

Legal Issues - The CHIA and Hydrologic Aspects of Mine Permitting

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CHIA Litigation in WV

- 1988 – “Galloway” Lawsuit
- 2000 - 04 – Ohio Valley Environ. Coalition
 - Delineation of CIA
 - Delineation of Anticipated Mining in CIA
 - Predetermined Material Damage Limits
 - One Year of Baseline Data
 - Determination of How Streams React to Rain
 - Determination of Pre-Mining Compliance
 - Baseline Data on Variation in Concentrations
 - Inadequate Hydrologic Monitoring Plans
- Nearly Every Individual Permit Challenge

Material Damage Litigation - WV

- 12/2003 – OSM Approves 2 Program Am.
 - Repeal of “Cumulative Impact” Def.
 - Addition of “Material Damage” Def.
- 09/2005 – District Court Vacates Approval
- 12/2006 – Court of Appeals Affirms
- 12/2008 – OSM Re-Approval
- 01/2011 - District Court Upholds Re-Approval
- 01/2012 – Court of Appeals Affirms

Stream Buffer Zone Litigation - WV

- 10/1999 – *Bragg v. Robertson*, Dist. Ct. - Fills are Prohibited in the SBZ
- 04/2001 – *Bragg v. WV Coal Ass'n*, Ct. of App. *Rev'd* – Fed. Courts Lack Jurisdiction
- 10/2004 – WV Surface Mine Bd. – Fills are Not Prohibited in the SBZ
- 12/2009 – OSM – Fills are Not Prohibited in the SBZ

Kentucky & Pennsylvania Cases

- *Sierra Club v. E&E Cabinet, Cambrian Coal*, (Ky. 2013) – Upheld material damage definition Kentucky used in its CHIA.
- *Gadinski v. Commonwealth of Pa., DEP*, (Pa. 2013)
 - In *de novo* review, DEP's failure to perform written CHIA before permit approval, was a procedural error.
 - DEP completed its CHIA format after permit issuance and adequately considered hydrologic issues in permitting.
 - Facts demonstrated no material damage.

Hydrologic Aspects of Permitting

- **Permit Content**
 - **Baseline Water Data**
 - **Probable Hydrologic Consequences (PHC)**
 - **Hydrologic Reclamation Plan (HRP)**
- **Cumulative Hydrologic Impact Assessment (CHIA)**
- **Material Damage Finding**
- **Hydrologic Monitoring Plans**

Cumulative Hydrologic Impact Assessment

What is it?

An assessment of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area, and particularly upon water availability

30 U.S.C. § 1257(b)(11)

Why Is It Done?

Is done so the regulatory authority can make a finding as to whether the operation is designed to prevent material damage to the hydrologic balance outside the permit area

30 U.S.C. § 1260(b)(3)

CHIA - Material Damage Finding

Contrast:

What is to be assessed – probable cumulative impacts of all anticipated mining in the area

What must be found – that the proposed operation has been designed to prevent material damage to the hydrologic impact outside the permit area

CHIA - Material Damage Finding

Elements to Consider

- Surface Water – Quality
- Surface Water – Quantity
- Groundwater – Quality
- Groundwater – Quantity
- Biologic Condition

CHIA - Material Damage Finding

Based on

- PHC
- Baseline Data
- Outside data on the Cumulative Impact Area
- Diversion/Sediment Control Design
- SWROA
- HRP
- Definition of Material Damage???

Material Damage – Legal Context

Other Use of the Term in Surface Mining Law

- Subsidence prevention and control **30 CFR § 701.5**
- Protection of alluvial valley floors west of the 100th meridian **30 CFR § 701.5**
- Performance standards **30 CFR § § 816.41(a)/817.41(a)**

Material Damage - State Definitions

W.Va. 1988 Definition of Cumulative Impact

- The hydrologic impact that results from the cumulation of flows from all coal mining sites in a cumulative impact area
- “When the magnitude of cumulative impact exceeds threshold limits or ranges as pre-determined by the [WVDEP], they constitute material damage.”

Former W.Va. Code St. R. § 38-2-2.39

(1988)

Material Damage - State Definitions

W.Va. 2001 - Material Damage Definition

“any long term or permanent change in the hydrologic balance caused by surface mining operation(s) which has a significant adverse impact on the capability of the affected water resource(s) to support existing conditions and uses.”

W.Va. Code St. R. § 38-2-3.22.e

2001

Material Damage – W.Va.

Quantitative vs. Qualitative Hydrologic Impacts

Each Application must include a Storm Water Runoff Analysis (SWROA)

W.Va. Code St. R. § 38-2-5.6.a

The SWROA analyses must show no net increase in peak runoff during and after mining

W.Va. Code St. R. § 38-2-5.6.a.3

Material Damage - State Definitions

Tennessee (OSM)

The long-term or permanent contamination, diminution, alteration or interruption of a surface or subsurface water resource from cumulative or individual mining activities which results in the surface or ground-water resource not being supportive of their designated uses or which results in alterations in stream morphology or peak flow discharges in downstream reaches that would affect stream use or result in physical damage to property, habitat, or channel stability.

Material Damage - State Definitions

Wyoming

“Material damage to the hydrologic balance” means a significant long-term or permanent adverse change to the hydrologic regime.

Material Damage - State Definitions

Montana

"Material damage" means, with respect to protection of the hydrologic balance, degradation or reduction by coal mining and reclamation operations of the quality or quantity of water outside of the permit area in a manner or to an extent that land uses or beneficial uses of water are adversely affected, water quality standards are violated, or water rights are impacted. Violation of a water quality standard, whether or not an existing water use is affected, is material damage.

Material Damage - State Definitions

Kentucky (Cambrian Coal CHIA)

A quantifiable adverse change to the hydrologic balance outside the permit area based on applicable federal/state water quality standards. Consequences of material damage may include reduction of the capacity to support existing aquatic communities, change in designated use, or resource loss to current and potential water users.

Material damage to the hydrologic balance also results in a long term or permanent effect that cannot be corrected by surface coal mining regulations or mitigation strategies.

Proposed 30 CFR § 701.5

Material damage to the hydrologic balance outside the permit area means any adverse impact from surface coal mining and reclamation operations or from underground mining activities, including any adverse impacts from subsidence that may occur as a result of underground mining activities, on the quality or quantity of surface water or groundwater, or on the biological condition of a perennial or intermittent stream, that would—

Proposed 30 CFR § 701.5

(a) Preclude any designated use under sections 101(a) or 303(c) of the Clean Water Act or any existing or reasonably foreseeable use of surface water or groundwater outside the permit area; or

(b) Impact threatened or endangered species, or have an adverse effect on designated critical habitat, outside the permit area in violation of the Endangered Species Act of 1973, 16 U.S.C. 1531 et seq.

Proposed 30 CFR

§ § 780.21/784.21

(6) Criteria defining material damage to the hydrologic balance outside the permit area on a site-specific basis. These criteria must—

(i) Be expressed in numerical terms for each parameter of concern.

(ii) Take into consideration the biological requirements of any species listed as threatened or endangered under the Endangered Species Act when those species or designated critical habitat are present within the cumulative impact area.

Proposed 30 CFR

§ § 780.21/784.21

- (iii) Identify the portion of the cumulative impact area to which the criteria apply and locations at which impacts will be monitored. The regulatory authority may establish different criteria for subareas within the cumulative impact area when appropriate.
- (iv) Be incorporated into the permit.

Proposed 30 CFR

§ § 780.21/784.21

(8) An evaluation, with references to supporting data and analyses, of whether the CHIA will support a finding that the operation has been designed to prevent material damage to the hydrologic balance outside the permit area. To support this finding, the CHIA must include the following determinations, with appropriate documentation:

Proposed 30 CFR

§ § 780.21/784.21

- Variations in stream flow/groundwater availability & variations in quality will not:
 - Convert Perennial or Intermittent to Ephemeral, etc.
 - Result in violation of WQS outside permit area
 - Disrupt or preclude any existing or reasonably foreseeable use of surface water
 - Disrupt or preclude any existing or reasonably foreseeable use of groundwater

Proposed 30 CFR

§ § 780.21/784.21

- Neither the mining operation nor its final configuration will result in changes in the size or frequency of peak flows
- Perennial and intermittent streams outside the permit area will continue to have sufficient base flow and recharge capacity
- The operation has been designed to protect the quantity and quality of water in any aquifer that significantly ensures the prevailing hydrologic balance