NO. _____

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

IN RE SIERRA CLUB AND
KENTUCKIANS FOR THE COMMONWEALTH,

Petitioners,

v.

GINA MCCARTHY, in her official capacity as ADMINISTRATOR, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, AND HEATHER MCTEER TONEY, in her official capacity as REGIONAL ADMINISTRATOR, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 4,

Respondents.

PETITION FOR WRIT OF MANDAMUS PURSUANT TO 28 U.S.C. § 1651 AND CLEAN WATER ACT, 33 U.S.C. § 1369(b)(1)(D)

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CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1, the Sierra Club and Kentuckians For The Commonwealth respectfully submit this disclosure statement. The Sierra Club attests that it has no parent companies, subsidiaries, or affiliates that have issued shares to the public in the United States and no publically-held corporation owns 10% or more of its stock because the Sierra Club has never issued any stock or other security. Likewise, Kentuckians For The Commonwealth attests that it has no parent companies, subsidiaries, or affiliates that have issued shares to the public in the United States and no publically-held corporation owns 10% or more of its stock because Kentuckians For The Commonwealth has never issued any stock or other security.

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I. INTRODUCTION[1]

A. Relief Sought

Sierra Club and Kentuckians For The Commonwealth (collectively, "Petitioners") submit this petition to request that this Court issue a writ of mandamus compelling the United States Environmental Protection Agency ("EPA") to respond to their Petition, submitted to the agency in 2010 pursuant to Clean Water Act ("CWA" or "the Act") section 402(c)(3), seeking a decision by EPA to withdraw the authority of the Commonwealth of Kentucky to administer the Act's National Pollution Discharge Elimination System (NPDES) within its borders. Petitioners request that the Court order Respondents to respond to their Clean Water Act section 402(c)(3) Petition within 90 days.

B. Issues Presented

Clean Water Act section 402(c)(3), 33 U.S.C. § 1342(c)(3), authorizes the Administrator of EPA to withdraw approval of a State's NPDES permitting and enforcement program if the State fails to administer that program in accordance with the requirements of federal law. EPA's regulation implementing Section 402(c)(3) states that the Administrator may order the commencement of

[1] References to the addendum of documents essential to understand the matters set forth in this petition are cited as "Add. __."

withdrawal proceedings either on her own initiative or in response to a petition from an interested person and further states that the Administrator "will respond in writing to any petition to commence withdrawal proceedings." 40 C.F.R. § 123.64(b)(1).

On March 15, 2010, Petitioners submitted to EPA a petition seeking withdrawal of Kentucky's NPDES program on account of the state's systematic failures to administer and enforce that program, which failures caused and continue to cause widespread degradation of the waters of the Commonwealth ("Petition"). Add. 1.[2] More than five years later, EPA has yet to provide a substantive response to the Petition. EPA's failure to respond constitutes an unreasonable delay pursuant to the Administrative Procedure Act, 5 U.S.C. § 706(1), and warrants a writ of mandamus from this Court ordering EPA to issue a substantive response to the Petition.

The law governing the proper forum for compelling a response to the 2010 Petition is less than crystal clear. Petitioners originally sought relief in the District Court for the Eastern District of Kentucky, alleging that EPA's failure to respond constituted an unreasonable delay pursuant to the Administrative Procedure Act, 5

[2] The March 15, 2010 petition was followed on May 3, 2010 by a supplement highlighting additional failures by Kentucky to adequately administer its NPDES program. Add. 34. For the purposes of this petition, the petition and supplement will be referred to collectively as the "Petition."

U.S.C. §§ 555(a), 706(1). Add. 48. Federal Defendants, Respondents here, moved to dismiss that claim, arguing that, because CWA section 509(b)(1)(D), 33 U.S.C. § 1369(b)(1)(D), vests jurisdiction for review of any EPA "determination as to a State permit program submitted under section 1342(b) of [the CWA]" exclusively in the Court of Appeals, this action must also be brought in the Court of Appeals. Add. 62, 85–89. The basis for jurisdiction in the Court of Appeals is the All Writs Act, 28 U.S.C. § 1651, which empowers this Court to issue a writ to protect its "prospective jurisdiction" by compelling a party to make substantive decisions that once made will be reviewable by this Court. See La Voz Radio de la Communidad v. FCC, 223 F.3d 313, 318 (6th Cir. 2000) (adopting the rationale of Telecommunications Research and Action Center v. FCC, 750 F.2d 70 (D.C. Cir. 1984) ("TRAC")).

Petitioners believe that there is support for jurisdiction lying with the district court. See Save the Bay, Inc. v. Administrator of Environmental Protection Agency, 556 F.2d 1282, 1290 note 8 (5th Cir. 1977) (explaining that EPA failure to respond to a Section 402(c)(3) petition might be "appealable to the district court under the judicial review provisions of the Administrative Procedure Act (APA), 5 U.S.C. §§ 701-706, which authorize the court to compel 'agency action unlawfully withheld or unreasonably delayed'"); Save the Valley, Inc. v. U.S. EPA, 223

F.Supp.2d 997, 1001 (S.D. Ind. 2002) ("The failure to revoke a state's NPDES program when required by law is a failure to act, whereas the inappropriate approval of a program is an act. . . . Plaintiff's section 1342(c)(3) claim is not within the ambit of the very limited jurisdiction contemplated by section 1369(b)(1)."); Chemical Mfrs. Ass'n v. EPA, 870 F.2d 177, 266 (5th Cir. 1989) (finding that action to compel EPA to promulgate effluent limitations must be brought in the district court, despite jurisdiction over subsequent challenges to those limitations being vested in the court of appeals). It is not clear that the response from EPA that Petitioners seek would constitute a "determination as to a State permit program" that is reviewable exclusively in the Court of Appeals pursuant to CWA section 509(b)(1)(D), such that the All Writs Act requires this court to protect its prospective jurisdiction. Petitioners, however, acknowledge the authority in favor of Respondents' position. See, e.g., Johnson County Citizen Committee for Clean Air and Water v. U.S. E P.A., No. 3:05-0222 , 2005 WL 2204953, *6 (M.D. Tenn. Sept. 9 2005) ("This Court lacks jurisdiction over Count II because the substantive action Plaintiffs seek to compel (the commencement of proceedings to make a determination upon their petition alleging that Tennessee's NPDES program is deficient, and, ultimately, a decision on their petition to withdraw EPA's approval of Tennessee's NPDES program) is subject to review in

the Court of Appeals. Thus, any claim that the EPA has unreasonably delayed taking such action can only be heard in the Court of Appeals."); Sierra Club v. EPA, 377 F. Supp. 2d 1205, 1208 (N.D. Fla. 2005); TRAC, 750 F.2d at 76 ("Because the statutory obligation of a Court of Appeals to review on the merits may be defeated by an agency that fails to resolve disputes, a Circuit Court may resolve claims of unreasonable delay in order to protect its future jurisdiction."). In order to most efficiently and authoritatively determine which court is authorized to compel EPA to issue its long-overdue response, Petitioners voluntarily dismissed their action in the district court and now seek a Writ of Mandamus from this court.

II. LEGAL BACKGROUND

Petitioners seek to compel EPA to take action pursuant to the Clean Water Act ("CWA"), 33 U.S.C. §§ 1251 et seq. Congress passed the CWA to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Id. § 1251. The Act's primary mechanism for achieving that goal is Section 301's prohibition on the "discharge of any pollutant by any person" except when authorized by and in compliance with certain provisions of the Act. Id. § 1311(a).

One such provision is the National Pollutant Discharge Elimination System ("NPDES"), under which the Administrator of the EPA may issue permits for the discharge of pollutants into waters of the United States, upon the condition that

such discharges will meet all applicable requirements of the CWA. Id. § 1342. Permits issued pursuant to the NPDES program define the obligations of the dischargers under the CWA, including by setting limitations on rates and quantities of pollutant discharges and establishing monitoring and reporting requirements. Id. § 1342(a)(2); 40 C.F.R. Part 122; EPA v. California ex rel. State Water Res. Control Bd., 426 U.S. 200, 205 (1976). Compliance with an NPDES permit is deemed compliance with the Act as a whole. 33 U.S.C. § 1342(k); 40 C.F.R. § 122.5. Proper administration of the NPDES program is thus essential to achieving the goals of the Act.

CWA section 402(b), 33 U.S.C. § 1342(b), allows the EPA Administrator to authorize any state to administer its own NPDES program upon an application showing that the state possesses adequate authority to carry out all aspects of the program. Authorized state NPDES programs must at all times be administered in accordance with the federal program. Id. at § 1342(c)(2). EPA approved Kentucky's delegated NPDES program in 1983.

EPA retains significant oversight over delegated programs. If at any time the Administrator determines that a state is not administering its NPDES program in accordance with the requirements of the federal program, she may initiate

proceedings to withdraw the state's NPDES authorization. Section 402(c)(3) of the CWA states that:

> Whenever the Administrator determines after public hearing that a State is not administering a program approved under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

Id. § 1342(c)(3). EPA's regulation implementing Section 402(c)(3) states that the "Administrator may order the commencement of withdrawal proceedings on his or her own initiative or in response to a petition from an interested person." 40 C.F.R. § 123.64(b)(1). The regulation makes clear that EPA has a mandatory duty to respond to a petition submitted pursuant to CWA section 402(c)(3), stating that "[t]he Administrator will respond in writing to any petition to commence withdrawal proceedings." Id. (emphasis added).

The Administrative Procedure Act ("APA") provides that "[a] person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. § 702. The APA defines "agency action" to include those instances where an agency has failed to act, id. § 551(13), and provides that a court

shall "compel agency action unlawfully withheld or unreasonably delayed," id. § 706(1). Likewise, the APA mandates that "within a reasonable time, each agency shall proceed to conclude a matter presented to it." Id. § 555(b).

III. FACTUAL BACKGROUND

At all times relevant to this Petition, the Commonwealth of Kentucky has been authorized by EPA to administer an NPDES program for regulating the discharges of pollutants into the waters of the Commonwealth. Permits issued under this program are issued by the Kentucky Energy and Environment Cabinet ("the Cabinet" or "Kentucky") and are known as "KPDES" permits. 401 KAR 5:055.

Petitioners are non-profit, grassroots organizations whose missions include the protection of water quality and the spread of information related to water quality issues. Sierra Club is a nonprofit corporation incorporated in California, with approximately 630,000 members nationwide and approximately 5,000 members who belong to its Kentucky chapter, called the Cumberland Chapter. The Sierra Club's concerns encompass the exploration, enjoyment and protection of surface waters in Kentucky. Add. 150. Kentuckians For The Commonwealth (KFTC) is a nonprofit organization incorporated in Kentucky with roughly 8,000

members in 90 counties in the Commonwealth. KFTC is a social justice organization whose mission includes the protection of water quality. Add. 156–57.

On March 15, 2010, pursuant to CWA section 402(c)(3), Petitioners submitted a petition to Respondents' predecessors at EPA asking them "to evaluate the systematic failure of Kentucky to administer and enforce the National Pollutant Discharge Elimination System program and to withdraw the delegation of the program from the Kentucky Energy and Environment Cabinet." Add. 1. The petition identified numerous ways in which the NPDES permitting and enforcement program administered by the Cabinet failed to meet the requirements of the Act, resulting in widespread harm to the Commonwealth's waters. The petition focused on Kentucky's failure to adequately regulate pollution discharges from the coal mining industry. The groups specifically requested that EPA respond to their petition in writing, as required by 33 U.S.C. § 1342(c)(3) and 40 C.F.R. § 123.64(b)(1). Add. 5.

The March 15th Petition provided overwhelming evidence that Kentucky is failing to administer its NPDES program in accordance with the requirements of the CWA. The specific failures described in the petition, supported by extensive citations and exhibits, primarily relate to the Cabinet's inadequate regulation of pollution from coal mining operations and include, among other things:

- Failing to provide adequate staff to administer the NPDES program (Add. 2–3);
- Failing to adequately protect Kentucky streams from toxic selenium pollution by not including protective effluent limits in NPDES permits for coal mines (Add. 7–10);
- Failing to implement and enforce its narrative aquatic life water quality standards, including the narrative standard for conductivity, in KPDES permits for coal mining operations, despite overwhelming scientific evidence that conductivity pollution from coal mining activities is causing widespread biological impairment in streams (Add. 10–12);
- Authorizing the majority of coal mining discharges pursuant to a general NPDES permit, as opposed to individual NPDES permits for each operation, despite those discharges not meeting the requirements for coverage under a general permit (Add. 13–14);
- Failing to collect data and properly perform reasonable potential analyses to impose necessary effluent limitations in NPDES permits for conductivity, selenium, and other pollutants in Kentucky's general NPDES permit for coal mining operations and in individual coal mining NPDES permits (Add. 14–23); and

- Failing to adequately assess Kentucky's streams for impairment from coal mining pollution and failing to develop Total Maximum Daily Loads (TMDLs) for streams that have been identified as impaired, thus undermining its ability to develop necessary water quality-based effluent limitations (Add. 23–24).

The Petition informed EPA that Kentucky's failure to administer its NPDES program in accordance with the requirements of the CWA was having dire consequences for the health of the Commonwealth's waters. The petition cited the thousands of miles of rivers and streams that Kentucky itself has determined to be impaired by water pollution from coal mines. Add. 5. It concluded by stating that "[b]ecause the harm associated with the State's failure to maintain and administer its NPDES program is severe, irreversible and ongoing, [Petitioners] ask EPA to respond to and take action based on this petition as soon as possible." Add. 30.

In April 2010, EPA issued a draft document titled Detailed Guidance on Improving EPA Review of Appalachian Surface Coal Mining Operations Under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order ("Detailed Guidance"). Add. 92. That Guidance acknowledged the indisputable scientific evidence that high conductivity discharges from Appalachian coal mining operations, including mining operations

in Kentucky, are likely to harm aquatic life. The Guidance further proposed a voluntary framework under which states could develop water quality-based effluent limitations in NPDES permits to protect against such harm.

On May 3, 2010, Plaintiffs submitted to EPA a supplement to their March 15th Petition. The May 3rd Supplement highlighted the inconsistency between Kentucky's failure to address conductivity pollution in its NPDES permits for coal mining operations and EPA's Detailed Guidance, which made clear that regulating conductivity pollution from Appalachian surface coal mining operations is essential to protecting aquatic life as required by the CWA. Add. 38–40; Detailed Guidance, Add. 102–05.

All of those failures continue to some degree to this day, more than five years after EPA received the Petition. Probabilistic biological monitoring shows that 94 percent of all streams in the heavily mined Big Sandy-Little Sandy-Tygarts River Basin, which encompasses much of the Eastern Kentucky coal fields, are impaired for the aquatic life use. Integrated Report to Congress on the Condition of Water Resources in Kentucky, 2010 at xiii, available at http://water.ky.gov/waterquality/Pages/IntegratedReport.aspx (last visited July 20, 2015). The percentage of unhealthy streams is up from 88.5 percent in 2002 and continues to rise. Id. Similarly, EPA's own research shows that nine out of every ten streams

downstream from surface coal mining operations in Kentucky and other parts of Appalachia do not adequately support aquatic life. Detailed Guidance, Add. 95. EPA acknowledges that these stream impairments are "linked to contamination of surface water supplies and resulting health concerns as well as widespread impacts to stream life in downstream rivers and streams." Id.

Kentucky has not proven up to the task of protecting the Commonwealth's waterways. A state court recently found that the Cabinet had allowed wide-scale fraud in the pollution monitoring reports from one of the state's largest coal companies to go unnoticed and unpunished, and that the Cabinet had only stepped in when concerned community groups performed their own investigation and threatened to bring a CWA citizen suit. Energy and Environment Cabinet v. Frasure Creek Mining, LLC, No. 10-CI-1867 (Franklin Circuit Court Nov. 24 2014), Add. 128–29, 133, 145. In rejecting the settlement subsequently reached by the Cabinet and the company as too lenient, the court found that "[w]ith only a handful of enforcement personnel . . . it is impossible for the Cabinet to effectively regulate permittees such as Frasure Creek who systematically violate the obligations of the CWA." Add. 137. The court concluded that the Cabinet's lackadaisical approach to enforcement "sends the message that cheating pays." Add. 146. Despite the overwhelming evidence that Kentucky's administration of

its NPDES program is inadequate to protect the waters of the Commonwealth from widespread degradation from coal mining pollution, EPA has still not issued any substantive response to the Petition.

IV. ARGUMENT

A. Petitioners Have Article III Standing to Pursue This Writ

Petitioners have standing to bring this action. Petitioners' standing arises both from injury suffered by their members and from direct injury to their organizational interests. Petitioners' members use and enjoy water bodies in Kentucky that are impaired by coal mining pollution as a result of the failures of Kentucky's regulators, and Petitioners' organizational missions include advocacy to strengthen the protections applicable to those water bodies. Petitioners are further injured by the denial of access to information caused by EPA's failure to timely respond to the Petition. Under either the traditional standing inquiry or the reduced standards applicable to procedural injuries, Petitioners' injuries would be redressed by an order from this court directing EPA to respond to the Petition.

To satisfy the "case or controversy" requirements of Article III of the U.S. Constitution, a party must demonstrate that: (1) it will suffer an "injury in fact" without judicial relief; (2) the injury is "fairly traceable" to the complained-of conduct; and (3) a favorable judicial ruling will "likely" redress that injury. Friends

of the Earth v. Laidlaw Envtl. Servs., 528 U.S. 167, 180–81 (2000); Heartwood, Inc. v. Agpaoa, 628 F.3d 261, 266 (6th Cir. 2010). The injury need not be large; an "identifiable trifle" is sufficient to confer standing. Stone v. William Beaumont Hosp., 782 F.2d 609, 617 n.2 (6th Cir. 1986) (citing United States v. SCRAP, 412 U.S. 669, 689 n.14 (1973)); Friends of the Earth, Inc. v. Gaston Copper Recycling, Corp., 204 F.3d 149, 156 (4th Cir. 2000).

Petitioners bring suit on behalf of their organizations and members who regularly use and enjoy streams, rivers, lakes and other freshwater bodies in Kentucky that receive pollution discharges subject to regulation under the KPDES program. Add. 150, 156. An organization has representational standing to sue on behalf of its members when: (1) its members would otherwise have standing to sue in their own right; (2) the interests it seeks to protect are germane to the organization's purpose; and (3) neither the claim asserted, nor the relief requested, requires the participation of individual members in the lawsuit. Friends of Tims Ford v. Tennessee Valley Authority, 585 F.3d 955, 967 (6th Cir. 2009).

Petitioners' members suffer injury because the Kentucky waterbodies they use are degraded by the types of coal mining pollution, such as toxic selenium and conductivity, that are not sufficiently addressed by Kentucky regulators and that therefore are the subject of the Petition. Add. 151–54, 157–59. Petitioners'

members' interests in enjoying, drinking, swimming, fishing, recreating in or on, and otherwise using certain freshwater bodies are harmed by EPA's failure to respond to their Petition. The coal mining pollution that is the subject of the Petition diminishes Petitioners' members' enjoyment of particular freshwater bodies in Kentucky and causes those members to cease visiting certain areas due to concerns about that pollution. If EPA were to take action in response to the Petition, either by requesting that Kentucky take corrective action or by ultimately instituting procedures to withdraw Kentucky's NPDES program, then those injuries would be redressed to some degree. Add. 154–55, 159. Petitioners' members therefore have standing in their own right, and Petitioners satisfy the first requirement for representational standing. See Friends of Tims Ford, 585 F.3d at 967; Heartwood, 628 F.3d at 266.

Petitioners also satisfy the second requirement for representational standing because this litigation over water pollution from coal mines is directly germane to the purposes of Petitioners' organizations—the protection of the environment and clean water. Add. 150, 156–57, 161; see Friends of Tims Ford, 585 F.3d at 967. Finally, the third element of representational standing is satisfied because Petitioners' members are not seeking individualized relief and therefore the

members' direct participation in the litigation is not required. See Friends of Tims Ford, 585 F.3d at 967.

Petitioners also have organizational standing to sue on their own behalf, including on the basis of informational injury. Petitioners suffer informational injury as a result of EPA's failure to evaluate and respond to their claims that Kentucky is not administering its NPDES program in conformance with the CWA. See American Canoe Ass'n, Inc. v. City of Louisa Water & Sewer Comm'n, 389 F.3d 536, 544–47 (6th Cir. 2004) (citizen groups alleged sufficient informational injury to establish organizational standing where desired but withheld information on CWA discharges would help further their organizational interests). EPA's failure to respond to their Petition deprives Petitioners of the type of information regarding the health of Kentucky's waterways and the State's compliance with the CWA that they regularly use to further their organizational interests by educating and organizing their own members, members of allied organizations, and the general public. Add. 155, 160, 161–63. For example, since the initial filing of the Petition, Petitioners have regularly educated the public and prepared comments on proposals to alter Kentucky's Clean Water Act program, including proposed changes to the state's water quality standard for selenium and revised general NPDES permits for coal mining. Add. 162. EPA's refusal to provide a substantive

response to their Petition therefore deprives Petitioners of information that is "essential to their daily organizational activities and to fulfilling their institutional goals." See American Canoe Ass'n, 389 F.3d at 546. This information includes, but is not limited to, EPA's own monitoring data for Kentucky's waters, EPA's own evaluation of draft and final KPDES permits, and EPA's evaluation of Kentucky's impaired streams and TMDL development. Thus, even if EPA's response to the Petition did not mandate corrective action from Kentucky or result in NPDES withdrawal proceedings, Petitioners' injuries could be redressed to some degree through access to this critical information.

The injuries suffered by Petitioners and their members are directly traceable to EPA's failure to timely respond to their Petition. The absence of a response from EPA has allowed coal mining pollution to continue to degrade Kentucky waterbodies to the detriment of Petitioners and their members. EPA's failure to respond has also denied Petitioners access to important information that would inform their organizational activities and institutional goals regarding coal mining pollution in Kentucky.

An order from this court directing EPA to respond to the Petition would redress Petitioners' injuries and those of their members. Petitioners are confident that a response from EPA would improve implementation of the Clean Water Act

in Kentucky by either initiating proceedings to withdraw the state's NPDES authority or by compelling the state to improve its program implementation. Petitioners need not prove that this will be the outcome of EPA's response, however, because the normal standards for causation and redressability are relaxed when a party has asserted violation of a procedural right. Center For Biological Diversity v. Lueckel, 417 F.3d 532, 539 (6th Cir. 2005). These relaxed standards prevent a party from having to prove that the agency will ultimately reach a decision most favorable to the party's interests, instead requiring that there be only "some possibility" that the requested relief will prompt the agency to take action favorable to the party. Massachusetts v. EPA, 549 U.S. 497, 518 (2007). Here, as explained in more detail below, the Clean Water Act affords Petitioners the procedural right to a timely response by EPA to a petition submitted under Section 402(c)(3). Because it is within EPA's power to withdraw Kentucky's delegated NPDES authority and substitute effective oversight, there is at least some possibility that Petitioners' injury will be fully redressed.

B. The Writ Should Issue Because EPA Has Unreasonably Delayed Its Response to the Petition

To establish mandamus jurisdiction, a petitioner must establish that: (1) he has a clear right to relief; (2) the respondent has a clear, non-discretionary duty to act; and (3) there is no other adequate remedy available. Nelson v. U.S., 107

Fed.Appx. 469, 471 (6th Cir. 2004) (citing Heckler v. Ringer, 466 U.S. 602, 616–17 (1984)). In cases alleging unreasonable delay under the Administrative Procedure Act, the mandamus jurisdictional factors are inextricably tied to the merits of the APA claim. Maczko v. Joyce, 814 F.2d 308, 310 (6th Cir. 1987). Petitioners will address the second two requirements before moving on to discuss the first prong.

1. EPA has a non-discretionary duty to respond in writing to a Section 402(c)(3) petition within a reasonable time

First, under the CWA and APA, EPA has a clear, non-discretionary duty to respond to a CWA section 402(c)(3) petition within a reasonable time. EPA's regulation interpreting 402(c)(3) states plainly that any interested person may submit a petition for withdrawal of a state NPDES program and that "[t]he Administrator will respond in writing to any petition to commence withdrawal proceedings." 40 C.F.R. § 123.64(b)(1) (emphasis added).[3] Thus, although the ultimate decision whether to institute withdrawal proceedings is left to the discretion of the Administrator, "the regulation clearly states that the Administrator is required to respond in writing to any petition to commence withdrawal

[3] Courts in this circuit routinely look to agency's regulations interpreting a statute to determine if such a non-discretionary duty exists. See, e.g., Labaneya v. U.S. Citizenship and Immigration Services, 965 F.Supp.2d 823, 829–30 (E.D. Mich. 2013); Hanbali v. Chertoff, No. 3:07-cv-50-H, 2007 WL 2407232, *3 (W.D. Ky. Aug. 17, 2007).

proceedings. The Administrator is given no discretion as it regards this duty." National Wildlife Federation v. Adamkus, 936 F.Supp. 435, 442 (W.D. Mich. 1996); see also Sierra Club, 377 F.Supp.2d at 1208 (N.D. Fla. 2005) ("[A]ny unreasonable delay by the EPA in [responding to a CWA section 402(c)(3) petition] is reviewable in the [court of appeals].").

The standard for when EPA must respond to a petition under 402(c)(3) derives from the APA. The APA provides that, "With due regard for the convenience and necessity of the parties or their representatives and within a reasonable time, each agency shall proceed to conclude a matter presented to it." 5 U.S.C. § 555(b). Furthermore, the statute provides that on judicial review a court shall "compel agency action unlawfully withheld or unreasonably delayed." Id. § 706(1). The APA thus mandates that any action required of an agency be taken within a "reasonable time." Blankenship v. Secretary of HEW, 587 F.2d 329, 333–34 (6th Cir. 1978); see also Pub. Citizen Health Research Grp. v. Comm'r, FDA, 740 F.2d 21, 32 (D.C. Cir.1984) (in reviewing claim regarding citizen petition for FDA to promulgate rule, stating that the "APA empowers the court to evaluate the pace of the agency decisional process and to order expedition if the pace lags unreasonably . . . [5. U.S.C. §§ 555(b) & 706(1)] give courts authority to review

ongoing agency proceedings to ensure that they resolve the questions in issue within a reasonable time") (citations omitted)).

The lack of a specific timeline in the statute and implementing regulation does not eliminate EPA's non-discretionary duty to timely respond to the Petition. See Blankenship, 587 F.2d at 333–34; In re American Rivers & Idaho Rivers United, 372 F.3d 413, 418 (D.C. Cir. 2004) ("FERC's insistence that it is not obligated to address a petition filed under one of its own regulations allowing requests for discretionary action is without merit. Under the APA a federal agency is obligated to 'conclude a matter' presented to it 'within a reasonable time.'" (internal citation omitted)); Mashpee Wampanoag Tribal Council, Inc. v. Norton, 336 F.3d 1094, 1099 (D.C. Cir. 2003) (stating that "Mashpee's claim arose under the Administrative Procedure Act, which imposes a general but nondiscretionary duty upon an administrative agency to pass upon a matter presented to it 'within a reasonable time,' 5 U.S.C. § 555(b), and authorizes a reviewing court to 'compel agency action unlawfully withheld or unreasonably delayed.' id. § 706(1)"); In re Pesticide Action Network North America, No. 14-72794, 2015 WL 3609089 (9th Cir. June 10, 2015) (issuing writ of mandamus for EPA response to petition despite lack of statutory or regulatory deadline); Kaplan v. Chertoff, 481 F.Supp.2d 370, 399 (E.D. Pa. 2007) ("Congress need not have set a definitive deadline for an

agency to act in order for a court to find a delay in agency action unreasonable."); Saleh v. Hansen, No. 1:05-cv-0521, 2006 WL 2320232, *3 (S.D. Ohio Aug. 9, 2006) ("[W]hile there is no statute or regulation setting forth a specific deadline for processing adjustment of status applications, courts have held that the USCIS is required to process applications for adjustment of status within a reasonable time.").

2. Petitioners have no adequate remedy other than mandamus

Second, Petitioners have no other adequate remedy available. Petitioners cannot seek review of EPA's determination regarding Kentucky's NPDES program because EPA refuses to make such a determination. Petitioners are left "stuck in administrative limbo; [they] enjoy[] neither a favorable ruling on [their] petition nor the opportunity to challenge an unfavorable one." In re People's Mojahedin Organization of Iran, 680 F.3d 832, 837 (D.C. Cir. 2012) (observing that the State Department's delay in resolving an organization's petition for revocation of its Foreign Terrorist Organization listing effectively insulated the decision from judicial review); see also Hanbali v. Chertoff, No. 3:07-cv-50-H, 2007 WL 2407232, *3 (W.D. Ky. Aug. 17, 2007) ("There are ample administrative and judicial remedies should Hanbali's application be denied. However, there is no alternative remedy for an unreasonable delay."). Simply waiting for EPA to take action on the Petition, with no indication from the agency as to when its response

will come, is not an adequate remedy. Anjum v. Hansen, No. 2:06-cv-00319, 2007 WL 983215, *5 (S.D. Ohio March 28, 2007) ("Delay ad nauseam does not provide an adequate alternative remedy.")

3. Petitioners have a clear right to relief because EPA's delay is unreasonable pursuant to the APA and the TRAC factors

Lastly, under the first prong, Petitioners have a clear right to relief because EPA's failure to respond to their Petition for more than five years constitutes an unreasonable delay pursuant to the APA. Although mandamus is an "extraordinary remedy reserved for extraordinary circumstances," an agency's unreasonable delay presents such a circumstance because it "signals the breakdown of regulatory processes" such that courts should not hesitate to "interfere with the normal progression of agency proceedings." In re Am. Rivers & Idaho Rivers United, 372 F.3d at 418.

When determining if an agency's delay is unreasonable under the APA, courts apply the six-factor test outlined by the Court of Appeals for the D.C. Circuit in Telecommunications Research and Action Center v. FCC, 750 F.2d 70 (D.C. Cir. 1984) ("TRAC"). See Hosseini v. Napolitano, 12 F.Supp.3d 1027, 1034–35 (E.D. Ky. 2014); Ahmed v. Holder, No. 1:13–CV–00271, 2013 WL 4544436, *5 (N.D. Ohio August 27, 2013) (citing TRAC test for unreasonable delay and finding delay of more than 120 days unreasonable). Those factors are:

> (1) the time agencies take to make decisions must be governed by a "rule of reason"[;] (2) where Congress has provided a timetable or other indication of the speed with which it expects the agency to proceed in the enabling statute, that statutory scheme may supply content for this rule of reason[;][4] (3) delays that might be reasonable in the sphere of economic regulation are less tolerable when human health and welfare are at stake[;] (4) the court should consider the effect of expediting delayed action on agency activities of a higher or competing priority[;] (5) the court should also take into account the nature and extent of the interests prejudiced by the delay[;] and (6) the court need not "find any impropriety lurking behind agency lassitude in order to hold that agency action is unreasonably delayed."

TRAC, 750 F.2d at 79 (citations omitted).

Turning to the first two factors, although the statute and regulation do not indicate the speed with which EPA must respond to a Section 402(c)(3) petition , EPA's five year delay violates the "rule of reason." As one court has stated, although "there is no per se rule as to how long is too long to wait for agency action . . . a reasonable time for agency action is typically counted in weeks or months, not years." In re Am. Rivers & Idaho Rivers United, 372 F.3d at 419; see also Midwest Gas Users Asso. v. Federal Energy Regulatory Com., 833 F.2d 341, 359 (D.C. Cir. 1987) ("This court has stated generally that a reasonable time for an agency decision could encompass 'months, occasionally a year or two, but not

[4] This factor does not ask whether Congress established a firm deadline for the challenged inaction, in which case balancing under TRAC would not be permitted. See Biodiversity Legal Found. v. Badgley, 309 F.3d 1166, 1177 n.11 (9th Cir. 2002). Rather, this factor asks whether the statutory scheme evinces a congressional intent that the agency should act more expeditiously.

several years or a decade.'" (quoting MCI Telecommunications Corp. v. Federal Communications Com., 627 F.2d 322, 340 (D.C. Cir. 1980))).

This is not a case where EPA must develop complex technical standards governing large classes of industrial discharges. All of the CWA standards have already been set; all EPA must do is judge whether the Petition demonstrates that Kentucky is failing to meet those standards. Nor does Petitioners' request involve a question of great scientific uncertainty that will require EPA to conduct extensive new research. Indeed, one of the primary claims in the Petition—that Kentucky is failing to protect aquatic life from conductivity pollution from coal mines—rests on a robust body of scientific evidence developed by EPA itself. See US EPA, A Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams (Final Report) (2011) (establishing the levels of conductivity pollution in Appalachian streams above which harm to aquatic life occurs), available at http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=233809 (last visited July 20, 2015); US EPA, Final Determination of the U.S. Environmental Protection Agency Pursuant to § 404(c) of the Clean Water Act Concerning the Spruce No. 1 Mine, Logan County, West Virginia at 58–60 (vetoing CWA § 404 permit for coal mine based in part on projected increases to conductivity), available at

http://water.epa.gov/lawsregs/guidance/cwa/dredgdis/spruce.cfm (last visited July 20, 2015); Detailed Guidance, Add. 102–05.

Not only has EPA already firmly established the scientific underpinning necessary to evaluate the Petition, the agency has already conducted a review of the NPDES permitting and enforcement practices for coal mines in the Appalachian states including Kentucky and found them severely lacking. US EPA, Review of Clean Water Act §402 Permitting for Surface Coal Mines by Appalachian States: Findings & Recommendations at 13–20, available at http://water.epa.gov/polwaste/npdes/upload/Final_Appalachian_Mining_PQR_07-13-10.pdf (last visited July 20, 2015). That review found that Kentucky has only one to two full time employees to administer permits for over 2,100 coal mines in the state, which staff shortage significantly affects the state's ability to implement its NPDES program. Id. at 30. EPA has thus already laid the groundwork for its response to the Petition. There is simply no justification for refusing to provide any substantive response to the serious concerns raised for more than five years. The rule of reason dictates that EPA's response has been unreasonably delayed.

The third and fifth factors, involving the consequences of delay for human health and welfare and the nature of the interests prejudiced by the delay, are critical. Cutler v. Hayes, 818 F.2d 879, 898 (D.C. Cir.1987). "When the public

health may be at stake, the agency must move expeditiously to consider and resolve the issues before it." Pub. Citizen Health Research Grp., 740 F.2d at 34. The consideration of human health and welfare includes environmental concerns. See, e.g., In re Bluewater Network, 234 F.3d 1305, 1316 (D.C. Cir. 2000) (finding delay in rulemaking unreasonable based on environmental concerns). Here, the consequences of EPA's inaction for the environment are great. As a result of Kentucky's failure to properly administer its NPDES program for coal mines, more than nine out of ten streams downstream from surface coal mines violate CWA standards. Supra at 12–13. As discussed above, those impacts are "linked to contamination of surface water supplies and resulting health concerns as well as widespread impacts to stream life in downstream rivers and streams." Detailed Guidance, Add. 95.

Under the fourth factor, Petitioners cannot speculate as to what, if any, competing priorities have prevented EPA from substantively responding to their Petition because EPA has not yet provided any justification for its delay.[5] Given the minimal amount of additional work required of the agency, providing a meaningful response should not unduly interfere with any of the agency's

[5] Petitioners do not attribute EPA's delay to any improper motive, but under the final TRAC factor, no such motive is required to find unreasonable delay. See Blankenship, 587 F.2d. at 334 (finding unreasonable delay despite limited agency resources and lack of dilatory motive)

competing priorities. Justifications for delay "must always be balanced against the potential for harm," Cutler, 818 F.2d at 898, and an agency's "asserted justifications for the delay become less persuasive the longer the delay continues." In re International Chemical Workers Union, 958 F.2d 1144, 1150 (D.C. Cir. 1992). See also Blankenship, 587 F.2d. at 334 ("[T]he courts must impose some time limits despite the admitted administrative burdens faced by the agency."). "There is a point when the court must 'let the agency know, in no uncertain terms, that enough is enough.'" In re International Chemical Workers Union, 958 F.2d at 1150 (quoting Public Citizen Health Research Group v. Brock, 823 F.2d 626 (D.C. Cir. 1987)). After more than five years with no response to the Petition and ongoing widespread degradation of Kentucky's waters, that time has come.

V. CONCLUSION

If this Court determines it has jurisdiction over Petitioners' claims, Sierra Club and KFTC respectfully request that the Court issue a writ of mandamus compelling EPA to issue its long-overdue response to the Petition. Petitioners request that this Court order EPA to issue a substantive response within ninety days of this Court's decision. In addition, Sierra Club and KFTC request that the Court awards fees and costs to Petitioners under CWA section 509(b)(3), 33

U.S.C. § 1369(b)(3), in an amount to be determined following subsequent motion practice and briefing.

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Exhibit 1

March 15, 2010 Petition

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March 15, 2010

The Honorable Lisa Jackson
Administrator
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Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator Jackson:

Enclosed is a Petition for withdrawal of the National Pollutant Discharge Elimination System program delegation from the State of Kentucky on behalf of the Appalachian Center for the Economy and the Environment, Sierra Club, Public Justice and Kentuckians for the Commonwealth. These groups petition EPA to evaluate the systematic failure of Kentucky to administer and enforce the National Pollutant Discharge Elimination System program and to withdraw the delegation of the program from the Kentucky Energy and Environment Cabinet.

Respectfully submitted,

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PETITION FOR WITHDRAWAL OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM DELEGATION FROM THE STATE OF KENTUCKY

Appalachian Center for the Economy and the Environment, Sierra Club, Public Justice and Kentuckians for the Commonwealth through their undersigned lawyers, 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 Kentucky'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 Kentucky that it is not administering the permit program for discharges into the waters of Kentucky 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 Kentucky 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 Kentucky NPDES delegation and assume administration and enforcement of the program. Id.

Introduction

We recognize we are asking EPA to take drastic action. Given the nearly complete breakdown of Kentucky's implementation and enforcement of its NPDES program, however, withdrawal of the State's NPDES program is the only remedy that will bring Kentucky into compliance with the Clean Water Act (CWA). In particular, the State's capitulation to the coal industry and its complete failure to prevent widespread contamination of state waters by pollution from coal mining operations leaves EPA no choice but to withdraw its approval of that program.

That breakdown is shown by the remarkable number of impaired stream miles in the state. "The Kentucky Division of Water's (KYDOW) own 2008 list of impaired waters provided to EPA under Section 303(d) of the CWA identified 1,199 stream miles in the Upper Kentucky River watershed, 487 stream miles in the Upper Cumberland River watershed, and 780 stream miles in the Big Sandy/Little Sandy/Tygarts Creek watershed as impaired with coal mining as a suspected source." (11 at 2)[1] We will show, however, that the nearly 2,500 listed miles of impaired streams in the coalfields of eastern Kentucky seriously underestimates the scope of actual stream impairment. Many more streams have been and are being impaired as a result of KYDOW's failure to promulgate protective water quality standards, assure adequate assessment of state waters, comply with EPA guidelines on total maximum daily load development, and issue protective NPDES permits. Recent Scientific studies (including the WET testing data attached to this Petition) make it clear the KYDOW's lack of stewardship has jeopardized the future of Kentucky's waters. EPA must step in now -- before even more irreversible damage is done to the State's waters.

Further, KYDOW does not have sufficient manpower or resources to adequately develop and review mining NPDES permits. In Kentucky just four NPDES permit writers manage 2,353

[1] References will be listed by number in a separate document and will include either the website look up or included on the CD accompanying this document.

mining NPDES permits (588 each).[2] In contrast, in West Virginia, fifteen mining NPDES permit writers manage 1,266 mining permits (84 each).[3] Even West Virginia's staffing is woefully inadequate. NPDES permit writers in Kentucky therefore have to manage seven times as many permits as those managed by permit writers in neighboring West Virginia. This lack of capacity may help to explain why Kentucky's permitting program is so weak and has failed to prevent significant stream impairment.

Executive Summary

1. **Toxicity Testing.** Whole Effluent Toxicity (WET) tests are used to determine the cumulative and synergistic effects of toxic pollution on stream health. Eight recent EPA WET tests in the Kentucky coal fields showed that in all of the tests, streams downstream from surface coal mining sites had chronic toxicity that greatly exceeded the state standard of 1 toxicity unit. Results ranged from 3.9 to as high as 55.2 toxicity units. One of the most toxic streams was downstream from the Guy Cove Research Project site, showing that the claimed mitigation success at that site is a charade. (50) This study shows that coal mining NPDES permits should not be issued without WET limits, yet no such permits have those limits.

2. **Selenium.** Despite overwhelming and incontrovertible evidence of mining's harm to Kentucky's rivers and streams from selenium pollution, KYDOW has not issued a single coal NPDES permit with selenium limits. In fact, the agency has, for all intents and purposes, exempted the coal industry from the *chronic* selenium aquatic life criterion. (9 Fact sheet at 6) Further, even when a mining operation admitted to having a reasonable potential to cause a violation of the *acute* selenium criterion, the agency provided loopholes so that the company, ICG Hazard, was able to avoid restrictions on its selenium discharges. (40, 41, 42, 43) Further, KYDOW has completely failed to take measures such as requiring selenium analysis of geological core samples at mining sites in order to attempt to prevent selenium pollution.

No NPDES permits for surface mines should be issued until adequate core sampling has been conducted, selenium limits are placed on permits with reasonable potential and the operator has demonstrated <u>before</u> permit issuance that it has the ability and commitment to treat its effluent to comply with its permit limits in perpetuity.[4] KYDOW fails on all three tasks.

3. **Water Quality Standards.** Kentucky's water quality standards program is failing to protect stream uses in three important respects. First, KYDOW has failed to implement and enforce its narrative criteria for conductivity, despite overwhelming scientific evidence that this pollutant is causing widespread biological impairment in streams. Second, KYDOW's chronic numeric criterion for iron has been rendered meaningless by KYDOW's requirement that the criterion does not apply until demonstrated harm to streams from iron has already occurred. Third,

[2] Data through Kentucky Open Records Law request March 2010.
[3] From FOIA request to WVDEP March 2009.
[4] In fact, to prevent creating discharges with the reasonable potential to cause or contribute to water quality standards violations, no NPDES permits should be issued for operations that will create a perpetual discharge. Economic realities make it certain that most mining operators will not exist nearly as long as the pollution that they create. Even if the operators have the ability to treat the discharges in the short term, it would be extremely difficult to show the ability to treat in perpetuity.

KYDOW has failed to promulgate numeric water quality criteria for aluminum even though it is known to be causing serious harm to aquatic life uses.

4. **General Permits.** Most coal mines in Kentucky are covered under a blanket general permit for their water pollution discharges, rather than site-specific individual permits. KYDOW's general permit procedures are inadequate to detect and prevent violations of water quality standards. For mines with existing permits, KYDOW only requires mine operators to take a single grab sample of their discharges once in five years. For new mines, one sample prior to permitting is all that is required. This testing is usually insufficient to demonstrate that there is no reasonable potential for violations. And even when tests do show that there is reasonable potential, KYDOW misapplies EPA guidance on that issue and ignores that potential. In every case, KYDOW wrongly concludes that no further monitoring is required and no permit limits are necessary. In fact, existing scientific studies, stream monitoring data, and mine permit applications demonstrate that coal mines in Kentucky have a reasonable potential of exceeding numerical and narrative water quality standards for several pollutants, including selenium, iron, aluminum, conductivity and toxicity. These mines should have numerical limits for these pollutants in their permits. Kentucky's general permit also shortchanges public participation requirements, because discharge samples for many pollutants are not required until after the comment period closes, and the comment period for antidegradation review is only fifteen days, rather than the required thirty days.

5. **Individual Permits**. KYDOW's procedures for issuing individual permits also violate the CWA. First, the agency for fifteen priority pollutants only analyzes discharges for compliance with acute water quality criteria, not chronic criteria. KYDOW assumes that the acute criterion is the most limiting one, and bases that assumption on its theory that discharges from mines depend entirely on precipitation. This theory seems to presume that mining discharges are too short and intermittent to compare to chronic criteria, which are based on four-consecutive-day averages. However, even if that theory were correct, EPA guidance requires application of both the acute and chronic criteria in such situations. In fact, KYDOW's theory is incorrect, because mining discharges are not entirely rainfall-dependent and can extend over longer periods when application of the chronic criterion is appropriate. Existing data shows that violations of chronic criteria for some pollutants are already occurring. Second, KYDOW's oversight of individual permit applications is inadequate because permittees use improperly high detection limits and fail to test for aluminum and conductivity.

6. **Impaired Streams**. KYDOW has only evaluated and assigned TMDLs for 51 impaired streams, while 2,000 other impaired streams have no TMDLs. KYDOW cannot meet EPA guidelines for establishing TMDLs for these unaddressed sites within 8-13 years because it has insufficient resources to do so. In addition, KYDOW's data requirements for stream listing automatically exclude many streams because KYDOW does not even assemble enough data to meet those requirements.

7. **Bond Forfeiture and AML Mine Sites.** KYDOW is violating the CWA by failing to require NPDES permits for discharges of acid mine drainage from bond forfeiture sites. For AML sites, KYDOW improperly uses a general permit that fails to set enforceable limits to prevent

violations of water quality standards and instead relies on unenforceable “best management practices.”

The net consequence of these regulatory failures is that toxic discharges from Kentucky coal mines are virtually unregulated and this is likely to be causing widespread stream impairment. The failure to enforce its NPDES program has already devastated Kentucky's waters. Mine discharges are not like conventional industrial discharges that can simply be "turned off" by closing a valve. Because of the perpetual nature of mining discharges, heightened care must be taken in approving permits. Once high selenium or high conductivity discharges are created, they cannot be stopped. The perpetual nature of surface mining discharges makes it essential that EPA steps in to stop the KYDOW from allowing mining operators from creating these problems before they begin. After the problems begin, remedies will likely not be available.

Whole Effluent Toxicity (WET) Testing

Recent studies show the severity of toxic water pollution in the coalfields. Between December 2007 and August 2009, the United States Environmental Protection Agency (EPA) collected water quality samples for chronic WET testing at selected sites in the coalfields of Kentucky and West Virginia. Site selection criteria included: 1) at or downstream from coal mining operations, 2) no intervening pollution sources identified by EPA, and 3) instream conductivity levels greater than 1000 µS/cm. (50 at 2) Eight of the sites tested were located in Kentucky. (50 at 3)

Remarkably all eight of the chronic WET tests collected from Kentucky coalfield streams exceeded the state standard of 1 allowable chronic toxic unit (TU_c). (50 at 4) In fact, two sites exceeded 50 TU_c , 50 times that allowed by the Kentucky water quality standards. Three sites were between 20 – 30 TU_c , and the remaining sites were between 3.9 and 13.2 TU_c. (50 at 3) Generally, a correlation between high conductivity and high TUc’s was seen in this study. (50 at 4)

The data were derived from EPA standard toxicity testing methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms (EPA-821-R-02-013). Since water samples may contain a mixture of many toxic compounds, these methods are designed to demonstrate the total toxicity of the water rather than the toxicity of a single compound contained in the water column. These standard WET methods are used to identify effluents and ambient receiving waters containing toxic materials that are present in concentrations that result in chronic toxicity. (50 at 2) Chronic WET tests measure the impact on survival and reproduction of a test organism over a seven day time period. (50 at 4)

The EPA technical support document (USEPA, 1991) recommends as a chronic criterion that for most water bodies waters should not exceed a chronic toxic unit (TU_c) of 1.0. Accordingly in Kentucky, the allowable instream concentration of toxic substances, or whole effluents containing toxic substances is also not permitted to exceed a TU_c of 1.0. (50 at 4); 401 KAR 10:031 Sec. 3 (j).

Federal regulations require permitting authorities to include WET testing limits in NPDES permits.

> (ii) When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water. 40 CFR 122.44(d)(1)(ii)

And,

> (iv) When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for whole effluent toxicity, the permit must contain effluent limits for whole effluent toxicity. 40 CFR 122.44(d)(1)(iv).

Further EPA's Technical Support Document for Water Quality-Based Toxics Control[5] recommends, "that States fully integrate chemical-specific, whole effluent, and bioassessment approaches into their water quality-based toxic control programs. It is EPA's position that the concept of "independent application" be applied to water quality-based situations. Since each method has unique as well as overlapping attributes, sensitivities, and program applications, no single approach for detecting impacts should be considered uniformly superior to any other approach."

Additionally, EPA outlines the importance of WET limits where there is low or zero flow during critical conditions (coal mining operations are assumed by KYDOW to have a 7Q10 of zero (9 Fact sheet at 6)).

> Of particular concern is establishing permit limits for WET for discharges where the effluent flow comprises a high percentage of the available stream flow during critical conditions or otherwise lacks assimilative capacity. In such waters, effluent toxicity may be a source of measurable ambient toxicity (i.e., cause) excursions of numeric or narrative water quality criteria. In this guidance, EPA revises national guidance for establishing appropriate effluent limitations for WET for receiving waters with no assimilative capacity or where dilution is not available. For such situations, the limit derivation procedures described in Chapter 5 of this guidance would result in a maximum daily limit of 1.6 TU_c and an AML of 1.0 TU_c**.** The 1.0 TU_c AML should be expressed as a monthly median limit instead of an average monthly limit. (39 at 5)

One of the most toxic WET (TU_C = 55.2, August 2009) testing sites in the EPA dataset is located in Long Fork of Buckhorn Creek in the University of Kentucky's Robinson Forest. (50 at 3, maps) A neighboring tributary also is severely toxic and suggests geological characteristics in this region that contribute to the toxic conditions. Id. Frasure Creek Mining (SMCRA permit 813-0328, general NPDES permit KYG045943), one of the seventy-nine pending mining 404

[5] See USEPA Office of Water. Technical Support Document for Water Quality-Based Toxics Control. March 1991. P. 22.

permits currently under review by EPA under the Surface Coal Mining Memorandum Of Understanding Enhanced Coordination Procedures, is located upstream of the test site. (49) Frasure Creek's proposed operation includes six valley fills and 14,005 feet of stream impacts. (38 at 1) Since the discharges from this operation are authorized under the Kentucky coal general permit (see below for a detailed discussion of that permit), there are no restrictions for many pollutants that will significantly contribute to the toxic condition of Long Fork nor are there limits for whole effluent toxicity. Because other mining operations in the same watershed have led to a violation of the state WET criterion, it is reasonable to expect the proposed discharges from the Frasure Creek mine will contribute to a violation of Kentucky's WET criterion. 401 KAR 10:031 Sec. 3 (j). Mining should not be allowed to proceed at that site unless, among other things: 1) the general NPDES permit authorization of the proposed discharges is revoked; 2) Frasure Creek applies for an individual permit that includes immediately effective water quality based WET limits; and 3) the NPDES permit is not issued until Frasure Creek has demonstrated that it has the ability and commitment to construct and operate a treatment facility that assures compliance with WET limits.

The neighboring toxic site is located in Laurel Fork of Buckhorn Creek (TU_C = 54.1, August 2009) and is also in Robinson Forest. (50 at 3, maps) This site is just downstream from the Guy Cove Research Project where University of Kentucky researchers are attempting to create a headwater stream to demonstrate viable mitigation to offset mining impacts to streams. (50 at maps) Despite a recent newspaper story that this mitigation has been successful, the WET score at this site is one of the highest in the EPA study and shows that serious cumulative downstream water quality impacts still remain. Researchers at Guy Cove constructed experimental, partially sealed channels that could carry water down the face of a valley fill but did not prevent the water quality problems downstream of the base of the fill. Other mining operations are also upstream of the test site.[6]

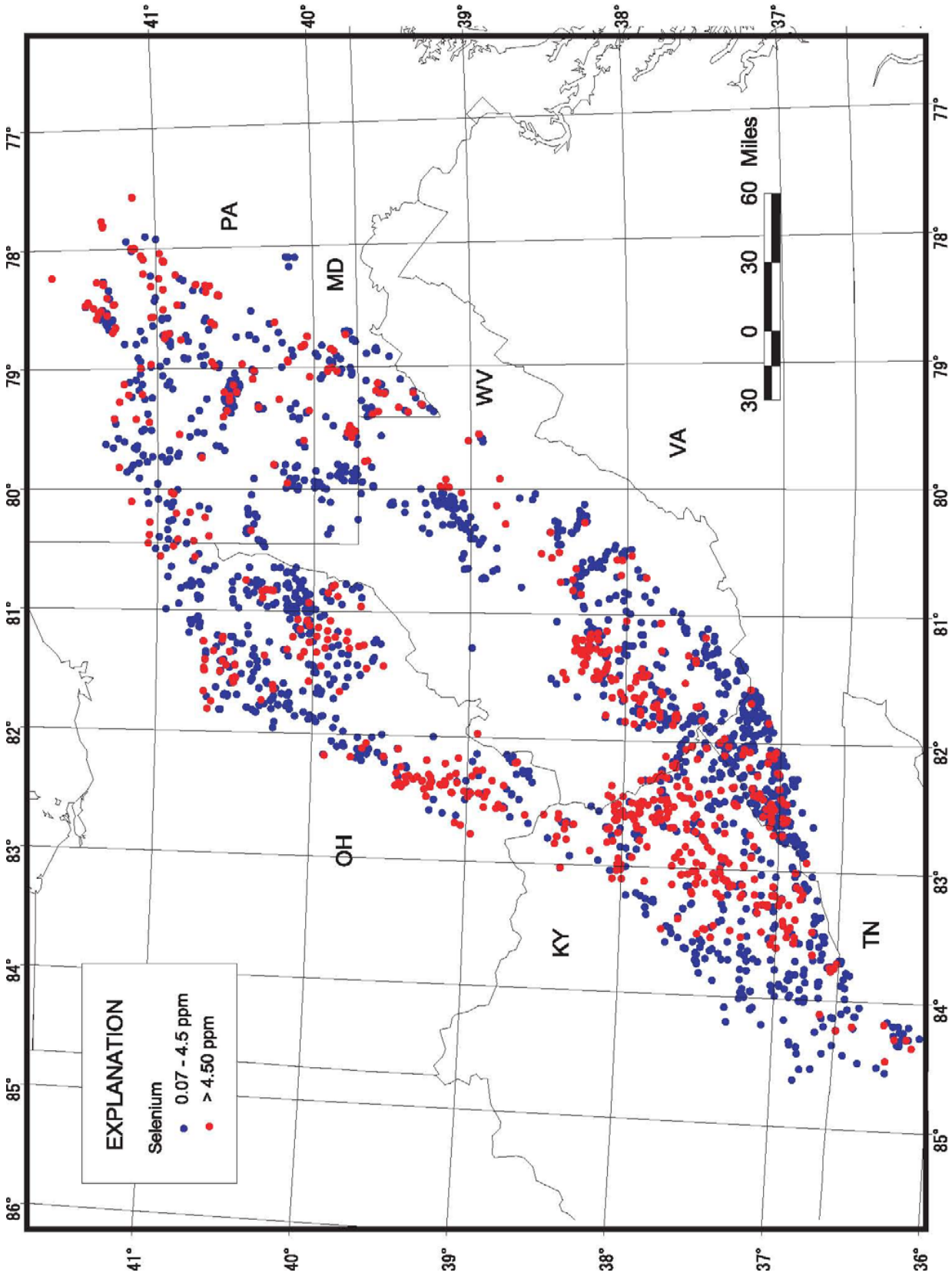
Selenium

As in West Virginia, coal seams in Kentucky are known to be high in selenium. The Mountaintop Mining/Valley Fills in Appalachia Programmatic Environmental Impact Statement (PEIS) found, "in the region [of] MTM/VF mining, the coals can contain an average of 4 ppm of selenium, normal soils can average 0.2 ppm, and the allowable limits in the streams are 5 ug/L (0.005 ppm). Disturbing coal and soils during MTM/VF mining could be expected to result in violations of the stream limit for selenium." (1 at 74)

A 2005 study by the U.S. Geological Survey of core samples taken from coal mines in central Appalachian states found that "[c]oal beds in the middle Middle Pennsylvanian series, from the Cedar Grove coal bed in West Virginia and the correlative Whitesburg coal bed in eastern Kentucky up through the Clarion coal bed in Pennsylvania and Ohio generally have an average selenium concentration greater than 3.9 ppm." (31 at 5) A map of the sampling sites from the USGS study is shown on the following page. Id., Figure 1. The red dots show samples that exceed 4.5 ppm. An analysis of the table supporting this map reveals that, of the 700 samples from eastern Kentucky, 270 exceeded 4.5 ppm, 331 exceeded the 4 ppm average cited in

[6] See KYSMIS at http://www.minepermits.ky.gov/sminformationsystem/access.htm

the PEIS as likely to cause violations of the stream limit for selenium, and 30 fell in the range of 9 to 18 ppm. Data from coal seams in Kentucky could thus be easily used to predict water quality standard exceedances in Kentucky.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KYDOW's own recent study of small headwater streams in eastern Kentucky[7] shows bioaccumulation of selenium in fish above EPA's draft body burden threshold of 7.9 ug/g and exceedences of Kentucky's chronic selenium water quality standard of 5 ug/l at mining sites. The study looked at headwater tributaries at 13 sites, including six active mining sites, two reclaimed mine sites, and one abandoned mine site. At one active mining site, water downstream from the disturbance exceeded state water quality standards for selenium. Additional water quality data showed elevated levels of selenium on mining sites. Notably, researchers also found fish tissue exceeding EPA's draft recommended fish tissue criterion downstream from three of nine mining sites. Downstream from five other mining sites, researchers found fish with selenium levels of 4-8 ppm which scientists have found can cause adverse effects in sensitive species.

Despite all of the above evidence, there is not a single coal mining NPDES permit with selenium limits in the state of Kentucky. As shown below in the permitting section of the petition, many mining NPDES holders have submitted data to KYDOW that demonstrate a reasonable potential for their pollution discharges to cause or contribute to a selenium water quality standard violation. Despite that data, however, KYDOW has still failed to place selenium limits in a mining permit.

Kentucky's Water Quality Standards Fail to Protect Stream Uses

Each state must develop water quality criteria that protect designated stream uses. 40 C.F.R. § 131.11(a)(1). These criteria form part of the water quality standards for the State. 33 U.S.C. § 1313(c)(2). Criteria and standards form the foundation of each state's National Pollution Discharge Elimination System (NPDES) Program. Under that program, each NPDES permit must include discharge limitations that will "control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause or have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." 40 C.F.R. § 122.44(d)(1)(i). Thus, the water quality criteria and standards are the mandatory floor of federal protection of water quality, and NPDES permit limits must be written so as to prohibit discharges which have "reasonable potential" of going below that floor.

Kentucky's water quality standards program related to coal mining pollutants violates these principles in several important respects. First, KYDOW has failed to implement and enforce its narrative criteria for total dissolved solids, despite overwhelming scientific evidence that this pollutant is causing widespread biological impairment in streams. Second, KYDOW's chronic numeric criterion for iron has been rendered meaningless by KYDOW's requirement that the criterion does not apply until demonstrated harm to streams from iron has already occurred. Third, KYDOW has failed to promulgate numeric water quality criteria for aluminum even though it is known to be causing serious harm to aquatic life uses.

1. Kentucky Has Failed to Promulgate a Numeric Criterion or Enforce the Narrative Criterion for Conductivity

[7] Data from the study received through Kentucky Open Records Law August 2009.

Kentucky has included an improper harm prerequisite in its narrative criterion for conductivity/total dissolved solids (TDS). That criterion states that "[t]otal dissolved solids or specific conductance shall not be changed to the extent that the indigenous aquatic community is adversely affected." 401 K.A.R. 10:031, Sec. 4(f). Kentucky continues to authorize operations that will violate those narrative criteria. EPA must assure that no permits are authorized in Kentucky that may lead to a violation of the narrative criteria.

Remarkably, despite the fact that mine-impacted streams are sometimes listed on the Kentucky 303(d) list as biologically threatened or impaired by TDS, (22 at 77), NPDES permits for mining operations never have TDS limits. This is in part because there are no numeric water quality criteria for TDS. In absence of numeric criteria, the agency still has a duty to enforce its narrative criterion.

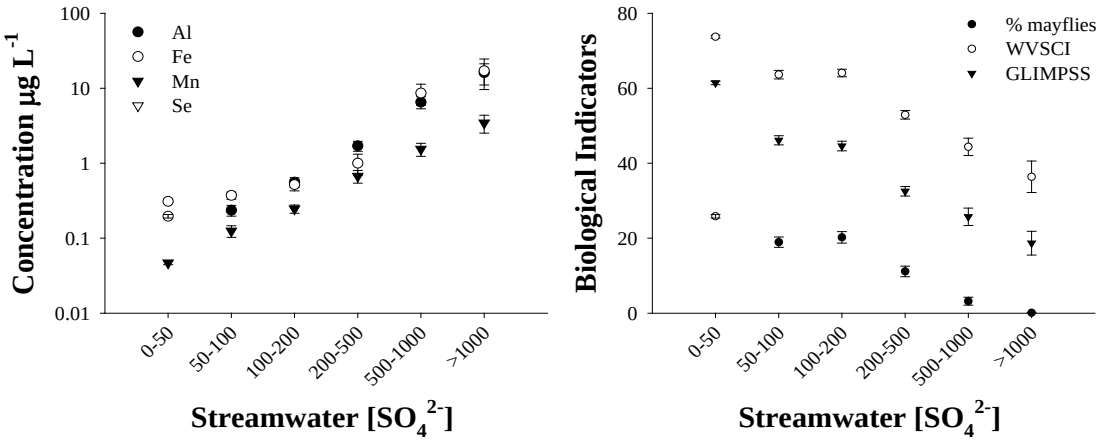
There is overwhelming evidence in an EPA peer-reviewed study that mining operations are strongly associated with biological impairment due to high TDS. (10 at 724) The study states that "[o]ur results indicate that MTM is strongly related to downstream biological impairment, whether raw taxonomic data, individual metrics that represent important components of the macroinvertebrate assemblage, or MMIs [multi-metric indices] are considered." Id. Further, the study states that all sites with conductivities greater than 500 uS/cm were impaired. (10 at 725) The Mountaintop Mining/Valley Fills in Appalachia PEIS found that the median conductivity at filled sites exceeded that threshold and measured 585 uS/cm (1 at 25). Further, the Kentucky program allowing payment of fees in lieu of mitigation excludes streams for mitigation where conductivity exceed 400 uS/cm because the high level "threatens biological recovery". (37 at 2)

Other experts reviewing water quality data have drawn the same conclusions. (2 at 3) Mining operations lead to increased concentrations of solutes weathered from exposed rock in stream water including sulfates, bicarbonate, magnesium, and calcium and an increased likelihood of elevated concentrations of trace elements and toxic metals. (2 at 13) In fact, the relationship between mining activities and high sulfate concentrations is so well established that the 2008 WVDEP West Virginia Integrated Water Quality Monitoring and Assessment Report suggested that sulfate concentrations >50 mg/l could be used as an indicator of mining activity:

> While an increase in sulfate loading is the most predictable consequence of mountain top mining in the Appalachians, many other substances are released to surface waters as a result of mining activity. In these valleys, the presence of significant carbonate and base cations in parent material neutralizes the acidity of sulfate leaching, but leads to dramatic increases in Ca2+, Mg2+ and HCO3 ions. This natural acid buffering potential leads to an increase in the pH of receiving streams (rather than the more well understood acidification associated with acid mine drainage). The release of these ions contributes to dramatic increases in the electrical conductivity and total suspended solids within the water column of receiving streams.

Id. "For many streams it is the cumulative or additive impact of elevated concentrations of multiple stressors that leads to biological impairment – and this is undoubtedly a part of the reason that conductivity (a cumulative measure of ionic strength) is such an effective predictor of biological impairment." (2 at 16)

A graph using West Virginia Department of Environmental Protection water data downstream from mining operations and corresponding West Virginia Stream Condition Index scores shows the strong correlations between sulfates and associated ions and biological health. In West Virginia a WVSCI score below 60 indicates biological impairment. Id.



Despite the fact that these pollutants both *individually and cumulatively* are likely to harm aquatic life downstream from mining discharges, Kentucky has failed to deny permits that will cause violations of the narrative criteria or to promulgate protective numeric criteria for TDS.

2. Kentucky Has Failed to Promulgate Criteria for Aluminum

Despite the federal requirement that states promulgate criteria to protect stream uses, (See 40 C.F.R. § 131.11(a)(1)) Kentucky has no criteria at all for aluminum despite its association with coal mining[8]and known harm. Aluminum can suffocate and kill fish by precipitating on their gills and can have deleterious metabolic effects by interfering with electrolyte balance.[9] EPA has promulgated § 304(a) guidance for aluminum. (4) Neighboring West Virginia has established criteria for aluminum and frequently includes water quality based effluent limits (WQBELs) for it in coal mining NPDES permits. Most importantly as shown below, discharges of aluminum from mining operations in Kentucky exceed levels determined to be harmful by EPA. Thus, Kentucky has no valid basis for excluding this pollutant from regulation.

3. Kentucky Has Promulgated a Meaningless Iron Criterion

In the case of the chronic iron criterion, the state has shielded the coal industry from stringent WQBELs for iron by requiring a demonstration of an adverse effect on aquatic life before the State's 1 mg/l criterion applies to a stream. 401 KAR 10:031, Sec. 6. (Note: the 1 mg/l iron limit is the same as EPA's § 304(a) guidance value for this pollutant). (4) The State has it backwards. Criteria must be designed to "protect stream uses" from harm, not provide a cleanup plan for a

[8] Aluminum is a parameter of concern at mining operations and is often elevated. (2 at 3)

[9] Sparling, Donald W. Lowe, T. Peter. 1996. Environmental Hazards of Aluminum to Plants, Invertebrates, Fish and Wildlife. Reviews of Environmental Contamination and Toxicology. Vol. 145. p. 112.

stream already in trouble. 40 C.F.R. § 131.11(a)(1). In Kentucky, in the absence of a demonstration of adverse affects on aquatic life, 3.5 mg/l becomes the chronic iron criterion. That limit is even higher than the average new source performance standard of 3.0 mg/l in the coal mining acid mine drainage effluent guidelines. See 40 C.F.R. § 434.35. Thus, the default chronic iron limit in Kentucky is meaningless and provides no additional protection.

Kentucky's harm prerequisite for iron is especially egregious because the State admittedly lacks the resources or procedures to measure when harm is occurring. In its 2008 305(b) Report to Congress, the State stated that it needed substantial personnel and resources to establish a new biological monitoring program to assess the effectiveness of industrial and other point source monitoring. (5 at 16) In addition to having a shortage of government resources, Kentucky fails to mobilize private resources because it does not include biological monitoring requirements in coal NPDES permit applications. For the prior and newly reissued coal general permit, no biological assessments are required for either new facilities seeking coverage for the first time in a Notice of Intent or existing facilities seeking to renew coverage. (6) Similarly, no biological monitoring is required for coal mining operations applying for individual NPDES permits. (8) In fact, only one macroinvertebrate sample is required for either permit and that could be taken at anytime during the permit cycle. (7, 9) Kentucky has therefore created a Catch-22 situation where iron is controlled only when harm occurs, but iron will never be controlled because Kentucky cannot tell when harm occurs.

NPDES Permits for Coal Mining Operations Fail to Comply with the CWA

Many coal mining NPDES discharges are covered under the Kentucky Coal General permit, however, the state also issues individual NPDES permits for certain types of facilities. (7 Fact sheet at 1-2) Note that many of the defects outlined below for the coal general permit are also true for individual permits.

Coal General Permit

Regulations require that dischargers covered under a general permit "[d]ischarge the same types of waste," "require the same effluent limitations" and are "subject to the same water quality based effluent limitations." 40 C.F.R. § 128.28(a) (2) and (3); 401 KAR 5:055, sec. 5(b)2. In addition, "[l]imitations must control all pollutants…which will cause or contribute to a violation of a water quality standard." 40 C.F.R. § 122.4(i); 401 KAR 5:055, sec. 2(7). Since the general permit does not contain any limits for selenium, TDS, aluminum or iron (based on the 1 mg/l chronic criterion), some discharges covered under the general permit will impermissibly cause or contribute to a water quality standard violation. These discharges are fundamentally different from others authorized under the permit and must be identified *prior* to authorization. This is the fatal flaw of the permit. If KYDOW persists in using a general permit to authorize most discharges from mining operations, the general permit must contain the most stringent water quality based effluent limits for coal related pollutants applicable to any discharger potentially covered by the permit in order to avoid permitting discharges that lead to water quality standard violations. Alternatively, KYDOW could issue only individual permits for these discharges. KYDOW, however, persists in ignoring certain pollutants and has impermissibly issued a permit that fails to comply with the most basic tenets of the CWA.

Further, as stated above, no permit can be issued to a new discharger if the discharge would "cause or contribute to a violation of a water quality standard." 40 C.F.R. § 122.4(i); 401 KAR 5:055, sec. 2(7). EPA has interpreted this regulation as applying to general NPDES permits. 65 Fed. Reg. 64792 ("this regulation is applicable to all new dischargers irrespective of the type of permit they are seeking coverage under; there is no language in this regulation that exempts new dischargers seeking coverage under a general permit.") The general permit violates these regulations in two respects.

First, the general permit does not exclude its applicability to new discharges that may cause violations of water quality standards. The Fact Sheet states that the general permit cannot be issued if the receiving water is listed as impaired in Kentucky's 305(b) report or its 303(d) list, which show which waters are violating water quality standards. (7 at 2) If Kentucky's assessment program were robust,[10] that exception would prevent the issuance of general permits to dischargers who would otherwise "contribute" additional pollution to a stream that is in violation of a water quality standard. However, this is insufficient. The permit must also prevent the issuance of general permits to discharges that would cause new violations of water quality standards by discharging to streams that are currently assumed to be in compliance with water quality standards.

Second, KYDOW does not require itself or an applicant to determine or certify in its Notice of Intent that its discharge will not cause a violation of water quality standards. In contrast, for its general permits, EPA requires applicants to determine compliance. 65 Fed. Reg. 64793 ("The applicant must avail himself of all discharge characterization data or estimation of discharge character and determine compliance."). Indeed, KYDOW will not know at the time of permit authorization whether or not a new applicant will cause a violation. KYDOW does not require an applicant to sample or estimate the full characteristics of its discharges prior to receiving permit authorization. Instead, "[i]f there are no existing discharges on the proposed activity then permittee may use data from an adjacent existing activity which is substantially identical. If there are no existing discharges or substantially identical adjacent activities then the permittee has two years following issuance of general permit coverage to submit the data." (6 at 7)

General Permit – the Details

1. The Coal General Permit Does Not Contain Limits on Conductivity/Total Dissolved Solids

The permit fails to establish effluent limits for conductivity/TDS when some operations covered by the general permit will discharge amounts that will have a reasonable potential to cause biological impairment. (7 at 7) Conductivity has a monitor-only requirement. In its response to public comments, KYDOW stated that at the urging of EPA it is seeking additional information on conductivity discharges because it is "an indicator parameter that provides information relative to any adverse physiological or behavioral responses in humans, animals, fish, and other aquatic life." (7 Res to comments at 2) In fact, that information already exists. It is well

[10] See below for an assessment of the state's 303(d) listing procedures.

established by EPA researchers that "based on bioassessment data and specific conductance levels, 93% of the mined streams and none of the unmined streams were impaired, and that there was a strong causal link between mountaintop mining and impairment. (10 at 731) And further, "[a]ll mined sites with specific conductance >500 µS/cm were rated as impaired." (10 at 725) Effluent data submitted by a number of mining companies seeking coal general NPDES permit coverage show conductivity levels greatly exceeding the EPA conductivity level where all sites were impaired.[11]

In addition, EPA recently wrote a letter to the Army Corps of Engineers in reference to Kentucky general NPDES permit holder, Apex Energy. (11)

> EPA does not believe that a sufficient reasonable potential analysis has been conducted in accordance with Section 301(b)(1)(C) of the Clean Water Act and 40 C.F.R. 122.4(a, d, and i). Absent an analysis demonstrating that discharges from the proposed mining operations will not have a reasonable potential to cause or contribute to a water quality standards violation, EPA believes that sufficient evidence exists to conclude that it is reasonable to assume that significant water quality degradation will occur.
>
> A growing body of evidence demonstrates that certain pollutants associated with coal mine discharges are causing or contributing to violations of narrative water quality standards. Recent studies have shown that there is a direct correlation between stream impairment and discharge of total dissolved solids (TDS)/specific conductivity (SC) due to coal mining and coal processing.
>
> And further:
>
> In addition to these studies, the Kentucky Division of Water's own 2008 list of impaired waters provided to EPA under Section 303(d) of the CWA identified 1,199 stream miles in the Upper Kentucky River watershed, 487 stream miles in the Upper Cumberland River watershed, and 780 stream miles in the Big Sandy/Little Sandy/Tygarts Creek watershed as impaired with coal mining as a suspected source. The "2008 Integrated Report to Congress on Water Quality in Kentucky" (305(b) Report), Table 3.31-4, ranks TDS as the seventh leading cause of pollution to Kentucky rivers and streams and ranks SC (specific conductance) as seventeenth. (parenthesis note added)

Based on this strong causal relationship, KYDOW should have placed effluents limits for conductivity in the general permit.

In addition, high conductivities pose emerging threats to aquatic life in the coal fields of Kentucky because of the potential spread of golden algae from neighboring West Virginia. During September of 2009, Dunkard Creek in Monongalia County, West Virginia experienced a biological disaster. Over 130 species of aquatic organisms, including fish, mussels and amphibians died in massive numbers in a 38-mile stretch of stream. (12) The WVDEP identified the cause of the kill as a toxic golden algal bloom. The algae thrives only in waters with high salinity, i.e. high total dissolved solids (TDS). In the case of Dunkard Creek, the primary cause

[11] From data received from KYDOW through a January 26, 201 FOIA request.

of the algal bloom and resulting fish kill was unabated high levels of TDS and chlorides discharged by coal mining operations in Dunkard Creek. (13)

Golden algae are not dispersal limited and can readily be spread by birds, wind or human activities, in some cases for long distances over 100 miles. (14 at 155) Since conditions are conducive to additional toxic events downstream from many mining sites, state and federal agencies must address the increasing possibility of toxic algal blooms as they evaluate the impacts of additional sources of high conductivity discharges from mountaintop mining operations throughout the region.

2. The Coal General Permit Does Not Contain Limits on Selenium

The agency has impermissibly authorized under the coal general permit, discharges with a reasonable potential to cause or contribute to selenium water quality standard violations. Recent notices of intent submitted by mining operations requesting coverage under the July 1, 2009 general permit show a number of discharges with high selenium levels, compared to the selenium water quality standards of 20 ug/l for the acute standard and 5 ug/l for the chronic standard. (examples at 40, 41, 44, 47)

For example, on August 19, 2009 the ICG Hazard Thunder Ridge Mine, SMCRA permit 866-0281 Am. 9, KYG043540, submitted data on representative discharges from the Thunder Ridge Mine seeking authorization under the general permit for additional discharges from amendment 9. ICG first submitted data from three outfalls including outfall 020 with selenium at 29.2 ug/l, nearly 50% higher than the acute selenium standard. (41 at 8). Despite ICG's stated claim that the data was representative of stream discharges, KYDOW apparently determined that outfall 020 was not representative and asked ICG to submit additional data from outfalls discharging to Lower Bad Creek. (43 at 2) The second notice of intent also dated August 19, 2009 showed selenium levels in discharges to Lower Bad Creek as 29.2 µg/l at outfall 020, 8 µg/l at outfall 043, 6 µg/l at outfall 048, 11 µg/l at outfall 048, and 8 µg/l at outfall 52. (40 at 9-13) All of the new data submitted exceeded the chronic selenium standard. Nevertheless, on February 22, 2010, KYDOW sent a letter to ICG approving the new discharges for coverage under the general permit. (42) Thus, the agency with blatant disregard of permitting regulations impermissibly authorized discharges to Lower Bad Creek that will cause and or contribute to selenium water quality standard violations.

Similarly, as part of a notice of intent to seek coverage under the general permit, Clintwood Elkhorn submitted representative selenium data of 10 ug/l from Pond 1 discharging to an unnamed tributary of Dicks Fork of Feds Creek. (44) Then on January 28, 2010 KYDOW sent a letter to Clintwood Elkhorn authorizing general permit coverage for the discharges despite the reasonable potential for the discharges to cause or contribute to a violation of the chronic selenium criterion. (45) Again, in November of 2009, Leeco Inc. submitted effluent data as part of a general permit notice. The data showed selenium effluent levels of 15 ug/l at outfall 015. (47 at 2) Once again, despite exceedances of the chronic selenium standard, KYDOW authorized the discharges under the coal general permit. (48) These are just a few examples of KYDOW's intentional avoidance of enforcing the selenium water quality criteria.

Details on the KYDOW's possible rationale for some of these actions are outlined below in the individual permit section on the agency's handling of priority pollutants.

In addition, for the selenium data that is submitted, minimum detection limits are often 10 ug/l, too high to determine a reasonable potential to exceed the chronic selenium criterion of 5 ug/l.[12] In one instance Bear Branch Coal Company reported an unusual selenium detection limit of 32 ug/l and then simply stated that selenium was not detected in the discharge. (46 at 2)

Further, no assessment of geological cores samples taken from mining sites for selenium content is required to identify and *prevent selenium problems before they develop*. The Mountaintop Mining/ Valley Fills in Appalachia PEIS (1 at 74) first identified selenium as a problem at coal mining sites. The problem was later verified over and over again in neighboring West Virginia. (18)

3. The Coal General Permit Does Not Contain WET Limits

As shown above, some mining operations have a reasonable potential to cause or contribute to a violations of the Kentucky WET criterion. Thus, if KYDOW wants to continue to use a coal general NPDES permit to cover most mining operations, that permit must have water quality based WET limits. In addition, the agency must assure that mining operations are committed to constructing and operating a treatment facility that assures compliance with WET limits.

4. The Coal General Permit Does Not Address Harm to Aquatic Life Caused by Aluminum

The general permit does not address harm to aquatic life caused by aluminum. Effluent data submitted to KYDOW by mining companies seeking coverage under the coal general permit show harmful levels of aluminum that exceed EPA's National Recommended Water Quality Criteria.[13] For example, in July of 2009 an ICG Knott County, LLC mine holding CWA permit KYG046395 submitted effluent data showing aluminum at 1000 ug/l which greatly exceeds EPA's recommend aluminum acute criterion of 750 ug/l.[14] Since KYDOW assumes a 7Q10 of zero flow for mining receiving streams (9 Fact sheet at 6) and because the coal general permit contains no effluent limits for aluminum, (7) discharges from this mine would impermissibly "cause or have the reasonable potential to cause, or contribute to an excursion above …State water quality standard, including State narrative criteria for water quality." 40 C.F.R. 122.44(d)(1)(i). Similarly in August of 2009, Raven Resources submitted data reporting aluminum discharges of 2330 ug/l. (3 at 6) Other mining operations are also discharging high levels of aluminum. KYDOW must place aluminum limits in the general permit and also must assure that mining operations are committed to constructing and operating a treatment facility that assures compliance with those limits.

5. KYDOW Does Not Identify Discharges Excluded from General Permit Coverage

[12] From numerous general permit applications received through KY Open Records request.
[13] From data received through a January 26, 2010 FOIA request to KYDOW
[14] Id.

The Fact Sheet (7 Fact Sheet at 2) for the coal general permit states, "[a]ny operation that is classified as an 'Alkaline Mine'[15] pursuant to 40 CFR 434.11" is excluded from coverage. Despite that exception, as long as a mining operation has not actively sought classification as an alkaline mine drainage facility (and few if any seek classification), KYDEP allows a facility that may discharge alkaline mine drainage to be covered under the general permit.[16] Thus, mines with alkaline mine drainage can escape the additional scrutiny and public involvement of an individual NPDES permitting process by simply not submitting data that verifies their alkaline mine drainage status.

6. Existing Discharges Are Reauthorized Under the General Permit in a Data Vacuum

Existing discharges authorized under the general permit are automatically renewed without submitting effluent data at the time of permit reissuance.[17] *Thus, KYDOW is making permitting decisions in a near data vacuum without fully characterizing the effluent at literally thousands of outfalls*. Discharge monitoring reports alone do not sufficiently characterize effluent quality. This failure not only further weakens the permitting process but is also in stark contrast to mining NPDES permit holders in West Virginia (most who hold individual NPDES permits) who are required to submit extensive water quality data at each renewal.

7. The Coal General Permit Includes an Illegal Compliance Schedule for Total Recoverable Iron

The permit includes an illegal compliance schedule for total recoverable iron. EPA has interpreted its regulations governing compliance schedules to require at least three findings, adequately supported by the record, *prior* to issuing a compliance schedule. First, the permitting authority must find that the compliance schedule will lead to compliance by the final compliance deadline. Second, the permitting authority must find that the use of the compliance schedule is "appropriate." Third, the permitting authority must find that the compliance schedule requires compliance "as soon as possible." 40 C.F.R. § 122.47. Specifically, EPA requires that compliance schedules:

- include interim requirements if the schedule is longer than one year in duration. 40 C.F.R. § 122.47(a)(3)
- include an "enforceable sequence of actions" leading to compliance (29 at 2)
- include an enforceable "final effluent limit in the permit" (29 at 2)
- include a "*reasonable finding*, adequately *supported by the administrative record"* that the compliance schedule will lead to compliance with the final effluent limits on schedule (emphasis added) (29 at 2)
- include assurances supported by the record that the schedule is "appropriate" and "as soon as possible" (29 at 2).
- Must be based on actions by the permittee and not an agency (such as a TMDL or establishing a water quality standard) (30 at 3)

[15] The term ''alkaline, mine drainage'' means mine drainage which, before any treatment, has a pH equal to or greater than 6.0 and total iron concentration of less than 10 mg/l. 40cfr434.11(c)
[16] Personal communication between Margaret Janes and KYDOW staff 2/3/10.
[17] Personal communication between Margaret Janes and KYDOW 2/3/10.

Since neither the application nor the permit contain site specific information on compliance schedules, the agency has clearly failed to require a site specific analysis of the operators' ability to meet the new limits including an enforceable sequence of actions leading to compliance, assuring the compliance schedule is appropriate, compliance will be on schedule or as soon as possible. Thus, the permit fails to comply with CWA requirements.

8. Coal General Permit Fails to Comply with Public Participation Requirements of the CWA

The Clean Water Act provides that "[a] copy of each permit application and each permit issued under [the NPDES program] shall be available to the public" and before a permit is approved, the public must have an opportunity for public comment and a hearing. 33 U.S.C. §§ 1342(j), 1342(a)(1). KYDOW's regulations require this public participation for draft general permits. 401 KAR 5:075, sec. 3. The draft permit must contain all required effluent limitations. Id., sec. 3(4)d. The proposed general permit contains no effluent limits for any of a number of pollutants (conductivity, aluminum, antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium and zinc, cyanide and phenols) for which applicants must submit monitoring data. There is no reason to submit discharge data unless that data may be used to develop an effluent limit. However, Kentucky regulations prohibit issuance of a general permit unless all effluent limits are first published and circulated for public notice and comment in a draft permit accompanied by a fact sheet containing "[a]ny calculations or other necessary explanation of the derivation of specific effluent limitations and conditions." 401 KAR 5:075, Sec. 4(2)g. KYDOW therefore cannot issue a general permit and later make case-by-case decisions that add new effluent limits for any of these sixteen chemicals without violating its own regulations. Only an individual permit, not a general permit, is designed or authorized to make case-by-case permitting decisions. In addition, the issuance of a general permit "mark[s] the completion" of the decision-making process. National Ass'n of Home Builders v. U.S. Army Corps of Engineers, 417 F.3d 1272, 1281 (D.C. Cir. 2005). KYDOW cannot combine an incomplete general permit with a later case-by-case analysis of discharge monitoring data at individual sites.

The coal general permit also fails to comply with CWA public notice requirements for antidegradation review of high quality streams. The permit states, "[p]ursuant to 401 KAR 5:029, Sec. 1(2) public participation is a requirement of a finding by EEC that allowing the lowering of water quality is necessary to accommodate important economic or social development" and further, that the agency "shall receive public comments for a period of 15 days." (7 Fact sheet at 28) 401 KAR 5:029, Sec. 1(2) states, "[w]here the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." 401 KAR 5:029 1(2) and 40 C.F.R. § 131.12(a)(2). The Kentucky Continuing Planning Process (32 at 3) and federal permitting regulations require a 30-day public and notice comment period for major permit decisions. 40 C.F.R. 124.10(b). Thus, the 15-day comment period fails

to comply with the state continuing planning process and federal regulations and must be revised.

Individual Coal Permits Do Not Address Priority Pollutants

KYDOW is violating the Clean Water Act (CWA) when it writes individual NPDES permits for coal mining operations. It does so because it systematically fails to conduct an analysis of the reasonable potential of coal mining discharges to exceed the chronic criteria of 15 priority pollutants. Mining operations are required to test for these pollutants as part of the application process. Even if a coal mining applicant submits data that would ordinarily trigger a reasonable potential analysis and effluent limits based on chronic criteria, the agency compares the data only to the acute criteria. (9 Fact sheet at 6) Referring to the list of toxic pollutants, KYDOW states in permit fact sheets:

> The following table represents the Division of Water's evaluation of the reasonable potential that the discharge of these pollutants would violate water quality standards. Due to the discharges from the activities being precipitation dependant and the receiving waters having a 7Q10 low flow condition of zero (0) cfs the Division of Water has determined that effluent data shall be compared to the acute criterions for these pollutants. Id.

KYDOW's failure to carry out a reasonable potential for chronic criteria of toxic pollutants is impermissible for three major reasons. First, CWA regulations require a reasonable potential analysis for all pollutants of concern:

> Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause or have the reasonable potential to cause, or contribute to an excursion above ***any*** State water quality standard, including State narrative criteria for water quality.

40 C.F.R. § 122.44(d)(1)(i) (emphasis added).

EPA's Technical Support Document for Water Quality-Based Toxics Control (TSD), which states use to write water-quality based NPDES permits, details how states should develop NPDES effluent limits and requires that the most limiting criterion be applied.

> **Therefore, to prevent impacts to aquatic life or human health, the RWC (receiving water concentration) of the parameter effluent toxicity or an individual toxicant (based on allowable dilution for the criterion) must be less than the most limiting of the applicable criterion, as indicated below.** (The RAC as used throughout this chapter incorporates EPA human health criteria and State standards as well.)
>
> **RWC < CCC (chronic aquatic life)**
> **RWC < CMC (acute aquatic life)**

RWC < RAC (human health)[18]

In contrast, KYDOW assumes that the acute criterion is always the most limiting criterion, even though (as we have shown above) the chronic criterion should also apply. The chronic criterion is also usually set at a much lower value. For example, for selenium, the acute criterion is 20 µg/l and the chronic criterion is 5 µg/l. And further,

> For water quality-based requirements, the limits are based on maintaining the effluent quality at a level that will comply with water quality standards, even during critical conditions in the receiving water. These requirements are determined by the WLA (waste load allocation). The WLA dictates the required effluent quality which defines the desired level of treatment plant performance or target LTA (long term average).[19]

KYDOW defines the critical low-flow condition in the receiving water as that occurring during the 7-day, 10-year statistical interval known as the 7Q10. In this case KYDOW has stated that the 7Q10 flow at the point of the mine discharge is zero. This means that the mine discharge provides all of the flow into the receiving water. As a result, the WLA for that discharge must be set equal to the criterion in question and effluent limits must be determined using that WLA.

Second, even if rainfall were the only driver of mining discharges (which we show below is not the case), rainfall-driven discharges should be not limited based solely on acute criteria. Acute criteria are protective of aquatic life over very short exposures--those "based on one (1) hour exposure that does not exceed the criterion for a given pollutant**."** 401 KAR 10:031 Sec. 6 (1) Footnote 6. In contrast, chronic criteria are protective over longer exposures—those "based on ninety-six (96) hour exposure that does not exceed the criterion of a given pollutant more than once every three (3) years on the average." Id, Footnote 7. Rainfall or snow melt can occur over several days or weeks and the resulting discharges will greatly exceed the one-hour time line for acute exposure thresholds. Thus, even based on KYDOW's own assertions, its practice of only applying acute criteria is nonsensical and inconsistent with CWA requirements.

Third, while rainfall obviously has a great impact on surface mining NPDES discharges, those discharges are not solely rainfall-dependent. Various studies have documented "significantly higher unit discharge from valley fills than from adjacent unmined watersheds (Wiley and others, 2001). (15 at 17) Further, evidence indicates "that low flows were relatively greater in streams draining valley fills than in streams draining unmined watersheds." Id. Researchers theorized that this happened in part because surface water "would infiltrate the fill instead of running into the stream" thus storing and then slowly draining the water from the fill material to the stream. Id. Other USGS studies indicate, "[d]aily streamflows from valley-fill sites generally are greater than daily streamflows from unmined sites during periods of low streamflow. Valley-fill sites have a greater percentage of baseflow and a lower percentage of flow from storm runoff than unmined sites." (16). This means that sediment ponds downstream from valley fills are likely to discharge long after rainfall events and much longer than the one-hour time frame of acute criteria. In addition, even sediment ditches unassociated with valley fills or hollow fills may

[18] See USEPA Office of Water. Technical Support Document for Water Quality-Based Toxics Control, March 1991, p. 48.
[19] Id. p. 95.

discharge as springs and seeps discharge water into those ditches and create a non-rainfall-driven discharge at the outfall.[20] Thus, when a surface mine site is at or near 7Q10 or more-frequently-occurring low-flow conditions, the mine's flow may totally dominate the flow in the receiving stream. Remarkably, this same policy appears to hold true for underground mines where discharges are often pumped. (33 Fact sheet at 6)

KYDOW has collected data demonstrating that coal mining discharges are causing and contributing to chronic water quality criterion exceedances for one of the 15 pollutants in question, selenium. In 2007, the agency sampled water downstream from a mining site at Smith Fork in Pike County. On September 19, 2007, selenium levels were 11.5 ug/l at the toe of the fill and 9.1 ug/l downstream of the outfall.[21] National Oceanic and Atmospheric Administration data show that it did not rain at nearby Fishtrap Lake on that day. In fact, except for 0.2 inches of rain on September 17, it had not rained at or near this mine site for a week prior to the sampling date. (17) If the most recent rainfall event was two days before sampling, and there was flow at the time of sampling, one must conclude that the flow at this site is not ephemeral and only rainfall-induced, and is likely to last long enough to require measurement against the chronic criterion. Yet according to KYDOW policy, based on this data set, KYDOW would not have set any limits on selenium discharges.

This policy has resulted in permits with effluent limits that do not comply with CWA requirements. For example, in its February 27, 2008 application for individual NPDES permit KY0107140, Sidney Coal Company reported a value of 9 ug/l total selenium as representative of the discharges at its mine. (8 at 9) Yet KYDOW then issued a draft permit on September 23, 2009 with no selenium limits and no selenium monitoring despite the fact that the discharge had a reasonable potential to cause or contribute to the chronic selenium water quality criterion. (9 at 6) In August of 2009, in an application for individual NPDES permit, KY0001970, RiverView Coal reported a value of 13 ug/l total selenium as representative of the discharges at its underground mine and refuse disposal site. (35 at 8) The draft permit issued by KDOW based on this data also had no selenium limits or selenium monitoring. (34)

In sharp contrast, in neighboring West Virginia, the Department of Environmental Protection (WVDEP) routinely assigns water-quality based effluent limits for selenium at coal mine outfalls for discharges with a reasonable potential to cause or contribute to the selenium chronic criterion of 5 ug/l. In fact, as of April 2008, 1,234 coal mining outfalls in West Virginia were assigned selenium limits based on the identical situation described by the KYDOW when they justified the exemption from chronic criteria at Kentucky coal mines. In West Virginia, the assumption is a 7Q10 flow so that the WLA is identical to the chronic criterion, 5ug/l, resulting in effluent limits of 4.7 ug/l average monthly and 8.2 ug/l daily maximum. (18) Thus, KYDOW is impermissibly exempting coal mining discharges from the chronic criteria of the 15 priority (including selenium) pollutants listed in permit applications.

Individual Coal Permits - the Application

Individual permit applications show a variety of flaws that include:

[20] Personal communication between WVDEP and Margaret Janes January 19, 2010.
[21] Data received through the KY Open Records Law

- As noted above for the coal general permit, detection limits for selenium data submitted in the permit applications are frequently too high. In one case, the detection limit for selenium data reported in permit application was 0.05 mg/l, two and one half times greater than the acute selenium criterion of 20 µg/l that KYDOW claims to enforce. (36 at 11)
- When filing out reports on effluent quality permittees frequently state that aluminum is believed absent. This is in marked contrast to data from coal general permits and research data previously discussed that demonstrate the aluminum content of mining effluent can be quite high and is harmful.
- Applicants do not appear to be required to submit conductivity data as part of their application. See applications at http://www.water.ky.gov/publicassistance/notices/November-December.htm.

These seemingly minor flaws have likely led to major deficiencies in at least some NPDES permits.

Kentucky Uses Impermissible 303(d) Listing Procedures and TMDL schedules

Kentucky's NPDES permitting program is undermined by flawed 303(d) listing procedures and long delays in the development of total maximum daily loads (TMDLs). Since 1986, Kentucky has completed and EPA has approved 51 TMDLs for various pollutants. (19) This is an average of only a few TMDLs per year. The existing backlog of TMDLs on the most recent TMDL schedule includes over 2,000 stream segments. The agency plans to complete all of these TMDLs by 2021 at an average rate of 167 TMDLs per year. (20) KYDOW admits that they will be unable to meet this schedule without "more staff, lab resources, and especially contractual monies without *continued loss of ambient monitoring resources*." (5 at 16) (emphasis added) The implication is that the miles of assessed streams in Kentucky will fall as the agency struggles and likely fails to complete all TMDLs.

The earliest 303(d) list available online is from 1990. (21) A number of streams are listed for warm water aquatic life use impairment due to priority organics. (21 at 3) At least some of these streams have apparently been listed for 20 years without a TMDL being developed. Drakes Creek, Town Branch and Mud River are still listed today due to priority organics including PCBs and methylmercury. (22 at 482, 255, 271) The long delay in developing TMDLs does not comply with EPA guidance that requires TMDL to be developed within eight to thirteen years of listing. (23) It seems unlikely given Kentucky's resources and current pace that the long TMDL delays will be resolved even by 2021.

The delays in identifying pollution sources and developing cleanup plans for impaired streams cause significant delays in the development of water-quality based effluent limits. Unfortunately, they are not the only major problem with Kentucky's 303(d)/TMDL program. At the same time the state complains about a lack of resources, it also creates excessively strict data requirements for identifying impaired streams.

303(d) Assessment protocols

The assessment protocols used for the 2008 Integrated Report to Congress are briefly summarized in the 305(b) report. (5 at 64-67) The report states that chemical data was assessed according to EPA guidance from 1997. (5 at 64) (24) In comparing the KYDOW protocol to EPA guidance, however, important differences are evident. EPA states, "at least 10 samples over a 3-year period" are preferred for toxic pollutants and, "[i]f fewer than 10 samples are available, the State should use discretion and consider other factors such as the number of pollutants having a single violation and the magnitude of the exceedance(s)" while making listing decisions. (24 at 3-22) KYDOW generally requires monthly samples over a three-year period in order to determine impairment based on chronic criteria for the priority pollutants and iron. (5 at 65) The only sites with that much data are the 71 large rivers included in Kentucky's primary ambient network.[22] Sites in the State's rotating watershed ambient network have 12 monthly samples and may also be listed due to exceedence of the chronic criteria but there is reluctance to use data over a single year. (5 at 65).[23] Further discussion with KYDOW indicates that fewer than 12 samples over a three-year period would not be sufficient to support listing.[24] In addition, KYDOW states that "[o]bservations that equaled or were only slightly greater than chronic criteria were not considered to exceed water quality standards." (5 at 65) All of these policies lead in the same direction—an underestimation of impaired streams and fewer WQBELs.

Pre and Post Law Abandoned Mine Sites

Kentucky has failed to issue NPDES permits for point source discharges at bond forfeiture mining sites and has issued an illegal general NPDES permit to cover discharges at abandoned mine land sites.

KYDEP Has Violated the CWA by Failing to Issue NPDES Permits for Coal Mining Bond Forfeiture Sites

Kentucky administers a bond forfeiture reclamation program. Before coal companies begin mining at a site, they must post a reclamation bond. A company's bond may be forfeited to the State if the company fails to mine and reclaim a site to the standards specified in its mining permit. The forfeited funds are then used by the State to reclaim the site for which the bond was posted. (25) The majority of mining operations submit individual bonds. If reclamation does not resolve water pollution issues through land reclamation and passive water treatment (for example limestone ditches) at the site, the water pollution remains as a liability of the land owner.[25] These sites are not issued NPDES permits unless a mining company comes into re-mine or reclaim the site.[26]

A number of Kentucky bond forfeiture sites produce acid mine drainage (AMD). (26) A 2008 inventory of forfeiture sites with ongoing reclamation needs shows at least 14 sites with offsite

[22] Personal communication between KYDOW staff and Margaret Janes February 2, 2010.
[23] Id.
[24] Id
[25] Personal communication between Margaret Janes and KYDEP staff in two offices 2/3/10.
[26] Id.

water quality AMD impacts that would not be resolved by land reclamation or passive treatment. Numerous other sites have less severe water quality impacts. None of the sites needing passive or active treatment are required to obtain NPDES permits.[27] Unpermitted discharges from bond forfeiture sites have frequently exceeded technology-based and water quality-based effluent standards for pH and iron. (26) Under similar circumstances, two West Virginia federal courts have ruled that WVDEP has violated the Clean Water Act by failing to obtain NPDES permits for discharges from such sites. West Virginia Highlands Conservancy v. Huffman, 588 F. Supp.2d 1678 (N.D. W.Va. 2009), and 651 F. Supp.2d 512 (S.D. W.Va. 2009). That same principle applies to unpermitted discharges from Kentucky bond forfeiture sites.

Abandoned Mine Lands ("AML")

The Federal Surface Mining Control and Reclamation Act of 1977 (as amended) establishes a fund to reclaim abandoned mine lands (AML), which are unreclaimed mine sites that predate federal surface mining regulation. KYDEP has developed a general permit to cover those discharges. (27) The permit, however, fails to comply with the law in several important ways. First, the general permit authorizes discharges that may impermissibly cause or contribute to violations of water quality standards. (27 Fact sheet at 5) It does so by failing to establish numeric effluent limits for any pollutant and rather relies solely on best management practices to control pollution. (27 Fact Sheet at 3) Referring to the watersheds of receiving streams, KYDEP states:

> Some of these watersheds may be listed in Kentucky's most recent 303(d) list of impaired waters. Watersheds on this list may be impaired for a variety of reasons and may require the development of Total Maximum Daily Loads (TMDLs) for certain pollutants. Should a TDML be developed for a watershed covered by this permit, then sites covered by this permit may be required to obtain an individual permit to implement the recommendations of the TDML. (27 Fact Sheet at 2)

The agency states that some of the sites it anticipates will be covered by the general permit have a reasonable potential to cause or contribute to a water quality standard violation. Yet no effluent limits for parameters of concern, (Total Suspended Solids, Dissolved Solids, Settleable Solids, Total Recoverable Metals, Hardness, Sulfates, Sulfides, Nitrates, Nitrites, Phosphorous, ph, etc.), are included in the permit. (27 Fact Sheet at 3) For example, "On or around March 7, 2007, an abandoned mine had a blow out and now acid mine drainage is gushing into Little Dry Fork, just west of Whitesburg, KY ." (28) The blow out of an abandoned deep mine is covered by the AML general permit. According to the narrative of this piece the water is high in conductivity, iron, and manganese and is decimating aquatic life yet the permit places no limits or controls on the discharges.

The permit states that AML sites with few exceptions are automatically covered by the permit.

> Due to the number of potential sites that are eligible for this permit, the wide variability of the surface owners/controllers and their resources, and the limited resources of the Division of Water, only large surface owners/controllers will be required to submit an

[27] Id

> NOI for coverage under this permit. All others will receive automatic inclusion unless the Division of Water specifically requests a notice of intent. Large surface owners/controllers are those individuals or entities that control an accumulative 25% or more of the surface area within a watershed or control surface areas in more than one (1) watershed. (27 at III-1)

Thus, the agency has little to no control of this permit or what types of discharges it will authorize, including AMD blow outs with serious water quality impacts.

Secondly, as previously stated, Kentucky law authorizes the use of general permits only when all point sources within each category:

> a. Involve the same or substantially similar types of operations;
> b. Discharge the same types of wastes;
> c. Require the same effluent limitations or operating conditions;
> d. Require the same or similar monitoring; and
> e. In the opinion of the cabinet, are more appropriately controlled under a general permit than under individual permits."

401 KAR 5:055, sec. 5(b)2. Thus, all five of these requirements must be satisfied before a general permit may be issued. Describing discharges potentially covered by the permit, the fact sheet states, "[t]he chemical composition is dependent upon the type mineral extracted, the overlying and underlying formations, and the processing of the extracted mineral. The quality of the discharge may vary from extremely poor to meeting the criteria established for the support of aquatic life. (27 Fact Sheet at 4) Thus, the discharges described in the AML general permit are admittedly not similar in quality or degree and thus do not qualify for inclusion in the general permit.

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Conclusion

Because the harm associated with the State's failure to maintain and administer its NPDES program is severe, irreversible and ongoing, we ask EPA to respond to and take action based on this petition as soon as possible.

Respectfully submitted,

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2) Palmer and Bernhardt, Mountaintop Mining Valley Fills and Aquatic Ecosystems: A Scientific Primer on Impacts and Mitigation Approaches. 2009.
3) General permit NOI for Raven Resources, KYG0463099, August 10, 2009.
4) See National Recommended Water Quality Criteria at http://www.epa.gov/waterscience/criteria/wqctable/
5) Kentucky Environmental and Public Protection Cabinet, Division of Water, 2008 Integrated Report to Congress on Water Quality in Kentucky, Volume 1, 305(b) Report. April 1, 2008. See http://www.water.ky.gov/NR/rdonlyres/1A883375-82DB-46AD-A0DB-3A8BA43EE959/0/2008IntegratedReporttoCongressonWaterQualityinKentuckyVol1.pdf
6) Notice of Intent application for 2009 Kentucky Coal General Permit.
7) Kentucky Coal General Permit issued July 1, 2009.
8) Individual NPDES application for Sidney Coal Company, CWA NPDES permit, KY0107140. February 27, 2008.
9) Individual Draft NPDES for Sidney Coal Company, CWA NPDES permit, KY0107140, September 23, 2009.
10) Gregory J. Pond, Margaret E. Passmore, Frank A. Borsuk, Lou Reynolds, Carole J. Rose, "Downstream effects of mountaintop coal mining: comparing biological conditions using family- and genus-level macroinvertebrate bioassessment tools," J. N. Am. Benthol. Soc., 2008, 27(3):717–737 Published online: 8 July 2008.
11) Letter from James D. Giattina, Director, Water Protection Division, EPA Region 4, to Col. Keith A. Landry, US Army Corps of Engineers, Louisville District, concerning 404 permit for Apex Energy, 898-0646, December 29, 2009.
12) See http://blogs.wvgazette.com/coaltattoo/2009/10/01/friends-of-dunkard-creek-seek-epa-takeover-on-fish-kill/#more-1257
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14) Kristiansen, J. 16. Dispersal of fresh water algae – a review. Hydrobiologia 336. 11996.
15) Water Resources Investigation Report 02-4303. Comparison of Storm Responses of Streams in Small Unmined and Valley Filled Watersheds, 1999-2001, Ballard Fork , West Virginia. 2003.
16) Water-Resources Investigations Report 01-4092. Geomorphology, Low Streamflow, and Stream Temperature in the Mountaintop Coal-Mining Region, Southern West Virginia, 1999-2000, 2001.
17) NOAA Kentucky rainfall data for Fishtrap Lake, KY purchased online for September 2007.
18) List of mining permit outfalls and limits for selenium from April 2008 FOIA request to WVDEP.
19) See http://www.water.ky.gov/sw/tmdl/Approved+TMDLs.htm
20) Kentucky TMDL schedule from FOIA July 23, 2009.

21) See 1990 303(d) list http://www.water.ky.gov/NR/rdonlyres/B7F92908-FB33-4BA8-ABB9-D87557DAD614/0/303d90.pdf
22) See 2008 303(d) list http://www.water.ky.gov/NR/rdonlyres/58E97683-C9B7-4F9F-BA87-93671E6A02D9/0/2008volume2final.pdf
23) See http://www.epa.gov/OWOW/tmdl/ratepace.html
24) See http://www.epa.gov/owow/monitoring/305bguide/v2ch3.pdf.
25) See http://www.aml.ky.gov/
26) Spreadsheet detailing water quality status of some bond forfeiture sites from information request May 14, 2009.
27) AML General NPDES permit.
28) See http://www.youtube.com/watch?v=aMQCWUdWo1o
29) Memo on compliance schedules from James A Hanlon, Director of Office of Wastewater management USEPA to Alexis Strauss, Director, Water Division, USEPA Region 9, May 10, 2007.
30) Letter from Alexis Strauss of USEPA to Celeste Cantu of California State Water Resources Control Board, RE: California SIP, compliance schedule provisions, October 23, 2006.
31) S.G. Neuzil, et al., "Spatial Trends in Ash Yield, Sulfur, Selenium, and Other Selected Trace Element Concentrations in Coal Beds of the Appalachian Plateau Region, U.S.A.," USGS Open-File Report 2005-1330 (2005).
32) Kentucky Continuing Planning Process, August 31, 2006.
33) Draft Permit for Czar Coal, KY0108049, 880-5139.
34) Draft permit for Riverview Coal, KY0001970, 913-5015.
35) Permit application for Riverview Coal, KY0001970, August 4, 2009.
36) Permit application for Czar Coal, KY0040495, August 24, 2007.
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38) Louisville District of the Army Corps of Engineers, Public Notice No. 2009-239, Frasure Creek Mining, April 10, 2009.
39) See http://www.epa.gov/npdes/pubs/wet_draft_guidance.pdf
40) Permit application number 2, ICG Hazard, Thunder Ridge Mine, KYG043540, August 19, 2009.
41) Permit application number 1, ICG Hazard, Thunder Ridge Mine, KYG043540, August 19, 2009.
42) General Permit authorization for ICG Hazard KYG043540 Am 8 & 9.
43) Letter to KYDOW from Kevin Bailey of Environmental Resources Management Consulting Company, December 29, 2009.
44) Effluent characteristics Clintwood Elkhorn 898-4330, KYG046362.
45) General permit coverage authorization for Clintwood Elkhorn 898-4330, KYG046362.
46) NOI Bear Branch Coal, 897-5100, KYG045353.
47) Effluent data NOI Leeco 867-0486 Am. 1, KYG045876.
48) General Permit authorization for Leeco, 867-0486 Am. 1, KYG045876.
49) Louisville District of the Army Corps of Engineers, Public Notice No. 2009-239, Frasure Creek Mining, April 10, 2009. Maps

50) Mitchelmore, Carys, University of Maryland Center for Environmental Science, Report on the USEPA Whole Effluent Toxicity Testing at Selected Sites in the Coalfields of Kentucky and West Virginia, February 2010 including maps of WET testing sites.

Exhibit 2

May 3, 2010 Petition Supplement

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May 3, 2010

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Dear Administrator Jackson:

Enclosed is a supplement to a Petition for withdrawal of the National Pollutant Discharge Elimination System program delegation from the Commonwealth of Kentucky submitted March 15, 2010 on behalf of the Appalachian Center for the Economy and the Environment, Sierra Club, Public Justice and Kentuckians for the Commonwealth.

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SUPPLEMENT TO THE PETITION FOR WITHDRAWAL OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM DELEGATION FROM THE STATE OF KENTUCKY

Appalachian Center for the Economy and the Environment, Sierra Club, Public Justice and Kentuckians for the Commonwealth, hereby supplement their petition dated March 15, 2010 to the United States Environmental Protection Agency (EPA) to withdraw the delegation of the National Pollutant Discharge Elimination System (NPDES) program under the Clean Water Act (CWA) from the Commonwealth of Kentucky. The purpose of this supplement is to make EPA aware of recent developments regarding Kentucky's administration of its NPDES program that further support withdrawing approval of that program.

Kentucky Division of Water (DOW) Has Issued Draft NPDES Permits That Do Not Comply with CWA Requirements

Just a few days ago, the Kentucky Division of Water (DOW) issued public notices for draft individual NPDES permits for new mining operations and for renewals or expansions of existing mining operations.[1] All of the draft mining NPDES permits suffer from nearly identical flaws that must be remedied prior to permit issuance. In every instance DOW makes permitting decisions that violate the CWA and lead to delays in or avoidance of environmental protection, and that allow the coal industry to continue polluting Kentucky's rivers and stream unabated.

1. The Draft Permits Are Inconsistent with EPA's April 2010 Guidance Because They Fail to Analyze or Control Conductivity

In April 2010, EPA issued Detailed Guidance on Improving EPA Review of Appalachian Surface Coal Mining Operations. The Guidance was designed to "assure more consistent, effective and timely compliance of Appalachian surface coal mining operations with the provisions of the CWA.[2] EPA found that "current permitting practices can be more effective in addressing adverse environmental and water quality effects associated with coal mining by more robustly conducting analyses required by the CWA."[3] EPA also found that "[n]umerous studies . . . have shown that high levels of conductivity, dissolved solids, and sulfates are a primary cause of water quality impairments downstream from mine discharges."[4]

To address this problem, EPA established a general framework for addressing conductivity in permitting decisions. Under the CWA, NPDES permits must contain water quality-based effluent limits when necessary to meet water quality standards. 33 U.S.C. § 301(b)(1)(C); 40 C.F.R. § 22.44(d)(1). In order to determine whether water quality-based effluent limits are necessary, the permitting authority is required to conduct a "reasonable potential analysis." A reasonable potential analysis determines whether a discharge will cause, or has the reasonable potential to cause or contribute to, an excursion above a numeric or narrative water quality

[1] See http://www.water.ky.gov/publicassistance/notices/March+2010.htm specifically for permits open for comment from 4/16/10 to 5/17/10.
[2] See http://www.epa.gov/wetlands/guidance/pdf/appalachian_mtntop_mining_detailed.pdf p. 5.
[3] Id.
[4] Id.

standard.

In its Guidance, EPA set a guideline that in-stream conductivity levels "below 300 µS/cm generally will not cause a water quality standard violation," but such levels "above 500 µS/cm are likely to be associated with adverse impacts that may rise to the level of exceedances of narrative state water quality standards." In such situations, "[i]f water quality modeling suggests that in-stream levels will exceed 500 µS/cm, EPA believes that reasonable potential [to violate the narrative standard] likely exists to cause or contribute to an excursion above applicable water quality standards." This likelihood of reasonable potential can only be rebutted if, "based on site specific data, the state has an alternative interpretation of their water quality standards that is supported by relevant science."[5]

EPA's conductivity framework was based in part on a field study that determined that an aquatic life benchmark of 300 µS/cm was necessary to prevent the extirpation of 95% of invertebrate genera in the region including eastern Kentucky.[6] An earlier study by Pond et al supported a similar limit of 300-500 µS/cm and found that "[a]ll mined sites with specific conductance >500 µS/cm were rated as impaired . . . ."[7]

DOW's recent draft permitting decisions are directly inconsistent with EPA's guidance, in three critical respects. First, DOW has rejected EPA's presumption, as well as the supporting scientific studies which show, that conductivity greater than 500 µS/cm will lead to biological stream impairment. Instead, DOW states in the draft permits that it "does not believe that a statewide or regional numerical interpretation of the narrative standard is appropriate," and that "a site-specific" determination of reasonable potential is necessary for each permit.[8]

Second, DOW has ignored the science showing that sufficient data is currently available to measure and define a benchmark for conductivity-caused stream impairment. Instead, DOW states that it "currently does not possess sufficient site-specific ambient data or discharge data for this proposed activity to determine" if a "reasonable potential" of impairment exists.[9]

Third, even if sufficient site-specific data were not available, EPA's position is that such data must be gathered **before** a permit can be issued. EPA states in its Guidance that "[p]ermitting authorities should independently seek to obtain such data if not submitted by the applicant or can reject the application as not sufficient."[10] Instead, of requiring more pre-permit data via these two methods, or alternatively rejecting the application, DOW adopts the much weaker alternative of asking the permittee to gather more data **after** the permit is issued. Thus, the recently issued draft permits impose no conductivity limits, but merely require five quarters of conductivity and toxicity monitoring.[11] This means that, at a minimum, needed limits on conductivity will be delayed for years, or that no limits will even be considered for five years until the next time the

[5] See http://www.epa.gov/wetlands/guidance/pdf/appalachian_mtntop_mining_detailed.pdf p. 12.
[6] See A *Field-based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams*, available at http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=220171 p. 20.
[7] See http://www.epa.gov/Region3/mtntop/pdf/downstreameffects.pdf p. 725.
[8] See http://www.water.ky.gov/publicassistance/notices/March+2010.htm Sidney Coal Draft Permit Fact Sheet p. 14.
[9] Id.
[10] See http://www.epa.gov/wetlands/guidance/pdf/appalachian_mtntop_mining_detailed.pdf p. 9
[11] Id. pp. 14, 22

permit is up for renewal. Moreover, this delay is directly inconsistent with the core principle that "reasonable potential" must be evaluated **before** a permit is issued, not after. 40 C.F.R. 122.44(d)(1)(i).

Thus, DOW must either obtain data prior to permit issuance that proves that the site will not cause or contribute to an excursion above a state standard or follow EPA guidance that presumes impairment downstream from mining operations due to conductivity and place WQBELs for conductivity at all outfalls.

2. DOW's Permitting Decisions Are Based on an Erroneous State Procedure for Determining Reasonable Potential

DOW's recent permitting determinations are based on a misapplication of the States "Permitting Procedures for Determining Reasonable Potential." DOW represents in the draft individual permit fact sheets that it:

> developed and received approval from EPA Region 4 for a "reasonable potential" analysis procedure. The procedure requires the comparison of the statistical evaluation of a minimum of five (5) effluent samples to the calculated water quality-based effluent limitations. Should this comparison indicate the concentration of the discharge is 90% or greater of the calculated limit then a "reasonable potential" exists and water quality-based effluent limitations are required.[12] (Emphasis added.)

Thus, DOW's position is that five site-specific samples are required in every case before a reasonable potential finding can be made. In the absence of such samples, DOW does not even attempt to calculate reasonable potential and no water quality-based effluent limitations are imposed. In effect, with no data, DOW assumes that reasonable potential does not exist. That interpretation is erroneous in at least two respects.

First, DOW's insistence in the draft permits on the existence of five samples in not consistent with Kentucky's reasonable potential procedure document. That document provides that,

> [w]here reasonable potential does not exist, ***or*** sufficient data does not exist to make a determination, it may be desirable to require "monitor only" as an interim measure to provide for collection and evaluation of necessary data prior to the determination of an appropriate limitation. Sufficient data is five (5) or more data points. (emphasis added) (4 at 3)

The document also expressly provides that,

> [i]n determining reasonable potential, the agency will assume any single data point to be representative of the discharge. . . . As such, a single data point shall be evaluated against what limits might be required ["Kentucky DOW-KPDES Branch: Water Quality Computer Programs" document (June, 2000)] as a direct comparison.

[12] See http://www.water.ky.gov/publicassistance/notices/March+2010.htm Sidney Coal Draft Permit Fact Sheet p. 6.

> For multiple data points, the data shall be reviewed under one of two approaches. First the data may be averaged and then compared to what the limit would need to be for that constituent to determine whether reasonable potential exists. . . . . Secondly, the review may choose a single data point in determining reasonable potential. (4 at 6)

In other words, contrary to the assertion in the draft permits, there is no requirement that a reasonable potential analysis be based on five data points. Rather, a permittee is required to obtain five samples through a "monitor only" requirement "[w]here reasonable potential does not exist, or sufficient data does not exist to make a determination." That is made clear by the statement in the draft permits that, for a suite of certain pollutants,

> After a minimum of five (5) samples DOW will determine if the discharge has reasonable potential to cause or contribute to an excursion of either a narrative or numeric water quality standard. If reasonable potential is demonstrated then DOW shall reopen the permit to include limitations and monitoring as justified by the reasonable potential analysis. However should no reasonable potential be demonstrated then DOW shall reopen the permit to terminate the instream biological and chemical monitoring and the representative outfall monitoring.[13]

Indeed, EPA's guidance document on this issue requires the permitting authority to make a finding of reasonable potential even if there is only one data point. EPA's Technical Support Document for Water Quality-Based Toxic Control (TSD) states:

> EPA recommends finding that a permittee has "reasonable potential" to exceed a receiving water quality standard if it cannot be demonstrated with a *high confidence level* that the upper bound of the lognormal distribution of effluent concentrations is below the receiving water criteria at specified low-flow conditions. (emphasis added)[14]

This guideline applies even if there is only one effluent sample, as shown by the tables in the TSD.[15] Thus, if even one effluent sample approaches or exceeds the EPA limit of 500 µS/cm for conductivity or a Kentucky state water quality criterion, it would trigger a finding of a reasonable potential to cause or contribute to a water quality standard exceedence, and a WQBEL is necessary. In the case of surface mining discharges, a reasonable potential already exists relative to high conductivity and biological impairment of receiving streams. The EPA guidance document and accompanying studies clearly prove the connection between conductivity and failing biological scores. Thus, DOW should have simply required conductivity monitoring either at representative outfalls at existing mines or at outfalls of nearby mines for new facilities during the permitting process.

For example, ICG Knott County reported stream data (SW-1 is assumed to represent stream data at the mine site) in the immediate vicinity of its discharges of 619 µS/cm and selenium of .009

[13] See http://www.water.ky.gov/publicassistance/notices/March+2010.htm Enterprise Fact sheet p. 17.
[14] See http://www.epa.gov/npdes/pubs/owm0264.pdf p 53.
[15] Id. p. 54.

mg/l.[16] Clintwood Elkhorn also reported high conductivity levels, 975 µS/cm, at SW-301.[17] Those data should have triggered a reasonable potential analysis and permit limits for these pollutants yet DOW has apparently ignored the data submitted in the applications.[18]

The second flaw in DOW's application of its reasonable potential analysis is that, in the case of surface coal mining discharges, sufficient data exists to create a *presumption* that a reasonable potential exists relative to high conductivity and biological impairment of receiving streams. The EPA guidance document and accompanying studies, all of which are specific to Appalachia, clearly establish the connection between conductivity and failing biological scores. It is relatively simple to confirm this presumption at specific sites. At a minimum, if DOW was acting on the new EPA guidance DOW could have simply required conductivity monitoring representative of the discharges prior to permit issuance. Conductivity is a quick and inexpensive test that could have been readily collected. In the alternative, if DOW chooses to not put WQBELs for conductivity in a permit, it is up to DOW to rebut EPA's assumption by collecting conductivity and biological data *prior to permit issuance* that proves a WQBEL for conductivity is unnecessary.

In the absence of such site-specific data, the existing regional data is sufficient to require a reasonable potential finding and conductivity limits on all outfalls.

3. DOW Requires Redundant Flow Data to Calculate Reasonable Potential

DOW apparently believes that it has inadequate data to determine a reasonable potential analysis for key pollutants because it has inadequate flow data.

> One of EPA's primary concerns regarding this permit relates to the performance of a "reasonable potential" analysis for a number of pollutants having either numeric or narrative water quality standards. A key element in performing a "reasonable potential" analysis is the flow regime of the discharge. If the discharge is episodic and of short duration, i.e. less than four days, then the "reasonable potential" analysis should address only acute effects of the discharge. However, if the discharge is episodic and of a longer duration, i.e. four days or greater or continuous, then the "reasonable potential" analysis should address both acute and chronic concerns. Therefore the inclusion of this monitoring requirement is necessary to determine the type of "reasonable potential" analysis that should be conducted and is justified by 40 CFR 122.48(b) which requires permits to specify monitoring requirements sufficient to yield data which is representative of the monitored activity. DOW is proposing the duration be determined for each discharge that is sampled in accordance with the standard effluent limitations and monitoring requirements.[19]

[16] See http://www.water.ky.gov/publicassistance/notices/March+2010.htm . We assume samples labeled with a prefix of SW are surface waters.
[17] Id.
[18] Remarkably, even when DOW has already determined that the main strem of receiving streams is impaired by total dissolved solids, the agency still fails to do a reasonable potential analysis for mining operations for conductivityId. See Sidney Coal Draft Permit Fact Sheet, p. 2.
[19] Id. See Sandlick Draft Permit Fact Sheet, p. 19.

DOW thus requires each applicant to determine flow regimes for representative outfalls in a study plan required of each permittee and in routine permit compliance monitoring.[20] Remarkably, these requirements simply repeat past permit requirements for all coal facilities of twice a month flow sampling at all outfalls.[21] Thus, for existing facilities DOW already has this data. Most importantly, however, since mining discharges are greatly influenced by rainfall, short term studies cannot capture fully the variability of the weather, resulting impacts on the discharges, and contributions to stream flow. (Also see section below on impacts of fill on stream flow)

To address the variability of discharges, effluent limits should be determined using methods in EPA's Technical Support Document. West Virginia Department of Environmental Protection routinely develops WQBELs using such methods and DOW should use them as well. (1)

4. DOW's Use of Mixing Zones for Mining Discharges Is Improper.

The draft mining NPDES permits currently out for comment inappropriately consider the use of a mixing zone for the chronic aquatic life criterion for iron and indicate mixing zones will be considered for other parameters in the future. The permits state, "401 KAR 10:029, Section 4(b) requires the criterion to be met at the edge of the assigned regulatory mixing zone. Regulatory mixing zones are assigned by the cabinet in accordance with the requirements of 401 KAR 10:029, Section 4 and cannot exceed 1/3 of the width of the receiving water when the receiving water is a stream or river."[22] In each case DOW then calculates potential limits using a mixing zone.[23]

Most mining discharges, however, generally dominate the small headwater receiving streams and thus are not appropriate for consideration of a mixing zone. In particular, discharges from instream ponds or spring influenced sediment ditches may be the only source of water in the stream for significant stretches during low flows. In fact, often during dry weather, it is only when the stream intercepts springs or seeps that dilution of the discharge will occur. Mining NPDES discharges are not solely rainfall-dependent. KOW claims that, "the discharges from the active mining area are assumed to be precipitation-dependent and therefore are not regular or continuous."[24] Various studies, however, have documented "significantly higher unit discharge from valley fills than from adjacent unmined watersheds. (2 at 17) Further, evidence indicates "that low flows were relatively greater in streams draining valley fills than in streams draining unmined watersheds." Id. Researchers theorized that this happened in part because surface water "would infiltrate the fill instead of running into the stream" thus storing and then slowly draining the water from the fill material to the stream. Id. Other USGS studies indicate, "[d]aily streamflows from valley-fill sites generally are greater than daily streamflows from unmined sites during periods of low streamflow. Valley-fill sites have a greater percentage of baseflow and a lower percentage of flow from storm runoff than unmined sites." (3 at 1). This means that

[20] Id. Sandlick Fact Sheet p. 3-4 and p. I-5.
[21] See as example Kentucky Coal General NPDES Permits from 2004 and 2009.
[22] Id. Sidney Coal, Fact sheet p. 8.
[23] Note in every case the technology based effluent was more stringent so the mixing zone based limit was not applied.
[24] See http://www.water.ky.gov/publicassistance/notices/March+2010.htm Sandlick Draft Permit Fact sheet p. 9.

sediment ponds downstream from valley fills are likely to discharge long after rainfall events. In addition, even sediment ditches unassociated with valley fills or hollow fills may discharge as springs and seeps discharge water into those ditches and create a non-rainfall-driven discharge at the outfall.[25] Thus, surface mining discharges frequently dominate the flow in the receiving stream, extend beyond 1/3 the width of the receiving stream, and, thus, do not meet the requirements for a mixing zone.

5. DOW Improperly Fails to Require Both Acute and Chronic Whole Effluent Test (WET) Testing Prior to Permit Issuance

EPA's April 2010 Guidance states that even if it " is infeasible to calculate a numeric effluent limit to implement a narrative water quality standard, the state should include in the permit appropriate WET limits and best management practices (BMPs) to control or abate the discharge of pollutants, consistent with 40 C.F.R. Section 122.44(k)(3)."[26] In response to EPA comment letters in 2009 and 2010, DOW is requiring acute WET testing at each mine site on a quarterly basis for 5 quarters from the time of permit issuance.[27] DOW chose acute instead of chronic testing despite the fact that the study cited by EPA as a reason for WET test requirements addressed chronic as opposed to acute exposure to mine pollutants.[28] DOW has also ignored a recent EPA study showing that 19 of 21 chronic WET tests downstream from surface mining sites exceeded Kentucky's $1TU_c$ criterion.[29,30] The same study showed that only two of these same 21 sites tested exceeded Kentucky's 0.3 TU_a acute criterion and those sites were in West Virginia.[31] Thus, the chronic WET test is a better screening tool for identifying toxic discharge sites than is the acute WET test. Despite this evidence, DOW only required an acute test. As a result, it is likely that many sites with chronic toxicity will wrongly be deemed harmless. In addition, DOW only required the acute WET test to be performed after the permits are issued. Chronic WET tests could easily have been required as part of the permit application. Instead, DOW again chose to delay the evaluation of the impacts of discharges on water quality and the effluent limitations that would likely result.

6. DOW's REASONABLE POTENTIAL ANALYSES FOR THE NARRATIVE SUSPENDED SOLIDS STANDARD HAS NO BASIS

In the draft permits, DOW purports to conduct a reasonable potential analysis for the narrative suspended solids standard. That analysis, however, is fatally flawed for at least two reasons.

First, from the outset, DOW's approach is inconsistent with its own requisite procedures. The Fact Sheets state that,

[25] Personal communication between WVDEP and Margaret Janes January 19, 2010.
[26] See http://www.epa.gov/wetlands/guidance/pdf/appalachian_mtntop_mining_detailed.pdf p. 11 n. 18.
[27] See http://www.water.ky.gov/publicassistance/notices/March+2010.htm Sidney Coal Fact Sheet p. 20.
[28] Id.
[29] Id.
[30] See http://www.epa.gov/region03/mtntop/pdf/sprucetechsupp.pdf p. 30.
[31] Id.

> [i]n order to perform a "reasonable potential" analysis in accordance with DOW's EPA-approved methodology, a numerical interpretation of the narrative standard would be required. However, when evaluating waters of the Commonwealth for compliance with this narrative standard, DOW does not develop a numerical interpretation . . . .[32]

In other words, DOW's approach is flawed from the outset.

Second, DOW concludes that the technology based TSS limit of 35 mg/l is protective of the narrative water quality standard for sedimentation because it is more stringent than the 40 mg/l figure that it determined was necessary to protect the narrative standard. Even assuming that DOW were correct about the 40 mg/l level, its analysis fails to grapple with the fact that during major rain events—when total suspended solids concentrations are typically at their highest in mining discharges—the technology based TSS limit is suspended. See 40 C.F.R. Part 434. In other words, at the times when the narrative sedimentation water quality standard is most in jeopardy, technology based mining limits provide no protection. Consequently, DOW's conclusion that a water quality based effluent limitation for sedimentation is not required is contrary to law.

Conclusion

We believe EPA has no choice but to withdraw primacy from Kentucky. The Kentucky water program with regards to coal NPDES permits is completely outside the bounds of the Clean Water Act. EPA must take immediate steps to remedy Kentucky's recalcitrance or the state will suffer significant harm.

We remain ready to work with Region 4 and hope to meet with EPA at its earliest convenience. Be aware that time is of the essence.

Respectfully submitted,

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[32] See http://www.water.ky.gov/publicassistance/notices/March+2010.htm Enterprise Fact Sheet p. 9.

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References:

(1) Catenary Coal Company Draft NPDES permit, WV1022563
(2) Water Resources Investigation Report 02-4303. Comparison of Storm Responses of Streams in Small Unmined and Valley Filled Watersheds, 1999-2001, Ballard Fork, West Virginia. 2003.
(3) Water-Resources Investigations Report 01-4092. Geomorphology, Low Streamflow, and Stream Temperature in the Mountaintop Coal-Mining Region, Southern West Virginia, 1999-2000, 2001
(4) Kentucky Natural Resources and Environmental Protection Cabinet, Permitting Procedures for Determining “Reasonable Potential,” May 1, 2000.

Exhibit 3

District Court Complaint

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF KENTUCKY
AT FRANKFORT

KENTUCKIANS FOR THE COMMONWEALTH and SIERRA CLUB,

Plaintiffs,

v. **CIVIL ACTION NO. _____**

GINA MCCARTHY, in her official capacity as ADMINISTRATOR, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

And

HEATHER MCTEER TONEY, in her official capacity as REGIONAL ADMINISTRATOR, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 4,

Defendants.

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

INTRODUCTION

1. This action arises under the citizen suit provision of the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 et seq. (hereinafter "the Clean Water Act" or "the CWA"). Plaintiffs seek a declaration that the United States Environmental Protection Agency (EPA) has failed to perform its non-discretionary duty to respond to Plaintiffs' petition seeking withdrawal of the Commonwealth of Kentucky's authority to administer the National Pollutant Discharge Elimination System (NPDES) within its borders and an injunction ordering it to promptly respond.

2. Alternatively, this action arises under Administrative Procedure Act, 5 U.S.C. §§ 501 et seq. (hereinafter "the APA"). Plaintiffs seek a declaration that the United States Environmental Protection Agency (EPA) has unreasonably delayed responding to Plaintiffs' petition seeking withdrawal of the Commonwealth of Kentucky's authority to administer the National Pollutant Discharge Elimination System (NPDES) within its borders and an injunction ordering it to promptly respond.

3. On March 15, 2010, pursuant to CWA section 402(c)(3), 33 U.S.C. § 1342(c)(3), Plaintiffs submitted a petition to Defendants' predecessors at EPA asking them "to evaluate the systematic failure of Kentucky to administer and enforce the National Pollutant Discharge Elimination System program and to withdraw the delegation of the program from the Kentucky Energy and Environment Cabinet." March 15, 2010 Petition ("the March 15th Petition") at 1, attached as Exhibit A. The petition identified numerous ways in which the Kentucky Energy and Environment Cabinet's ("the Cabinet" or "Kentucky") administration of its NPDES permitting and enforcement program failed to meet the requirements of the Act, resulting in widespread harm to the Commonwealth's waters. On May 3, 2010, Plaintiffs submitted a supplement to the March 15, 2010 petition. May 3, 2010 Supplement ("the May 3rd Supplement"), attached as Exhibit B. Both the March 15th Petition and the May 3rd Supplement (hereinafter, collectively "the Petition" or "Plaintiffs' Petition") focused on the Commonwealth's failure to adequately regulate pollution discharges from the coal mining industry.

4. As of the filing of this complaint, more than four and one half years after receiving Plaintiffs' Petition, EPA has not offered any substantive written response and has taken no action to withdraw the NPDES authority from the Cabinet. On information and belief, the

vast majority of the failures identified in the Petition and the Supplement remain unaddressed, leading to ongoing degradation of the Commonwealth's waters.

JURISDICTION AND VENUE

5. This court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question) and 33 U.S.C. § 1365 (Clean Water Act citizens' suit provision).

6. Alternatively, this court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question) and 5 U.S.C. § 702 (Administrative Procedure Act).

7. On November 7, 2014, Plaintiffs gave notice to the Defendants of their failure to perform their non-discretionary duty to respond to Plaintiffs' Petition and of Plaintiffs' intent to file suit if Defendants did not respond within 60 days, as required by Section 505(b)(2) of the CWA, 33 U.S.C. § 1365(b)(2). More than sixty days have passed since notice was served and Defendants have not offered a response.

8. Venue in this District is proper pursuant to 28 U.S.C. § 1391(e) because a substantial part of the events or omissions giving rise to this claim occurred in this district.

PARTIES

9. Plaintiff Kentuckians For The Commonwealth (KFTC) is a nonprofit organization incorporated in Kentucky with roughly 8,000 members in 90 counties in the Commonwealth. KFTC is a social justice organization whose mission includes the protection of water quality.

10. Plaintiff Sierra Club is a nonprofit corporation incorporated in California, with approximately 600,000 members nationwide and approximately 5,000 members who belong to its Kentucky chapter, called the Cumberland Chapter. The Sierra Club is dedicated to exploring, enjoying, and protecting the wild places of the Earth; to practicing and promoting the responsible use of the Earth's resources and ecosystems; to educating and enlisting humanity to protect and

restore the quality of the natural and human environment; and to using all lawful means to carry out those objectives. The Sierra Club's concerns encompass the exploration, enjoyment and protection of surface waters in Kentucky.

11. Plaintiffs' members' use and enjoyment of the water resources of the Commonwealth for recreational, aesthetic, and other beneficial purposes are adversely affected by the Defendants' failure to respond to Plaintiffs' Petition. Plaintiffs' members use and enjoy rivers, streams, and lakes in the Commonwealth where water quality is threatened by the Cabinet's failure to administer its NPDES program in accordance with the requirements of the CWA. Plaintiffs' members refrain from those activities or enjoy them less because of the Cabinet's failure to regulate pollution discharges as required by law. An order compelling Defendants to substantively respond to Plaintiffs' Petition would provide redress for those injuries.

12. At all relevant times, Plaintiffs were and are "persons" as that term is defined by the CWA, 33 U.S.C. § 1362(5), and the APA, 5 U.S.C. § 551(2).

13. Plaintiffs and their members are persons with interests that are adversely affected by the Defendants' failure to respond to their Petition, and those interests in the use, enjoyment, and protection of waters of the Commonwealth from coal mining pollution are within the zone of interests sought to be protected by the Clean Water Act.

14. Gina McCarthy is sued in her official capacity as Administrator of the United States Environmental Protection Agency, which is the agency of the federal government to which administration and enforcement of the Clean Water Act ("CWA" or "the Act") has been delegated by Congress. Pursuant to CWA section 402(c)(3), the Administrator is responsible for responding to petitions and commencing proceedings to withdraw a state's NPDES delegation.

15. Heather McTeer Toney is sued in her official capacity as the Regional Administrator of the United States Environmental Protection Agency's Region 4, which is the office of EPA directly responsible for oversight of the Commonwealth of Kentucky's administration of its NPDES program.

STATUTORY AND REGULATORY FRAMEWORK

16. The Clean Water Act, 33 U.S.C. § 1251 *et seq.*, is a comprehensive water quality statute designed "to restore and maintain the chemical, physical and biological integrity of the Nation's waters." 33 U.S.C. 1251(a).

17. Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the "discharge of any pollutant by any person" into waters of the United States except in compliance with the terms of a permit issued pursuant to the Act. Section 402 of the Act, 33 U.S.C. § 1342, establishes the National Pollution Discharge Elimination System ("NPDES") under which the Administrator of EPA may issue permits for the discharge of pollutants into waters of the United States, upon the condition that such discharges will meet all applicable requirements of the CWA.

18. Permits issued pursuant to the NPDES program define the obligations of the dischargers under the CWA, including setting limitations on rates and quantities of pollutant discharges and establishing monitoring and reporting requirements. 33 U.S.C. § 1342(a)(2); 40 C.F.R. Part 122. Compliance with an NPDES permit is deemed compliance with the Act as a whole. 33 U.S.C. § 1342(k); 40 C.F.R. § 122.5.

19. Section 402(b) of the CWA, 33 U.S.C. § 1342(b), allows the EPA Administrator to authorize any state to administer its own NPDES program upon an application showing that the state possesses adequate authority to carry out all aspects of the program. Authorized state NPDES programs must at all times be in accordance with the federal program. Id. at §

1342(c)(2).

20. EPA retains significant oversight over delegated programs. If at any time the Administrator determines that a state is not administering its NPDES program in accordance with the requirements of the federal program, she may initiate proceedings to withdraw the state's NPDES authorization. Section 402(c)(3) of the CWA states that:

> Whenever the Administrator determines after public hearing that a State is not administering a program approved under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

33 U.S.C. § 1342(c)(3).

21. EPA's regulation implementing Section 402(c)(3) states that the "Administrator may order the commencement of withdrawal proceedings on his or her own initiative or in response to a petition from an interested person." 40 C.F.R. § 123.64(b)(1). The regulation makes clear that EPA has a mandatory duty to respond to a petition submitted pursuant to CWA section 402(c)(3), stating that "[t]he Administrator will respond in writing to any petition to commence withdrawal proceedings." Id. (emphasis added). Those authorities create a non-discretionary duty for EPA to respond in writing to petitions seeking withdrawal of delegation from non-compliant state programs. See Save the Valley, Inc. v. U.S. E.P.A., 99 F.Supp.2d 981, 984–86 (S.D. Ind. 2000).

22. EPA's regulations explain the that circumstances where withdrawal of a state's NPDES authority is appropriate include:

> (1) Where the State's legal authority no longer meets the requirements of this part, including:
> (i) Failure of the State to promulgate or enact new authorities when necessary; or

(ii) Action by a State legislature or court striking down or limiting State authorities.

(2) Where the operation of the State program fails to comply with the requirements of this part, including:
(i) Failure to exercise control over activities required to be regulated under this part, including failure to issue permits;
(ii) Repeated issuance of permits which do not conform to the requirements of this part; or
(iii) Failure to comply with the public participation requirements of this part.

(3) Where the State's enforcement program fails to comply with the requirements of this part, including:
(i) Failure to act on violations of permits or other program requirements;
(ii) Failure to seek adequate enforcement penalties or to collect administrative fines when imposed; or
(iii) Failure to inspect and monitor activities subject to regulation.

(4) Where the State program fails to comply with the terms of the Memorandum of Agreement required under § 123.24 (or, in the case of a sewage sludge management program, § 501.14 of this chapter).

(5) Where the State fails to develop an adequate regulatory program for developing water quality-based effluent limits in NPDES permits.

(6) Where a Great Lakes State or Tribe (as defined in 40 CFR 132.2) fails to adequately incorporate the NPDES permitting implementation procedures promulgated by the State, Tribe, or EPA pursuant to 40 CFR part 132 into individual permits.

40 C.F.R. § 123.63(a).

23. At all times relevant to this complaint, the Commonwealth of Kentucky has been authorized by EPA to administer an NPDES program for regulating the discharges of pollutants into the waters of the Commonwealth. Permits issued under this program are issued by the Kentucky Energy and Environment Cabinet and are known as "KPDES" permits.

24. Section 505(a)(2) of the CWA, 33 U.S.C. § 1365(a)(2), authorizes any "citizen" to "commence a civil action on his own behalf . . . against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not

discretionary with the Administrator."

25. In an action brought under Section 505(a) of the CWA, the district court has jurisdiction to "order the Administrator to perform such act or duty." 33 U.S.C. § 1365(a).

26. Under Section 505(d) of the CWA, 33 U.S.C § 1365(d), the court "may award costs of litigation (including reasonable attorney and expert witness fees) to any prevailing or substantially prevailing party, whenever the court determines such an award is appropriate."

27. The Administrative Procedure Act ("APA") provides that "[a] person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. § 702.

28. The APA defines "agency action" to include those instances where an agency has failed to act. 5 U.S.C. § 551(13).

29. The EPA is a federal agency whose actions are subject to review under the APA. See 5 U.S.C. § 551(1).

30. The APA mandates that "within a reasonable time, each agency shall proceed to conclude a matter presented to it." 5 U.S.C. § 555(b).

31. The APA provides that a court shall "compel agency action unlawfully withheld or unreasonably delayed." 5 U.S.C. § 706(1).

FACTUAL BACKGROUND

32. On March 15, 2010, Plaintiffs submitted a petition to Defendants' predecessors at EPA asking them "to evaluate the systematic failure of Kentucky to administer and enforce the National Pollutant Discharge Elimination System program and to withdraw the delegation of the program from the Kentucky Energy and Environment Cabinet." Exhibit A at 1. The groups specifically requested that EPA formally respond to their petition in writing, as required by 33

U.S.C. § 1342(c)(3) and 40 C.F.R. § 123.64(b)(1). Id. at 4.

33. The March 15th Petition provided overwhelming evidence that Kentucky is failing to administer its NPDES program in accordance with the requirements of the CWA. The specific failures described in the March 15th Petition, supported by extensive citations and exhibits, primarily relate to the Cabinet's inadequate regulation of pollution from coal mining operations and include:

a. Failing to provide adequate staff to administer the NPDES program (Ex. A at 1–2);

b. Failing to adequately protect its streams from toxic selenium pollution by not including protective effluent limits in NPDES permits (Ex. A at 6–9);

c. Failing to implement and enforce its narrative aquatic life water quality criteria, including the narrative criterion for conductivity[1], in KPDES permits for coal mining operations, despite overwhelming scientific evidence that conductivity pollution from coal mining activities is causing widespread biological impairment in streams (Ex. A at 9–11);

d. Failing to protect against harm to aquatic life from iron pollution by promulgating a chronic water quality criterion that is only effective if aquatic life has already been adversely affected by such pollution (Ex. A at 11);

e. Failing to promulgate numeric water quality criteria for aluminum even though it is known to be causing serious harm to aquatic life uses (Ex. A at 11–12);

f. Authorizing the majority of coal mining discharges pursuant to a general NPDES permit, as opposed to individual NPDES permits for each operation, despite those discharges not meeting the requirements for coverage under a general permit (Ex. A at 12–13);

g. Failing to collect data and properly perform reasonable potential analyses to impose necessary effluent limitations in NPDES permits for conductivity, selenium, and other pollutants in general and individual coal mining NPDES permits (Ex. A at 13–22);

[1] Conductivity is a water quality metric. It is a measure of the salinity of a solution, expressed as the ability of the solution to conduct an electric current, and is measured in microSiemens per centimeter (µS/cm). In Appalachian streams receiving drainage from surface coal mines, conductivity values are highly correlative to the concentrations of four primary ions or "salts": calcium (Ca+), magnesium (Mg+), sulfate (SO42−), and bicarbonate (HCO3−). Each of those ions is a pollutant under the Clean Water Act. 33 U.S.C. §1362(6). Conductivity levels above 300 µS/cm in Appalachian streams have been shown to have adverse effects on aquatic life, such that they often result in the loss of entire genera of aquatic invertebrates.

h. Failing to adequately assess its streams for impairment from coal mining pollution and failing to develop Total Maximum Daily Loads (TMDLs) for streams that have been identified as impaired, thus undermining its ability to develop necessary water quality-based effluent limitations (Ex. A at 22–23);

i. Failing to issue permits for many coal mining reclamation bond forfeiture sites (Ex. A at 23–24); and

j. Authorizing discharges from abandoned mine land (AML) sites pursuant to a general NPDES permit despite those discharges not meeting the requirements for coverage under a general permit and failing to include any enforceable effluent limitations necessary to prevent violations of water quality standards in that general permit (Ex. A at 24–25).

34. The petition informed EPA that Kentucky's failure to administer its NPDES program in accordance with the requirements of the CWA was having dire consequences for the health of the Commonwealth's waters, citing the thousands of miles of rivers and streams that Kentucky itself has determined to be impaired by coal mining. Ex. A at 4. It concluded by stating that "[b]ecause the harm associated with the State's failure to maintain and administer its NPDES program is severe, irreversible and ongoing, we ask EPA to respond to and take action based on this petition as soon as possible." Id. at 29.

35. In April 2010, EPA issued a draft document titled Detailed Guidance on Improving EPA Review of Appalachian Surface Coal Mining Operations Under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order ("Detailed Guidance"). That Guidance acknowledged the indisputable scientific evidence that high conductivity discharges from Appalachian coal mining operations have the reasonable potential to harm aquatic life and established a framework for developing water quality-based effluent limitations in NPDES permits to protect against such harm.

36. On May 3, 2010, Plaintiffs submitted to EPA a supplement to their March 15th Petition. The May 3rd Supplement highlighted the inconsistency between Kentucky's failure to

address conductivity pollution in its NPDES permits for coal mining operations and EPA's Detailed Guidance, which made clear that regulating conductivity pollution from Appalachian surface coal mining operations is essential to protecting aquatic life as required by the CWA. Exhibit B at 4–6. The Supplement also provided additional evidence of Kentucky's failure to follow the required procedures necessary to develop conditions in its NPDES permits that will adequately protect aquatic life. Id. at 6–11.

37. More than four and one half years have passed since Plaintiffs sent their Petition to EPA. Plaintiffs have yet to receive a formal written response as requested and as required by 33 U.S.C. § 1342(c)(3) and 40 C.F.R. § 123.64(b)(1).

38. On information and belief, the vast majority of the failures identified in Plaintiffs' Petition continue to this day.

39. Further failures in the intervening years prompted Plaintiffs to send an additional, separate petition to EPA on September 3, 2014, requesting that EPA initiate formal proceedings under 40 C.F.R. § 123.64(b) to withdraw approval of Kentucky's National Pollutant Discharge Elimination System (NPDES) program on grounds independent from those stated in the March 15, 2010 Petition and May 3, 2010 Supplement. EPA has not responded to that petition.

40. Pursuant to Section 505(b)(2) of the CWA, 33 U.S.C. § 1365(b)(2), Plaintiffs sent a notice of intent letter ("NOI"), postmarked on November 7, 2014, notifying the Defendants of their failure to perform their non-discretionary duty to respond to Plaintiffs' Petition. The NOI notified Defendants of Plaintiffs' intent to file suit if Defendants did not respond within 60 days. The NOI was sent by certified mail, return receipt requested, to the following persons: Gina McCarthy, Administrator of EPA; Heather McTeer Toney, Regional Administrator of EPA Region 4; and Eric Holder, United States Attorney General.

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FIRST CLAIM FOR RELIEF

(Failure to Perform Non-Discretionary Duty Under the Clean Water Act)

41. Plaintiffs incorporate by reference all allegations contained in paragraphs 1 through 40 supra.

42. Clean Water Act section 402(c)(3), 33 U.S.C. § 1342(c)(3), and 40 C.F.R. § 122.64(b)(1) establish a non-discretionary duty for the Administrator of EPA to respond in writing to any petition seeking the withdrawal of a state NPDES program delegation.

43. Plaintiffs' submission of their March 15, 2010 Petition and May 3, 2010 Supplement triggered the EPA's non-discretionary duty to provide a written response.

44. More than four and one half years have passed since Plaintiffs submitted their petition and EPA has yet to fulfill its duty to provide a written response.

45. On information and belief, absent an Order from this Court, EPA will remain in violation of the CWA as a result of its failure to perform the non-discretionary duty to respond in writing to petitions submitted pursuant to CWA section 402(c)(3), 33 U.S.C. § 1342(c)(3).

SECOND, ALTERNATIVE CLAIM FOR RELIEF

(Unreasonable Delay Under the Administrative Procedure Act)

46. Plaintiffs incorporate by reference all allegations contained in paragraphs 1 through 40 supra.

47. The Administrative Procedure Act mandates that all federal agencies shall "within a reasonable time . . . proceed to conclude a matter presented to it," 5 U.S.C. § 555(a), and provides that a court shall "compel agency action unlawfully withheld or unreasonably delayed," 5 U.S.C. § 706(1).

48. Plaintiffs' submission of their March 15, 2010 Petition and May 3, 2010 Supplement triggered the EPA's duty under the APA to respond and proceed to conclude the

matters presented in Plaintiffs' Petition within a reasonable time.

49. The more than four and one half year delay between Plaintiffs' submission of their Petition and the filing of this action is patently unreasonable.

50. On information and belief, absent an Order from this Court, EPA's unreasonable delay in responding to Plaintiffs' Petition will continue.

RELIEF REQUESTED

WHEREFORE, Plaintiffs respectfully request that this court enter an Order:

(1). Declaring that EPA has failed to perform its non-discretionary duty under the Clean Water Act to respond in writing to Plaintiffs' Petition;

(2). Alternatively, declaring that the EPA's failure to respond to Plaintiffs' Petition for more than four and one half years constitutes an unreasonable delay under the Administrative Procedure Act;

(3). Ordering EPA to promptly provide a substantive, written response to Plaintiffs' Petition seeking withdrawal of Kentucky's NPDES program delegation;

(4). Awarding Plaintiffs' attorney fees and all other reasonable expenses incurred in pursuit of this action; and

(5). Granting other such relief as the Court deems just and proper.

Respectfully submitted,

/s/ Joseph M. Lovett
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Exhibit 4

EPA Motion to Dismiss

UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF KENTUCKY
FRANKFORT DIVISION

KENTUCKIANS FOR THE COMMONWEALTH and SIERRA CLUB,

Plaintiffs,

vs. Case No. 3:15-cv-00004-GFVT

GINA McCARTHY, in her official Capacity as Administrator, United States Environmental Protection Agency; HEATHER McTEER TONEY, in her official Capacity as Regional Administrator of the United States Environmental Protection Agency Region IV,

Defendants.
_____/

EPA'S MOTION TO DISMISS
AND INCORPORATED MEMORANDUM OF LAW

Pursuant to Federal Rules of Civil Procedure 12(b)(1) and 12(b)(6), Defendants Gina McCarthy, Administrator of the United States Environmental Protection Agency, and Heather McTeer Toney, Regional Administrator of the United States Environmental Protection Agency Region IV (collectively, "EPA") hereby move to dismiss the Complaint filed by Kentuckians for the Commonwealth and Sierra Club (ECF No. 1) for lack of subject-matter jurisdiction and for failure to state a claim upon which relief can be granted.

INTRODUCTION

Count I of the Complaint asserts a claim against EPA under the citizen suit provision of the Clean Water Act ("CWA"), 33 U.S.C. § 1365(a)(2). ECF No. 1 at ¶ 5. Plaintiffs contend in Count I that EPA has failed to perform an alleged nondiscretionary duty under Section 402(c)(3) of the CWA, 33 U.S.C. § 1342(c)(3) and 40 C.F.R. § 123.64(b)(1) to respond in writing to their petition seeking the withdrawal of Kentucky's National Pollutant Discharge Elimination System ("NPDES") permit program. ECF No. 1 at ¶ 41. Because the CWA does not establish a mandatory duty for EPA to respond to Plaintiffs' petition, Plaintiffs have failed to state a claim upon which relief can be granted. Plaintiffs have also failed to identify an applicable waiver of sovereign immunity, which is a mandatory prerequisite for any action against the United States. See United States v. Mitchell, 463 U.S. 206, 212 (1983). Therefore, Count I should be dismissed under either Rule 12(b)(1) or 12(b)(6), or both.

In Count II, Plaintiffs assert that EPA's alleged failure to respond to their petition constitutes an "unreasonable delay" under the Administrative Procedure Act ("APA"), 5 U.S.C. § 706(1). ECF No. 1 at ¶¶ 6, 46-50. EPA is required to "conclude a matter presented to it" under the APA. 5 U.S.C. § 555(b). But where the EPA action that Plaintiffs request in their petition is directly reviewable in the

circuit court of appeals, as is the case here, an unreasonable delay claim related to that action must be brought in the court of appeals rather than in district court. Count II should therefore also be dismissed for lack of subject matter jurisdiction.

STATUTORY AND REGULATORY BACKGROUND

A. The Clean Water Act and the NPDES Permit Program

The CWA was adopted to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). To achieve this goal, the CWA prohibits the discharge of any pollutant into waters of the United States except in accordance with certain restrictions. 33 U.S.C. § 1311(a). Discharges of pollutants from point sources into waters of the United States are regulated under the NPDES permit program established in CWA Section 402, 33 U.S.C. § 1342.[1] The CWA defines a "point source" as "any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged." 33 U.S.C. § 1362(14). A person discharging pollutants from a point source into waters of the United States generally must secure an NPDES permit. NPDES permits contain technology-based effluent limitations and, where necessary, more stringent limitations to ensure that receiving waters comply with water quality standards. 33 U.S.C. §§ 1311, 1312.

[1] Discharges of "dredged or fill material" from point sources into waters of the United States are regulated through the issuance of permits by the U.S. Army Corps of Engineers under a different CWA provision – Section 404, 33 U.S.C. § 1344 – and are not implicated here.

The CWA recognizes that states bear "the primary responsibilit[y] and right[] . . . to prevent, reduce, and eliminate pollution." 33 U.S.C. § 1251(b). In that regard, the CWA specifically established as "the policy of Congress that the States . . . implement the [NPDES] permit program." Id. The CWA's substantive provisions and legislative history thus "reflect the desire of Congress to put the regulatory burden on the States and to give [EPA] broad discretion in administering the program." District of Columbia v. Schramm, 631 F.2d 854, 860 (D.C. Cir. 1980); see also Chesapeake Bay Found., Inc. v. Virginia State Water Control Bd., 495 F. Supp. 1229, 1232 (E.D. Va. 1980) ("A State's administration of an NPDES program is indicative of Congress's intent to 'recognize, preserve and protect the primary responsibilities and rights of the states to prevent, reduce, and eliminate pollution. . . .'"). Courts have described EPA's role once a state has assumed NPDES permitting authority as "supervisory." See id. For example, although EPA may prevent the issuance of a state NPDES permit by vetoing it, EPA's decision to acquiesce in a state permit decision is "totally discretionary and unreviewable." Id.

CWA Section 402(b), 33 U.S.C. § 1342(b), provides that states may seek authority to administer the NPDES program and issue NPDES permits.[2] Section

[2] Forty-six states, including the State of Kentucky, have been authorized by EPA to administer their own NPDES programs. EPA administers the program in the remaining jurisdictions. 69

402(b) includes criteria governing EPA's approval of state NPDES program authority.[3]

CWA Section 402(c) sets forth the process by which EPA may withdraw its approval of a state's NPDES program:

> Whenever the Administrator determines after a public hearing that a State is not administering a program approved under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

33 U.S.C. § 1342(c)(3). While this provision requires that the Administrator act within 90 days after notification to a state if the state fails to take corrective action, that duty is triggered only after the Administrator provides notice to the state that she has determined that the state is not administering its program in accordance with requirements of the CWA, which determination can be made only after a public hearing. Notably, the CWA contains no provision specifying: (1) when, if ever, EPA must hold a public hearing regarding the sufficiency of a state NPDES

Fed. Reg. 44,952, 44,960 (July 28, 2004); See <http://water.epa.gov/polwaste/npdes/basics/NPDES-State-Program-Status.cfm>.

[3] CWA Section 304(i), 33 U.S.C. § 1314(i), authorizes EPA to establish minimum requirements for state NPDES programs.

program; or (2) when, if ever, EPA must make a determination that a state's NPDES program is inadequate.

The legislative history confirms that Congress intended that EPA would withdraw a state's NPDES authority only in extraordinary circumstances. See 118 Cong. Rec. 33750 (1972) (statement by Representative Jones of Alabama) ("If the State fails to carry out its responsibility or misuses the permit program, the Administrator is fully authorized to withdraw his approval of the State plan or[,] in the case of an individual permit which does not meet regulations and guidelines in the act, preclude the issuance of such permit. It is intended, however, that the Administrator shall not take such action except upon a clear showing of failure on the part of the State to follow the guidelines or otherwise to comply with the law.").

B. EPA Regulations Implementing the State NPDES Program

EPA's regulations implementing the NPDES program at 40 C.F.R. Part 123 explain in detail the process for withdrawal of a state program. Section 123.63, "[c]riteria for withdrawal of State programs," provides that the EPA Administrator "may withdraw program approval when a State program no longer complies with the requirements of this part, and the State fails to take corrective action." 40

C.F.R. § 123.63(a) (emphasis added).[4] Consistent with the discretionary language in Section 123.63, Section 123.64(b)(1) provides that the EPA Administrator "may" order the commencement of withdrawal proceedings on his or her own initiative or in response to a petition from an interested person alleging that a State has failed to comply with the requirements of part 123, as set forth in Section 123.63. 40 C.F.R. § 123.64(b)(1). The regulation provides that the Administrator will respond in writing to any petition to commence withdrawal proceedings and "<u>may</u> conduct an informal investigation of the allegations in the petition to determine whether cause exists to commence [withdrawal] proceedings." <u>Id.</u> (emphasis added). Even where the Agency conducts an informal investigation, there is no requirement that EPA hold a hearing or proceed further with withdrawal proceedings. Only if the Administrator makes a determination to proceed with withdrawal proceedings does the Administrator issue an order fixing a time and place for a hearing and specifying the allegations against the state that are to be considered at the hearing. <u>See</u> <u>id.</u> In such case, the state must respond to the allegations in writing within 30 days. <u>Id.</u> The party seeking withdrawal of a

[4] Under EPA's regulations, such circumstances include situations where EPA has determined that the state's legal authority or its operation of its NPDES program no longer meets or complies with EPA's requirements. <u>Id.</u> Examples of potential non-compliance include: a state's failure to promulgate or enact new authorities "when necessary"; action by a state legislature or court "striking down or limiting State authorities"; a state's failure to "exercise control" over activities required to be regulated under EPA regulations; a state's "repeated" issuance of permits that do not conform to EPA requirements; and a state's failure to comply with "public participation" requirements. 40 C.F.R. § 123.63(a)(1)(i), (ii); (2)(ii)(iii).

state's program bears the burden of coming forward with evidence at the hearing. Id.

At the conclusion of a hearing, the presiding officer evaluates the record, together with the proposed findings and briefs filed by the parties, and prepares a recommended decision that is presented to the Administrator or her delegatee. Id. The Administrator reviews the record and issues a decision. If the Administrator concludes that the state "has administered the program in conformity with the appropriate Act and regulations his decision shall constitute [the Administrator's] 'final agency action' within the meaning of 5 U.S.C. 704." 40 C.F.R. § 123.64(8)(vii). If the Administrator concludes that the state has not administered its program in conformity with the CWA and EPA's regulations, the Administrator must list the deficiencies in the program and provide the state a reasonable time, not to exceed 90 days, to take "such appropriate corrective action as the Administrator determines necessary." Id. at § 123.64(8)(iii). If the state fails to take appropriate corrective action within the prescribed time, the Administrator is to issue a supplementary order withdrawing approval of the state program. Id. at § 123.64(8)(vi). If the state takes appropriate corrective action, the Administrator is to issue a supplementary order stating that approval of authority is not

withdrawn. Id. Both types of supplementary orders constitute final agency action within the meaning of 5 U.S.C. § 704. Id. at § 8(vii).

C. The Clean Water Act Citizen Suit Provision

In certain circumstances, the CWA allows private actions to be filed against EPA by a person with an interest that may be adversely affected. Section 505 of the Act, 33 U.S.C. § 1365, provides a limited waiver of sovereign immunity for citizen suits that allege, inter alia, EPA's failure to perform a nondiscretionary duty under the CWA. Significantly, Section 505(a)(2) provides that: [A]ny person may commence a civil action on his own behalf –

> (2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator.

Id. § 1365(a)(2).[5] The citizen suit provision further states: "The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, . . . to order the Administrator to perform such act or duty[.]" Id. § 1365(a). A prospective plaintiff must provide EPA with 60-day notice of its intent to file a suit alleging that EPA failed to perform a nondiscretionary duty. Id. § 1365(b)(2).

[5] CWA Section 505(a)(1), which is not implicated here, allows private actions to be filed against persons who are in violation of their NPDES permits. 33 U.S.C. § 1365(a)(1).

D. Judicial Review Under CWA Section 509(b)

The CWA's review provision, Section 509(b), 33 U.S.C. § 1369, was intended by Congress to "establish a clear and orderly process for judicial review" of key EPA decisions implementing the CWA. See H.R. Rep. No. 92-911, at 136 (1972), reprinted at 1 Legislative History of the Water Pollution Control Act of 1972 at 823 (Comm. Print 1973). Under Section 509(b), the federal courts of appeals have exclusive jurisdiction to review the matters enumerated in Section 509(b)(1), 33 U.S.C. § 1369(b)(1). The provision relevant here states:

> Review of the Administrator's action . . . (D) in making any determination as to a State permit program submitted under section 1342(b) of [the Act] . . . may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts business.

33 U.S.C. § 1369(b)(1)(D).

E. APA Claim of Unreasonable Delay

The APA includes a waiver of sovereign immunity for review of "final agency action for which there is no other adequate remedy in court." 5 U.S.C. § 704.[6] A reviewing court is authorized to "compel agency action unlawfully withheld or unreasonably delayed," 5 U.S.C. § 706(1), or "hold unlawful and set aside agency action" based on various legal or evidentiary grounds, id. § 706(2). A

[6] The APA defines "agency action" to mean "the whole or a part of an agency rule, order, license, sanction, relief, or the equivalent or denial thereof, or failure to act." 5 U.S.C. § 551(13).

claim under Section 706(1)—seeking to compel agency action asserted to be unreasonably delayed or unlawfully withheld—can proceed only where a plaintiff asserts that an agency has failed to take a discrete action that it is required to take, Norton v. Southern Utah Wilderness Alliance, 542 U.S. 55, 64 (2004), and where there is "no other adequate remedy in a court," 5 U.S.C. § 704. See Middlesex County Sewerage Auth. v. National Sea Clammers' Ass'n, 453 U.S. 1, 20 (1981) (finding that the comprehensive scheme of remedies under the CWA citizen suit provision displaces remedies afforded by other statutes).

FACTUAL BACKGROUND AND PLAINTIFFS' COMPLAINT

A. Kentucky's NPDES Program

On September 30, 1983, EPA authorized Kentucky, through the Kentucky Energy and Environment Cabinet, to administer the NPDES program in that State. 48 Fed. Reg. 45,597 (Oct. 6, 1983). The regulations governing the issuance and terms of Kentucky's NPDES permits are set forth at Chapter 5 of the Kentucky Administrative Code.

B. Plaintiffs' Petition to Withdraw the State's Authority to Administer the NPDES Program

On March 15, 2010, Plaintiffs submitted an administrative petition asking EPA to withdraw the authority of the Kentucky Energy and Environment Cabinet

to administer the NPDES program in Kentucky. ECF No. 1 ¶ 3; Id. Ex. A. The petition was supplemented on May 3, 2010. Id. Ex. B.

C. Plaintiffs' Complaint

Plaintiffs' two-count Complaint is brought against EPA pursuant to the CWA citizen suit provision, 33 U.S.C. § 1365(a)(2), and the APA, 5 U.S.C. § 702. ECF No. 1 at ¶¶ 5-6. Count I asserts that EPA has a nondiscretionary duty to "respond in writing" to Plaintiffs' petition to withdraw Kentucky's NPDES program delegation. Id. ¶ 42. Plaintiffs seek an order declaring, inter alia, that EPA has a nondiscretionary duty to respond in writing to their petition. Id. at 13.

Count II asserts an "unreasonable delay" claim under the APA, 5 U.S.C. § 706(1), alleging that EPA has failed to timely respond to Plaintiffs' 2010 petition. Id. ¶¶ 48-49. Plaintiffs seek a declaration by this Court that EPA has unreasonably delayed acting on Plaintiffs' petition, and an order requiring EPA to take final action on the petition. Id. at 13.

STANDARD OF REVIEW

On a motion to dismiss pursuant to Federal Rule of Civil Procedure 12(b)(1), the court must determine whether the complaint sets forth allegations sufficient to establish the court's jurisdiction over the subject matter of the claims for relief. Because federal courts are courts of limited jurisdiction and may hear cases only to

the extent expressly provided by statute, the first and fundamental question presented by every case is whether the court has jurisdiction to hear it. Steel Co. v. Citizens for a Better Env't, 523 U.S. 83, 94 (1998) ("jurisdiction [must] be established as a threshold matter"). Where subject matter jurisdiction does not exist, "the court cannot proceed at all in any cause." Id. (internal quotation marks and citation omitted).

The burden of establishing subject matter jurisdiction rests with the plaintiff. Kokkonen v. Guardian Life Ins. Co. of Am., 511 U.S. 375, 377 (1994) (it is "to be presumed that a cause lies outside this limited jurisdiction, and the burden of establishing the contrary rests upon the party asserting jurisdiction." (citations omitted)). See also Hudson v. Coleman, 347 F.3d 138, 141 (6th Cir. 2003) (plaintiff bears burden of establishing jurisdiction). To establish the existence of subject matter jurisdiction in a suit against the United States, the plaintiff bears the burden of showing that his or her claims fall within an applicable and unequivocal waiver of sovereign immunity. Reetz v. United States, 224 F.3d 794, 795 (6th Cir. 2000). If the conditions of that waiver are not met, the claims must be dismissed under Fed. R. Civ. P. 12(b)(1). Southern Rehabilitation Group, P.L.L.C. v. Sec'y of Health & Human Svcs., 732 F.3d 670, 678-80 (6th Cir. 2013), cert. denied, 134 S.Ct. 2746 (2014). As the Supreme Court has recognized, "[i]t is axiomatic that

the United States may not be sued without its consent and that the existence of consent is a prerequisite for jurisdiction." United States v. Mitchell, 463 U.S. at 212. Waivers of sovereign immunity "must be unequivocally expressed in [the] statutory text, and will not be implied." Lane v. Pena, 518 U.S. 187, 192 (1996) (citations omitted). Even when a statute provides an express waiver of sovereign immunity, that waiver is strictly construed in favor of the government. See United States v. Nordic Village, Inc., 503 U.S. 30, 34 (1992); Southern Rehabilitation Group, 732 F.3d at 676. Moreover, when the United States consents to be sued, it may define the terms and conditions upon which it may be sued, United States v. Kubrick, 444 U.S. 111, 117-18 (1979), and the terms of its consent are jurisdictional. See Southern Rehabilitation Group, 732 F.3d at 680.

Federal Rule of Civil Procedure 12(b)(6) requires dismissal of a case for fails to state a claim upon which relief can be granted. A court must dismiss a complaint for failure to state a claim when "it appears beyond doubt that the plaintiff can prove no set of facts in support of his claim which would entitle him to relief." Conley v. Gibson, 355 U.S. 41, 45-46 (1957).

ARGUMENT

I. The Court Lacks Subject Matter Jurisdiction Over Count I of the Complaint Because There is No Waiver of Sovereign Immunity.

A. The CWA Citizen Suit Provision Does Not Provide a Waiver of Sovereign Immunity for Count I Because the Statute Does Not Establish a Nondiscretionary Duty for EPA to Respond to Plaintiffs' Petition.

Plaintiffs' first cause of action is asserted under the CWA's citizen suit provision, Section 505, 33 U.S.C. § 1365. Under that provision, district courts have subject matter jurisdiction only if there has been a "failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator." 33 U.S.C. § 1365(a)(2).

Plaintiffs allege that CWA Section 402(c)(3), 33 U.S.C. § 1342(c)(3), and 40 C.F.R. § 123.64(b)(1) "establish a non-discretionary duty for the Administrator of EPA to respond to any petition seeking withdrawal of a state NPDES program delegation."[7] ECF No. 1 at ¶ 42; id. at ¶¶ 21, 32. While Section 402(c)(3) of the CWA authorizes the Administrator to withdraw a state's authority to administer the NPDES program upon certain conditions, the CWA does not establish a non-discretionary duty for EPA to respond to Plaintiffs' petition to withdraw Kentucky's authority to administer the NPDES program. EPA's regulations

[7] Plaintiffs' citation to 40 C.F.R. § 122.64(b)(1) in Paragraph 42 of the Complaint appears to be a typographical error.

provide that the "Administrator may order the commencement of withdrawal proceedings on his or her own initiative or in response to a petition from an interested person" and "[t]he Administrator will respond in writing to any petition to commence withdrawal proceedings." 40 C.F.R. § 123.64(b)(1); ECF No. 1 at ¶ 22. Thus, the alleged duty that Plaintiffs seek to enforce - EPA's response to their petition - is not contained in the Act but, rather, is in EPA's regulations. 40 C.F.R. § 123.64(b)(1). As demonstrated below, the CWA does not authorize suit against the United States to enforce a regulatory duty - as opposed to a statutory duty - and, even if it did, EPA's regulation does not establish a nondiscretionary duty. Accordingly, there is no nondiscretionary duty cognizable under the citizen suit provision of the CWA and thus no waiver of sovereign immunity.

1. The CWA citizen suit provision does not authorize suit against EPA to enforce a regulatory duty.

Plaintiffs allege that EPA has a nondiscretionary duty to respond to their petition seeking withdrawal of the State's authority to administer the NPDES program. ECF No. 1 at ¶ 1. However, there is no such duty in the CWA. The citizen suit provision of the CWA authorizes suit "against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator." 33 U.S.C. § 1365(a)(2) (emphasis added). The plain language of the provision limits citizen suits to acts

or duties mandated by the CWA. Because the citizen suit provision does not authorize suit to enforce a duty established in a regulation, there is no waiver of sovereign immunity that allows Plaintiffs' claim to be heard.

The First Circuit is the only court of appeals to directly address whether a regulation, rather than a statutory provision, can be the source of an alleged nondiscretionary duty in a citizen suit.[8] In Maine v. Thomas, 874 F.2d 883 (1st Cir. 1989), the court considered a virtually identical citizen suit provision in the Clean Air Act, and held that it did not authorize suit to compel EPA to meet a regulatory deadline. In that case, the statute established a nondiscretionary duty requiring that EPA act by a date certain to promulgate certain regulations. EPA missed the statutory deadline, but ultimately promulgated regulations to fulfill the duty, in part, and set a new deadline in the regulation for completion of the action required by the statute. After EPA failed to meet the deadlines established in the regulation, plaintiffs brought a citizen suit seeking to enforce the nondiscretionary duty that was established in the statute and deferred by the regulation. The First Circuit held that EPA had satisfied the statutory duty when it promulgated the regulation and, because the regulation was a final agency action and the time to

[8] The issue was raised, but not decided, in National Wildlife Federation v. Browner, 127 F.3d 1126, 1129 (D.C. Cir. 1997) and Sierra Club v. EPA, 475 F. Supp. 2d 29, 33 (D.D.C. 2007). In both cases, the courts concluded that the regulation at issue did not create a nondiscretionary duty, thus it was not necessary to decide whether such a duty would support jurisdiction under the citizen suit provision.

challenge the regulation had passed, the court had no jurisdiction to consider the challenge to the regulation. The court explained:

> EPA fulfilled its statutory duty here; its recalcitrance, if any, lies not in its failure to meet a deadline imposed by Congress, but rather in a failure to meet self-imposed regulatory deadlines . . . Such regulatory duties are perhaps nondiscretionary, but they are not statutory nondiscretionary duties; hence, they are not proper grist for the [citizen suit] mill.

Id. at 7 (emphasis in original).

The circumstances presented in this case are even more compelling because in Maine v. Thomas, both the statute and the regulation established nondiscretionary duties requiring EPA to act by a date certain. In this case, the statute does not establish a nondiscretionary duty to respond to Plaintiffs' petition.[9] And, as discussed below, the regulation does not establish a nondiscretionary duty to respond to Plaintiffs' petition.

[9] As noted above, CWA section 402(c)(3) does not require a response to a petition or even authorize the filing of a petition. Nor do Plaintiffs assert that EPA has a nondiscretionary duty to withdraw the State's authority to administer the NPDES program. Such a claim would also fail, because while CWA section 402(c)(3) authorizes EPA to withdraw the State's authority to administer the NPDES program, such proceedings may be commenced only after EPA determines that the State is not administering its NPDES program in accordance with the requirements of the Act and notifies the State of the determination. However, the statute does not require EPA to make such a determination. Because no such determination has been made, there is no duty to provide the notice referenced in Section 402(c) or to commence proceedings as requested by Plaintiffs' petition.

2. EPA's regulation does not establish a nondiscretionary duty to respond to Plaintiffs' petition seeking withdrawal of the State's authority to administer the NPDES program.

Even if the citizen suit provision authorized a suit based upon a regulation to compel performance of a nondiscretionary duty, it would not support jurisdiction here because the regulation in question does not establish a nondiscretionary duty to respond to Plaintiffs' petition. "A clearly mandated, nondiscretionary duty imposed on the Administrator is a prerequisite for federal jurisdiction under the CWA citizen suit provision." Miccosukee Tribe of Indians v. EPA, 105 F.3d 599, 602 (11th Cir. 1997). See also Dubois v. Thomas, 820 F.2d 943, 946 (8th Cir. 1987); Sierra Club v. Train, 557 F.2d 485, 488 (5th Cir. 1977).

The regulation cited by Plaintiffs provides only that the Administrator will respond in writing to any petition to commence withdrawal proceedings. 40 C.F.R. § 123.64(b)(1). However, it does not provide any time period or deadline for the Administrator's response. Because the regulation lacks a "date-certain deadline" by which EPA must perform the alleged duty, it cannot be interpreted to establish an enforceable nondiscretionary duty. In Sierra Club v. Thomas, 828 F.3d 783 (D.C. Cir. 1987), the D.C. Circuit held that "[i]n order to impose a clear-cut nondiscretionary duty, we believe that a duty of timeliness must 'categorically mandat[e]' that all specified action be taken by a date-certain deadline." Id. at 791.

"In the absence of a readily-ascertainable deadline . . . it will be almost impossible to conclude that Congress accords a particular agency action such high priority as to impose upon the agency a 'categorical[] mandat[e]' that deprives it of all discretion over the timing of its work." Id.; see also Envtl. Def. Fund, 870 F.2d 892, 897 (2d Cir. 1989) (citing Sierra Club v. Thomas and noting that only "provisions that do include stated deadlines should, as a rule, be construed as creating non-discretionary duties"); Defenders of Wildlife v. Browner, 888 F. Supp. 1005, 1008 (D. Ariz. 1995) (holding that a statutory provision requiring that EPA act "promptly" "is not a categorical mandate from Congress that deprives EPA of all discretion over the timing for preparing and publishing proposed water quality regulations.").

Because EPA's regulation lacks a "date-certain deadline" for EPA to respond to the petition submitted by Plaintiffs, there is no nondiscretionary duty here and thus no jurisdiction under the citizen suit provision to impose such a deadline, even if a regulation were found to establish an enforceable nondiscretionary duty.

B. None of the Remaining Statutes Cited by Plaintiffs Provides Independent Grounds for this Court's Jurisdiction.

Aside from their attempt to establish a waiver of sovereign immunity under the CWA's citizen suit provision, Plaintiffs claim that this Court has jurisdiction

under the federal question statute, 28 U.S.C. § 1331. ECF No. 1 ¶ 5. However, it is well settled that the federal question statute does not provide a general waiver of sovereign immunity. The federal question statute provides: "The district courts shall have original jurisdiction of all civil actions arising under the Constitution, laws, or treaties of the United States." 28 U.S.C. § 1331. This provision merely establishes subject matters that are within the jurisdiction of federal courts to entertain. Reed v. Reno, 146 F.3d 392, 398 (6th Cir. 1998). "Where the United States is the defendant . . . federal subject matter jurisdiction is not enough; there must also be a statutory cause of action through which Congress has waived sovereign immunity." Floyd v. District of Columbia, 129 F.3d 152, 155-56 (D.C. Cir. 1997) (citing Nordic Village, 503 U.S. at 34). Thus, the federal question statute does not itself provide a waiver of sovereign immunity allowing Plaintiffs to bring suit against EPA in the absence of a waiver under Section 505(a)(2) of the Act.

Nor does Plaintiffs' request for declaratory relief, Request for Relief ¶¶ 1 and 2, afford an independent basis for jurisdiction. The Declaratory Judgment Act, 28 U.S.C. §§ 2201-02, provides that "[i]n a case of actual controversy within its jurisdiction . . . any court of the United States . . . may declare the rights and other legal relations of any interested party seeking such declaration, whether or not

further relief is or could be sought." 28 U.S.C. § 2201(a). But this language creates a remedy only where the court otherwise has jurisdiction. It does not waive sovereign immunity or establish jurisdiction for a claim. Skelly Oil Co. v. Phillips Petroleum Co., 339 U.S. 667, 671-72 (1950); Heydon v. MediaOne of Southeast Michigan, 327 F.3d 466, 470 (6th Cir. 2003).

Plaintiffs also generally allege jurisdiction based on the APA, 5 U.S.C. § 702, ECF No. 1 ¶ 6. However, Plaintiffs do not rely upon the APA for their claim in Count I that EPA has failed to perform a nondiscretionary duty required by the CWA; nor could they. See Bowen v. Massachusetts, 487 U.S. 879, 903 (1988) ("Congress did not intend the general grant of review in the APA to duplicate existing procedures for review of agency action."); Middlesex Cnty. Sewerage Auth., 453 U.S. at 20-21 (concluding that comprehensive remedies under the Clean Water Act's citizen-suit provision displace remedies afforded by other federal statutes). Rather, Plaintiffs rely upon the APA for Count II of their Complaint, asserting that EPA has unreasonably delayed its response to their petition. That claim must be dismissed for different reasons, as discussed below.

Accordingly, Count I of Plaintiffs' Complaint should be dismissed under Federal Rules 12(b)(1) and 12(b)(6).

II. Because the Court of Appeals Has Exclusive Jurisdiction Over Plaintiffs' Unreasonable Delay Claim, Count II Must Also Be Dismissed.

As an alternative to their citizen suit claim, Plaintiffs assert a claim of unreasonable delay under the APA. ECF No. 1 at 12-13 ("Alternative Claim for Relief"). Specifically, Plaintiffs allege that EPA has unreasonably delayed carrying out its "duty under the APA to respond and proceed to conclude the matters presented in Plaintiffs' petition." Id. ¶ 48. Plaintiffs seek a declaration that EPA has unreasonably delayed acting on Plaintiffs' petition and an injunction requiring EPA to "promptly provide a substantive, written response" to the petition. Id. at 13.

The APA requires that "[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule." 5 U.S.C. § 553(e). The APA further provides that "within a reasonable time, each agency shall proceed to conclude a matter presented to it." 5 U.S.C. § 555(b). If a petition is denied in whole or in part, the agency is to give the petitioner "prompt notice" of the denial. 5 U.S.C. § 555(e). As noted above, under the APA, a reviewing court may "compel agency action unlawfully withheld or unreasonably delayed." 5 U.S.C. § 706(1).

Although Plaintiffs have identified a waiver of sovereign immunity with respect to Count II, this Court lacks jurisdiction because the substantive action that Plaintiffs seek to compel, i.e., a decision on their petition to withdraw EPA's approval of Kentucky's NPDES program, is subject to review in the Sixth Circuit Court of Appeals and any claim that EPA has unreasonably delayed taking such action can only be heard in the Sixth Circuit.

A final decision by EPA under CWA Section 402(c) that a State is, or is not, administering its program in conformity with the CWA and applicable regulations is subject to exclusive review in the courts of appeals. See Section CWA 509(b)(1)(D), 33 U.S.C. § 1369(b)(1)(D) (Administrator's action "in making any determination as to a State permit program submitted under section 1342(b) of [the Act]" may be had "by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts business." See Save the Bay, Inc. v. Administrator of EPA, 556 F.2d 1282, 1288 (5th Cir. 1977) ("this court would have original jurisdiction to review EPA's decision to revoke or not to revoke NPDES authority" because such a decision "would be a 'determination as to a State permit program' within this court's purview under § 509(b)(1)(D), 33 U.S.C. § 1369(b)(1)(D)").

It is well-established in the Sixth Circuit that where a statute commits review of final agency action to the courts of appeals, any suit seeking relief that might affect the appellate court's future jurisdiction is also subject to exclusive appellate court review. See, e.g., La Voz Radio de la Communidad v. FCC, 223 F.3d 313, 318 (6th Cir. 2000); ITC DeltaCom Commc'ns, Inc. v. BellSouth Communications, Inc., 193 Fed. Appx. 413, 416 (6th Cir. 2006); George Kabeller, Inc. v. Busey, 999 F.2d 1417, 1421-22 (11th Cir. 1993). These cases cited with approval the rationale of the D.C. Circuit in Telecommunications Research and Action Center v. FCC, 750 F.2d 70 (D.C. Cir. 1984) ("TRAC").

In TRAC, 750 F.2d at 75, the D.C. Circuit held that it had exclusive jurisdiction over a claim of unreasonable delay because the final agency action sought to be compelled could be reviewed only in that court. The TRAC court held that "where a statute commits review of agency action to the Court of Appeals, any suit seeking relief that might affect the Circuit Court's future jurisdiction is subject to the exclusive review of the Court of Appeals." Id. (emphasis in original, footnote omitted). In reaching that conclusion, the D.C. Circuit stated that "[b]ecause the statutory obligation of a Court of Appeals to review on the merits may be defeated by an agency that fails to resolve disputes, a Circuit Court may resolve claims of unreasonable delay in order to protect its

future jurisdiction." Id. at 76 (citations omitted). By lodging review of final agency action in the Court of Appeals, Congress thus intended that "the appellate court exercise sole jurisdiction over the class of claims covered by the statutory grant of review power." Id. at 77. See also In re Bluewater Network, 234 F.3d 1305, 1310-11 (D.C. Cir. 2000) ("Where a statute commits final agency action to review by this court, we also retain exclusive jurisdiction 'to hear suits seeking relief that might affect [our] future statutory power of review.' This includes mandamus actions challenging an agency's unreasonable delay.") (citing TRAC); Sea Air Shuttle Corp. v. United States, 112 F.3d 532, 535, 538 (1st Cir. 1997) (noting that party could pursue unreasonable delay claim in court of appeals to compel action on NPDES permit application where the permit decision would be reviewable in the court of appeals pursuant to 33 U.S.C. § 1369(b)(1)(F)).

Thus, under binding Sixth Circuit authority, because the final EPA action sought to be compelled is directly reviewable only in the Court of Appeals, this suit alleging unreasonably delay also lies exclusively in the Court of Appeals. La Voz Radio, 223 F.3d at 318. Other district courts have applied this principle in concluding that they lacked subject-matter jurisdiction to hear an unreasonable delay claim in the context of a petition to withdraw a state's NPDES program delegation. For example, in Johnson County Citizen Committee for Clean Air and

Water v. EPA, No. 3:05-0222, 2005 WL 2204953 (M.D. Tenn. Sept. 9, 2005), the court dismissed an unreasonable delay claim where the plaintiffs sought to compel a decision on their petition to EPA to withdraw the State of Tennessee's NPDES program. 2005 WL 2204953 at *6 (citing La Voz Radio, 223 F.3d at 318, and George Kabeller, 999 F.2d at 1421-22). And in Sierra Club v. EPA, 377 F. Supp. 2d 1205 (N.D. Fla. 2005), the court noted that the plaintiffs had dismissed their unreasonable delay claim, but that in any event "[t]he EPA's decision whether to withdraw Florida's NPDES authorization will be reviewable in due course in the Eleventh Circuit. And in the meantime, any unreasonable delay by the EPA in making that determination also is reviewable in the Eleventh Circuit." 377 F. Supp. 2d at 1208.

Because Plaintiffs' unreasonable delay claim is brought in the wrong court, Count II must be dismissed under Rule 12(b)(1).

CONCLUSION

For the foregoing reasons, the Court should grant the United States' motion to dismiss the Complaint in its entirety.

Respectfully submitted,

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Dated: March 20, 2015

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I caused a true and correct copy of the foregoing to be electronically filed on March 20, 2015. All registered counsel are to receive notice of the filing via the Court's electronic case filing system.

/s/ Martha C. Mann
MARTHA C. MANN
United States Department of Justice
Environment and Natural Resources
Division

Exhibit 5

US EPA Detailed Guidance

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 01 2010

MEMORANDUM

SUBJECT: Detailed Guidance: Improving EPA Review of Appalachian Surface Coal Mining Operations under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order

FROM: Peter S. Silva
Assistant Administrator for Water

Cynthia Giles
Assistant Administrator for Enforcement and Compliance Assurance

TO: Shawn Garvin
Regional Administrator, EPA Region 3

A. Stanley Meiburg
Acting Regional Administrator, EPA Region 4

Bharat Mathur
Acting Regional Administrator, EPA Region 5

I. Purpose

The purpose of this detailed memorandum is to provide further clarification of EPA's roles and expectations, in coordinating with our federal and state partners, to assure more consistent, effective, and timely compliance of Appalachian surface coal mining operations with the provisions of the Clean Water Act (CWA), National Environmental Policy Act (NEPA), and the Environmental Justice Executive Order (E.O. 12898).[1,2] This memorandum reflects reviews of past practices and emerging science to improve and strengthen permit decision-making in order

[1] This memorandum is effective immediately. Concurrent with its release, however, EPA is seeking public comment on this interim final document. We fully understand the importance of this memorandum to our federal and state partners, the coal industry, and the public, and we recognize the value in receiving their input based on experience with its implementation. The public comment period will conclude on December 1, 2010. No later than April 1, 2011, EPA will issue final guidance after consideration of public comments and the results of the Science Advisory Board (SAB) review, and consistent with our experience in implementation of this memorandum. EPA may revise the guidance sooner, as appropriate, consistent with the SAB review. EPA is publishing a notice in the *Federal Register* that provides additional details on the public comment process.

[2] In addition to this memorandum, EPA is working with other federal agency partners to develop and implement an interagency environmental justice strategy to more fully evaluate environmental justice considerations in review of Appalachian surface coal mining activities. This strategy will provide more detailed information and specific actions to avoid and mitigate adverse impacts to low-income and minority populations.

to better ensure compliance with federal environmental statutes, implementing regulations, and policies.[3] We hope this memorandum will also be helpful to our federal and state partners, the regulated public, and others in clarifying EPA's expectations regarding the need to reduce harmful impacts on public health and the environment associated with Appalachian surface coal mining and to more effectively include the voices of adversely affected communities in the Appalachian coalfields, including low-income or minority populations.[4] We expect you to begin using this interim final guidance immediately in your review of Appalachian surface coal mining activities.

II. Introduction

A. Background

The CWA entrusts EPA with overall responsibility to administer its provisions, including protection of human health, water quality, and the environment in coalfield communities throughout Appalachia. CWA protections, including water quality requirements, extend to all waters of the United States, from headwater streams to the larger downstream systems that they feed. In particular, EPA's CWA responsibility includes preserving the long-term integrity of Appalachian watersheds, which is important in protecting their ecological condition and maintaining safe, clean, and abundant water for local communities. We make every effort to fulfill these responsibilities without compromising the economic and energy benefits that coal mining provides to both the Appalachian region and the entire nation.

In recent months, the Obama Administration has worked to ensure timely review of permit applications that have faced delays in the courts for many years. It is our hope that our efforts to make responsible and expeditious decisions on these applications will reduce the likelihood of judicial challenges to the permits and thus will be seen as a demonstration of our commitment to an Appalachian coal industry that provides economic security and protects the health of Appalachian communities, without violating environmental standards established under the law.

The environmental legacy of mining operations in the Appalachian region is far-reaching. Recent studies, as well as the experiences of Appalachian coalfield communities, point to new environmental and health challenges that were largely unknown even ten years ago. Since 1992, nearly 2,000 miles of Appalachian streams have been filled at a rate of 120 miles per year by

[3] The CWA and NEPA provisions and regulations described in this document contain legally binding requirements. This guidance does not substitute for those provisions or regulations, nor is it a regulation itself. It does not impose legally binding requirements on EPA, the U.S. Army Corps of Engineers (Corps), the States, or the regulated community, and may not apply to a particular situation depending on the circumstances. Any decisions regarding a particular permit will be based on the applicable statutes, regulations, case-specific facts and circumstances, and case law. Therefore, interested persons are free to raise questions about the appropriateness of the application of this guidance to a particular situation, and EPA and/or the Corps will consider whether or not the recommendations or interpretations of this guidance are appropriate in that situation based on the statutes, regulations, and case law.

[4] The discussion of the provisions of the CWA, NEPA, and E.O. 12898 in this memorandum focuses on their applicability to Appalachian surface coal mining operations in Kentucky, West Virginia, Virginia, Ohio, Tennessee, and Pennsylvania.

surface mining practices. A recent EPA study found that nine out of every 10 streams downstream from surface mining operations were impaired based on a genus-level assessment of aquatic life.[5] Another federal study found elevated levels of highly toxic and bioaccumulative selenium in streams downstream from valley fills.[6] These impairments are linked to contamination of surface water supplies and resulting health concerns, as well as widespread impacts to stream life in downstream rivers and streams. Further, the estimated scale of deforestation from existing Appalachian surface mining operations is equivalent in size to the state of Delaware. Appalachian deforestation has been linked to significant changes in aquatic communities as well as to modified storm runoff regimes, accelerated sediment and nutrient transport, reduced organic matter inputs, shifts in the stream's energy base, and altered thermal regimes.[7] Such impacts have placed further stresses on water quality and the ecological viability of watersheds.

It has been a high priority of this Administration – and EPA Administrator Lisa P. Jackson – to reduce the substantial environmental and human health consequences of surface coal mining in Appalachia, and minimize further impairment of already compromised watersheds. Administrator Jackson has also made working toward environmental justice a priority. EPA seeks to enhance water quality and environmental protection in close partnership with the states and other federal agencies, which have key implementation roles under the CWA, and under NEPA and E.O. 12898, respectively. As scientific evidence grows, EPA has a legal responsibility to address the environmental consequences of Appalachian surface coal mining.

In June 2009, the Department of the Army, EPA, and the Department of the Interior (DOI) signed a Memorandum of Understanding (MOU) to minimize the harmful consequences of Appalachian surface coal mining practices. The MOU reflects an agreement among the agencies to strengthen the environmental reviews of Appalachian surface coal mining projects under the CWA, NEPA, and the Surface Mining Control and Reclamation Act (SMCRA). EPA committed to improve its review of permits issued under Section 404 and to bolster coordination with states on both Section 402 permits for pollutant discharges from valley fills and state water quality certifications (Section 401) for mining operations. The Corps committed to reassess Nationwide Permit 21, a general permit used to authorize some surface coal mining activities, and to work with EPA to clarify Section 404 policies for environmental review and mitigation. DOI committed to evaluate how the Office of Surface Mining Reclamation and Enforcement (OSM) can more effectively oversee state permitting and enforcement activities under SMCRA.

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[5] Pond, G.J., M. E. Passmore, F.A. Borsuk, L. Reynolds, and C. J. Rose. 2008. Downstream effects of mountaintop coal mining: comparing biological conditions using family- and genus-level macroinvertebrate bioassessment tools. J. N. Am. Benthol. Soc. 27(3):717–737.

[6] Bryant, G., S. McPhillamy, and H. Childers. 2002. A Survey of the Water Quality of Streams in the Primary Region of Mountaintop / Valley Fill Coal Mining. Mountaintop Mining Valley Fill Programmatic Environmental Impact Statement. USEPA Region 3. Wheeling, WV.
http://www.epa.gov/region03/mtntop/eis2003appendices.htm#appd

[7] Webster, J.R., S.W. Golladay, E.F. Benfield, J.L. Meyer, W.T. Swank, and J.B. Wallace. 1992. Catchment disturbance and stream response: an overview of stream research at Coweeta Hydrologic Laboratory. In P.J. Boon, P. Calow, and G.E. Petts (eds.). River Conservation. and Management. John Wiley and Sons, New York, N.Y.

B. CWA, NEPA, and E.O. 12898

The CWA, 33 U.S.C. 1251 *et seq.*, establishes a comprehensive program designed "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. Section 1251(a). To achieve that objective, CWA Section 301(a) prohibits the "discharge of any pollutant" – defined as the addition of any pollutant to the waters of the U.S. from any point source – except "as in compliance with" specified provisions of the CWA. 33 U.S.C. Sections 1311(a), 1362(7), 1362(12). In most cases, regulated entities achieve compliance with the relevant CWA provisions by obeying the terms of a permit issued under one of the CWA's two complementary permitting programs: (1) a permit program for discharges of dredged or fill material, which is administered primarily by the Corps pursuant to Section 404 of the CWA, 33 U.S.C. 1344; or (2) the National Pollutant Discharge Elimination System (NPDES), which is administered by the EPA and authorized states pursuant to Section 402 of the CWA, 33 U.S.C. 1342. Section 401 of the CWA also applies where federal permits are issued, enabling states to certify (or waive) that discharges from permitted operations are in compliance with state environmental regulations. Typically, surface coal mining operations in the steep slopes of Central Appalachia require Section 404 permits for the discharge of mining overburden into waters of the United States (e.g., valley fills, mine-through operations), mine faceups, stream diversions, road crossings, coal process waste impoundments, and for discharges to create sediment ponds. Discharges from the sediment ponds and any other stormwater discharges require Section 402 permits. Because the Corps issues Section 404 permits in Appalachia, states have authority to condition those permits under Section 401.

In addition, NEPA requires an assessment of the environmental impacts of federal actions, including the preparation of an Environmental Impact Statement (EIS) for federal actions that have a significant effect on the quality of the human environment. For example, the Section 404 review by the Corps of a proposed mining operation with discharges into waters of the U.S. triggers review under NEPA. An EIS presents a comprehensive and transparent evaluation of the wide range of potential environmental and human health impacts associated with a federal action, as well as project alternatives that may avoid and minimize significant adverse impacts.

E.O. 12898 and the Presidential Memorandum that accompanies it also need to be addressed appropriately in the context of any federal action – such as federal permitting under the CWA and SMCRA – including federal actions that are subject to NEPA. E.O. 12898 provides that: "To the greatest extent practicable and permitted by law…each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

Consideration of environmental justice concerns is vital to understanding the potential human health and environmental impacts of surface coal mining during the CWA and SMCRA permitting and NEPA review processes. The Presidential Memorandum articulates the role of federal environmental statutes in securing human health and environmental protection of vulnerable populations and assuring their participation in the process.

E.O. 12898 calls for actions that can address several key environmental justice issues associated with surface coal mining. These include: conducting research, data collection, and analysis on direct, indirect and cumulative impacts; identifying patterns of subsistence consumption of fish and wildlife; and providing effective public participation and access to information. EPA will implement the E.O. by identifying and addressing, as appropriate, any adverse effects of proposed federal activities on low-income and minority populations, including ways or measures to mitigate any adverse effects.

C. Recent Program Reviews and Emerging Science

Three key considerations have motivated the Agency's development of this memorandum. First has been the collection and publication of technical information documenting the scope and significance of adverse environmental and water quality effects associated with surface coal mining practices. Second, EPA has recently completed reviews of permitting actions under CWA Sections 402 and 404 for Appalachian surface coal mining. These reviews demonstrate that current permitting practices can be more effective in addressing adverse environmental and water quality effects associated with coal mining by more robustly conducting analyses required by the CWA. Third, EPA scientific offices are conducting extensive work evaluating the relationship between pollutants in streams associated with surface coal mining and impacts from these pollutants on aquatic ecosystems. As a result of this work, EPA is poised to initiate additional independent technical review and public evaluation of potential new water quality values for conductivity based on effective science and the need to improve protection of water quality, public health, and the environment.

Numerous studies, data submitted to permitting authorities for proposed mining activities, and some state impaired waters lists published pursuant to CWA Section 303(d), have shown that high levels of conductivity, dissolved solids, and sulfates are a primary cause of water quality impairments downstream from mine discharges. These studies build upon existing research from other regions that demonstrated the toxicity of specific ions, such as sulfate, as well as the complex interplay of ionic constituents associated with coal mining operations.[8] Dissolved solids contained in waters draining from valley fills are a primary cause of biological impairment resulting from changes in benthic species richness and diversity (particularly species of mayflies, a key component of headwater stream communities). An example of these studies is Pond et al. (2008), which found evidence that mining activities have subtle to severe impacts on downstream aquatic life and the biological conditions of a stream.[9] A 2003 published study by Kennedy et al. linked elevated conductivity levels in coal effluent to impaired, sensitive aquatic fauna.[10] A 2004 Kentucky Department for Environmental Protection study found that the loss of mayflies in streams below mined sites indicates that these organisms are especially sensitive to

[8] Soucek, D.J. and A.J. Kennedy. 2005. Effects of hardness, chloride, and acclimation on the acute toxicity of sulfate to freshwater invertebrates. Environmental Toxicology and Chemistry 24:1204-1210.
[9] Pond et al. 2008.
[10] Kennedy, A.J., DS. Cherry, and R.J. Currie. Field and laboratory assessment of a coal processing effluent in the Leading Creek Watershed, Meigs County, Ohio. Archives of Environmental Contamination and Toxicology 44:324–331.

coal mine drainage.[11] A 2005 published study by Kennedy et al. linked impairment of aquatic life to elevated levels of Total Dissolved Solids (TDS).[12] Finally, a 2010 published study by Pond links specific conductance as the most strongly correlated factor to a reduction of *Ephemeroptera* in streams impacted by mining and residential development.[13]

In addition, an analysis of peer-reviewed studies recently published in the journal *Science* shows that ecological losses downstream of coal mining valley fills are associated with increased levels of TDS and conductivity, sulfates, and selenium.[14] EPA's Office of Research and Development (ORD) recently completed a review of the scientific literature on surface coal mining and found effects that included resource loss, water quality impairment, and adverse effects on aquatic ecosystems. This report is being submitted to the EPA Science Advisory Board (SAB) for review and is also publicly available.

EPA recently conducted assessments of permitting practices under CWA Sections 402 and 404 for surface coal mining projects in Appalachia. The Permit Quality Review of Section 402 permits in West Virginia, Kentucky, Tennessee and Ohio, conducted in September and October 2009, identified concerns related to effective protection of downstream water quality consistent with requirements of the CWA. The concerns focus on the interpretation of narrative and numeric criteria in CWA Section 402 permits for surface coal mining projects. In addition, the evaluation of pending coal mining projects under the EPA-Corps Section 404 Enhanced Coordination Procedures (ECP) found that many of these projects may not be consistent with EPA and Corps regulations, including the Section 404(b)(1) Guidelines. As many as 80% of these permits raised concerns with respect to compliance with state narrative water quality standards, while more than half raised concern for the potential for significant degradation of aquatic ecosystems.

The emerging science related to adverse environmental and water quality effects is based on data and analyses subjected to the rigors of peer-reviewed science and quality assurance reviews. EPA places a high priority on quality assurance and agency policy specifies necessary quality assurance activities be performed to ensure data are of sufficient quantity and adequate quality for their intended use. EPA's reviews of ambient chemical and biological data and analyses that support some permitting decisions have revealed consistent and serious issues with underlying data quality, such as erroneous field meter readings, biological samples collected outside of state index periods or during extreme low flows, and inclusion of non-endemic taxa in taxonomic lists. Analyses of these data also have demonstrated concerns, such as inappropriate aggregation of biological data from several stream types (headwater to larger river) or several

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[11] Kentucky Department for Environmental Protection, Division of Water, Water Quality Branch. Effects of Surface Mining and Residential Land Use on Headwater Stream Biotic Integrity in the Eastern Kentucky Coalfield Region.
[12] Kennedy A. J., D.S. Cherry and C.E. Zipper. Evaluation of Ionic Contribution to the Toxicity of a Coal-Mine Effluent Using *Ceriodaphnia dubia*. Archives of environmental contamination and toxicology vol. 49.2:155-162.
[13] Pond, G.J. "Patterns of *Ephemeroptera* taxa loss in Appalachian headwater streams (Kentucky, USA)." Hydrobiologia 641(1):185-201.
[14] Palmer, M.A., E.S. Bernhardt, W.H. Schlesinger, K.N. Eshleman, E. Foufoula-Georgiou, M.S. Hendryx, A.D. Lemly, G.E. Likens, O.L. Loucks, M.E. Power, P.S. White, P.R. Wilcock. 2010. Mountaintop Mining Consequences. Science 327(5962):148-149.

seasons, failing to reflect natural data variability, and inappropriately including several samples from one site as independent samples in a statistical analysis (pseudoreplication).

Regions should ensure that the environmental data supporting CWA decision-making are carefully scrutinized to ensure they are of sufficient quality to support their intended use. Regions should encourage the incorporation of Quality Assurance Project Plans (QAPPs) for sampling data and Quality Assurance/Quality Control (QA/QC) data within data submitted to EPA through the permitting process. For guidance in ensuring environmental data are of sufficient quality, Regions should consult the agency's quality assurance policy at http://www.epa.gov/quality/index.html.

EPA has made substantial progress in recent months in the development of high-quality scientific information to support new numeric water quality values for conductivity, which is regularly observed at high levels in streams downstream from Appalachian surface coal mining operations. EPA expects, consistent with the requirements of the CWA, that the use of these values and the extensive scientific information that supports these numbers will be extremely helpful to states in the development of water quality-based effluent limits for Section 402 permits. Establishing enforceable numeric limits for conductivity, selenium, and other parameters in state Section 402 permits will help to improve water quality and better protect public health and aquatic life in streams downstream from Appalachian surface coal mining operations.

III. EPA Oversight of NPDES Permitting for Surface Coal Mining Operations in Appalachia

EPA has reason to believe that discharges from surface mining activities have a significant potential to cause nonattainment of applicable water quality standards downstream from valley fills, impoundments, and sediment ponds. Discharges from Appalachian surface coal mining activities have been found to have a high potential to impact aquatic life uses.[15] Numerous studies, data submitted to permitting authorities for proposed mining activities, and some state Section 303(d) lists have shown high levels of conductivity and dissolved solids and sulfates to be a primary cause of water quality impairments downstream from such mine discharges.

The Office of Water has been working closely with Regions 3, 4, and 5 to assess the quality of state-issued CWA Section 402 (NPDES) permits for surface coal mining operations with respect to the requirements of each state's permitting program in the Appalachian states of Tennessee, Ohio, Kentucky, and West Virginia. EPA has also been assessing permits for their compliance with applicable federal requirements. The goal of this assessment is to strengthen these state-issued NPDES permits to better address the impacts discussed above.

The CWA and EPA's implementing regulations require NPDES permits to contain technology-based effluent limits and, where necessary to protect water quality, water quality-based effluent limits. All permits reviewed by EPA included appropriate technology-based

[15] Pond et al. 2008.

limits for pollutant parameters listed in the effluent limitation guidelines for coal mining (40 CFR Part 434). However, based on observations from both ongoing program oversight and a focused Permit Quality Review of permits for surface coal mining activities, including detailed discussions with state permit writers, EPA has identified certain concerns common to many of the reviewed permits that warrant immediate attention to ensure that water quality is protected. Therefore, when Regional offices exercise their authority to review draft or proposed state NPDES permits for discharges to waters of the U.S. associated with Appalachian surface coal mining operations, Regions should evaluate several aspects of those permits as detailed below.

The sections below detail requirements of the Act and issues identified during EPA's recent Permit Quality Review. Should Regions identify similar concerns when reviewing draft or proposed permits in the future, we encourage you to work with your authorized states to resolve these concerns. As noted below, however, where discussions with the state do not produce a proposed permit that, in the Region's judgment, satisfies the requirements of the Act, an objection to the issuance of the proposed permit would be an appropriate response. We encourage the Water Division Directors of the three Regions to work together to ensure a comparable level of review and response across Appalachia.

A. Completion of Required Reasonable Potential Analyses

As noted above, the CWA requires NPDES permits to contain water quality-based effluent limits when necessary to meet water quality standards (CWA Section 301(b)(1)(C); 40 CFR Section 122.44(d)(1)). In order to determine whether water quality-based effluent limits are necessary, the permitting authority is required to conduct a "reasonable potential analysis." A reasonable potential analysis determines whether a discharge will cause, or has the reasonable potential to cause or contribute to, an excursion above a numeric or narrative water quality standard. EPA's regulations, EPA's 1991 Technical Support Document (TSD) for Water Quality-based Toxics Control (EPA/505/2-90-001 PB91-127415)[16], and established state procedures explain how to conduct this analysis.

EPA's review of NPDES permit administrative records found that parameters known to be present in the effluent, based on data submitted with the permit applications, were often not assessed for the reasonable potential to cause or contribute to an excursion above water quality standards. Although each permit requires a case-specific analysis, in general, an NPDES permit that fails to show evidence of a parameter-specific reasonable potential analysis will be inconsistent with the requirements of the CWA. Furthermore, EPA expects that in many, if not most, cases the available science will demonstrate that there is a reasonable potential for these discharges to cause or contribute to an excursion above numeric or narrative water quality standards, thus making water quality-based effluent limits necessary.

To characterize the effluent, existing dischargers applying or reapplying for NPDES permit coverage should provide the permitting authority with screening data for a suite of pollutants and pollutant parameters listed in the applicable NPDES permit application form. However, for new (proposed) discharges, the application form for an individual permit requires

[16] This publication is available at http://www.epa.gov/npdes/pubs/owm0264.pdf.

only an estimate of the effluent characteristics. In addition to data specifically required by permit applications, 40 CFR Section 122.21 allows permitting authorities to request any additional data as necessary to support an assessment of potential water quality impacts (e.g., conductivity and total dissolved solids). Facilities applying for coverage under an NPDES general permit are required to submit information specifically identified in the Notice of Intent provisions of the general permit. EPA's review of permits and associated records found that states generally did not adequately document or explain how information submitted by applicants was used to characterize the nature of their actual or proposed discharges. In particular, where facilities had proposed to discharge, but had not yet begun construction or operation, the files contained little discussion of how the permitting authority projected or anticipated the types and concentrations of pollutants expected in the effluent.

Where effluent data are available (i.e., for existing discharges), EPA's expectation is that permitting authorities will use all valid and representative data to determine whether the discharge causes, has the reasonable potential to cause, or contributes to an excursion of numeric and/or narrative water quality criteria and standards. For new (proposed) discharges, the permitting authority should require the applicant to characterize the anticipated pollutant concentrations and loads using data from similar discharges and/or based on characteristics of local soils and geology. For example, these data may be from mining facilities located adjacent to or having similar geologic characteristics as the mine under review, or from ambient data collected as part of the Section 404 or SMCRA permit applications. Permitting authorities should independently seek to obtain such data if not submitted by the applicant or can reject the application as not sufficient. Ambient water quality data collected as part of the SMCRA and Section 404 permitting processes should be included in the NPDES permit development process and, where appropriate, should be incorporated as "background" conditions in reasonable potential analyses.

B. Incorporation of Numeric Water Quality Standards in Terms of NPDES Permits

Where a surface coal mining discharge is found to have reasonable potential to exceed a numeric water quality standard, the regulations require that NPDES permits include water quality-based effluent limits (WQBELs) based on the existing numeric water quality criteria in state water quality standards. While EPA's Permit Quality Review found that many permits did incorporate all relevant numeric water quality standards, some permits omitted them. As one example, all Appalachian states have adopted a chronic numeric criterion for selenium of 5 µg/l for the protection of aquatic life. Should a reasonable potential analysis indicate that the discharge of selenium (or another parameter) has the potential to cause or contribute to an excursion above any state standard and a state fails to include a WQBEL based on the existing state water quality standard, EPA expects that such a permit would not be consistent with the CWA.

It is the responsibility of the applicant to characterize the wastewater to be discharged from the permitted facility. In order to have a complete NPDES permit application, data must be presented by the applicant to properly characterize its discharge to enable a reasonable potential analysis to be completed by the permit writer at the time of permit issuance. Data may be

secured through evaluation of similarly situated facilities in adjacent watersheds or similar practices in the same ecological or geological setting.

Where there is an approved Total Maximum Daily Load (TMDL) for the receiving waterbody, the receiving waterbody is listed as impaired on the state's approved Section 303(d) list, or a downstream waterbody may be affected by the discharge, it will be important that the reasonable potential analysis include an analysis of the pollutants for which the TMDL was established or for which the waterbody is listed as impaired, or for pollutants that may affect downstream waters.

1. Specific Guidance Regarding Compliance Schedules

Compliance with all NPDES permit terms is required at the time of permit issuance. However, federal regulations at 40 CFR Section 122.47 allow for NPDES permits to include compliance schedules for the achievement of WQBELs, when determined to be appropriate under discharger-specific circumstances. When determined to be appropriate, a compliance schedule must require compliance with the WQBEL within a time determined to be "as soon as possible" based on a discharger-specific evaluation. Compliance schedules are only available for WQBELs based on water quality standards that have been newly adopted after July 1, 1977, and where the applicable water quality standards authorize the use of such schedules. For further guidance regarding considerations for Regions when evaluating compliance schedules, please see the May 10, 2007, Memorandum from James Hanlon, Director, Office of Wastewater Management to Alexis Strauss, Director, Water Division, EPA Region IX, and the November 16, 2007, Letter from Jon M. Capacasa, Director, Water Protection Division, US EPA Region III, to Lisa A. McClung, Director, Division of Water and Water Management, West Virginia DEP, and Randy Huffman, Director, Division of Mining And Reclamation, West Virginia DEP.[17]

C. Incorporation of Narrative Water Quality Standards in the Terms of NPDES Permits

In addition to those parameters for which there are numeric water quality standards, all Appalachian states have adopted narrative water quality standards. Of particular relevance here, nearly all Appalachian states do not currently have applicable numeric water quality criteria that account for the effects associated with high levels of conductivity, total dissolved solids, and sulfates. In lieu of such numeric criteria, all Appalachian states have applicable narrative water quality criteria. EPA regulations are clear that NPDES permits must contain provisions that implement both numeric water quality standards and narrative water quality standards and that the same reasonable potential analysis completed for numeric standards must be completed for narrative standards as well. 40 CFR Sections 122.44(d)(1) and (d)(1)(vi).

EPA's review of permits found that states did not incorporate provisions that would implement the relevant narrative water quality standards relating to discharges that increase the levels of conductivity, total dissolved solids, and sulfates. The permits do not contain limits based on whole effluent toxicity (WET) and/or a chemical-specific numeric interpretation of the

[17] These documents are available at http://www.epa.gov/owow/wetlands/guidance/mining.html

narrative criteria as required by 40 CFR Sections 122.44(d)(1)(v) and (vi). In addition, the permits' statements of basis or fact sheets do not provide information indicating that the narrative criteria were considered as part of the determination of which effluent limitations are necessary. Although EPA's review of each permit is case-specific, EPA expects that a permit that fails to include provisions implementing the narrative water quality standards and fails to explain why such omission is appropriate under the regulations will not be consistent with the requirements of the CWA.[18]

1. Documentation on How States Will Derive Effluent Limits Based on Narrative Water Quality Standards

EPA Regions should request that states provide documentation describing how the states will perform a reasonable potential analysis and, where necessary, develop effluent limits (or other permit conditions), to ensure compliance with the state's narrative water quality standards. The state should provide a detailed description of the decision-making process, including the types and sources of data used to characterize both expected effluent quality and receiving water quality with respect to narrative water quality standards. Baseline water quality analyses required for SMCRA permit applications and projected or estimated effluent concentrations characterizing expected effluent quality are expected to be used to inform each state's decisions.

In documenting how they will interpret and implement their narrative standards, the states should take into account that the NPDES regulations at 40 CFR Section 122.44(d)(1)(vi) require the consideration of relevant information pertaining to a pollutant that may cause or contribute to an excursion above an applicable state narrative water quality standard. The scientific literature is increasingly recognizing the relationship between conductivity levels in Appalachian streams and impacts to aquatic biota in streams below surface coal mining operations. Based on field measurements comparing unmined and mined watersheds in Central Appalachia, the peer-reviewed 2008 "Pond-Passmore" study concluded that aquatic life at sites with specific conductance greater than 500 µS/cm were observed to have been adversely impacted based on a genus-level multi-metric biological index.[19] In addition, EPA's draft report, *A Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams*,[20] also recognizes stream-life impacts associated with conductivity. This study, which is publicly available and will undergo external peer review by the SAB, applies EPA's standard method for

[18] In the limited cases in which a state determines that it is infeasible to calculate a numeric effluent limit to implement a narrative water quality standard, the state should include in the permit appropriate WET limits and best management practices (BMPs) to control or abate the discharge of pollutants, consistent with 40 C.F.R. Section 122.44(k)(3). In these limited circumstances, the state would need to document the basis for its determination that a numeric effluent limit for the narrative standard was infeasible to calculate, and would need to include associated provisions for monitoring the effectiveness of BMPs. Monitoring should include in-stream conditions of aquatic biota consistent with state biocriteria. Should downstream impacts exceed biocriteria, provisions for adaptive remedial action should be included.

[19] Pond et al. 2008.

[20] This methodology and benchmark were developed in a parallel but unrelated track to a literature review summary of the effects of mountaintop mining and valley fills produced by EPA that has also been issued for Science Advisory Board review and consultation.

deriving water quality criteria to field measurements and concludes that genus-level impacts to the biological community occur at conductivity levels of 300 µS/cm.[21]

During the SAB review process, EPA believes that this report should be considered by Appalachian states as relevant information per 40 CFR Section 122.44(d)(1)(vi) in implementing applicable state narrative water quality standards in NPDES permits, and by Regions in your review of these permits. Documentation of how each state will interpret and implement its narrative water quality standards (in light of the data and conclusions of this conductivity report and other relevant information) will help ensure that the public and the regulated community have a better understanding of the state's decision-making process and increased certainty that narrative water quality standards are adequately met. As a general matter, EPA expects that the conductivity impacts of projects with predicted conductivity levels below 300 µS/cm generally will not cause a water quality standard violation and that in-stream conductivity levels above 500 µS/cm are likely to be associated with adverse impacts that may rise to the level of exceedances of narrative state water quality standards.[22] If water quality modeling suggests that in-stream levels will exceed 500 µS/cm, EPA believes that reasonable potential likely exists to cause or contribute to an excursion above applicable water quality standards; unless, based on site-specific data, the state has an alternative interpretation of their water quality standards that is supported by relevant science. Similarly, if water quality monitoring suggests that in-stream levels will exceed 300 µS/cm but will be below 500 µS/cm, EPA should work with the permitting authority to ensure that the permit includes conditions that protect against conductivity levels exceeding 500 µS/cm. In circumstances where conductivity levels in waters proposed for new mining related discharges already exceed 500 µS/cm, EPA will coordinate with the permitting authority on a site-specific basis to ensure these new discharges will not cause or contribute to a violation of water quality standards. Once EPA's draft conductivity report is finalized following SAB review, we will evaluate whether changes to the conductivity benchmarks identified here are appropriate.

At a minimum, should the record indicate that a reasonable potential exists, the permitting authority must demonstrate in the administrative record, based on site- or receiving-water-specific information, how the permit implements the narrative water quality standards in a manner that is consistent with the CWA, and Regions are encouraged to review such a record carefully. For new (proposed) discharges, the permitting authority should require the applicant to characterize the anticipated pollutant concentrations and loads using data from similar discharges and/or based on the characteristics of local soils and geology. As noted above, as a general matter, EPA expects that in-stream conductivity levels above 500 µS/cm are likely to be associated with adverse impacts to water quality. The scientific literature has identified conductivity levels above this level in impaired streams below surface coal mining operations in Appalachian ecoregions 68, 69, and 70 and, therefore, it is generally likely that such surface coal mining operations will have a reasonable potential to cause or contribute to an exceedance of

[21] As described in the report, this study may be applied to all waters in the Appalachian region that are dominated by salts of SO_4^{2-} and HCO_3^- at circum-neutral pH and low levels of chloride.
[22] In certain fact-specific circumstances, conductivity levels above 500 µS/cm may not be associated with adverse aquatic impacts. EPA will work with permitting authorities on a site-specific basis to assess reasonable potential.

water quality standards.[23] Permits for discharges associated with activities other than surface coal mining should also be evaluated to determine whether they are likely to result in in-stream conductivity levels above 500 µS/cm. We believe that circumstances unique to surface coal mining, however, are principally responsible for the increase in conductivity levels observed in surface waters downstream of mining practices. Surface coal mining involves disturbing large volumes of rock and dirt, land clearing, and spoil disposal activities at a scale not typically associated with activities such as development practices or forestry. We do not have studies of other non-mining activities demonstrating a likelihood that they will have a reasonable potential to cause or contribute to an exceedance of water quality standards. EPA should coordinate with the permitting authority to consider relevant information when conducting a reasonable potential analysis for other activities on a case by case basis.

The state must provide adequate documentation in the permit fact sheet or statement of basis to demonstrate that it has assessed reasonable potential and, where necessary, developed effluent limits (or other permit conditions) adequate to protect all applicable water quality standards, including narrative water quality standards. EPA will review the adequacy of the state's explanation in its fact sheet or statement of basis, considering the available scientific and other information. Where EPA concludes that the state's explanation is not adequate, or the state fails to provide an explanation of how it has interpreted or applied its narrative water quality standards, EPA may object to the permit in accordance with the provisions of 40 CFR Section 123.44(c).

D. Completing an Appropriate Antidegradation Analysis

As EPA increases its oversight of permits associated with surface coal mining activities, EPA will also focus on ensuring that permits are issued consistent with water quality standards-related antidegradation regulations, policies and procedures. State antidegradation policies provide protection of waters from degradation. EPA will, in its oversight of NPDES permits, ensure that adequate antidegradation reviews have been conducted for the receiving water consistent with applicable state water quality standards.

Antidegradation regulations require that all permits include limits sufficient to maintain and protect existing uses (Tier 1). For outstanding national resource waters (Tier 3), antidegradation requires the maintenance and protection of ambient water quality (e.g., no lowering of water quality). For high quality waters (Tier 2), where the quality of waters exceeds the level necessary to protect the use, EPA will particularly focus on ensuring that the state has made the finding that allowing lower water quality is "necessary to accommodate important social or economic development in the area in which the waters are located." 40 CFR Section 131.12(a)(2). This amounts to a two-part test: demonstration of the extent to which the discharge is "necessary" in the manner and magnitude proposed, and of its importance for social or economic development.

[23] Ecoregions 68, 69, and 70 include portions of the six Appalachian states referenced earlier in this memorandum. A map of these ecoregions is available at http://www.epa.gov/wed/pages/ecoregions/level_iii.htm.

The finding of necessity is among the most important and useful aspects of an antidegradation program. EPA expects an alternatives analysis to evaluate whether the proposed discharge is "necessary." This analysis should include consideration of a range of less-degrading or non-degrading alternatives to the direct discharge or to the manner of discharge (e.g., non-discharging options, relocation of discharge, alternative processes, and innovative treatments). In the finding of social or economic importance of the proposed activity, EPA expects the state to analyze the social and/or economic impact associated with the lowering of water quality. The state should provide documentation to support its antidegradation analysis.

There are similar analyses of alternatives performed under CWA Sections 401, 402, and 404; NEPA; and SMCRA. To the extent that a Section 402 antidegradation analysis has been completed concurrently or in advance of analyses performed under these related authorities, Regions should encourage permitting authorities to use the Section 402 antidegradation analysis to inform similar analyses under these related authorities.

E. Conclusions Regarding Improved NPDES Permitting

Initially, we want to encourage the Regions to continue to work proactively with authorized states to improve the quality of state-issued NPDES permits for surface coal mining. In that regard, we offer eight specific suggestions:

1. Regions should request information from each state as to how that state is interpreting and incorporating applicable numeric and narrative water quality standards within its permitting decisions.

2. The permitting authority must demonstrate in the administrative record, based on site- or receiving-water-specific information, the reasonable potential determination and the basis for any limits or other permit requirements including how the permit implements the narrative water quality standards in a manner that is consistent with the CWA.

3. In recognition of the fact that during discussions with state permitting staff, some state permit writers indicated they did not have sufficient tools to interpret the narrative water quality standards for these discharges, Regions should foster additional dialogue on information and tools EPA could provide to assist the states in translating their narrative criteria into numeric effluent limits.

4. Permitting authorities should consider data from similarly situated mines in their reasonable potential analyses for new facilities. In addition, as noted in Chapter 3.2 of EPA's "Technical Support Document for Water Quality-based Toxics Control,"[24] permitting authorities may determine reasonable potential based on information other than effluent data, such as the nature of the operation and its potential impact on the receiving water. Regions should evaluate whether required and appropriate data are

[24] "Technical Support Document for Water Quality-based Toxics Control." EPA Office of Water, March 1991.

submitted with permit applications and encourage permitting authorities to consider permit applications incomplete if the data characterization is not sufficient.

5. Regions should consider objecting to permits that do not assess reasonable potential effectively or fail to implement numeric and narrative standards.

6. Regions should review, as appropriate, general permits, notices of intent, individual permits, and public participation efforts, and provide comments on eligibility, WQBELs, and antidegradation in particular.

7. In situations where an NPDES permit has already been issued, but other permits or authorizations are required before a project may proceed, we encourage Regions to work with the other permitting or authorizing authorities to address any concerns left unaddressed by the NPDES permit, as appropriate.

8. Regions should evaluate the consistency of a permit's monitoring provisions with the statutory and regulatory requirements.

When reviewing state-issued permits, we strongly encourage you to ensure that the items discussed above are addressed in a manner consistent with the CWA and EPA's implementing regulations. In instances in which the Region concludes that a proposed permit is not consistent with the CWA and EPA's implementing regulations, Regions should work closely with the state to make improvements. Historically, Regions have used several tools to try and resolve concerns regarding the sufficiency of state NPDES permits, ranging from comment letters to face-to-face meetings. We encourage Regions to continue to utilize those tools. If, however, in the Region's judgment discussions with the state do not produce a proposed permit that satisfies the requirements of the Act, an objection to the issuance of the proposed permit would be an appropriate response.[25]

1. Specific Guidance Regarding Oversight of General Permits

Some discharges at surface coal mining sites are authorized through state-issued general NPDES permits. In light of the case-specific analysis necessary to ensure that surface coal mining activities will achieve water quality standards, general permits will often be inadequate. Regions are strongly encouraged to advise the permitting authorities whether the Region agrees that general permits are appropriate for these discharges or whether the Region believes that, in light of the environmental impacts caused by these discharges and the need for tailoring permit conditions by receiving water, permitting authorities should require individual permits in all instances.

[25] Following such an objection, the state or other interested parties may request a hearing and provide additional information supporting their position. After such a hearing is held (if requested), EPA can reassert its objection, modify its objection, or withdraw its objection. If EPA continues to object (or if no hearing is requested) and if EPA's objections are not satisfactorily resolved by the state permitting authority, authority to issue the permit will pass to EPA (40 CFR Section 123.44(h)).

When reviewing a general permit, Regions should review it closely to ensure that it includes all relevant CWA requirements. Some general permits and state NPDES Memoranda of Agreement (MOAs) provide EPA with the opportunity to review notices of intent to be covered under a general permit. When you have that opportunity, we encourage you to review the notices of intent. For example, EPA and Kentucky have entered into a MOA that sets out EPA's role in reviewing both individual NPDES permits and individual NOIs to be covered under a general permit. As provided for in the MOA, EPA notified Kentucky in a June 16, 2009, letter that EPA was exercising its option to review and comment, prior to issuance or modification, on all draft NPDES individual permits, and NOIs for all proposed coverages under an NPDES general permit for proposed projects being evaluated under the ECP process. As a result, under the MOA, EPA will review the general permit NOIs and has 10 days to notify the Kentucky Division of Water of any objection to the applicant's suitability for coverage under the General Permit.

2. Specific Guidance on Environmental Justice Considerations under CWA Section 402

There are important provisions under CWA Section 402 that may be relevant to environmental justice issues stemming from surface coal mining and its impact on human health and the environment. EPA will address the adequacy of the technical and scientific aspects of the permit, as well as public participation, in reviewing NPDES draft permits. In particular, EPA will consider whether the public has been given meaningful opportunity for participation in development of the permit pursuant to 40 CFR Section 124.11.

As explained above, when EPA determines that a draft or proposed permit fails to comply with the CWA, EPA has the authority to object to the issuance of that permit. When Regions review draft or proposed permits for compliance with the Act, we encourage you to also review those permits to determine the extent to which issuing the permit may result in adverse human health or environmental effects on low-income and minority populations. For example, a Region may determine that the issuance of a permit will have adverse effects on drinking water supplies or fisheries that are relied on by subsistence fishers, or wildlife used as a subsistence food source by the local population. If EPA determines that issuing the NPDES permit may result in adverse human health or environmental effects, EPA will consider such effects when determining whether to exercise its discretion to object to a draft state permit under CWA Section 402(d) and EPA's implementing regulations.

IV. Strengthening EPA's Environmental Review Under CWA Section 404 in Coordination with the Corps of Engineers

EPA has long played a role in assessing environmental and water quality implications of proposed Section 404 permits, and is authorized to prohibit or deny projects that do not meet the criteria in the CWA and implementing regulations. While states are responsible, in coordination with EPA, for establishing state water quality standards, EPA has the critical authority under CWA Section 404(b)(1) to make independent judgments about threats to water quality. In

addition to the documented impacts from increased sediment loading, a growing body of data demonstrates that high conductivity and/or selenium levels in streams downstream from mining operations contribute to the impairment of biological diversity and ecological integrity of these streams and can lead to significant adverse impacts on the aquatic ecosystem and contamination of drinking water supplies. EPA and Corps regulations require consideration of these environmental and water quality concerns in the evaluations of applications for permits under CWA Section 404.

Under Section 404(a) of the CWA, the Corps is authorized to issue permits, after notice and opportunity for public hearings, for the discharge of dredged or fill material into waters of the U.S., including wetlands. Under Section 404(b)(1), EPA is authorized to develop guidelines, in conjunction with the Corps, to ensure that the goals of the CWA are met. These regulations are located at 40 C.F.R. Section 230. These Section 404(b)(1) Guidelines (Guidelines) are applicable to all discharges of dredged or fill material to waters of the U.S, and the Corps issues Section 404 permits after evaluating proposed discharges for consistency with the Guidelines and its own implementing regulations. 40 C.F.R. Section 230.2. EPA also reviews public notices and general permit pre-construction notifications for Section 404 permits for consistency with the Guidelines. Under Section 404(q) of the CWA, the Agencies have entered into a Memorandum of Agreement (404(q) MOA) governing the sharing of information and elevating of decisions when there is a dispute between regional and district offices over implementation of the Guidelines.[26] Finally, under Section 404(c) of the CWA, the Administrator is authorized to "veto" a permit if the Administrator determines that a discharge will have an unacceptable adverse effect.[27]

When reviewing Corps public notices and general permit pre-construction notifications for CWA Section 404 authorizations for surface coal mining-related discharges to waters of the United States in Appalachian states, Regions should be guided by the following sections.

A. Principles for Regional Review of Appalachian Surface Coal Mining Section 404 Permit Applications

The fundamental premise of the Guidelines is that no discharge of dredged or fill material may be permitted if: (1) it causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable state water quality standard; (2) a practicable alternative exists that is less damaging to the aquatic environment; or (3) the nation's waters

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[26] Clean Water Act Section 404(q): Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army (1992). Available at http://www.usace.army.mil/CECW/Documents/cecwo/reg/mou/moa_epa404q.pdf.

[27] "The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection." CWA Section 404(c).

would be significantly degraded. 40 C.F.R. Section 230.10. In addition, if the proposed discharge is associated with a non-water-dependent activity, upland alternatives are presumed to exist. 40 C.F.R. Section 230.10(a)(3). Avoidance and minimization of the direct, indirect, and cumulative adverse environmental and water quality impacts to streams, wetlands, and other aquatic resources should be required. A demonstration must first be made that there is no practicable alternative to the proposed discharge to the waters of the United States that would have less adverse impact on the aquatic ecosystem. If there is no less damaging practicable alternative, then all appropriate and practicable steps to minimize potential adverse impacts of the discharge must be taken. Finally, mitigation is required to compensate for any remaining aquatic impacts.

To better ensure that surface mining proposals meet these requirements, Regions should affirm in their review that mining projects are consistent with the following principles:

1. Mining activities will not cause or contribute to violations of water quality standards, contaminate drinking water supplies, or add toxic pollutants that kill or impair stream life. 40 C.F.R. Section 230.10(b). Mining discharges must also not result in significant degradation of the aquatic environment, including contamination of water supplies. 40 C.F.R. Section 230.10(c).

2. Applicants have evaluated a full range of potential alternatives to discharging into waters of the U.S., including off-site and/or other disposal alternatives, with clear documentation regarding practicability for each alternative. 40 C.F.R. Section 230.10(a). Alternative mining methods that reduce generation of excess spoil should also be analyzed. Practicable, modern engineering and materials handling practices should be used to reduce the size and number of valley fills or the extent of streams impacted as a result of mine-through operations that bury, eliminate, and pollute local streams.

3. Mining companies have avoided and minimized their direct, indirect, and cumulative adverse environmental impacts to streams, wetlands, watersheds, and other aquatic resources. 40 C.F.R. Sections 230.10(a) and 230.10(d).

4. Remaining mining-related aquatic impacts have been effectively mitigated by establishing, restoring, enhancing, or preserving streams and wetlands; protecting water quality, including drinking water; and reclaiming watersheds when mining is completed. 40 C.F.R. Section 230.10(d).

Water quality standards are fundamental to achieving the purposes of the CWA. EPA has a role and responsibility for ensuring that water quality standards are not exceeded because of discharges regulated under Section 404 from Appalachian surface coal mining operations. In their review to determine whether a proposed discharge will cause or contribute to an exceedance of water quality standards, Regions should be guided by the principles articulated in Sections III.B. and III.C. of this memorandum addressing implementation of both numeric and narrative water quality standards. EPA retains its responsibility for ensuring that neither numeric nor narrative water quality standards are exceeded due to discharges of fill material even if a state has issued a water quality certification under Section 401 of the CWA. State certifications of

compliance with applicable water quality standards will be considered conclusive by the Corps with respect to water quality considerations unless the Regional Administrator advises the Corps of other water quality aspects to be taken into consideration. 33 C.F.R. Section 320.4(d). Thus, Regions should convey their conclusions with respect to possible exceedances of water quality standards to the Corps and, if appropriate changes to the permit are not made in response to these water quality concerns, may proceed under the 404(q) MOA and/or Section 404(c).

Similarly, with respect to the four review principles identified in this section and the guidance for applying the Guidelines in the next section, Regions should convey the results of their reviews to the Corps, the permit applicant, and the state and, if appropriate changes to the permit are not made in response to these water quality concerns, may proceed under the 404(q) MOA and/ or Section 404(c).

B. Key Information for Evaluating Permit Applications for Appalachian Surface Coal Mining

Because of the complexity, size, and scale of surface coal mining projects, in reviewing proposed Section 404 permit applications for these activities, it is essential that federal and state agencies have appropriate data to fully review the aquatic ecosystem impacts anticipated to occur. EPA Regions should evaluate project-specific data including, but not limited to, the following information. Where such data are also required by other federal and state regulatory partners, the agencies are encouraged to collaborate in sharing this information among one another to increase efficiency and better ensure regulatory decisions are being made using the same base of technical information.

- Geospatial information – Digital geospatial boundaries for the proposed project and individual valley fills. Location of nearby, reference, or unmined tributaries in the same catchment.
- Surface area disturbed – Total acreage of surface disturbance area (mineral extraction area).
- Spoil material – Volume of overburden excavated and volume of excess spoil (in cubic yards).
- Disposal location – Detailed as on site, off site, or a combination or percentage.
- Spoil for each valley fill – In cubic yards, where applicable.
- Drainage area – Above each toe of fill and each sediment pond, whichever is further downstream (in acres).
- Impacts – Aquatic resource impacts resulting from, but not limited to, valley fills, sediment ponds, slurry ponds, in-stream mining, or other mining operation features, in linear feet by type of stream (perennial, intermittent, ephemeral) or acres for other resource types, and by type of impact (permanent or temporary).
- Baseline monitoring – Pre-mine (land disturbance) sampling data and sampling location for total suspended solids, total dissolved solids, conductivity, sulfates, bicarbonate, chloride, magnesium, potassium, calcium, sodium, pH, selenium, and list of the presence and abundance of aquatic organisms identified to the loweset

practicable taxonomic level, usually genus-level for invertebrates and species-level for vertebrates.

- Hydrology – Cumulative Hydrologic Impact Assessments (CHIAs) and Probable Hydrologic Consequences (PHC).
- Watershed condition – Any sampling data for total suspended solids, total dissolved solids, conductivity, sulfates, bicarbonate, chloride, magnesium, potassium, calcium, and macroinvertebrate presence and abundance for adjacent mines included with the CHIA or other sources.
- Geology – Geologic strata information from core samples, including analysis of selenium, pyrite, calcium carbonate, acid-producing strata, and any strata that may cause or contribute to conductivity.
- Drinking water supplies – Location of drinking water supplies that could be affected, including private wells.
- Subsistence consumption – Patterns of local consumption of fish and wildlife that may be affected by loss of waters and impacts to surface water quality.

C. Applying the 404(b)(1) Guidelines for Surface Coal Mining Activities

The Section 404(b)(1) Guidelines prohibit issuance of a permit that will cause or contribute to excursions from applicable state water quality standards or to significant degradation of the aquatic ecosystem. 40 C.F.R. Sections 230.10(b) and (c). While issuance of the Section 402 permit is required to control discharges of pollutants into waters of the United States from surface mining operations, the discharge of fill material resulting in physical modification and elimination of portions of headwater streams may have water quality impacts that are not addressed in the NPDES permit. For example, elimination of all or even part of a headwater stream may remove from the overall watershed system an important source of freshwater dilution that contributes to water quality. Accordingly, even where a NPDES permit has been issued, the Section 404 permit must independently ensure that water quality is protected. The applicant should be required to demonstrate up front, based on proposed mining techniques, best management practices, or other actions, that the project will not cause or contribute to an excursion from applicable water quality standards or to significant degradation. The permit should include a condition, pursuant to 40 C.F.R. Sections 230.10(b) and (c), prohibiting the project from causing or contributing to an excursion from applicable water quality standards or to significant degradation.

The following discussion represents EPA's expectations for the analyses necessary to ensure compliance with water quality standards, prevention of significant degradation, and full analysis of avoidance, minimization, and (where necessary) mitigation, to achieve full compliance with the 404(b)(1) Guidelines.

1. Preventing Violations of Water Quality Standards

The Section 404(b)(1) Guidelines require that Section 404 permits must not cause or contribute, after consideration of site dilution and dispersion, to violations of applicable state

water quality standards. 40 CFR Section 230.10(b)(1). As explained more fully above in Section III, Appalachian states have narrative water quality standards that protect the native aquatic community, including protection from adverse effects associated with elevated levels of in-stream conductivity. Nearly all Appalachian states, however, have not established numeric water quality criteria for conductivity or TDS and historically have not included numeric effluent limitations to address conductivity or TDS in state-issued NPDES permits. The absence of necessary WQBELs in 402 permits has meant that EPA has needed to consider whether issuance of a 404 permit would be inconsistent with the Guidelines because authorization of a particular mining project would result in exceedances of a state's narrative standards. Section III.C. of this memorandum provides specific guidance to the Regions on how to evaluate whether provisions of NPDES permits are adequate to protect against violations of water quality standards, and that guidance also applies to how Regions should conduct that evaluation for Section 404 permits. As discussed below, even where a Section 402 permit has addressed protection of water quality standards, the Guidelines establish an independent obligation to address potential violations of water quality standards associated with discharges of dredged or fill material and to protect against significant degradation.

2. Preventing Significant Degradation

In addition to the provision in the Section 404(b)(1) Guidelines requiring that Section 404 permits must not cause or contribute, after consideration of site dilution and dispersion, to violations of applicable state water quality standards (Section 230.10(b)(1)), a separate, additional provision prohibits the permitting of a discharge that will cause or contribute to significant degradation of the waters of the U.S. (Section 230.10(c)). The Corps and EPA therefore have a responsibility to ensure sufficiently protective requirements are included when reviewing mining projects in draft Section 404 permits. To date, this has involved coordination with the Corps to develop adequate numeric action triggers in 404 permits. Our general approach has been to rely on peer-reviewed studies (including those by EPA) examining the relationship between conductivity values and water quality impairment in Appalachia. These studies point to a strong relationship between conductivity values in the range of 400-500 µS/cm in headwater streams and significant degradation of benthic communities in Appalachian streams as a result of mining activity. In response to these studies, the Corps and EPA included conditions in the recent Section 404 permit for the Hobet 45 mine that trigger remedial action requirements when conductivity levels in streams associated with this mine reach the 400-500 µS/cm level.

A recently prepared EPA ORD study, which is being noticed in the Federal Register for public comment and which will be submitted for SAB review, augments existing studies and provides an additional analysis of the relationship between impairment of stream quality in Appalachia and conductivity levels. This study identifies conductivity levels of 300 µS/cm or below in Appalachian headwater streams as a benchmark for retaining 95% of native benthic species. The study also identifies substantial impacts to native invertebrate species at conductivity levels exceeding 500 µS/cm. Because the study will be reviewed by the SAB, it does not represent a final Agency position at this time. However, EPA will need to continue reviewing 404 permits while this external peer review process is underway.

For purposes of Section 230.10(c) of the Guidelines, the Regions should consider the ORD report when examining whether a draft 404 permit is likely to result in significant degradation of waters of the U.S. During this interim period, the Regions should make a case-by-case determination based upon all available relevant scientific information including the ORD report. EPA anticipates that the conductivity impacts of projects with predicted conductivity levels below 300 µS/cm generally will not cause a water quality standard violation or significant degradation of the aquatic ecosystem. On the other hand, EPA expects that in-stream conductivity levels above 500 µS/cm are likely to be associated with adverse impacts that could rise to the level of significant degradation of the aquatic ecosystem. At a minimum, should a proposed Section 404 permit allow for increases in levels of conductivity above 500 µS/cm, the administrative record for the permit should demonstrate, based on site or receiving water specific information, how the permit is consistent with the CWA and the 404(b)(1) Guidelines, and Regions are encouraged to review such a record carefully. EPA, the Corps, and individual mining operators should be coordinating, in the context of a "sequenced" permitting approach (see IV.C.4 below), or other similarly protective measures, to ensure conductivity levels remain at levels not likely to contribute to degraded water quality, as discussed above in III.C.1. Projects projected to increase conductivity levels above 300 µS/cm should include permit conditions requiring adaptive remedial action to prevent conductivity levels from rising to levels that may contribute to water quality degradation, as discussed in III.C.1. After EPA's draft conductivity report is finalized after peer review, we will reexamine this approach.

In conjunction with the conductivity threshold, ORD's review of the scientific literature on surface coal mining (as mentioned above, scheduled to be reviewed by the SAB) and *Science* magazine found effects, including resource loss, water quality impairment, and adverse effects on aquatic ecosystems, that could support a conclusion of significant degradation of waters of the U.S. under applicable regulations.

3. Ensuring Effective Monitoring

To ensure compliance with these provisions of the Guidelines, the permit should effectively require water quality and biological monitoring in streams below surface coal mining operations to ensure permit conditions are being met and to collect data to inform continued operations as described below. Monitoring should be conducted during construction and post-construction. The permittee should be required to submit baseline monitoring data for biological condition, conductivity, total dissolved solids, sulfates, bicarbonate, chloride, magnesium, potassium, calcium, sodium, pH, and selenium to help provide information necessary to assure compliance with water quality standards and prevent significant degradation. The permittee should use the methodology employed by the state for assessing its waters pursuant to Section 303(d) or other methodology utilized by the state. In addition, with respect to biological data, the permittee should identify taxa to the genus level where the state methodology does not do so. The permittee should implement a monitoring plan for the foregoing parameters at appropriate locations upstream and downstream of the project, where applicable. As set forth in more detail below, the permit should include clear requirements for remedial actions to protect water quality

in the event monitoring reveals a trend toward excursion from water quality standards or a trend toward significant degradation.

4. Ensuring Independent Water Quality Protection from Section 404 Permits

Regions should ensure that, if a Section 402 permit has already been issued and does not address current science-based values for contaminants, the Section 404 permit includes needed conditions to protect water quality and to prevent significant degradation of the aquatic ecosystem. In addition to the monitoring requirements discussed in #1 above, additional conditions should explicitly address the levels of specific contaminants that must be achieved. These conditions should also address the adaptive remedial actions that will be implemented if water quality protection values are exceeded.

5. Ensuring Adequate Cumulative Impact Assessment Consistent with the 404(b)(1) Guidelines

Regions should ensure that watershed-scale (e.g., Hydrologic Unit Code 12 (HUC-12)) cumulative impact analyses are conducted as an element of the factual determinations required by the 404(b)(1) Guidelines. 40 CFR Section 230.11(g). These analyses should assess the consequences of past, present, and reasonably foreseeable future discharges of dredged or fill material (federal and non-federal) in the affected watersheds, on water quality and the aquatic environment. To the extent the cumulative impacts to water quality and the aquatic environment also affect human use characteristics, such as water supplies or fisheries, those impacts also should be addressed. Regions are encouraged to ensure that cumulative impact assessments conducted pursuant to the Guidelines are coordinated with required NEPA evaluations described in Section VI. below.

6. Assessing and Mitigating for Affected Stream Functions

Regions should ensure that applicants or the Corps conduct functional stream impact assessments and ensure they are effectively used to quantify the environmental effects of individual mining projects on streams. Regions are encouraged to work with and provide technical assistance to the Corps and states on the development and implementation of effective assessment methods. These assessments should be used to ensure that compensatory mitigation adequately replaces lost stream functions. For example, EPA should recommend alternatives to drainageways (e.g., groin ditches) as methods of stream mitigation, as they do not replace lost stream functions and are therefore not an acceptable form of compensatory mitigation. Some additional specific expectations for compensatory mitigation consistent with the agencies mitigation regulations include:

a. Timeframe – An expected timeframe for success should be identified and the mitigation should be monitored for that length of time in order to ensure success.

b. Mitigation monitoring – A detailed monitoring plan outlining the observable and measureable physical, chemical and biological criteria, and expected standards to be achieved, should be incorporated into permit conditions.

c. Adaptive remedial action – Include an adaptive remedial action plan that identifies specific triggers in the performance standards and alternate plans and strategies should the desired targets not be achieved. The plan should require additional actions and/or supplemental mitigation in the event success criteria are not achieved within an appropriate timeframe.

d. Stream establishment – Created stream channels should be designed to develop good water quality, healthy and diverse biological communities, and similar hydrologic regimes as streams to be impacted by mining activities. The goal of these compensation projects is to replace the lost stream functions impacted through mining activities; therefore, they should be designed to achieve designated uses for aquatic life support.

e. Ditches – No Section 404 compensation credit should be given for sediment, groin, or other water control ditches required for mining projects under SMCRA and CWA Section 402.

7. Ensuring Environmental Justice in Section 404 Permitting

Regions should identify whether issuing a permit would result in adverse human health or environmental effects on low-income and minority populations, including impacts to water supplies and fisheries. Where such effects are likely, EPA Regions should suggest ways and measures to avoid and/or mitigate such impacts through comments to the Corps.

In addition to the principles outlined above, EPA expects that the following best management practices will help to reduce or eliminate potential increases in conductivity levels in surface waters downstream of mining-related discharges to levels consistent with meeting narrative water quality standards and preventing significant degradation, as discussed in this memo, and to minimize associated impacts to the aquatic environment.

1. Sequencing Multiple Valley Fills for Projects Proposing More Than One Fill

Many of the proposed best management practices associated with the design of mining operations are currently unproven in their effectiveness to protect water quality and to prevent significant degradation. As a general matter, an effective approach for managing this uncertainty is to sequence multiple fills on a project. The sequenced approach, or another comparably effective measure, should be employed to account for uncertainty regarding the ability of current project best management practices to address the potential adverse impacts of multiple fills. In this context, the term "sequenced" means:

a. Valley fills that are part of the same project or complex should generally be constructed one at a time, unless site-specific data suggest no potential downstream water quality concerns; and

b. The permittee should demonstrate compliance with applicable water quality standards, and that significant degradation has not occurred, at each valley fill before the permittee may begin construction of subsequent valley fills.

EPA encourages applicants to fully sequence fills (e.g., one at a time) where monitoring and watershed-specific factors suggest water quality impacts may occur. On a case-by-case basis, if available data suggest that concurrently constructing more than one initial fill would not be likely to lead to water quality concerns, such an approach may be evaluated. A trends analysis as referenced above should be performed from the conductivity monitoring data. The trends analysis should then be evaluated against two threshold conductivity values established within the permit. The first value would establish a threshold at which a trend toward causing or contributing to water quality exceedances and significant degradation is identified, and the operator would be required to implement an adaptive remedial action plan to prevent further degradation. The second value would establish a threshold at which an excursion from applicable water quality standards and/or significant degradation is likely, and the permittee would be prohibited from constructing additional valley fills until such time as the excursion from water quality standards and/or significant degradation has been remediated and the permittee has demonstrated that no further excursion from water quality standards and/or significant degradation will occur. As discussed above, for many Appalachian streams, available scientific evidence supports using thresholds of 300 and 500 uS/cm in this context, though site-specific evidence may support alternate thresholds.

2. Protecting Water Quality for Projects Proposing One Valley Fill

For operations proposing a single valley fill, the sequencing as described above is not an option. As stated above, the applicant should be required to demonstrate prior to authorization and construction, based on proposed mining techniques, best management practices, or other actions, that the project will not cause or contribute to an excursion from applicable water quality standards or to significant degradation. The permit should include a condition, pursuant to 40 CFR Sections 230.10(b) and (c), prohibiting the project from causing or contributing to an excursion from applicable water quality standards or to significant degradation. In order to carry out this requirement and to assure that the permit will not cause or contribute to an excursion from applicable state water quality standards or to significant degradation of downstream waters, a monitoring plan as described above should generally still be required. Such permit conditions are also applicable and should be required for projects proposing multiple valley fills.

3. Minimizing Spoil Generation and Water Quality Impacts Through Avoidance and Minimization

Because larger and more numerous valley fills in waters of the U.S. are associated with increasing both direct adverse impacts to streams and watersheds and indirect downstream water quality impacts, projects should incorporate cost effective and technologically feasible limits on the quantity of excess spoil being generated per ton of coal produced by conducting a robust alternatives analysis. By relying on more efficient mining practices, impacts to streams and watersheds can be reduced. High-ratio mining operations generally do not represent the least environmentally damaging alternative. Consistent with the June 2009 interagency surface coal mining MOU, applicable federal and state regulatory agencies should coordinate environmental reviews of pending permit applications under the CWA and SMCRA to require practicable mining techniques that maximize the amount of spoil returned to the mine bench and minimize the amount of excess spoil that must be disposed of in streams and other aquatic systems. For mine-through operations, stream impacts should be avoided to the maximum practicable extent and spoil placement should be controlled to reduce drainage through overburden into streams. Options for disposing of mine waste in uplands, including relying on remaining excess spoil capacity at adjacent mine sites, must be fully evaluated. "Piecemealing" of multiple small mines to replace fewer large mines should be carefully evaluated to ensure that substitution of smaller mines is not resulting in greater direct, secondary, and cumulative adverse environmental impacts, which is not consistent with the Guidelines.

Projects should also incorporate environmentally effective limits on the linear extent of stream impacts per ton of excess spoil produced through a robust alternatives analysis. Such limits provide for improved efficiencies in spoil handling to minimize impacts to streams and is applicable to most mining operations, including mine-through projects. Where valley fills are necessary to accommodate disposal of excess spoil, overburden should be configured to maximize disposal as far up the valley as is feasible from an engineering perspective. To reduce direct stream impacts, valley fill construction should generally be from the head of the valley downwards instead of beginning at a point downstream and moving back upstream.

4. Certifying Mine Plan and Ensuring Full Utilization of Fill Disposal Sites

It is EPA's experience that permitted mine plans do not always reflect the "on-the-ground" construction and operation of a mine project. For many reasons, as construction and operation of the mine is underway, it is possible that the mine plan may change and that an operation may not fully utilize authorized capacity in valley fills. To prevent under-utilization of fills and to encourage additional avoidance and minimization of impacts to waters of the United States during construction, EPA should recommend that an issued permit be conditioned to require the operator to certify the mine plan and provide such certification to the Corps and EPA prior to construction of each valley fill. The operator should also be required to provide post-mining "as-built" plans.

5. Minimizing Conductivity Impacts and In-Stream Impoundments

Projects should fully evaluate and, where feasible, incorporate the following specific aspects of effective impacts avoidance and minimization:

a. Materials handling plans – Ensure that soils and rock on the mine site have been tested for concentrations of acid-, selenium- or heavy-metals-bearing or soluble strata that are likely to lead to high conductivity concerns. Overburden with high concentrations of these pollutants should be handled to minimize exposure to rainwater and groundwater and subsequent drainage into surface waters.

b. Fill construction – To prevent infiltration of surface runoff into the fill mass whenever possible, overburden should be compacted, leaving the top six feet unconsolidated. The use of end dumps should be discouraged whenever possible.

c. Sedimentation ponds – While achieving adequate sediment control, minimize the number of sediment ponds placed in waters of the U.S. and ensure that post-mining reclamation plans remove such ponds and restore affected streams.

6. Reducing Drainage Area Flowing Through Fills

Projects should reduce the drainage area flowing through valley fills to the maximum practicable extent consistent with sound engineering and safety considerations. Recent studies have suggested that water (e.g., precipitation and groundwater) flowing through valley fills contributes significantly to downstream water quality concerns as infiltrating water accumulates metals, dissolved solids, and sulfates. Designing mines (including mine-through operations) and valley fills to minimize drainage through mining spoil can contribute significantly to protecting downstream water quality. Regions should ensure that projects evaluate and, where feasible, incorporate current best mining practices that reduce infiltration and protect water quality, such as constructing valley fills as "side-hill" fills to reduce infiltration by precipitation, incorporating drains in valley fills to intercept and divert groundwater, and designing mines to take more consistent advantage of natural drainage through coal and rock formations that divert flow away from surface waters.

D. Addressing a Broad Range of Environmental Impacts

While the Guidelines evaluation process addresses impacts to the aquatic environment and the consequences of those impacts, we recognize that issuance of Section 404 permits can have other important environmental and human health impacts that are considered by the Corps as part of the "public interest review" process (33 CFR Section 320.4(a)). The public interest review process explicitly requires a "careful weighing" of up to 21 relevant public interest factors, including economics, aesthetics, energy needs, safety, and the general "needs and welfare of the people." In that light, we recommend that Regions provide comments to the Corps that address relevant public interest factors associated with the discharge of fill material

into waters of the United States, with a particular emphasis on ways or measures to mitigate potential adverse impacts to low-income and minority populations.

E. Conclusion

We encourage the Regions to discuss these general strategies with Corps Districts and states. Consistent with long-standing practice, we encourage Regional staff to offer specific recommendations to permit applicants who want to work with EPA to resolve individual permit issues. We have, in fact, engaged in productive dialogues with several permit applicants. Experience has shown that these discussions can provide an efficient and effective path to agreement on permit conditions that meet the requirements of the law while allowing mining companies to proceed on a cost-effective and environmentally responsible basis. We encourage more interaction between industry and EPA to resolve permit issues through dialogue and technical cooperation.

V. CWA Section 401 Certifications by States

Section 401 conveys to states directly and eligible Tribes the authority to approve (certify), condition, or deny all federal permits or licenses authorizing a discharge to waters of the U.S., including wetlands, including CWA Section 404 permits and federally issued SMCRA permits. States and Tribes may choose to waive their Section 401 certification authority and, if they fail to respond to a request for certification within the proscribed time (generally one year), their Section 401 authority is waived by default.

States and Tribes most commonly make their decisions to deny, certify, or condition permits or licenses primarily in consideration of whether the activity will comply with state water quality standards. However, they also look at whether the activity will violate effluent limitations, new source performance standards, toxic pollutant controls, or other appropriate requirements of state or Tribal law or regulation. EPA is in the process of developing an updated handbook on the basics of state Section 401 certification actions, which is intended to help clarify how states and tribes can most effectively employ this statutory water quality management tool for applicable projects, including surface coal mining projects permitted under Section 404.

Although Section 401 certification authority rests with the jurisdiction where the discharge originates, neighboring states and tribes downstream or otherwise potentially affected by the discharge have an opportunity to raise objections to, and comment on, the federal permit or license. EPA should determine if a discharge subject to Section 401 certification may affect the water quality of other states or tribes and, if there may be such an effect, EPA Regions should notify other jurisdictions whose water quality may be affected. The other jurisdictions should then be provided an opportunity to submit their views and objections, including opportunities for public hearings, consistent with CWA Section 401(a)(2). Although, the nature of recommendations from neighboring jurisdictions do not have the same force as conditions from a

Section 401 certifying state, the federal agency must develop measures to address the downstream jurisdictions' concerns.

Section 401(a)(1) requires that a state "establish procedures for public notice in the case of all applications for certification by it and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications." 33 U.S.C. Section 401(a)(1). To enable meaningful participation by affected communities, we recommend that Regions work with the states to ensure that these public participation procedures are in place, and encourage the states to provide appropriate opportunities for public hearings on specific certifications.

VI. National Environmental Policy Act Considerations

The Regions should work with the Corps and OSM to ensure that the NEPA analyses associated with federal permit decisions provide, through an open and accountable process, a comprehensive evaluation of the potential impacts associated with proposed actions, as well as an analysis of reasonable alternatives that may avoid or minimize adverse impacts. The Corps has announced its intention to issue a notice of proposed rulemaking expanding the Corps NEPA scope of review to consider all of the effects of proposed surface coal mining "valley fills" on the aquatic environment. EPA will work with the Corps toward that objective, and furthering the purpose of NEPA to provide information to the decision maker, other federal and state agencies, and the public. In the interim, EPA will work with the Corps on a case by case basis to review permit applications and ensure that all relevant environmental information, as well as potential alternatives that may avoid or minimize the extent of the valley fills, is fully considered.

We also recommend that Regions work with the Corps and OSM to help establish opportunities for early and meaningful community input. These opportunities for increased community input may include Regions requesting that Corps Districts and OSM make draft Environmental Assessments (EAs) readily available to the public using a variety of methods, including online and print media, as early in the permitting process as possible. In addition, it is important that all agencies work with local communities, including low-income and minority populations, to identify potential adverse human health and environmental impacts and mitigation measures and improve the accessibility of meetings, crucial documents, and notices.

As discussed earlier, the NEPA process is also an effective vehicle for considering the potential cumulative effects of mining proposals. Using a watershed-scale analysis (e.g., HUC-12 analyses) would be an effective way to examine the cumulative environmental and human health impacts from past, present and reasonably foreseeable actions, including federal and non-federal actions. When working with the Corps and OSM to help define the proper scope of a NEPA cumulative impact assessment, Regions should be clear that while cumulative hydrological impact assessments (CHIAs) prepared as part of the SMCRA process can provide useful information regarding impacts to the hydrologic balance of an area, a NEPA cumulative impact assessment should consider the full suite of relevant environmental impacts.

When an agency develops and makes a commitment to require mitigation measures to avoid, minimize, rectify, reduce, or compensate for significant environmental impacts, NEPA

compliance can be accomplished with an EA, coupled with a Finding of No Significant Impact (FONSI) ("Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," 46 FR 18026 (March 23, 1981)). The Regions should, in evaluating permit applications and NEPA analyses, carefully evaluate any proposed mitigation measures to ensure that they will not only be effective at eliminating or reducing impacts, but also that they are clearly stated, include binding commitments and monitoring plans, and include provisions for public access to monitoring results and related documents. Recent scientific evidence referenced earlier in this memorandum, as well as field experience with surface coal mining mitigation projects, has raised technical concerns about the capacity of some forms of mitigation to reduce on-site and downstream impacts associated with Appalachian surface coal mining to below levels of significance. For example, as noted earlier, EPA believes that no mitigation credit should be given for sediment, groin, or other water control ditches. Consequently, construction of these ditches should not be used as a basis for supporting a FONSI. Moreover, mitigation measures that rely on establishing or re-establishing streams, rather than rehabilitating or enhancing existing streams, have less certainty of successfully offsetting impacts and should generally not be used to support a FONSI.

While no specific regulatory thresholds exist for determining whether a potential impact is significant under NEPA, it is EPA's general experience with surface coal mining projects in Appalachia that there are a number of factors that should be considered. First, the scale of the proposed impacts to stream habitats is of primary importance. While smaller projects should be reviewed to determine whether potential impacts warrant preparation of an EIS, it is EPA's experience that projects that involve more than one mile of stream loss or more than one valley fill are likely to result in significant adverse impacts.

Finally, consistent with EPA's *Policy and Procedures for the Review of Federal Actions Impacting the Environment*, the Regions should consult with the Office of Federal Activities (OFA) when recommending to the Corps or OSM that an EIS be prepared. OFA can also provide assistance when Regions are unable to reach agreement with Corps Districts or OSM on whether an EIS should be prepared in a particular case. Further, although the decision to prepare an EIS rests with the Corps and OSM, under EPA's Clean Air Act Section 309 authority, EPA must "refer" to CEQ matters that the Administrator finds are "unsatisfactory from the standpoint of public health or welfare or environmental quality." OFA will work with Regions to determine an appropriate course for resolving such disputes, including the potential for a referral to CEQ, if appropriate.

VII. Conclusions

EPA will continue to work with our federal regulatory partners, state agencies, the mining industry and the public to fulfill our common goals of reducing adverse impacts to water quality, aquatic ecosystems, and human health. We will also communicate effectively with local communities and mining companies to provide the transparency, consistency, and efficiency expected of government agencies in dealing with issues of such importance to health, the environment, and the economy. EPA's Regional offices will continue to be the Agency's primary field representatives to co-implementing agencies, mining companies, affected

communities, and interested members of the public as we work to respond to CWA, NEPA, and environmental justice issues associated with Appalachian surface coal mining permits. We look forward to your leadership as we coordinate to develop environmentally effective, scientifically sound, and economically responsible approaches for meeting the requirements of the law.

cc: Regional Water and Enforcement Division Directors, Regions 3, 4, and 5
Robert Sussman, Senior Policy Counsel to the Administrator
C. Scott Fulton, General Counsel

Exhibit 6

Energy and Environment Cabinet

v.

Frasure Creek Mining, LLC

ENTERED
NOV 24 2014
FRANKLIN CIRCUIT COURT
SALLY JUMP, CLERK

COMMONWEALTH OF KENTUCKY
FRANKLIN CIRCUIT COURT
DIVISION I
CIVIL ACTION NO. 10-CI-1867

ENERGY AND ENVIRONMENT CABINET — **PLAINTIFF**
and
APPALACHIAN VOICES, INC., WATERKEEPER ALLIANCE, INC., KENTUCKIANS FOR THE COMMONWEALTH, INC., KENTUCKY RIVERKEEPER, INC., PAT BANKS, LANNY EVANS, THOMAS H. BONNY, and WINSTON MERRILL COMBS — **PLAINTIFF-INTERVENORS**

v.

FRASURE CREEK MINING, LLC, ET AL. — **DEFENDANTS**

FINDINGS OF FACT AND CONCLUSIONS OF LAW

This action is before the Court for a final ruling following a full hearing on the merits, and extensive briefing of the issues. The Court referred the case to mediation, and there have been four unsuccessful attempts to reach a resolution through mediation, including on-going attempts after the hearing on the merits. Similar claims involving ICG, another coal company, with similar violations were resolved through mediation, and the Court entered an Order approving the mediated settlement in that case on October 10, 2012. *See* Energy and Environment Cabinet v. ICG of Hazard, No. 10-CI-1868, Order, October 10, 2012. In addition to the failed mediation attempts, the respondent Frasure Creek Mining was the subject of an involuntary bankruptcy petition filed on February 14, 2013. Early in 2014, Frasure Creek's bankruptcy action became final. On August 19, 2014, Frasure Creek's counsel filed a motion to withdraw as counsel because of Frasure Creek's "failure to fulfill its obligations regarding legal services, despite reasonable warning that the law firm will withdraw." The Court granted

Frasure Creek's counsel's motion to withdraw. The substantive and procedural history of this case also includes a failed attempt by the Energy and Environment Cabinet to prohibit this Court from allowing the citizen-intervenors to participate in this case. Energy and Environment Cabinet v. Shepherd, et al., 2011 WL 3586410 (Ky. App. 2011). With this background in mind, the Court now enters the following judgment, based on the findings of fact and conclusions of law set forth below.

FINDINGS OF FACT

1. The Commonwealth of Kentucky is delegated authority by the United States Environmental Protection Agency ("EPA") to administer the National Pollutant Discharge Elimination System, mandated by the Federal Water Pollution Control Act, §§101, et seq., 33 U.S.C.A. §§ 1251, et seq., (hereinafter, Clean Water Act or "CWA") in Kentucky and that the Commonwealth carries out this delegation pursuant to state law promulgated by the Kentucky General Assembly, by operation of the Kentucky Pollutant Discharge Elimination System ("KPDES") permitting program.

2. The Plaintiff, Cabinet, is an agency of the Commonwealth charged by statute with the duty to enforce laws for the protection of human health and the environment pursuant to KRS Chapter 224 and regulations promulgated pursuant to that statute. The Court takes judicial notice that the Cabinet has been statutorily charged with implementation and enforcement of the permitting system under the Clean Water Act (CWA) for Kentucky. (Bruce Scott Testimony, Day 1, p. 56)

3. The Cabinet filed a complaint against Frasure Creek in Franklin Circuit Court, seeking judicial approval of a settlement agreement negotiated between the Cabinet and Frasure

Creek concerning extensive violations of the CWA. The complaint alleged the Defendants violated terms and conditions of its KPDES permit and obligations imposed by KRS Chapter 224 and its implementing regulations governing wastewater discharge monitoring, analysis, and reporting, including two effluent limit exceedences, two performance audit inspections on laboratory quality assurance and quality control procedures, and many instances of recordkeeping. The complaint also alleged that some of the Defendant's quarterly Discharge Monitoring Reports (DMRs) were not signed by an authorized officer, others had transcribing or reporting errors, and some outfalls had no DMRs submitted.

4. Although the Cabinet oversees enforcement of the KPDES program, it is the regulated parties who are primarily responsible for monitoring and reporting their own discharges. The effectiveness and integrity of the entire CWA permitting program depends on the trustworthiness of the regulated entities and vigorous agency oversight and enforcement.

5. The Defendant, Frasure Creek Mining, LLC, is a privately held corporation headquartered in Scott Depot, West Virginia with surface coal mining facilities owned and operated in eastern Kentucky. It is one of the largest producers of surface mined coal in Kentucky. The mine operates pursuant to surface mining permits issued by the Kentucky Division of Mine Reclamation and Enforcement ("DMRE"), a division within the Cabinet's Department for Natural Resources. All wastewater discharges from surface coal mining operations must be authorized by KPDES permits from the Kentucky Division of Water ("DOW") within the Cabinet's Department for Environmental Protection.

6. Surface mining operations approved to discharge effluent may not exceed the terms and conditions of Kentucky's General Permit, KYG0400000. This General Permit contains

effluent limitations, monitoring and reporting requirements, and other provisions permittees must observe to comply with the CWA, including filing quarterly DMRs.

7. In April 2010, Plaintiff Interveners began investigating water-monitoring data for Frasure Creek. Plaintiff Interveners submitted open record requests under Kentucky's Open Record Laws, KRS 61.870-61.884, to the DEP, DOW, DNR and DMRE. After failing to receive some DMR reports, Plaintiff Interveners visited the DOW offices in various cities around Kentucky, finding the requested materials in the London office. (Eric Chance Testimony, Day 2, p. 107).

8. In some instances, the signature certificate date preceded the last sampling dates for the quarter. In all instances, Frasure Creek's DMRs were not signed by a corporate officer or duly authorized representative as required under 401 KAR 5:065 § 2(1) and 40 CFR § 122.22. All DMRs were signed by Jody Salisbury, an employee of Frasure Creek's contract laboratory, S&S Laboratory. (Eric Chance Testimony, Day 2, p. 111). Numerous DMRs were submitted with *identical* effluent-monitoring data for the same discharge point in consecutive quarters, or for different discharge points in the same quarter, indicating that the data recorded on these DMRs were most likely copied or reproduced without any pretense of compiling and recording accurate data.

9. On or about October 7, 2010 the Cabinet was served with Notices of Intent to Sue ("NOIS") Defendant pursuant to § 505(b) of the federal Water Pollution Control Act, 33 U.S.C. § 1365(b), on behalf of several environmental advocacy organizations and individuals alleging violations of Defendants' discharge permit requirements at several of Defendants' surface mining facilities.

10. Pursuant to 33 U.S.C. § 1365(b), the notice letters triggered a 60-day period during which the EPA and the Cabinet, as well as the Kentucky and US Attorneys General, could investigate the claims alleged and bring enforcement actions that, if diligently prosecuted, would preclude Plaintiff Interveners from bringing their claims.

11. Following receipt of the NOIs, the Cabinet undertook an investigation to confirm whether the Defendant had violated its discharge permit and applicable law as alleged in the NOIs. At the conclusion of its investigation the Cabinet issued Notices of Violations (NOVs) to each Defendant for all violations of KRS Chapter 224 and its implementing regulations and Defendants' KPDES permits identified during its investigation. The NOVs included citations for all violations alleged in the NOIs, with the exception of the allegations for fraud, and all additional violations discovered by the Cabinet's investigation. The Cabinet went beyond the NOIs to look at the "entire universe of ICG and Frasure Creek operations" in its investigation.

12. The Cabinet's investigation was supervised by Commissioner Bruce Scott, and included a two-day Performance Audit Inspection ("PAI") from October 14 to 15, 2010. Each PAI consisted of two teams that conducted an unannounced inspection of the laboratory facility, procedure, and records, as well as an observation of wastewater discharges into streams, ponds and outfalls. Inspectors were instructed to sample any visibly egregious discharges. One sample was taken from a Frasure Creek mine site and one from an ICG mine site. The Cabinet's review also included an investigation by the Division of Enforcement of each DMR submitted for Frasure Creek's 35 permits between January 2008 and June 2010. (Bruce Scott Testimony, Day 1, p. 20).

13. Frasure Creek voluntarily admitted that the one discharge exceedence discovered likely occurred at its mining operation, and quickly replaced its contractor, S&S laboratory, that had caused so many of the administrative violations. Frasure Creek admitted that the power of attorney given to the laboratory to sign the DMRs was in violation of their permit. (Mark Cleland Testimony, Day 2, p. 265).

14. The Defendant cooperated with the Cabinet's investigation and were issued a number of NOVs. On December 3, 2010, the last business day before the 60-day period ran, the Cabinet filed, in Franklin Circuit Court, this Complaint against Frasure Creek, seeking judicial approval of a consent decree negotiated with Frasure Creek. The Cabinet alleged that numerous violations were uncovered during its investigation. The Cabinet, in its Complaint, alleged 1,520 Clean Water Act violations at 39 Frasure Creek mines. The complaint requested the relief from this Court in the form of a civil penalty of up to $25,000 per day per violation and ordering Defendant to comply with all applicable statutes. The Cabinet simultaneously tendered a consent judgment to this Court for approval the same day the Complaints were filed. (Bruce Scott Testimony, Day 3, p. 83). The Consent Judgment that included a penalty and a requirement to submit a Corrective Action Plan. Frasure Creek began implementing the plan despite the continued pendency of the Consent Judgment. (Tom Gabbard, Day 2, p. 297).

15. The Cabinet's investigation took at least six weeks, and took longer than most investigations performed by the Cabinet because very few cases are this large in the scope of violations. (Jeff Cummins, Day 3, p. 33).

16. On or about December 14, 2010 Intervening Plaintiffs, Kentuckians for the Commonwealth, Inc., Kentucky Riverkeeper, Inc., Waterkeeper Alliance, Inc., Pat Banks, Lanny Evans, Thomas H. Bonny and Winston Merrill Combs, collectively "Appalachian Voices" moved to intervene in this case and simultaneously filed Intervening Complaints against Defendants pursuant to the citizen suit provision of the federal Water Pollution Control Act, § 505(b), 30 U.S.C.A. § 1365(b) (the "Clean Water Act" or "CWA").

17. Plaintiff Interveners include both individuals and organizations. Individual intervenors Winston "Merill" Combs, Lanny Evans, Thomas H. Bonny, and Pat Banks are members of the Kentucky Riverkeeper, and use and enjoy the Kentucky River and its tributaries for a variety of recreational, scientific, cultural and household purposes. Organizational interveners are non-profit organizations whose primary missions include preservation of valuable water resources in the Commonwealth of Kentucky.

18. Defendant and Cabinet each filed a response objecting to the Motion to Intervene.

19. On January 7, 2011, this Court heard oral arguments on the merits of the motion to intervene.

20. On February 11, 2011, the Court entered an Order granting intervention. The Court also scheduled a hearing on whether the Court should approve the Consent Judgment, under the standard set out in United States v. Lexington-Fayette Urban County Government, 591 F.3d 484 (6th Cir. 2010); that is, whether the proposed Consent Judgment is fair, adequate, reasonable, and in the public interest. The parties were allowed a period of ninety days to conduct discovery on that issue.

21. From August 31 to September 2, 2011, the Court conducted a hearing on the issue of whether the Consent Judgments met the standard set forth in Lexington-Fayette Urban County Government.

22. Mark Cleland is the Environmental Control Manager for the Compliance and Operations Branch of the Division of Enforcement. Mr. Cleland helped develop and establish the DMR program. (Mark Cleland Testimony, Day 1, p. 106). Mr. Cleland was solely responsible for characterizing and counting the violations of the Defendant. (Mark Cleland Testimony Day 2, p. 257).

23. Jeff Cummins is the Assistant Director of the Cabinet's Division of Enforcement in the Department of Environmental Protection. He is also the Acting Director and been involved in assessing and negotiating civil penalties for the Cabinet since 1998. In his experience, negotiated settlements bring about compliance in a quicker and more effective manner. The position of Director of Enforcement has been vacant since 2007. (Jeff Cummins Testimony, Day 3, p. 8, 13-16).

24. Mr. Cummins oversaw resolution of this enforcement, and made determinations regarding appropriate penalty amounts. (Jeff Cummins Testimony, Day 1, p. 178-9). The Cabinet's initial penalty amount for Frasure Creek was $525,000. (Id. at p. 180). Mr. Cummins stated he calculated the penalties on a per violation basis, ranging from $100 to $5,000. (Id. at 200-1).

25. KRS 224.99-010 provides for assessment of a civil penalty for each violation of water quality statutes and regulations at a maximum of $25,000 per violation per day. The total maximum penalty for Frasure Creek, based on the violations in the Cabinet's press release (Plaintiff

Interveners' Exhibit 1) is $38,000,000 for 1,520 violations. This does not assume that the violations are ongoing, but rather discrete incidents as the Cabinet found. (Jeff Cummins Testimony, Day 1, p. 197).

26. The penalties here are statistically higher than most penalties in Cabinet settlements. The Cabinet sees six-figure penalties in less than one percent of its cases. (Jeff Cummins Testimony Day 3, p. 6-9). The DEP resolves approximately five hundred cases per year. But "only a percent of the violations seen in the field are actually referred to the Division of Enforcement. The vast majority of violations that are seen are resolved in the field. Only a small percent of the Division of Enforcement actions are referred to the office of general counsel for court action." (Bruce Scott Testimony, Day 3, p. 64)

27. The Cabinet took the position that it did not have sufficient evidence to support a claim of intentional submission of knowingly false data, or fraud, by the Defendant or its contract lab for DMRs. (Jeff Cummins Testimony, Day 1, p. 204-5). The Cabinet took this position notwithstanding the admission of Frasure Creek that its reports were submitted by an unauthorized party, that the signatures of the DMRs were often dated prior to the sampling that was being reported, and that multiple DMRs appear to be simply photocopies of prior reports without any evidence that actual sampling took place. The conditions observed by the Cabinet's inspectors during the performance audit of Frasure Creeks' so-called "laboratory" demonstrated either a plan or scheme to submit fraudulent information in the DMRs, or incompetence so staggering as to defy belief.

28. The Consent Judgment addresses all known violations discovered during the Cabinet's investigation. However, Mr. Cleland stated that of about 2,200 coal general permits, the

Cabinet does not know how many outfalls are associated with those permits and are required to have DMRs filed quarterly. The Cabinet does not maintain a list identifying those outfalls. (Mark Cleland Testimony, Day 1, p. 121).

29. Because Mr. Cleland failed to receive requested lists of outfall permits from DOW, he approximated the number of outfalls per mine for Frasure Creek based on permits with known numbers of outfalls. (Mark Cleland Testimony, Day 2, p. 79).

30. Without knowing the total number of outfalls associated with its permits, the Cabinet cannot know how many DMRs to expect each quarter or whether there was a failure to report DMRs. Without knowledge of the number of outfalls, the Cabinet cannot know the total number of violations when it negotiated, drafted, and submitted the Consent Judgment. (Mark Cleland Testimony, Day 1, p. 121)

31. Due to the Defendant's own DMR errors, it is impossible to know whether effluent limits were exceeded for KPDES permits from the Defendant's mining operation during the review period. (Ken Hodak Testimony, Day 3, p. 115-116)

32. Some missing DMRs are accounted for because outfalls had not been constructed, had not discharged, or had been removed, and the Cabinet had previously instructed coal companies that it did not expect to receive a DMR for those types of outfalls. (Jeff Cummins Testimony, Day 2, p. 78, 97-8).

33. The Cabinet allowed the companies to use bench sheets to the extent they were available to reconstruct that inaccurate data on DMRs. (Jeff Cummins Testimony, Day 2, p. 70). In instances where data was duplicated between quarters, the Cabinet reviewed bench sheets

and allowed data from bench sheets to amend duplicate or inaccurate data on DMRs. (Mark Cleland Testimony, Day 1, p. 160). While there were a number of questions about methodologies that were raised by the PAI lab inspection, Mark Cleland testified there was insufficient information regarding the labs to justify discounting the bench sheets as invalid or inaccurate. (Mark Cleland Testimony, Day 1, p. 162). The Cabinet accepted the bench sheets because "that was the best information that we had at the time." (Jeff Cummins Testimony, Day 2, p. 73). There was no evidence that the bench sheets reflected accurate, contemporaneous data, or that the laboratory employees who complied them had any background, training, or experience in recording such data.

34. The record indicates the Cabinet never considered disallowing these questionable bench sheets to supplement DMR data. (Mark Cleland Testimony, Day 1, p. 159-60). The Court finds that the bench sheet data, complied by the same persons who misreported the DMR data, is inherently unreliable, and should have been disregarded by the Cabinet based on its own findings in the PAI as to the woefully inadequate (or totally lacking) quality assurance and quality control measures observed by Frasure Creeks' contractors.

35. The Consent Judgment requires Frasure Creek to pay a fine for each administrative violation, (*See Infra. 25, 26*) completing remedial measures, and submit a Corrective Action Plan ("CAP") designed to ensure compliance with monitoring, testing, recordkeeping and DMR reporting requirements. (Tom Gabbard Testimony, Day 2, p. 297)

36. The remediation plan was to be included in the CAP, but Jeff Cummins could not find and did not know where the remedial measures were in the CAP. (Jeff Cummins Testimony, Day 3, p. 23). Mr. Gabbard stated that the CAP and Consent Judgment would generally prevent

future violations when asked how the Consent Judgment provides remedial action, though his examples of providing the proper sample handling, monitoring, and complying with the permit were not remediation measures. (Tom Gabbard Testimony, Day 2, p. 304-6).

37. The Corrective Action Plan requires very little beyond what is already required by law of the coal companies, except for a specified period of time, Frasure Creek must also submit its bench sheets, which contain the source data used to generate the DMRs, and report any permit violations to the Cabinet as they occur, instead of quarterly. (Bruce Scott Testimony, Day 1, p. 28).

38. The Cabinet, in negotiating and drafting the proposed Consent Judgment, failed to consider the susceptibility of the sites to environmental harm, the geographic extent of the violations, the danger to the environment and human health, and scope of the violations. (Jeff Cummins Testimony, Day 1, p. 181-197).

39. The Cabinet considered each violation to be discrete or "single day" violations rather than ongoing violations. (Jeff Cummins Testimony, Day 1, p. 196-7; Mark Cleland Testimony, Day 1, p. 139).

40. The Cabinet did not calculate a dollar figure of the potential economic benefit the companies may have enjoyed as a result of their noncompliance. (Jeff Cummins Testimony, Day 1, p. 185). The Cabinet did not seek any information from the Defendant regarding the economic benefit, and considered any economic benefit to be minimal. (Bruce Scott Testimon, Day 1, p. 89). The Cabinet's unsupported assumption of lack of economic benefit to Frasure Creek was clearly erroneous.

41. Jeff Cummins testified that Defendant should have known that S&S Laboratory was incapable of performing the monitoring and reporting they were contracted by Frasure Creek to perform. (Jeff Cummins Testimony, Day 1, p. 206). The Court finds that Frasure Creek knew or should have known of the systemic failure of its contractor to comply with the regulatory requirements for DMRs.

42. Bruce Scott stated Kentucky is the "49th lowest state per permit in terms of federal funding from the federal government." (Bruce Scott Testimony, Day 3, p. 46). Commissioner Scott further testified that the Cabinet has been subjected to a series of major budget cuts during the last 10 years that have drastically and adversely affected the ability of the Cabinet to do its job in implementing the Clean Water Act. With only a handful of enforcement personnel, and a dwindling number of field inspectors, and with the position of Director of Enforcement unfilled since 2007, it is impossible for the Cabinet to effectively regulate permittees such as Frasure Creek who systematically violate the obligations of the CWA for monitoring and reporting environmental violations.

43. The Cabinet relies on the Defendant to report when it has committed a permit violation.

44. The Cabinet is responsible for authorizing, administering and enforcing 2,200 general coal mining permits, yet does not have a list of outfalls for which to track DMRs. (Mark Cleland Testimony, Day 2, p. 263-4).

45. Mr. Cummins testified when the Cabinet determined its penalty assessment for Frasure Creek that while the consideration of resource limitations was made, it did not necessarily lead to higher or lower penalties. (Jeff Cummins, Day 1, p. 207). The Cabinet has fewer staff today than it did in 1990, and far more responsibilities than it did in 1990. (Bruce Scott Testimony,

Day 3, p. 75). The Cabinet's legal staff is limited in its ability to conduct interviews and investigations, and considers that when looking at litigation versus settlement. (Jeff Cummins, Day 1, p. 207).

46. Gretchen Bartley is an Environmental Scientist II with the DOW and supervised the PAI of S&S. She also coordinated the PAI for the Frasure Creek mining site. (Gretchen Bartley Testimony, Day 2, p. 8). The split sample revealed problems with S&S' analysis of acidity. (Gretchen Bartley Testimony, Day 2, p. 12-13). Further, Ms. Bartley was not able to observe all testing procedures during the lab audit. "We could not actually watch them take the samples, but from what we could observe in the laboratory, their sample and handling method was incorrect." (Gretchen Bartley Testimony, Day 2, p. 37). She observed S&S had no verified chain of custody, had not calibrated new testing equipment, had problems with storage and handling of samples, and maintained inadequate documentation of testing, which made it impossible to reconstruct procedures or test results from DMRs. (Gretchen Bartley Testimony, Day 2, p. 19; 37).

47. Based on observations and interviews, S&S had been in operation for at least three years without proper quality assurance training. "We hold ourselves to the same standard as the USEPA: "if it isn't documented, it isn't done." S&S did not perform its job of properly documenting its sampling work. (Gretchen Bartley, Day 2, p. 53).

48. The Court finds as a matter of fact that S&S laboratory was incapable of performing, monitoring, and reporting tasks as contracted for by Frasure Creek. Frasure Creek contacted S&S and "told them they would have to do major improvements. We asked them to put together what they were going to do to improve. S&S did that, we realized it wasn't

sufficient and we told them they had to do better, they said they couldn't, and would have to go out of business." (Ken Hodak Testimony, Day 3, p. 103-4).

49. Commissioner Bruce Scott admitted that the Cabinet had "concerns as to whether or not the data was representative of what the outfall discharges actually are." (Bruce Scott Testimony, Day 1, p. 22).

50. A field inspector from the Cabinet, during PAI testing at the Frasure Creek mine facility, noted discoloration on the bottom of a stream and in the substrate of the rocks, prompting him to sample effluent from Pond 113, which revealed a violation in the daily maximum limit for manganese. (Gretchen Bartley Testimony, Day 2, p. 36-8).

51. Despite findings from the PAIs which found effluent violations, Jeff Cummins stated, "Given the lack of hard evidence on that, it was my determination that we would accept those bench sheets at face value unless we found specific evidence to contradict that determination." (Jeff Cummins Testimony, Day 2, p. 72, 7-13).

52. As a result of the PAI of Frasure Creek's mining site, the Cabinet issued a Notice of Noncompliance for violations of effluent limitation for a pH of 3.5 in Pond 8 at permit 860-0469. The DMR submitted for that same period from Frasure Creek reports a pH value of 6.44. (Plaintiff Intervenors' Exhibit 17). The Court finds that Frasure Creek misreported its pH data for Pond 8 during September 2009.

53. Mr. Eric Chance, an employee of Appalachian Voices, was responsible for compiling the data and generating the charts for Plaintiff Interveners' Exhibit 14. The Charts plot DMR data from permitted outfalls noted in the NOIs. (Eric Chance Testimony, Day 2, p. 103).

54. Mr. Chance was not offered as an expert witness, and thus his testimony is limited to the facts he observed and any opinion by Mr. Chance is allowed by KRE 701. (Eric Chance Testimony, Day 2, p. 103).

55. Having presented no evidence on the DMR data to the contrary, the Court finds the Chart complied by Mr. Chance speaks for itself, showing that reported water quality values in DMRs prior to the final quarter of 2010 show remarkable consistency, well below effluent limits. Beginning in the first quarter of 2011, after the intervening plaintiffs filed their NOI and the Cabinet began scrutinizing the data, the reported values become much more variable. (Eric Chance Testimony, Day 2, p. 124).

56. Frasure Creek presented no evidence to substantiate its testimony that the data pattern in the first quarter of 2011 can be explained by above average precipitation and external factors such as logging, road construction, gas well, and sabotage. (Ken Hodak Testimony, Day 3, p. 127).

57. The permit effluent limit exceedences on Frasure Creek's DMRs for the first quarter of 2011, while outside the scope of the Consent Judgment, indicate that with increased judicial, executive, and public scrutiny, the administrative reporting process is more accurate. The Court finds that is more likely than not that the transcription and other DMR errors masked discharge violations in the past. The Court finds that the coincidence between external factors and new testing laboratories goes against common sense and reasonable inference without substantiated evidence.

58. The integrity of the regulatory process is based on the accurate reporting of monitoring data. If the Cabinet suspects pollution violations but only investigates and assesses penalties for

administrative reporting violations, the Cabinet creates incentives for inaccurate reporting or failing to report as opposed to honest reporting that reveals pollution violations.

59. Tom Gabbard explained that he chose to only inspect one Frasure Creek facility because the Cabinet's investigation was on the Plaintiff Interveners' NOIs, which "focus on the lab, methodology, [and] analysis." (Tom Gabbard Testimony, Day 2, p. 292).

60. Mr. Gabbard stated that because the Cabinet's investigation was focused on the labs and reports, such that a PAI of one mine site was sufficient. (Tom Gabbard Testimony, Day 2, p. 292). The Cabinet chose not to expand the investigation to actual pollution violations, but only on violations associated with sampling, testing and reporting. Based on Commissioner Scott's testimony, the Court finds that the Cabinet lacks the personnel and budget conduct more vigorous oversight of the systematic regulatory violations that are at issue in this case.

61. The Cabinet, as the authorized agency charged with enforcing the CWA, has a critical responsibility to perform thorough investigations when all evidence, both through PAI split sampling and inaccurate reporting, suggests there may be substantial pollution in violation of permits. "So it would be correct to say that the cabinet did have actual knowledge? There were indications, yes." (Bruce Scott Testimony, Day 1, p. 103).

62. The Cabinet chose to limit its investigation to reporting errors, like those found in the DMRs brought to light by Plaintiff Interveners, and not investigate substantive pollution violations, though there were indications of such violations in the PAIs, and even that limited investigation tasked the staff significantly. (Bruce Scott Testimony, Day 3, p. 40).

63. Kentucky does not currently have a wastewater lab certification program and therefore the Cabinet's enforcement of the sampling and testing methods set out by the EPA is through the KPDES permittee, rather than through the permittee's contract lab. Further, the KPDES permittee takes responsibility for the accuracy of such reports through a signature requirement. (Bruce Scott Testimony, Day 3, p. 47-8).

64. Recent Kentucky legislation, enacted on February 11, 2011 grants the Cabinet authority to develop a wastewater lab certification program, but the program has not yet been implemented. (Bruce Scott Testimony, Hearing Day 1, p. 23). *See* KRS 224.10-670, as amended in 2011. An administrative regulation, effective January 1, 2014, has now been adopted. *See* 401 KAR 5:320.

65. The proposed Consent Judgment has no stipulated penalty. The Cabinet must pursue additional enforcement actions for new violations, and has initiated such an enforcement action for the 2011 self-reported violations. (Bruce Scott Testimony, Day 3, p. 88). However, nothing in the Consent Judgment guarantees that this situation will not repeat once the CAP expires.

66. Mark Cleland and Jeff Cummins testified that most of the violations were administrative and therefore were penalized less severely than numeric violations of effluent exceedances. (Bruce Scott Testimony, Day 1, p. 93; Mark Cleland Testimony, Day 1, p. 124).

67. Including a requirement for a stipulated penalty in the Consent Judgment could have eliminated the need to do a secondary enforcement on the pollution violations in 2011. (Bruce Scott Testimony, Day 1, p. 62).

68. The Court finds the factors adopted by the Secretary in NREPC v. Wendell Maggard, File No. DWM-19198-038 (June 2, 1994) are appropriate to determine whether the penalties sought are fair, adequate, reasonable and in the public interest. (Jeff Cummins Testimony, Day 1, p. 189-91).

69. The Court finds that the Integrated Report Congress submitted as Plaintiff Interveners' Exhibit 2 is a true and authentic copy and is what it purports to be in the absence of an alternate copy or other contrary evidence. The Cabinet stipulated the copy was an authentic version of the document. (Day 1, p. 67).

70. The Report states 93% of the Big Sandy River is impaired because it is not able to support aquatic life as it is designated. (Bruce Scott Testimony, Day 1, p. 44-6). The primary cause of sedimentation, which is the major cause of impairment, comes from coal mining. (Bruce Scott Testimony, Day 1, p. 47).

71. Frasure Creek operates mines in the Big Sandy watershed. (Bruce Scott Testimony, Day 1, p. 47-48).

72. The chronological extent of Defendants' violations weighs in favor of more severe, rather than lighter penalties. (*See* Bruce Scott Testimony, Day 1, p. 91)

73. The Cabinet considered the nature of violations, rather than the number. That is, the Cabinet focused on the fact that most of these violations are administrative, and viewed those repeated administrative violations as individual incidents. Jeff Cummins stated "[i]n most high-figure, high-dollar cases we'll see more extensive evidence of environmental harm." (Jeff Cummins Testimony, Day 3, p. 33). The Cabinet chose not to investigate evidence of

environmental harm, but the record in this case makes it abundantly clear that the Cabinet simply lacks the personnel and budget to effectively investigate and enforce these requirements of law. (See infra. 60).

74. The inherent danger of the violations at issue here to the environment is impossible to determine based on Frasure Creeks' wholesale abdication of its monitoring and reporting responsibilities, and the Cabinet's inability to fully investigate the environmental harm that is likely to have occurred.

75. A pollution violation via stream or waterway is not correctible. Gretchen Bartley testified "[w]hat's gone through the outfall has gone through the outfall…[I]n a situation if you have had a long-term discharge of ferruginous or manganous discharge, it's gone, it's lost." (Gretchen Bartley Testimony, Day 2, p. 40).

76. The evidence established that Frasure Creek paid $30,000 more *per month* than it previously paid the old lab, S&S Water Monitoring, after it was forced to terminate S&S for the massive, systemic reporting violations at issue here. The Defendant argued at various points that the comparison was not valid because of changes in the lab, number of outfalls, and the agreement, however, it presented no evidence to refute Plaintiff Interveners' calculations. (Ken Hodak Testimony, Day 3, p. 113-4). The Court finds that the economic benefit realized by Frasure Creek in using a substandard laboratory with systemic problems in its DMRs, far exceeds the civil penalty agreed to by the Cabinet.

CONCLUSION OF LAW

1. The Court's review of the proposed consent judgment which the Cabinet and Frasure Creek have tendered, must be governed by the standard set forth in United States v. Lexington-Fayette Urban County Government, 591 F.3d 484 (6th Cir. 2010). Under the standard adopted in that case, the question before the Court is whether the proposed consent decree is "fair, adequate, and reasonable, as well as consistent with the public interest." Id. at 489.

2. The failure of the Cabinet to provide any public notice or comment period prior to its approval of the terms of the proposed consent decree, support the conclusion that the primary concern of the Cabinet was the consent decree's impact on the regulated entity, Frasure Creek, and not on the public or the environment. The fact that these massive reporting violations were brought to light by citizens acting independently of the Cabinet further supports the conclusion that the public interest in the consent decree was not objectively considered by the Cabinet prior to the intervention by the citizen intervenors in this action.

3. "One of the most important considerations when evaluating whether a proposed consent decree is reasonable is 'the decree's likely effectiveness as a vehicle for cleansing the environment." United States v. Akzo Coatings of America, Inc., 949 F.2d 1409, 1437 (6th Cir. 1991). Here, the Court concludes that the proposed consent decree is unlikely to be successful in producing a change in behavior by Frasure Creek, because the economic benefit that it obtains by taking short-cuts and submitting unreliable data far outweighs the costs of compliance, or the risk of any fines and penalties that the Cabinet will impose. This case demonstrates that the fines and penalties are an acceptable cost of doing business. The Cabinet lacks the budget and

personnel to effectively police Frasure Creeks' compliance, and the consent decree has no mechanism for third-party or public involvement in monitoring Frasure Creek's compliance.

4. In determining whether the proposed consent decree is consistent with the public interest, the Court must consider "whether the decree is 'consistent with the public objectives sought to be attained by Congress." United States v. Lexington Fayette Urban County Government, at 490, *quoting* Williams v. Vukovich, 720 F.2d 909, 923 (6th Cir. 1983). The stated policy of the Commonwealth of Kentucky is to "conserve the waters of the Commonwealth," and to "provide a comprehensive program in the public interest for the prevention, abatement and control of pollution." KRS 224.7-0100(1). Likewise, the purpose of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. §1251(a). The Court concludes that the consent decree, as negotiated by the Cabinet and presented to the Court, fails this test because the economic benefit of the violations outweighs the costs of compliance, the penalties are inadequate to deter future violations, the lack of resources of the Cabinet to police compliance, and because of the lack of any third-party or citizen involvement in monitoring compliance that could off-set those factors.

5. The Court concludes that the consent decree negotiated by the Cabinet and agreed to by Frasure Creek is not fair, reasonable, or in the public interest for the reasons stated above. This conclusion is further supported by inescapable reality that reporting violations so systemic and pervasive almost inevitably lead to degradation of the environment. The reason for the reporting requirement is to prevent pollution in the first place. When one company so systemically subverts the requirements of law, it not only jeopardizes environmental protection on the affected permits, it creates a regulatory climate in which the Cabinet sends the message that cheating pays. This puts the many companies that comply with the law at a competitive

disadvantage. The consent decree before the Court fails to impose penalties that would deter this conduct, and it further fails to recognize the important role of the public and interested citizens in monitoring enforcement and ensuring that this conduct will not be repeated, a concern that is especially heightened here in light of the Cabinet's admissions as to its lack of personnel and budget resources. Accordingly, this Court must conclude that the proposed consent judgment is not in the public interest.

CONCLUSION

For the reasons stated above, **IT IS ORDERED AND ADJUDGED** that joint motion of the Cabinet and Frasure Creek for entry of the proposed consent judgment is **DENIED**, and judgment is **GRANTED** in favor of the intervenors finding that the proposed consent judgment is not fair, reasonable or in the public interest. This action is **REMANDED** to the Cabinet for further proceedings consistent with this judgment. This is a final and appealable judgment, and there is no just cause for delay.

PHILLIP J. SHEPHERD, JUDGE
Franklin Circuit Court, Division 1

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Exhibit 7

Standing Declarations

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

IN RE SIERRA CLUB
AND
KENTUCKIANS FOR THE COMMONWEALTH,

Petitioners.

DECLARATION OF ALICE HOWELL

I, Alice Howell, state and affirm as follows:

1. I live at 918 Aurora Ave., Lexington, KY 40502. I have lived in Kentucky for 55 years.

2. I am a member of the Cumberland Chapter of the Sierra Club ("Sierra Club") and have been a member for roughly 20 years. I am co-chair of the chapter's Mountaintop Removal Mining Committee. I served as Chapter Chair from 2011 through 2013 and in various leadership positions prior to that.

3. I am familiar with the organizational mission of the Sierra Club, which is to "explore, enjoy and protect the wild places of this earth, and to promote responsible use of the earth's ecosystems." Protecting and improving the water quality of Kentucky's rivers, lakes, and streams is germane to the Sierra Club's mission.

4. The Cumberland Chapter of Sierra Club has worked consistently since its founding in 1967 to protect and improve water quality in Kentucky. These efforts include educating the public on impacts to water quality, training citizen volunteers to conduct water quality tests, lobbying state legislators on clean water regulations, and drawing media attention to issues such as coal mining pollution, straight-pipe pollution, farm runoff,

mercury accumulation in fish, and other environmental impacts. We also review draft NPDES permits that affect water quality and challenge them when necessary. The Sierra Club believes strongly in the goals of the Clean Water Act and is working to maintain the physical, biological and chemical integrity of all of the nation's waters. The Club believes that discharges of pollution should be eliminated and seeks information that will allow it to work in legislative bodies, agencies and the courts to avoid and/or minimize any new discharges.

5. The health of Kentucky's rivers, streams, and lakes, and the aquatic life that they support, is very important to me. Because of my concern for water quality in the state, I have regularly commented on various proposed Clean Water Act permits and changes to water quality-related regulations, both as an individual and with Sierra Club. It is very important to me that the permits issued to polluters in the state, and the standards and regulations that those permits are based on, adequately protect aquatic ecosystems. It is also very important to me that, once adequate permits are developed, those permits are properly enforced.

6. When I was the Sierra Club Chapter Chair, I started a "watershed watch" program whereby members monitored the quality of waterbodies near their homes. I organized volunteers and personally monitored Town Branch in Lexington and Jessamine Creek in Jessamine County, near where I grew up. I am especially concerned about the water quality in the Kentucky River basin.

7. Ever since I was a young girl, I have regularly enjoyed visiting Kentucky's rivers, lakes, and streams, both near where I live and elsewhere. My father was a science professor at Asbury College in Wilmore, KY and we would often travel to various streams

and rivers to look for fish and other aquatic life. I have long had a great interest in aquatic life and the overall health of aquatic ecosystems.

8. Near my home in Lexington, I regularly visit waters including the Kentucky River, Elkhorn Creek, Jessamine Creek, and Town Branch in order to meander along streams, view birds, canoe, appreciate natural beauty of streams, occasionally take water samples and look for aquatic life, etc.

9. At least several times a year, I walk or drive along streams and lakes in Eastern Kentucky that receive discharges from coal mining operations. I visit certain waterways that are of concern to other Sierra Club members as a result of surface mining pollution, including a coal washing plant dumping chemicals directly into Slone's Branch on the Levisa Fork of the Big Sandy River and other streams around Prestonsburg and Jenny Wiley State Park. I accompany them as they performed water testing for conductivity and other pollutants.

10. I am also a regular visitor to Kentucky's State Parks and I enjoy using the park's aquatic resources, such as the lakes and streams at Jenny Wiley State Park and Buckhorn Lake State Park in Eastern Kentucky, both of which are in watersheds with surface coal mining.

11. I intend to continue visiting Kentucky's rivers, lakes, and streams as I have in the past.

12. Whenever I am on or near a body of water, I like to look for fish, insects, and other aquatic life. I get great joy out of seeing healthy aquatic ecosystems, and it breaks my heart when I can see or know that the aquatic life is being harmed by pollution.

13. As co-chair of the Mountaintop Removal Mining Committee, I am aware of the serious water quality problems caused by surface coal mining. I first became concerned about the impacts of mining when I was in college at UK studying soil science and we took trips to mining-affected areas in eastern and Western Kentucky. I know that many coal mines (as well as coal-fired power plants) have the potential to discharge high levels of the toxic pollutant selenium. I know that every coal mine that involves "valley fills" discharges high levels of conductivity.

14. I am aware of the effects of selenium pollution from coal mines on aquatic life. Selenium builds up in the environment and animal tissues over time and too much selenium can have serious impacts on the ability of aquatic life to successfully reproduce. I have learned about and become involved in issues of selenium pollution in Kentucky over the last five or so years.

15. I am also aware of the impacts to aquatic life from conductivity pollution. I know that EPA has developed lots of scientific evidence showing that the levels of conductivity coming from coal mines harm the receiving streams. I wish that EPA or Kentucky would develop a numeric standard for Kentucky (and have been involved in meetings with the agencies requesting that they do so), but even without a numeric standard, the Clean Water Act requires them to regulate conductivity pollution. Also, conductivity is an indicator more generally for coal mining pollution, such that high levels of conductivity often mean there are high levels of other toxic pollutants. I have met with EPA and they have talked some about the science involving conductivity. I know that the "salty" water caused by high conductivity is even becoming a problem for some smaller water treatment plants.

16. I understand that Kentucky authorizes most of the state's coal mines through general NPDES permits. I have written comments on the state's general permits, which I believe are not adequate to prevent harmful coal mining pollution. Individual permits would allow for better control of pollution. I have met with personally with EPA Region 4 in Atlanta to request that they not allow Kentucky to continue to use General Permits for coal mining discharges.

17. I have long been aware that Kentucky does not adequately assess the streams that receive coal mining pollution for impairment and that it doesn't develop enough TMDLs to help impaired streams recover. As I've learned from conversations with an attorney who is a Sierra Club member, even when they do issue TMDLs they focus almost exclusively on e. coli, fecal coliform, agricultural chemicals, and nutrients but ignore most coal mining pollutants. There is such a great need to assess and clean up our impaired streams. If Kentucky issued and enforced TMDLs, that would go a long way to help clean up the damage done by coal mining pollution.

18. I understand that Kentucky does not have nearly enough staff to administer its NPDES program and that the understaffing contributes to the failure to issue proper permits and to enforce the permits that it does issue. These failures prevent our state's water, including those that I visit, from complying with Clean Water Act standards.

19. Kentucky's failure to adequately administer its NPDES program for the coal mining industry leads to more pollution and harm to the aquatic life in the waterbodies that I like to visit. My concerns about the pollution in those waterbodies cause me to enjoy visiting them less. When impacts to the waterbodies or aquatic life are severe enough, it causes me to avoid them altogether. If EPA took action to address those concerns in response to Sierra

Club and KFTC's petition, my concerns would be lessened and some of the threats to the rivers, lakes, and streams that I enjoy would be lessened. I understand that the problems that exist in those waters can't be fixed immediately, but in the long run I would enjoy the Kentucky's rivers, lakes, and streams much more if they were allowed to recover from the coal mining pollution.

20. EPA has an obligation to respond to Sierra Club and KFTC's petition that is based on the problems described above. If EPA does not respond, then we have no chance of the agency taking over Kentucky's NPDES program or forcing the state agencies to fix get their act together.

21. As an active member and leader in the Cumberland Chapter of Sierra Club, I disseminate information from EPA and other agencies to other Sierra Club members, allied organizations, and the general public. Responses to inquiries that we have made to EPA in the past have been very helpful to our members and to furthering Sierra Club's mission. We use information from EPA both for education and as an organizing tool. We also often use information from EPA in commenting on and challenging NPDES permits in Kentucky, such as the current Coal General Permit. We would like to use any information provided by EPA in response to Sierra Club and KFTC's petition to educate and organize our members and the public and potentially in administrative or legal process.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Alice Howell

Executed on July 17, 2015

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

IN RE SIERRA CLUB
AND
KENTUCKIANS FOR THE COMMONWEALTH,

Petitioners.

DECLARATION OF JOEY SHADOWEN

I, Joey Shadowen, state and affirm as follows:

1. I reside at 114 Woodford Drive, Lexington, KY 40504, where I have lived for the past fifteen years.

2. I have been a member of the Cumberland Chapter of the Sierra Club ("Sierra Club") since 1992. The Sierra Club is a national non-profit membership organization with more than 1.3 million members and supporters nationwide and more than 5,100 members in Kentucky. The chapter helps members explore, enjoy and protect the state's rich wild legacy. I am currently serving as Cumberland Chapter Vice Chair and the Secretary for the Lexington Inner-City Outings group. In the past, I have served on the Cumberland Chapter's Executive Committee and as the Chapter Chair and Outings Chair. I am familiar with the organizational mission of the Sierra Club, which is to "explore, enjoy and protect the wild places of this earth, and to promote responsible use of the earth's ecosystems." Protecting and improving the water quality of Kentucky's rivers, lakes, and streams is germane to the Sierra Club's mission.

3. I am also a member of Kentuckians for the Commonwealth ("KFTC"), a nonprofit, social justice organization with roughly 8,000 members in 90 counties in the

Commonwealth. KFTC is a social justice organization whose mission includes addressing the problems caused by coal mining and its effects on our water, air, land and people.

4. As a member of Sierra Club and KFTC, I have long been interested in preserving and protecting the water quality and biological environments of Kentucky's many rivers, lakes, and streams.

5. I regularly recreate on and near the rivers, lakes, and streams in Kentucky, and intend to continue to do so in the future. For example, I canoe regularly on Elkhorn Creek, on the Licking River, on Cave Run Lake, and on other Kentucky waterways. In addition, I occasionally swim in these same waterways.

6. I also like to hike along many waters in the state, including rivers and creeks in Eastern Kentucky around Pikeville, Hazard, Louisa, and the University of Kentucky's Robinson Forest.

7. I am also an avid backpacker. When I go on backpacking trips, I use water from natural creeks. Adequate stream water quantity and quality is thus very important to me and my water filter cannot strain out many toxins, including selenium and the dissolved salts that make up conductivity. When toxic pollution like that increases, my ability to hike or backpack in certain areas is harmed. I am much less likely to visit an area or engage in the recreational activities that I enjoy if I cannot be certain that the water in the streams is clean.

8. Whenever I am on or near waterway, I always look for fish, macroinvertebrates, and other aquatic life. The water quality of the rivers, lakes, and streams that I visit is very important to me. I enjoy spending time near waters that have healthy aquatic communities and it upsets me when water pollution threatens or harms aquatic life.

9. I am aware of the many water pollution problems caused by coal mines, including conductivity and selenium pollution, and of Kentucky's failure to properly regulate that pollution through the NPDES program. I know that selenium is a bioaccumulative toxin that works its way up the food chain and threatens the survival and reproduction of aquatic life, and, in turn, the waterfowl that then eat the contaminated food.

10. I have done conductivity testing in Eastern Kentucky downstream from coal mine sites as part of Sierra Club outings several times. I am aware of EPA's science regarding the dangers of high conductivity to aquatic life. When I have tested streams that receive coal mining drainage, the conductivity numbers were alarmingly high. My knowledge about the coal mining pollution in these streams and other streams causes me to enjoy my visits to them much less than if they met Clean Water Act standards.

11. In my various roles with the Sierra Club, I have made a regular practice of visiting and exploring many parts of Kentucky to identify spots that would be good locations for outings and other recreation trips. Because many members of our Chapter are interested in observing firsthand the effects of surface coal mining, I also make a regular habit of visiting areas that have experienced mining impacts. I try to enjoy the natural beauty of the streams on these trips, but my enjoyment is significantly diminished because of my knowledge of the pollution, including toxic selenium and conductivity, coming from the mining operations. It is disconcerting that a steam can look clear but still have high levels of selenium and conductivity such that aquatic life will be harmed. The only way to know if the stream is healthy is to look for aquatic life or test the water. I know that Kentucky does not test as many waters as it should to determine whether they are impaired by coal mining pollution. I would enjoy my trips to the streams of the state more if I knew that they were being properly monitored.

12. I have been to numerous waters in Eastern Kentucky that receive pollution, including selenium and conductivity pollution, from coal mining operations. One of the areas I have been that receives significant pollution is the area around ICG Hazard's Thunder Ridge mine. My wife and I first visited the area near the Thunder Ridge mine with a friend who wanted to see firsthand the devastation caused by mining back in 2007. On that visit, we picnicked near Farley Cemetery. We were all amazed and aghast at how much forested area and healthy streams ICG Hazard had destroyed by mining.

13. The streams that I have visited that receive pollution from the Thunder Ridge mine include Lower Bad Creek, Raccoon Creek, and Greasy Creek. I've returned to the area several times since 2007 and intend to continue to do so. In 2011, Sierra Club brought a lawsuit against ICG Hazard for its selenium and conductivity pollution, but the Court said that the company's permit allows it to discharge those pollutants even though it doesn't have limits. I am worried that even if limits are put on its permit, that Kentucky will not enforce the permits given its history of failing to adequately enforce NPDES violations from coal mines.

14. Another body of water I have visited that I know receives pollution from coal mines and could thus be threatened by selenium and conductivity pollution is Fishtrap Lake. I enjoy visiting Fishtrap Lake and other streams less because of the mining pollution and my knowledge that Kentucky doesn't adequately enforce the Clean Water Act in these areas.

15. If EPA responded to Sierra Club and KFTC's petition, my concerns about coal mining pollution, and my enjoyment of streams and other waters that receive coal mining pollution, would be lessened. A response could spur Kentucky to fix some of the problems in its NPDES program or could be the start of proceedings for EPA to take over the program.

16. At the very least, EPA's response could provide valuable information that Sierra Club and KFTC could use to further the missions to protect water quality. As a Sierra Club and KFTC member, I regularly spread information concerning water quality and related state and federal agency actions to fellow members and the general public through word of mouth, email, and social media sites in order to educate and raise awareness in others. I would like to spread any useful information provided by EPA in its response to our petition.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 17, 2015

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

IN RE SIERRA CLUB
AND
KENTUCKIANS FOR THE COMMONWEALTH,

Petitioners.

DECLARATION OF NAHALIEL "NACHY" KANFER

I, Nachy Kanfer, state and affirm as follows:

1. I am the Deputy Director, Central Region for the Beyond Coal Campaign ("Campaign"). The Campaign is a project of the Sierra Club, a non-profit organization under the laws of the State of California. I am responsible for overseeing the Campaign's operations in several Midwest and Southeast states, including Kentucky. I live in Cincinnati, Ohio. The following information is within my personal knowledge.

2. The Sierra Club's purposes are to explore, enjoy, and protect the wild places of the Earth; to practice and promote the responsible use of the Earth's ecosystems and resources; to educate and enlist humanity in the protection and restoration of the quality of the natural and human environment; and to use all lawful means to carry out these objectives. Sierra Club members are greatly concerned about water quality, and the Club has a long history of involvement in water quality-related activities on both the local and national levels.

3. I have been employed by the Sierra Club since May 2008. In my capacity, I am responsible for directing the activities of the Beyond Coal Campaign throughout much of the Midwest and Southeast. These activities include community outreach, public education, legislative lobbying, and litigation. In order to perform the responsibilities of my job, my staff

and I interact on a daily basis with the Sierra Club's members in Kentucky. Because of my position and responsibilities, and through my regular interaction with members, I am familiar with the Sierra Club's purpose, organization, and activities, and with the environmental interests and concerns of Sierra Club members.

4. Sierra Club presently has over 5,000 members who belong to its Kentucky Chapter, which is known as the Cumberland Chapter.

5. Sierra Club has at times employed an organizer in eastern Kentucky to work with local community members to address issues related to coal mining and coal mining pollution. In the near future, Sierra Club's Cumberland Chapter plans to bring on a part-time contractor who will share information with the local community in eastern Kentucky regarding the condition of local waterways impacted by coal mining pollution, the sources of this pollution, and opportunities to address the pollution.

6. Sierra Club has expended its resources addressing water pollution issues, including issues relating to conductivity pollution, selenium pollution, and other coal mining-related issues raised in the 2010 Petition Sierra Club submitted to EPA pursuant to Clean Water Act section 402(c)(3). For example, Sierra Club submitted detailed comments on Kentucky's August 2012 proposal to modify its water quality standard for selenium. Sierra Club also submitted detailed comments on Kentucky's May 2014 draft general KPDES permits for coal mining operations. Sierra Club regularly informs the public about the environmental and public health impacts of mountaintop removal coal mining and valley fills. We regularly advocate for strong implementation of the Clean Water Act in Kentucky.

7. Sierra Club regularly uses information from EPA on the National Pollutant Discharge Elimination System ("NPDES") program in Kentucky, including the type of

information we expect to receive in a response to our Petition for the withdrawal of Kentucky's NPDES program. We use this information to inform our advocacy efforts and to educate the public.

8. Sierra Club's efforts in Kentucky would further benefit from access to additional information from EPA regarding the current status of Kentucky's waters and the state's efforts to protect these waters from coal mining pollution. This information includes, but is not limited to, EPA's own monitoring data for Kentucky's waters, EPA's own evaluation of draft and final KPDES permits, and EPA's evaluation of Kentucky's impaired streams and TMDL development.

I declare, pursuant to 28 U.S.C. § 1746, under penalty of perjury that the foregoing is true and correct.

Executed on July 16, 2015.

Nahaliel "Nachy" Kanfer

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

IN RE SIERRA CLUB
AND
KENTUCKIANS FOR THE COMMONWEALTH,

Petitioners.

CERTIFICATE OF SERVICE

I, Benjamin A. Luckett, state and affirm as follows:

1. That I am an attorney for Petitioners Kentuckians For The Commonwealth and Sierra Club;

2. That I filed the foregoing PETITION FOR WRIT OF MANDAMUS and ADDENDUM through the CM/ECF system for the United States Court of Appeals for the Sixth Circuit; and

3. That I served the PETITION FOR WRIT OF MANDAMUS and ADDENDUM on the EPA and the United States Attorney General by mailing copies, certified mail, postage prepaid to:

Gina McCarthy, Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

and

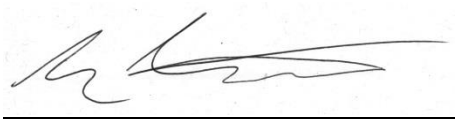
Heather McTeer Toney, Regional Administrator
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-3104

and

Eric Holder, U.S. Attorney General
U.S. Department of Justice
950 Pennsylvania Avenue, N.W.
Washington, D.C. 20530-0001

and the same were deposited in the U.S. mail at Lewisburg, WV on July 20, 2015.

I certify that the foregoing is true and correct.



Executed on this 20th day of July, 2015.

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

Deborah S. Hunt
Clerk

100 EAST FIFTH STREET, ROOM 540
POTTER STEWART U.S. COURTHOUSE
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Filed: July 20, 2015

Mr. Benjamin A. Luckett
Appalachian Mountain Advocates
P.O. Box 507
Lewisburg, WV 24901

Re: Case No. 15-5771, *In re: Kentuckians for the Commonwealth, et al*
Originating Case No. : 3:15-cv-00004

Dear Counsel:

The petition for writ of mandamus or prohibition has been docketed as case number **15-5771** with the caption listed above. If you have not already done so, you must mail a copy of the petition to the lower court judge and counsel for all the other parties.

The District Court Judge to whom the petition refers is also being served with this letter with an invitation to respond to the petition if the judge so chooses.

Sincerely yours,

s/Jeanine R. Hance
Case Manager
Direct Dial No. 513-564-7037

cc: Mr. Robert R. Carr