

**IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA  
HUNTINGTON DIVISION**

**OHIO VALLEY ENVIRONMENTAL** )  
**COALITION, INC., et al.,** )  
 )  
**Plaintiffs,** )  
 )  
**v.** )  
 )  
**UNITED STATES ARMY CORPS OF** )  
**ENGINEERS, et al.,** )  
 )  
**Defendants.** )

**Civil Action No. 3:11-0149**

**PLAINTIFFS' MEMORANDUM IN SUPPORT OF THEIR RENEWED  
MOTION FOR A DECLARATORY JUDGMENT AND PRELIMINARY  
AND/OR PERMANENT INJUNCTIVE RELIEF**

JOSEPH M. LOVETT  
DEREK O. TEANEY  
Appalachian Mountain Advocates  
P.O. Box 507  
Lewisburg, WV 24901  
(304) 645-9006

Counsel for Plaintiffs

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## **Introduction**

Plaintiffs challenge the U.S. Army Corps of Engineers' ("the Corps") March 4, 2011 decision to issue a § 404 permit under the Clean Water Act (CWA), 33 U.S.C. § 1344, to Highland Mining Company ("Highland") for its Reylas Surface Mine in Logan County, West Virginia. Plaintiffs contend that the Corps' decision violates the CWA and the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321.

## **Facts**

In March 2008, the Corps notified the public that it proposed to issue an individual § 404 permit to Highland to build a large valley fill burying over two miles of streams in several tributaries of Dingess Run, which flows into the Guyandotte River. Tab 18, p. 2.<sup>1</sup> Plaintiffs filed timely comments objecting to issuance of the permit. Tab 20. In March 2009, the U.S. Environmental Protection Agency ("EPA") sent a letter to the Corps recommending denial of the permit and concluding that its issuance "will result in substantial and unacceptable impacts to aquatic resources of national importance." Pl. Ex. 1, Tab 46, pp. 1, 5. Despite EPA's letter, the Corps issued the permit in March 2011, concluding in its Combined Decision Document (CDD) that the project would not cause significant degradation of waters of the U.S. and would have insignificant environmental impacts. Tab 104, CDD, pp. 101-02.

## **Procedural History**

Plaintiffs filed their Complaint on March 8, 2011 and moved for declaratory and injunctive relief on April 3, 2011. Doc. #1, 29-32. Plaintiffs' motion raised six permit deficiencies involving the failure to mitigate increased stream conductivity, inadequate consideration of practicable alternatives to minimize stream impacts, insufficient compensatory

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<sup>1</sup> Tab numbers refer to the administrative record filed with the Court. Exhibit numbers 1-15 refer to the exhibits previously filed with the Court, and Exhibits #16-21 are filed herewith. Doc. #30.

mitigation, inadequate consideration of cumulative impacts, inadequate public notice, and the failure to analyze adverse selenium impacts. On April 19, in response to that motion, the Corps administratively suspended Highland's permit. On that same day, the Corps filed a motion in this case to remand that permit and to stay further proceedings pending its decision on remand. Doc. #37. The Court granted that unopposed motion, directed the Corps to provide monthly status reports during the remand period, and also directed that, if the permit was reissued, any activity under the permit be stayed until thirty days after notice of re-issuance to the Court and the parties. Doc. #38.

On September 20, 2011, the Corps reinstated Highland's permit without making any modifications and notified the Court of that reinstatement. Doc. #45. In its accompanying supplemental decision document, the Corps addressed only two issues: (1) the discrepancy in stream impact numbers between the public notice and the CDD; and (2) the effect of Highland's post-mining land use (PMLU) and its assumed maximum one-half-mile hauling distance on the Corps' evaluation of alternatives and fill minimization. Doc. #45-1. On the first issue, the Corps found that the correct stream impact figure was 13,378 feet rather than 13,478 feet, but this correction did not change the Corps' conclusion that Highland's proposed mitigation was sufficient to offset the stream losses. Id. at 3. On the second issue, the Corps found that Highland's PMLU "was independent of and not relevant to" the Corps' alternatives analysis, and that "hauling the overburden greater than ½ mile from the mine site is economically impracticable." Id. at 6, 7. It then concluded that Highland's mining proposal is the least environmentally damaging practicable alternative. Id. at 7.

The Corps' supplemental analysis only addresses one of the six issues that Plaintiffs raised in their prior motion—the practicality of alternatives to reduce stream impacts. Because

there are now disputed factual issues about those alternatives, Plaintiffs are reserving that issue for resolution at trial, if necessary. Plaintiffs are renewing their motion on the other five issues and adding a sixth issue related to a new scientific study about the impact of surface coal mining on human health. If Plaintiffs' renewed motion is not granted, Highland will be able to start filling streams with mining waste on October 20, 2011, when the existing stay expires.

**I. After the Corps' Voluntary Remand, Its Permit Decision Still Violates the CWA and NEPA**

The Corps' permit decision still violates the CWA and NEPA in at least six areas: conductivity impacts, mitigation, cumulative effects, health impacts, public notice, and selenium impacts.

**A. The Corps' Unreasonably Relied on Unspecified Future Measures to Mitigate Increased Conductivity and to Determine that the Mine Will Not Cause Significant Degradation or Violations of Water Quality Standards Under the CWA or Significant Impacts Under NEPA**

The 404(b)(1) Guidelines provide that "no discharge of dredged or fill material shall be permitted if it (1) Causes or contributes, after consideration of disposal site dilution and dispersion, to violation of any applicable State water quality standard. . ." 40 C.F.R. § 230.10(b). The Corps' regulations provide that it must analyze 404 permit applications "for compliance with applicable . . . water quality standards, during the construction and subsequent operation of the proposed activity." 33 C.F.R. § 320.4(d). While the Corps can defer to state water quality certifications for this analysis in certain situations, that deference is negated where, as here, EPA has specifically advised the Corps in writing that a project may violate water quality standards.

Id.

Further, NEPA imposes its own obligations upon the Corps. Under NEPA, the Corps must prepare an EIS on major federal actions that have a "significant" environmental impact. 42

U.S.C. § 4332(2)(C). “An agency’s refusal to prepare an environmental impact statement is arbitrary and capricious if its action might have a significant environmental impact.” State of N.C. v. FAA, 957 F.2d 1125, 1131 (4th Cir. 1992) (emphasis added). “Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.” 40 C.F.R. § 1508.27(b)(7). To justify a determination that an EIS is not required, an agency must prepare an Environmental Assessment (EA) which takes a “hard look” at whether the environmental impacts of a proposed action are significant. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989); see also 40 C.F.R. §§ 1501.4(b), 1508.9(a)(1) (2008); 33 C.F.R. §§ 230.10-230.11 (2008).

NEPA’s scope of analysis is broad. Agencies such as the Corps must, “to the fullest extent possible,” consider “any adverse environmental effects which cannot be avoided” as well as “any irreversible and irretrievable commitments of resources.” 42 U.S.C. § 4332. The Corps must recognize the “long-range character of environmental problems.” Id., § 4332(F). The “fullest extent possible” language “is not neither accidental nor hyperbolic. Rather, the phrase is a deliberate command that the duty NEPA imposes upon the agencies to consider environmental factors not be shunted aside in the bureaucratic shuffle.” Flint Ridge Development Co. v. Scenic Rivers Ass’n of Oklahoma, 426 U.S. 776, 787 (1976).

In its letter to the Corps about this project, EPA stated that “evidence to date shows that valley fills permitted for this mining operation will result in downstream impacts that will lead to impairment of the aquatic life use and would therefore result in a violation of West Virginia’s water quality standards.” Pl. Ex. 1, Tab 46, p. 3.<sup>2</sup> Specifically, EPA advised the Corps that

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<sup>2</sup> In this letter, EPA has “advise[d] [the Corps] of other water quality aspects to be taken into consideration.” 33 C.F.R. § 320.4(d). As a result, the State’s § 401 certification cannot be considered conclusive under that regulation, and the Corps’ reliance on that document cannot

Highland's project would cause increased levels of conductivity in downstream waters, that these increases cause biological impairment of streams, and that this impairment "rises to the level of a violation" of West Virginia's narrative water quality standard, which provides that ". . . no significant adverse impact to the chemical, physical, hydrologic, or biological components of aquatic ecosystems shall be allowed." Id. (quoting 47 C.S.R. § 2-3.2.i).<sup>3</sup> Conductivity is a measure of the concentration of certain ions in a water sample.

In its decision document, the Corps acknowledged EPA's advice that "[t]he placement of rock fill and overburden material into the stream channels would potentially result in increases in sedimentation, acidic drainage, specific conductivity, metal levels and total and dissolved solids." CDD, p. 61. The Corps also acknowledged EPA's advice that the increased conductivity "could result in aquatic life use impairment in waters of the U.S." Id. Indeed, neither Highland nor the Corps deny that conductivity levels would likely increase. See id. at 67 ("it is expected run-off from the construction area could cause slight increases in specific conductivity"); Tab 8, p. J-22 ("some increase in conductivity can be expected"). Plaintiffs' experts will testify at trial that such an increase at this mine is likely to cause biological impairment of downstream waters.

Moreover, state and federal regulators, acting on peer-reviewed science, recognize that increased conductivity impairs streams. Increased conductivity was a major reason for EPA's January 11, 2011, veto of the Spruce No. 1 Mine because of the "significant adverse effects" of conductivity on biological communities. Veto, p. 52, Pl. Ex. 2. Conductivity is a cornerstone of

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support its determination that Highland's § 404 permit complies with the CWA or NEPA.

<sup>3</sup> The biological impairment identified by EPA would also be sufficient to violate another of West Virginia's narrative water quality standards, which prohibits discharges of "[m]aterials in concentrations which are harmful, hazardous or toxic to man, animal, or aquatic life." 47 C.S.R. § 2-3.2.e.

EPA's July 2011 Guidance affecting review of all Appalachian surface mine permits because "high levels of salts, measured as TDS or conductivity, are a primary cause of water quality impairments downstream from mine discharges." EPA Guidance, Appendix 1, p. ii.<sup>4</sup> The EPA Science Advisory Board's (SAB) March 25, 2011 report found that "[t]here is clear evidence that valley fills are associated with increased levels of dissolved ions (measured as conductivity) in downstream waters, and that these increased levels of conductivity are associated with changes in the composition of stream biological communities." SAB, Review of Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams, p. 1.<sup>5</sup> The West Virginia Environmental Quality Board ruled unanimously on March 11, 2011 that there is a strong positive correlation between conductivity and diminishing macroinvertebrate community health. Final Order, WVEQB, Appeal No. 10-34-EQB, March 10, 2011, p. 6, Pl. Ex. 3. Based on that finding, the Board remanded a surface mine's NPDES permit to WVDEP to establish enforceable conductivity limits. Id. at 30.

The Corps ignored the fact that increased conductivity is already impacting the impaired Dingess Run, immediately downstream from the proposed mine. Five years of WVDEP data from Dingess Run over the past five years show that specific conductance is routinely above 800  $\mu\text{S}/\text{cm}$  and is often even above 1,000  $\mu\text{S}/\text{cm}$ . WVDEP Trend Station 50 data, Pl. Ex. 4, App. D (showing monitoring results from trend station 50 in Dingess Run).<sup>6</sup> These numbers are well above 500  $\mu\text{S}/\text{cm}$ , the level at which serious adverse water quality impacts are likely, according to EPA's Guidance. EPA Guidance, p. 12. Data from the same site in Dingess Run also show

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<sup>4</sup> Available at <http://water.epa.gov/lawsregs/guidance/wetlands/mining.cfm>.

<sup>5</sup> Available at [http://yosemite.epa.gov/sab%5Csabproduct.nsf/EEDF20B88AD4C6388525785E007331F3/\\$File/EPA-SAB-11-006-unsigned.pdf](http://yosemite.epa.gov/sab%5Csabproduct.nsf/EEDF20B88AD4C6388525785E007331F3/$File/EPA-SAB-11-006-unsigned.pdf).

<sup>6</sup> WVDEP raw data is also searchable and available online at <http://gisonline.dep.wv.gov/equis/equis.html>.

elevated total dissolved solids and sulfates. Pl. Ex. 4, App. D. Both of these parameters are closely associated with increased conductivity and stream impacts downstream from valley fills. In short, Dingess Run is already degraded by increased conductivity, though the Corps failed to consider it.

Further, the Freeze Fork watershed, which is adjacent to the Reylas Fork/Bandmill Hollow watershed, vividly demonstrates the effects of increased conductivity downstream from valley fills. In 1995, conductivity 1000 feet from the mouth of Freeze Fork was as low as 160  $\mu\text{S}/\text{cm}$ ; by 2010, conductivity at the mouth of the stream was consistently above 900  $\mu\text{S}/\text{cm}$ . Pl. Ex. 4, App. E. Two of three 2008 WVSCI scores from Freeze Fork are below 68, WVDEP's recognized cutoff for stream impairment.<sup>7</sup> Id., App. H, I. The Corps did not explain how the Reylas Fork/Bandmill Hollow watershed would avoid the same impacts.

Highland admits that one of its on-site "mitigation" channels will contain elevated conductivity levels and other pollutants that are high enough to cause stream impairment. Channel 1 will be supplied with deep mine discharge water containing up to 1200  $\mu\text{S}/\text{cm}$  of conductivity. CDD, p. 30; Tab 57, p. 136. In contrast, existing streams at the impact sites all have much lower conductivity, between 172 and 863. CDD, p. 33. According to Highland's own predictive analysis, discharges of similar deep mine water at a nearby mine site have caused

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<sup>7</sup> A WVSCI score is the method for showing biological integrity or impairment. Pl. Ex. 17, CDD, pp. 26-27. According to WVDEP, "the current WVSCI score that indicates the integrity of a benthic macroinvertebrate community in West Virginia's wadeable streams is 68.0." WVDEP "Justification and Background for Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i," p. 4, available at <http://www.dep.wv.gov/pio/Documents/Narrative/Narrative%20Standards%20Guidance%20Justification.pdf>.

stream impairment, with three of four WVSCI scores below 68. Tab 57, p. 137; CDD, p. 27.<sup>8</sup>

As a result, as EPA has warned, “these constructed channels even after reclamation will not provide clean, freshwater dilution to the watershed, which is so essential to the overall health of those receiving waters.” Pl. Ex. 1, Tab 46, p. 4. Instead, the “mitigation” channel will actually pollute and impair those waters.

Nevertheless, the Corps dismissed this potential harm and stream impairment as insignificant by relying on a “monitoring protocol and best management practices to help reduce unacceptable increases in conductivity and TDS.” CDD, p. 68. As the Corps described this plan:

if it is determined the proposed mining activities are resulting in significant deviations in conductivity and/or a drop in WVSCI scores from non-impaired to impaired, the applicant would initiate measures to determine the casual [sic] factors. The applicant indicated that should adverse impacts from the proposal be identified as causing a violation of water quality standards under applicable state law, they would initiate a study of the problem and propose an appropriate solution, including the requirement for water quality mitigation activities within the affected watershed.

Id. at 62. Based on this plan, the Corps concluded that “the proposal would not result in unacceptable or cumulative impacts to water quality at the site or within the affected watershed.”

Id. at 67.

The Corps’ plan for mitigating increased conductivity is just as vaguely defined and unreliable as its Plan B for mitigating stream loss, as explained in Part B below. It is nothing more than a promise to “initiate a study of the problem and propose an appropriate solution”—that is, not a plan at all but only a bare promise to comply with the law. CDD, p. 62. The Corps did not identify any specific measures to control conductivity or evaluate the likely success of

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<sup>8</sup> EPA’s policy is that “indication of impairment of water quality standards by any one of the three types of monitoring data (biological, chemical, or toxicological) should be taken as evidence of impairment regardless of the findings of the other types of data.” Tab 46, p. 3.

those measures. EPA stated in its March 23, 2009 letter that “[t]his impact [of elevated conductivity] cannot be easily mitigated or removed from stream channels.” Tab 46, p. 3. The Corps cited no evidence to refute that assessment.

At present, Highland and the Corps have no scientific basis for concluding that conductivity increases will be insignificant. There are no limits on conductivity in Highland’s NPDES permit, SMCRA permit, or 404 permit, and Highland refused to accept any such limits. Tab 81, p. 4 (Highland “declines to implement a[] self-imposed limit for conductivity”). In the absence of any specific controls or mitigation plans for increased conductivity that have been shown to be effective, the Corps had no rational basis to conclude that Highland’s Mine would not cause significant degradation or a violation of water quality standards under the CWA. In addition, given the significant impacts of conductivity, the Corps’ failure to perform an EIS is an independent violation of NEPA that justifies remand or vacatur of the Corps’ decision.

**B. The Corps’ Reliance on Compensatory Mitigation for its Determination that the Mine Will Not Cause Significant Degradation Under the CWA or Significant Impacts Under NEPA Is Arbitrary and Capricious**

The 404(b)(1) Guidelines prohibit the Corps from approving fill activities that would cause or contribute to “significant degradation” of waters of the United States. 40 C.F.R. § 230.10(c). NEPA requires the Corps to prepare an environmental impact statement (EIS) on projects that may have significant environmental impacts. 42 U.S.C. § 4332(2)(C). The Corps determined that Highland’s project would not cause significant degradation under the CWA or significant impacts under NEPA because the harm caused by filling streams would be offset by mitigation. “[T]he USACE has determined the compensatory mitigation plan, if implemented correctly, would adequately off-set the permanent loss of aquatic resources associated with the proposal and help maintain the biological, chemical, and physical integrity of waters of the U.S.”

CDD, pp. 90-91.

This determination of insignificance is arbitrary and capricious for four reasons. First, the Corps' determination is not supported by any evidence that the type of on-site stream creation proposed by Highland in its mitigation plan is likely to succeed. In fact, the evidence is all to the contrary. The U.S. Fish and Wildlife Service (FWS) "indicated the successful creation of streams using drainage control structures has yet to be demonstrated in West Virginia." CDD, p. 84. EPA similarly commented that these structure are "likely inadequate to fully compensate for lost functions of the aquatic ecosystem" and their success "has not been demonstrated." CDD, p. 90; Pl. Ex. 1, Tab 46, p. 4. More recently, in its January 2011 Spruce No. 1 veto decision, EPA stated that there is "no evidence in the peer-reviewed literature" that stream creation using on-site drainage control structures works. Pl. Ex. 2, Veto, p. 85. EPA found that it is "extremely unlikely" that these structures will be effective mitigation for the loss of high-value streams. *Id.* at 86.<sup>9</sup>

Second, the Corps did not disagree with this assessment by FWS or EPA. It found that Highland's mitigation plan would not completely offset all lost functions of the buried streams. The Corps "is not guaranteeing or predicting the mitigation stream channels would replace all functions and values lost as a result of the filling of stream channels associated with this proposal." CDD, p. 90. The Corps predicted only that "the proposed mitigation should replace the majority of the stream functions lost as a result of the proposal." CDD, pp. 96-97 (emphasis

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<sup>9</sup> The Corps cites two industry-sponsored studies (that were never peer-reviewed) as evidence that stream mitigation on mining sites can succeed. CDD, pp. 75, 89, 95. However, EPA has identified numerous scientific flaws in each study. Most significantly, EPA has found that the water quality in mitigation channels was "severely degraded" and that the biological communities downstream from those channels were "severely impaired." See June 4, 2010 EPA comment letter on Alex Energy Republic No. 1 Mine, Enclosure, pp. 1-3, available at [http://water.epa.gov/lawsregs/guidance/wetlands/upload/alex\\_rep1\\_response.pdf](http://water.epa.gov/lawsregs/guidance/wetlands/upload/alex_rep1_response.pdf).

added); see also *id.* at 73 (mitigation plan is expected “to replace the majority of the lost stream functions resulting from the proposal”). Thus, the Corps did not claim 100% mitigation success, but only something greater than 50%. This obviously leaves a huge remainder of unmitigated impacts. In the CDD, the Corps did not explain why those remaining impacts are insignificant.

Third, instead of such an explanation, the Corps relied on an impermissibly vague backup “Plan B” in the event of mitigation failure. This plan amounts to nothing more than a promise to comply with the law, and fails to contain the specific evaluation of mitigation success needed to support the Corps’ determination of insignificance. “Because the USACE cannot guarantee 100% success of the stream creation mitigation, the applicant has proposed contingency and remedial plans for the segment of the compensatory mitigation in case the stream creation does not fulfill the performance goals.” CDD, p. 52. The Corps describes Plan B as follows:

If annual performance criteria are not met for any portion of the mitigation sites for two consecutive reporting periods, the mitigation sites are not developing as indicated in the CMP, or at the end of the monitoring period the final success criteria cannot be met, the applicant, in consultation with the USACE, would implement contingency and/or remedial measures, if necessary, which would include re-design of the mitigation plan, submittal of in-lieu fees, mitigation banking, and preservation of high quality stream habitat and buffer.

*Id.* at 53. Thus, if mitigation fails, the Corps assumes that some unspecified combination of additional measures in the future can bridge the gap and guarantee that the actual impacts caused by filling the stream would be rendered insignificant.

The problem with Plan B is it simply kicks the can down the road and substitutes a future regulatory process for the Corps’ present duty to evaluate the likelihood of success of the overall mitigation plan. The Corps’ regulations provide that “[w]hen evaluating compensatory mitigation options, the district engineer will consider what would be environmentally preferable. In making this determination, the district engineer must assess the likelihood for ecological

success . . .” 33 C.F.R. § 323.3(a). In violation of this requirement, the Corps here is merely saying that if Plan A (which has only a 50+% chance of success) fails, we will do Plan B. But the Corps never evaluates the likelihood that Plan B will succeed. Nor does it identify any specific mitigation measures in Plan B that have a higher likelihood of success than those in Plan A. Plan B is therefore reduced to nothing more than a promise to comply with the law.

This Court has experience with this situation. In promulgating Nationwide Permit 21 for coal mining fill impact, the Corps similarly “relied on a review *process* that would identify necessary and appropriate mitigation measures at a later time and on a case-by-case basis.” OVEC v. Hurst, 604 F. Supp.2d 860, 889 (S.D. W.Va. 2009) (emphasis in original). This Court held that the Corps’ reliance on this process was arbitrary and capricious because it “has not provided any evidence that its proposed mitigation process would be successful” or “adequately policed” through monitoring programs. Id. at 891. The Corps “failed to provide any explanation for *why* it believes mitigation imposed through the case-by-case review of NWP 21 (2007) activities will work to mitigate the permit’s cumulative impacts to a minimal level.” Id. at 892. This Court also extensively reviewed the General Conditions in the NWPs and found that they merely provided “a list of options with little guidance on how they should be selected or applied,” and “loose instructions” lacking any “guarantee of successful mitigation.” Id. at 892-93. The Court found itself “left with nothing but the Corps’ unsupported belief” in successful mitigation—a belief that was “rendered even less convincing by the Corps’ concession that mitigation plans sometimes fail.” Id. at 894.

Those same conclusions apply here. The Corps’ discussion of future mitigation options under Plan B is just as vague as the Corps’ plans for NWP 21. It says that if Highland’s mitigation plan fails it “would implement contingency and/or remedial measures, if necessary,

which would include re-design of the mitigation plan, submittal of in-lieu fees, mitigation banking, and preservation of high quality stream habitat and buffer.” CDD, pp. 53, 92-93. As in the NWP 21 case, this is just a laundry “list of options with no guidance on how they will be selected or applied.” 604 F. Supp.2d at 892-98. The Corps also provides no explanation or supporting evidence on the likelihood that Plan B will succeed. As a result, the Corps’ decision to rely on future compensatory mitigation to achieve insignificant effects is merely a conclusory, unsupported presumption. Both this Court and the Fifth Circuit have held that the Corps cannot simply presume that compensatory mitigation will eliminate significant adverse effects. OVEC, 604 F. Supp.2d at 886 n. 21; O’Reilly v. U.S. Army Corps of Engineers, 477 F.3d 225, 235 (5th Cir. 2007). The Corps has made nothing more than a promise to comply with the law, which is insufficient to comply with the CWA or NEPA. OVEC, 604 F. Supp.2d at 872, n. 7.

Fourth, the Corps’ mitigation plan does not fully mitigate for the harm that will occur between the time the existing streams are buried and the time the as-now-unbuilt drainage control structures are supposed to replace them. According to the Corps, “the streams proposed for permanent impact are highly functional while the created streams are not expected to obtain the highly functional status within 10 years after construction.” CDD at 45. The Corps states that this “temporal loss would be offset through the creation of approximately 15% of additional stream channel as the lag time would be approximately five years.” Id. at 40. This analysis is irrational because the temporal loss is at least ten years, not five, and the Corps has provided no basis for its choice of 15% as a sufficient coefficient for temporal loss.

**C. The Corps’ Determination that the Fill Activities Will Have Insignificant Cumulative Effects Under NEPA Is Irrational**

NEPA requires the Corps to prepare an EIS for federal projects or licenses that have “significant” environmental effects, both individually and cumulatively. 42 U.S.C. § 4332(2).

Cumulative impact “is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.” 40 C.F.R. § 1508.7. “Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.” *Id.*, § 1508.27(b)(7).

The Corps found that the cumulative impacts of past, present and future coal mining and other development activities in the Dingess Run watershed would affect 44% of the watershed’s land area and 25% of its stream length. CDD, p. 108. Nevertheless, the Corps discounted these effects as cumulatively insignificant because it claimed that “[r]ecent water quality and biological data has indicated the watershed is sufficiently absorbing the impacts without significant aquatic impairment and/or degradation.” *Id.* at 83. The Corps believed that “no compelling data has been presented to indicate the aquatic resources within the watershed have experienced such adverse impacts that they cannot provide the functions necessary to maintain aquatic life and its supporting ecosystem.” *Id.*; see also *id.* at 91.

That finding is arbitrary, capricious and clearly erroneous. WVDEP has listed the entire length of Dingess Run as biologically impaired and placed it on the CWA 303(d) list. Pl. Ex. 10, West Virginia Integrated Water Quality Monitoring and Assessment Report 2010, list page 61.<sup>10</sup> As we have shown above, EPA has found, and the Corps does not deny, that elevated levels of conductivity can cause biological impairment of streams. CDD, p. 61. The Highland mine would cause the level of conductivity—a source of biological impairment—to increase in that watershed. It is irrational for the Corps to conclude that the cumulative impacts of mining in the watershed are insignificant when the cumulative impacts of existing mines alone have created conditions sufficient to meet the standard for impairment under the CWA. It is also irrational for

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<sup>10</sup> The full document is available at [http://www.dep.wv.gov/WWE/watershed/IR/Documents/IR\\_2010\\_Documents/2010IR\\_EPA\\_Approved\\_Full\\_Version.pdf](http://www.dep.wv.gov/WWE/watershed/IR/Documents/IR_2010_Documents/2010IR_EPA_Approved_Full_Version.pdf).

the Corps to conclude that the addition of a significant new mine in the watershed would not make that impairment worse.

Furthermore, as a matter of law, Highland's contribution of additional conductivity to the existing biological impairment must be considered cumulatively significant. EPA regulations under the CWA prohibit the issuance of an NPDES permit for a new source that would discharge additional amounts of a pollutant to a watershed that is already impaired for that pollutant unless commitments for offsetting reductions are first obtained from existing sources. 40 C.F.R. § 122.4(i); see Friends of Pinto Creek v. EPA, 504 F.3d 1007, 1012 (9th Cir. 2007). Dingess Run is already violating West Virginia's narrative water quality standard that prohibits biological impairment. Highland's additional contribution threatens to violate § 122.41(i). The NEPA regulations define significance as a function of several factors, including "[w]hether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment." 40 C.F.R. § 1508.27(b)(10). Highland's permit, together with other mining discharges, creates such a threat and therefore those actions are cumulatively significant as a matter of law.

**D. Significant New Information Requires that the Corps Prepare a Supplemental EA or EIS Analyzing the Cumulative Effects of Surface Coal Mining on Human Health**

The 404(b)(1) Guidelines under the CWA require the Corps to prevent cumulatively significant degradation of waters of the United States. The "effects contributing to significant degradation considered individually or collectively, include: (1) Significantly adverse effects of the discharge of pollutants on human health or welfare . . . ." 40 C.F.R. § 230.10(c)(1).

Highland is using a combination of mining methods that include mountaintop mining, which involves a complete excavation of a portion of the surface area overlying the coal seams in

the project area. CDD, pp. 4, 15-16. The Corps found that Highland's mining methods would not "contribute to or result in cumulative significant adverse impacts to the aquatic or human environment within the Dingess Run Watershed." *Id.* at 83. In response to public comments that the mine would have significant impacts on nearby residents, the Corps stated that "no human health effects are anticipated as a result of the proposed project. It has been determined the proposal would not result in any adverse impacts to the quality of the human environment." *Id.* at 99.

In March, May, and July 2011, after the Corps' March 2011 decision, Dr. Michael Hendryx and other scientists published three peer-reviewed studies on the association between mountaintop mining (MTM) and the health of nearby residents in West Virginia. One of Plaintiffs' members, Kenny King, lives about a mile from the Highland Reylas mine site.

The March 2011 study found that "MTM county residents experience, on average, 18 more unhealthy days per year" than those experienced by populations in non-mining areas. Zullig, *et al.*, "Health-Related Quality of life Among Central Appalachian Residents in Mountaintop Mining Counties," *Am. J. Public Health* 101(5): 848-853, Pl. Ex. 16. The May 2011 study analyzed 1.8 million birth records between 1996 and 2003 and found 235 birth defects per 10,000 births where mountaintop mining is most common in four central Appalachian states. That rate is nearly twice the rate of 144 defects per 10,000 in non-mining areas. Ahern, *et al.*, "The Association Between Mountaintop Mining and Birth Defects Among Live Births in Central Appalachia, 1996–2003," *Environ. Res.* 111(6): 838-846 (2011), Pl. Ex. 17.

The July 2011 study found that the "odds for reporting cancer were twice as high in the mountaintop mining environment compared to the nonmining environment in ways not

explained by age, sex, smoking, occupational exposure, or family cancer history.” Hendryx, et al., “Self-Reported Cancer Rates in Two Rural Areas of West Virginia with and Without Mountaintop Coal Mining,” *Journal of Community Health* (July 2011), p. 7, Pl. Ex. 18. “If the rates found in this study represent the region, a 5% higher cancer rate (14.4% vs. 9.4%) translates to an additional 60,000 people with cancer in central Appalachian mountaintop mining counties.” *Id.* at 8. This study was conducted in Boone and Raleigh Counties in West Virginia, which are adjacent to Logan County, where Highland’s Reylas mine is located.

In July 2011, EPA published final guidance documenting negative human health impacts from surface coal mining, “including peer-reviewed public health literature that has preliminarily identified associations between increases in surface coal mining activities and increasing rates of cancer, birth defects, and other health problems in Appalachian communities.” EPA, “Improving EPA Review of Appalachian Surface Coal Mining Operations Under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order” (July 21, 2011), p. 4, Pl. Ex. 19. In particular, EPA cited Dr. Hendryx’s research. *Id.* at 4, n.7. The Corps must have become aware of Dr. Hendryx’s studies at that time, if not earlier, because EPA’s guidance repeatedly cites its close working relationship with the Corps. *Id.* at 8 (“EPA is working with the Corps to evaluate proposed projects”), 27, 40-41. In addition, EPA advised that “NEPA cumulative impact assessment should consider the full suite of relevant environmental and human health impacts.” *Id.* at 42.

The Corps has a duty under NEPA to prepare a supplement to an EIS whenever “[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(c)(1)(ii); 33 C.F.R. § 230.13(b). That duty also applies to an environmental assessment (EA), which is what the Corps prepared in this

case as part of its CDD. CDD, p. 1. See Idaho Sporting Cong. Inc. v. Alexander, 222 F.3d 562, 566 n.2 (9th Cir. 2000). That duty to prepare a supplemental EA continues even after the Corps issues a § 404 permit. See National Wildlife Federation v. Marsh, 721 F.2d 767, 782-84 (11th Cir. 1983) (affirming a preliminary injunction requiring that the Corps prepare a supplemental EIS after it had issued a § 404 permit). In fact, Highland's 404 permit in this case specifically provides that the Corps "may reevaluate its decision on this permit at any time the circumstances warrant," including the situation where "[s]ignificant new information surfaces which this office did not consider in reaching the original public interest decision." Tab 105, p. 2, Special Condition 5. "Such a reevaluation may result in a determination that it is appropriate to" suspend, modify or revoke the permit. Id. at 3. Indeed, in this case, the Corps exercised that power when it suspended Highland's permit on April 19, 2011, more than a month after the permit's issuance on March 4. Doc. #37.

A supplemental NEPA analysis is required when new circumstances present "a seriously different picture of the environmental impact of the proposed project from what was previously envisioned." Hickory Neighborhood Defense League v. Skinner, 893 F.2d 58, 63 (4th Cir. 1990). The three studies described above present a seriously different picture of the impacts of mountaintop mining on human health than what the Corps found. The Corps found no human health impacts at all, while these studies found an increase in unhealthy days and birth defects and a potential doubling of cancer risk. The Corps has therefore violated NEPA by not preparing a supplemental EA or EIS analyzing the potentially significant cumulative effect of surface coal mining activities and discharges on human health.

**E. The Corps' Reliance on a Mitigation Plan That Was Unavailable For Public Comment Violates the Public Notice and Participation Requirements of the CWA and NEPA**

The Corps failed to comply with its duties under the CWA and NEPA to provide adequate public notice, a meaningful opportunity for public comment, and other public involvement in its review process for Highland's § 404 permit. The cornerstone of the Corps' decision is a 2009 comprehensive mitigation plan (CMP) that was not available during the 2008 public comment period. By failing to provide for public input and comment on the document that is critical to the permit's issuance, the Corps shut out the public from meaningful involvement in the process.

Under the CWA, the Corps' regulations provide that a public notice is not adequate unless it contains "sufficient information to give a clear understanding of the nature and magnitude of the activity to generate meaningful comment." 33 C.F.R. § 325.3(a). NEPA regulations similarly provide that environmental information must be made available to the public before decisions are made and that agencies must involve the public, to the extent practicable, in preparing their environmental analyses. 40 C.F.R. §§ 1500.1(b), 1501.4(b).

The Corps' approach to public participation in this case shares many of the same defects that this Court identified in OVEC v. U.S. Army Corps of Engineers, 674 F. Supp. 2d 783 (S.D. W. Va. 2009). In that case, this Court granted summary judgment to the plaintiffs, holding that the Corps violated the public notice requirement under the CWA and the public participation requirement under NEPA. The Court noted that meaningful public dissemination of mitigation information is critical, since mitigation plans are a central component of § 404 permits. Id. at 803-804. "Compensatory mitigation is the single most important material issue related to the justification of such a permit." Id. at 804. Because of the importance of mitigation, the Court held that the Corps must release as much mitigation data as practicable. Id. at 811. The Court therefore concluded that the absence of mitigation information during the public comment period

violated the CWA regulations and NEPA. Id. at 813-18.

Similarly, in the present case, the Corps failed to include crucial mitigation information during the public comment period. The Corps relied on a July 2009 version of the CMP. CDD, pp. 24, 53. That document was not available during the public comment period, which closed over a year earlier on April 27, 2008. CDD, p. 10. At that time, only Highland's preliminary CMP was available.

The final 2009 CMP was significantly different from the preliminary 2008 CMP in size, detail and content. The preliminary CMP contained 58 pages of text and 40 pages of appendices, while the final CMP contained 158 pages of text and 54 pages of appendices. Compare Tabs 17, 58. The Corps crossed out all of the tables in the 2008 CMP that summarized the stream mitigation because it was no longer accurate. Tab 17, pp. 16, 24, 30, 38. The entire stream enhancement plan was deleted. CDD, p. 85. The stream creation plan was reduced from 35,980 feet 28,960 feet. Id. Highland's stream consultant criticized EPA's comments on the project as uninformed because it relied on the earlier CMP. After the final CMP was submitted in August 2009, he told the Corps that "I just don't understand how they [EPA] can raise all the stink with this project if they haven't even looked at all the material we submitted." Pl. Ex. 11, Tab 67, p. 1. The Corps relied on the changes in the 2009 CMP in concluding that the mitigation plan offsets the stream losses from the mine. CDD, p. 53. It was clearly feasible for the Corps to circulate the 2009 CMP to the public, since it circulated that document to state agencies. Id. at 90 ("The July 2009 CMP has been thoroughly reviewed by this office and the state resource agencies . . .").

Thus, for the same reasons that this Court enunciated in OVEC, the Corps has again violated the public notice requirement in the CWA and the public participation requirement in

NEPA.

**F. The Corps Violated NEPA by Failing to Take a Hard Look at Potential Selenium Impacts**

Highland's mine is less than two miles from the Apogee Coal Co. mine that is discharging high levels of toxic selenium in violation of the CWA. This Court recently held Apogee in contempt and required it to install a fluidized bed reactor to treat that pollutant. OVEC v. Apogee Coal Co., LLC, 744 F. Supp. 2d 561 (S.D. W.Va. 2010). Highland's mine poses a similar risk. The Corps acknowledges that selenium levels in the Dingess Run watershed are already "slightly elevated." CDD, pp. 30, 75. In fact, selenium levels at three sampling points at the base of the proposed fill (HW-5: 9 ug/l), and beneath its footprint (HW-7: 7 ug/l) and (HW-8: 6 ug/l), already exceed the chronic water quality standard of 5 ug/l. Pl. Ex. 12, Tab 8.E (mine drainage map with sampling points), Tab 8.G, pp. J-52.10, J-52.14, J-52.16. So does the selenium level at the mouth of Dingess Run (DDR: 7 ug/l). Id., p. J-52.36, and at a WVDEP monitoring point closer to the mouth of Bandmill Hollow. Pl. Ex. 4, App. F. (showing exceedances and several measurements just below 5 ug/l). Selenium is also causing violations of state water quality standards at several of the surface mines in the area. CDD, p. 77.

WVDEP placed enforceable selenium limits in Highland's NPDES permit because on-site Baseline Water Quality data showed positive "hits" on selenium. Pl. Ex. 13, Tab 1, p. 1 ("Due to BWQ showing hits on selenium the limit 4.7-8.2 ug/l will be applied"); WVDEP Permit WV1022971, p. 2-10 (showing enforceable selenium limits imposed at 17 of 18 outfalls). WVDEP's determination that selenium could contribute to water quality violations increases rather than decreases the Corps' independent obligation to consider selenium under NEPA. See Calvert Cliffs Coordinating Committee, Inc. v. U.S. Atomic Energy Commission, 449 F.2d 1109, 1125 (D.C. Cir. 1971) (satisfaction of minimum water quality requirements does not preclude or

satisfy NEPA's mandate of independent consideration). Further, the very seams that Highland proposes to mine are documented to be significant sources of selenium.<sup>11</sup>

Nonetheless, the Corps dismissed selenium problems at the Highland mine as insignificant. CDD, pp. 54-55. The Corps claimed that selenium in the watershed "is likely located in a stratum or strata in rock formations higher in elevation than those proposed to be mined as part of this project." CDD, p. 75. The Corps cited no data to support this claim. The Corps also stated that if selenium becomes an issue, it would Highland to implement a "special" material handling plan. CDD, p. 80.

The Corps' reliance on material handling plans has no scientific basis or credibility. In its recent Spruce No. 1 Mine veto decision, EPA found that such plans are not likely to prevent increased loadings of selenium in downstream waters. Veto, App. 6, pp. 9-11, Pl. Ex. 2. The plans do not account for contribution of selenium from the coal itself, are based on an insufficient number of core samples to adequately characterize the problem, and have not prevented increased selenium loadings at other similar mines. Id.

The risk of selenium contamination is not limited to the life of the mine. That risk will continue after mining is completed and may require perpetual water treatment. The Corps failed to consider or even mention that long-term risk. If toxic selenium discharges occur, they would

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<sup>11</sup> The West Virginia Geologic and Economic Survey (WVGES) took dozens of samples within the Coalburg, Stockton, Clarion and No. 5 Block seams. Highland proposes to mine all of these seams. CDD, p. 4; Tab 2, p. 2. The WVGES data show uniformly higher selenium levels than the single sample upon which the Corps relies. See Pl. Ex. 5, Stratigraphic Distribution of Selenium (available online at <http://www.wvgs.wvnet.edu/www/datastat/te/SeColumn.htm>, General Trace Elements Page/Selenium/Stratigraphic Distribution). Additionally, WVDEP presumes that a mine has the potential to cause or contribute to violations of the selenium water quality standard if it will mine in the interval between the Winifrede and Upper No. 5 Block coal seams. WVDEP Mining Permit Writer's Handbook, p. 32-18, Pl. Ex. 6 (available at <http://www.dep.wv.gov/dmr/handbooks/Documents/Permitting%20Handbook/sect32.pdf>). The Highland mine will mine the No. 5 Block, which is in this same interval. CDD, p. 4; Tab 2, p. 2.

likely persist even after mining is completed and even if Highland is no longer a viable entity. The Corps did not consider the capability of the operator to treat selenium in perpetuity. Selenium treatment is a reasonably foreseeable perpetual cost and a significant impact within the meaning of NEPA. The Corps failed to consider whether treatment in perpetuity is feasible.

The Corps therefore failed to take a “hard look” at potentially significant selenium contamination problems at this mine, in violation of NEPA. The requisite “hard look” under NEPA “encompasses a thorough investigation into the environmental impacts of an agency’s action and a candid acknowledgment of the risks that those impacts entail.” Nat’l Audubon Soc. v. Dept. of the Navy, 422 F.3d 174, 185 (4th Cir. 2005). The Corps failed to conduct that analysis here.

### **III. The Court Should Remand the Permit and Enjoin Any Activities Thereunder**

Plaintiffs request that this Court issue the same type of remand order that it entered in OVEC v. U.S. Army Corps of Engineers, 479 F. Supp.2d 607 (S.D. W.Va. 2007), rev’d on other grounds, 556 F.3d 177 (4th Cir. 2009). In that case, the Court held that when the Corps issues an Environmental Assessment under NEPA that does not adequately address environmental effects of mining and a decision document under the CWA that does not comply with the 404(b)(1) Guidelines, the permit should be remanded to the Corps for reconsideration. Id. at 662-63.

Pending that reconsideration, Plaintiffs request that the Court enjoin Highland from conducting any further activities that were authorized under the permit. If the Court is unable to make a decision on a permanent injunction prior to the expiration of the existing temporary restraining order on June 6, 2011, Plaintiffs request that the Court issue a preliminary injunction pending a final decision on the merits. The Court has issued similar preliminary and permanent injunctions in several of its prior decisions on Corps 404 permits. See, e.g., Bragg v. Robertson,

54 F. Supp.2d 635, 653 (S.D. W.Va. 1999) (granting preliminary injunction); OVEC v. U.S. Army Corps of Eng'rs, 528 F. Supp.2d 625, 631-34 (S.D. W.Va. 2007) (granting preliminary injunction); OVEC v. Hurst, 604 F. Supp.2d 860, 903 (S.D. W.Va. 2009) (granting permanent injunction).

Equitable principles support the issuance of injunctive relief. “[T]here is no adequate remedy at law to compensate the public for the harm caused by the disposal of fill material into waters of the United States or in wetlands.” U.S. v. Malibu Beach, Inc., 711 F. Supp. 1301, 1313 (D.N.J. 1989). The destruction of streams and aquatic habitat by valley fills is imminent, permanent and irreparable. When environmental injury “is sufficiently likely . . . the balance of harms will usually favor the issuance of an injunction to protect the environment.” Amoco Production Co. v. Village of Gambel, 480 U.S. 531, 545 (1987). Plaintiffs’ members have environmental, recreational, and aesthetic interests in the protection of West Virginia’s streams, and those interests are irreparably harmed by their destruction. Bragg, 54 F. Supp.2d at 645-46.<sup>12</sup> The harm to Plaintiffs greatly outweighs the harm to the Corps and Highland from the

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<sup>12</sup> Plaintiffs are submitting declarations from two of their members to support their standing to sue. Kenny King lives about a mile from Highland’s Reylas Mine and has frequently used the Dingess Run watershed, including Bandmill Hollow, for wildlife observation and plant collection. Pl. Ex. 20. Cindy Rank also frequently visits, observes and enjoys the Dingess Run watershed. Pl. Ex. 21. Their aesthetic enjoyment of that watershed and its associated aquatic life, including fish and waterfowl, is harmed by Highland’s proposed mine and valley fill. Id. Dingess Run is already biologically impaired by discharges from mine sites. CDD, p. 91. The Corps has acknowledged that Highland’s mine creates a risk of further impairment due to increased conductivity. CDD, p. 61. In its January 11 decision vetoing a similar permit for the Spruce No. 1 Mine, EPA found that valley fills are strongly associated with increased conductivity in downstream waters, which then suffer from impaired macroinvertebrate and salamander communities, food web changes, increased risk of harmful algal blooms, and adverse effects on amphibians, reptiles, crayfish, and bird species that depend on downstream waters for food or habitat. Pl. Ex. 2, Veto, p. 73. Consequently, Plaintiffs have members who are suffering threatened harm to their aesthetic and environmental interests, and that harm is traceable to Highland’s mine and could be redressed by remanding Highland’s permit and enjoining activities thereunder, as Plaintiffs request.

delay and additional processing time caused by the remand of the permit for reconsideration. Alaska Center for the Environment v. West, 31 F. Supp.2d 714, 723 (D. Alaska 1998). “The economic loss to the [operator] from cessation of [filling] activities is far outweighed by the benefit to the community from the enjoining of activities adversely affecting the environment.” U.S. v. Ciampitti, 583 F. Supp. 483, 499 (D.N.J. 1984). In addition, “[i]t is axiomatic that the public interest under the Clean Water Act requires strict enforcement of the statute so as to clean up the nation’s waters and preserve the surrounding ecological environment.” *Id.*

### **Conclusion**

For these reasons, the Court should (1) issue a declaratory judgment that the Corps’ March 2011 decision issuing a § 404 permit for Highland’s Reylas Surface Mine violates the CWA and NEPA, and that it may have significant impacts requiring that a supplemental EA or EIS be prepared, (2) vacate the permit or remand the permit to the Corps for reconsideration to remedy those violations, and (3) issue a permanent injunction enjoining Highland from conducting any activities authorized under that permit. In the alternative, if the Court is unable to decide whether to issue a permanent injunction by October 20, 2011, when the Court’s stay of Highland’s activities under the reinstated permit expires, the Court should issue a temporary restraining order and preliminary injunction enjoining Highland from conducting any activities authorized under that permit until the Court issues a final ruling on the merits.

DATED: October 12, 2011

Respectfully submitted,

s/ Joseph M. Lovett  
JOSEPH M. LOVETT  
DEREK O. TEANEY  
Appalachian Mountain Advocates

P.O. Box 507  
Lewisburg, WV 24901  
(304) 645-9006

Counsel for Plaintiffs

**Additional Exhibits**

- 16 Zullig, et al., “Health-Related Quality of life Among Central Appalachian Residents in Mountaintop Mining Counties,” *Am. J. Public Health* 101(5): 848-853.
- 17 Ahern, et al., “The Association Between Mountaintop Mining and Birth Defects Among Live Births in Central Appalachia, 1996–2003,” *Environ. Res.* 111(6): 838-846 (2011).
- 18 Hendryx, et al., “Self-Reported Cancer Rates in Two Rural Areas of West Virginia with and Without Mountaintop Coal Mining,” *Journal of Community Health* (July 2011).
- 19 EPA, “Improving EPA Review of Appalachian Surface Coal Mining Operations Under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order” (July 21, 2011).
- 20 Declaration of Kenny King.
- 21 Declaration of Cindy Rank.