

**PETITION FOR WITHDRAWAL OF THE NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM PROGRAM DELEGATION FROM THE STATE OF WEST
VIRGINIA**

Appalachian Mountain Advocates, Sierra Club, West Virginia Highlands Conservancy, Ohio Valley Environmental Coalition, and Appalachian Voices hereby petition the United States Environmental Protection Agency (EPA) to initiate formal proceedings under 40 C.F.R. § 123.64(b) to withdraw approval of the State of West Virginia's National Pollutant Discharge Elimination System (NPDES) program. The Groups request that EPA formally respond to this petition in writing, as required by 40 C.F.R. § 123.64(b)(1); that EPA notify the State of West Virginia that it is not administering the permit program for discharges into the waters of West Virginia in accordance with the Clean Water Act; and that EPA schedule a public hearing regarding these violations. See 33 U.S.C. § 1342(c)(3); 40 C.F.R. § 123.64(b)(1). Because West Virginia has shown that it does not have the ability to administer or enforce its NPDES program in accordance with the Clean Water Act (CWA), EPA must withdraw its approval of the West Virginia NPDES delegation and assume administration and enforcement of the program. Id.

On June 17, 2009, Sierra Club, West Virginia Highlands Conservancy, Coal River Mountain Watch, and Ohio Valley Environmental Coalition submitted a petition to EPA requesting withdrawal of West Virginia's NPDES program. The groups provided additional information in supplements to that petition on July 31, 2009, and November 13, 2009. The petition and supplement highlighted, among other things, the West Virginia Department of Environmental Protection's (WVDEP) failure to enforce effluent limits in existing NPDES permits, permit point source discharges from abandoned mine lands, apply appropriate anti-backsliding and anti-degradation measures, protect impaired streams from additional sources of pollution, and issue NPDES permits with effluent limits necessary to protect the waters of the State. Since the time of that petition, the vast majority of those failures have not been addressed in any meaningful way.

This petition is not intended to be another supplement to the 2009 petition, but rather constitutes a new and separate request to withdraw West Virginia's NPDES program. The failures detailed in this petition are causing and will continue to cause significant harm to West Virginia's waterways and form an independent basis for withdrawal of approval.

**WEST VIRGINIA HAS FAILED TO COMPLY WITH THE REQUIREMENTS OF 40
C.F.R. PART 123 BY FAILING TO ISSUE NPDES PERMITS FOR POINT SOURCE
DISCHARGES AT BOND-RELEASED MINING SITES**

West Virginia has failed to issue NPDES permits for point source discharges at bond-released mining sites and has failed to obtain NPDES permits for discharges at abandoned mine land sites under its control. The failure of WVDEP to issue NPDES permits for point source discharges at abandoned mine land sites was addressed in the June 17, 2009, petition. Similarly, WVDEP has failed to issue or require the continuance of NPDES permits for point source discharges at sites that were previously permitted under the West Virginia Surface Coal Mining and Reclamation Act ("WVSCMRA") and have had their WVSCMRA permits and bonds released.

Many West Virginia bond-released sites continue to produce polluted mine drainage. Valley fills are a common feature of surface mines in West Virginia. Once constructed, they are permanent features, remaining after reclamation and WVSCMRA permit and bond release. While WVSCMRA requires that mines meet water quality standards before permits can be released, in practice WVDEP maintains a lower bar. The Phase II and III release applications ask, “Does raw water discharge meet effluent limits without chemical treatment?” Permittees must check “yes” or “no.”¹ The applications then ask permittees to report the raw water concentrations for pH, iron, and manganese.² For Phase II release permittees must also include one year of raw water data, but there is no list of the pollutants for which permittees must sample.³ The release applications do not require selenium sampling or compliance with the narrative water quality standard. Reporting very high levels of conductivity, total dissolved solids, and sulfates do not prevent or delay release. Once the WVSCMRA permit is released, WVDEP releases the WV/NPDES outlets for the site.⁴ WVDEP does not require the permittee to show that no discharges of pollutants remain.

Instead, reclaimed valley fills are permitted to continue to discharge pollutants into their receiving streams. A recent study consistently found elevated levels of selenium and conductivity below reclaimed valley fills.⁵ Nearly 90% of the streams below reclaimed valley fills sampled in the study exhibited biological impairment.

To our knowledge and belief, no bond-released mine sites have WV/NPDES permits for their continued discharges. As a result, there are hundreds of unpermitted discharges from valley fills across West Virginia. Both EPA and the federal courts have made clear that point source discharges after bond release require NPDES permits, and that such discharges made in the absence of a permit constitute violations of the Act. As the U.S. Court of Appeals for the Fourth Circuit explained:

EPA issued regulations in 1985 establishing that post-mining discharges are covered by the NPDES scheme. See 50 Fed. Reg. 41296 (Oct. 9, 1985). In those regulations, the EPA “reemphasize[d] that post-bond release discharges are subject to regulation under the Clean Water Act,” observing that “[i]f a point source discharge occurs after bond release, then it must be regulated through an NPDES permit.” Id. at 41298. The comments to the rule sharpen this point, flatly stating that “[a]ny point source discharge after bond release does require a permit.” Id. at 41304 (emphasis added). To the extent parties do not comply, the regulations state that they will be “subject to enforcement action by EPA under section 309 of the Act and by citizens under section 505(a)(1) of the Act.” Id. at 41298.

¹ Mining Permit S500691 Phase III Release Application MR-7C (Ex.1); Mining Permit S001581 Phase II Release Application MR-7B (Ex. 2).

² Id.

³ Mining Permit S001581 Phase II Release Application Raw Water History (Ex. 3).

⁴ WV/NPDES Permit WV1015893 Modification Application Part III: Description (Ex. 4); WV/NPDES Permit WV0092797 Release Order (Ex. 5).

⁵ Pond, G. J. et al., *Long-Term Impacts on Macroinvertebrates Downstream of Reclaimed Mountaintop Mining Valley Fills in Central Appalachia*, Environmental Management 1–15 (July 2014) (Ex. 6).

West Virginia Highlands Conservancy, Inc. v. Huffman, 625 F.3d 159, 166 (4th Cir. 2010). WVDEP has never taken enforcement action against a post-bond release discharge. Citizen groups have initiated suits against landowners for such ongoing discharges; some of those cases are pending. In one case, a consent decree secured via citizen enforcement suit requires the landowner to apply for a NPDES permit for their discharges by October 7, 2014.

Harm continues to occur from uncontrolled discharges from bond-released mines. For example, a 2014 study found that conductivity's negative impact on downstream biological communities is long-term. The study's findings were summarized thusly:

In addressing our three central questions, we determined that (1) temporal ecological impacts persist downstream of VFs, given 11–33 years post-reclamation; (2) many expected taxa were missing from VF streams (suggesting local extinctions) and the scraper feeding group was significantly reduced; and (3) water quality is most likely the primary barrier to recovery but proximity to clean sources (intervening tributaries) may contribute some sensitive taxa that increase the biological indices used to measure condition.⁶

By failing to issue NPDES permits for point source discharges from bond-released mine sites and failing to take enforcement action against unpermitted discharges from such sites, WVDEP is abdicating its duties under the approved NPDES program. The failure to appropriately implement the NPDES program in regards to point source discharges from bond-released coal mining sites provides grounds for EPA to withdraw approval of West Virginia's NPDES program under 40 C.F.R. §§ 123.63(a)(2)(i) and 123.63(a)(3)(i).

WEST VIRGINIA REPEATEDLY ISSUES PERMITS THAT ARE NOT PROTECTIVE OF THE NARRATIVE WATER QUALITY STANDARD AND THEREFORE DO NOT CONFORM TO THE REQUIREMENTS OF FEDERAL REGULATIONS

WVDEP consistently and blatantly disregards the NPDES permitting regulations when issuing permits for mining operations with a reasonable potential to cause or contribute to narrative water quality standards violations. For pollutants or pollutant parameters for which West Virginia has not promulgated a numeric standard, WVDEP must conduct a reasonable potential analysis to determine whether that pollutant or pollutant parameter will cause, have the reasonable potential to cause, or contribute to an excursion above a narrative standard. 40 C.F.R. § 122.44(d)(1)(i). If a reasonable potential exists for an excursion above a narrative standard, WVDEP must establish effluent limits for that pollutant. 40 C.F.R. § 122.44(d)(1)(vi). WVDEP refuses to perform the required analysis or impose the necessary limits to protect the narrative water quality standard from discharges from surface coal mines.

Surface mining, as practiced in West Virginia, creates large amounts of spoil which is typically disposed of in streams in the form of valley fills. The ongoing presence of this spoil in the streams leads to significant water pollution and water quality degradation. This occurs because

⁶ Pond, G. J. et al., *Long-Term Impacts on Macroinvertebrates Downstream of Reclaimed Mountaintop Mining Valley Fills in Central Appalachia*, Environmental Management 1, 11 (July 2014) (Ex. 6).

when water runoff percolates through this spoil it leaches out metals, ions, and compounds that then act as pollutants. A robust body of science demonstrates that these pollutants have a significant and adverse effect on aquatic ecosystem health and species diversity. The solutes generated by mining spoil are measured in varying forms, including as total dissolved solids (TDS), conductivity, and as specific ions including sulfate (SO_4^{2-}), magnesium (Mg^{2+}), calcium (Ca^{2+}), and bicarbonate (HCO_3^-).⁷

The 2002 EPA water chemistry study in the programmatic EIS on Mountaintop Mining/Valley Fills in Appalachia found that conductivity was “clearly impacted by MTR/VF [mountaintop/valley fill] mining.”⁸ “Conductivity at Filled sites can be 100 times greater than that at Unmined sites.”⁹ “Unmined sites have a consistently low conductivity no matter what the flow. Filled sites have a broad range of conductivity much higher than Unmined sites indicating that MTM/VF mining increases specific conductance in streams.”¹⁰

EPA’s Science Advisory Board has stated that elevated levels of conductivity from mountaintop removal mining are having an “extreme ecological effect” on Appalachian waters and streams because they can cause extirpation at the genus level.¹¹ In 2011, EPA published two peer-reviewed scientific reports documenting the harm caused by conductivity and mountaintop removal mining valley fills.¹² This research showed that a significant percent of aquatic life is extirpated when conductivity reaches 300 microsiemens per centimeter ($\mu\text{S}/\text{cm}$).¹³ Scientists from EPA also recently published a set of peer-reviewed studies that further support that guidance. These studies explain the methodology and results of a scientific investigation of the relationship among surface coal mining, increased conductivity, and downstream biological impairment.¹⁴ In an editorial accompanying the publication of these studies, the journal stated

⁷ This material is “composed of several major ions, and leaching of the ions from the fill material leads to high in-stream conductivity when it is deposited in stream valleys (USEPA 2003, 2011, Hartman et al. 2005, Merricks et al. 2007, Pond et al. 2008, Fritz et al. 2010, Pond 2010). The high conductivity levels are not substantially reduced by temporary storage in retention ponds (Merricks et al. 2007), and the levels remain high downstream (USEPA 2011), with the primary source of dilution being inflow from unaffected streams (Johnson et al. 2010).” James Wickham, et al. *The Overlooked Terrestrial Impacts of Mountaintop Mining*. *Bioscience* 63(5): 335-348 (2013) (Ex. 7).

⁸ Bryant, McPhillamy, Childers, USEPA Region III, Final Report: A Survey of the Water Quality of Streams in the Primary Region of Mountaintop / Valley Fill Coal Mining 2 (April 8, 2002) (Ex. 8).

⁹ *Id.* at 45.

¹⁰ *Id.* at 46.

¹¹ EPA Science Advisory Board, Final Review of Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams 2 (March 25, 2011) (Ex. 9).

¹² EPA Office of Research & Development, A Field-based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams (May 27, 2011) (ex. 10); EPA Science Advisory Board, Final Review of Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams (March 25, 2011) (Ex. 9); EPA Office of Research & Development, The Effects of Mountaintop Mines and Valley Fills on Aquatic Ecosystems of the Central Appalachian Coalfields (May 27, 2011) (Ex. 11); EPA Science Advisory Board, Review of EPA’s Draft Report on Aquatic Ecosystem Effects of Mountaintop Mining and Valley Fills (March 25, 2011) (Ex. 12). *All available at:* <http://water.epa.gov/lawsregs/guidance/wetlands/mining.cfm#ORD>.

¹³ Memo. from Nancy Stoner, Acting Assistant Adm’r for Water to EPA Regions III, IV, V, Improving EPA Review of Appalachian Surface Coal Mining Operations Under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order at 16 (July 21, 2011) (Ex. 13) (citing EPA Office of Research & Development, A Field-based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams (May 27, 2011)).

¹⁴ Susan M. Cormier & Glenn W. Suter II, *A method for deriving water quality benchmarks using field data*, 32 *Environ. Toxicol. Chem.* 255–262 (2012) (Ex. 14); Susan M. Cormier, Glenn W. Suter II & Lei Zheng, *Derivation*

that “[t]he U.S. EPA’s initial application [of field data to generate water quality criteria], a benchmark value for dissolved ions measured as specific conductance, has withstood a series of intense reviews and has guided environmental decisions.”¹⁵ On the causation issue, “the authors found that a mixture containing the ions Ca^+ , Mg^+ , HCO_4^- , and SO_4^- , as measured by conductivity, is a common cause of extirpation of aquatic macroinvertebrates in Appalachia where surface coal mining is prevalent. The mixture of ions is implicated as the cause rather than any individual constituent of the mixture.”¹⁶ On the benchmark issue, the abstract states:

Because increased ionic strength has caused deleterious ecological changes in freshwater streams, thresholds for effects are needed to inform resource-management decisions. In particular, effluents from surface coal mining raise the ionic strength of receiving streams. The authors developed an aquatic life benchmark for specific conductance as a measure of ionic strength that is expected to prevent the local extirpation of 95% of species from neutral to alkaline waters containing a mixture of dissolved ions in which the mass of $\text{SO}_4^{2-} + \text{HCO}_3^- > \text{Cl}^-$. Extirpation concentrations of specific conductance were estimated from the presence and absence of benthic invertebrate genera from 2,210 stream samples in West Virginia. The extirpation concentration is the 95th percentile of the distribution of the probability of occurrence of a genus with respect to specific conductance. In a region with a background of 116 $\mu\text{S}/\text{cm}$, the 5th percentile of the species sensitivity distribution of extirpation concentrations for 163 genera is 300 $\mu\text{S}/\text{cm}$. Because the benchmark is not protective of all genera and protects against extirpation rather than reduction in abundance, this level may not fully protect sensitive species or higher-quality, exceptional waters.¹⁷

Other independent, peer-reviewed scientific research has also confirmed EPA’s research. In July 2012, a group of prominent scientists published a peer-reviewed paper analyzing 30 years of stream data in a 390-square-mile region in southwestern West Virginia.¹⁸ This study concluded that the extent of surface coal mining in that region is highly correlated with elevated

of a benchmark for freshwater ionic strength, 32 Environ. Toxicol. Chem. 263–271 (2012) (Ex. 15); Susan M. Cormier & Glenn W. Suter II, *A method for assessing causation of field exposure-response relationships*, 32 Environ. Toxicol. Chem. 272–276 (2012) (Ex. 16); Susan M. Cormier, Glenn W. Suter II, Lei Zheng & Gregory J. Pond, *Assessing causation of the extirpation of stream macroinvertebrates by a mixture of ions*, 32 Environ. Toxicol. Chem. 277–287 (2012) (Ex. 17); Glenn W. Suter II & Susan M. Cormier, *A method for assessing the potential for confounding applied to ionic strength in Central Appalachian streams*, 32 Environ. Toxicol. Chem. 288–295, (2012) (Ex. 18).

¹⁵ Susan M. Cormier & Glenn W. Suter II, *Sources of Data for Water Quality Criteria*, 32 Environ. Toxicol. Chem. 254 (2013) (Ex. 19).

¹⁶ Susan M. Cormier, Glenn W. Suter II, Lei Zheng & Gregory J. Pond, *Assessing causation of the extirpation of stream macroinvertebrates by a mixture of ions*, 32 Environ. Toxicol. Chem. 277, 277 (2012) (Ex. 17).

¹⁷ Susan M. Cormier, Glenn W. Suter II & Lei Zheng, *Derivation of a benchmark for freshwater ionic strength*, 32 Environ. Toxicol. Chem. 263–271 (2012) (Ex. 15).

¹⁸ Emily Bernhardt et al., *How Many Mountains Can We Mine? Assessing the Regional Degradation of Central Appalachian Rivers by Surface Coal Mining*, Environmental Science and Technology 46(15), 8115-8122 (2012) (Ex. 20). “The majority of catchments with >5.4% of their area in surface mines will have WVSCI scores below 68, indicating impairment Approximately 2,834 km of the ~13,128 river kilometers in the study area drain catchments with at least 5.4% of the 422 catchment area occupied by surface coal mines. . . [W]e found that significant reductions in the diversity of intolerant macroinvertebrates likely result once 2.2% of a stream’s catchment area is converted to surface mines.” *Id.* at 1820.

conductivity and harm to the ecosystem. Using the same water quality data used by EPA, but a different statistical method for analyzing that data, they independently derived a threshold of 308 $\mu\text{S}/\text{cm}$ for biological impairment related to increased conductivity. That value is essentially the same as the 300 $\mu\text{S}/\text{cm}$ value used in EPA's 2011 guidance and derived in 2012 by Cormier et al. They also found that significant biological impairment and biodiversity loss is occurring in 1,740-2,670 miles of the regional stream network, and that devastation of aquatic life can occur when as little as 2.2% of an ecosystem is mined.¹⁹ In recent years, the cumulative impacts to waters from conductivity have grown exponentially.²⁰ These data show that some areas, particularly in West Virginia and Kentucky, have reached or are close to a level of harm that is extremely dangerous for native macroinvertebrates that drive the health of the local ecosystems.

Other studies concur with EPA's threshold conductivity numbers and strengthen evidence that conductivity from mining operations causes biological impairment downstream. A final review document from EPA's Science Advisory Board detailing the Board's assessment of EPA's guidance documents found that the relationship between conductivity and species extirpation was "robust," validation using Kentucky data was "important," the use of extirpation as an end point was "extreme" and a more sensitive depletion concentration end point may be more appropriate, and EPA provided a "convincing case" for causality between conductivity and species loss.²¹ Scientists from leading universities also made an independent assessment of West Virginia and Kentucky data using different methods of analysis and arrived at similar results confirming EPA's findings. The researchers "detected a significant community threshold response to altered ionic strength, with many sensitive taxa declining precipitously and synchronously in abundance at conductivity of 277 $\mu\text{S cm}^{-1}$ (95% CI of 176 to 344 $\mu\text{S cm}^{-1}$)."²² Fish species richness has also been found to decline at conductivities between ~600 and 1000 $\mu\text{S}/\text{cm}$.²³

WVDEP has thus had access for several years to an abundance of research conclusively showing that coal mining valley fills discharge specific pollutants that harm aquatic communities in the receiving streams. Despite this knowledge, WVDEP has failed to include effluent limits on TDS, conductivity, or its constituent ions in any NPDES permits for coal mining operations. No coal mining WV/NPDES permits have numeric limits for TDS, sulfates, or conductivity. Permits issued after WVDEP's adoption of the "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i" contain monitor and report only requirements for those pollutants. WVDEP is therefore knowingly allowing coal mine operators to impair the water quality of receiving streams without taking any action to address those discharges.

¹⁹ Id.

²⁰ Id.

²¹ EPA Science Advisory Board, Final Review of Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams 2-3 (March 25, 2011) (Ex. 9).

²² Emily Bernhardt *et al.*, *How Many Mountains Can We Mine? Assessing the Regional Degradation of Central Appalachian Rivers by Surface Coal Mining*, *Environmental Science and Technology* 46(15), 8115, 8115 (2012) (Ex. 20).

²³ Nathaniel P. Hitt & Douglas B. Chambers, *Temporal changes in taxonomic and functional diversity of fish assemblages downstream from mountaintop mining*, *Freshwater Science*, Vol. 33, No. 3 915 -26 (September 2014) (Ex. 21).

In addition, new coal mining WV/NPDES permits are being issued with quarterly chronic whole effluent toxicity (WET) test limits on instream outfalls. After two failing WET tests, permittees are required to develop an adaptive management plan (AMP) identifying actions to achieve compliance with the WET limits. Permit applicants must submit an Aquatic Ecosystem Protection Plan (AEPP) when applying for a WV/NPDES permit and the AEPP becomes a part of the permit. Permittees are also required to perform annual or semi-annual benthic surveys at identified biological monitoring stations. A paragraph from WVDEP’s “Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia’s Narrative Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i” is inserted into the Bio Monitoring section of permits:

If the agency finds the condition of the aquatic ecosystem at the assessment stations prior to initiation of the permitted activity to be satisfactory, taking into account all potentially applicable criteria, then the acceptable future biological condition is a WVSCI [West Virginia Stream Condition Index] score greater than or equal to the WVSCI value representing the 5th percentile of reference (currently 68.0). If the agency finds the condition of the aquatic ecosystem at the assessment stations is less than satisfactory, taking into account all potentially applicable criteria, then the applicant shall identify existing conditions within the watershed that may be contributing to the problem. If a TMDL addressing biological impairment for ionic stress is not in effect, a WVSCI score greater than or equal to the baseline value would represent an acceptable future condition.²⁴

Reissued permits include the same requirements if the outlets are not “substantially complete.” “Substantially complete” is defined by WVDEP’s narrative guidance as, “the operation is past the point when measures that could be undertaken under either an AEPP or an AMP could be effective in reducing the operation’s impact on the aquatic ecosystem.”²⁵ This generally means that the valley fills have not yet been constructed. If the fills are constructed, or close to constructed, the permit will still include a requirement to conduct benthic surveys, but will not require an AEPP nor have WET limits.

The coal mining WV/NPDES permits being issued by WVDEP will not protect the narrative water quality standards. WVDEP and permittees have not identified how the design elements and best practices included in an AEPP help to address the types of adverse water quality and other environmental effects identified by the scientific literature or how the provisions in an AEPP differ from past practices. As a result, there is no reasonable expectation that an AEPP will prevent violations of the narrative water quality standard.

WET testing is insufficient to protect the aquatic community. Dr. Carys Mitchelmore, a toxicologist from the University of Maryland, testified in federal court on WET testing at mine sites. She stated that while WET tests are informative, “[a] negative WET test does not preclude the presence of toxicity and does not mean there will be no impairment to native stream biota. A

²⁴ West Virginia Department of Environmental Protection, Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia’s Narrative Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i, 4 (May 11, 2012) (Ex. 22).

²⁵ Id. at 1 n. 3.

WET test only looks at exposure to one species— *C. dubia*.”²⁶ Further, EPA’s “independent application” policy states that “indication of impairment of water quality by any one of the three types of monitoring data (biological, chemical, or toxicological) should be taken as evidence of impairment regardless of the findings of the other types of data.”²⁷ In addition, EPA found that, “Generally, WET limits alone have not been shown to protect water quality from the effects of conductivity.”²⁸

The WET tests in WV/NPDES permits are being used to flag when operations are causing biological harm. Even if a WET test shows harm and an AMP is triggered, there is no evidence that any measures that can be taken with an AMP will reverse the harm. In addition, an AMP can only be used if an outlet is not substantially complete. Because high conductivity and TDS is caused by water filtering through mine spoil, the pollutants are unlikely to be present in large concentrations before a valley fill has been constructed. Once the fill is constructed, water passes through the spoil, dissolves the relevant pollutants, and causes biological harm. At that point there is nothing an AMP can do to reverse the harm. Also, the WET limits in coal WV/NPDES permits only require quarterly testing. They are not designed to discover problems promptly, nor do they detect impairment to sensitive species that are extirpated through high conductivity, and any problems identified by WET testing cannot be resolved by an AMP.

WVDEP is failing to comply with its anti-degradation policy by not protecting high quality streams from degradation of the narrative water quality standards. For example, EPA commented to WVDEP on WV/NPDES Permit WV1019805 to Aracoma Coal Company that WVDEP should protect the very high quality of the receiving streams, noting that WVSCI scores were in the 80s and 90s and the streams were some of the last high quality streams in an otherwise degraded watershed.²⁹ WVDEP refused to address this issue and left the acceptable future biological condition at a WVSCI score of 68.³⁰ A drop that far in the WVSCI scores is a change in stream condition categories as described by the WVSCI technical document. WVDEP has done nothing to prevent or even discourage such a drop in water quality, nor performed a socio-economic review for such degradation, even though West Virginia’s anti-degradation plan at 60 C.S.R. 5-5.8 requires new dischargers to “document the social and economic importance of the proposed activity” if significant water quality degradation to high quality streams would occur.”

Reissued permits with “substantially complete” outfalls have no enforceable limits whatsoever to protect the narrative water quality standard. Permittees only have to monitor their discharges and perform benthic surveys. WVDEP purports to rely on the reopener provision in the permits to allow WVDEP to protect the narrative water quality standard. However, WVDEP has never

²⁶ Trial Tr. Vol. 1, 117–18, Ohio Valley Env’tl Coalition v. U.S. Army Corps of Eng’rs, Civil Action No. 3:11-00149 (May 8, 2012) (Ex. 23).

²⁷ Id. at 121–22.

²⁸ Memo. from Nancy Stoner, Acting Assistant Adm’r for Water to EPA Regions III, IV, V, Improving EPA Review of Appalachian Surface Coal Mining Operations Under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order at 19 (July 21, 2011) (Ex. 13).

²⁹ Letter from Evelyn S. MacKnight, NPDES Permits Branch, Region, U.S. EPA Region III to Jeffrey Parsons, Division of Mining and Reclamation, WVDEP, Re: NPDES Permit No. WV1019805 - New at 3–4 (April 26, 2013) (Ex. 24).

³⁰ Letter from Jeffrey Parsons, Division of Mining and Reclamation, WVDEP to Brian Trulear, NPDES Permits Branch, Region, U.S. EPA Region III, Re: WVNPDES No. WV1019805 – NEW at 34 (Feb. 28, 2014) (Ex. 25).

reopened a permit on its own initiative. That provision has only been used in rare instances in the face of pressure from outside environmental groups, and, to Petitioners' knowledge, never to include additional protections of the narrative water quality standard. This means that permittees have 5 or more years to cause biological harm before WVDEP will look at revising the permit conditions. Even if WVDEP did reopen a permit where biological harm was occurring, it has not shown itself to be willing to put requirements into coal WV/NPDES permits to actually protect the narrative standard. WVDEP has never required a coal mine to treat its conductivity, TDS, or sulfate discharges. When environmental groups used the process provided by the state to appeal a permit issued by WVDEP that did not adequately protect the narrative water quality standard, the West Virginia courts also refused to limit conductivity, TDS, and sulfate discharges or otherwise protect the narrative water quality standard. See Sierra Club v. Patriot Min. Co., No. 13–0256, 2014 WL 2404299 (W.Va. 2014).

WVDEP has created the concept of an “acceptable future biological condition.” WVDEP’s narrative guidance introduces it in the paragraph quoted above. That paragraph implies that a WVSCI score defines the acceptable future biological condition. The following paragraph implies that a WVSCI score is not sufficient to assess biological condition:

However, permit writers should be aware that a single point in a stream may not represent the overall health of the aquatic ecosystem. WVSCI is a tool to be used as a primary indicator of stream health, but not the sole criteria; if the WVSCI score suggests a potential problem, DEP shall conduct an assessment of the health of the aquatic ecosystem as a whole. In determining whether a lower WVSCI score represents an unacceptable condition, the DEP will utilize best professional judgment in a manner comparable to the discretion it exercises in listing streams as biologically impaired pursuant to § 303(d) of the Clean Water Act, including a holistic examination of the health of the aquatic ecosystem.³¹

As a result, it is unclear what sort of enforcement of the acceptable future biological condition is available to WVDEP or citizens. EPA’s understanding is that, “WVDEP views the language in the draft permit as requiring that the acceptable biological condition as defined in the permit be maintained,” but has requested that WVDEP make that interpretation clearer by stating explicitly that a WVSCI score below the baseline would be a permit violation.³² WVDEP’s response stated, “In applying the biological condition, permit writers are cautioned to be aware that a single point in the stream may not represent the overall health of the aquatic ecosystem.... [I]t would be arbitrary to automatically issue a violation when a WVSCI score has dropped below baseline without further holistic investigation to define an unacceptable condition and its source(s).”³³ On the other hand, WVDEP also stated, “[T]o interpret a numerical designation, or WVSCI score, *other than that which is defined as an ‘acceptable future biological condition’*

³¹ West Virginia Department of Environmental Protection, Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia’s Narrative Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i, 4 (May 11, 2012) (Ex. 22).

³² Letter from Brian Hamilton, NPDES Permits Branch, Region, U.S. EPA Region III to Jeffrey Parsons, Division of Mining and Reclamation, WVDEP, Re: NPDES Permit No. WV1025538 at 3 (Jan. 13, 2014) (Ex. 26).

³³ Letter from Jeffrey Parsons, Division of Mining and Reclamation, WVDEP to Brian Trulear, NPDES Permits Branch, Region, U.S. EPA Region III, Re: WVNPDES No. WV1025538 – New Application at 3 (Mar. 13, 2014) (Ex. 27).

as a violation of the permit is not consistent with the State’s Permitting Guidance Document.”³⁴ WVDEP seems to be trying to have it both ways, acting as though the biological condition is being maintained while also requiring a “holistic assessment” before a violation can be identified. A holistic assessment by WVDEP would unlawfully bar citizen suits from enforcing the permit requirement. In addition, the requirement of a holistic assessment by WVDEP to determine whether a permit’s discharges are violating the narrative water quality standard has been rejected by a federal judge. *Ohio Valley Environmental Coalition v. Elk Run Coal Co., Inc.*, --- F.Supp.2d ----, 2014 WL 2526569 at *7-15 (S.D. W. Va. 2014). Whatever WVDEP is attempting with the acceptable future biological condition, it is murky and as a result will not lead to the protection of the narrative water quality standard.

WVDEP has proposed to remove the only provision of its coal mining WV/NPDES permits that definitively requires compliance with the narrative water quality standard. The WV/NPDES Rule for Coal Mining Facilities, 47 CSR 30, currently requires that every permit include the requirement that, “The discharge or discharges covered by a WV/NPDES permit are to be of such quality so as not to cause violation of applicable water quality standards promulgated by 47CSR2.” 47 CSR 30-5.1.f. WVDEP has proposed a change to the rule to delete that provision, so that all future permits will lack an enforceable requirement to comply with water quality standards.

**WEST VIRGINIA IS FAILING TO MAKE EFFLUENT DATA FROM COAL MINING
NPDES PERMITS AVAILABLE TO THE PUBLIC AS REQUIRED BY SECTION 308
OF THE CWA.**

Section 308 of the CWA mandates the EPA Administrator to require owners and operators of point sources to sample their effluent and provide that information to EPA. 33 U.S.C. § 1318(a). That information “shall be available to the public” under 33 U.S.C. § 1318(b). For a State, such as West Virginia, to maintain its primacy under the Clean Water Act, it must comply with Section 308. 33 U.S.C. § 1318(c).

On November 12, 2013, Appalachian Mountain Advocates submitted a request to WVDEP for “[a]ll coal mining related . . . discharge monitoring report data for the third quarter of 2013.”³⁵ In January 2014, Assistant Director of the Division of Mining and Reclamation, John Vernon, directed Appalachian Mountain Advocates to WVDEP’s ePermitting website to access the requested discharge monitoring reports (“DMRs”).³⁶ Appalachian Mountain Advocates explained to Assistant Director Vernon the severe limitations in accessing data through the ePermitting website.³⁷ WVDEP then responded with a denial of the WVFOIA request on February 25, 2014. The basis of the denial was that it would require WVDEP to create a new record.³⁸

³⁴ *Id.*

³⁵ Affidavit of Derek O. Teaney at 12, *Appalachian Mountain Advocates v. West Virginia Department of Environmental Protection*, Case No. 14-C-985 (Kanawha Cty. Cir. Ct., July 31, 2014) (Ex. 28).

³⁶ *Id.* at 17.

³⁷ *Id.* at 35–36.

³⁸ *Id.* at 35.

On March 3, 2014, Appalachian Mountain Advocates submitted a request for “[a]ll coal-mining related . . . discharge monitoring report data for the period from October 1, 2013, through December 31, 2013 (the Fourth Quarter of 2013).”³⁹ On March 10, 2014, Assistant Director Vernon responded to the new WVFOIA request by email, stating that “[t]his information does exist in our system” and committing to contact Plaintiff “with information on how to view or receive the information.”⁴⁰ On March 11, 2014, WVDEP denied the WVFOIA request. The basis of that denial was that WVDEP “possesses no record responsive to your request.”⁴¹

At this point, DMRs can only be accessed on the e-Permitting website by a query of the permittee’s name. In West Virginia, many permittees hold more than a dozen NPDES permits. There is no opportunity to search or sort the DMRs by date range or permit number. A query of an individual permittee results in a listing of all eDMR submissions by that permittee, indexed by the date of submission, not the relevant time period that was monitored, nor the permit number. Records often appear as separate submissions for each individual month.⁴²

On May 28, 2014, Appalachian Mountain Advocates filed a lawsuit against WVDEP under the West Virginia Freedom of Information Act to require WVDEP to make DMRs publicly available.⁴³ WVDEP is currently obstructing public access to DMRs by maintaining them in such an inaccessible format. It is akin to maintaining a library with a card catalog searchable only by the author’s first name.

WVDEP’s failure to make DMRs accessible to the public is violating its responsibilities under 33 U.S.C. § 1318(b). In addition, if the ePermitting website is the only way that WVDEP stores DMRs, as indicated by WVDEP’s WVFOIA responses, WVDEP cannot evaluate compliance with issued permits and program requirements as required by 40 CFR 123.26.

WVDEP IS ISSUING ILLEGAL NPDES PERMITS TO ITSELF FOR SPECIAL RECLAMATION SITES

In 2009, two separate federal district courts in West Virginia held that the WVDEP was required under the Clean Water Act to obtain NPDES permits for point source discharges at bond forfeiture sites. *West Virginia Highlands Conservancy v. Huffman*, 651 F. Supp.2d 512 (S.D. W. Va. 2009); *West Virginia Highlands Conservancy v. Huffman*, 588 F. Supp.2d 678 (N.D. W. Va. 2009), *aff’d*, 625 F.3d 159 (4th Cir. 2009). Thereafter, Appalachian Mountain Advocates, on behalf of several citizen groups, negotiated a consent decree requiring the agency to issue NPDES permits to itself as an operator at 197 separate bond forfeiture sites.⁴⁴ That Decree, however, prevents any of the citizen groups from appealing NPDES permits issued pursuant to

³⁹ *Id.* at 42.

⁴⁰ *Id.* at 47.

⁴¹ *Id.* at 50.

⁴² *Id.* at 4.

⁴³ *Appalachian Mountain Advocates v. West Virginia Department of Environmental Protection*, Case No. 14-C-985 (Kanawha Cty. Cir. Ct.).

⁴⁴ See Consent Decree, *West Virginia Highlands Conservancy v. Huffman*, Civil Action No. 1:11-cv-118 (N.D. W. Va. (Aug. 2, 2011) (Ex. 29). An identical consent decree was also filed in *West Virginia Highlands Conservancy v. Huffman*, Civil Action No. 2:11-cv-00524 (S.D. W. Va., Aug. 2, 2011).

its terms.⁴⁵ The WVDEP has taken advantage of this provision in the Decree to issue illegal NPDES permits to itself, which are not subject to citizen challenge by the primary representatives of concerned environmentalists in the state. EPA has known about the illegality of these permits since at least 2010, but has taken no action to prevent the WVDEP from issuing them.⁴⁶

The WVDEP is violating the Clean Water Act in at least four separate ways in issuing these permits. First, the agency is not conducting a reasonable potential analysis or collecting adequate data to perform such analysis on all parameters of concern. As a result, pollutants – including toxics, like selenium, and others such as zinc – are not being controlled in discharges from Special Reclamation sites. Second, despite actual knowledge of high levels of TDS, sulfates, and conductivity from the sites, the agency is not placing effluent limits in permits to ensure compliance with narrative water quality standards. Third, the state has refused to evaluate technology-based effluent limits that should be made applicable to these sites. Lastly, it has granted itself illegal compliance schedules. Through its actions, the WVDEP has shown that it is not a responsible regulator when compelled to apply CWA rules and regulations to itself. It is thus necessary for EPA to take action and assert control over the program.

1. WVDEP is Not Conducting Reasonable Potential Analyses to Identify and Restrict Pollutants of Concern in its Special Reclamation Permits

CWA NPDES permits must contain appropriate water quality-based effluent limits when necessary to meet water quality standards. See 33 U.S.C. § 1311. A pollutant must be limited when it shows a “reasonable potential” to lead to a water quality standard violation. 40 C.F.R. § 122.44. In order for the regulator to conduct such a reasonable potential analysis, and thereby identify pollutants of concern, certain specific information is required from the applicant. This includes testing and data, which characterize the effluent to be discharged. 40 C.F.R. § 122.21; 40 C.F.R. § 122 Appendix D. Standardized national forms provide detailed information for what potential pollutants the applicant must test. 40 C.F.R. § 122.21(a)(2). In coal mining NPDES applications this requirement mandates testing for a broad suite of organic toxic pollutants, including volatiles and pH altering materials. 40 C.F.R. § 122 Appendix D.

The WVDEP is ignoring these requirements during the submission and review of NPDES applications from the Special Reclamation Program. As such it is not able to identify appropriate pollutants of concern, conduct reasonable potential analyses, or impose water quality based effluent limits. A prime example is the WVDEP’s refusal to evaluate the toxic pollutant selenium. Although selenium pollution is a widespread problem in West Virginia as a result of

⁴⁵ Id.

⁴⁶ See Letter from Evelyn S. MacKnight, NPDES Permits Branch, Region, U.S. EPA Region III to Thomas Clark, Division of Mining and Reclamation, WVDEP and Scott Mandirola Division of Water and Waste Management, WVDEP, Re: NPDES Permit Nos. WV1023578, WV1023560, WV1023551, WV1023543, WV1023535, WV1023527, WV1023519, WV1023501, WV1023497, WV1023489, WV1023471, and WV1023462 (May 17, 2010) (Ex. 30); Letter from Evelyn S. MacKnight, NPDES Permits Branch, Region, U.S. EPA Region III to Thomas Clark, Division of Mining and Reclamation, WVDEP, Re: WVDEP Office of Special Reclamation NPDES Permit Nos. WV1024795 Triple A Coals, WV1024779 Harvey Energy Corp., and WV1024787 Royal Scot Minerals Inc. (Nov. 30, 2011) (Ex. 31).

mine discharges, the WVDEP Special Reclamation Program has not even tested, much less limited the discharge of this pollutant from any of the sites under its control.

2. WVDEP Ignores Narrative Water Quality Standards When Establishing Permit Limits for Special Reclamation Sites

CWA requirements mandate that *all* water quality standards must be protected, whether numeric or narrative. *See* 33 U.S.C. § 1311; 40 C.F.R. § 122.44(d)(1). Where numeric criteria have not been established, the permitting authority remains obligated to establish effluent limits by one of the methods provided in 40 C.F.R. § 122.44(d)(1)(vi)(A)-(C). Water quality monitoring taken prior to the *Huffman* litigation shows that Special Reclamation sites frequently have TDS, sulfate, or specific conductivity levels far in excess of those known to be harmful to aquatic life in the region.⁴⁷ Pollution control techniques commonly used at Special Reclamation Sites to treat mine drainage (such as settling ponds) will do nothing to reduce the levels of these pollutants. Indeed some treatment techniques (such as dosers or limestone beds) will actually increase ionic pollution in the waste stream.

In a letter submitted May 17, 2010, EPA objected to 12 permits issued to the WVDEP Special Reclamation Program on the basis that they did not conduct reasonable potential analyses or in any way limit the discharge of TDS, sulfates, or conductivity to protect narrative water quality standards.⁴⁸ Despite the objection, WVDEP thumbed its nose at EPA and issued the permits without addressing the issue.⁴⁹ Since that time dozens of additional permits have been issued to the Special Reclamation Program without regard to the hazardous nature of these pollutants. Withdrawal of the state program is necessary to ensure that state narrative water quality standards are protected.

3. WVDEP Does Not Apply Technology-Based Effluent Limits to Special Reclamation NPDES Permits

Pursuant to 40 C.F.R. § 125.3(a)(2), all permits (except publicly-owned treatment works) must include effluent limits consistent with (i) the best practicable control technology currently available (BPT); (ii) the best convention pollution control technology (BCT) for conventional pollutants; and the best available technology economically feasible (BAT) for all (iii) toxic and (v) nonconventional pollutants. 40 C.F.R. § 125.3 describes the methods by which technology-based effluent limits may be imposed in NPDES permits. These methods include effluent limitations, (1) derived from applicable effluent limitations guidelines (ELGs) developed by EPA under Section 304(a) of the CWA; (2) developed on a case-by-case basis under Section 402(a)(1)

⁴⁷ Special Reclamation Water Quality Database (Ex. 32).

⁴⁸ Letter from Evelyn S. MacKnight, NPDES Permits Branch, Region, U.S. EPA Region III to John M. Capacasa, Water Protection Division, EPA Region III and Evelyn S. MacKnight, NPDES Permitting Branch, EPA Region III, Re: NPDES Permit Nos. WV1023578, WV1023560, WV1023551, WV1023543, WV1023535, WV1023527, WV1023519, WV1023501, WV1023497, WV1023489, WV1023471, and WV1023462 (May 17, 2010) (Ex. 30).

⁴⁹ Letter from Thomas L. Clarke, Division of Mining and Reclamation, WVDEP to Thomas Clark, and Scott Mandirola Division of Water and Waste Management, WVDEP, Re: NPDES Permit Nos. WV1023578, WV1023560, WV1023551, WV1023543, WV1023535, WV1023527, WV1023519, WV1023501, WV1023497, WV1023489, WV1023471, and WV1023462 (Sept. 1, 2011) (Ex. 33).

of the CWA, if EPA-promulgated ELGs are not available; or (3) a combination of methods 1 and 2.

The WVDEP has avoided placing any technology based effluent limits in its permits, despite the fact that it is treating pollutants, such as iron, manganese, and pH, that have been treated on active and reclaimed coal mines for decades. The agency has attempted to avoid this obligation by pointing out the fact that none of the ELGs are directed specifically to bond forfeiture sites.⁵⁰ Even if no ELGs are directly applicable to bond forfeiture sites, the fact does not excuse WVDEP from applying technology-based effluent limits in its permits. In such a situation the agency must apply these limits on a case-by-case basis. Reference to ELGs for active mining (40 CFR § 434 Subpart A), re-mining (40 CFR § 434 Subpart G), and/or post-mining areas (40 CFR § 434 Subpart E) should be included in this type of analysis.

4. WVDEP's Special Reclamation Permits Contain Illegal Compliance Schedules

Many of the Special Reclamation permits contain compliance schedules for pollutants, including iron and total aluminum. If these pollutants are subject to technology based effluent limits, then no compliance schedules are permitted. Compliance schedules are only permissible under certain circumstances to meet water quality-based effluent limits. These compliance schedules must, however, be accompanied by information and supporting rationale to comply with state and federal regulations. *See* 40 C.F.R. § 122.47; W.Va. C.S.R. §§ 47-10-8.1 and 47-30-6.2.o. This would require a showing that (1) immediate compliance with WQBELs cannot occur on the effective date of the permit; (2) that the compliance schedule will lead to compliance with effluent limits sufficient to meet water quality standards by the end of the compliance schedule; (3) that the compliance schedules are designed to achieve compliance as soon as possible and (4) that any compliance schedule over one year in duration include interim milestones at least annually. Permits issued by WVDEP to the Special Reclamation Program do not contain the facts or rationale to support those conclusions.

⁵⁰ See e.g., "Rationale Page," Draft Permit WV1027409, WVDEP Office of Special Reclamation, Cheyenne Coal Sales Co. (May 19, 2014).