note 8, at 6-7. These issues included "inappropriate aggregation of biological data . . . , failing to reflect natural data variability, and inappropriately including several samples from one site as independent samples in a statistical analysis." *Id.*

⁶³ See *id.* at 8.

⁶⁴ See *id.* at 9.

⁶⁵ *Id.* at 10-11.

2. *Why Not a Legislative Solution?*

In this climate, a federal solution is imperative, and the solution (at least in the short term) must come from the administrative agencies responsible for protecting our nation's waters. A recurring theme in environmental law is that Congress will seldom act to prevent local environmental harms unless local representatives support such action.⁶⁶ And, sadly, in the states where mountaintop removal is occurring, Big Coal owns politics.⁶⁷ Independent federal agencies, however, are designed with the political insulation to act counter to local politics. Furthermore, the administrative solution is appropriate not merely because of political expediency, but also because congressional action is not necessary: the CWA already prohibits these activities. Preventing valley fills requires no more than a faithful interpretation of that statute.

3. *Conflict in the Courts*

Lower courts, indeed, *have* interpreted the CWA to prohibit valley fills. In both *Bragg v. Robertson (Bragg I)*⁶⁸ and *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC I)*,⁶⁹ the District Court for the Southern District of West Virginia held, as the petition maintains, that valley fills are illegal under the CWA. In a dramatic response to *Bragg I* — a response that was likely coordinated — the West Virginia Department of Environmental Protection (“WVDEP”) declared that it would issue no more permits, and MTR companies shut down and laid off their employees. The mining companies also engineered a media blitz predicting economic doom.⁷⁰ The

⁶⁶ In MTR states, they do not. The local legislators believe that they have to support coal to win, and they are correct. For example, in 1972, Jay Rockefeller took the prescient position that “strip mining is not a good economic future for West Virginia.” He lost the election. In 1977, he reversed positions dramatically, stating that MTR “should certainly be encouraged, if not specifically dictated, by . . . legislation.” To this day, he advocates for MTR, and he still holds his Senate office. Rockefeller Still Saying ‘Flatten It, And They Will Come,’ <http://blogs.wvgazette.com/coalattoo/2009/11/11> (Nov. 11, 2009, 18:07 EST).

⁶⁷ West Virginia has been called a “Coalarchy” because so much coal money finds its way into the political process. See *Coal Has Given Millions to Candidates, Report Says*, WINDS OF CHANGE (Ohio Valley Env'tl. Coal., Huntington, W. Va.), Feb. 2006, at 11, available at http://www.ohvec.org/newsletters/woc_2006_02/woc.pdf; see also SHNAYERSON, *supra* note 14, at 60 (noting that “party affiliation mean[s] almost nothing . . . [because] virtually everybody in West Virginia [is] beholden to coal.”). The result? An alignment of interests between coal producers and legislators. See *West Virginia Leaders Unite for Coal*, COAL NEWS, Dec. 2009, at 2, available at http://www.coalnews.net/images/pdf/CoalNews_1209.pdf (describing the promise of West Virginia's congressional delegation to “form a united front against what they call ‘mixed signals and heavy handedness’ from federal mining regulators.”). Even otherwise pro-environment legislators awkwardly advocate for coal interests. What Congressman Nick Rahall Could Be Doing About Mountaintop Removal Coal Mining, <http://blogs.wvgazette.com/coalattoo/2010/03/09> (Mar. 9, 2010, 06:00 EST).

⁶⁸ 72 F. Supp. 2d 642, 663 (S.D. W. Va. 1999), *rev'd sub nom. Bragg v. W. Va. Coal Ass'n*, 248 F.3d 275 (4th Cir. 2001).

⁶⁹ 204 F. Supp. 2d 927, 946 (S.D. W. Va. 2002), *vacated*, 317 F.3d 425 (4th Cir. 2003).

⁷⁰ Gamble, *supra* note 60, at 407–08.

Bragg I ruling was overturned by the Court of Appeals for the Fourth Circuit.⁷¹ *KFTC I*, too, was overturned,⁷² and this pair of decisions helped cement the Fourth Circuit's reputation as friendly to the coal industry.⁷³

The response of the WVDEP and the coal companies to *Bragg I* was successful because it tapped into the conventional wisdom in the coalfields that coal mining brings economic prosperity — a perception that is rooted in historical reality. Many towns that are now struggling were once booming with money from the mines. But the boom-bust cycles have left them poor, and ruined landscapes have left them with few prospects of future development. Furthermore, the old booms were created by more labor-intensive forms of mining. MTR, to be clear, does not bring prosperity to local economies. Instead, the mountaintop mines' ruthless efficiency means that fewer workers are hired and less money filters into local businesses.⁷⁴ Instead, the profits leave the states, and sometimes even leave the states with a bill.⁷⁵ Despite this reality, the coal companies saturate the media with the conven-

⁷¹ Reversing *Bragg I*, the Fourth Circuit did not reach the merits of the district court's holding, but held instead that citizen suits against state officials under the federal SMCRA are barred by sovereign immunity because state law exclusively governs under SMCRA after a state has achieved "primacy," even if state law falls below federal minimum standards. *Bragg v. W. Va. Coal Ass'n (Bragg II)*, 248 F.3d 275, 294–98 (4th Cir. 2001). The court's holding is difficult to reconcile with the provision of SMCRA (not cited by the court) that "[n]o State law or regulation . . . shall be superseded by [SMCRA], except insofar as such State law or regulation is inconsistent with the provisions of [SMCRA]." 30 U.S.C. § 1255(a) (2006) (emphasis added). This provision seems to provide that federal law will preempt state law (hence making state law unenforceable) whenever the state law falls below minimum federal standards. See *W. Va. Highlands Conservancy v. Norton*, 147 F. Supp. 2d 474, 478 n.5 (S.D. W. Va. 2001) (following *Bragg II*). The Fourth Circuit was heavily criticized for its decision in *Bragg II*, which has not been cited by any other circuit. See, e.g., Gamble, *supra* note 60, at 411–13.

⁷² For an account of the *KFTC I* reversal, see *infra* notes 127–137 and accompanying text.

⁷³ In four high-profile cases, the Fourth Circuit has overturned a district court decision adverse to coal interests. See Sara Clark, Comment, *In the Shadow of the Fourth Circuit: Ohio Valley Environmental Coalition v. United States Army Corps of Engineers*, 35 *ECOLOGICAL L.Q.* 143, 144–45 (2008) (discussing three of these reversals). Clark predicted that, although environmental plaintiffs had a "losing streak" in the Fourth Circuit, the district court's decision in the most recent of the four cases was so strong that it would be difficult to overturn. *Id.* Alas, that prediction proved false. See *Ohio Valley Envtl. Coal. v. U.S. Army Corps of Eng'rs (OVEC I)*, 479 F. Supp. 2d 607 (S.D. W. Va. 2007), *rev'd sub nom.* *Ohio Valley Envtl. Coal. v. Aracoma Coal Co.*, 556 F.3d 177 (4th Cir. 2009).

Many commentators have noted the Fourth Circuit's reputation as a conservative, pro-industry forum. E.g., Paul A. Duffy, *How Filled Was My Valley: Continuing the Debate on Disposal Impacts*, 17 *NAT. RESOURCES & ENV'T* 143, 178 (2003) (noting the Fourth Circuit's reputation as "one of the most conservative federal courts in the country"); Ann C. Hodges, *Lessons from the Laboratory: The Polar Opposites on the Public Sector Labor Law Spectrum*, 18 *CORNELL J.L. & PUB. POL'Y* 735, 759 (2009) (noting the Fourth Circuit's reputation as "the most conservative appeals court in the country"); See Brooke A. Masters, *4th Circuit Pushing to Right: Federal Court Tests Supreme Intentions*, *WASH. POST*, Dec. 19, 1999, at C1.

⁷⁴ See REECE, *supra* note 24, at 58 (noting that in Kentucky, coal jobs have dropped by sixty percent with the transition to MTR methods).

⁷⁵ See MELISSA FRY KONTY & JASON BAILEY, *THE IMPACT OF COAL ON THE KENTUCKY STATE BUDGET 1* (2009), available at http://www.maced.org/coal/documents/impact_of_coal.pdf (reporting that coal produced revenues of about \$528 million in Kentucky in 2006 but cost the state \$642.5 million in subsidies).

tional wisdom, and the propaganda has been successful enough that pro-coal politics usually wins.⁷⁶

4. *Local Resistance and Green Economics*

Grassroots organizations are fighting back and pointing out that the areas in which MTR is practiced are among the poorest areas in the country.⁷⁷ MTR has not brought the jobs it promised; Wal-Mart has more employees in West Virginia than any coal company.⁷⁸ Poverty and unemployment are caused not only by the hemorrhaging of jobs by mechanized MTR, but also by a “lack of economic diversification,” which is exacerbated by the incompatibility of MTR with other land uses.⁷⁹

In contrast, the most economically successful rural areas of West Virginia are those which rely on tourist revenue — a source of income, unlike MTR, that is sustainable in the long term.⁸⁰ For that reason, some local governments are fighting back too. On January 17, 2009, I rode from Charleston to Ansted. Highway 60 was a two-lane road choked with coal trucks, and they splashed my bike with a coal-gray slush as they passed. Forty miles east of Charleston, however, the road turned north and began to climb up above the New River Gorge. The next ten miles were stunning, with views of the gorge to the right and snow covered mountaintops to the left. The town of Ansted sits directly between the Gauley River and the New River. To whitewater paddlers and rock climbers, this area is the Mecca of the Southeast. But blasting has begun and already the tributaries of the Gauley are being destroyed. Climbers at the New River Gorge can feel the blasts through the ancient sandstone walls.⁸¹ Ansted’s mayor, Pete Hobbs, is fighting to keep the MTR operations at bay, but his town’s wishes are, so far,

⁷⁶ See WALKER MACH. CO., MOUNTAINTOP MINING: VIEWPOINT 17, 21–22 (2009), available at <http://www.wvcoal.com/mountain-top-mining/mountain-top-mining-viewpoint.html>.

⁷⁷ The coalfield counties of West Virginia have average poverty rates of 23.6%, ranging as high as 37.7%. Shirley Stewart Burns, *Bringing Down the Mountains: The Impact of Mountaintop Removal Coal Surface Mining on Southern West Virginia Communities, 1970–2004* (2005) 13–39 (unpublished Ph.D. dissertation, University of West Virginia) (on file with the Harvard Law School Library). This is an astonishingly high figure compared to the national average poverty rate of 12.5%. See CARMEN DENAVAS-WALT ET AL., U.S. CENSUS BUREAU, *INCOME, POVERTY, AND HEALTH INSURANCE COVERAGE IN THE UNITED STATES: 2007*, at 12 (2008); Ayers et al., *supra* note 11, at 13 (graphic illustrating the correlation between poverty and surface mining).

⁷⁸ McGinley, *supra* note 6, at 40 (quoting JOHN ALEXANDER WILLIAMS, *APPALACHIA: A HISTORY* 345–46 (2002)).

⁷⁹ See BURNS, *supra* note 6, at 2, 8, 81. MTR is incompatible with recreational land uses and other traditional land uses like timbering; see Palmer et al., *supra* note 6, at 149 (describing dramatically decreased forest productivity).

⁸⁰ Interview with Mayor Pete Hobbs, in Ansted, W. Va. (Jan. 17, 2009) [hereinafter Hobbs Interview]; see also BURNS, *supra* note 6, at 77 (noting that in 1991, the West Virginia tourist industry brought in \$2.54 billion, mostly from outdoor recreation).

⁸¹ Telephone Interview with Levi Rose, accomplished rock climber and Watershed Coordinator for the Wolf Creek Watershed, Plateau Action Network, Fayetteville, W. Va. (Apr. 8, 2010).

being overridden by the politics at WVDEP.⁸² WVDEP is issuing permits for the mining operation in small chunks so that it can avoid considering the cumulative impacts of the mine on the local recreational resources, and in turn, on the local economies.⁸³ There is no local veto when MTR comes to town. Unless the blasting stops soon, a diverse, sustainable economy will be squandered for a few years' worth of coal.

The peaceful town of Ansted is a world away from Coal River Valley, where even if the blasting stopped today, there would be little chance of developing a tourist economy. North of Coal River Mountain are the remains of Kayford Mountain. To the west lie the remains of Bailey Mountain and Cherry Pond Mountain. In every direction there are scars from mountaintop mining. In the Coal River watershed, there are already over 11,000 acres of valley fills.⁸⁴ Coal River Mountain, one of the last great places in Raleigh County, has been on the chopping block for some time now, and the blasting finally began in October 2009.⁸⁵ Over the next seventeen years, Massey Energy Company plans to remove enough of Coal River Mountain to fill nine miles of streams.⁸⁶

But in the valley below, Rory McIlmoil and the Coal River Mountain Watch, with the support of long-time residents like Judy Bonds, are trying to show that even on Coal River, where so much of the tourist potential has already been squandered, there is an alternative. The high ridges of Coal River Mountain have an "outstanding" wind resource — as good as anywhere in the country.⁸⁷ A wind farm on the mountain would provide more property tax revenues and local jobs in the long term, with a far lower environmental impact. Even in the short term, wind is a clear winner if environmental and health costs are accounted for: "When combining local externality costs with local earnings, the mountaintop removal mines actually cost the citizens of Raleigh County more than the income they provide."⁸⁸ But what is good for the community is not necessarily what is good for the landowners, who stand to make higher profits from coal extraction. Often, the land is owned by a railroad company, which leases its mineral rights to the MTR company, receives royalties for the coal that is extracted, and then is paid to haul the coal away.⁸⁹

⁸² Hobbs Interview, *supra* note 80.

⁸³ *Id.*

⁸⁴ See EVAN HANSEN ET AL., THE LONG-TERM BENEFITS OF WIND VERSUS MOUNTAINTOP REMOVAL COAL ON COAL RIVER MOUNTAIN, WEST VIRGINIA 4 (2008), available at <http://www.coalriverwind.org/wp-content/uploads/2008/12/coalvswindoncoalrivermtn-final.pdf>.

⁸⁵ See Johnson, *supra* note 37, at 13.

⁸⁶ See HANSEN ET AL., *supra* note 84, at 13.

⁸⁷ *Id.* at 8–9. Unfortunately, this "outstanding" resource will be lost if the ridges are removed as planned.

⁸⁸ *Id.* at 45; see also Hendryx & Ahern, *Mortality*, *supra* note 50, at 547 (concluding that "the potential environmental impacts of mining exceed the economic benefits").

⁸⁹ Louis-Rosenberg Interview, *supra* note 42. Norfolk Southern, for example, owns more than one million acres of land with coal deposits in West Virginia, and coal transportation is the biggest single sector of its transportation business. *Coal: A Vital Resource in Sustainability*, BizNS (Norfolk S. Corp., Norfolk, Va.), Mar.–Apr. 2009, at 8, 12, available at

5. *Environmental Injustice*

The proposed wind farm on Coal River Mountain was a long shot from the beginning because extracting coal is more profitable to the landowners than wind. But coal is more profitable only because it is *artificially* cheap to extract. The CWA, like other first-generation environmental statutes, responded to the externalities (i.e., pollution) caused by industrialization. It was an ambitious, technology-forcing statute that set out to eliminate harmful discharges into federally regulated waters by 1985.⁹⁰ In other words, the CWA sought to force water polluters, and those who buy their products or receive their services, to bear the whole cost of the polluters' industrial processes. Regulated industries protested, and production did become more expensive, but the market soon adjusted and the *price* of things finally began to reflect the *cost* of things. Most areas of the country saw rapid improvements, but in Appalachia, environmental externalities are now at a new apogee. Agencies have failed to fulfill their mandates, and environmental plaintiffs' claims have been largely unsuccessful.⁹¹ As a result, the water in some areas has become so polluted that residents must rely on nonprofit groups to bring barrels of drinking water in trucks.⁹² For this area of the country, the promise of the CWA has, so far, been illusory. The price we pay for coal-fired power does not reflect this great cost of MTR.

In this respect, it is also notable that Appalachia is paying the price for the rest of the country's clean air. The 1990 Amendments to the Clean Air Act made low-sulfur coal, which is common in southern West Virginia, eastern Kentucky, and the western United States, more valuable relative to high-sulfur coal, which is found in other parts of the East.⁹³ Utilities could choose either to install more expensive controls or to buy Appalachian coal that was more expensive to mine, but cheaper to burn. The unintended consequence of cleaning up our air was an explosion of MTR mines. By attempting to internalize the costs of burning coal, we created a system in which the even heavier costs of coal extraction are unfairly borne by the residents of Appalachia.

That is why this is a matter of environmental justice. The effects of MTR fall disproportionately on some of the poorest members of our soci-

<http://www.nscorp.com/nscorhtml/bizns/bizNS1-2.pdf>. Huge tracts of the land in the coalfields are owned by entities with no sentimental connection to the area. These tracts were sold to speculators from the Northeast at the turn of the 20th century at twenty-five to fifty cents per acre. David Welsh, *Death in Kentucky*, in *THE UNDERSIDE OF AMERICAN HISTORY*, VOLUME II: SINCE 1865, at 237 (Thomas R. Frazier ed., 1971).

⁹⁰ CWA § 101(a)(1), 33 U.S.C. § 1251(a)(1) (2006).

⁹¹ See Laura Parker, *Mining Battle Marked by Peaks and Valleys*, USA TODAY, Apr. 19, 2007, at A15 (Joe Lovett, Executive Director, Appalachian Center for the Economy and the Environment, lamenting that "[w]e're winning, but we're losing," as district court decisions for environmental plaintiffs have failed to stop the practice of mountaintop removal).

⁹² See *supra* notes 38–42 and accompanying text.

⁹³ PERCIVAL ET AL., *ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY* 561 (5th ed. 2006).

ety.⁹⁴ Moreover, these burdens fall on those who can least afford to bear them — those whose greatest wealth is the beauty of their land and the heritage that connects them to it. Those connections are both abstract and tangible: in some areas in the coalfields, residents still depend on hunting game to supplement their diets.⁹⁵

Perplexingly, the rule that authorized valley fills claimed that it was “not expected to cause any disproportionately high and adverse impacts to minority or low-income communities.”⁹⁶ Given the history of MTR in Appalachia, that prediction was at best blind. Flattened mountains, valley fills, sludge ponds, creeks orange with acid, well water black with coal: none of these are visible from the interstate or the wealthier cities. They are hidden in the hollows in West Virginia’s poorest counties. County and state lines really mean something in Appalachia.⁹⁷ When I crossed the state line into Virginia, I learned from the Highland County Chamber of Commerce that their biggest environmental battle is keeping out a wind farm that would spoil the view from the valley. Meanwhile, in Coal River, Rory and Judy would have taken that wind farm in a heartbeat.

6. *The Petition: Why “Fill,” Why Now?*

The petition, therefore, urged EPA to conform its rules to the language and purpose of the CWA, thereby fulfilling its promise of clean water for *all* Americans. This Article, similarly, urges EPA to act on the petition and stop valley fill permits, and provides a full explanation of the legal reasons that EPA *must* do so. The current practice of permitting valley fills is illegal, and has been allowed simply because of political and economic expedience. Now, as more Americans are becoming aware of MTR and are speaking out against it, the potential for change is real. As much as there is promise in this moment, however, there is also danger. As policy makers draw the lines that will determine how many of our mountains are sacrificed, there will be tremendous pressure for compromise. Recently, Senator Byrd asked those on both sides of the debate to seek a “prudent and profitable middle ground.”⁹⁸ In response, Dave Callaghan, former director of the WVDEP, and Office of Surface Mining (“OSM”) Director Joe Pizarchik have offered their suggestions, both of which would allow MTR and valley fills to continue subject to better enforcement of existing regulations or new restric-

⁹⁴ See *supra* note 77.

⁹⁵ Interview with Katherlyne Hoffman, in Victor, W. Va. (Jan. 17, 2009) (on file with author).

⁹⁶ Final Revisions to the Clean Water Act Regulatory Definitions of “Fill Material” and “Discharge of Fill Material,” 67 Fed. Reg. 31,129, 31,142 (May 9, 2002) [hereinafter Valley Fill Rule].

⁹⁷ Most MTR operations are concentrated in the few counties that lack the wealth and the will to keep them out. See GAO REPORT, *supra* note 5, at 18–22 (noting concentration of mining activity); BURNS, *supra* note 6, at 44, 68–69 (noting poverty of these areas).

⁹⁸ Robert C. Byrd, *Coal Supporters Must Embrace, Adapt to Change*, CHARLESTON GAZETTE, Dec. 6, 2009, at 1C.

tions.⁹⁹ In the same vein, EPA recently issued a guidance memorandum explaining how to better enforce existing regulations, restricting but still permitting valley fills.¹⁰⁰

Undoubtedly, the coal industry will cast those who resist such a compromise as unreasonable. But “compromise” is not within the authority of the WVDEP or OSM or even EPA. The CWA flatly prohibits waste fills, and if a compromise is to be made, it must be made by Congress. A “middle ground” that allows valley fills is a blatant disregard of a clear statutory command. Simply enforcing the CWA as it is written would prevent valley fills, putting a stop to large-scale MTR operations.¹⁰¹ It may be that a legislative solution is best in the long term, finally putting the debate above the administrative fray. Still, the petition seeks to halt these illegal operations until Congress develops the will to act. While we wait, the fate of Appalachia turns on a single word: *fill*.

C. A Brief History of Fill¹⁰²

Larry Gibson’s cabin sits on a fifty-acre plot on what used to be Kayford Mountain. In all directions, the mountain has been blasted away, leaving his fifty-acre column of land behind — its vertical walls surrounded by rubble. They tried to buy him out, and when that failed, they tried to scare him off. They estimate that the coal beneath his property is worth about \$300 million, but the land above is worth so much more: it’s the place where he was born, and his people before him as far back as the 1700s. Larry’s cabin has bullet holes in it, and down the hill is the tree where they hanged his dog. On the front of the cabin is a hand-painted sign: “We are the keepers of the mountains.”

⁹⁹ Callaghan suggested allowing continued MTR subject to (1) “strict enforcement” of the existing requirement that companies return the land to its approximate original contour (“AOC”), (2) prohibition of valley fills in perennial streams, and (3) a “reasonable mitigation program.” Dave Callaghan, *HELP WANTED: LEADERSHIP; W. Va. Desperate for Sensible Enforcement of Mining Laws*, CHARLESTON GAZETTE, Dec. 13, 2009, at C1. OSM Director Pizarchik has indicated he will not seek a ban on MTR or valley fills, but will instead seek a stricter “stream buffer zone” rule for mining activities along with a more concrete definition of AOC. Ken Ward, Jr., *OSM Chief Promises to Reduce Mining’s Impact*, CHARLESTON GAZETTE, Dec. 10, 2009, at C1.

¹⁰⁰ EPA Guidance, *supra* note 8.

¹⁰¹ Large-scale MTR is impossible without the use of valley fills. The debris from MTR operations “swells” when it is blasted because it is no longer consolidated. McGinley, *supra* note 6, at 56–57. It would be difficult and expensive to place the debris back on top of the mountains, and the resulting piles would be unstable, so MTR operators dump the waste into valleys. Still, MTR can be conducted without valley fills on a smaller scale (known as “cross ridge” mining) by moving piles of rubble around on top of the mountain.

¹⁰² For an insightful and complete history of the evolution of this statutory term, see Nathaniel Browand, Note, *Shifting the Boundary Between the Sections 402 and 404 Permitting Programs by Expanding the Definition of Fill Material*, 31 B.C. ENVTL. AFF. L. REV. 617 (2004). I will discuss the most relevant events of that history with some additional explanation, but interested readers should consult Browand’s article for the whole story.

I rode my bike up the steep, gravelled, snow-covered road to Larry's cabin on January 15, 2009. From the top of a high wall at the edge of his property, I watched dump trucks crawling across the surface of the mountain's corpse like maggots. They looked small against the backdrop of the massive strip mine, but these trucks are so large that their operators must use ladders to climb into the cabs. They cannot be made any bigger, because train cars cannot carry bigger tires. Through the falling snow, I watched them driving back and forth from the active part of the mine. They were not carrying coal, but rubble from the previous afternoon's blasts. They loaded up the rubble, drove to the edge, and dumped it off into the valley. Then they turned around and drove back for another load. The trucks never paused, not even long enough for the snow to erase their muddy tracks.

When I couldn't watch anymore, I descended down the other side of the mountain, and I saw where the trucks had been disgorging their loads. Enormous valley fills choked each crevice where a stream once had been, each of them about a thousand feet high. Above them on either side was flat ground where the mountaintops once had risen almost another thousand feet. It is difficult to describe the scene in words, but these mountains have been decapitated, their summits turned upside down and left in the surrounding valleys. The soft peaks and deep clefts have been replaced by flat planes intersecting at unnatural angles. Nothing grows on the flat barren surface above, and nothing survives in the streams below.¹⁰³ The loss of these headwater streams is extirpating rare (and perhaps undiscovered) aquatic species.¹⁰⁴

When I was planning my trip, I reached out to media outlets along the route in an attempt to raise awareness about valley fills wherever I could. I called WCHS, the ABC affiliate in Charleston, West Virginia, and described the trip and the petition. The editor in the staff room was apoplectic: "They're not even streams!" he exclaimed. I explained the ecological value of headwaters, and I explained that they protected his drinking water downstream, but he was adamant: "Have you ever even seen what they're calling a stream?"¹⁰⁵ I had. I asked him the same question. He had not. For almost 2000 miles of those streams, already filled, neither of us ever will.

According to the EPA and the Corps of Engineers, this is what the CWA means when it says "fill." But these agencies haven't always subscribed to such a definition. Until 2002, the Corps' definition of "fill" spe-

¹⁰³ See Palmer et al., *supra* note 6, at 148 (discussing streams).

¹⁰⁴ Interview with Missy Petty, Conservation Fisheries, Inc. ("CFI"), in Knoxville, Tenn. (Dec. 2008). Missy, who accompanied me for the first half of the trip, is a fisheries biologist for CFI. She stated that she felt compelled to join the ride because several species of fish that CFI is trying to restore are imperiled by MTR's destruction of headwater streams.

¹⁰⁵ This is a common argument. See Duffy, *supra* note 73, at 144 (noting that "[i]ndustry sources" claim that the filled valleys are "dry ditches that only contain water when it rains"). But besides their legal status as jurisdictional waters, headwater streams have tremendous ecological value. See *infra* notes 279–286 and accompanying text.

cifically excluded activities with the primary purpose of waste disposal, which meant that valley fills were illegal.¹⁰⁶

1. *The Statutory Significance of Fill*

Whether “fill” can include mining waste is a question of critical importance. No one disputes that dumping mining waste into waters is illegal without a CWA permit.¹⁰⁷ The important question is what *sort* of permit is required. The CWA has two permitting regimes: section 402, which is administered by EPA, and section 404, which is administered by the Corps. Under section 402, the discharge of a pollutant is prohibited unless it will not violate water quality standards.¹⁰⁸ Obviously, valley fills would have a hard time meeting this standard. Section 404, however, operates as an exception to section 402. Under section 404, the Corps may issue a permit, notwithstanding the fact that it may cause a violation of water quality standards, if the permittee agrees to avoid and minimize stream impacts to the extent practicable (taking into account the cost of alternatives that would satisfy the project’s purpose)¹⁰⁹ and to mitigate for any unavoidable loss of stream functions by restoring, recreating, or preserving other waters.¹¹⁰ Theoretically, the Corps must refuse a permit if the mitigation cannot compensate for the loss of aquatic resources, but even Corps officials admit that there is no evidence that valley fill “mitigation” can replace lost stream functions.¹¹¹ As I rode through the coalfields, I saw many mitigation projects known as “stream creation” — riprap-lined ditches on steep slopes sown with non-native grasses, the “streams” themselves stained orange with acid and devoid of living things.

The section 404 exception, important as it may be, is limited to the “discharge of dredged or fill material.”¹¹² For these limited types of dis-

¹⁰⁶ Unfortunately, the Corps was issuing section 404 permits for them anyway. See *Bragg v. Robertson (Bragg I)*, 72 F. Supp. 2d 642 (S.D. W. Va. 1999), *rev’d sub nom. Bragg v. W. Va. Coal Ass’n*, 248 F.3d 275 (4th Cir. 2001); *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC I)*, 204 F. Supp. 2d 927, 946 (S.D. W. Va. 2002), *vacated*, 317 F.3d 425 (4th Cir. 2003).

¹⁰⁷ See CWA § 301(a), 33 U.S.C. § 1311(a) (2006) (“Except as in compliance with [sections authorizing permits], the discharge of any pollutant by any person shall be unlawful.”); *id.* § 502, 33 U.S.C. § 1362 (defining “discharge” as the “addition of any pollutant to navigable waters from any point source,” “pollutant” to include “rock [and] sand,” and “point source” to include “rolling stock” — e.g., dump trucks); 33 C.F.R. §§ 328.3(a)(3), (5) (2009) (defining “navigable waters” to include “streams . . . the use, degradation, or destruction of which could affect interstate . . . commerce,” and their “tributaries”).

¹⁰⁸ CWA § 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C) (requiring that National Pollutant Discharge Elimination System (“NPDES”) permits include limits to meet water quality standards).

¹⁰⁹ 33 C.F.R. § 332.1(c)(2).

¹¹⁰ *Id.* § 332.3(a).

¹¹¹ *Palmer et al.*, *supra* note 6, at 149. Even so, the Corps has granted the permits, and the Fourth Circuit has approved the Corps’ decisions. See *Ohio Valley Envtl. Coal. v. Aracoma Coal Co. (OVEC II)*, 556 F.3d 177, 205 (4th Cir. 2009) (allowing untested stream creation methods as one-to-one mitigation credit).

¹¹² CWA § 404(a), 33 U.S.C. § 1344(a).

charge *only* may the Corps issue permits.¹¹³ Fill is not explicitly defined in the CWA, but its breadth is limited by the structure of the statute. The sole justification for allowing discharges under section 404 — discharges that would completely destroy waters and would therefore be prohibited under section 402 — is that there are countervailing, beneficial purposes to be served by “fill.” This is a touchstone to which we will return, but for now it is enough to note that whether valley fills are within the Corps’ jurisdiction determines whether they can legally receive permits.

2. *Historical Limits to the Corps’ Jurisdiction*

Prior to 1977, both the Corps and EPA defined fill expansively to include “any pollutant used to create fill in the traditional sense of . . . changing the bottom elevation of a water body for any purpose.”¹¹⁴ The Corps soon recognized, however, that this definition encompassed many discharges that should have remained under EPA jurisdiction.¹¹⁵ Therefore, in 1977, the Corps adopted a purpose-based definition which remained unchanged until 2002: fill was “any material used for the primary *purpose* of replacing an aquatic area with dry land or changing the bottom elevation of an [sic] waterbody,” and specifically excluded discharges with the primary purpose of waste disposal.¹¹⁶ Although EPA proposed in 1980 to adopt the Corps’ purpose-based test, it ultimately adopted an effects-based test.¹¹⁷ Fill, according to EPA, was any discharge that actually changed the bottom elevation of waters, regardless of its purpose. Thus, under EPA’s definition, the Corps’ jurisdiction was far broader than under the Corps’ own definition. EPA adopted this definition because it believed that the Corps’ permitting program would be *more* protective than the section 402 program.

This point bears further explanation. At the time of the decision to adopt an effects-based test, EPA enforced section 402 exclusively through technology-based limitations. To receive a permit, a discharger needed only use the “best practicable control technology currently available.”¹¹⁸ While this standard worked well for liquid effluents, it was difficult for EPA to imagine how the discharge of rock and dirt into wetlands (EPA’s main concern in the 1980 rulemaking¹¹⁹) could have been effectively limited by technology-based standards. In other words, there is no technology that can reduce the pollutant load from a discharge of rock and debris except for putting it somewhere other than waters. The use of water quality-based standards could have prevented harm from such discharges under section

¹¹³ See *id.* § 402(a), 33 U.S.C. § 1342(a) (authorizing EPA to issue all other permits).

¹¹⁴ Browand, *supra* note 102, at 624 (quoting 33 C.F.R. § 209.120(d)(6) (1976)).

¹¹⁵ *Cf. id.* at 625.

¹¹⁶ 33 C.F.R. § 323.2(e) (2001) (emphasis added).

¹¹⁷ Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,299 (May 19, 1980).

¹¹⁸ CWA § 301(b)(1)(A), 33 U.S.C. § 1311(b)(1)(A).

¹¹⁹ See Browand, *supra* note 102, at 626–27.

402 by preventing the discharge altogether,¹²⁰ but at that time EPA was not enforcing water quality-based standards.¹²¹ So, because Corps regulation was at that time more protective, EPA gave the Corps a long leash.

These differing definitions created some consternation among environmental groups and the regulated community. Disposal of coal mining waste was in a regulatory limbo, and neither EPA nor the Corps claimed jurisdiction.¹²² Thus, in 1986, the same year that blasting began on Kayford Mountain, the Corps and EPA entered into a Memorandum of Agreement (“MOA”) to provide regulatory guidance, indicating that coal mining wastes should be regulated under section 402.¹²³

3. *Illegal Permits, Court Challenges, and the Resulting “Effects-Based” Definition of Fill*

Even though the Corps lacked legal authority under its own rules to issue permits for valley fills, it issued them anyway. In response to this practice, the District Court for the Southern District of West Virginia in *Bragg v. Robertson* held in 1999 that coal mining waste was not “fill” under the Corps’ purpose-based rule, and enjoined the Corps from issuing future

¹²⁰ See CWA § 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C) (requiring that permits include any limits necessary to ensure compliance with water quality standards).

¹²¹ See *EPA v. California ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 202 (1976) (noting that the CWA, as amended in 1972, was concerned with addressing “the preventable causes” of pollution through technology-based standards, rather than “the tolerable effects” addressable through water quality-based standards). EPA’s failure to enforce water quality-based standards had a simple cause: EPA did not have the data to know which streams were impaired and how much of any particular pollutant they could assimilate. See PERCIVAL ET AL., *supra* note 93, at 596. The administratively and scientifically difficult job of assessing each body of water individually was left to the states, and it remained incomplete until citizen suits forced the issue in the 1990s. James R. May, *The Rise and Repose of Assimilation-Based Water Quality, Part I: TMDL Litigation*, 34 *Envtl. L. Rep. (Envtl. Law Inst.)* 10,247 (2004). Of course, all this is academic when it comes to valley fills. A stream cannot “assimilate” a thousand vertical feet of compacted debris. But EPA was stuck in a technology-based rut and water quality-based standards were simply ignored.

¹²² See *W. Va. Coal Ass’n v. Reilly*, Nos. 90-2034, 90-2040, 1991 WL 75217, at *4 (4th Cir. May 13, 1991) (noting that, under the agencies’ differing definitions of fill, “neither the EPA nor the Secretary of the Army has jurisdiction over the disputed fill material in-stream treatment procedures”). That neither agency claimed jurisdiction, however, did not prevent MTR mining and valley fills from occurring during this period.

¹²³ According to the MOA:

[A] pollutant (other than dredged material) will normally be considered by EPA and the Corps to be subject to section 402 . . . if it is a discharge of solid material of a homogeneous nature normally associated with single industry wastes, and . . . from a single site and set of known processes. These materials include placer mining wastes, phosphate mining wastes, titanium mining wastes, sand and gravel wastes, fly ash, and drilling muds.

Memorandum of Agreement on Solid Waste, 51 *Fed. Reg.* 8871, 8872 (Feb. 28, 1986) [hereinafter MOA]. In 1991, the Fourth Circuit applied the MOA to hold that MTR wastes should be regulated by EPA, not the Corps. *W. Va. Coal Ass’n*, 1991 WL 75217, at *4.

permits for valley fills.¹²⁴ Instead of forcing the coal companies to conform to the existing rule, however, the agencies changed the rule to conform to the coal companies' activities.¹²⁵ In 2000, the EPA and the Corps jointly proposed to abandon the purpose-based test, and to instead adopt a purely effects-based test.¹²⁶

While the proposed rule was pending, several more valley fill permits were challenged in *Kentuckians for the Commonwealth, Inc. v. Rivenburgh*.¹²⁷ During the litigation, the new effects-based fill rule was published.¹²⁸ According to that rule, which is currently in effect, fill is:

[M]aterial [that] has the effect of: (i) [r]eplacing any portion of a water of the United States with dry land; or (ii) [c]hanging the bottom elevation of any portion of a water of the United States. (2) Examples of such fill material include, but are not limited to: rock, sand, soil, clay, plastics, construction debris, wood chips, *overburden from mining* or other excavation activities, and materials used to create any structure or infrastructure in the waters of the United States. (3) The term fill material does not include trash or garbage.¹²⁹

The same district court invalidated the permits and enjoined the Corps from issuing future permits for valley fills, again concluding that waste discharges could not be permitted under the older purpose-based definition in effect when the permits were issued.¹³⁰ The court went further, however, and declared that the new rule was ultra vires, because “[o]nly Congress can rewrite the CWA to allow the fundamental changes proposed by the agencies to the § 404 dredge and fill permit program.”¹³¹

The Fourth Circuit, however, vacated the district court's ruling, stating that the district court “reach[ed] beyond the issues presented . . . for resolution” by tackling the new rule and enjoining all valley fill permits rather than limiting its holding to the validity of the challenged permits under the old rule.¹³² Despite this assertion, the court of appeals went on to answer the same question that it held was not fairly presented to the district court —

¹²⁴ See *Bragg v. Robertson (Bragg I)*, 72 F. Supp. 2d 642, 656–57, 663 (S.D. W. Va. 1999), *rev'd on other grounds sub nom. Bragg v. W. Va. Coal Ass'n*, 248 F.3d 275 (4th Cir. 2001).

¹²⁵ Julia Fuschino, Note, *Mountaintop Coal Mining and the Clean Water Act: The Fight over Nationwide Permit 21*, 34 B.C. ENVTL. AFF. L. REV. 179, 194–95 (2007).

¹²⁶ See Proposed Revisions to the Clean Water Act Regulatory Definitions of “Fill Material” and “Discharge of Fill Material,” 65 Fed. Reg. 21,292, 21,295 (proposed Apr. 20, 2000) [hereinafter Proposed Rule].

¹²⁷ *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC I)*, 204 F. Supp. 2d 927, 930 (S.D. W. Va. 2002), *vacated*, 317 F.3d 425 (4th Cir. 2003).

¹²⁸ Valley Fill Rule, *supra* note 96; see *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC II)*, 317 F.3d 425, 438 (4th Cir. 2003).

¹²⁹ 33 C.F.R. § 323.2(e) (2009) (emphasis added).

¹³⁰ See *KFTC I*, 204 F. Supp. 2d at 945–46.

¹³¹ *Id.*

¹³² *KFTC II*, 317 F.3d at 438.

whether the Corps was acting within its statutory authority by permitting valley fills with the sole purpose of waste disposal.¹³³ The court of appeals seemed to acknowledge that the Corps' regulatory practice was contrary to the purpose-based rule.¹³⁴ But rather than holding that its practice was illegal, the court concluded that the Corps' *practice* reflected its *interpretation* of that rule.¹³⁵ The court then deferred to the Corps' "interpretation" of the old rule, and concluded it was within the bounds of the Corps' statutory authority.¹³⁶ Inasmuch as the Corps' practice was legitimized by the new rule, the court effectively approved the new rule.¹³⁷

II. THE EFFECTS-BASED DEFINITION OF FILL IS UNLAWFUL

Despite the Fourth Circuit's strained approval, the new rule is beyond the agencies' statutory authority. Under the *Chevron* doctrine, an agency rule is unlawful if it is inconsistent with the unambiguous meaning of the statute or if it is unreasonable.¹³⁸ The effects-based fill rule adopted by EPA and the Corps fails under either prong.

A. *The CWA is Unambiguous: "Fill" Must Be Defined by Reference to the Purpose of the Project*

Although "fill" is not explicitly defined in the CWA, its meaning is not ambiguous when considered in light of the statute's structure and purpose,¹³⁹ its legislative history,¹⁴⁰ and other statutes addressing the same subject mat-

¹³³ The court stated: "We are *not* presented with the question of whether the New Rule is inconsistent with § 404." *Id.* at 438. The court continued, however, to address "the single question whether § 404 . . . authorizes the Corps to issue permits for the creation of valley fills [that] serve no purpose other than to dispose of [waste]." *Id.* at 439. Inasmuch as the new rule authorizes the Corps to permit valley fills for waste disposal, these questions are identical.

¹³⁴ *Id.* at 444–45 (quoting the older purpose-based rule, with its specific exclusion of waste from the definition of fill, but noting the longstanding practice of the agencies in allowing the Corps to issue valley fill permits, "even for waste").

¹³⁵ *Id.* at 446 n.3 ("[T]he Corps' regulatory practice reflects its interpretation."). This is an awfully strange holding. It is, to my knowledge, without precedent in administrative law. It is clear that the Corps was violating its own rules, and the audacity of an unlawful act cannot render the underlying law ambiguous. *See id.* at 450 (Luttig, J., concurring) ("[T]he Corps' interpretation of the 1977 regulations is different than that interpretation that the majority ascribes to the Corps [from its regulatory practice] and then defers to.").

¹³⁶ *See id.* at 447–48.

¹³⁷ *Id.* at 445–46 (observing that the new rule was intended to preserve the practice of permitting waste fills under section 404).

¹³⁸ *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842–44 (1984).

¹³⁹ *See FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 132–33 (2000) (at *Chevron* Step 1, "the words of a statute must be read in their context and with a view to their place in the overall statutory scheme," and interpreted in light of the statute's "core objectives").

¹⁴⁰ *Cf. NLRB v. United Food & Commercial Workers Union, Local 23*, 484 U.S. 112, 124–25 (1987) (interpreting statute in light of legislative history at *Chevron* Step 1).

ter.¹⁴¹ We should begin with the basics: the CWA was enacted “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”¹⁴² The drafters of the CWA stated that “[t]he use of any river, lake, stream or ocean as a waste treatment system is unacceptable.”¹⁴³ The CWA set the ambitious goal of eliminating “the discharge of pollutants” into federally regulated waters by 1985.¹⁴⁴ To that end, the CWA makes the discharge of a pollutant illegal without a permit, and those permits are ratcheted down every five years as control technologies improve.¹⁴⁵ Not all discharges, however, were to be eliminated. Discharges of “dredged and fill” material were to be permitted in perpetuity, subject only to the section 404(b)(1) guidelines of minimization and mitigation. Congress did not require the eventual elimination of these discharges because they were not among the harms that the CWA sought to eliminate. In other words, the discharge of fill is not equivalent to using waters “as a waste treatment system.” Dredging and filling, in Congress’s view, are not like other pollution; they are *beneficial* activities.¹⁴⁶ They require permits only to *minimize* their harms and to ensure they do not interfere with navigation.¹⁴⁷

This understanding is consistent with the distinction between fill and “refuse” in the Rivers and Harbors Appropriation Act of 1899 (“RHA”), the forerunner to the CWA. The RHA gave the Corps authority to issue permits for both fill and refuse under two separate statutory provisions. The provision governing fill was addressed to “obstruction” of navigable waters by “build[ing]” or “fill[ing]” activities,¹⁴⁸ while another provision governed the discharge of “refuse matter of any kind.”¹⁴⁹ When the CWA was enacted, Congress rolled the “refuse” provision into the section 402 program under EPA’s authority, but permitting authority for dredged and fill material was excepted due to the drafters’ fears that regulation of dredging and filling under section 402’s standards would stifle beneficial activities like the maintenance of ports.¹⁵⁰ The meaning of fill under the RHA —

¹⁴¹ See *Brown & Williamson*, 529 U.S. at 133 (“the meaning of one statute may be affected by other Acts”).

¹⁴² CWA § 101(a), 33 U.S.C. § 1251(a) (2006).

¹⁴³ S. REP. NO. 92-414, at 7 (1971).

¹⁴⁴ CWA § 101(a)(1), 33 U.S.C. § 1251(a)(1).

¹⁴⁵ *Id.* § 301, 33 U.S.C. § 1311 (making unpermitted discharges illegal, specifying timetable for types of control technologies which must be implemented in order to receive a permit, and setting revision of permits every five years); *id.* § 402(o), 33 U.S.C. § 1342(o) (establishing anti-backsliding rules).

¹⁴⁶ See 118 CONG. REC. 33,692, 33,699 (Oct. 4, 1972) (comments of Sen. Muskie that the House dredge and fill provision, which became section 404, was less “burdensome” for permittees than the Senate version, which treated dredged spoil “like any other pollutant.”)

¹⁴⁷ See CWA § 404(b), 33 U.S.C. § 1344(b).

¹⁴⁸ 33 U.S.C. § 403.

¹⁴⁹ *Id.* § 407.

¹⁵⁰ Michael Hollins, *Addition by Removal? National Mining Limits Section 404 Control of Construction in Wetlands*, 14 J. LAND USE & ENVTL. L. 341, 346 (1999); S. REP. NO. 92-1236, at 3 (1972) (Conf. Rep.), reprinted in 1972 U.S.C.C.A.N. 3776, 3816 (giving EPA responsibility for the “refuse” program); see also *United States v. Hallmark Constr. Co.*, 14 F. Supp. 2d 1065, 1068 (N.D. Ill. 1998) (“Congress allowed the Corps ‘to retain the power that it had been granted under the Rivers Act to issue permits for dredge and fill activities.’ This power stands

namely, non-refuse discharges for constructive work in navigable waters — informed Congress’s understanding of the division of labor under the CWA: fill was not to include refuse.

Perhaps the clearest indication of Congress’s intent to exclude waste from fill is found in the definition of “pollutant.” Pollutant is defined to include “rock [and] sand,”¹⁵¹ and “fill” is a *subset* of pollutant.¹⁵² This indicates that Congress contemplated that some discharges of rock and sand would be “pollutants” but would not be “fill.” Yet, all discharges of rock and sand will have the *effect* of fill, and the effects-based test therefore removes all discharges of rock and sand from section 402, contravening Congress’s express intent. The structure of the CWA makes sense only with the understanding that something *other than* a filling effect is required to transmute a pollutant into fill.

Congress’s intent to make “fill” a function of the discharger’s purpose is articulated in the text of the statute itself. Section 404(f)(2) provides that “[a]ny discharge of dredged or fill material into the navigable waters incidental to any activity having *as its purpose* bringing an area of the navigable waters into a use to which it was not previously subject . . . shall be required to have a permit under this section.”¹⁵³ In *KFTC I*, Judge Haden interpreted this provision to define fill as any discharge intended to bring a water into a new use.¹⁵⁴ The Fourth Circuit disagreed and characterized the provision as an exception to an exception.¹⁵⁵ The details of their disagreement are unimportant, because however section 404(f)(2) is characterized, it is clear that *purpose* was important to Congress in delineating the scope of section 404 permitting requirements. Thus, the effects-based rule transgresses a statutory mandate by entirely ignoring this clear direction from Congress. In other words, the rule substitutes the judgment of the agency (that a purpose-based rule is too subjective¹⁵⁶) for the judgment of Congress expressed in section 404 (that purpose is central to the inquiry).

B. *The Effects-Based Rule Is Unreasonable*

Even if there is some remaining ambiguity in the meaning of fill, the effects-based definition does not reasonably resolve it. In the preamble to the fill rule, the agencies stated no less than four times that the new rule

in juxtaposition to the authority over permits for all other pollutants, which lies with the EPA.” (citations omitted)).

¹⁵¹ CWA § 502(6), 33 U.S.C. § 1362(6).

¹⁵² *Cf. id.* § 301(a), 33 U.S.C. § 1311(a) (forbidding discharge of a pollutant without a permit, including a permit granted under section 404).

¹⁵³ *Id.* § 404(f)(2), 33 U.S.C. § 1344(f)(2).

¹⁵⁴ See *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC I)*, 204 F. Supp. 2d 927, 944 (S.D. W. Va. 2002), *vacated*, 317 F.3d 425 (4th Cir. 2003).

¹⁵⁵ See *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC II)*, 317 F.3d 425, 442 (4th Cir. 2003).

¹⁵⁶ This was the agencies’ stated reason in choosing the effects-based test. Valley Fill Rule, *supra* note 96, at 31,132 (claiming “the objective standard created by the effects-based test will yield more consistent results in determining what is ‘fill material’”).

would not disturb existing regulatory practice.¹⁵⁷ But despite those assurances, the text of the fill rule fundamentally changes the jurisdictional division of labor between EPA and the Corps. Before the fill rule was promulgated, the agencies divided their responsibilities according to a purpose-based test with one glaring exception — valley fills.¹⁵⁸ To be sure, the effects-based test allows the agencies to continue their previous regulatory practices with respect to valley fills, but what about the remainder of the CWA's regulatory universe? Where the effects-based definition is inconsistent with the agencies' purpose-based practice, the agencies must now either ignore their new rule, leaving their past practices unchanged, or implement it, and in doing so change the very practices that the rule purports to preserve. Either choice highlights the unreasonableness of the new rule.

1. *Ignoring Their Own Rule: Construction-Related Discharges*

One obvious inconsistency between the agencies' existing practice and the effects-based rule is EPA's construction stormwater permitting program. EPA (or its state counterpart) issues section 402 permits for stormwater discharges associated with construction activities.¹⁵⁹ No permit is available if the discharge will violate state water quality standards, including the standards for suspended sediments.¹⁶⁰ EPA began regulating construction stormwater discharges under section 402 because "siltation" from construction sites was accumulating in lakes, ponds, and reservoirs and "clogging stream channels" — in other words, because the discharges had filling effects.¹⁶¹ In tandem with EPA's stormwater section 402 program, the Corps issues section 404 fill permits for construction discharges.¹⁶² On construction sites, therefore, EPA has asserted its jurisdiction over *waste* discharges of rock and dirt, while the Corps has retained its authority over *non-waste* discharges of rock and dirt. To be clear, the same materials, being discharged at the same construction sites, and with the same *effects*, are subject to different permitting regimes based on their *purposes*.¹⁶³

¹⁵⁷ See *id.* at 31,129–30, 31,132, 31,135, 31,142.

¹⁵⁸ Many discharges traditionally regulated under section 402 by EPA have filling effects. Two types are discussed in detail below, but others include coal fly ash, see MOA, *supra* note 123, at 8872, and industrial discharges with high concentrations of suspended solids such as those from cement manufacturers, see 40 C.F.R. §§ 411.10–.17 (2009).

¹⁵⁹ NPDES Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, 64 Fed. Reg. 68,722, 68,722 (Dec. 8, 1999) [hereinafter Phase II Rule].

¹⁶⁰ CWA § 301(b)(1)(C), 402(a)(1), 33 U.S.C. § 1311(b)(1)(C), 1342(a)(1) (2006) (NPDES permits must include "any more stringent limitation . . . required to implement any applicable water quality standard").

¹⁶¹ Phase II Rule, *supra* note 159, at 68,728.

¹⁶² 33 C.F.R. § 323.2(f) (2009) (defining discharge of fill material to include "the building of any structure, infrastructure, or impoundment requiring rock, sand, dirt, or other material for its construction").

¹⁶³ As one court has explained, the existing division of labor between EPA and the Corps under the stormwater program is consistent with a purpose-based rule, but not with an effects-based rule. See *United States v. United Homes, Inc.*, No. 98-C-3242, 1999 WL 117701, at *3

A faithful application of the fill rule, extending the Corps' jurisdiction to reach all activities with the *effect* of fill, would supersede EPA's regulatory program for stormwater, carefully developed over the course of more than a decade.¹⁶⁴ It would *remove* construction stormwater from the section 402 program for the very reason EPA originally sought to *include* it. According to the preamble to the fill rule, however, the agencies plan to avoid this paradoxical result simply by ignoring their own rule in the context of construction discharges.¹⁶⁵ The fill rule, in other words, is so unreasonable that even its drafters cannot live with its implications.

2. *Coeur Alaska, Inc. v. Southeast Alaska Conservation Council*

Although the *text* of the fill rule is inconsistent with the current regulatory regime, it is tempting to hope that in *practice*, the agencies will simply continue to ignore their rule wherever it would overwrite other important CWA provisions. If such a hope were justified, the new rule might be fairly innocuous, at least outside of Appalachia's coalfields. But already the horrors are on parade. Litigating *Coeur Alaska, Inc. v. Southeast Alaska Conservation Council*,¹⁶⁶ the government took the strong position that the fill rule means what it says. Any discharge with the effect of fill is fill and is no longer subject to section 402 permitting as effluent. As the government asserted bluntly during oral argument, "fill material trumps effluent."¹⁶⁷ And as the category of fill grows, the protections afforded by section 402 will correspondingly diminish.

Coeur Alaska is illustrative of this point, but it is also important in its own right and worth examining in detail. The case revolved around a twenty-three-acre natural lake in Alaska's Tongass National Forest where the Coeur Alaska gold mine's ore processing facility planned to dump its tailings.¹⁶⁸ Those tailings (including aluminum, copper, lead, and mercury) were expected to raise the bottom of the lake by fifty feet, killing nearly

(N.D. Ill. Mar. 1, 1999) (noting that under the Corps' purpose-based rule, "[r]ocks and dirt carried away by stormwater 'upon the happening of a rainfall event' — i.e., when it rains — do not automatically become 'dredged or fill material' just because they end up at the bottom of a creek"). Of course, under the effects-based rule, they *would* become fill material simply because they end up at the bottom of a creek.

¹⁶⁴ The process began in 1987 with amendments to the CWA and culminated in the Phase II Rule in 1999. See Phase II Rule, *supra* note 159, at 68,723.

¹⁶⁵ The preamble states, "discharges . . . [with] the associated effect, over time, of raising the bottom elevation of a water due to settling of waterborne pollutants [are] not consider[ed]" fill. Valley Fill Rule, *supra* note 96, at 31,135. But this rationale simply introduces another inconsistency. Contrary to the agencies' suggestion that slow fillings are not fill, the definition of fill expressly includes coal slurry, which has a filling effect only because of the slow accretion of waterborne pollutants, and specifically excludes trash and garbage, which would have a rapid filling effect.

¹⁶⁶ 129 S. Ct. 2458 (2009).

¹⁶⁷ Transcript of Oral Argument at 5, *Coeur Alaska*, 129 S. Ct. 2458 (2009) (No. 07-984), available at http://www.supremecourtus.gov/oral_argument/argument_transcripts/07-984.pdf.

¹⁶⁸ *Coeur Alaska*, 129 S. Ct. at 2464.

everything in it.¹⁶⁹ At issue was whether the discharge was prohibited by a 1982 “new source performance standard” promulgated by EPA, which applied to the method of ore processing Coeur Alaska planned to use (called “froth flotation”).¹⁷⁰ Under that standard, which was based on the standard practices of existing froth flotation facilities,¹⁷¹ any discharge of process wastewater (which includes the slurry at issue) is flatly prohibited.¹⁷² The respondent environmental organizations argued that section 306, on its face, prohibits the discharge for which Coeur Alaska was issued a permit.¹⁷³ To understand the argument simply, consider a pipe discharging a mixture of mine tailings and water. The only purpose of this pipe is the disposal of waste, but the discharge has an incidental filling effect on the receiving water. Prior to the implementation of the fill rule, this discharge would have been regulated under section 402, and also subject to the performance standards of section 306. After the definition of fill changed, however, the same pipe would be regulated under section 404. The respondents argued that the section 306 standards, which apply to particular *sources* of pollutants without reference to whether they are fill, were still applicable, making the discharge ineligible for a section 404 permit.¹⁷⁴ The Court disagreed.

Before describing the Court’s decision, it is important for our purposes to note what the Court *did not* decide. The Court assumed, without deciding, that the fill rule was valid.¹⁷⁵ Proceeding from that assumption, the Court concluded that the CWA allowed the destruction of an entire lake for the *sole purpose* of waste disposal. That the Court countenanced such an outcome, however, is no reason to read its opinion as a tacit approval of the current regulatory state of affairs. Instead, the Court expressly set aside the validity of the fill rule, noting that in a future case, the rule could be challenged as an unreasonable interpretation of the CWA.¹⁷⁶ In fact, several of the Justices seemed dismayed that the respondents in *Coeur Alaska* were not challenging the fill rule itself.¹⁷⁷

¹⁶⁹ *Id.* at 2480 (Ginsburg, J., dissenting).

¹⁷⁰ Ore Mining and Dressing Point Source Category Effluent Limitations Guidelines and New Source Performance Standards, 47 Fed. Reg. 54,598, 54,602–03 (Dec. 3, 1982) (codified at 40 C.F.R. § 440.104(b) (2009)); *Coeur Alaska*, 129 S. Ct. at 2464 (majority opinion).

¹⁷¹ Those standard practices, which were made applicable to all new facilities, involve separating the solid from the liquid in the slurry by placing the mixture in a settling pond not subject to the CWA. See *Coeur Alaska*, 129 S. Ct. at 2464.

¹⁷² See *Coeur Alaska*, 129 S. Ct. at 2480 (Ginsburg, J., dissenting) (citing 40 C.F.R. § 440.104(b)(1)).

¹⁷³ *Id.* at 2466 (majority opinion).

¹⁷⁴ Transcript of Oral Argument, *supra* note 167, at 27.

¹⁷⁵ *Coeur Alaska*, 129 S. Ct. at 2468. During oral argument, Justice Kennedy asked counsel for the respondents, “[D]o we decide . . . this case on the assumption that this is fill?” Counsel answered in the affirmative. Transcript of Oral Argument, *supra* note 167, at 34.

¹⁷⁶ *Coeur Alaska*, 129 S. Ct. at 2468.

¹⁷⁷ For instance, Justice Souter stated during oral argument that “I find it very difficult to get a handle on this case without dealing with that problem [of the definition of fill].” Transcript of Oral Argument, *supra* note 167, at 7. Likewise, Justice Ginsburg pressed the Solicitor General on the recent vintage of the effects-based definition. *Id.* at 7–9. Justice Kennedy and petitioner’s counsel had an exchange about the genesis of the fill rule in which Justice Kennedy

Under the assumption that “fill” is anything with the effect of filling, specifically including mining waste, the Court held that the slurry was a discharge of fill, and hence not subject to section 402 permitting. The Corps, and not EPA, was therefore the proper permitting agency.¹⁷⁸ The Court then held that section 306 standards are not applicable to discharges permitted under section 404. The rationale was simple: EPA enforces section 306 by incorporating its requirements into the section 402 permits it (or its state counterpart) issues, but section 404, by contrast, is silent with respect to the section 306 requirements.¹⁷⁹ The Court concluded that “Congress’ omission of section 306 from section 404, and its inclusion of section 306 in section 402(k), is evidence that Congress did not intend section 306 to apply to Corps section 404 permits or to discharges of fill material.”¹⁸⁰ By way of syllogism, the Court concluded that (1) as fill, mining wastes cannot be regulated under section 402, (2) section 306 is applied only through section 402 permits, and therefore (3) mining wastes are not subject to section 306 standards.

Justice Ginsburg’s dissent argued vigorously that the majority’s holding was counter to the CWA’s purpose: “Would a rational legislature order exacting pollution limits, yet call all bets off if the pollutant, discharged into a lake, will raise the water body’s elevation? To say the least, I am persuaded, that is not how Congress intended the [CWA] to operate.”¹⁸¹ Justice Ginsburg’s rhetorical question echoed the sentiments of Justice Breyer, who stated during oral argument that “it just can’t be that simply because they poured a lot of it in and it fills up the bottom of the lake, that suddenly EPA can’t regulate it anymore [T]hat’s so counterintuitive”¹⁸² The paradox observed by Justices Ginsburg and Breyer creates a wholesale exemption from the CWA for mining wastes¹⁸³ and, potentially, many other wastes regulated under section 306.¹⁸⁴ This absurd result, however, stems

questioned the agencies’ rationale for changing the rule (namely, that the purpose-based definition was “unworkable”). *Id.* at 19. Justice Breyer, too, noted that the effects-based definition of fill produces counterintuitive results. *Id.* at 22–23.

¹⁷⁸ *Coeur Alaska*, 129 S. Ct. at 2463.

¹⁷⁹ *Id.* at 2471 (comparing section 402(k), which states that compliance with NPDES permits constitutes compliance with (among other things) section 306, to section 404(p), which states that compliance with dredge and fill permits constitutes compliance with other CWA provisions, not including section 306).

¹⁸⁰ *Id.* This was a distinction that Justice Scalia found especially convincing: in oral arguments, he called it a “big difference.” Transcript of Oral Argument, *supra* note 167, at 25. Still, the majority noted that, despite this evidence, Congress had not “directly spoken” to the precise issue. *Coeur Alaska*, 129 S. Ct. at 2471–72. The Court went on to hold that an EPA memorandum explaining that section 306 standards were inapplicable to fill material was entitled to *Auer* deference because it “is not ‘plainly erroneous or inconsistent with the regulation[s].’” *Id.* at 2469–70 (quoting *Auer v. Robbins*, 519 U.S. 452, 461 (1997)).

¹⁸¹ *Id.* at 2484 (Ginsburg, J., dissenting).

¹⁸² Transcript of Oral Argument, *supra* note 167, at 22–23.

¹⁸³ See *id.* at 12–13 (Justice Souter querying whether “to apply the effects test, the legal effect, is it not, is to define one form of pollution as no longer existent so long as that form of pollution falls within the Corps of Engineers’ definition of ‘fill’”).

¹⁸⁴ As the respondents pointed out, many of the discharges with effluent limitations specified under section 306 have a filling effect. Indeed, the very same characteristics of those

not from an unreasonable interpretation of section 306, but from the flaws inherent in the fill rule. Assuming the validity of that rule, the respondents were placed in the awkward position of arguing that, notwithstanding the slurry's undisputed status as fill material, it should not be regulated by the Corps under section 404.¹⁸⁵ The Court had no choice but to reject that argument. As the agencies argued, fill has never been regulated under section 306.¹⁸⁶ If the exemption of fill from section 306 now threatens to eviscerate this important part of the CWA, it is only because the category of fill has grown to encompass waste discharges, which should have remained under EPA jurisdiction.

C. *The Likelihood of Agency Capture*

The inconsistencies and paradoxes created by the fill rule can be explained only by the fact that the 2002 rule was intended to "legalize" a single type of discharge — mining waste.¹⁸⁷ As explained above, the new rule purports to preserve regulatory practices existing at its adoption, but does so only with respect to valley fills for MTR, which at the time of the rule's adoption had been declared illegal.¹⁸⁸ Put simply, the agencies could not continue to permit valley fills under the purpose-based test, so they changed the test. It appears, as Judge Haden observed, that "the rule change was designed simply for the benefit of the mining industry."¹⁸⁹ When assessing an agency's motivation for any particular action, it is too much to expect to find direct evidence of industry influence. But an inference of agency capture is appropriate when the agency is structurally susceptible to such influence and where the outcome of the decision-making process is unexpectedly favorable to industry.¹⁹⁰

discharges that make them appropriate candidates for section 306 source-specific performance standards — their size and sheer volume — also make it likely they will have filling effects, and thus gain exemption from section 306 standards. *See id.* at 30–32.

¹⁸⁵ *Id.* at 52–54 (arguing that the slurry was "not eligible" for a section 404 permit).

¹⁸⁶ *See* Valley Fill Rule, *supra* note 96, at 31,135.

¹⁸⁷ When discussing whether to keep the "waste exclusion" from the purpose-based rule in the new rule, the agencies could name only a single type of waste that justified jettisoning the exclusion — namely, mining waste. *See id.* at 31,133.

¹⁸⁸ *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC I)*, 204 F. Supp. 2d 927, 946 (S.D. W. Va. 2002) ("When the illegitimate practices were revealed by court decisions in this district, the agencies undertook to change not their behavior, but the rules . . ."), *vacated*, 317 F.3d 425 (4th Cir. 2003).

¹⁸⁹ *Id.*

¹⁹⁰ This analysis calls for caution and self-conscious reflection with respect to the "proper" outcome of the decision-making process. As Paul J. Quirk has observed, allegations of agency capture "usually rest on an (often unstated) assumption about what the agency *would have* done in the absence of industry influence — an assumption that tends to derive from what the critic thinks *should have* been done." PAUL J. QUIRK, *INDUSTRY INFLUENCE IN FEDERAL REGULATORY AGENCIES* 4 (1981).

1. *The Corps' Susceptibility to Industry Influence*

Industry can influence agency decision making in two ways: legitimately, through the notice-and-comment rulemaking process, and illegitimately, through agency capture.¹⁹¹ The Corps is susceptible to illegitimate industry influence for a variety of related reasons. First, its mission is not, at least primarily, protection of the environment.¹⁹² Instead, the Corps' mission is to balance environmental harms against economic considerations and energy needs, among other things.¹⁹³ Second, because the Corps' permitting program affects "diffuse and numerous beneficiaries and well-organized regulated classes,"¹⁹⁴ the transaction costs of seeking to influence the agency decision are greater for the public than for the regulated industries. In other words, a single member of the public receives a small, contingent benefit from the prevention of waste fills, while MTR operators, less numerous and better organized, stand to receive a great, immediate benefit when valley fills are permitted.¹⁹⁵ Naturally, this results in more frequent and more effective interactions between industry interests and the agency. Third, because the Corps works with industry members on a frequent basis (considering around 80,000 permits per year¹⁹⁶), it needs industry cooperation to accomplish its goals, creating a give-and-take relationship.¹⁹⁷ Fourth, the process through which the Corps and industry representatives communicate is informal and opaque,¹⁹⁸ creating an even greater danger of improper influence.¹⁹⁹ Due to

¹⁹¹ See William N. Eskridge, Jr., *No Frills Textualism*, 119 HARV. L. REV. 2041, 2058 (2006) (naming factors that can contribute to capture, including "postgovernmental employment opportunities, the agency's need for industry cooperation, and political pressure").

¹⁹² "We have found . . . that mission-oriented agencies whose concern is something other than concern for the environment simply do not adequately protect environmental values. That is not [the Corps'] mission." Hollins, *supra* note 150, at 343 n.12 (quotation from Senator Muskie during Senate debate).

¹⁹³ See 33 C.F.R. § 325.3(c)(1) (2009).

¹⁹⁴ See CASS R. SUNSTEIN, *AFTER THE RIGHTS REVOLUTION: RECONCEIVING THE REGULATORY STATE* 102 (1990).

¹⁹⁵ See John Shepard Wiley, Jr., *A Capture Theory of Antitrust Federalism*, 99 HARV. L. REV. 713, 724–25 (1986). Environmental groups can counteract this susceptibility to some extent by organizing to challenge the issuance of particularly offensive permits. Still, the resources available to the environmental groups, which typically come from public fundraising, are outmatched by the resources of the permittees. And, as discussed *infra* note 198, public involvement in permitting occurs only after a significant amount of interaction between the Corps and the applicant.

¹⁹⁶ See Duffy, *supra* note 73, at 145 (average of 74,500 from 1996 to 1999); Kim Diana Connolly, *Shifting Interests: Rethinking the U.S. Army Corps of Engineers Permitting Process and Public Interest Review in Light of Hurricanes Katrina and Rita*, 32 T. MARSHALL L. REV. 109, 114 n.33 (2006) (81,302 in 2002 and 86,177 in 2003).

¹⁹⁷ Cf. Eskridge, *supra* note 191 (discussing the need for industry cooperation).

¹⁹⁸ The Corps' permitting process allows significant informal interaction between the applicant and the agency before the application is submitted for public comment, during which time the agency and the applicant work together to avoid problems that might later prevent issuance of the permit. See 33 C.F.R. § 325.1(b) (during pre-application consultation, the Corps will "be available to advise potential applicants" about the "factors which the Corps must consider in its permit decision-making process. . . . The regulatory staff coordinator shall maintain an open relationship with each potential applicant"); *id.* § 325.1(e) (2009)

the confluence of these factors, the Corps' interest and the public interest has not been coextensive. Where the public interest requires *denial* of a permit, the Corps' path of least resistance is often assisting the applicant in drafting an application that will be easy to approve.²⁰⁰

In addition to industry influence from these routine sorts of interactions, an agency may also be influenced by political pressure from the White House through political appointments²⁰¹ and *ex parte* contacts with the agency.²⁰² Industry influence through the White House is not just theoretical; former agency personnel confirm that interest groups, and particularly industry groups, are indeed able to persuade the White House to seek changes in environmental rules.²⁰³ During the George W. Bush Administration, the Corps does appear to have been heavily influenced by an executive branch that was extraordinarily friendly to extractive industries.²⁰⁴ The Bush Administration's Corps appointments were heavily politicized,²⁰⁵ and its policy preferences were no secret.²⁰⁶

(allowing the agency to ask the applicant for additional information after the application is submitted but prior to making the application public).

¹⁹⁹ See Joel A. Mintz, *Has Industry Captured the EPA? Appraising Marver Bernstein's Captive Agency Theory After Fifty Years*, 17 *FORDHAM ENVTL. L. REV.* 1, 20–21 (2005).

²⁰⁰ It is in the Corps' interest to grant permits because it must explain each denial, and a denied applicant is likely to complain. See 33 C.F.R. § 325.2(a)(7). It is also in the Corps' interest to assist applicants early in the process, because the Corps must substantively respond to public comments from objectors and risks legal challenge if its permits are not well supported. See *id.* § 325.2(a)(3).

²⁰¹ See, e.g., Karl S. Coplan, *Ideological Plaintiffs, Administrative Lawmaking, Standing, and the Petition Clause*, 61 *ME. L. REV.* 377, 395 (2009) (stating that the George W. Bush Administration "donat[ed]" EPA to industry).

²⁰² In theory, it might seem desirable that leaders, or appointees who are politically accountable, exercise control over agency policymaking. See Lisa Schultz Bressman & Michael P. Vandenbergh, *Inside the Administrative State: A Critical Look at the Practice of Presidential Control*, 105 *MICH. L. REV.* 47, 54 (2006). But insofar as the executive makes agency appointments to reward industries that supported his candidacy, executive control provides another pathway for disproportionate industry influence.

²⁰³ See *id.* at 85–86 (interpreting results of a survey completed by former EPA officials).

²⁰⁴ The George W. Bush Administration's receptivity to mining interests came as no surprise. See, e.g., Duffy, *supra* note 73, at 143 (noting that the states where MTR mines are located "were crucial to President Bush's election in 2000," and predicting that "the administration will push for legislative or regulatory changes" to facilitate MTR and valley fill). One example of the administration's policies is the repeal of the stream buffer zone rule (which had prohibited mining impacts within 100 feet of streams), approved at the eleventh hour of the Administration in December 2008. *Excess Spoil, Coal Mine Waste, and Buffers for Perennial and Intermittent Streams*, 73 *Fed. Reg.* 75,813 (Dec. 12, 2008) [hereinafter *Stream Buffer Zone Rule*]. The change had long been on the agenda: *all* of the proposed action alternatives in the 2003 Mountaintop Mining Draft Environmental Impact Statement ("DEIS") would have repealed the rule, and curiously, each of these alternatives was claimed to be *more* protective of streams. *MOUNTAINTOP MINING DEIS*, *supra* note 8.

²⁰⁵ For instance, the top civilian position in the Corps hierarchy was given first to Mike Parker, a Republican legislator who had recently lost his bid for reelection. Mr. Parker was soon thereafter forced to resign when he failed to support the President's proposed cuts to the Corps' budget. Jim Abrams, *Some Balk, but White House Defends Official's Ouster*, *PHILADELPHIA INQUIRER*, Mar. 8, 2002, at A8.

²⁰⁶ Joel A. Mintz, "Treating Water": *A Preliminary Assessment of EPA Enforcement During the Bush II Administration*, 34 *Envtl. L. Rep. (Envtl. Law Inst.)* 10,912, 10,912 (2004) (detailing "trends" at EPA, including "resource and budgetary limitations" as well as "official

2. *The Corps' Policy Outcomes*

For all these reasons, the Corps has ceased to be a gatekeeper and has assumed the role of industry partisan. Whenever it appears that MTR operations are out of compliance with their permit conditions, the Corps goes out of its way to make allowances. Indeed, the Corps “scrambl[es] to keep coal mining operators in compliance with section 404 requirements” rather than taking enforcement action when they are not.²⁰⁷ It has even ignored its own rules to do so.²⁰⁸ The Huntington District of the Corps, in particular, has been a rubber stamp for valley fill permits. Huntington includes both Kentucky and West Virginia, and it has granted “virtually every application it has received for [valley fills], primarily under its Nationwide Permit 21 (NWP-21).”²⁰⁹ An activity is eligible for coverage under a nationwide permit only when it “will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment.”²¹⁰ There are only two ways to reconcile the Corps’ record with the law: either the adverse effects of MTR are truly minimal, or the Corps has been willing to ignore the CWA in order to rush MTR mines through the permitting process.

The fill rule was the climax of the Corps’ obeisance to the mining industry: it was proposed mere months after valley fills were held to be outside the Corps’ section 404 authority.²¹¹ The Corps was quite explicit, in fact, that its sole justification for not excluding “waste” from the definition of fill was to allow “mining waste” to be regulated under section 404.²¹² The fill rule can be understood only in this context. The result of the rule change was an effects-based test that excludes “trash or garbage” but includes mining waste. There is, of course, no principled distinction between them: both have the effect of fill, both are wastes, and neither has a constructive purpose. To be sure, rock and sand are traditionally used for constructive fills whereas trash and garbage are not, but under the CWA, all of those materials are equally “pollutants.” To premise a rule on a statutorily irrelevant distinction for the benefit of a single industry is the very definition of arbitrary

secretiveness, intra-Agency perceptions of enforcement politicization, declines in staff morale, and decreased levels of enforcement activities in various categories”); *see also* Mintz, *supra* note 199, at 27, 35–36 (describing President Bush’s successful attempt to rein in EPA’s enforcement of the New Source Review rules applicable to coal-fired power plants).

²⁰⁷ *See* Browand, *supra* note 102, at 636–37 (describing the Corps’ lenient grace period for mining operations to come into compliance with nationwide permit conditions).

²⁰⁸ Clark, *supra* note 73, at 148 (speculating that the Corps’ failure to follow its own regulations may have been the result of the mining industry’s access to the agency’s decision-making process); *see supra* note 198 and accompanying text.

²⁰⁹ Duffy, *supra* note 73, at 145.

²¹⁰ CWA § 404(e)(1), 33 U.S.C. § 1344(e)(1) (2006).

²¹¹ *See* Bragg v. Robertson (*Bragg I*), 72 F. Supp. 2d 642 (S.D. W. Va. 1999), *rev’d sub nom.* Bragg v. W. Va. Coal Ass’n (*Bragg II*), 248 F.3d 275 (4th Cir. 2001); Proposed Rule, *supra* note 126, at 21,295.

²¹² *See supra* note 187 and accompanying text.

trary.²¹³ Indeed, one might say that the new rule is not “effects-based,” but “results-based” in that the desired result was the legitimization of MTR. Even if this arbitrary distinction is not grounds by itself for invalidating the rule, it is at least a reason to take a “hard look,” and it makes the agency’s proffered rationale immediately suspect.²¹⁴ Furthermore, it provides a good reason to accord less deference to the new rule (as opposed to the previous rule of “longstanding” vintage) because the older rule was developed closer in time to the organic statutes, and before the Corps succumbed to industry influence.²¹⁵

3. *What About EPA?*

The Corps’ motivation is easy to explain, but a myopic focus on the Corps fails to tell the whole story. The Corps issued the Valley Fill Rule jointly with EPA, which is structurally insulated from some of the industry pressures bearing on the Corps because it does not directly interact with applicants for fill permits. EPA is not, however, immune from White House control.²¹⁶ EPA has historically resisted industry capture because of its strong, mission-minded staff, overborne during the previous administration.²¹⁷ With new leadership, however, and anchored by a dedicated and professional staff, there is reason for optimism that EPA will resume meaningful oversight of the section 404 program.²¹⁸

D. Corps and EPA Jurisdiction Should Be Delineated by a Purpose-Based Rule

The effects-based rule, on its face, expands the jurisdiction of the Corps at the expense of the section 402 program; the section 404 exception threat-

²¹³ Cf. *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (defining “arbitrary and capricious” to include an agency’s reliance on “factors which Congress has not intended it to consider”).

²¹⁴ See *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 851 (D.C. Cir. 1971) (observing that a court should be aware of the “danger signals” that might suggest “that the agency has not really taken a ‘hard look’ at the salient problems”).

²¹⁵ See *Barnhart v. Walton*, 535 U.S. 212, 220 (2002) (noting “this Court will normally accord particular deference to an agency interpretation of ‘longstanding’ duration” (quoting *N. Haven Bd. of Educ. v. Bell*, 456 U.S. 512, 522 n.12 (1982))); *Good Samaritan Hosp. v. Shalala*, 508 U.S. 402, 417 (stating that “the consistency of an agency’s position is a factor in assessing the weight that position is due”).

²¹⁶ A Bush-era EPA official told the *New York Times*, “We were told to take our clean water and clean air cases, put them in a box, and lock it shut. Everyone knew polluters were getting away with murder. But these polluters are some of the biggest campaign contributors in town, so no one really cared if they were dumping poisons into streams.” Charles Duhigg, *Clean Water Laws Neglected at a Cost*, N.Y. TIMES, Sept. 13, 2009, at A1.

²¹⁷ See Mintz, *supra* note 199, at 29; PEER Report: EPA Let Industry Edit Coal Ash Reports, <http://blogs.wvgazette.com/coalatattoo/2010/01/28> (Jan. 28, 2010, 10:20 AM) (reporting the results of a FOIA request by Public Employees for Environmental Responsibility, specifically that “[f]or most of the past decade, it appears that every EPA publication on the subject [of coal ash] was ghostwritten by the American Coal Ash Association”).

²¹⁸ See Mintz, *supra* note 199, at 29; *infra* Part VI.

ens to devour the rule. EPA is left with jurisdiction over only two sorts of discharge: those that do not have the incidental effect of changing the bottom elevation of waters and “trash or garbage.”²¹⁹ The effects-based rule, as Justice Ginsburg lamented, found an industry-friendly elephant hiding in a statutory mousehole.²²⁰ The rule flouts the CWA’s core purpose — preventing the use of the nation’s waters as waste treatment systems.

Thus, the petition asked EPA to revisit the definition of fill and reassert its jurisdiction over discharges with the purpose of waste disposal. It argued that “fill” is properly understood as material which is discharged for constructive purposes, or phrased differently, discharges with a primary beneficial purpose.²²¹ Under this definition, fill could not include accidental discharges or discharges with the primary purpose of waste disposal. Of course, most “fill” material is also waste from another process; that is why it is cheap enough to use as fill.²²² Still, the difference between “fill” and “waste” must be the purpose of the project. Fill cannot, consistent with the CWA, be interpreted to allow a disposal of waste that violates water quality standards merely because it incidentally changes the bottom elevation of waters. To return to our touchstone, the only justification for the existence of the section 404 exception to section 402 — an exception which allows discharges that can entirely destroy the receiving waters — is that those discharges are allowed for their countervailing, *beneficial* purposes.

A purpose-based rule avoids the problems with the effects-based rule described above. It is consistent with the plain meaning of the CWA, as revealed by its purpose and legislative history. It is also consistent with the longstanding regulatory interpretation of the jurisdictional reach of the section 404 program. The most attractive quality of the purpose-based rule, however, is that, unlike the effects-based rule, its literal application would have very little effect on actual regulatory practice. A faithful application of the purpose-based rule would change regulatory practice with respect to only one category of permits — valley fills.

A purpose-based rule is also resistant to the major criticisms leveled against it in the 2002 rulemaking by the Corps and EPA. There, the agencies claimed that a purpose-based rule was too subjective to be applied consistently.²²³ That justification, however, rings hollow.²²⁴ The Corps undertakes purpose-based inquiries routinely. Indeed, the section 404(b)(1) guidelines require an identification of the purpose for *each and every* fill activity per-

²¹⁹ See 33 C.F.R. § 323.2(e)(1)(ii), (e)(3) (2009).

²²⁰ *Coeur Alaska, Inc. v. Se. Alaska Conservation Council*, 129 S. Ct. 2458, 2484 (2009) (Ginsburg, J., dissenting).

²²¹ See Evans, *supra* note 4.

²²² See Valley Fill Rule, *supra* note 96, at 31,133 (noting that waste is sometimes used for beneficial purposes, e.g., “to create fast land for development”).

²²³ See *id.* at 31,132–33.

²²⁴ The only sense in which a purpose-based rule cannot be applied consistently is this: the agencies cannot apply a purpose-based rule consistently *and* continue to issue permits for valley fills. A careful reader will realize that this is the sense of “consistency” that most concerned the agencies.

mitted, and the Corps must articulate that purpose publicly so that interested parties can provide meaningful comment on whether it is necessary.²²⁵ Furthermore, contrary to the agencies' reasoning, the effects-based rule is not likely to eliminate difficult jurisdictional determinations. There will still be close questions — for example, whether a particular discharge has changed the bottom elevation of a water enough to be classified as fill.²²⁶ The agencies also suggested that waste fills should be permitted under section 404 because the section 402 program does not “address discharges that convert waters . . . to dry land” or mitigate “unavoidable impacts.”²²⁷ But of course, section 402 *can* “address” valley fills: it can prevent them. The agencies' rationale therefore begs the question whether such discharges are permissible under the CWA.

A final criticism of the purpose-based rule was suggested by the Fourth Circuit in *KFTC II*. The court noted that SMCRA seems to contemplate valley fills by providing guidelines for placing “spoil” in “wet areas.”²²⁸ Thus, the argument goes, the CWA could not prohibit valley fills. This argument reappeared in the 2008 stream buffer zone rule change.²²⁹ The provision at issue appears in a list of engineering requirements designed to ensure that waste piles are stable, and it requires mine operators to:

[P]lace all excess spoil material resulting from coal surface mining . . . in such a manner that . . . the disposal area does not contain springs, natural water courses, or wet weather seeps *unless* lateral drains are constructed from the wet areas to the main underdrains in such a manner that filtration of the water into the spoil pile will be prevented . . . [and] *all other provisions of this chapter are met.*²³⁰

This is certainly not an unambiguous statement from Congress that the filling of jurisdictional waters is authorized for purposes of waste disposal. Even conceding that SMCRA “did not ban” MTR valley fills,²³¹ it certainly did not authorize them. One of the “other provisions” applicable to spoil

²²⁵ See 33 C.F.R. § 325.3(a)(5)(2009). The agencies did attempt to argue that identifying a project's purpose for a jurisdictional determination is somehow different from these other purpose-based inquiries. The agencies argued that, when determining whether a discharge should be regulated under section 402 or 404, the regulated community should have an “objective” test that treats like discharges alike, *see* Valley Fill Rule, *supra* note 96, at 31,133, but this only raises the question of whether the relevant characteristic that makes one discharge “like” another is its purpose or its effect.

²²⁶ On this basis, Justice Kennedy expressed skepticism of the agency's rationale during the oral argument for *Coeur Alaska*. See Transcript of Oral Argument, *supra* note 167, at 19, 34, 53, 56.

²²⁷ Proposed Rule, *supra* note 126, at 21,293; *see also* *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC II)*, 317 F.3d 425, 446 (4th Cir. 2003).

²²⁸ *KFTC II*, 317 F.3d at 443.

²²⁹ See Stream Buffer Zone Rule, *supra* note 204, at 75,822.

²³⁰ SMCRA § 515(b)(22)(D), (I), 30 U.S.C. § 1265(b)(22)(D), (I) (2006) (emphases added).

²³¹ Stream Buffer Zone Rule, *supra* note 204, at 75,822.

piles is this: “Nothing in [SMCRA] shall be construed as superseding, amending, modifying, or repealing . . . [the CWA],” “any rule or regulation promulgated thereunder,” or “the State laws enacted pursuant thereto.”²³² In other words, while SMCRA struck a balance between landscape conservation and energy production, it brokered no compromise of water quality. The quoted provision of SMCRA, indeed, is addressed not to water pollution, but to the *stability* of debris piles.²³³ Furthermore, the “wet areas” described in this provision could easily be construed to include only non-jurisdictional waters.²³⁴ Such a construction would give full effect to this provision of SMCRA without “superseding, amending, modifying, or repealing” the prohibition of waste discharges established by the CWA.

III. VALLEY FILLS ARE WASTE, NOT FILL

The petition also argued that EPA should explicitly exclude the waste from surface coal mining from the definition of fill. The petition did not belabor the point: it seems almost self-evident that, as waste, it would be excluded. In fact, in all the cases to deal with valley fills, the parties and the courts have assumed that valley fills are waste.²³⁵

A. *OVEC v. Aracoma Coal*

A recent case, however, muddies the waters, so to speak. In *Ohio Valley Environmental Coalition v. Aracoma Coal Co. (OVEC II)*,²³⁶ the Fourth Circuit (in a different legal context) relied on the above-referenced provision of SMCRA²³⁷ to conclude that “[t]he specific activity that the Corps is permitting when it issues a section 404 permit is nothing more than the filling of jurisdictional waters for the purpose of creating an underdrain system for the larger valley fill.”²³⁸ This characterization is deeply flawed. Put simply, the purpose of “creating an underdrain” is merely incidental to the purpose

²³² SMCRA § 702(a)(3), 30 U.S.C. § 1292(a)(3).

²³³ The provision appears in a list of engineering requirements to prevent “erosion and movement.” *Id.* § 515(b)(22), 30 U.S.C. § 1265(b)(22).

²³⁴ Non-jurisdictional waters are those with no “substantial nexus” to navigable waters. See *N. Cal. River Watch v. City of Healdsburg*, 496 F.3d 993, 999–1000 (9th Cir. 2007) (explaining *Rapanos v. United States*, 547 U.S. 715 (2006)).

²³⁵ *E.g.*, *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC II)*, 317 F.3d 425, 439 (4th Cir. 2003) (stating that “valley fills serve no purpose other than to dispose of excess overburden from the mining activity.”); *Bragg v. Robertson (Bragg I)*, 72 F. Supp. 2d 642, 657 (S.D. W. Va. 1999) (same); *W. Va. Coal Ass’n v. Reilly*, 932 F.2d 964 (Table), 1991 WL 75217, at *4 (4th Cir. May 13, 1991) (holding that the mining debris, even when used to construct a settling pond, was waste).

²³⁶ 556 F.3d 117, 193 (4th Cir. 2009) (addressing whether the scope of the Corps’ National Environmental Policy Act (“NEPA”) analysis should have included the “larger environmental impacts of the valley fill as a whole”).

²³⁷ SMCRA § 515(b)(22)(D), (I), 30 U.S.C. § 1265(b)(22)(D), (I).

²³⁸ *OVEC II*, 556 F.3d at 194 (emphasis added). The court drew a dubious distinction between the initial filling of the stream and the tons of rubble piled above the high water mark of the stream, then asserted that the streambed was the “underdrain” for the valley fill.

of disposing waste. To say that the purpose of the dumping is to create an underdrain is no more convincing than to say that the purpose of the dumping is to empty the dump trucks. The Fourth Circuit's reasoning cannot be considered a serious challenge to the proposition that valley fills are waste.

B. "Equal or Better Use"

MTR operators might also argue, again relying on SMCRA, that valley fills have the primary purpose of bringing steep valleys into new, beneficial uses. Under SMCRA, the "spoil" from a strip mine generally must be returned to recreate the land's approximate original contour ("AOC").²³⁹ A variance from the AOC requirement is available, but only where the applicant presents "specific plans" for a facility that would constitute "an equal or better economic or public use" that is "obtainable according to data regarding expected need and market."²⁴⁰ MTR operators often claim that the flat surfaces left by their mines, consisting of both the leveled mountain and the adjacent valley fills, are valuable for economic development.²⁴¹

Again, however, this argument cannot be taken very seriously. Although SMCRA's requirements are stringent on paper, they are poorly enforced.²⁴² As a result, redevelopment on MTR sites is extremely rare.²⁴³ Almost all "reclaimed" sites are sitting idle,²⁴⁴ and there is no market demand for the spoiled land.²⁴⁵ As of 1997, only a few dozen buildings, including three jails, had been built on the 400 square miles of leveled mountains.²⁴⁶ To be sure, if a valley fill were necessary to a planned beneficial use that legitimately responded to market need, then there might be a colorable argument to permit the valley fill under section 404 instead of section 402.²⁴⁷ It is unlikely, however, that any such use exists.

²³⁹ SMCRA § 515(b)(3), 30 U.S.C. § 1265(b)(3).

²⁴⁰ *Id.* § 515(c)(2), (3), 30 U.S.C. § 1265(c)(2), (3).

²⁴¹ See NAT'L MINING ASS'N, MOUNTAINTOP MINING FACT BOOK 5 (2009).

²⁴² In 1998, a *Charleston Gazette* FOIA request revealed that only one-quarter of active MTR mines in West Virginia obtained an AOC variance, and the other three-quarters were operating illegally. McGinley, *supra* note 6, at 66–67.

²⁴³ See *id.* at 60–71 (describing the failure of any development to come to the newly flattened mountaintops, and concluding that "SMCRA's promise to coalfield communities of shopping centers, industrial plants, and new affordable housing — all located on flattened mountaintops — has been broken"). Supporters of MTR point to schools, housing developments, and a public golf course as examples of model redevelopment. See BURNS, *supra* note 6, at 124–126. These are primarily government-backed projects, and they do not indicate a market for MTR-flattened lands.

²⁴⁴ GAO REPORT, *supra* note 5, at 34–44; see also REECE, *supra* note 24, at 36.

²⁴⁵ See REECE, *supra* note 24, at 60 ("[T]here is enough flat land in eastern Kentucky to plop down ten thousand Wal-Marts. . . . [T]he coal industry has created the ultimate supply-side economy, where it's hard to tell the difference between 'real estate' and abandoned land.").

²⁴⁶ McGinley, *supra* note 6, at 60 (citing Penny Loeb, *Shear Madness*, U.S. News & WORLD REP., Aug. 11, 1997, at 28).

²⁴⁷ See *Kentuckians for the Commonwealth, Inc. v. Rivenburgh (KFTC I)*, 204 F. Supp. 2d 927, 941–42 (S.D. W. Va. 2002), *vacated*, 317 F.3d 425 (4th Cir. 2003).

IV. EPA SHOULD INVALIDATE OUTSTANDING VALLEY FILL PERMITS

Appalachia has lost quite enough mountains. At the time of this writing, however, many permits have been issued for streams that have not yet been buried, and the threat of blasting hangs over the communities below. In addition, as many as 250 more permits have been applied for and are at some stage of the approval process.²⁴⁸ For that reason, the petition urged EPA to invalidate the illegal section 404 permits for all valley fills where waste has not yet been dumped. Of course, to prevent a rush by MTR operators to begin new waste fills during the notice and comment period, the rule should apply to sites where work has not commenced at the time the new rule is proposed.

A. EPA's Authority

If the Corps has issued section 404 permits pursuant to an illegal usurpation of jurisdiction, what power does EPA have to undo the damage? Any discussion of EPA's authority in this regard must begin with section 404(c), which empowers EPA "to prohibit the specification (including withdrawal of specification) of any defined area as a disposal site [for dredged or fill material]."²⁴⁹ All permits issued by the Corps are "[s]ubject to" this "veto" power.²⁵⁰ EPA's veto power is discretionary, and can be exercised whenever the Administrator "determines, after notice and opportunity for public hearings, that the discharge of [dredged or fill] materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fisheries areas (including spawning and breeding areas), wildlife, or recreational areas."²⁵¹ EPA has observed that "there will be circumstances where it may be necessary to [veto a permit after its] issuance in order to carry out [EPA's] responsibilities under the [CWA]," but has also "agree[d]" that it will normally be inappropriate to do so if EPA was involved in the permit's issuance and any "matters at issue" were resolved to its satisfaction.²⁵² EPA's usual reluctance to use its veto will not tie its hands, however, with respect to valley fill permits.²⁵³ Citing impacts to wildlife and

²⁴⁸ Katherine Boyle, *EPA To Review Mountaintop Removal's Impact on Water Quality*, N.Y. TIMES, Mar. 24, 2009, <http://www.nytimes.com/gwire/2009/03/24/24greenwire-epa-halts-mountaintop-permitting-will-review-w-10274.html>. According to an industry publication, there were 235 pending permits as of August 2009. *Coal Mining Permits Remains [sic] in Regulatory "Black Hole," Says NMA*, COAL NEWS, Aug. 2009, at 4, available at http://www.coalnews.net/images/pdf/CoalNews_0809.pdf.

²⁴⁹ CWA § 404(c), 33 U.S.C. § 1344(c) (2006).

²⁵⁰ *Id.* § 404(b), 33 U.S.C. § 1344(b) (stating permits are "[s]ubject to" § 404(c)); 40 C.F.R. § 231.1(a) (2009) (noting "the Administrator may exercise a veto").

²⁵¹ *Id.* § 404(c), 33 U.S.C. § 1344(c).

²⁵² Denial or Restriction of Disposal Sites: Section 404(c) Procedures, 44 Fed. Reg. 58,076, 58,077 (Oct. 9, 1979).

²⁵³ See *City of Alma v. United States*, 744 F. Supp. 1546, 1559–60 (S.D. Ga. 1990) (holding that this policy statement would not prevent EPA from exercising its statutory authority to veto a permit "whenever" EPA determined it would have unacceptable effects).

the Corps' inadequate oversight during the permitting process, EPA has already begun the veto process with respect to one large valley fill permit approved during the previous administration.²⁵⁴ Moreover, EPA's "agreement" to refrain from vetoing already-issued permits does not hold for unlawfully issued permits, and *all* valley fill permits, by definition, were issued under illegal regulations.²⁵⁵

1. *Rulemaking or Adjudication?*

In order to put a stop to violations of the CWA as quickly as possible, the petition asked EPA to exercise its veto power by a single rulemaking rather than through a series of protracted and costly individual proceedings. Although section 404(c) does not specify whether EPA must proceed by rulemaking or adjudication, EPA has a general rulemaking authority to "carry out [its] functions under [the CWA]."²⁵⁶ And since the CWA does not specify that EPA must make an "order," which would trigger adjudication, or a "rule," which would trigger rulemaking, but instead gives the Administrator the power to make a "determination," it preserves EPA's discretion to choose between them.²⁵⁷ Moreover, insofar as the statutory term "determination" is ambiguous, the procedures established by EPA indi-

²⁵⁴ See Proposed Determination to Withdraw Specification of Spruce No. 1 Surface Mine, 75 Fed. Reg. 16,788, 16,805 (proposed Apr. 2, 2010) [hereinafter Proposed Spruce Veto]; Letter from William C. Early, Acting Reg'l Admin., EPA Region 3, to Colonel Robert D. Peterson, Dist. Eng'r, U.S. Army Corps of Eng'rs Huntington Dist. (Oct. 16, 2009) [hereinafter Veto Letter], available at <http://wv Gazette.com/static/coal%20tattoo/sprucepaletter.pdf>. As a practical matter, EPA's willingness to veto already-issued permits because of inadequate oversight may be restricted to permits issued without the current EPA's involvement. Where the current EPA has signed off on a valley fill permit, later withdrawing it because of inadequate oversight might open the agency to an "arbitrary and capricious" challenge. And EPA has already approved one permit under its enhanced review process. See Letter from Shawn M. Garvin, Reg'l Admin., EPA Region 3, to Colonel Robert D. Peterson, Dist. Eng'r, Corps of Eng'rs Huntington Dist. (Jan. 4, 2010), available at http://www.epa.gov/owow/wetlands/pdf/Hobet_Jan_5_2010_letter.pdf. *But see infra* note 255.

²⁵⁵ See *City of Alma*, 744 F. Supp. at 1560 (holding that EPA's exercise of its veto power was not a violation of its own policy when the permit had been unlawfully issued in the first place). This rationale — resting the veto power on the illegality of the effects-based rule — would be unaffected by EPA's interim approval of permits.

²⁵⁶ CWA § 501(a), 33 U.S.C. § 1361(a).

²⁵⁷ See 5 U.S.C. § 551(4)-(7) (2006); *NLRB v. Bell Aerospace Co. Div. of Textron Inc.*, 416 U.S. 267, 294 (1974) ("[T]he choice between rulemaking and adjudication lies in the first instance within [an agency's] discretion."); *SEC v. Chenery Corp. (Chenery II)*, 332 U.S. 194, 202 (1947) ("To insist on one form of action to the exclusion of the other is to exalt form over necessity.").

cate that it may exercise its section 404 power by rulemaking,²⁵⁸ and EPA's judgment in that regard is entitled to deference.²⁵⁹

Further evidence for the dual power granted by section 404(c) is found in the structure of the veto process. Section 404(c) is commonly understood as a veto power over *permits*, and EPA has generally used it that way. This narrow view, however, is not required by the statute. EPA is not granted authority to withdraw a *permit* that has been issued by the Corps. Instead, EPA must act by withdrawing a *site* from use for the discharge of dredged or fill material.²⁶⁰ A site may sometimes affect only a single permittee, but the statute clearly contemplates that many permittees may discharge into a single site.²⁶¹ If a *class* of permittees is affected by EPA's decision to withdraw a site, as it would be here, a rulemaking is the appropriate vehicle.

EPA is limited in its ability to withdraw a class of sites from specification only by the requirement that it define them with specificity.²⁶² EPA's ability to veto either a specific or a generic site is a necessary complement to the Corps' power to issue either individual or general permits. When the Corps issues a general permit authorizing a category of discharges, it must define the "site" for which discharges are being authorized.²⁶³ In defining a generic "site," the Corps considers generally applicable factors,²⁶⁴ and issues the permit in a rulemaking.²⁶⁵ After issuance of a general permit, an individual discharger may apply to the Corps for "authorization under" the general permit to discharge into the site (generically defined).²⁶⁶ Thus, if EPA's veto power is to be a meaningful check on the Corps' authority, EPA must be able to withdraw those same "sites" generically — defining them by geography, other generally applicable factors, or the general permit that designated them in the first place.

Finally, the determination required by section 404(c), that the use of a site for the discharge of dredged or fill material would cause "unacceptable adverse effects" on the environment, is very much a policy determination.

²⁵⁸ EPA's implementing regulations for section 404(c) require public notice in the Federal Register, 40 C.F.R. § 231.3(d)(4) (2009), a 30 to 60 day period for public comment, *id.* § 231.4(a), a hearing of the sort usually utilized in rulemakings, *see id.* § 231.4(d)–(e), and publication of the final determination in the Federal Register, *id.* at § 231.6. These procedures are closer to those used in rulemakings than adjudications. *E.g.*, 5 U.S.C. § 552(a)(1)–(2) (requiring publication in the Federal Register for rules, not orders, and merely requiring that orders be available for copying and inspection).

²⁵⁹ *Good Samaritan Hosp. v. Shalala*, 508 U.S. 402, 414 (1993) (giving deference to agency interpretation of an ambiguous provision conferring retroactive rulemaking authority).

²⁶⁰ CWA § 404(c), 33 U.S.C. § 1344(c).

²⁶¹ *Id.* § 404(b)–(c), 33 U.S.C. § 1344(b)–(c); 40 C.F.R. § 230.7(b)(3) (requiring an evaluation of cumulative effects of multiple discharges at a single site).

²⁶² *See* CWA § 404(c), 33 U.S.C. § 1344(c).

²⁶³ *Id.* § 404(e), 33 U.S.C. § 1344(e) (authorizing the Corps to issue general permits); *id.* § 404(a), 33 U.S.C. § 1344(a) (allowing issuance of permits, including general permits, at "specified disposal sites" for discharges of dredged or fill material).

²⁶⁴ *See* 40 C.F.R. § 230.7(b) (requiring Corps to consider the type of discharge and the character of the receiving waters).

²⁶⁵ *E.g.*, Reissuance of Nationwide Permits, 72 Fed. Reg. 11,092, 11,113 (Mar. 12, 2007).

²⁶⁶ 33 C.F.R. § 330.6(a)(2) (2009).

EPA would not be applying an existing policy to one or very few individual parties, but would rather be evaluating what constitutes an “unacceptable” effect within a geographical region. These considerations would affect a large number of interested parties, both in the regulated community and the coalfield communities.²⁶⁷ In sum, a rulemaking would be the most appropriate mechanism for withdrawing existing valley fill disposal sites, and section 404(c) empowers EPA to employ it.

2. *Would Such a Rule Be Impermissibly Retroactive?*

Unless Congress clearly grants an agency the power to make retroactive rules, such rules are invalid under the *Bowen* doctrine.²⁶⁸ EPA’s general grant of rulemaking authority does not grant retroactive power,²⁶⁹ and EPA therefore could not, simply by changing the definition of fill, retroactively invalidate permits issued under the earlier definition. Nor could EPA impose retroactive liability on permittees who have already made discharges under their permits.²⁷⁰ On the other hand, EPA does have clear authority to veto “sites” from *future* discharges of fill.²⁷¹ Such power is probably best viewed as prospective; most rules, even “uncontroversially prospective” ones, will have some retroactive effect²⁷² on conduct that occurred before they were promulgated.²⁷³ But whether prospective or retroactive, EPA clearly *can* legally wield its veto power.²⁷⁴ The more difficult question is one of policy. Just as surely as EPA can exercise its power to invalidate existing permits, such an exercise will have retroactive effects. Weighing against rules with retroactive effect are “[e]lementary considerations of fairness”: “that indi-

²⁶⁷ See *United States v. Fla. E. Coast Ry. Co.*, 410 U.S. 224, 245–46 (1973) (drawing a “distinction in administrative law between proceedings for the purpose of promulgating policy-type rules or standards, on the one hand, and proceedings designed to adjudicate disputed facts in particular cases on the other”).

²⁶⁸ *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 208 (1988).

²⁶⁹ CWA § 501(a), 33 U.S.C. § 1361(a) (2006).

²⁷⁰ The CWA “permit shield” expressly prohibits this. *Id.* § 404(p), 33 U.S.C. § 1344(p) (providing that “[c]ompliance with a permit issued pursuant to [section 404], including any activity carried out pursuant to a general permit” shields the permittee from liability).

²⁷¹ Proposed Spruce Veto, *supra* note 254, at 16,790–91 (“EPA has the ability to initiate a [veto] after permit issuance.”).

²⁷² The phrase “retroactive effect” acknowledges that the line between prospective and retroactive rules is blurry at best. See Jill E. Fisch, *Retroactivity and Legal Change: An Equilibrium Approach*, 110 HARV. L. REV. 1055, 1072–73 (1997) (“Rather than asking whether retroactivity is appropriate, we should ask what degree of retroactive impact is appropriate.”).

²⁷³ *Landgraf v. USI Film Prods.*, 511 U.S. 244, 269–70 n.24 (1994).

²⁷⁴ See *id.* at 280 (explaining that if Congress has expressly made its rule retroactive, the *Bowen* presumption is inapplicable). *Landgraf* dealt with retroactive application of a statute, but its reasoning applies with equal force to agency rules backed by congressional authorization. See *Thorpe v. Hous. Auth. of Durham*, 393 U.S. 268, 282 (1969). Absent a transgression of some constitutional safeguard, Congress (and its delegates) may act retroactively to achieve their purposes. Here, takings challenges are the primary constitutional concerns. See, e.g., *Landgraf*, 511 U.S. at 266 (noting constitutional bars on ex post facto laws and bills of attainder apply only to penal laws); *Thorpe*, 393 U.S. at 279 n.31 (noting “the constitutional prohibition of the impairment of contracts . . . applies only to the States”).

viduals should have an opportunity to know what the law is and to conform their conduct accordingly” and issues of “settled expectations,” economic and otherwise.²⁷⁵ EPA may ask, therefore, whether it is *fair* to upset the investments and expectations of MTR operators to save a few mountain streams. As EPA has already begun to realize,²⁷⁶ it is.

The fairness inquiry balances the severity of a rule’s retroactive effect (i.e., the extent to which it upsets settled expectations) against the need for upsetting them (i.e., the congruence of the rule with the purpose of the statute).²⁷⁷ This inquiry is amply accommodated by the section 404(c) requirement that EPA find, on the record, that discharges into the “site[s]” being vetoed would cause “*unacceptable* adverse effect[s].”²⁷⁸ Congress did not predicate EPA’s veto power on “significant” or “substantial” effects; in other words, there is no specific threshold of environmental harm necessary to trigger the veto power. Congress instead called on EPA to use its discretion and expert judgment to determine if the effects are severe enough in the circumstances to warrant use of the veto.

The need for the veto — its congruence with the CWA’s purpose — weighs heavily in this analysis. As noted previously, the purpose of the CWA is to restore the nation’s waters by prohibiting their use as waste treatment systems, and the environmental impact of dumping mining waste into headwater streams is beyond serious dispute.²⁷⁹ The irrevocable destruction of headwater streams alone could justify a determination that future discharges will have an unacceptable adverse effect on wildlife and fisheries.²⁸⁰ But the effects of using headwater streams as landfills for mining wastes are not limited to the streams that are actually buried. Valley fills cause contamination far downstream with disruption of “nutrient cycling, food web dynamics, and species diversity,”²⁸¹ increased conductivity and toxic concentrations of metals,²⁸² fish kills,²⁸³ and more frequent and intense flood-

²⁷⁵ *Landgraf*, 511 U.S. at 265–66.

²⁷⁶ See Proposed Spruce Veto, *supra* note 254, at 16,805.

²⁷⁷ See, e.g., *SEC v. Chenery Corp. (Chenery II)*, 332 U.S. 194, 203 (1947) (“[R]etroactivity must be balanced against the mischief of producing a result which is contrary to a statutory design or to legal and equitable principles.”).

²⁷⁸ CWA § 404(c), 33 U.S.C. § 1344(c) (2006) (emphasis added).

²⁷⁹ See Palmer et al., *supra* note 6, at 149 (calling regulators to task for ignoring the “rigorous science” in this regard).

²⁸⁰ See Proposed Spruce Veto, *supra* note 254, at 16,805 (primary reason for unacceptable adverse effects finding was impacts to wildlife due to stream burial).

²⁸¹ Veto Letter, *supra* note 254, at 2; see Palmer et al., *supra* note 6, at 148.

²⁸² See Veto Letter, *supra* note 254, at 4; Palmer et al., *supra* note 6, at 148 (noting that “[a] survey of 78 [streams below MTR/valley fill sites] found that 73 had [selenium] water concentrations greater than the . . . threshold for toxic bioaccumulation” and “in some freshwater food webs, [selenium] has bioaccumulated to four times the toxic level,” which “can cause teratogenic deformities in larval fish” and “reproductive failure” in birds who eat them).

²⁸³ See Palmer et al., *supra* note 6, at 148; see also LOUIS REYNOLDS, EPA REGION 3, UPDATE ON DUNKARD CREEK 4–5, 17 (2009), available at <http://www.epa.gov/region03/dunkard.pdf> (blaming the algae bloom that caused a major fish kill on elevated conductivity in the creek, and noting concern that other streams may be at risk for similar fish kills).

ing.²⁸⁴ These concerns are amplified by the lack of adequate mitigation of stream impacts,²⁸⁵ and the *cumulative* loss of stream functions throughout entire watersheds. This last point is of critical importance. MTR mines have become geographically concentrated in small areas of Kentucky and West Virginia since 1990,²⁸⁶ but the Corps has not adequately accounted for cumulative effects within those watersheds.²⁸⁷

The expectations that would be upset by the veto, while significant, cannot justify allowing these adverse effects to continue. Undoubtedly, mine operators have made investments and structured their conduct on the expectation that they will be able to dispose of whole mountains into Appalachia's streams.²⁸⁸ They will argue (as they often do) that industry needs a stable regulatory climate so that it can successfully find investors and create jobs.²⁸⁹ However, regulatory stability is no excuse for an agency's abdication of its responsibilities, and the industry's feigned ignorance of the risk of regulatory enforcement is hardly justified.²⁹⁰ MTR operators cannot seriously argue that they did not know their activities were harming waters, nor can they argue they were unaware that EPA could exercise its veto power to address those harms. By exercising its veto, EPA would not change the playing field; it would simply enforce the rules. Furthermore, it appears that MTR operators have made a calculated permit "grab" to forestall the effects of future regulatory changes.²⁹¹ Unless EPA acts to veto the permits that the

²⁸⁴ Palmer et al., *supra* note 6, at 148; JEFFREY B. WILEY & FREDDIE D. BROGAN, U.S. GEOLOGICAL SURVEY, OPEN-FILE REP. NO. 03-133, COMPARISON OF PEAK DISCHARGES AMONG SITES WITH AND WITHOUT VALLEY FILLS FOR THE JULY 8-9, 2001, FLOOD IN THE HEADWATERS OF CLEAR FORK, COAL RIVER BASIN, MOUNTAINTOP COAL-MINING REGION, SOUTHERN WEST VIRGINIA 4 (2003), available at <http://pubs.usgs.gov/of/2003/ofr03-133>.

²⁸⁵ James City County v. EPA, 12 F.3d 1330, 1339 (4th Cir. 1993) (considering mitigation in deciding whether effects are "unacceptable"); Palmer et al., *supra* note 6, at 149 ("Current mitigation strategies are meant to compensate for lost stream habitat and functions but do not; water-quality degradation caused by mining activities is neither prevented nor corrected during reclamation or mitigation."). EPA itself has expressed serious concerns about the adequacy of mitigation measures approved by the Corps. See Proposed Spruce Veto, *supra* note 254, at 16,803-04. The GAO has also concluded, more generally, that Corps oversight is insufficient to ensure mitigation. GOV'T ACCOUNTABILITY OFFICE, GAO-05-898, WETLANDS PROTECTION: CORPS OF ENGINEERS DOES NOT HAVE AN EFFECTIVE OVERSIGHT APPROACH TO ENSURE THAT COMPENSATORY MITIGATION IS OCCURRING (2005).

²⁸⁶ GAO REPORT, *supra* note 5, at 18-22, 25-28.

²⁸⁷ For example, EPA noted that the Corps had not considered the cumulative effects of twelve other additional mining projects proposed within the same watershed, including six for which permits had already been issued. Veto Letter, *supra* note 254, at 4-5.

²⁸⁸ See, e.g., HILL & WARK, *supra* note 2, at 27 (describing Massey Energy's reserves).

²⁸⁹ See, e.g., Bill Reid, *The Editor's View*, COAL NEWS, Jan. 2010; at 3, available at http://www.coalnews.net/images/pdf/CoalNews_0110.pdf.

²⁹⁰ Not all mining companies have refused to see the writing on the wall; Arch Coal, for example, has reduced its Central Appalachian holdings. HILL & WARK, *supra* note 288, at 24.

²⁹¹ The major MTR companies have reserves already permitted that would leave their operations untouched for at least one or two years even if no more permits were issued. See Coal Tattoo Investigates: Is There a MTR Permit Crisis?, <http://blogs.wvgazette.com/coal-tattoo/2009/11/04> (Nov. 4, 2009, 12:37 PM). In addition, the number of acres under open permit have increased in Kentucky and West Virginia. See GAO REPORT, *supra* note 5, at 17-18. It is doubtful that this increase is solely attributable to more active mines, because production output has not significantly increased since 2002. RORY McILMOIL & EVAN HANSEN, THE

MTR companies have been putting in their pockets, its regulatory oversight will be effectively circumvented.

If EPA proposes to invalidate outstanding valley fill permits by using its section 404(c) authority, the proposal itself would act as a moratorium on new valley fill permits in the areas defined by EPA during the pendency of the rulemaking.²⁹² In addition, during the period between proposal and adoption, EPA could prevent dumping under already-issued permits by including in the proposed rule a penalty for such dumping. Such a penalty could be assessed only after the final rule was adopted, and would therefore be retroactive. But as explained in *Landgraf*, with respect to statutes, if retroactivity is necessary “to prevent circumvention . . . in the interval immediately preceding . . . passage,” retroactive effect is both “benign” and “legitimate.”²⁹³ The power to impose such a penalty, therefore, would be a logical corollary of EPA’s section 404(c) authority.

B. Takings

If EPA proposes to veto outstanding section 404 permits, the permittees will undoubtedly attempt to use the threat of takings litigation to cow EPA. The takings argument has some superficial appeal: the permits have substantial economic value. But the companies’ property rights are not the only ones at stake, as I learned at Larry Gibson’s dining room table.

On the morning of January 17, 2009, it was zero degrees outside, and I was having coffee with Larry. We talked for a long time about the mountain Larry calls home, and what it was like before the blasting started, but Larry didn’t have a picture of the missing ridges to show me. He never thought to take a picture of a mountain that would always be there, just as it had been for generations. But one of Larry’s friends, an artist, had made him a model of the mountain,²⁹⁴ and Larry took it out of its case for me to see. He showed me the “X” at the lowest gap in the ridge marking the spot where his cabin sat, and pointed out the place where the old cemetery had been before it was pushed off into a valley fill. Then he began to take the model apart. He pulled layer after layer from the ridges until he reached the narrow seams of coal underneath. Then, he took other pieces from the case and placed them into the valleys along the flanks of the ridge. These were the valley fills where the “excess spoil” had been placed. When he was finished, Larry’s cabin was at the highest point of the model; the rest of the mountain had been flattened around him.

DECLINE OF CENTRAL APPALACHIAN COAL AND THE NEED FOR ECONOMIC DIVERSIFICATION 8 fig.4 (2010), available at http://downstreamstrategies.com/Documents/reports_publication/DownstreamStrategies-DeclineOfCentralAppalachianCoal-FINAL-1-19-10.pdf.

²⁹² 40 C.F.R. § 231.3(a)(2) (2009) (District Engineer may not issue permits until completion of section 404(c) determination).

²⁹³ *Landgraf v. USI Film Prods.*, 511 U.S. 244, 268 (1994).

²⁹⁴ For pictures of the model, see *Voices Against MTR: Day 8*, http://lookoutdoornews.com/voices/past_rides/day_8 (Jan. 16, 2009).

There wasn't much to say. Larry breathed deeply and deliberately, and then I watched as he took the valley fills out of the valleys. I watched as he replaced layer after layer of coal and rock. The green paint decorating the top layers was worn in places from being handled so many times. I watched him rebuild his mountain the only way that he can. And then I watched him place it in its case to keep it safe.

To say that Larry has lost the value of his property because of the neighboring mines is such an understatement that it almost misses the point. MTR companies argue that it is their right to do as they please with the mountains of Appalachia.²⁹⁵ But the right to use valley fill permits is not unqualified; regulation fulfills its proper role when it limits the rights of industry in order to protect the rights of people like Larry. Under modern regulatory takings law, a limitation on the use of property is a taking only if it goes "too far."²⁹⁶ The most relevant factor for determining if a ban on MTR goes "too far" is its interference with reasonable, investment-backed expectations,²⁹⁷ an inquiry that compares the value of the prohibited use with the overall value of the claimant's property.²⁹⁸

1. *What Has the Permittee Lost?*

In order to constitute a taking, the rule must deprive a permittee of a vested property right. It is true that valley fill permits are in some ways property; for example, they may be transferred when the associated property is sold, subject to some minor procedural requirements.²⁹⁹ The extent of the property right, however, is limited in an important way; the right to use a valley fill permit despite EPA's finding that it would cause an unacceptable adverse effect on waters is simply not one of the rights in the permittee's bundle. The coal companies may argue that EPA's long-time reluctance to use its section 404(c) power supported an expectation that EPA's "hands off" approach would continue. This is not a reasonable assumption by a sophisticated business enterprise. Coal mining has always been subject to close regulatory oversight, and regulatory uncertainty is "part of the business risk that [coal companies take] when they [make an] investment."³⁰⁰

Although a permittee's rights will not vest simply by issuance of the permit, they may vest when the permittee has completed substantial work or

²⁹⁵ See *WALKER MACH. CO.*, *supra* note 76, at 24 ("Abolishing mountaintop mining would be the most serious attack on property rights since the founding fathers wrote the Constitution. These lands, protected by the 5th Amendment, are owned by companies and individuals who will be denied their right to sell or use their natural resources.").

²⁹⁶ *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

²⁹⁷ See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978). Investment-backed expectations are not "talismanic" under the *Penn Central* analysis, but they have been an important factor. See *Palazzolo v. Rhode Island*, 533 U.S. 606, 634 (2001) (O'Connor, J., concurring).

²⁹⁸ *Cane Tenn., Inc. v. United States*, 57 Fed. Cl. 115, 123 (2003).

²⁹⁹ See *Reissuance of Nationwide Permits*, 72 Fed. Reg. 11,092, 11,194 (Mar. 12, 2007).

³⁰⁰ *M & J Coal Co. v. United States*, 30 Fed. Cl. 360, 368 (1994).

incurred substantial costs in reliance on the permits.³⁰¹ The petitioned rule would avoid interfering with vested rights in this sense because it would be limited by its own terms to sites where dumping has not yet begun. Moreover, even if a permittee has incurred substantial costs in preparing to use a permit, a veto will not cause a compensable taking if the prohibited use would have constituted a nuisance under state common law or statutes.³⁰² As explained in *Lucas v. South Carolina Coastal Council*, the limitations of nuisance law are inherent in the landowner's title.³⁰³ In other words, those who own the coal underneath a mountaintop do not own the right to extract it in a way that causes a nuisance to neighboring landowners. Furthermore, because administrative regulations seek to prevent future harms, the agency need not prove a nuisance would have resulted; so long as the regulation is aimed at preventing a nuisance, it will not cause a taking.³⁰⁴

The removal of coal from the ground by itself, of course, is not a nuisance. But the downstream impacts of valley fills are. In the states where MTR is occurring, a nuisance is an unreasonable interference with a neighbor's use and enjoyment of land.³⁰⁵ Water pollution³⁰⁶ and harms to public

³⁰¹ See *H.R.D.E., Inc. v. Zoning Officer*, 430 S.E.2d 341, 345 (W. Va. 1993) (holding that rights may vest in a permit absent actual use when "substantial costs" have been incurred, but not when "improvements are preliminary in nature"). State law matters in this area because while federal law prohibits the taking of property without compensation, state law often defines the property interest.

³⁰² "[T]he Takings Clause does not require compensation when an owner is barred from putting land to a use that is proscribed by . . . 'existing rules or understandings.'" *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1030 (1992) (quoting *Bd. of Regents of State Colls. v. Roth*, 408 U.S. 564, 577 (1972)); see also *Rith Energy, Inc. v. United States (Rith Energy I)*, 44 Fed. Cl. 108, 115 (1999) (quoting a state statute providing that a discharge causing pollution "is declared to be a public nuisance").

³⁰³ *Lucas*, 505 U.S. at 1029; see also *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470, 491 (1987).

³⁰⁴ It is unclear how closely the regulation must be tailored to the prevention of nuisance. See *Rith Energy I*, 44 Fed. Cl. at 115 (denial of a permit was not a taking where there was a "high probability" that the discharge would cause a nuisance). Similarly, the Pennsylvania Supreme Court held that the regulators did not have to prove that a nuisance was "practically certain to occur"; a "high probability" was enough. *Machipongo Land & Coal Co., Inc., v. Commonwealth*, 799 A.2d 751, 774 (Pa. 2002). But a "high probability" test may be too rigorous. Agencies involved in factual determinations within their areas of expertise are entitled to substantial deference. Reviewing courts are entitled to apply the law of nuisance independently, but agency findings of fact concerning the existence of a nuisance should be upheld unless they are "arbitrary and capricious." 5 U.S.C. § 706(2)(A) (2006). Whatever the standard, a regulation prohibiting valley fills is likely to meet it. See EPA Guidance, *supra* note 8, at 3 (citing EPA study finding nine out of ten streams downstream of MTR mines were impaired).

³⁰⁵ See *Smith v. Carbide & Chems. Corp.*, 226 S.W.3d 52, 56 (Ky. 2007); *Pate v. City of Martin*, 614 S.W.2d 46, 47 (Tenn. 1981); *Barnes v. Graham Va. Quarries, Inc.*, 132 S.E.2d 395, 397 (Va. 1963); *Burch v. NedPower Mount Storm, LLC*, 647 S.E.2d 879, 886-87 (W. Va. 2007). Whether the harm is "unreasonable" is a question of fact, determined by weighing the harm against the utility of the offensive conduct. See *Kentland-Elkhorn Coal Co. v. Charles*, 514 S.W.2d 659, 662 (Ky. 1974); *Freeman v. Blue Ridge Paper Prods.*, 229 S.W.3d 694, 705 (Tenn. Ct. App. 2007); *In re Flood Litig. Coal River Watershed*, 668 S.E.2d 203, 212 (W. Va. 2008). Proving a nuisance does not require proof of negligence. See *Barnes*, 132 S.E.2d at 397. Even where the defendant's conduct is reasonable in itself and appropriate to the location,

health³⁰⁷ are cognizable nuisances. EPA, as the finder of fact, could easily conclude that valley fills causing an “unacceptable adverse effect” on water supplies, fisheries, wildlife, or recreation also constitute an unreasonable interference with the rights of downstream riparian owners and municipalities who depend on upstream watershed functions for clean drinking water. In addition to water pollution and its attendant health risks, the noise, vibration, fly rock, cracked foundations, incessant coal truck traffic, and dust combine to destroy neighbors’ property values and make the homes unlivable.³⁰⁸ The loss of permeable surface area also leads to increased runoff, and more violent flooding may be another cognizable nuisance.³⁰⁹ While EPA would not consider these other nuisances in determining whether valley fills are “unacceptable” under section 404(c), they are highly relevant to whether the *right* to conduct these operations is inherent in a coal company’s title. Where valley fills are concerned it is hard to say that the permittees would lose anything that ever rightfully belonged to them.

2. *What Hasn’t the Permittee Lost?*

The petitioned rule does not prohibit mining, nor mountaintop mining. It simply puts a stop to a particular form of waste disposal. Still, MTR companies often claim that some seams of coal are too thin to recover by non-MTR methods, and insofar as the petitioned rule would make large-scale MTR mining infeasible, it may indeed make the recovery of some seams of coal uneconomical.³¹⁰ MTR companies will likely claim, in such cases, that they have lost the entire value of their investments. This tactic, however, known as “conceptual severance,” has been rejected by the Supreme Court.³¹¹ Instead, the value of the lost seams of coal must be compared to the value of the property that remains, taking into account all tracts of land acquired by the owner as part of the same investment,³¹² the value of the property for other uses besides mining,³¹³ and the value of the coal that

it will constitute a nuisance if it “substantially impair[s]” the comfortable enjoyment of a neighbor’s property. *Nat’l Energy Corp. v. O’Quinn*, 286 S.E.2d 181, 182 (Va. 1982).

³⁰⁶ See TENN. CODE ANN. § 69-3-114(a) (2008); *Smith*, 226 S.W.3d at 57; *Nunnally v. S. Iron Co.*, 29 S.W. 361, 362 (Tenn. 1895); *Panther Coal Co. v. Looney*, 40 S.E.2d 298 (Va. 1946); *In re Flood Litigation*, 668 S.E.2d at 208.

³⁰⁷ See *State ex rel. Smith v. Kermit Lumber & Pressure Treating Co.*, 488 S.E.2d 901, 922 (W. Va. 1997); *Pate*, 614 S.W.2d 46, 47 (Tenn. 1981); *National Energy Corp.*, 286 S.E.2d at 182.

³⁰⁸ See *supra* note 20–22 and accompanying text.

³⁰⁹ See *In re Flood Litigation*, 668 S.E.2d at 206 n.1.

³¹⁰ Gene Kitts, Senior Vice President – Mining Services, Int’l Coal Group, Inc., *Why Surface Mine?* (2009), available at http://www.nma.org/pdf/fact_sheets/why_surface_mine.pdf.

³¹¹ *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 331 (2002) (explaining that “defining the property interest taken in terms of the very regulation being challenged is circular”).

³¹² This “investment” may include tracts of land that are not contiguous or were acquired at different times. *Cane Tenn. Inc. v. United States*, 57 Fed. Cl. 115, 121–22 (2003) (considering separate tracts that were all treated by the owner as a single economic opportunity).

³¹³ *Cf. Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 136–37 (1978) (analyzing the “air rights” as part of the parcel as a whole, and considering the other uses the plaintiff

has already been extracted or can still be extracted in spite of the regulation.³¹⁴ Generally speaking, even in the unlikely case where an MTR operator had a vested right in a valley fill permit and the use of that permit would not be likely to cause a nuisance, the availability of other reasonable land uses would make a takings challenge difficult to win.

Put simply, takings challenges to MTR regulations, like challenges to coal mining regulations in general, are long shots at best. It should be noted that the first successful regulatory takings case, *Pennsylvania Coal Co. v. Mahon*,³¹⁵ arose in the context of coal mining: a regulation requiring the mining company to leave support pillars to prevent surface subsidence was declared to be a taking. In the ensuing years, however, *Pennsylvania Coal* has been “undermined.”³¹⁶ In a survey of regulatory takings challenges by coal companies in the Court of Federal Claims and the Court of Appeals for the Federal Circuit, Darren Botello-Samson found only a single case in which a taking was found that actually survived appeal.³¹⁷ Among the challenges that failed was *Appolo Fuels, Inc. v. United States*,³¹⁸ in which an area was designated as “unsuitable for surface mining” because it contained acid-bearing rocks. If a regulation that explicitly prohibits mining altogether is not a taking because it seeks to prevent water pollution, then the suggested rule, which would affect only a single type of mining indirectly, by forbidding a particularly harmful form of waste disposal, will almost certainly avoid the takings problem.

In the final analysis, the takings question asks simply whether the owners of MTR mines are being asked “to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.”³¹⁹ Put in these terms, the question is strikingly easy. MTR mines have been extracting coal cheaply and heaping their wastes, along with high environmental costs, on the forgotten people of Appalachia. They have been doing it under illegal regulations, and they have been doing it in excess even of those regulations. They have profited handsomely. As a matter of “fairness and justice,” the coalfield communities have already borne enough of the costs

might make of the property). If the owner also owns the surface rights, a court would consider other reasonable alternative land uses such as timber production, or even a wind farm.

³¹⁴ See *Rith Energy, Inc. v. United States (Rith Energy II)*, 247 F.3d 1355, 1362–63 (Fed. Cir. 2001) (taking into account coal that Rith had already extracted).

³¹⁵ 260 U.S. 393 (1922).

³¹⁶ See *Keystone Bituminous Coal Ass’n v. DeBenedictis*, 480 U.S. 470 (1987). The *Keystone* Court distinguished *Pennsylvania Coal* as involving a regulation for the benefit of a privileged few, whereas the (very similar) Subsidence Act at issue in *Keystone* was for the public good. *Id.* at 485–490; see also Darren Botello-Samson, *The Benchmark of Expectations: Regulatory Takings and Surface Coal Mining 15* (2007) (unpublished manuscript), available at http://works.bepress.com/darren_botello_samson/1/.

³¹⁷ Botello-Samson, *supra* note 316, at 36. That case was *Whitney Benefits, Inc. v. United States*, 926 F.2d 1169 (Fed. Cir. 1991), and the finding of a taking was *sui generis*, based solely on the statute’s grandfather clause, which expressly permitted the mining to continue. *Id.*

³¹⁸ 54 Fed. Cl. 717, 720 (2002).

³¹⁹ *Armstrong v. United States*, 364 U.S. 40, 49 (1960).

associated with MTR. It is time to place the burdens of regulation where they rightly belong. Indeed, forcing MTR operators to comply with environmental laws is the only way to ensure that the costs of coal mining are borne by the public as a whole, and not just those unlucky enough to live downstream.

V. A CLEAR OBLIGATION

What power does an agency have to correct the excesses of a previous administration? As MTR expanded, the permitting authorities abandoned their roles in oversight and enforcement and acted as unabashed industry partisans. Stretching judicial deference to its breaking point, the Fourth Circuit upheld their actions. In the aftermath, the Appalachian landscape aches for relief, but MTR companies hold permits to carry on with the destruction — permits that they should never have received.

If the doctrine of agency deference is to be conceptually defensible, reviewing courts must allow agencies to change their minds, even if a court has approved of the previous interpretation.³²⁰ Too much of the agency decision-making process is immune from judicial review to conclude otherwise. EPA has the authority to change the rule for the future, reasserting its jurisdiction over discharges of waste that have incidental filling effects. It also has the authority to decide that outstanding permits were tainted by improper oversight and issued under illegal regulations, and that they would have an “unacceptable adverse effect” if used.³²¹ As a matter of ecology and environmental justice, EPA’s obligation is clear. The politics of regulating coal, however, may make its decision a difficult one.

Industry representatives have been successful in casting MTR opponents as anti-coal and anti-jobs. In coal states, billboards line the highways with simple messages: “Yes, Coal” and “Coal keeps the lights on.” The industry takes the position that MTR mining is the only way to access some seams of coal, and that if MTR is restricted, the mines, and the jobs that go with them, will be lost.³²² As uncertainty over the future of MTR has increased, this rhetoric has created a climate of fear in the coalfields. Environmentalists — often the neighbors and relatives of miners — are demonized by miners. Just as harmfully, the prospect of mine closures is cheered by environmentalists. The escalating tensions reflect a false dilemma — that

³²⁰ See *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 863–64 (1984) (allowing agency to reinterpret a statutory term that had been construed differently under the prior administration); *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (arguing that “an agency must be given ample latitude to adapt their rules and policies to the demands of changing circumstances”). Of course, a rule change is suspect when it replaces a rule of longstanding vintage, see *supra* note 215 and accompanying text, but the effects-based definition of fill is not such a rule.

³²¹ EPA has indicated it believes this to be the case, at least with respect to the Spruce No. 1 mine. See *Proposed Spruce Veto*, *supra* note 254, at 16,805.

³²² See *Kitts*, *supra* note 310; *WALKER MACH. CO.*, *supra* note 76, at 21–23.

Appalachia can keep its jobs or its mountains, but not both. While a ban on valley fills would make business as usual impossible for MTR operators, the dire predictions of economic meltdown are simply not realistic.

The truth is that there are ready alternatives to MTR coal, even in the short term. Patriot Coal and Massey Energy have acknowledged that they can make the shift to deep mining relatively painlessly.³²³ One coal industry consultant recently called his industry to task for defending MTR and valley fills, despite public disapproval and “readily available alternatives.”³²⁴ As recently as 2006, only about thirty percent of West Virginia’s coal came from MTR,³²⁵ and reserves recoverable by underground mining are far greater than those recoverable by MTR.³²⁶ The infrastructure to support a shift is already in place, leading economic analysts to conclude that “alternative coal sources will emerge to meet coal demand without a substantial increase in electricity prices.”³²⁷ In the long term, MTR coal will not be missed: demand for coal is expected to decrease as lower-carbon fuels become more

³²³ The senior vice president of Patriot Coal (the third largest coal producer in the eastern United States) recently told industry analysts that “[i]f a surface mine is not operating because of a permit issue, we can go underground, we can continue to source the customer, etc.” And Patriot’s president stated, “We’re hedged to manage through it either way it goes.” Exclusive: Patriot Coal Says — We Can Mine It Underground, <http://blogs.wvgazette.com/coalattoo/2009/08/14> (Aug. 14, 2009, 1:22 PM). Similarly, Massey Energy President Don Blankenship told stock analysts recently that, if MTR permits become an issue, “we would go to more deep mines We will be and keep ourselves in a position to make those volumes or more irregardless [sic] of which way the permitting issue evolves.” Coal Tattoo Investigates: Is There a MTR Permit Crisis?, *supra* note 291. Consistent with its promise, Massey recently acquired Cumberland Resources Corp., an operator of underground mines, noting that the “increased scrutiny” of MTR permits by EPA played a role in the decision. Donna Block, *Massey to Acquire Cumberland Resources*, DAILY DEAL, Mar. 17, 2010.

³²⁴ Maurice Deul, *Coal, Energy Policy & Climate*, COAL NEWS, Nov. 2009, at 28–29, available at http://www.coalnews.net/images/pdf/CoalNews_1109.pdf.

³²⁵ See HANSEN ET AL., *supra* note 84, at 3.

³²⁶ See ALICE NAPOLEON & DAVID SCHLISSEL, SYNAPSE ENERGY ECON., INC., ECONOMIC IMPACTS OF RESTRICTING MOUNTAINTOP/VALLEY FILL COAL MINING IN CENTRAL APPALACHIA 14 (2009), available at http://www.sierraclub.org/coal/downloads/2009.10_synapse_sc_mtr_econ_report.pdf (noting, based on 2007 data, approximately 15.4 billion short tons of coal are recoverable through deep mining, as compared to 2274 million short tons recoverable through surface mining).

³²⁷ *Id.* at 14. The report notes projections in EPA’s 2003 DEIS, *see* MOUNTAINTOP MINING DEIS, *supra* note 8, that electricity costs would increase slightly with restrictions on valley fills, but concludes economic conditions have changed to undermine those projections. NAPOLEON & SCHLISSEL, *supra* note 326, at 3. A long term alternative is renewable energy, including wind power, which is currently “underdeveloped” in the region. *Id.* at 13. In the medium term, natural gas is an attractive alternative. See ENERGY INFO. ADMIN., DEP’T OF ENERGY, THE IMPLICATIONS OF LOWER NATURAL GAS PRICES FOR THE ELECTRIC GENERATION MIX IN THE SOUTHEAST 13 (2009), available at http://www.eia.doe.gov/emeu/steo/pub/special/pdf/2009_sp_02.pdf. Dominion Resources, which uses MTR coal in its power plants, is currently expanding its pipeline capacity to accommodate an unexpected “gas bonanza” uncovered recently in West Virginia. Chris Kahn, *Dominion Will Spend \$235 Million on Expansion*, CHARLESTON GAZETTE, Dec. 17, 2009, at 3C. The newly discovered Marcellus Shale formation has enough gas to supply the entire country’s needs for up to 20 years. Marc Levy & Vicki Smith, *Gas Drilling in Appalachia Yields a Foul Byproduct*, CHATTANOOGA TIMES FREE PRESS, Feb. 2, 2010, at C1.

competitive due to greenhouse gas regulation.³²⁸ Moreover, a shift away from MTR would create *more* jobs in energy-rich Appalachia, not fewer.³²⁹

Finally, a shift away from MTR would preserve some of Appalachia's long-term economic prospects. The MTR companies' primary tactic — shifting the focus from ecological impacts to economic impacts — is based on the lie that MTR coal is good for Appalachia's economy. In reality, the coal industry contributes about \$8 billion to the Appalachian economy annually, but costs the region almost \$42 billion annually in health and early mortality costs.³³⁰ Economic diversification would reduce those health costs, while building an economy that is resistant to the boom-bust cycles that accompany coal extraction.³³¹ Various statistics are advanced to prove that Appalachia has enough coal to supply the nation's energy needs for many years to come. But while Appalachia may have vast coal reserves regionally, this is not true on a local scale; each mountain takes only a short time to destroy,³³² and each community is left with nothing but ruined land.

VI. EPILOGUE

Coming home from the coalfields was hard. I had learned so much, and I had been changed forever, but so little had changed otherwise. Mountaintops were still being blasted off and dumped into streams. Shortly after I returned, the Fourth Circuit decided *Ohio Valley Environmental Coalition v. Aracoma Coal Co.*,³³³ clearing the way for even more permits. Protests were squelched, and my friends arrested, on Coal River Mountain, where blasting has now begun. And every day, coal trains carried their loads to eager power plants, and unknowing customers turned on their lights — their mute power meters ticking over, driving the whole process.

But with the passage of only a year, the outlook for Appalachia has never been more hopeful. Leaders in Congress have proposed bills in both

³²⁸ One recent interagency report on H.R. 2454, the Waxman–Markey bill, concludes that “because coal and petroleum products are more carbon-intensive fuels, a cap-and-trade program is unambiguously expected to reduce the demand for and underlying price of those fuels.” THE EFFECTS OF H.R. 2454 ON INTERNATIONAL COMPETITIVENESS AND EMISSION LEAKAGE IN ENERGY-INTENSIVE TRADE-EXPOSED INDUSTRIES 17 (2009), available at <http://www.epa.gov/climatechange/economics/economicanalyses.html>. MTR coal is significantly more carbon-intensive than underground-mined coal because of carbon release from soil disturbance. See James F. Fox & J. Elliot Campbell, *Terrestrial Carbon Disturbance from Mountaintop Mining Increases Lifecycle Emissions for Clean Coal*, 44 ENVTL. SCI. & TECH. 2144 (2010).

³²⁹ See McILMOIL & HANSEN, *supra* note 291, at 9, 33–34; see also *supra* notes 74–79 and accompanying text.

³³⁰ Hendryx & Ahern, *Mortality*, *supra* note 50, at 541, 547.

³³¹ See McILMOIL & HANSEN, *supra* note 291; see also NAPOLEON & SCHLISSSEL, *supra* note 326, at 20–25; BURNS, *supra* note 6, at 12–13.

³³² The average duration is between 7½ and 8½ years. GAO REPORT, *supra* note 5, at 23–24. At the high end, Coal River Mountain, along with any economic boon from its coal, will be gone in 17 years. See HANSEN ET AL., *supra* note 84, at vi.

³³³ 556 F.3d 177 (4th Cir. 2009).

houses that would undo the fill rule and restore the original meaning of the CWA.³³⁴ Failing legislative action, the Supreme Court has indicated it may be interested in hearing a challenge to the current fill rule.³³⁵ Most promising, EPA has recently shown a willingness to exercise aggressive and meaningful oversight over the section 404 program. Though its first steps were tentative,³³⁶ and Administrator Jackson expressed regret at the agency's hesitance,³³⁷ EPA announced in September 2009, that it would conduct "enhanced" review of seventy-nine Corps permits.³³⁸ Based on that review, EPA proposed to veto one large permit,³³⁹ and less than a week later issued a new guidance memorandum intended to address toxic conductivity levels downstream from valley fills.³⁴⁰ The new guidance was hailed (or condemned, depending on the source) as "sharply curtail[ing]" MTR.³⁴¹

Still, however encouraging EPA's latest steps may be, they do not go far enough. The guidance will not put a stop to valley fills.³⁴² It applies only to future permits,³⁴³ and even then, it contemplates that valley fills will continue to be constructed. The guidance goes so far as to offer a roadmap to mine operators to reduce conductivity levels below valley fills and promises that, by utilizing EPA's recommended "best management practices," multi-

³³⁴ H.R. 1310, 111th Cong. (2009); S.R. 696, 111th Cong. (2009).

³³⁵ See *Coeur Alaska, Inc. v. Se. Alaska Conservation Council*, 129 S. Ct. 2458, 2468–69 (noting that rather than challenge the fill rule, respondents proposed a flawed interpretation of section 404).

³³⁶ Boyle, *supra* note 248 (reporting letters from EPA to the Corps expressing concern over the effectiveness of mitigation efforts); Memorandum of Understanding Implementing the Interagency Action Plan on Appalachian Surface Coal Mining (June 11, 2009), available at http://www.epa.gov/owow/wetlands/pdf/Final_MTM_MOU_6-11-09.pdf (reporting a "commitment by the agencies to investigate, and, if appropriate, undertake longer term regulatory actions related to Appalachian surface coal mining").

³³⁷ Tim Dickinson, *The Eco-Warrior*, ROLLING STONE, Feb. 4, 2010, at 34, 34 ("In hindsight, I certainly wish we could have gone through a longer process on some of those [initial permit approvals].").

³³⁸ Letter from Peter S. Silva, Assistant Admin., EPA, to Jo-Ellen Darcy, Assistant Sec'y of the Army (Sept. 30, 2009), available at <http://wvgazette.com/static/coal%20attoo/epamtr lettersept2009.pdf>.

³³⁹ Proposed Spruce Veto, *supra* note 254.

³⁴⁰ EPA Guidance, *supra* note 8.

³⁴¹ David A. Fahrenthold, *Environmental Regulations Aim to Curtail Mountaintop Mining*, WASH. POST, Apr. 2, 2010, at A4 (quoting Administrator Jackson as stating, "You're talking about no, or very few, valley fills that are going to be able to meet this standard"). OSM, too, plans to publish a proposed rule in February 2011 that would define the term "material damage" to streams, which may also affect valley fills. Ken Ward, Jr., *Feds Seek 'Holistic' Mine Rule Changes: OSM Rethinking Stream Protection*, CHARLESTON GAZETTE, April 16, 2010, at A1. OSM released its proposed rule on April 30, 2010. Stream Protection Rule: Environmental Impact Statement, 75 Fed. Reg. 22,723 (Apr. 30, 2010).

³⁴² Even if EPA's guidance were enforced so as to completely prohibit valley fills, the current fill rule would remain an unreasonable interpretation of the CWA. Valley fills are simply an illuminating (albeit extremely important) illustration of the unreasonableness of the fill rule.

³⁴³ See EPA Guidance, *supra* note 8, at 8 (noting guidance applies to regional EPA office reviews of draft or proposed permits).

ple valley fills can still be permitted for individual MTR mines.³⁴⁴ Still more troubling, EPA acknowledges the failures in oversight by the Corps and the state agencies, yet leaves those same agencies with the keys to the henhouse.³⁴⁵ The guidance sets a numeric “benchmark” for conductivity levels, but enforcement of the new benchmark may be only as effective as state monitoring.³⁴⁶ Most important, even if the new benchmark for conductivity is adequately enforced, the other ecological harms from valley fills will remain unaddressed. The guidance pays lip service to ecological losses caused by deforestation, unstable hydrologic regimes, sedimentation, reduced organic matter inputs, and altered thermal regimes, while stressing the ecological viability of Appalachian watersheds,³⁴⁷ but provides no teeth to stop these losses. The guidance merely rearticulates the authority that EPA already had to object to state agency decisions or veto Corps’ decisions,³⁴⁸ it doesn’t actually change the legal landscape.³⁴⁹

That is not to say, however, that EPA’s crackdown on conductivity is not worthwhile. The guidance accomplishes two purposes immediately: although it will not increase EPA’s enforcement authority, it will reduce the costs of enforcing water quality standards in one narrow but useful area,³⁵⁰ and it will therefore increase the cost of MTR at the margins.³⁵¹ As the costs associated with MTR and valley fills are internalized, coal producers will incrementally shift toward other methods of mining.³⁵² Furthermore, the “sequencing” of valley fills should slow down the permitting process.³⁵³ These changes give EPA some breathing room to consider a more fundamen-

³⁴⁴ *Id.* at 24–27 (outlining best management practices “to reduce or eliminate potential increases in conductivity levels”).

³⁴⁵ See *supra* notes 62–65 and accompanying text (describing state agency failures).

³⁴⁶ See EPA Guidance, *supra* note 8, at 18–19 (noting that state certification of compliance with water quality standards will be considered “conclusive” unless EPA objects).

³⁴⁷ See *id.* at 3.

³⁴⁸ See *id.* at 8 (stating “objection to the issuance of the proposed permit would be an appropriate response” to violations by state agencies); *id.* at 17 (veto over Corps permits).

³⁴⁹ See *id.* at 2 n.3 (“This guidance does not substitute for [CWA and NEPA provisions and regulations], nor is it a regulation itself. It does not impose legally binding requirements on EPA, the [Corps], the States, or the regulated community . . .”). Furthermore, the new guidance, issued without the protections of the notice-and-comment process, could also be withdrawn just as easily by a subsequent administration.

³⁵⁰ EPA has always had the right to object to permits that would cause violations of water quality standards, but the guidance now sets a numeric threshold for conductivity, beyond which a violation of water quality standards is presumed. *Id.* at 12–13, 22. The threshold should lower the administrative costs of enforcing conductivity standards, which were previously described only by state “narrative” water quality standards, *id.* at 10, such as 401 Ky. ADMIN. REGS. 10:031 (2010), which vaguely provides: “total dissolved solids or specific conductance shall not be changed to the extent that the indigenous aquatic community is adversely affected.”

³⁵¹ With the prospect of increased enforcement, firms must incorporate EPA’s suggested best management practices into their plans or risk having their permits denied.

³⁵² Massey Energy, for example, has done so based merely on speculation of increased enforcement. See Block, *supra* note 323.

³⁵³ “Sequencing” is a suggested best management practice in which only one valley fill is constructed at a time. EPA Guidance, *supra* note 8, at 24–25.

tal solution to the “pervasive and irreversible” effects of valley fills.³⁵⁴ And there are indications EPA is doing just that: according to an interview Administrator Jackson gave to *Rolling Stone* magazine, EPA is reviewing the fill rule.³⁵⁵ If the administration has the will to follow through, EPA can act on our petition and turn the page on this poorly conceived and legally indefensible rule.

We have known for a long time that one day the coal will run out.³⁵⁶ One day, we will be forced to turn to other sources of energy. The question for our generation, then, is what will remain when that time comes. When we are finished — when Appalachia’s coal mines have given up their last lumps — what will be left? Wilma Steele, a schoolteacher and the wife of a retired miner in Meador, West Virginia, answered that question: “Unanchored trees and people and a way of life that is gone with the winds of destruction and greed.”³⁵⁷ We will have lost one of the world’s most biologically diverse ecological subregions. But more than that, we will have lost our way *home*.

Perhaps we have forgotten what home means. Maybe we have forgotten the stories that tied us to the places that nurtured us. And perhaps, one day, we’ll understand the depths of our exile and we’ll want to go back. But as Wendell Berry wrote of MTR, “nobody who ever wanted to go home would ever get there now, for every remembered place had been displaced.”³⁵⁸ The places that we have lost, we have lost not only from our maps, but also from our heritage. Appalachian poets — writers of “old time” mountain music — sing about the mountains and hollows of Appalachia. Matt Richardson, who accompanied me on the ride, is an old time musician, and he expressed dismay at the thought of trying to play music written about a mountain or a creek erased by an MTR mine. He said, “[a]ctually, I wouldn’t even see a purpose in playing that song anymore.”³⁵⁹

Appalachia’s heritage and its future remain at stake, but the plans of those who would spoil the land for short-term profit are anything but inevitable. Change in Washington is now being driven by the voices of those who know the value of what has been lost. Broad grassroots coalitions, from

³⁵⁴ Palmer et al., *supra* note 6, at 149.

³⁵⁵ Dickinson, *supra* note 337, at 35 (“Staff is working on it now,” according to Jackson, even though EPA has not “put anything about it out publicly.”). This review of the fill rule was apparently prompted by the *Coeur Alaska* decision, but Jackson notes that a change “may also ‘curtail’ mountaintop-removal mining.” *Id.*

³⁵⁶ That day may be sooner than we expected. See Rebecca Smith, *U.S. Foresees a Thinner Cushion of Coal*, WALL ST. J., Jun. 8, 2009, at A1 (citing a government report and concluding that recoverable reserves may be only half of previous estimates).

³⁵⁷ Wilma Lee Steele, *White Flame: The Struggle for Survival* (unpublished manuscript, on file with the Harvard Law School Library).

³⁵⁸ BERRY, *supra* note 17, at 209.

³⁵⁹ Voices Against MTR: Day 13, http://lookoutdoornews.com/voices/past_rides/day_13 (Jan. 21, 2009).

long-time environmentalists to faith-based organizations, are speaking out.³⁶⁰ The Obama Administration, by all indications, is listening. Even the national media, for so long uninterested in the destruction of rural Appalachia, is finally showing an interest.³⁶¹ And most importantly, people everywhere are becoming aware of what is happening on the other end of their power lines.

We may not be able to remove the valley fills or rebuild the mountains we have lost, but having lost them, we may yet rise to defend what remains.

*With the land
again make common cause.
Diminished as it is,
grant it your grief and care.
So late, begin again.*³⁶²

³⁶⁰ For instance, in Tennessee, the Scenic Vistas Protection Act, a bill that would have outlawed MTR on ridges over 2000 feet high, was supported by such diverse groups. That bill would likely have passed if it had come to a vote, but it was withdrawn in the spring of 2009 by its sponsor when it became unclear whether it would make it out of committee. The bill suffered a similar fate in the spring of 2010. E-mail from Dawn Coppock, Legislative Dir., Lindquist Envtl. Appalachian Fellowship, to author (Mar. 31, 2010, 10:40 EST) (on file with author).

³⁶¹ See, e.g., Duhigg, *supra* note 216. The popular media, too, is taking notice. *The Colbert Report* on the Comedy Central network featured a story on mountaintop removal in January 2010. *The Colbert Report: Coal Comfort* (Comedy Central television broadcast Jan. 18, 2010), available at <http://www.colbertnation.com/the-colbert-report-videos/261994/january-18-2010/intro-01-18-10>.

³⁶² Wendell Berry, *The nation is a boat*, in LEAVINGS 83 (2010) (quotation omits material in original).