

Form #3

OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

QUESTIONNAIRE

(Please include a copy of this form with each filing of your rule: Notice of Public Hearing or Comment Period; Proposed Rule, and if needed, Emergency and Modified Rule.)

DATE: July 27, 2001

TO: Legislative Rule-Making Review Committee

FROM: (Agency Name, Address & Phone No.) WV Environmental Quality Board

1615 Washington Street, East, Suite 301,

Charleston, WV 25311

(304) 558-4002

LEGISLATIVE RULE TITLE: "Requirements Governing Water Quality Standards"

1. Authorizing statute(s) citation 22B-3-4

2. a. Date filed in State Register with Notice of Hearing or Public Comment Period:

May 29, 2001

b. What other notice, including advertising, did you give of the hearing?

Published in Charleston Gazette Newspaper on June 6, 2001 and Charleston Daily

Mail Newspaper on June 19, 2001. Also distributed the notice to our internal/e-

mail mailing list of approximately 125 people.

c. Date of Public Hearing(s) *or* Public Comment Period ended:

Public Hearing held on June 28, 2001, at 7:00 p.m. The end of written comment period was June 29, 2001.

d. Attach list of persons who appeared at hearing, comments received, amendments, reasons for amendments.

Attached X

No comments received

- e. Date you filed in State Register the agency approved proposed Legislative Rule following public hearing: (be exact)

July 27, 2001

- f. **Name, title, address and phone/fax/e-mail numbers** of agency person(s) to receive all *written correspondence* regarding this rule: (Please type)

Elizabeth Chatfield, Technical Advisor

1615 Washington Street, East - Room 301

Charleston, WV 25311-2126

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- g. **IF DIFFERENT FROM ITEM "f",** please give **Name, title, address and phone number(s)** of agency person(s) who wrote and/or has responsibility for the contents of this rule: (Please type)

Same

3. If the statute under which you promulgated the submitted rules requires certain findings and determination to be made as a condition precedent to their promulgation:

A. Give the date upon which you filed in the State Register a notice of the time and place of a hearing for the taking of evidence and a general description of the issues to be decided.

N/A

B. Date of hearing or comment period:

N/A

C. On what date did you file in the State Register the findings and determinations required together with the reasons therefor?

N/A

D. Attach findings and determinations and reasons:

Attached N/A

46 CSR 1
Requirements Governing Water Quality Standards
July 27, 2001

Summary of Proposed Changes

The changes proposed delete the Antidegradation Implementation Procedures in Appendix F of the rule. Definitions corresponding to those procedures and references to Appendix F are also removed.

Sections 2.1, 2.2, 2.3, 2.18, 2.21, 2.22, 2.26, 2.27 Delete definitions and renumber section accordingly.

Section 4.1.b.1. Remove reference to Appendix F.

Section 4.1.c. Replace reference to Appendix F with reference to 60 CSR 5.

Appendix F Delete Appendix

Appendix F1 Delete Appendix

Appendix F2 Delete Appendix

Appendix F3 Delete Appendix

46 CSR 1
Requirements Governing Water Quality Standards
July 27, 2001

Statement of Circumstances Requiring Proposed Amendments

1) Antidegradation Implementation Procedures (See Appendices F, F1, F2 and F3)

The proposed rule deletes these appendices, which outline the Antidegradation Implementation Procedures that were adopted in the rule in the 2001 Legislative Session. The justification for removing these provisions is found in HB 3240, which also passed in the 2001 session. That bill provides for the transfer of authority for establishing the Antidegradation Implementation Procedures (Procedures) from the Environmental Quality Board to the WV Department of Environmental Protection (DEP) on July 1, 2001. The DEP filed a Notice of Agency Adoption of Legislative Rule Exempt from Legislative Review for a new legislative rule, 60 CSR 5, titled Antidegradation Implementation Procedures, on July 2, 2001. The text of 60 CSR 5 is the same as the text of the appendices that we are proposing to delete from 46 CSR 1¹. We are proposing to remove the Procedures from our rule consistent with the transfer of authority to the DEP.

In addition to removing the Appendices, we are making related revisions, which remove references elsewhere in the rule to those appendices. We also propose removing 8 definitions that correspond to the Procedures in Appendices F – F3.

2) Public Drinking Water Supply Designated Use - Category A (See §6.1, §6.2 and Appendix B).

As explained in our Responses to Comments document, our Notice of Public Hearing filed on May 29, 2001 included changes clarifying that the Public Drinking Water Supply designated use category (Category A) applies to all waters of the state. We also described in the Notice that the Board intended to develop a procedural rule allowing for the expedited removal of the Category A use designation from streams on a case by case basis, upon application. After holding our public hearing and reviewing the comments received, the Board has decided that it would be far more wise to have the procedural rule in place before proceeding with category A. We intend to begin development of the procedural rule as quickly as possible, and wait until after progress is made on that activity before proposing a change to the Water Quality Standards. Therefore, the changes proposed in our Notice of Hearing relating to this issue have been withdrawn.

¹ With the exception that some clerical changes were made to the Antidegradation Implementation Procedures in 60 CSR 5 – those are outlined in the WV DEP's July 2, 2001 filing.

□
APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: 46 CSR 1 - Requirements Governing Water Quality Standards

Type of Rule: X Legislative Interpretive Procedural

Agency: WV Environmental Quality Board

Address: 1615 Washington St., E., Suite 301

Charleston, WV 25311-2126

1. Effect of Proposed rule:

	ANNUAL FISCAL YEAR				
	INCREASE	DECREASE	CURRENT	NEXT	THEREAFTER
ESTIMATED TOTAL COST					
PERSONAL SERVICES					
CURRENT EXPENSE					
REPAIRS & ALTERATIONS					
EQUIPMENT					
OTHER					

2. Explanation of Above Estimates:

The sections proposed for removal from the rule have been incorporated into a new procedural rule by the WV Department of Environmental Protection (see 60 C.S.R. 5 - Antidegradation Implementation Procedures). Although implementation of the procedures may result in fiscal impact, the removal of the sections from this rule is not anticipated to have economic effects.

3. Objectives of These Rules:

To remove the Antidegradation Implementation Procedures contained in Appendices F, F1, F2, and F3 from the Rule; to remove definitions related to the antidegradation implementation procedures from the Rule; and to remove references to Appendices F, F1, F2 and F3 from the Rule.

Rule Title: 46 CSR 1 - Requirements Governing Water Quality Standards

4. Explanation of Overall Economic Impact of Proposed Rule:

A. Economic Impact on State Government:

None anticipated

B. Economic Impact on Political Subdivisions; Specific Industries; Specific Groups of Citizens:

None Anticipated

C. Economic Impact on Citizens/Public at Large.

None Anticipated

Date:

July 27, 01

Signature of Agency Head or Authorized Representative:

Elizabeth M. Chaffin

FILED

TITLE 46
LEGISLATIVE RULES
ENVIRONMENTAL QUALITY BOARD Jul 27 11 12 AM '01
SERIES 1
REQUIREMENTS GOVERNING WATER
QUALITY STANDARDS OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

§46-1-1. General.

1.1. Scope. -- These rules establish requirements governing the discharge or deposit of sewage, industrial wastes and other wastes into the waters of the state and establish water quality standards for the waters of the State standing or flowing over the surface of the State. It is declared to be the public policy of the State of West Virginia to maintain reasonable standards of purity and quality of the water of the State consistent with (1) public health and public enjoyment thereof; (2) the propagation and protection of animal, bird, fish, and other aquatic and plant life; and (3) the expansion of employment opportunities, maintenance and expansion of agriculture and the provision of a permanent foundation for healthy industrial development. (See W. Va. Code §22-11-2.)

1.2. Authority. -- W. Va. Code §22B-3-4

1.3. Filing Date. --

1.4. Effective Date. -

§46-1-2. Definitions.

The following definitions in addition to those set forth in W. Va. Code §22-11-3, shall apply to these rules unless otherwise specified herein, or unless the context in which used clearly requires a different meaning:

~~2.1. "Ambient Concentration" is that measured value or level of water quality downstream of the proposed or existing activity (discharge point for point source, runoff area for nonpoint source) for any parameter of concern determined through EPA-approved, collection and analytical methods in 40 CFR 136 or other methods accepted by the Chief.~~

~~2.2. "Ambient Water Quality Conditions" (AWQC) are those physical, chemical, biological and radiological conditions of the receiving waters of the state existing at the time of review of a regulated activity.~~

~~2.3. "Baseline Water Quality" is that ambient concentration established at the time of an initial antidegradation review under rules effective May 17, 2001, for a stream or stream segment or any other water(s) of the state.~~

~~2.4.~~ 2.1. "Board" is the Environmental Quality Board.

~~2.5.~~ 2.2. "Chief" is the Chief of the Office of Water Resources of the West Virginia Division of Environmental Protection.

~~2.6.~~ 2.3. "Conventional treatment" is the treatment of water as approved by the West Virginia Bureau for Public Health to assure that the water is safe for human consumption.

~~2.7.~~ 2.4. "Cumulative" means a pollutant which increases in concentration in an organism by successive additions at different times or in different ways (bio-accumulation).

~~2.8.~~ 2.5. "Designated uses" are those uses specified in water quality standards for each water body or segment whether or not they are being attained. (See sections 6.2 - 6.6, herein)

~~2.9.~~ 2.6. "Director" is the Director of the West Virginia Division of Environmental Protection.

~~2.10.~~ 2.7. "Dissolved metal" is operationally defined as that portion of metal which passes through a 0.45 micron filter.

~~2.11.~~ 2.8. "Existing uses" are those uses actually attained in a water body on or after November 28, 1975, whether or not they are included in the water quality standards.

~~2.12.~~ 2.9. The "Federal Act" means the Clean Water Act (also known as the Federal Water Pollution Control Act) 33 U.S.C. § 1251 - 1387.

~~2.13.~~ 2.10. "High quality waters" are those waters whose quality is equal to or better than the minimum levels necessary to achieve the national water quality goal uses.

~~2.14.~~ 2.11. "Intermittent streams" are streams which have no flow during sustained periods of no precipitation and which do not support aquatic life whose life history requires residence in flowing waters for a continuous period of at least six (6) months.

~~2.15.~~ 2.12. "Outstanding national resource waters" are those

waters whose unique character, ecological or recreational value or pristine nature constitutes a valuable national or State resource.

~~2.16.~~ 2.13. "Natural" or "naturally occurring" values or "natural temperature" shall mean for all of the waters of the state:

~~2.16.a.~~ 2.13.a. Those water quality values which exist unaffected by -- or unaffected as a consequence of -- any water use by any person; and

~~2.16.b.~~ 2.13.b. Those water quality values which exist unaffected by the discharge, or direct or indirect deposit of, any solid, liquid or gaseous substance from any point source or non-point source.

~~2.17.~~ 2.14. "Non-point source" shall mean any source other than a point source from which pollutants may reach the waters of the state.

~~2.18. "Parameter of concern" means any parameter for which numeric water quality criteria have been adopted in 46 CSR 1 and any other parameter for which numeric criteria are not established but where the discharge of such parameter has a reasonable potential to either cause or contribute to a violation of the narrative criteria outlined under 46 CSR 1, section 3.~~

~~2.19.~~ 2.15. "Persistent" shall mean a pollutant and its transformation products which under natural conditions degrade slowly in an aquatic environment.

~~2.20.~~ 2.16. "Point source" shall mean any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

~~2.21. "Reasonable less-degrading or non-degrading alternatives" shall be identified based on case specific information (as outlined in section 4C.4.a. of Appendix F, herein). Generally speaking, less-degrading or non-degrading pollution control alternatives shall be considered reasonable where the costs of such alternatives are less than 110% of the costs of the pollution control measures associated with the proposed activity.~~

~~2.22. "Regulated activity" includes 1) any activity that requires a permit or a water quality certification pursuant to state or federal law (e.g., Clean Water Act §402 NPDES permits, Clean Water Act §404 dredge and fill permits, or any activity requiring a Clean Water Act §401 certification); 2) any activity subject to nonpoint source control requirements or regulations; and 3) any activity which is otherwise subject to state requirements and regulations developed to protect water quality. The term "proposed activity" means a proposed activity that is also a regulated activity.~~

2.23. 2.17. "Representative important species of aquatic life" shall mean those species of aquatic life whose protection and propagation will assure the sustained presence of a balanced aquatic community. Such species are representative in the sense that maintenance of water quality criteria will assure both the natural completion of the species' life cycles and the overall protection and sustained propagation of the balanced aquatic community.

2.24. 2.18. The "State Act" or "State Law" shall mean the West Virginia Water Pollution Control Act, W. Va. Code §22-11-1.

2.25. 2.19. "Total recoverable" refers to the digestion procedure for certain heavy metals as referenced in 40 CFR 136, as amended June 15, 1990, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act.

~~2.26. "Trading" means establishing upstream controls for a parameter of concern to compensate for new or increased downstream sources for the same parameter resulting in improved water quality for the parameter traded. More than one parameter of concern may be traded on a given stream. Trading may involve point sources, nonpoint sources or a combination of point and nonpoint sources. Unused permitted capacity cannot be traded.~~

~~2.27. "Trading Assessment Procedure" means methodologies to be used by the Director to document the basis for any trade allowed in sections 4B, 4C and 4D of Appendix F, herein, are EPA's Total Maximum Daily Load Procedures (40 CFR 130.2(i)), wasteload allocation procedures outlined in EPA's Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001 PB91-127415, March 1991), wasteload allocation methodologies outlined in EPA's Draft Framework for Watershed-Based Trading (EPA/800-R-96-001, May 1996) or other EPA approved wasteload allocation methodologies as long as these methodologies are consistent with the trading provisions of this rule.~~

2.28. 2.20. "Trout waters" are streams or stream segments

which sustain year-round trout populations. Excluded are those streams or stream segments which receive annual stockings of trout but which do not support year-round trout populations.

~~2.29.~~ 2.21. "Water of special concern" are those waters occurring in the categories outlined in section 4.1.c. of the antidegradation policy. This designation provides an intermediate level of antidegradation protection between high quality waters and outstanding national resource waters.

~~2.30~~ 2.22. "Water quality criteria" shall mean levels of parameters or stream conditions that are required to be maintained by these regulations. Criteria may be expressed as a constituent concentration, levels, or narrative statement, representing a quality of water that supports a designated use or uses.

~~2.31.~~ 2.23. "Water quality standards" means the combination of water uses to be protected and the water quality criteria to be maintained by these rules.

~~2.32.~~ 2.24. "Wetlands" are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

~~2.33.~~ 2.25. "Wet weather streams" are streams that flow only in direct response to precipitation or whose channels are at all times above the water table.

§46-1-3. Conditions Not Allowable In State Waters.

3.1. Certain characteristics of sewage, industrial wastes and other wastes cause pollution and are objectionable in all waters of the state. Therefore, the Environmental Quality Board does hereby proclaim that the following general conditions are not to be allowed in any of the waters of the state.

3.2. No sewage, industrial wastes or other wastes present in any of the waters of the state shall cause therein or materially contribute to any of the following conditions thereof:

3.2.a. Distinctly visible floating or settleable solids, suspended solids, scum, foam or oily slicks;

3.2.b. Deposits or sludge banks on the bottom;

3.2.c. Odors in the vicinity of the waters;

3.2.d. Taste or odor that would adversely affect the designated uses of the affected waters;

3.2.e. Materials in concentrations which are harmful, hazardous or toxic to man, animal or aquatic life;

3.2.f. Distinctly visible color;

3.2.g. Concentrations of bacteria which may impair or interfere with the designated uses of the affected waters;

3.2.h. Requiring an unreasonable degree of treatment for the production of potable water by modern water treatment processes as commonly employed; and

3.2.i. Any other condition, including radiological exposure, which adversely alters the integrity of the waters of the State including wetlands; no significant adverse impact to the chemical, physical, hydrologic, or biological components of aquatic ecosystems shall be allowed.

§46-1-4. Antidegradation Policy.

4.1. It is the policy of the State of West Virginia that the waters of the state shall be maintained and protected as follows:

4.1.a. Tier 1 Protection. Existing water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. Existing uses are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included as designated uses within these water quality standards.

4.1.b. Tier 2 Protection. The existing high quality waters of the state must be maintained at their existing high quality unless it is determined after satisfaction of the intergovernmental coordination of the state's continuing planning process and opportunity for public comment and hearing that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. If limited degradation is allowed, it shall not result in injury or interference with existing stream water uses or in violation of state or federal water quality criteria that describe the base levels necessary to sustain the national water quality goal uses of protection and propagation of fish, shellfish and wildlife and recreating in and on the water.

In addition, the Board and the Director shall assure that all new and existing point sources shall achieve the highest established statutory and regulatory requirements applicable to them and shall assure the achievement of cost-effective and reasonable best management practices (BMPs) for non-point source control. If BMPs are demonstrated to be inadequate to reduce or minimize water quality impacts, the Director may require that more appropriate BMPs be developed and applied.

4.1.b.1. High quality waters are those waters meeting the definition at section ~~2.13~~ 2.10 herein ~~and section 4E.1. of Appendix F, herein.~~

4.1.b.2. High quality waters may include but are not limited to the following:

4.1.b.2.A. Streams designated by the West Virginia Legislature under the West Virginia Natural Stream Preservation Act, pursuant to W. Va. Code §22-13-5; and

4.1.b.2.B. Streams listed in West Virginia High Quality Streams, Fifth Edition, prepared by the Wildlife Resources Division, Department of Natural Resources (1986).

4.1.b.2.C. Streams or stream segments which receive annual stockings of trout but which do not support year-round trout populations.

4.1.c. Tier 2.5 Protection. Waters of special concern include all of those waters listed in ~~Appendix F-2 herein~~ 60 C.S.R. 5, Appendix A. Waters of special concern may include, but are not limited to naturally reproducing trout streams, federally designated rivers under the "Wild and Scenic Rivers Act," 16 U.S.C. §§ 1271 et seq., waters in state parks and forests, waters in National parks and forests, waters designated under the "National Parks and Recreation Act of 1978," and waters with unique or exceptional aesthetic, ecological, or recreational value. Waters may be nominated for inclusion in this category by any interested party or by the Board on its own initiative.

4.1.d. Tier 3 Protection. In all cases, waters which constitute an outstanding national resource shall be maintained and protected and improved where necessary. Outstanding national resource waters include, but are not limited to, all streams and rivers within the boundaries of Wilderness Areas designated by The Wilderness Act (16 U.S.C. §1131 et seq.) within the State.

Additional waters may be nominated for inclusion in that category by any interested party or by the Board on its own

category by any interested party or by the Board on its own initiative. To designate a nominated water as an outstanding national resource water, the Board shall follow the public notice and hearing provisions as provided in 46 C.S.R. 6.

4.1.e. All applicable requirements of section 316(a) of the Federal Act shall apply to modifications of the temperature water quality criteria provided for in these rules.

§46-1-5. Mixing Zones.

5.1. In the permit review and planning process or upon the request of a permit applicant or permittee, the Chief may establish on a case-by-case basis an appropriate mixing zone.

5.2. The following guidelines and conditions are applicable to all mixing zones:

5.2.a. The Chief will assign, on a case-by-case basis, definable geometric limits for mixing zones for a discharge or a pollutant or pollutants within a discharge. Applicable limits shall include, but may not be limited to, the linear distances from the point of discharge, surface area involvement, volume of receiving water, and shall take into account other nearby mixing zones. Mixing zones shall take into account the mixing conditions in the receiving stream (i.e: whether complete or incomplete mixing conditions exist). Mixing zones will not be allowed until applicable limits are assigned by the Chief in accordance with this section.

5.2.b. Concentrations of pollutants which exceed the acute criteria for protection of aquatic life set forth in Appendix E, Table 1 shall not exist at any point within an assigned mixing zone or in the discharge itself unless a zone of initial dilution is assigned. A zone of initial dilution may be assigned on a case-by-case basis at the discretion of the Chief. The zone of initial dilution is the area within the mixing zone where initial dilution of the effluent with the receiving water occurs, and where the concentration of the effluent will be its greatest in the water column. Where a zone of initial dilution is assigned by the Chief, the size of the zone shall be determined using one of the four alternatives outlined in section 4.3.3 of US EPA's Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001 PB91-127415, March 1991). Concentrations of pollutants shall not exceed the acute criteria at the edge of the assigned zone of initial dilution. Chronic criteria for the protection of aquatic life may be exceeded within the mixing zone but shall be met at the edge of the assigned mixing zone.

5.2.c. Concentrations of pollutants which exceed the criteria for the protection of human health set forth in Appendix E, Table 1 shall not be allowed at any point unless a mixing zone has been assigned by the Chief after consultation with the Commissioner of the West Virginia Bureau for Public Health. Human health criteria may be exceeded within an assigned mixing zone, but shall be met at the edge of the assigned mixing zone. Mixing zones for human health criteria shall be sized to prevent significant human health risks and shall be developed using reasonable assumptions about exposure pathways. In assessing the potential human health risks of establishing a mixing zone upstream from a drinking water intake, the Chief shall consider the cumulative effects of multiple discharges and mixing zones on the drinking water intake. No mixing zone for human health criteria shall be established on a stream which has a seven (7) day, ten (10) year return frequency of 5 cfs or less.

5.2.d. Mixing zones, including zones of initial dilution, shall not interfere with fish spawning or nursery areas or fish migration routes; shall not overlap public water supply intakes or bathing areas; cause lethality to or preclude the free passage of fish or other aquatic life; nor harm any threatened or endangered species, as listed in the Federal Endangered Species Act, 15 U.S.C. §1531 et seq.

5.2.e. The mixing zone shall not exceed one-third ($1/3$) of the width of the receiving stream, and in no case shall the mixing zone exceed one-half ($1/2$) of the cross-sectional area of the receiving stream.

5.2.f. In lakes and other surface impoundments, the volume of a mixing zone shall not affect in excess of ten (10) percent of the volume of that portion of the receiving waters available for mixing.

5.2.g. A mixing zone shall be limited to an area or volume which will not adversely alter the existing or designated uses of the receiving water, nor be so large as to adversely affect the integrity of the water body.

5.2.h. Mixing zones shall not:

5.2.h.1. Be used for, or considered as, a substitute for technology-based requirements of the Act and other applicable state and federal laws.

5.2.h.2. Extend downstream at any time a distance more than five times the width of the receiving watercourse at the point of discharge.

5.2.h.3. Cause or contribute to any of the conditions prohibited in section 3, herein.

5.2.h.4. Be granted where instream waste concentration of a discharge is greater than 80%.

5.2.h.5. Overlap one another.

5.2.h.6. Overlap any 1/2 mile zone described in section 7.2.a.2 herein.

5.2.i. In the case of thermal discharges, a successful demonstration conducted under section 316(a) of the Act shall constitute compliance with all provisions of this section.

5.2.j. The Chief may waive the requirements of subsections 5.2.e and 5.2.h.2 above if a discharger provides an acceptable demonstration of:

5.2.j.1. Information defining the actual boundaries of the mixing zone in question; and

5.2.j.2. Information and data proving no violation of subsections 5.2.d and 5.2.g above by the mixing zone in question.

5.2.k. Upon implementation of a mixing zone in a permit, the permittee shall provide documentation that demonstrates to the satisfaction of the Chief that the mixing zone is in compliance with the provisions outlined in subsections 5.2.b, 5.2.c, 5.2.e, and 5.2.h.2, herein.

5.2.l. In order to facilitate a determination or assessment of a mixing zone pursuant to this section, the Chief may require a permit applicant or permittee to submit such information as deemed necessary.

S46-1-6. Water Use Categories.

6.1. These rules establish general Water Use Categories and Water Quality Standards for the waters of the State. Unless otherwise designated by these rules, at a minimum all waters of the State are designated for the Propagation and Maintenance of Fish and Other Aquatic Life (Category B) and for Water Contact Recreation (Category C) consistent with Federal Act goals. Incidental utilization for whatever purpose may or may not constitute a justification for assignment of a water use category to a particular stream segment.

6.1.a. Waste assimilation and transport are not recognized as designated uses. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation.

Subcategories of a use may be adopted and appropriate criteria set to reflect varying needs of such subcategories of uses, for example to differentiate between trout water and other waters.

6.1.b. At a minimum, uses are deemed attainable if they can be achieved by the imposition of effluent limits required under section 301(b) and section 306 of the Federal Act and use of cost-effective and reasonable best management practices for non-point source control. Seasonal uses may be adopted as an alternative to reclassifying a water body or segment thereof to uses requiring less stringent water quality criteria. If seasonal uses are adopted, water quality criteria will be adjusted to reflect the seasonal uses; however, such criteria shall not preclude the attainment and maintenance of a more protective use in another season. A designated use which is not an existing use may be removed, or subcategories of a use may be established if it can be demonstrated that attaining the designated use is not feasible because:

6.1.b.1. Application of effluent limitations for existing sources more stringent than those required pursuant to section 301 (b) and section 306 of the Federal Act in order to attain the existing designated use would result in substantial and widespread adverse economic and social impact; or

6.1.b.2. Naturally-occurring pollutant concentrations prevent the attainment of the use; or

6.1.b.3. Natural, ephemeral, intermittent or low flow conditions of water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges to enable uses to be met; or

6.1.b.4. Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

6.1.b.5. Dams, diversions or other types of

hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; or

6.1.b.6. Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses.

6.1.c. The State shall take into consideration the quality of downstream waters and shall assure that its water quality standards provide for the attainment of the water quality standards of downstream waters.

6.1.d. In establishing a less restrictive use or uses, or subcategory of use or uses, and the water quality criteria based upon such uses, the Board shall follow the requirements for revision of water quality standards as required by W. Va. Code §22B-3-4 and section 303 of the Federal Act and the regulations thereunder. Any revision of water quality standards shall be made with the concurrence of EPA. The Board's administrative procedural regulations for applying for less restrictive uses or criteria shall be followed.

6.2. Category A -- Water Supply, Public. -- This category is used to describe waters which, after conventional treatment, are used for human consumption. This category includes streams on which the following are located:

6.2.a. All community domestic water supply systems;

6.2.b. All non-community domestic water supply systems, (i.e. hospitals, schools, etc.);

6.2.c. All private domestic water systems;

6.2.d. All other surface water intakes where the water is used for human consumption. (See Appendix B for partial listing of Category A waters; see section 7.2.a.2, herein for additional requirements for Category A waters.) The manganese human health criteria shall not apply where the discharge point of the manganese is located more than five miles upstream from a known drinking water source.

6.3. Category B -- Propagation and maintenance of fish and other aquatic life. --

This category includes:

6.3.a. Category B1 -- Warm water fishery streams.
-- Streams or stream segments which contain populations composed of all warm water aquatic life.

6.3.b. Category B2 -- Trout Waters. -- As defined in section ~~2.20~~ 2.20, herein (See Appendix A for a representative list.)

6.3.c. Category B4 -- Wetlands. -- As defined in section ~~2.32~~ 2.24, herein; certain numeric stream criteria may not be appropriate for application to wetlands (see Appendix E, Table 1).

6.4. Category C -- Water contact recreation. -- This category includes swimming, fishing, water skiing and certain types of pleasure boating such as sailing in very small craft and outboard motor boats. (See Appendix D for a representative list of category C waters.)

6.5. Category D. -- Agriculture and wildlife uses.

6.5.a. Category D1 -- Irrigation. -- This category includes all stream segments used for irrigation.

6.5.b. Category D2 -- Livestock watering. -- This category includes all stream segments used for livestock watering.

6.5.c. Category D3 -- Wildlife. -- This category includes all stream segments and wetlands used by wildlife.

6.6. Category E -- Water supply industrial, water transport, cooling and power. -- This category includes cooling water, industrial water supply, power production, commercial and pleasure vessel activity, except those small craft included in Category C.

6.6.a. Category E1 -- Water Transport. -- This category includes all stream segments modified for water transport and having permanently maintained navigation aides.

6.6.b. Category E2 -- Cooling Water. -- This category includes all stream segments having one (1) or more users for industrial cooling.

6.6.c. Category E3 -- Power production. -- This category includes all stream segments extending from a point 500 feet upstream from the intake to a point one half (1/2) mile

below the wastewater discharge point. (See Appendix C for representative list.)

6.6.d. Category E4 -- Industrial. -- This category is used to describe all stream segments with one (1) or more industrial users. It does not include water for cooling.

\$46-1-7. West Virginia Waters.

7.1. Major River Basins and their Alphanumeric System. All streams and their tributaries in West Virginia shall be individually identified using an alphanumeric system as identified in the "Key to West Virginia Stream Systems and Major Tributaries" (1956) as published by the Conservation Commission of West Virginia and revised by the West Virginia Department of Natural Resources, Division of Wildlife (1985).

7.1.a. J - James River Basin. All tributaries to the West Virginia - Virginia State line.

7.1.b. P - Potomac River Basin. All tributaries of the main stem of the Potomac River to the West Virginia - Maryland - Virginia State line to the confluence of the North Branch and the South Branch of the Potomac River and all tributaries arising in West Virginia excluding the major tributaries hereinafter designated:

7.1.b.1. S - Shenandoah River and all its tributaries arising in West Virginia to the West Virginia - Virginia State line.

7.1.b.2. PC - Cacapon River and all its tributaries.

7.1.b.3. PSB - South Branch and all its tributaries.

7.1.b.4. PNB - North Branch and all tributaries to the North Branch arising in West Virginia.

7.1.c. M - Monongahela River Basin. The Monongahela River Basin main stem and all its tributaries excluding the following major tributaries which are designated as follows:

7.1.c.1. MC - Cheat River and all its tributaries except those listed below:

7.1.c.1.A. MCB - Blackwater River and all its tributaries.

7.1.c.2. MW - West Fork River and all its tributaries.

7.1.c.3. MT - Tygart River and all its tributaries except those listed below:

7.1.c.3.A. MTB - Buckhannon River and all its tributaries.

7.1.c.3.B. MTM - Middle Fork River and all its tributaries.

7.1.c.4. MY - Youghigheny River and all its tributaries to the West Virginia - Maryland State line.

7.1.d. O Zone 1 - Ohio River - Main Stem. The main stem of the Ohio River from the Ohio - Pennsylvania - West Virginia state line to the Ohio - Kentucky - West Virginia State line.

7.1.e. O Zone 2 - Ohio River - Tributaries. All tributaries of the Ohio River excluding the following major tributaries:

7.1.e.1. LK - Little Kanawha River. The Little Kanawha River and all its tributaries excluding the following major tributary which is designated as follows:

7.1.e.1.A. LKH - Hughes River and all its tributaries.

7.1.e.2. K - Kanawha River Zone 1. The main stem of the Kanawha River from mile point 0, at its confluence with the Ohio River, to mile point 72 near Diamond, West Virginia.

7.1.e.3. K - Kanawha River Zone 2. The main stem of the Kanawha River from mile point 72 near Diamond, West Virginia and all its tributaries from mile point 0 to the headwaters excluding the following major tributaries which are designated as follows:

7.1.e.3.A. KP - Pocatalico River and all its tributaries.

7.1.e.3.B. KC - Coal River and all its tributaries.

7.1.e.3.C. KE - Elk River and all its

tributaries.

7.1.e.3.D. KG - Gauley River. The Gauley River and all its tributaries excluding the following major tributaries which are designated as follows:

7.1.e.3.D.1. KG-19 - Meadow River and all its tributaries.

7.1.e.3.D.2. KG-34 - Cherry River and all its tributaries.

7.1.e.3.D.3. KGC - Cranberry River and all its tributaries.

7.1.e.3.D.4. KGW - Williams River and all its tributaries.

7.1.e.3.E. KN - New River. The New River from its confluence with the Gauley River to the Virginia - West Virginia State line and all tributaries excluding the following major tributaries which are designated as follows:

7.1.e.3.E.1. KNG - Greenbrier River and all its tributaries.

7.1.e.3.E.2. KNB - Bluestone River and all its tributaries.

7.1.e.3.E.3. KN-60 - East River and all its tributaries.

7.1.e.3.E.4. K(L)-81-(1) - Bluestone Lake.

7.1.e.4. OG - Guyandotte River. The Guyandotte River and all its tributaries excluding the following major tributary which is designated as follows:

7.1.e.4.1. OGM - Mud River and all its tributaries.

7.1.e.5. BS - Big Sandy River. The Big Sandy River to the Kentucky - Virginia - West Virginia State lines and all its tributaries arising in West Virginia excluding the following major tributary which is designated as follows:

7.1.e.5.1 BST - Tug Fork and all its tributaries.

7.2. Applicability of Water Quality Standards. The following shall apply at all times unless a specific exception is granted in this section:

7.2.a. Water Use Categories as described in section 6, herein.

7.2.a.1. Based on meeting those Section 6 definitions, tributaries or stream segments may be classified for one or more Water Use Categories. When more than one use exists, they shall be protected by criteria for the use category requiring the most stringent protection.

7.2.a.2. Each segment extending upstream from the intake of a water supply public (Water Use Category A), for a distance of one half (1/2) mile or to the headwater, must be protected by prohibiting the discharge of any pollutants in excess of the concentrations designated for this Water Use Category in section 8, herein. In addition, within that one half (1/2) mile zone, the Chief may establish for any discharge, effluent limitations for the protection of human health that require additional removal of pollutants than would otherwise be provided by this rule. (If a watershed is not significantly larger than this zone above the intake, the water supply section may include the entire upstream watershed to its headwaters.) Until June 30, 2003, the one-half mile zone described in this section shall not apply to the Ohio River main channel (between Brown's Island and the left descending bank) between river mile points 61.0 and 63.5.

7.2.b. In the absence of any special application or contrary provision, water quality standards shall apply at all times when flows are equal to or greater than the minimum mean seven (7) consecutive day drought flow with a ten (10) year return frequency (7Q10). NOTE: With the exception of section 7.2.c.5 listed herein exceptions do not apply to trout waters nor to the requirements of section 3, herein.

7.2.c. Exceptions: Numeric water quality standards shall not apply: (See section 7.2.d, herein, for site-specific revisions)

7.2.c.1. When the flow is less than 7Q10;

7.2.c.2. In wet weather streams (or intermittent streams, when they are dry or have no measurable flow): Provided, That the existing and designated uses of downstream waters are not adversely affected;

7.2.c.3. In any assigned zone of initial dilution of any mixing zone where a zone of initial dilution is required by section 5.2.b herein, or in any assigned mixing zone for human health criteria or aquatic life criteria for which a zone of initial dilution is not assigned; In zones of initial dilution and certain mixing zones: Provided, That all requirements described in section 5 herein shall apply to all zones of initial dilution and all mixing zones;

7.2.c.4. Where, on the basis of natural conditions, the Board has established a site-specific aquatic life water quality criterion that modifies a water quality criterion set out in Appendix E, Table 1 of this rule. Where a natural condition of a waterbody is demonstrated to be of lower quality than a water quality criterion for the use classes and subclasses in section 6 of this rule, the Board, in its discretion, may establish a site-specific water quality criterion for aquatic life. This alternate criterion may only serve as the chronic criterion established for that parameter. This alternate criterion must be met at end of pipe. Where the Board decides to establish a site-specific water quality criterion for aquatic life, the natural condition constitutes the applicable water quality criterion. A site-specific criterion for natural conditions may only be established through the legislative rulemaking process in accordance with W.Va. Code §29A-3-1 et seq. and must satisfy the public participation requirements set forth at 40 C.F.R. 131.20 and 40 C.F.R. Part 25. Site-specific criteria for natural conditions may be established only for aquatic life criteria. A public notice, hearing and comment period is required before site-specific criteria for natural conditions are established.

Upon application or on its own initiative, the Board will determine whether a natural condition of a waterbody should be approved as a site-specific water quality criterion. Before it approves a site-specific water quality criterion for a natural condition, the Board must find that the natural condition will fully protect existing and designated uses and ensure the protection of aquatic life. If a natural condition of a waterbody varies with time, the natural condition will be determined to be the actual natural condition of the waterbody measured prior to or concurrent with discharge or operation. The Board will, in its discretion, determine a natural condition for one or more seasonal or shorter periods to reflect variable ambient conditions; and require additional or continuing monitoring of natural conditions.

An application for a site-specific criterion to be

established on the basis of natural conditions shall be filed with the Board and shall include the following information:

7.2.c.4.A. A U.S.G.S. 7.5 minute map showing the stream segment affected and showing all existing discharge points and proposed discharge point;

7.2.c.4.B. The alphanumeric code of the affected stream, if known;

7.2.c.4.C. Water quality data for the stream or stream segment. Where adequate data are unavailable, additional studies may be required by the Board;

7.2.c.4.D. General land uses (e.g. mining, agricultural, recreation, residential, commercial, industrial, etc.) as well as specific land uses adjacent to the waters for the affected segment or stream;

7.2.c.4.E. The existing and designated uses of the receiving waters into which the segment in question discharges and the location where those downstream uses begin to occur;

7.2.c.4.F. General physical characteristics of the stream segment, including, but not limited to width, depth, bottom composition and slope;

7.2.c.4.G. Conclusive information and data of the source of the natural condition that causes the stream to exceed the water quality standard for the criterion at issue.

7.2.c.4.H. The average flow rate in the segment and the amount of flow at a designated control point and a statement regarding whether the flow of the stream is ephemeral, intermittent or perennial;

7.2.c.4.I. An assessment of aquatic life in the stream or stream segment in question and in the adjacent upstream and downstream segments; and

7.2.c.4.J. Any additional information or data that the Board deems necessary to make a decision on the application.

7.2.c.5. For the upper Blackwater River from the mouth of Yellow Creek to a point 5.1 miles upstream, when flow is less than 7Q10. Naturally occurring values for Dissolved Oxygen as established by data collected by the dischargers within this

reach and reviewed by the Board and Division of Environmental Protection shall be the applicable criteria.

7.2.d. Site-specific applicability of water use categories and water quality criteria - State-wide water quality standards shall apply except where site-specific numeric criteria, variances or use removals have been approved following application and hearing, as provided in 46 C.S.R. 6. (See section 8.3 and section 8.4, herein) The following are approved site-specific criteria, variances and use reclassifications:

7.2.d.1. James River - (Reserved)

7.2.d.2. Potomac River

7.2.d.2.1. Except that a site-specific numeric criterion for aluminum, not to exceed 500 ug/l, shall apply to the section of Opequon Creek from Turkey Run to the Potomac River.

7.2.d.3. Shenandoah River - (Reserved)

7.2.d.4. Cacapon River - (Reserved)

7.2.d.5. South Branch - (Reserved)

7.2.d.6. North Branch

7.2.d.6.1 Except that the Stony River downstream from the limit of the thermal mixing zone (as established by Board Order of 11/20/75) for the Mount Storm Lake wastewater treatment facility to its confluence with the North Branch of the Potomac River is exempt from the 5°F above natural temperature rise; however, the maximum temperature outside the mixing zone shall not exceed 87°F at any time during the months of May through November and not exceed 73°F at any time during the months of December through April. This exception shall apply until the successful completion of a study conducted pursuant to section 316(a) of the Federal Act or December 31, 1998, whichever comes first.

7.2.d.7. Monongahela River

7.2.d.7.1. Except that flow in the main stem of the Monongahela River, as regulated by the Tygart Reservoir, operated by the U. S. Army Corps of Engineers, is based on a minimum flow of 345 cfs at Lock and Dam No. 8, river mile point 90.8. This exception does not apply to tributaries of the Monongahela River.

7.2.d.8. Cheat River

7.2.d.8.1. Except that in the unnamed tributary of Daugherty Run, approximately one mile upstream of Daugherty Run's confluence with the Cheat River, a site-specific numeric criterion for iron of 3.5 mg/l shall apply and the following frequency and duration requirements shall apply to the chronic numeric criterion for selenium (5ug/l): the four-day average concentration shall not be exceeded more than three times every three years (36 months), on average. Further, the following site-specific numeric criteria shall apply to Fly Ash Run of Daugherty Run: acute numeric criterion for aluminum: 888.5 ug/l and manganese: 5 mg/l.

7.2.d.9. Blackwater River - The Blackwater River below Davis, West Virginia shall be classified as a trout water, Category B2.

7.2.d.10. West Fork River - (Reserved)

7.2.d.11. Tygart River - (Reserved)

7.2.d.12. Buckhannon River - (Reserved)

7.2.d.13. Middle Fork River - (Reserved)

7.2.d.14. Youghiogheny River

7.2.d.14.1 Water Use Categories A and E are excluded from the tributaries of the Youghiogheny River in West Virginia which flow into Maryland.

7.2.d.15. Ohio River Main Stem - (Reserved)

7.2.d.16. Ohio River Tributaries.

7.2.d.16.1. Except that site-specific numeric criteria shall apply to the stretch of Conners Run (0-77-A), a tributary of Fish Creek, from its mouth to the discharge from Conner Run impoundment, which shall not have the Water Use Category A and may contain selenium not to exceed 62 ug/l; and iron not to exceed 3.5 mg/l as a monthly average and 7 mg/l as a daily maximum.

7.2.d.16.2. Except that a socio-economic variance shall apply to that segment of Harmon Creek (0-97) from its confluence with the Ohio River to a point 2.2 miles upstream, which shall not have water use Category A designation, and which

shall have the following instream criteria: Lead 14 ug/l, Daily Maximum, Zinc 181 ug/l, Daily Maximum, Temperature 100 degree F (monitored per Footnote 12 of the permit); Iron 4.0 mg/l, Monthly Average and 8.0 mg/l, Daily Maximum (monitored per Footnote 12 of the permit). Provided, however, that the criteria for Lead, Zinc, Temperature and Iron shall not apply, and instead the state-wide criteria for these parameters shall apply, unless: Weirton Steel Corporation (1) submits to the Office of Water Resources on or before January 31, 2001 a report setting forth the water quality of the discharge from Outlet 004 for these parameters during calendar year 2000; (2) offers further proposals for any appropriate reductions in the above excepted levels; (3) provides any appropriate additional engineering analysis of potential alternatives for reducing further the concentrations of said parameters in the discharge toward achieving statewide criteria; and (4) continues to submit to the Office of Water Resources on a semi-annual basis, summary reports on the water quality of the discharge from Outlet 004 and the efforts made by Weirton Steel Corporation during the prior six (6) months to improve the quality of said discharge. Additionally Weirton Steel must determine the water quality of Harmon Creek both immediately upstream of and below the discharge of outlet 004 at the Con Rail Bridge by sampling for Flow, pH, Total and Dissolved Lead, Total and Dissolved Zinc, Iron, Fluoride, Temperature, Turbidity, Oil and Grease and Hardness on at least a monthly basis and submit the results to the Office of Water Resources with the semi-annual report. These exceptions shall be in effect until action by the Environmental Quality Board to revise such exceptions or until June 29, 2004, whichever comes first.

7.2.d.17. Little Kanawha River - (Reserved)

7.2.d.18. Hughes River - (Reserved)

7.2.d.19. Kanawha River Zone 1 - Main Stem

7.2.d.19.1 For the Kanawha River main stem, Zone 1, Water Use Category A shall not apply; and

7.2.d.19.2. The minimum flow shall be 1,960 cfs at the Charleston gauge.

7.2.d.20. Kanawha River Zone 2 and Tributaries.

7.2.d.20.1. For the main stem of the Kanawha River only, the minimum flow shall be 1,896 cfs at mile point 72.

7.2.d.20.2. Except the stretch between the mouth of Little Scary Creek (K-31) and the Little Scary impoundment shall not have Water Use Category A. The following site-specific numeric criteria shall apply to that section: selenium not to exceed 62 ug/l and copper not to exceed 105 ug/l as a daily maximum nor 49 ug/l as a 4-day average.

7.2.d.20.3. Except for Simmons Creek (K-54) from its mouth to a point 1200 feet upstream to which the following site-specific numeric criteria shall apply: a maximum daily temperature not to exceed 38°C (100°F) nor a monthly average temperature to exceed 34°C. This exception shall apply until the successful completion of a study conducted pursuant to section 316(a) of the Federal Act or May 30, 1998, whichever comes first.

- 7.2.d.21. Pocatalico River - (Reserved)
- 7.2.d.22. Coal River - (Reserved)
- 7.2.d.23. Elk River - (Reserved)
- 7.2.d.24. Gauley River - (Reserved)
- 7.2.d.25. Meadow River - (Reserved)
- 7.2.d.26. Cherry River - (Reserved)
- 7.2.d.27. Cranberry River - (Reserved)
- 7.2.d.28. Williams River - (Reserved)
- 7.2.d.29. New River - (Reserved)
- 7.2.d.30. Greenbrier River - (Reserved)
- 7.2.d.31. Bluestone River - (Reserved)
- 7.2.d.32. Bluestone Lake
- 7.2.d.33. East River - (Reserved)
- 7.2.d.34. Guyandotte River - (Reserved)
- 7.2.d.35. Mud River - (Reserved)
- 7.2.d.36. Big Sandy River - (Reserved)
- 7.2.d.37. Tug Fork River - (Reserved)

§46-1-8. Specific Water Quality Criteria.

8.1. Charts of specific water quality criteria are included in Appendix E, Table 1.

8.1.a. Specific state (i.e. total, total recoverable, dissolved, valence, etc.) of any parameter to be analyzed shall follow 40 CFR 136, Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act, as amended, June 15, 1990. (See also 47 C.S.R. 10, section 7.3 - National Pollutant Discharge Elimination System (NPDES) Program.)

8.1.b. Compliance with aquatic life water quality criteria expressed as dissolved metal shall be determined based on dissolved metals concentrations.

8.1.b.1. The aquatic life criteria for all metals listed in Appendix E, Table 2 shall be converted to a dissolved concentration by multiplying each numerical value or criterion equation from Appendix E, Table 1 by the appropriate conversion factor (CF) from Appendix E, Table 2.

8.1.b.2. Permit limits based on dissolved metal water quality criteria shall be prepared in accordance with the U.S. EPA document "The Metals Translator: Guidance For Calculating A Total Recoverable Permit Limit From A Dissolved Criterion, EPA 823-B-96-007 June 1996.

8.1.b.3. NPDES permit applicants may petition the Office of Water Resources of the Division of Environmental Protection (OWR) to develop a site-specific translator consistent with the provisions in this section. The OWR may, on a case-by-case basis require an applicant applying for a translator to conduct appropriate sediment monitoring through SEM/AVS ratio, bioassay or other approved methods to evaluate effluent limits that prevent toxicity to aquatic life.

8.1.c. An "X" or numerical value in the use columns of Appendix E, Table 1 shall represent the applicable criteria.

8.1.d. Charts of water quality criteria in Appendix E, Table 1 shall be applied in accordance with major stream and use applications, sections 6 and 7, herein.

8.2. Criteria for Toxicants

8.2.a. Toxicants which are carcinogenic have human health criteria (Water Use Categories A and C) based upon an estimated risk level of one additional cancer case per one

million persons (10^{-6}) and are indicated in Appendix E, Table 1 with an endnote ^(b).

8.2.b. A final determination on the critical design flow for carcinogens is not made in this rule, in order to permit further review and study of that issue. Following the conclusion of such review and study, the Legislature may again take up the authorization of this rule for purposes of addressing the critical design flow for carcinogens: Provided, That until such time as the review and study of the issue is concluded or until such time as the Legislature may again take up the authorization of this rule, the regulatory requirements for determining effluent limits for carcinogens shall remain as they were on the date this rule was proposed.

8.3. Variances from Specific Water Quality Criteria. A variance from numeric criteria may be granted to a discharger if it can be demonstrated that the conditions outlined in subsections 6.1.b.A - F, herein, limit the attainment of one or more specific water quality criteria. Variances shall apply only to the discharger to whom they are granted and shall be reviewed by the Board at least every three years. In granting a variance, the requirements for revision of water quality standards in 46 CSR 6 shall be followed.

8.4. Site-specific numeric criteria. The Board may establish numeric criteria different from those set forth in Appendix E, Table 1 for a stream or stream segment upon a demonstration that existing numeric criteria are either over-protective or under-protective of the aquatic life residing in the stream or stream segment. A site-specific numeric criterion will be established only where the numeric criterion will be fully protective of the aquatic life and the existing and designated uses in the stream or stream segment. The site-specific numeric criterion may be established by conducting a Water Effect Ratio study pursuant to the procedures outlined in US EPA's "Interim Guidance on the Determination and Use of Water-Effect Ratios for Metals" (February 1994); other methods may be used with prior approval by the Board. In adopting site-specific numeric criteria, the requirements for revision of water quality standards set forth in 46 CSR 6 shall be followed.

§46-1-9. Establishment Of Safe Concentration Values.

When a specific water quality standard has not been established by these rules and there is a discharge or proposed discharge into waters of the State, the use of which has been designated a Category B1, B2, B3 or B4, such discharge may be regulated by the Chief where necessary to protect State waters

through establishment of a safe concentration value as follows:

9.1. Establishment of a safe concentration value shall be based upon data obtained from relevant aquatic field studies, standard bioassay test data which exists in substantial available scientific literature, or data obtained from specific tests utilizing one (1) or more representative important species of aquatic life designated on a case-by-case basis by the Chief and conducted in a water environment which is equal to or closely approximates that of the natural quality of the receiving waters.

9.2. In those cases where it has been determined that there is insufficient available data to establish a safe concentration value for a pollutant, the safe concentration value shall be determined by applying the appropriate application factor as set forth below to the 96-hour LC 50 value. Except where the Chief determines, based upon substantial available scientific data that an alternate application factor exists for a pollutant, the following appropriate application factors shall be used in the determination of safe concentration values:

9.2.a. Concentrations of pollutants or combinations of pollutants that are not persistent and not cumulative shall not exceed 0.10 (1/10) of the 96-hour LC 50.

9.2.b. Concentrations of pollutants or combinations of pollutants that are persistent or cumulative shall not exceed 0.01 (1/100) of the 96-hour LC 50.

9.3. Persons seeking issuance of a permit pursuant to these rules authorizing the discharge of a pollutant for which a safe concentration value is to be established using special bioassay tests pursuant to subsection 9.1 of this section shall perform such testing as approved by the Chief and shall submit all of the following in writing to the Chief:

9.3.a. A plan proposing the bioassay testing to be performed.

9.3.b. Such periodic progress reports of the testing as may be required by the Chief.

9.3.c. A report of the completed results of such testing including, but not limited to, all data obtained during the course of testing, and all calculations made in the recording, collection, interpretation and evaluation of such data.

9.4. Bioassay testing shall be conducted in accordance with

methodologies outlined in the following documents: U.S. EPA Office of Research and Development Series Publication, Methods for Measuring the Acute Toxicity (EPA/600/4-90/027F, August 1993, 4th Edition) or Short Term Methods for Estimating Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/600/4-89/001), March 1989; Standard Methods for the Examination of Water and Wastewater (18th Edition); or ASTM Practice E 729-88 for Conducting Acute Toxicity Tests with Fishes, Macroinvertebrates and Amphibians as published in Volume 11.04 of the 1988 Annual Book of ASTM Standards. Test waters shall be reconstituted according to recommendations and methodologies specified in the previously cited references or methodologies approved in writing by the Chief.

APPENDIX A CATEGORY B-2 - TROUT WATERS

This list contains known trout waters and is not intended to exclude any waters which meet the definition in Section ~~2.20~~ 2.20.

<u>River Basin</u>	<u>County</u>	<u>Stream</u>
James River J	Monroe	South Fork Potts Creek
Potomac River P	Jefferson	Town Run
P	"	Rocky Marsh Run
P	Berkeley	Opequon Creek
P	"	Tuscarora Creek (Above
Martinsburg) P	"	Middle Creek (Above Route 30
Bridge) P	"	Mill Creek
P	"	Hartland Run
P	"	Mill Run
P	"	Tillance Creek
P	Morgan	Meadow Branch
PS	Jefferson	Flowing Springs Run (Above
Halltown) PS	"	Cattail Run
PS	"	Evitt's Run
PS	"	Big Bullskin Run
PS	"	Long Marsh Run
PC	Hampshire	Cold Stream
PC	"	Edwards Run and Impoundment
PC	"	Dillons Run
PC	Hardy	Lost River
PC	"	Camp Branch
PC	"	Lower Cove Run
PC	"	Moores Run
PC	"	North River (Above Rio)
PC	"	Waites Run
PC	"	Trout Run
PC	"	Trout Pond (Impoundment)
PC	"	Warden Lake (Impoundment)
PC	"	Rock Cliff Lake (Impoundment)
PSB	Hampshire	Mill Creek
PSB	"	Mill Run
PSB	Hardy	Dumpling Creek
PSB	Grant-Pendleton	North Fork South Branch
PSB	Grant	North Fork Lunice Creek
PSB	"	South Fork Lunice Creek
PSB	"	South Mill Creek (Above Hiser)
PSB	"	Spring Run
PSB	Pendleton	Hawes Run (Impoundment)
PSB	"	Little Fork
PSB	"	South Branch (Above North
Fork)		

PSB	"	Senena Creek
PSB	"	Laurel Fork
PSB	"	Big Run
PNB	Mineral	North Fork Patterson Creek
PNB	"	Fort Ashby (Impoundment)
PNB	"	New Creek
PNB	"	New Creek Dam 14 (Impoundment)
PNB	"	Mill Creek (Above Markwood)

Monongahela River

M Smithtown)	Monongalia-Marion	Whiteday Creek (Above
MC	Monongalia	Morgan Run
MC	"	Coopers Rock (Impoundment)
MC	"	Blaney Hollow
MC	Preston	Laurel Run
MC	"	Elsey Run
MC	"	Saltlick Creek
MC	"	Buffalo Creek
MC	"	Wolf Creek
MC	Tucker	Clover Run
MC	"	Elklick Run
MC	"	Horseshoe Run
MC	"	Maxwell Run
MC	"	Red Creek
MC	"	Slip Hill Mill Branch
MC	"	Thomas Park (Impoundment)
MC	"	Blackwater River (Above Davis)
MC	"	Blackwater River (Below Davis)
MC	"	(insert date adopted)
MC	Randolph	Camp Five Run
MC	"	Dry Fork (Above Otter Creek)
MC	"	Glady Fork
MC	"	Laurel Fork
MC	"	Gandy Creek (Above Whitmer)
MC	"	East Fork Glady Fork (Above C
& P		Compressor Station)
MC	Randolph	Shavers Fork (Above Little
Black Fork)	"	Three Spring Run
MC	"	Spruce Knob Lake (Impoundment)
MC		
MW	Harrison	Dog Run (Pond)
MW	Lewis	Stonecoal
MT	Barbour	Brushy Fork (Above Valley
Furnace)	"	Teter Creek Lake (Impoundment)
MT	"	Mill Run
MT	Taylor-Barbour	Tygart Lake Tailwaters (Above
Route		119 Bridge)
MT	Preston	Roaring Creek (Above Little
Lick Branch)		
MT	Randolph	Tygart River (Above

Huttonsville)		
MT	"	Elkwater Fork
MT	"	Big Run
MTB	Upshur-Randolph-Lewis	Right Fork Buckhannon River
MTB	Upshur	Buckhannon River (Above Beans
Mill)		
MTB	Upshur	French Creek
MTB	Upshur-Randolph	Left Fork Right Fork
MTN	Upshur	Right Fork Middle Fork River
MTM	Randolph	Middle Fork River (Above
Cassity)		
MY	Preston	Rhine Creek
Little Kanawha River		
LK	Upshur	Left Fork-Right Fork Little
Kanawha River)		
LK	Upshur-Lewis	Little Kanawha River (Above
Wildcat)		
Kanawha River		
KE	Braxton	Sutton Reservoir
KE	"	Sutton Lake Tailwaters (Above
Route 38/5		Bridge)
KE	Webster	Back Fork
KE	"	Desert Fork
KE	"	Fall Run
KE	"	Laurel Fork
KE	"	Left Fork Holly River
KE	"	Sugar Creek
KE	"	Elk River (Above Webster
Springs)		
KC	Raleigh	Stephens Lake (Impoundment)
KC	"	Marsh Fork (Above Sundial)
KG	Nicholas	Summersville Reservoir
(Impoundment)		
KG	"	Summersville Tailwaters (Above
Collison		Creek)
KG	Nicholas	Deer Creek
KG	Randolph-Webster	Gauley River (Above Moust Coal
Tipple)		
KG	Fayette	Glade Creek
KG	Nicholas	Hominy Creek
KG	"	Anglins Creek
KG	Greenbrier	Big Clear Creek
KG	"	Little Clear Creek and Laurel
Run		
KG	"	Meadow Creek
KG	Fayette	Wolf Creek
KG	Nicholas	Cherry River
KG	Greenbrier-Nicholas	Laurel Creek
KG	"	North Fork Cherry River
KG	Greenbrier	Summit Lake (Impoundment)

KG	Greenbrier-Nicholas	South Fork Cherry River
KGC	Pocahontas-Webster-Nicholas	Cranberry River
KGC	Pocahontas	South Fork Cranberry River
KGW	Pocahontas	Tea Creek
KGW	Pocahontas-Webster	Williams River (Above Dyer)
KN	Raleigh	Glade Creek
KN	Summers	Meadow Creek
KN	Fayette	Mill Creek
KN	"	Laurel Creek (Above Cotton
Hill)		
KN	Raleigh	Pinch Creek
KN	Monroe	Rich Creek
KN	"	Turkey Creek
KN	Fayette	Dunloup Creek (Downstream from
Harvey		
		Sewage Treatment Plant)
KN	Mercer	East River (Above
Kellevsville)		
KN	"	Pigeon Creek
KN	Monroe	Laurel Creek
KNG	Monroe	Kitchen Creek (Above Gap
Mills)		
KNG	Greenbrier	Culverson Creek
KNG	"	Milligan Creek
KNG	Greenbrier-Monroe	Second Creek (Rt. 219 Bridge
to Nickell's		Mill)
KNG	Greenbrier	North Fork Anthony Creek
KNG	"	Spring Creek
KNG	"	Anthony Creek (Above Big
Draft)		
KNG	Pocahontas	Watoga Lake
KNG	"	Beaver Creek
KNG	"	Knapp's Creek
KNG	"	Hills Creek
KNG	"	North Fork Deer Creek (Above
Route 28/5)		
KNG	"	Deer Creek
KNG	"	Sitlington Creek
KNG	"	Stoney Creek
KNG	"	Swago Creek
KNG	"	Buffalo Fork (Impoundment)
KNG	"	Seneca (Impoundment)
KNG	"	Greenbrier River (Above
Hosterman)		
KNG	"	West Fork-Greenbrier River
(Above the		
		impoundment at the tannery)
KNG	"	Little River-East Fork
KNG	"	Little River-West Fork
KNG	"	Five Mile Run
KNG	"	Mullenax Run
KNG	"	Abes Run
KNB	Mercer	Marsh Fork
KNB	"	Camp Creek

OG

Wyoming

Pinnacle creek

BST

McDowell

Dry Fork (Above Canebrake)

APPENDIX B

This list contains known waters used as public water supplies and is not intended to exclude any waters as described in section 6.2, herein.

River Basin	County	Operating Company	Source
Shenandoah River			
S	Jefferson	Charlestown Water	Shenandoah River
Potomac River			
P	Jefferson	3-M Company	Turkey Run
P	"	Shepherdstown Water	Potomac River
P	"	Harpers Ferry Water	Elk Run
P	Berkeley	DuPont Potomac River Works	Potomac River
P	"	Berkeley County PSD	Le Feure Spring
P	"	Opequon PSD	Quarry Spring
P	"	Hedgesville PSD	Speck Spring
P	Morgan	Paw Paw Water	Potomac River
PSB	Hampshire	Romney Water	South Branch Potomac River
PSB	"	Peterkin Conference Center	Mill Run
PSB	Hardy	Moorefield Municipal Water	South Fork River
PSB	Pendleton	U.S. Naval Radio Sta.	South Fork River
PSB	"	Circleville Water Inc.	North Fork of South Branch, Potomac River
PSB	Grant	Mountain Top PSD	Mill Creek, Impoundment
PSB	"	Petersburg Municipal Water	South Branch, Potomac River
PNB	Grant	Island Creek Coal	Impoundment
PNB	Mineral	Piedmont Municipal Water	Savage River, Maryland
PNB	"	Keyser Water	New Creek
PNB	"	Fort Ashby PSD	Lake
Monongahela River			
M	Monongalia	Morgantown Water Comm.	Colburn Creek & Monongahela River
M	"	Morgantown Ordinance Works	Monongahela River
M	Preston	Preston County PSD	Deckers Creek
M	Monongalia	Blacksville # 1 Mine	Impoundment
M	"	Loveridge Mine	Impoundment
M	"	Consolidation Coal Co.	Impoundment
M	Preston	Mason Town Water	Block Run
MC	Preston	Fibair Inc.	Impoundment
MC	Monongalia	Cheat Neck PSD	Cheat Lake
MC	"	Lakeview County Club	Cheat Lake-Lake Lynn

MC	"	Union Districk PSD	Cheat Lake-Lake Lynn
MC	"	Cooper's Rock State Park	Impoundment
MC	Preston	Kingwood Water	Cheat River
MC	"	Hopemount State Hosp.	Snowy Creek
MC	"	Rowlesburg Water	Keyser Run & Cheat River
MC	"	Albright	Cheat River
MC	Tucker	Parsons Water	Shavers & Elk Lick Fork
MC	"	Thomas Municipal	Thomas Reservoir
MC	"	Hamrick PSD	Dry Fork
MC	"	Douglas Water System	Long Run
MC	"	Davis Water	Blackwater River
MC	"	Hambleton Water System	Roaring Creek
MC	"	Canaan Valley State Park	Blackwater River
MC	Pocahontas	Cheat Mt. Sewer	Shavers Lake
MC	"	Snowshoe Co. Water	Shavers Fork
MC	Randolph	Womelsdorf Water	Yokum Run
MW	Harrison	Lumberport Water	Jones Run
MW	"	Clarksburg Water Bd.	West Fork River
MW	"	Bridgeport Mun. Water	Deecons & Hinkle Creek
MW	"	Salem Water Board	Dog Run
MW	"	West Milford Water	West Fork River
MW	Lewis	W.V. Water-Weston District	West Fork River
MW	"	Jackson's Mill Camp	Impoundment
MW	"	West Fork River PSD	West Fork River
MW	"	Kennedy Compressor Station	West Fork River
MW	"	Jane Lew Water Comm.	Hackers Creek
MW	Harrison	Bel-Meadow Country Club	Lake
MW	"	Harrison Power Station	West Fork River
MW	"	Oakdale Portal	Impoundment
MW	"	Robinson Port	Impoundment
MT	Marion	Fairmont Water Comm.	Tygart River
MT	"	Mannington Water	Impoundment
MT	"	Monongah Water Works	Tygart River
MT	"	Eastern Assoc. Coal Corp	Impoundment
MT	"	Four States Water	Impoundment
MT	Harrison	Shinnston Water Dept.	Tygart River
MT	Taylor	Grafton Water	Tygart River-Lake
MT	Barbour	Phillippi Water	Tygart River
MT	"	Bethlehem Mines Corp.	Impoundment
MT	"	Belington Water Works	Tygart River & Mill Run Lake
MT	Randolph	Elkins Municipal Water	Tygart River
MT	"	Beverly Water	Tygart river
MT	"	Valley Water	Tygart River
MT	"	Huttonsville Medium Security Prison	Tygart River
MT	"	Mill Creek Water	Mill Creek
MTB	Upshur	Buckhannon Water Board	Buckhannon River

Ohio River

O	Zone 1	Hancock	Chester Water & Sewer	Ohio River
O	"	Brooke	City of Weirton	Ohio River
O	"	"	Weirton Steel Division	Ohio River
O	"	Ohio	Wheeling Water	Ohio River
O	"	Tyler	Sistersville Mun. Water	Ohio River
O	"	Pleasants	Pleasants Power Station	Ohio River
O	"	Cabel	Huntington Water Corp.	Ohio River
O	"	Marshall	Mobay Chemical Co.	Ohio River
O	"	Wood	E. I. DuPont	Ohio River
O	Zone 2	Marshall	meron Water	Glass House
O	"	"	New Urindahana Water	Hollow
O	"	Wetzel	Pine Grove Water	Wheeling Creek
O	"	Marshall	Consolidated Coal Co.	System
O	"	Tyler	Middlebourne Water	North Fork,
O	"	Doddridge	West Union Mun. Water	Fishing Creek
O	"	Mason	Hidden Valley Country	Impoundment
O	"	Jackson	Ripley Water	Middle Island
O	"	Wayne	Wayne Municipal Water	Creek
O	"	"	East Lynn Lake	Middle Island
O	Zone 2	Wayne	Monterey Coal Co.	Creek
				Lake/Impoundment
				Mill Creek
				Twelve Pole Creek
				East Lynn Lake
				Impoundment

Little Kanawha

LK	Wood	Claywood Park PSD	Little Kanawha
LK	Calhoun	Grantsville Mun. Water	River
LK	Gilmer	Glenville Utility	Little Kanawha
LK	"	Consolidated Gas	River
LK	Braxton	Compressor	Steer Creek
LK	Roane	Burnsville Water Works	Little Kanawha
LK	Wirt	Spencer Water	River
LK		Elizabeth Water	Spring Creek Mile
LKH	Ritchie	Cairo Water	Tree Reservoir
LKH	"	Harrisville Water	Little Kanawha
LKH	"	Pennsboro Water	River
			North Fork Hughes
			River
			North Fork Hughes
			River
			North Fork Hughes
			River

Kanawha River

K	Putnam	Buffalo Water	Cross Creek
K	"	Winfield Water	Poplar Fork &
			Crooked Creek

K	"	South Putnam PSD	Poplar Fork & Crooked Creek
K	Kanawha	Cedar Grove Water	Kanawha River
K	"	Pratt Water	Kanawha River
K	Fayette	Armstrong PSD PO-K1-CO-EL	Kanawha River & Gum Hollow
K	"	Kanawha Water Co.-	Unnamed Tributary
			Kanawha Beards Fork River
K	Kanawha	Midland Trail School	Impoundment
K	"	Cedar Coal Co.	Impoundment
K	Fayette	Elkem Metals Co.	Kanawha River
K	"	Deepwater PSD	Kanawha River
K	"	Kanawha Falls PSD	Kanawha River
K	"	W.V. Water-Montgomery	Kanawha River

Pocatalico River

KP	Kanawha	Sissonville PSD	Pocatalico River
KP	Roane	Walton PSD	Silcott Fork Dam

Coal River

KC	Kanawha	St. Albans Water	Coal River
KC	"	Washington PSD	Coal River
KC	Lincoln	Lincoln PSD	Coal River
KC	Boone	Coal River PSD	Coal River
KC	"	Whitesville PSD	Coal River
KC	Raleigh	Armco Mine 10	Marsh Fork
KC	"	Armco Steel-Montc. Stickney	Coal River
KC	Raleigh	Peabody Coal	Coal River
KC	"	Stephens Lake Park	Lake Stephens
KC	Boone	W.V. Water-Madison Dist.	Little Coal River
KC	"	Van PSD	Pond Fork
KC	Raleigh	Consol. Coal Co.	Workmans Creek
KC	Boone	Water Ways Park	Coal River

Elk River

KE	Kanawha	Clendenin Water	Elk River
KE	"	W.V. Water-Kanawha Valley District	Elk River
KE	Kanawha	Pinch PSD	Elk River
KE	Clay	Clay Waterworks	Elk River
KE	"	Prociuous PSD	Elk River
KE	Braxton	Flatwoods-Canoe Run PSD	Elk River
KE	"	Sugar Creek PSD	Elk River
KE	"	W.V. Water-Gassaway Dist.	Elk River
KE	"	W.V. Water-Sutton Dist.	Elk River
KE	Webster	W.V. Water-Webster Springs	Elk River
KE		Holly River State Park	Holly River

Gauley River

KG	Nicholas	Craigsville PSD	Gauley River
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KG	"	Summersville Water	Impoundment/Muddl ety Creek
KG	"	Nettie-Leivasy PSD	Jim Branch
KG	Webster	Cowen PSD	Gauley River
KG	Nicholas	Wilderness PSD	Anglins Creek & Meadow River
KG	"	Richwood Water	North Fork Cherry River
New River			
KN	Fayette	Ames Heights Water	Mill Creek
KN	"	Mt. Hope Water	Impounded Mine (Surface)
KN	"	Ansted Municipal Water	Mill Creek
KN	"	Fayette Co. Park	Impoundment
KN	"	New River Gorge Campground	Impoundment
KN	"	Fayetteville Water	Wolfe Creek
KN	Raleigh	Beckley Water	Glade Creek
KN	"	Westmoreland Coal Co.	Farley Branch
Bluestone River			
KNB	Summers	Jumping Branch-Nimitz	Mt. Valley Lake
KNB	"	Bluestone Conf. Center	Bluestone Lake
KNB	"	Pipestem State Park	Impoundment
KNB	Mercer	Town of Athens	Impoundment
KNB	"	Bluewell PSD	Impoundment
KNB	"	Bramwell Water	Impoundment
KNB	"	Green Valley-Glenwood PSD	Bailey Reservoir
KNB	"	Kelly's Tank	Spring
KNB	"	W.V. Water Princeton	Impoundment/Brusc h Creek
KNB	"	Lashmeet PSD	Impoundment
KNB	"	Pinnacle Water Assoc.	Mine
KNB	"	W.V. Water Bluefield	Impoundment
Greenbrier River			
KNG	Summers	W.V. Water Hinton	Greenbrier River & New River
KNG	"	Big Bend PSD	Greenbrier River
KNG	Greenbrier	Alderson Water Dept.	Greenbrier River
KNG	"	Ronceverte Water	Greenbrier River
KNG	"	Lewisburg Water	Greenbrier River
KNG	Pocahontas	Denmar State Hospital	Greenbrier River
KNG	"	Water	
KNG	"	City of Marlinton Water	Knapp Creek
KNG	"	Cass Scenic Railroad	Leatherbark Creek
KNG	"	Upper Greenbrier PSD	Greenbrier River
KNG	"	The Hermitage	Greenbrier River
Guyandotte River			

OG	Cabell	Salt Rock PSD	Guyandotte River
OG	Lincoln	West Hamlin Water	Guyandotte River
OG	Logan	Logan Water Board	Guyandotte River
OG	"	Man Water Works	Guyandotte River
OG	"	Buffalo Creek PSD	Buffalo Creek/ Mine/Wells
OG	Logan	Chapmanville	Guyandotte River
OG	"	Logan PSD	Whitman Creek/ Guyandotte River
OG	Mingo	Gilbert Water	Guyandotte River
OG	Wyoming	Oceana Water	Laurel Fork
OG	"	Glen Rogers PSD	Impoundment
OG	"	Pineville Water	Pinnacle Creek/ Guyandotte River
OG	Raleigh	Raleigh Co. PSD-Amigo	Tommy Creek
OMG	Cabell	Milton Water Works	Guyandotte River
OMG	"	Culloden PSD	Indian Fork Creek
OMG	Putnam	Hurricane Municipal Water	Impoundment
OMG	"	Lake Washington PSD	Lake Washington

Big Sandy River

BS	Wayne	Kenova Municipal Water	Big Sandy River
BS	"	Fort Gay Water	Tug Fork
BST	Mingo	Kermit Water	Tug Fork
BST	"	Matewan Water	Tug Fork
BST	"	A & H Coal Co., Inc.	Impoundment
BST	"	Williamson Water	Impoundment
BST	McDowell	City of Welch	Impoundment/Wells
BST	"	City of Gary	Impoundment/Mine

APPENDIX C
CATEGORY E-3 - POWER PRODUCTION

This list contains known power production facilities and is not intended to exclude any waters as described in section 6.6.c, herein.

<u>River Basin</u>	<u>County</u>	<u>Station Name</u>	<u>Operating Company</u>
Monongahela River			
M	Monongalia	Fort Martin Power Station	Monongahela Power
M	Marion	Rivesville Station	Monongahela Power
MC	Preston	Albright Station	Monongahela Power
Potomac	Grant	Mt. Storm Power Station	Virginia Electric & Power Company
Ohio River			
O - Zone 1	Wetzel	Hannibal (Hydro)	Ohio Power
O " "	Marshall	Kammer	Ohio Power
O " "	"	Mitchell	Ohio Power
O " "	Pleasants	Pleasants Station	Monongahela Power
O " "	"	Willow Island Station	Monongahela Power
O " "	Mason	Phillip Sporn Plant	Central Operating (AEP)
O " "	"	Racine (Hydro)	Ohio Power
O " "	"	Mountaineer	Appalachian Power Co.
K	Putnam	Winfield (Hydro)	Appalachian Power Co.
K	Kanawha	Marmet (Hydro)	Appalachian Power Co.
K	"	London (Hydro)	Appalachian Power Co.
K	"	Kanawha River	Appalachian Power Co.
K	"	John E. Amos	Appalachian Power Co.

APPENDIX D
CATEGORY C - WATER CONTACT RECREATION

This list contains waters known to be used for water contact recreation and is not intended to exclude any waters as described in section 6.4, herein.

<u>River Basin</u>	<u>Stream Code</u>	<u>Stream</u>	<u>County</u>
Shenandoah	S	Shenandoah River	Jefferson
Potomac	P	Potomac River	Jefferson
	P	" "	Hampshire
	P	" "	Berkeley
	P	" "	Morgan
	P-9	Sleepy Creek & Meadow Branch	Berkeley
	P-9-G-1	North Fork of Indian Run	Morgan
South Branch	PSB	South Branch of Potomac River	Hampshire
	PSB	" "	Hardy
	PSB	" "	Grant
	PSB-21-X	Hawes Run	Pendleton
	PSB-25-C-2	Spring Run	Grant
	PSB-28	North Fork South Branch Potomac River	Grant
North Branch	PNB	North Branch of Potomac River	Mineral
	PNB-4-EE	North Fork Patterson Creek	Grant
	PNB-7-H	Linton Creek	Grant
	PNB-17	Stoney River-Mt. Storm Lake	Grant
	PC	Cacapon River	Hampshire
Monongalia			
Cheat	MC	Cheat Lake/Cheat river	Monongalia/Preston
	MC	Alpine Lake	Preston
	MC-6	Coopers Rock Lake/Quarry Run	Monongalia
	MC-12	Big Sandy Creek	Preston
	MSC	Shavers Fork	Randolph
	MTN	Middle Fork River	Barbour/ Randolph/ Upshur
	MW	West Fork River	Harrison
	MW-18	Stonecoal Creek/Stonecoal Lake	Lewis

Ohio	O	Ohio River	Brooke/ Cabell/ Hancock/ Jackson/ Marshall/ Mason/Ohio/Pleasants/ Tyler/Wayne/Wood/ Wetzel Wayne
	O-2-H	Beech Fork of Twelvepole Creek/Beech Fork Lake	
	O-2-Q	East Fork of Twelvepole Creek/East Lynn Lake	Wayne
	O-3	Fourpole Creek	Cabell
	O-21	Old Town Creek/ McClintic Ponds	Mason
	OMI	Middle Island Creek/ Crystal Lake	Doddridge
	OG	Guyandotte River	Cabell
	OG	Guyandotte River/ R. D. Bailey Lake	Wyoming
	OGM	Mud River	Cabell
Little Kanawha	LK	Little Kanawha River/ Burnsville Lake	Braxton
Kanawha	K	Kanawha River	Fayette/ Kanawha/ Mason/ Putnam Mason
	K-1	Unnamed Tributary Krodel Lake	
	KC	Coal River	Kanawha
	KC-45-Q	Stephens Branch/ Lake Stephens	Raleigh
	KE	Elk River	Kanawha/ Clay/ Braxton/ Webster/ Randolph Braxton
	KE	Sutton lake	
	KN	New River	Fayette/ Raleigh/ Summers
	KN-26-F	Little Beaver Creek	Raleigh
	KNG	Greenbrier River	Greenbrier/Pocahontas/Summers
	KNG-23-E-1	Little Devil Creek/ Moncove Lake	Monroe

KNG-28	Anthony Creek	Greenbrier
KNG-28-P	Meadow Creek/ Lake Sherwood	Greenbrier
KNB	Bluestone River/ Bluestone Lake	Summers
KG	Gauley River	Webster
KG	Gauley River/ Summersville Lake	Nicholas
KGW	Williams River	Webster

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
ACUTE ¹	CHRON ²	ACUTE ¹	CHRON ²				
8.1 Dissolved Aluminum (ug/l) Not to exceed:	750xCF ⁵	87xCF ⁵	750xCF ⁵	87xCF ⁵			
8.2 Ammonia (ug/l): Un-ionized ammonia (UA) shall be determined from values of total ammonia-N, pH and temperature according to the following equation: $UA = \frac{1.2(\text{total ammonia-N})}{1 + 10^{(pKa - pH)}}$ where $pKa = 0.0902 + \frac{2730}{(273.2 + T)}$ and $T = \text{temperature } (^{\circ}C)$ The concentration of un-ionized ammonia (NH3) shall not exceed 50 ug/l.						50	
8.2.1 Acute and chronic aquatic life criteria for ammonia shall be determined using the National Criterion for Ammonia in Fresh Water ^d from USEPA's 1999 Update of Ambient Water Quality Criteria for Ammonia (EPA-822-R-99-014, December 1999)	X	X	X	X			

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹			CHRON ²	
8.3 Antimony (ug/l) Not to exceed:					4300	14	
8.4 Arsenic ^b (ug/l) Not to exceed:					50	50	100
8.4.1 Dissolved Trivalent Arsenic Not to exceed:	360 x CF ⁵	190 x CF ⁵	360 x CF ⁵	190 x CF ⁵			
8.5 Barium (mg/l) Not to exceed:						1.0	
8.6 Beryllium (ug/l)	130		130			.0077	
8.7 Cadmium (ug/l) Hardness Soluble Cd (mg/l CaCO ₃) 0 - 35 1.0 36 - 75 2.0 76 - 150 5.0 > 150 10.0							
8.7.1 Not to exceed 10 ug/l in the Ohio River (O Zone I) main stem (see section 7.1.d. herein)						X	X

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²					
						ACUTE ¹	
8.7.3 The four-day average concentration of dissolved cadmium shall not exceed the value determined by the following equation: $Cd = e^{(0.7852[\ln(\text{hardness})]-3.490)} \times CF^5$		X			X		
8.7.4 The one-hour average concentration of dissolved cadmium shall not exceed the value determined by the following equation: $Cd = e^{(1.128[\ln(\text{hardness})]-3.828)} \times CF^5$	X			X			
8.8 Chloride (mg/l) Not to exceed:	860	230		860	230	250	
8.9.1 Chromium, dissolved hexavalent (ug/l): Not to exceed:	16 x CF ⁵	11 x CF ⁵		16 x CF ⁵	7.2 x CF ⁵	50	
8.9.2 Chromium, trivalent (ug/l) The one-hour average concentration of dissolved trivalent chromium shall not exceed the value determined by the following equation: $\exp\{0.8190[\ln(\text{hardness})]+3.7256\} \times (CF^5)$	X			X			
8.9.3 The four-day average concentration of dissolved trivalent chromium shall not exceed the value determined by the following concentration: $\exp\{0.8190[\ln(\text{hardness})]+0.6848\} \times (CF^5)$		X			X		

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION							
	AQUATIC LIFE					HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹	CHRON ²				
8.10 Copper (ug/l) Not to exceed:							1000	
8.10.1 The four-day average concentration of dissolved copper shall not exceed the value determined by the following equation ^a : $Cu = e^{(0.854[\ln(\text{hardness})]-1.465)} \times CF^5$								
8.10.2 The one-hour average concentration of dissolved copper shall not exceed the value determined by the following equation ^a : $Cu = e^{(0.9422[\ln(\text{hardness})]-1.464)} \times CF^5$		X			X			
8.11 Cyanide (ug/l) (As free cyanide HCN+CN ⁻) Not to exceed:	X				X			
	22	5.0			22	5.0	5.0	
8.12 Dissolved Oxygen ^c : not less than 5 mg/l at any time.	X						X	X
8.12.1 Kanawha River main stem, Zone 1 - Not less than 4.0 mo/l at any time	X							

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹			CHRON ²	
8.12.2 Ohio River main stem - the average concentration shall not be less than 5.0 mg/l per calendar day and shall not be less than 4.0 mg/l at any time or place outside any established mixing zone - provided that a minimum of 5.0 mg/l at any time is maintained during the April 15-June 15 spawning season.	X						
8.12.3 Not less than 7.0 mg/l in spawning areas and in no case less than 6.0 mg/l at any time.			X				
8.13 Fecal Coliform: Maximum allowable level of fecal coliform content for Primary Contact Recreation (either MPN or MF) shall not exceed 200/100 ml as a monthly geometric mean based on not less than 5 samples per month; nor to exceed 400/100 ml in more than ten percent of all samples taken during the month.						X	X

APPENDIX E, TABLE I

PARAMETER	USE DESIGNATION											
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES					
	B1, B4		B2		C ³	A ⁴						
			CHRON ²	ACUTE ¹								
				CHRON ²					ACUTE ¹	CHRON ²	ACUTE ¹	CHRON ²
8.13.1 Ohio River main stem (zone 1) - During the non-recreational season (November through April only) the maximum allowable level of fecal coliform for the Ohio River (either MPN or MF) shall not exceed 2000/100 ml as a monthly geometric mean based on not less than 5 samples per month.						X						
8.14 Fluoride (mg/l) Not to exceed:							1.4					
8.14.1 Not to exceed 2.0 for category D uses.								X				
8.15 Iron ^c (mg/l) Not to exceed:			1.5				0.5					
8.16 Lead (ug/l) Not to exceed:							50					
8.16.1 The four-day average concentration of dissolved lead shall not exceed the value determined by the following equation ^a : $Pb = e^{(1.273[ln(hardness)] - 4.705)} \times CF^5$			X					X				

APPENDIX E, TABLE I

PARAMETER	USE DESIGNATION								
	AQUATIC LIFE					HUMAN HEALTH		ALL OTHER USES	
	B1, B4		ACUTE ¹	CHRON ²	ACUTE ¹	CHRON ²	C ³		A ⁴
	ACUTE ¹	CHRON ²							
8.16.2 The one-hour average concentration of dissolved lead shall not exceed the value determined by the following equation ^a : $Pb = e^{(1.273[\ln(hardness)]-1.46)} \times CF^5$	X				X				
8.17 Manganese (mg/l) (see §6.2.d) Not to exceed:								1.0	
8.18 Mercury The total organism body burden of any aquatic species shall not exceed 0.5 ug/g as methylmercury.							0.5	0.5	
8.18.1 Total mercury in any unfiltered water sample shall not exceed (ug/l):	2.4				2.4		0.15	0.14	
8.18.2 Methylmercury (water column) Not to exceed (ug/l):		.012				.012			
8.19 Nickel (ug/l) Not to exceed:							4600	510	
8.19.1 The four-day average concentration of dissolved nickel shall not exceed the value determined by the following equation ^a : $Ni = e^{(0.846[\ln(hardness)]+1.1645)} \times CF^5$									
		X						X	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION							
	AQUATIC LIFE				HUMAN HEALTH			ALL OTHER USES
	B1, B4		B2		C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹	CHRON ²				
8.19.2 The one-hour average concentration of dissolved nickel shall not exceed the value determined by the following equation ^a : $Ni = e^{(0.846[\ln(hardness)]-3.361)} \times CF^5$	X			X				
8.20 Nitrate (as Nitrate-N) (mg/l)							10	
8.21 Nitrite (as Nitrite-N) (mg/l) Not to exceed:	1.0			.060				
8.22 Organics								
Chlordane ^b (ng/l)	2400	4.3		2400	4.3	0.46	0.46	0.46
DDT ^b (ng/l)	1100	1.0		1100	1.0	0.024	0.024	0.024
Aldrin ^b (ng/l)	3.0			3.0		0.071	0.071	0.071
Dieldrin ^b (ng/l)	2500	1.9		2500	1.9	0.071	0.071	0.071
Endrin (ng/l)	180	2.3		180	2.3	2.3	2.3	2.3
Toxaphene ^b (ng/l)	730	0.2		730	0.2	0.73	0.73	0.73
PCB ^b (ng/l)		14.0			14.0	0.045	0.044	0.045
Methoxychlor (ug/l)		0.03			0.03	0.03	0.03	0.03
Dioxin (2,3,7,8- TCDD) ^b (pg/l)						0.014	0.013	0.014

APPENDIX E, TABLE I

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²					
						ACUTE ¹	
Acrylonitrile ^b (ug/l)					0.66	0.059	
Benzene ^b (ug/l)					71	0.66	
1,2-dichlorobenzene (mg/l)					17	2.7	
1,3-dichlorobenzene (mg/l)					2.6	0.4	
1,4-dichlorobenzene (mg/l)					2.6	0.4	
2,4-dinitrotoluene ^b (ug/l)					9.1	0.11	
Hexachlorobenzene ^b (ng/l)					0.77	0.72	
Carbon tetrachloride ^b (ug/l)					4.4	0.25	
Chloroform ^b (ug/l)					470	0.19	
Halomethanes (ug/l)					15.7	0.19	
1,2-dichloroethane ^b (ug/l)					99	0.035	
1,1,1- trichloroethane ^b (mg/l)						12	
1,1,2,2-tetrachloroethane (ug/l)					11	0.17	
1,1-dichloroethylene ^b (ug/l)					3.2	0.03	
Trichloroethylene ^b (ug/l)					81	2.7	
Tetrachloroethylene ^b (ug/l)					8.85	0.8	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹			CHRON ²	
Toluene ^b (mg/l)					200	6.8	
Polynuclear Aromatic Hydrocarbons (PAH) ^b (ug/l)					0.031	.0028	
Phthalate esters (ug/l)		3.0					
Vinyl chloride ^b (chloroethene)(ug/l)					525	2.0	
alpha-BHC (alpha- Hexachloro- cyclohexane) ^b (ug/l)					0.013	.0039	
beta-BHC(beta- Hexachloro- cyclohexane) ^b (ug/l)					0.046	0.014	
gamma-BHC (gamma- Hexachloro- cyclohexane) ^b (ug/l)	2.0	0.08	2.0		0.063	0.019	
Chlorobenzene (mg/l)					21	0.68	
Ethylbenzene (mg/l)					29	3.1	
Heptachlor ^b (ng/l)	520	3.8	520		0.21	0.21	
2-methyl-4,6-Dinitrophenol (ug/l)					765	13.4	
Fluoranthene (ug/l)					370	300	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹			CHRON ²	
8.22.1 The organic chemicals listed in §8.22 shall not exceed the specified water quality criteria. When the specified criteria are less than the practical laboratory quantification level, instream values will be calculated from discharge concentrations and flow rates, where applicable.							
8.23 pH ^c No values below 6.0 nor above 9.0. Higher values due to photosynthetic activity may be tolerated.	X	X	X	X	X	X	X
8.24 Phenolic Materials							
8.24.1 Phenol (ug/l) Not to exceed:					4,600,000	21,000	
8.24.2 2-Chlorophenol (ug/l) Not to exceed:					400	120	
8.24.3 2,4-Dichlorophenol (ug/l) Not to exceed:					790	93	
8.24.4 2,4-Dimethylphenol (ug/l) Not to exceed:					2300	540	
8.24.5 2,4-Dinitrophenol (ug/l) Not to exceed:					14,000	70	
8.24.6 Pentachlorophenol ^b (ug/l)					8.2	0.28	

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹			CHRON ²	
8.24.6.a The one-hour average concentration of pentachlorophenol shall not exceed the value determined by the following equation: exp(1.005(pH)-4.869)	X			X			
8.24.6.b The 4-day average concentration of pentachlorophenol shall not exceed the value determined by the following equation: exp(1.005(pH)-5.134).		X			X		
8.24.7 2,4,6-Trichlorophenol ^b (ug/l) Not to exceed:						6.5	2.1
8.25 Radioactivity: Gross Beta activity not to exceed 1000 picocuries per liter (pCi/l), nor shall activity from dissolved strontium-90 exceed 10 pCi/l, nor shall activity from dissolved alpha emitters exceed 3 pCi/l.	X			X			X

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION																
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES										
	B1, B4		B2	C ³	A ⁴												
	ACUTE ¹	CHRON ²	ACUTE ¹	CHRON ²													
8.25.1 Gross total alpha particle activity (including radium-226 but excluding radon and uranium shall not exceed 15 pCi/l and combined radium-226 and radium-228 shall not exceed 5pCi/l; provided that the specific determination of radium-226 and radium-228 are not required if dissolved particle activity does not exceed 5pCi/l; the concentration of tritium shall not exceed 20,000 pCi/l; the concentration of total strontium-90 shall not exceed 8 pCi/l in the Ohio River main stem.	X		X		X		X										
8.26 Selenium (ug/l) Not to exceed:	20	5	20	5		10											
8.27 Silver (ug/l) <table><tr><td>Hardness</td><td>Silver</td></tr><tr><td>0-50</td><td>1</td></tr><tr><td>51-100</td><td>4</td></tr><tr><td>101-200</td><td>12</td></tr><tr><td>>201</td><td>24</td></tr></table>	Hardness	Silver	0-50	1	51-100	4	101-200	12	>201	24							X
Hardness	Silver																
0-50	1																
51-100	4																
101-200	12																
>201	24																

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹			CHRON ²	
8.27.1							
0-50							
51-100							
101-200							
201-400							
401-500							
501-600							
8.27.2 The one-hour average concentration of dissolved silver shall not exceed the value determined by the following equation: $Ag=e^{(1.72[\ln(hardness)]-6.52)} \times CF^5$	X						

APPENDIX E, TABLE I

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹			CHRON ²	
8.28 Temperature Temperature rise shall be limited to no more than 5°F above natural temperature, not to exceed 87°F at any time during months of May through November and not to exceed 73°F at any time during the months of December through April. During any month of the year, heat should not be added to a stream in excess of the amount that will raise the temperature of the water more than 5°F above natural temperature. In lakes and reservoirs, the temperature of the epilimnion should not be raised more than 3°F by the addition of heat of artificial origin. The normal daily and seasonable temperature fluctuations that existed before the addition of heat due to other natural causes should be maintained.	X						
8.28.1 For the Kanawha River Main Stem (K-1): Temperature rise shall be limited to no more than 5°F above natural temperature, not to exceed 90°F in any case.	X						

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION																																																																																																				
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES																																																																																														
	B1, B4		B2	C ³	A ⁴																																																																																																
	ACUTE ¹	CHRON ²																																																																																																			
						ACUTE ¹		CHRON ²																																																																																													
8.28.4 For Ohio River Main Stem (01) (see section 7.1.d, herein): <table><thead><tr><th>Dates</th><th>Period</th><th>Ave.</th><th>Inst.</th><th>Max.</th></tr></thead><tbody><tr><td>Jan 1-31</td><td></td><td>45°F</td><td></td><td>50°F</td></tr><tr><td>February</td><td></td><td>45</td><td></td><td>50</td></tr><tr><td>March 1-15</td><td></td><td>51</td><td></td><td>56</td></tr><tr><td>March 16-31</td><td></td><td>54</td><td></td><td>59</td></tr><tr><td>April 1-15</td><td></td><td>58</td><td></td><td>64</td></tr><tr><td>April 16-30</td><td></td><td>64</td><td></td><td>69</td></tr><tr><td>May 1-15</td><td></td><td>68</td><td></td><td>73</td></tr><tr><td>May 16-31</td><td></td><td>75</td><td></td><td>80</td></tr><tr><td>June 1-15</td><td></td><td>80</td><td></td><td>85</td></tr><tr><td>June 16-30</td><td></td><td>83</td><td></td><td>87</td></tr><tr><td>July 1-31</td><td></td><td>84</td><td></td><td>89</td></tr><tr><td>August 1-31</td><td></td><td>84</td><td></td><td>89</td></tr><tr><td>Sept 1-15</td><td></td><td>84</td><td></td><td>87</td></tr><tr><td>Sept 16-30</td><td></td><td>82</td><td></td><td>86</td></tr><tr><td>Oct 1-15</td><td></td><td>77</td><td></td><td>82</td></tr><tr><td>Oct 16-31</td><td></td><td>72</td><td></td><td>77</td></tr><tr><td>Nov 1-30</td><td></td><td>67</td><td></td><td>72</td></tr><tr><td>Dec 1-31</td><td></td><td>52</td><td></td><td>57</td></tr></tbody></table>	Dates	Period	Ave.	Inst.	Max.	Jan 1-31		45°F		50°F	February		45		50	March 1-15		51		56	March 16-31		54		59	April 1-15		58		64	April 16-30		64		69	May 1-15		68		73	May 16-31		75		80	June 1-15		80		85	June 16-30		83		87	July 1-31		84		89	August 1-31		84		89	Sept 1-15		84		87	Sept 16-30		82		86	Oct 1-15		77		82	Oct 16-31		72		77	Nov 1-30		67		72	Dec 1-31		52		57	X					
Dates	Period	Ave.	Inst.	Max.																																																																																																	
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Nov 1-30		67		72																																																																																																	
Dec 1-31		52		57																																																																																																	
8.29 Thallium (ug/l)					6.3	1.7																																																																																															
8.30 Threshold odor ^c Not to exceed a threshold odor number of 8 at 104°F as a daily average.		X		X	X	X	X																																																																																														

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4	CHRON ²	ACUTE ¹	B2	C ³	A ⁴	
ACUTE ¹	CHRON ²	ACUTE ¹	CHRON ²				
8.31 Total Residual Chlorine (ug/l - measured by amperometric or equivalent method) Not to exceed:	19	11					
8.31.1 No chlorinated discharge allowed			X				
8.32 Turbidity No point or non-point source to West Virginia's waters shall contribute a net load of suspended matter such that the turbidity exceeds 10 NTU's over background turbidity when the background is 50 NTU or less, or have more than a 10% increase in turbidity (plus 10 NTU minimum) when the background turbidity is more than 50 NTUs.							
This limitation shall apply to all earth disturbance activities and shall be determined by measuring stream quality directly above and below the area where drainage from such activity enters the affected stream. Any earth disturbing activity continuously or intermittently carried on by the same or associated persons on the same stream or tributary segment shall be allowed a single net loading increase.		X		X	X	X	X

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2	C ³	A ⁴		
	ACUTE ¹	CHRON ²	ACUTE ¹			CHRON ²	
8.32.1 This rule shall not apply to those activities at which Best Management Practices in accordance with the State's adopted 208 Water Quality Management Plan are being utilized, maintained and completed on a site-specific basis as determined by the appropriate 208 cooperative or an approved Federal or State Surface Mining Permit is in effect. This exemption shall not apply to Trout Waters.		X			X	X	
8.33 Zinc (ug/l) The four-day average concentration of dissolved zinc shall not exceed the value determined by the following equation ² : $Zn = e^{(0.8473[\ln(\text{hardness})]+0.7614)} \times CF^5$						X	
8.33.1 The one-hour average concentration of dissolved zinc shall not exceed the value determined by the following equation ² : $Zn = e^{(0.8473[\ln(\text{hardness})]+0.8604)} \times CF^5$	X						

1 One hour average concentration not to be exceeded more than once every three years on the average, unless otherwise noted.

2 Four-day average concentration not to be exceeded more than once every three years on the average, unless otherwise noted.

- 3 These criteria have been calculated to protect human health from toxic effects through fish consumption, unless otherwise noted.
- 4 These criteria have been calculated to protect human health from toxic effects through drinking water and fish consumption, unless otherwise noted.
- 5 The appropriate Conversion Factor (CF) is a value used as a multiplier to derive the dissolved aquatic life criterion is found in Appendix E, Table 2.
 - a Hardness as calcium carbonate (mg/l). The minimum hardness allowed for use in this equation shall not be less than 25 mg/l, even if the actual ambient hardness is less than 25 mg/l. The maximum hardness value for use in this equation shall not exceed 400 mg/l even if the actual hardness is greater than 400 mg/l.
 - b Known or suspected carcinogen. Human health standards are for a risk level of 10^{-6} .
 - c May not be applicable to wetlands (B4) - site-specific criteria are desirable.
 - d The early life stage equation in the National Criterion shall be used to establish chronic criteria throughout the state unless the applicant demonstrates that no early life stages of fish occur in the affected water(s).

APPENDIX E
TABLE 2

Conversion Factors

Metal	Acute	Chronic
Aluminum	1.000	1.000
Arsenic (III)	1.000	1.000
Cadmium	$1.136672 - [(\ln \text{ hardness})(0.041838)]$	$1.101672 - [(\ln \text{ hardness})(0.041838)]$
Chromium (III)	0.316	0.860
Chromium(VI)	0.982	0.962
Copper	0.960	0.960
Lead	$1.46203 - [(\ln \text{ hardness})(0.145712)]$	$1.46203 - [(\ln \text{ hardness})(0.145712)]$
Nickel	0.998	0.997
Silver	0.85	N/A
Zinc	0.978	0.986

~~APPENDIX F~~

~~ANTIDEGRADATION IMPLEMENTATION PROCEDURES~~

~~46-1-4A. Applicability.~~

~~4A.1. Except as noted, the antidegradation implementation procedures herein apply to regulated activities that have the potential to affect water quality. The level of review required will depend upon the existing uses of the water segment that would be affected, the level of protection ("tier") assigned to the applicable water segment, the nature of the activity, and the extent to which existing water quality would be degraded.~~

~~4A.2. Nonpoint source activities will be deemed to be in compliance with antidegradation requirements with the installation and maintenance of cost-effective and reasonable best management practices in accordance with 46 CSR 1-4.1.b. herein. These include, but are not limited to, best management practice programs for silviculture administered by the Division of Forestry, programs for oil and gas operations administered by the Office of Oil and Gas of the Division of Environmental Protection, nonpoint source construction activities, and reasonable land, soil and water conservation measures and practices applied to agricultural nonpoint sources.~~

~~4A.3. Where applicable and practical, the antidegradation procedure and review shall be integrated into and proceed concurrently with existing environmental processes and reviews pursuant to the National Environmental Policy Act.~~

~~4A.4. Information contained within existing environmental processes and reviews, such as environmental assessments, environmental impact statements, facilities plans, and findings of no significant impact, may be used to provide part or all of the requirements of the antidegradation procedure and review.~~

~~46-1-4B. Definitions.~~

~~4B.1. For purposes of this Subpart (Appendix F) the term "agency" or "agencies" refers to the Division of Environmental Protection or other federal, state, or local governmental entities with regulatory authority over activities that may affect water quality.~~

~~4B.2. For purposes of this Subpart (Appendix F) the term "regulated entity" refers generally to any regulated entity that affects or is proposing an activity that will affect water quality. For example, an applicant for a WV/NPDES permit, a WV/NPDES permit holder, or an owner or operator of an activity that discharges pollutants into a water of the state would be a regulated entity.~~

~~4B.3. For purposes of this Subpart (Appendix F) the term~~

~~"minimum uses" refers to recreation and wildlife and the propagation and maintenance of fish and other aquatic life.~~

~~46-1-4C. Antidegradation Review Process.~~

~~4C.1. As set forth in 46 CSR 1-4.1, the State's antidegradation policy requires that existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. This requirement applies to all waters of the state.~~

~~4C.2. Except where a water segment is specifically listed as a Tier 2.5 or Tier 3 water, the following section outlines how the agency conducting the antidegradation review will determine the level of protection ("tier") assigned to the receiving water body associated with the activity subject to this rule.~~

~~4C.3. Uses. The Director, in conducting an antidegradation review, must determine the existing uses of the receiving water body associated with the proposed activity. The Director shall determine the existing uses of the water body by identifying the uses set forth in 46 CSR 1 Section 6 that the water body currently supports, or has supported since November 28, 1975. The regulated entity may be required to provide data sufficient for the permitting agency to determine the existing uses of the water segment.~~

~~4C.4. Baseline water quality. Where baseline water quality has not been established for the water segment the regulated entity proposes to impact or has not been established for a parameter of concern that is reasonably expected to be discharged into the water segment as a result of the proposed regulated activity, the Director must determine the baseline water quality for the receiving water body. The Director may consider data for establishing the baseline water quality from a federal or state agency, the regulated entity, the public, or any other source, as long as the data are recent and reliable. If adequate data are not available, the agency may, in conjunction with the regulated entity or on its own initiative, establish a plan for obtaining the necessary data. The regulated entity may be required to provide baseline water quality for those parameters of concern that are reasonably expected to be discharged as a result of the regulated activity into the affected water segment to help the permitting agency determine the baseline water quality, the existing uses, and the applicable tier. The regulated entity may contact the Director prior to initiating a baseline water quality evaluation to seek concurrence with its determination of the parameters of concern for its proposed activity and its proposed sampling protocol.~~

~~4C.5. Determination of tier. If the tier has not already~~

~~been determined for the water segment the regulated entity proposes to impact, then after determining the baseline water quality for parameters of concern and the existing uses for a water body, the agency will determine which level of protection (i.e. "tier") applies to the receiving water body associated with the activity.~~

~~4C.5.a. Water segments listed in Appendix F-2 of this rule shall receive Tier 2.5 protection.~~

~~4C.5.b. Water segments within a federally designated Wilderness Area, as well as other water segments specifically listed in this rule as an outstanding national resource water shall receive Tier 3 protection.~~

~~4C.5.c. Water segments not within a federally designated Wilderness Area and not listed in Appendix F-2 of this rule shall receive Tier 1 protection, and shall receive Tier 2 protection if the water segment is determined, pursuant to 4E.1.a. through 4E.1.c. of this rule, to be a high quality water for purposes of antidegradation review.~~

~~4C.5.d. Water segments may be determined to receive only Tier 1 protection, pursuant to 4D.2. through 4D.6. of this rule, for purposes of antidegradation review.~~

~~4C.5.e. To the extent practicable, a list of water segments protected under Tier 2.5 or Tier 3 will be maintained on the West Virginia Division of Environmental Protection's website.~~

~~4C.6. Level of review. Once the correct level of protection ("tier") and water segment use(s) are identified for the receiving water body, the agency shall document its findings and proceed with the appropriate level of antidegradation review.~~

~~4C.7. On or after the effective date of these implementation procedures, new and reissued WV/NPDES general permits will be evaluated to consider the potential for significant degradation as a result of the permitted activity. Regulated activities that are granted coverage by a WV/NPDES general permit will not be required to undergo a Tier 2 antidegradation review as part of the permit registration process. Regulated activities that are granted coverage by a WV/NPDES permit that will degrade a Tier 2.5 or Tier 3 water segment must comply with the requirements of 4F and 4G herein.~~

~~4C.8. Regulated activities that qualify for coverage under a Corps of Engineers regional or nationwide permit pursuant to section 404 of the Federal Act that has been certified by the state pursuant to section 401 of the Federal Act will not be required to undergo a Tier 2 antidegradation review, provided,~~

~~however, that where an individual 401 certification is required, the Director may require an appropriate antidegradation review. Where an activity covered by a regional or nationwide permit pursuant to section 404 of the Federal Act and certified pursuant to section 401 of the Federal Act allows for filling of a water, this exemption only applies to the site of the fill, and does not apply to activities downstream of the site of the fill. Regulated activities that are granted section 401 certification that will degrade a Tier 2.5 or Tier 3 water segment must comply with the requirements of 4F and 4G herein.~~

~~4C.9. The Director shall develop guidance which addresses these implementation procedures and provides additional information to persons conducting regulated activities that are affected by these procedures. Such guidance shall include, but shall not be limited to, information regarding the following: (a) the determination of baseline water quality; (b) social and economic importance pursuant to section 4E.4; and (c) the reasonable alternatives analysis required by section 4E.3. The Director shall provide an opportunity for public review and comment before finalizing any guidance. Within twelve months of the effective date of this rule, the Director shall report to the advisory committee established pursuant to W.Va. Code §22-1-9 regarding the status of its implementation.~~

~~4G-1-4D. Tier 1 Protection.~~

~~4D.1. Existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.~~

~~4D.2. Tier 1 protection applies to all waters of the state. A water segment shall be afforded Tier 1 protection where the level of water quality is not sufficient to support recreation and wildlife and the propagation and maintenance of fish and other aquatic life, or where the water quality meets but does not exceed levels necessary to support recreation and wildlife and the propagation and maintenance of fish and other aquatic life.~~

~~4D.3. In determining whether a water segment is afforded only Tier 1 protection, the agency will focus on whether the water segment is meeting or failing to meet minimum uses, except that, notwithstanding any other provision of this rule, the main stems of the Monongahela River, and the Kanawha River from milepoint 72 to the confluence with the Ohio River shall be afforded Tier 1 protection only.~~

~~4D.4. The Director will consider whether a water segment is listed on the state's 303(d) impaired waters list, but where the parameter(s) for which the water segment is listed does not result in that water segment's failure to attain minimum uses and where all other parameters exceed the quality necessary to~~

~~support recreation and wildlife and the propagation and maintenance of fish and other aquatic life, the water segment will be afforded Tier 2 protection. Where the parameter(s) for which the water segment is listed does result in failure to attain minimum uses, such as an acid mine drainage-impacted water segment, that water segment will be afforded only Tier 1 protection.~~

~~4D.5. All water segments listed on the state's 303(d) impaired waters list will be afforded only Tier 1 protection for the parameter(s) that resulted in the water segment being listed.~~

~~4D.6. There also may be waters in the state where one or both of the fishable/swimmable uses are attained, but existing water quality is not "better than necessary" to support those uses (i.e., assimilative capacity does not exist for any of the parameters that would be affected by the proposed activity). Tier 1 protection is appropriate for such a water segment.~~

~~4D.7. Where existing uses of the water body are impaired, there shall be no lowering of the water quality with respect to the parameters of concern that are causing the impairment. The agency shall consider nomination of such water body for the 303(d) list of water quality-impaired streams.~~

~~4D.8. Where a proposed activity will result in a new or expanded discharge that would otherwise prevent attainment of an existing use in a water subject to Tier 1 protection, the applicant may be allowed to satisfy antidegradation review requirements by implementing or financing upstream controls of point or nonpoint sources sufficient to offset the water quality effects of the proposed activity from the same parameters and insure an improvement in water quality as a result of the trade. The basis of the trade will be documented and will be consistent with the trading assessment procedure that has been approved by the Director. A trade may be made between more than one stream segment where removing a discharge in one stream segment directly results in improved water quality in another stream segment. In addition, (1) the effluent trade must be for the same parameter; (2) where uncertainty exists regarding the effluent trade, an adequate margin of safety will be required; (3) dischargers cannot claim offsets for water quality improvements that are required or will occur irrespective of the proposed new or expanded discharge; and (4) the trade must be enforceable.~~

~~46-1-4E. Tier 2 Protection (High Quality Waters).~~

~~4E.1. Tier 2 protection.~~

~~4E.1.a. A water segment shall be considered a Tier 2 high quality water where the level of water quality exceeds levels~~

~~necessary to support recreation and wildlife and the propagation and maintenance of fish and other aquatic life.~~

~~4E.1.b. Tier 2 waters need not exceed the level of quality needed to meet or exceed numeric criteria for every parameter. Water segments that support the minimum fishable/swimmable uses and have assimilative capacity remaining for some parameters shall generally be afforded Tier 2 protection. For example, a water segment listed on the state's 303(d) impaired waters list can qualify for Tier 2 protection, but where the impairment that caused the water segment to be listed results in failure to attain minimum uses, that water segment will be afforded only Tier 1 protection.~~

~~4E.1.c. Where a water segment does not meet or exceed applicable water quality criteria for every parameter, the Director will determine whether the water segment will be afforded Tier 2 protection as part of the antidegradation review process using best professional judgment. In addition to data available for review, the Director may consider factors such as (1) existing aquatic life uses, (2) existing recreational or aesthetic uses, (3) existing water quality data for upstream segments or comparable segments, (4) biological score for the water segment, and (5) the overall value of the segment from an ecological, health and public use perspective.~~

~~4E.1.d. Where insufficient information is available to determine which tier should apply, a regulated entity may seek a determination that a water segment should be afforded only Tier 1 protection by submitting water quality data consistent with guidance developed pursuant to subdivision 4C.9. of this rule showing that there is no remaining assimilative capacity for any parameter to be affected by its activity. In seeking such a determination, the impacts of all of the regulated entity's activities on the water segment must be considered.~~

~~4E.1.e. Where there is insufficient information to establish which tier should apply, it is the intent of these procedures to apply Tier 2 protection to such waters until such time as sufficient water quality data is obtained to determine the appropriate level of protection. No presumption shall be made with regard to the actual quality of any waters as a result of such initial application.~~

~~4E.2. Tier 2 antidegradation review.~~

~~4E.2.a. Any regulated activity in a Tier 2 water segment is required to go through the Tier 2 antidegradation review process where:~~

~~4E.2.a.1. The regulated activity is a new or expanded~~

~~activity that would significantly degrade water quality, or~~

~~4E.2.a.2. the Director determines, upon renewal of a permit or certification, that other individual circumstances warrant a full review such as cumulative degradation resulting from multiple discharges within a watershed, degradation resulting from a single discharge over time, or degradation caused by a regulated facility's historic noncompliance with its permit.~~

~~4E.2.b. In allowing any degradation, the agency shall assure water quality adequate to protect existing uses fully (i.e., Tier 1 protection).~~

~~4E.2.c. The Director may determine that certain types or classes of activities should be exempt from Tier 2 review after balancing the relative impact of the activities on water quality against the overall benefit of the activities to public health and welfare or the environment. The Director's discretion to exempt activities from review pursuant to this section shall be exercised and construed narrowly. Such types or classes of activities may include, for example, expansions or improvements to publicly owned wastewater treatment facilities or activities, public benefit activities by governmental entities, or discharges related to environmental remediation activities. Where the agency tentatively determines to grant an exemption under this provision, notice of this determination must be included in any required public notice, such as public notice required prior to issuance of an NPDES permit. The Director's final determination is a final decision and subject to appeal to the Environmental Quality Board.~~

~~4E.2.c.1. A proposed new or expanded discharge from a publicly owned or publicly owned and privately operated sanitary wastewater treatment plant constructed or operated to alleviate a public health concern associated with failing septic systems or untreated or inadequately treated sewage, is exempt from Tier 2 review. This exemption would include combined sewer overflow elimination or reduction projects affecting one or more water bodies and applies only where there will be a net decrease in the overall pollutant loading discharged to the combined receiving waters.~~

~~4E.2.d. Degradation for Tier 2 shall be deemed significant if the activity results in a reduction in the water segment's available assimilative capacity (the difference between the baseline water quality and the water quality criteria) of ten percent or more at the appropriate critical flow condition(s) for parameters of concern. Critical flow conditions for non-precipitation induced discharges are the 7Q10 flow of the receiving stream, plus either of the following: maximum permitted flow or maximum flow specified in the application, for industrial~~

~~activities, or the average design flow, for wastewater treatment activities. Degradation will also be deemed significant if the proposed activity, together with all other activities allowed after the baseline water quality is established, results in a reduction in the water segment's available assimilative capacity of 20% or more at the appropriate critical flow conditions for the parameters of concern.~~

~~4E.2.e. Significant degradation will be determined on a parameter-by-parameter basis for each parameter of concern that might be affected by the regulated activity.~~

~~4E.2.f. A proposed activity that will result in a new or expanded discharge in a water subject to Tier 2 protection may be allowed where the applicant agrees to implement or finance upstream controls of point or nonpoint sources sufficient to offset the water quality effects of the proposed activity from the same parameters and insure an improvement in water quality as a result of the trade. The basis of the trade will be documented and will be consistent with the trading assessment procedure that has been approved by the Director. A trade may be made between more than one stream segment where removing a discharge in one stream segment directly results in improved water quality in another stream segment. In addition, (1) the effluent trade must be for the same parameter; (2) where uncertainty exists regarding the effluent trade, an adequate margin of safety will be required; (3) dischargers cannot claim offsets for water quality improvements that are required or will occur irrespective of the proposed new or expanded discharge; and (4) the trades must be enforceable.~~

~~4E.2.g. New or expanded activities determined to be significant by the agency shall be subject to the Tier 2 review requirements described in sections 4E.2. through 4E.5. herein. If the agency determines that no further Tier 2 review requirements shall apply for an activity, the activity must still achieve the highest established statutory and regulatory requirements applicable to them, or conditions of the permit, or water quality certification, and that determination must be made a part of the public notification, as provided in 4H.3.~~

~~4E.3. Review of alternatives.~~

~~4E.3.a. If a determination is made that significant degradation will occur, the agency shall determine whether reasonable and cost effective less-degrading or non-degrading alternatives to the proposed activity exist. The agency will evaluate any alternatives analysis submitted by the regulated activity for consistency with the requirements set forth in Subsection 4E.3.b. herein.~~

~~4E.3.b. A regulated entity proposing any new or expanded regulated activity that would significantly degrade water quality in a high quality water is required to prepare an evaluation of alternatives to the proposed activity. The evaluation must provide substantive information pertaining to the cost and environmental impacts associated with the following alternatives:~~

~~4E.3.b.1. Pollution prevention measures;~~

~~4E.3.b.2. Reduction in scale of project;~~

~~-~~

~~4E.3.b.3. Water recycle or reuse;~~

~~-~~

~~4E.3.b.4. Process changes;~~

~~-~~

~~4E.3.b.5. Innovative treatment technology or technologies;~~

~~4E.3.b.6. Advanced treatment technology or technologies;~~

~~4E.3.b.7. Seasonal or controlled discharge options to avoid critical water quality periods;~~

~~4E.3.b.8. Improved operation and maintenance of existing treatment systems; and~~

~~4E.3.b.9. Alternative discharge locations.~~

~~4E.3.c. After alternatives to allowing degradation have been adequately evaluated, a determination shall be made regarding whether cost-effective and reasonable non-degrading or less-degrading alternatives to the proposed activity shall be required. This determination will be based primarily on the alternatives analysis developed by the regulated entity, but may be supplemented with other information and data. As a rule of thumb, cost-effective and reasonable non-degrading or less-degrading pollution control alternatives with costs that are less than 110% of the costs of the pollution control measures associated with the proposed activity shall be considered reasonable.~~

~~4E.3.d. If it is determined that reasonable and cost-effective less-degrading or non-degrading alternatives to the proposed activity do exist, the project design may be revised accordingly. In general, if reasonable alternative(s) exist, the alternative or combination of alternatives that provide the least amount of degradation shall be implemented up to the determined reasonable and cost-effective threshold. If the regulated entity does not agree to adopt such reasonable and cost-effective alternatives, the alternatives analysis findings will be documented and the activity will not be allowed.~~

~~4E.4. Review of social and economic importance.~~

~~4E.4.a. If significant degradation would occur, even after application of reasonable less-degrading or non-degrading alternatives, a determination shall be made as to whether the proposed activity is necessary to accommodate important economic or social development in the area in which the waters are located.~~

~~4E.4.b. The regulated activity must document the social and economic importance of the proposed activity.~~

~~4E.4.c. The factors to be addressed in such documentation may include, but are not limited to, the following:~~

~~4E.4.c.1. Employment (e.g., increasing, maintaining or avoiding a reduction in employment);~~

~~4E.4.c.2. Increased production;~~

~~4E.4.c.3. Improved community tax base;~~

~~4E.4.c.4. Housing;~~

~~4E.4.c.5. Ancillary community economic benefit; and~~

~~4E.4.c.6. Correction of an environmental or public health problem.~~

~~4E.4.d. In addition to the above, a regulated entity may be required to submit the following:~~

~~4E.4.d.1. Information pertaining to current aquatic life, recreational, or other water uses;~~

~~4E.4.d.2. Information necessary to determine the environmental impacts that may result from the proposed activity;~~

~~4E.4.d.3. Facts pertaining to the current state of economic development in the area (e.g., population, area employment, area income, major employers, types of businesses);~~

~~4E.4.d.4. Government fiscal base; and~~

~~4E.4.d.5. Land use in the areas surrounding the proposed activity.~~

~~4E.4.e. Once the available information pertaining to the socio-economic importance of the proposed activity has been reviewed by the agency, a preliminary determination regarding~~

~~importance shall be made. In evaluating the regulated activity's demonstration of socio-economic importance, the agency may use EPA's Interim Economic Guidance for Water Quality Standards Workbook (EPA 823-B-95-002, March, 1995). Where there is a request for a variance from groundwater standards pursuant to 47 CSR 57 for existing sites where activities on those sites have the potential to impact surface water from contaminated groundwater and the activity is otherwise subject to this rule, the socio-economic justification process required under 47 CSR 57 subdivision 6.2.i will satisfy the requirements of this section. If the proposed activity is determined to have social or economic importance in the area in which the affected waters are located, the substance and basis for that preliminary determination shall be documented and the Tier 2 review shall continue.~~

~~4E.5. Intergovernmental coordination for Tier 2 reviews.~~

~~4E.5.a. The intergovernmental coordination requirements in 46 CSR 1 Section 4.1.b. will be accomplished by providing notice to those agencies listed in Appendix F-1 that the Director believes may have regulatory oversight of the regulated activity of the preliminary determination of the socio-economic review and requesting comments from those agencies regarding that review.~~

~~4E.5.b. The public notice of the proposed activity will be provided as set forth in section 4H.3. herein.~~

~~4E.5.c. Once the intergovernmental coordination and public notice requirements are satisfied, the Director shall make a final determination concerning the social or economic importance of the proposed activity. All social and economic importance determinations, including determinations to prohibit the activity, shall be documented and made a part of the public record.~~

~~46-1-4F. Tier 2.5 Protection Review Procedures (Waters of Special Concern):~~

~~See section 46-1-4.1.c and 46-1-2.29 for a description of waters of special concern.~~

~~4F.1. Tier 2.5 waters.~~

~~4F.1.a. Any proposed activity that would degrade a water segment listed in Appendix F-2 of this rule as waters of special concern will go through the Tier 2.5 antidegradation review process. Discharges from publicly-owned or publicly-owned and privately operated sanitary wastewater treatment plants that expand to alleviate a public health concern associated with failing septic systems or untreated or inadequately treated sewage, shall be permissible in a Tier 2.5 water segment where there will be a net decrease in the overall pollutant loading~~

~~discharged to the combined receiving waters: Provided, That less degrading alternative treatment technologies are considered and used where costs for such technologies are within budgets and rates approved for such expansion project. This provision may extend to combined sewer overflow elimination or reduction projects. Except as provided in 4F.1.b. of this rule, the listing procedure for Tier 2.5 waters is set forth in section 4H.1. herein. Currently listed Tier 2.5 waters are included in Appendix F-2 to this rule.~~

~~4F.1.b. Initial Presumptive Listing for Tier 2.5.~~

~~4F.1.b.1. The stream or stream segments that appear on Appendix F-3 shall be presumed to qualify as Tier 2.5 waters. Before any such stream or stream segment is protected as Tier 2.5 waters (and listed on Appendix F-2) the Director shall do the following:~~

~~(a) Assure compliance with all provisions of article one-a of chapter twenty two; and~~

~~(b) No sooner than six months and no later than twelve months from the effective date of this rule, provide, where practicable, individual notice to property owners along such stream or stream segment. In addition, notice by publication shall be provided to all property owners and others with a legal interest in the property. The notice shall include at a minimum, the information set forth in paragraphs 4H.1.a.1.a. through 4H.1.a.1.d. of this rule. The notice shall indicate that a property owner or holder of legal interest in the property shall have thirty days to file an objection to the inclusion of the stream or stream segment as a Tier 2.5 water.~~

~~4F.1.b.2. Should an objection be received from an owner or holder of a legal interest in property adjoining any stream on Appendix F-3, the Director shall provide written justification for the inclusion of the stream as a Tier 2.5 stream with reference to the criteria set out in 4H.1.a.2. of this rule. The Director shall then provide a thirty-day comment period on the proposed action.~~

~~4F.1.b.3. Where no objection is made to the inclusion of a stream or stream segment as a Tier 2.5 water, the stream shall be included by the Director on Appendix F-2 without further justification.~~

~~4F.1.b.4. Any final decision by the Director with regard to the inclusion of a stream in Tier 2.5 made following the procedure set forth in this paragraph, may be appealed to the EQB.~~

~~4F.1.c. Following the initial listing for Tier 2.5 waters, as described in paragraph 4F.1.b. above, subsequent additions or~~

~~deletions from Appendix F-2 shall be in accordance with section 4H.1., herein.~~

~~4F.2. Tier 2.5 antidegradation review.~~

~~4F.2.a. No significant degradation of Tier 2.5 waters will be allowed. For Tier 2.5 waters, degradation will be deemed significant if it exceeds the baseline water quality plus ten percent of available assimilative capacity (the difference between the baseline water quality and the water quality criteria), whether from a single activity or cumulatively, except that discharges affecting dissolved oxygen, pH, fecal coliform or temperature will be deemed insignificant provided that:~~

~~4F.2.a.1. For dissolved oxygen, the maximum DO sag will not be greater than 0.4 ppm based on an appropriate wasteload allocation model, unless that reduction is projected to cause a violation of sections 8.12 through 8.12.3 in Appendix E, Table 1 herein;~~

~~4F.2.a.2. pH is maintained within the 6.0 to 9.0 range;~~

~~4F.2.a.3. Thermal discharges will be consistent with 316(a) of the Federal Act or will not increase the temperature more than two degrees Fahrenheit at any time or cause other violations of applicable criteria in sections 8.28 through 8.28.4 in Appendix E, Table 1, herein.~~

~~4F.2.a.4. For fecal coliform, necessary and appropriate treatment (disinfection) or control is required and the fecal coliform concentrations are established as 200/100 ml monthly average and 400/100 ml daily maximum.~~

~~4F.2.b. Where a Tier 2.5 water has one or more parameters that fail to meet water quality criteria, the Director shall use best professional judgment in setting appropriate limitations for such parameters, with the goal of improving baseline water quality for such parameters over time.~~

~~4F.2.c. Where baseline water quality has not been established for the Tier 2.5 water segment for a parameter of concern that is reasonably expected to be discharged into the water segment as a result of a new or expanded regulated activity, a determination of the baseline water quality for the receiving water segment must be established for that parameter of concern prior to allowing any new or expanded discharge.~~

~~4F.2.d. The Director may consider data for establishing the baseline water quality from a federal or state agency, the regulated entity, the public, or any other source, as long as the data are recent and reliable. The regulated entity may be~~

~~required to provide baseline water quality for those parameters of concern that are reasonably expected to be discharged as a result of the regulated activity into the affected water segment.~~

~~4F.2.e. After the baseline water quality has been established for the parameters of concern reasonably expected to be discharged by the proposed activity, the de facto criteria for those parameters of concern will equal the established baseline water quality plus ten percent of available assimilative capacity.~~

~~4F.2.f. Regulated entities with discharges existing on or before the effective date of this rule that discharge into a Tier 2.5 water may be required to submit an alternatives analysis upon renewal of its application or upon the written request of the Director to evaluate reasonable and cost-effective alternatives that would reduce the activity's impact to a Tier 2.5 water.~~

~~4F.2.g. Discharges from activities in waters upstream of a water of special concern shall not result in the ambient water quality within the Tier 2.5 water exceeding the de facto criteria.~~

~~4F.2.h. A proposed activity that will result in a new or expanded discharge in a water subject to Tier 2.5 protection may be allowed where the applicant agrees to implement or finance upstream controls of point or nonpoint sources sufficient to offset the water quality effects of the proposed activity from the same parameters and insure an improvement in water quality as a result of the trade. The basis of the trade will be documented and will be consistent with the trading assessment procedure that has been approved by the Director. A trade may be made between more than one stream segment where removing a discharge in one stream segment directly results in improved water quality in another stream segment. In addition, (1) the effluent trade must be for the same parameter; (2) where uncertainty exists regarding the effluent trade, an adequate margin of safety will be required; (3) dischargers cannot claim offsets for water quality improvements that are required or will occur irrespective of the proposed new or expanded discharge; and (4) the trades must be enforceable.~~

~~4F.2.i. If a determination is made that the activity will result in significant degradation of a Tier 2.5 water, the activity shall not be allowed.~~

~~4F.2.j. If the activity is determined not to result in significant degradation of a Tier 2.5 water, the activity may be allowed. In such case the antidegradation review findings will be documented in writing and public notice activities will be initiated consistent with section 4H.3. herein.~~

~~4F.2.k. Short-term water quality impacts. The Director shall determine whether a proposed activity is short term in nature and the resulting changes in water quality will be temporary and have limited effects. Notwithstanding sections 4F.2.a. and 4F.2.e. herein, short-term activities which result in less than a 10% change in the available assimilative capacity may be deemed to have limited effects. Determinations will be made on a case-by-case basis and shall be made after consideration of the following factors:~~

~~4F.2.k.1. The length of time during which the water quality will be lowered;~~

~~4F.2.k.2. The percent change in ambient concentrations;~~

~~4F.2.k.3. The parameters affected;~~

~~4F.2.k.4. The likelihood for long-term water quality benefits to the segment (e.g., as may result from dredging of contaminated sediments);~~

~~4F.2.k.5. The degree to which achieving applicable water quality standards during the proposed activity may be at risk;~~

~~4F.2.k.6. The potential for any residual long-term influences on existing uses; and~~

~~4F.2.k.7. The cumulative impacts from all sources for the parameters affected.~~

~~46-1-4G. Tier 3 Protection Review Procedures (Outstanding National Resource Waters). See subdivisions 46-1-4.1.d and 46-1-2.15 for a description of Outstanding National Resource Waters (ONRW).~~

~~4G.1. Tier 3 waters. ONRWs are to be maintained, protected and improved where necessary. Any proposed new or expanded regulated activity that would degrade (result in a lowering of water quality) a water body that has been approved as an ONRW, other than temporary lowering of water quality, is prohibited.~~

~~4G.2. Tier 3 antidegradation review. The agency shall use the following antidegradation implementation procedures for evaluating new or expanded regulated activities that have the potential to affect Outstanding National Resource Waters (ONRWs), as described in subdivision 46-1-4.1.c. and as nominated and approved in accordance with the provisions of Appendix F.~~

~~4G.2.a. Determine whether the proposed activity is short term in nature and the resulting changes in water quality will be temporary. Such determination will be made on a case by case basis and shall be made after consideration of the following factors:~~

~~4G.2.a.1. The length of time during which the water quality will be lowered;~~

~~4G.2.a.2. The percent change in ambient concentrations;~~

~~4G.2.a.3. The parameters affected;~~

~~4G.2.a.4. The likelihood for long-term water quality benefits to the segment (e.g., as may result from dredging of contaminated sediments);~~

~~4G.2.a.5. The degree to which achieving applicable water quality standards during the proposed activity may be at risk; and~~

~~4G.2.a.6. The potential for any residual long-term influences on existing uses.~~

~~4G.2.b. If after review of the factors in 4G.2.a.1-6, the agency determines that the proposed activity will be short term in nature and the changes in water quality will be temporary and limited, the proposed activity may be authorized. In such case the antidegradation review findings shall be documented and public notice activities shall be initiated. If after review of the factors in 4G.2.a.1 through 4G.2.a.6. the agency determines that the proposed activity will not be short term in nature or that changes in water quality will not be temporary and limited, the proposed activity shall be denied.~~

~~4G.3. Sources upstream from an ONRW. Any proposed activity that would result in a permanent new or expanded discharge upstream of an ONRW segment is prohibited except where such source would improve or not degrade the existing water quality of the downstream ONRW segment.~~

~~4G.3.a. To determine whether the proposed activity will result in the lowering of water quality in the downstream ONRW segment, the following factors, when applicable, shall be considered:~~

~~4G.3.a.1. Change in ambient concentrations predicted at the appropriate critical condition(s);~~

~~4G.3.a.2. Change in loadings (i.e., the new or expanded loadings compared to total existing loadings to the segment);~~

~~4G.3.a.3. Reduction in available assimilative capacity;~~

~~4G.3.a.4. Nature, persistence and potential effects of the parameter;~~

~~4G.3.a.5. Potential for cumulative effects;~~

~~4G.3.a.6. Degree of confidence in the various components of any modeling technique utilized (e.g., degree of confidence associated with the predicted effluent variability); and~~

~~4G.3.a.7. Other factors determined by the Director, when appropriate.~~

~~4G.3.b. If a preliminary determination is made that the applicable criteria in 4G.3.a.1. through 4G.3.a.7. will be met, the antidegradation review findings shall be documented and the applicable public notice activities shall be initiated. If after review of the factors in 4G.3.a.1. through 4G.3.a.7., the Director determines that the proposed activity will result in the lowering of water quality in the downstream ONRW stream segment, the proposed activity shall be denied.~~

~~4G.4. For ONRWs in areas designated as federal Wilderness, nothing in this rule is intended to authorize activities not authorized by the Wilderness Act.~~

~~4G.5. A proposed activity that will result in a new or expanded discharge in a water subject to Tier 3 protection may be allowed where the applicant agrees to implement or finance upstream controls of point or nonpoint sources sufficient to offset the water quality effects of the proposed activity from the same parameters and insure an improvement in water quality as a result of the trade. The basis of the trade will be documented and will be consistent with the trading assessment procedure that has been approved by the Director. A trade may be made between more than one stream segment where removing a discharge in one stream segment directly results in improved water quality in another stream segment. In addition, (1) the effluent trade must be for the same parameter; (2) where uncertainty exists regarding the effluent trade, an adequate margin of safety will be required; (3) dischargers cannot claim offsets for water quality improvements that are required or will occur irrespective of the proposed new or expanded discharge; and (4) the trade must be enforceable.~~

~~46-1 4H. Designation of Tier 2.5 and Tier 3 waters; public participation in antidegradation reviews; appeals.~~

~~4H.1. Listing process for Tier 2.5 waters.~~

~~4H.1.a. Tier 2.5 Nomination Procedures. Any interested party or the Board may nominate a water to be listed as a Water of Special Concern. After reviewing the nomination the Board shall consider the qualification criteria and may designate the nominated water as a Tier 2.5 water in accordance with the notice and comment provisions of 46 CSR 6, Procedural Rules Governing Site Specific Revisions to Water Quality Standards. The address for filing such petitions is West Virginia Environmental Quality Board, 1615 Washington Street, East, Room 301, Charleston, West Virginia 25311-2126. The nominating party has the burden of establishing a basis for listing of a water segment as a Tier 2.5 water. The Board shall return insufficient nominations to the nominating party. Generally, nominations that fail to address at least three of the qualification criteria shall be considered insufficient.~~

~~4H.1.a.1. Upon receiving a sufficient nomination of a water or segment of a water for designation as a Tier 2.5 water pursuant to the Board's antidegradation policy, the Board shall, within 180 days of receipt of the nomination, notify each locality in which the water or segment lies and shall provide individual notice to property owners on the nominated segment. Where individual notice to property owners is impracticable, constructive notice by publication shall be provided. The written notice shall include, at a minimum:~~

~~4H.1.a.1.a. A description of the location of the waters or segment;~~

~~4H.1.a.1.b. The procedures and criteria for designation as well as the impact of the designation;~~

~~4H.1.a.1.c. The name of the person(s) making the nomination; and~~

~~4H.1.a.1.d. The name of a contact person at the Environmental Quality Board who is knowledgeable about the nomination of the waters or segment. After receipt of the notice of the nomination, landowners, the public and localities shall be provided 60 days to comment.~~

~~4H.1.a.2. Qualification Criteria. Factors to be considered in determining whether to assign a Water of Special Concern designation to a water from another category shall include the following:~~

~~4H.1.a.2.a. Impact on private property owners;~~

~~4H.1.a.2.b. Whether the interests of all affected parties have been adequately represented during the nomination and designation process;~~

~~4H.1.a.2.c. The location of the water;~~

~~4H.1.a.2.d. Any previous special designations;~~

~~4H.1.a.2.e. Existing water quality;~~

~~4H.1.a.2.f. Factors that indicate unique or exceptional ecological, recreational or aesthetic resource value;~~

~~4H.1.a.2.g. Impact on economic development in the area, including development of demonstrated natural resources; and~~

~~4H.1.a.2.h. Other factors determined by the Board, when applicable.~~

~~4H.1.a.3. Reclassification of a Water of Special Concern. The Board may on its own, or at the request of an interested party, consider reclassifying a Water of Special Concern to another antidegradation tier. In considering a reclassification, the Board shall review the criteria outlined in subparagraphs 4H.1.a.2.a. through 4H.1.a.2.h. above. After such consideration, the Board may reclassify a Tier 2.5 water in accordance with the notice and comment provisions of 46 CSR 6, Procedural Rules Governing Site Specific Revisions to Water Quality Standards.~~

~~4H.2. Listing process for Tier 3 waters.~~

~~4H.2.a. Tier 3 Nomination Procedures. Any interested party or the Board may nominate a water as an ONRW. After reviewing the nomination the Board shall consider the qualification criteria and may classify the nominated water as a Tier 3 water in accordance with the notice and comment provisions of 46 CSR 6, Procedural Rules Governing Site Specific Revisions to Water Quality Standards. The address for filing such petitions is West Virginia Environmental Quality Board, 1615 Washington Street, East, Room 301, Charleston, West Virginia 25311-2126. The nominating party has the burden of establishing a basis for listing of a water segment as a Tier 3 water. The Board shall return insufficient nominations to the nominating party. Generally, nominations that fail to address at least three of the qualification criteria set out in paragraph 4H.2.a.2. of this rule shall be considered insufficient.~~

~~4H.2.a.1. Upon receiving a sufficient nomination of a water or segment of a water for designation as a Tier 3 water pursuant to the Board's antidegradation policy, the Board shall notify each locality in which the water or segment lies and shall provide individual notice to property owners on the nominated segment. Where individual notice to property owners is impracticable, constructive notice by publication shall be provided. The written notice shall include, at a minimum:~~

~~4H.2.a.1.a. A description of the location of the waters or segment;~~

~~-~~

~~4H.2.a.1.b. The procedures and criteria for designation as well as the impact of the designation;~~

~~-~~

~~4H.2.a.1.c. The name of the person(s) making the nomination; and~~

~~4H.2.a.1.d. The name of a contact person at the Environmental Quality Board who is knowledgeable about the nomination of the waters or segment. After receipt of the notice of the nomination, landowners, the public and localities shall be provided 60 days to comment.~~

~~4H.2.a.2. Qualification Criteria. Factors to be considered in determining whether to assign an ONRW designation to a water from another category shall include the following:~~

~~4H.2.a.2.a. Impact on private property owners;~~

~~4H.2.a.2.b. Whether the interests of all affected parties have been adequately represented during the nomination and designation process;~~

~~4H.2.a.2.c. The location of the water;~~

~~4H.2.a.2.d. Any previous special designations;~~

~~4H.2.a.2.e. Existing water quality;~~

~~4H.2.a.2.f. Outstanding ecological value;~~

~~4H.2.a.2.g. Outstanding recreational or aesthetic value; and~~

~~4H.2.a.2.h. Other factors determined by the Board, when applicable.~~

~~4H.3. Public participation in antidegradation reviews.~~

~~4H.3.a. All antidegradation review findings shall be documented by the Director and made part of the public record. The findings, including the baseline water quality, the existing uses, and the tier assigned to the water body are to be available to the public.~~

~~4H.3.b. Any required public notice will be provided through the appropriate Class I or Class II legal advertisement in a qualified newspaper with the largest circulation for the county where the activity will occur. The notice will identify the action being considered, list all existing uses identified of the~~

~~water, and call for comments from the public regarding the proposed activity. The cost of such publication will be borne by the applicant.~~

~~4H.3.c. Public notice, opportunity for public comment, and opportunity for a public hearing, consistent with the requirements of 47 CSR 10 section 12, will be provided of all activities proposed to be allowed after a Tier 1, 2, 2.5, or 3 antidegradation review. Such public notice may be combined with other required notifications, such as notification to agencies as part of required intergovernmental coordination or notification of a proposed permit decision.~~

~~4H.3.d. Public notice is not required to be provided for proposed activities on Tier 1 or Tier 2 waters for which a review process has not been required, such as activities covered by a WV/NPDES general permit, except that any trading approved by the Director for antidegradation purposes will require public notice consistent with the requirements of 47 CSR 10 12.~~

~~4H.3.e. Public notice of Tier 2 antidegradation reviews. After a full Tier 2 review has been completed for a proposed activity, the public notice shall include notice of the availability of the following:~~

~~4H.3.e.1. The decision as to whether the proposed activity has been determined to comply with the antidegradation implementation rule;~~

~~4H.3.e.2. Findings from the alternatives analysis;~~

~~4H.3.e.3. A determination of the impact of the activity to ambient concentrations and baseline water quality;~~

~~4H.3.e.4. The results of the socio-economic evaluation of the activity;~~

~~4H.3.e.5. The determination regarding existence of reasonable and cost effective non-degrading or less degrading alternatives; and~~

~~4H.3.e.6. A description of the water segment that is subject to the antidegradation review.~~

~~4H.3.f. Once the intergovernmental coordination and public notice requirements of Subpart 4H.3. are satisfied, the Director shall make a determination concerning the social or economic importance in the area in which the affected water bodies are located. All determinations, including determinations to prohibit the activity, shall be documented and made a part of the public record.~~

~~4H.4. Appeals.~~

~~4H.4.a. Final agency decisions, made after public comment, that identify applicable uses, designate tiers, or that find regulated activities to be allowed or prohibited, are final actions that are appealable as set forth in the Administrative Procedures Act. Final agency actions made by the Director are appealable to the Board.~~

~~APPENDIX F-1~~

~~ANTIDEGRADATION IMPLEMENTATION PROCEDURES
INTERGOVERNMENTAL COORDINATION AGENCIES~~

~~STATE AGENCIES~~

~~Bureau of Commerce~~

~~Division of Natural Resources~~

~~Division of Forestry~~

~~Development Office~~

~~Department of Health and Human Resources~~

~~Bureau for Public Health~~

~~Bureau of the Environment~~

~~Division of Environmental Protection — all offices~~

~~Department of Agriculture~~

~~Soil Conservation Agency~~

~~Department of Transportation~~

~~Division of Highways~~

~~FEDERAL AGENCIES~~

~~— US Environmental Protection Agency, Region III~~

~~— US Fish and Wildlife Service~~

~~— US Army Corps of Engineers~~

~~— US Forest Service~~

~~— US Office of Surface Mining~~

~~APPENDIX F-2~~

~~WV DNR and WV DEP Waters of Special Concern~~

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APPENDIX F-3
Initial Presumptive Listing for Tier 2.5

DNR CODE	STREAM NAME	LENGTH (miles)	LENGTH (miles)
Tug Fork Watershed			
BST-60-D	CUB BRANCH	0.72	0.72
BST-60-E	GEORGE BRANCH	3.79	3.79
BST-60-F	CRANE CREEK	1.22	1.22
BST-60-G	HURRICANE BRANCH	2.99	2.99
BST-60-H-2	WHITE OAK BRANCH	1.78	1.78
BST-70-N	LITTLE SLATE CREEK	3.42	3.42
BST-70-U-1	BIG BRANCH	1.86	1.86
BST-70-W	JACOBS FORK	10.50	10.50
BST-70-Z	VALL CREEK	2.31	2.31
BST-76-E	DAYCAMP BRANCH	1.67	1.67
BST-99	ELKHORN CREEK	8.41	8.41
		38.68	
James River Watershed			
J-1-A	EWING RUN	2.64	2.64
J-1-C	NORTH FORK	5.88	5.88
J-2	SWEET SPRINGS CREEK	6.10	6.10
J-3	COVE CREEK	6.66	6.66
		21.27	
Kanawha River Watershed (Upper & Lower)			
K-13	LITTLE SIXTEENMILE CREEK	4.45	4.45
K-14-B-1	UNT OF FIVEFORK BRANCH	1.87	1.87
K-39-E-3	BAYS BRANCH	1.89	1.89
K-39-M-1	HOFFMAN HOLLOW	2.32	2.32
K-39-O	SHREWSBURY HOLLOW	1.54	1.54
K-76	LOOP CREEK	19.98	19.98
		32.06	
Coal River Watershed			
KC-10-22	WHITE OAK BRANCH	2.08	2.08
KC-31-B	HOPKINS FORK	8.95	8.95
		11.03	
Elk River Watershed			
KE	ELK RIVER	5.00	5.00
KE-102-A	CAMP CREEK	14.19	14.19
KE-111-K	SUGAR CREEK	10.51	10.51
KE-111-K-2	LITTLE SUGAR CREEK	7.61	7.61
KE-117-B	RIGHT FORK	13.60	13.60
KE-118	BERGOO CREEK	8.19	8.19
KE-127	BIG RUN	2.53	2.53
KE-129	VALLEY FORK	2.68	2.68
KE-133	DRY FORK	3.80	3.80
KE-135	BIG RUN	1.94	1.94
KE-136	PROPS RUN	1.38	1.38
KE-137	LAUREL RUN	2.63	2.63
KE-138	BIG SPRING FORK	9.67	9.67
KE-138-B	CUP RUN	2.02	2.02

KE-139-5A SLATY FORK	4.79	4.79
KE-139-B CROOKED FORK	2.51	2.51
KE-14-P PANTHER HOLLOW	1.55	1.55
KE-50-B-10 IKE FORK	1.88	1.88
KE-50-I ROCKCAMP RUN	6.66	6.66
KE-76-L-5 TUG FORK	3.83	3.83
KE-76-O POPLAR CREEK	6.29	6.29
KE-76-U JOHNSON BRANCH	2.44	2.44
KE-98-B-16 DESERT FORK	4.97	4.97
KE-98-C LEFT FORK	5.73	5.73
KE-98-C-1 LAURELPATCH RUN	1.51	1.51
KE-98-C-11 LAUREL FORK	5.59	5.59
KE-98-C-14 FALL RUN	6.06	6.06
KE-98-C-15 BIG RUN	3.79	3.79
KE-98-C-1 A LONG FORK	2.56	2.56
	145.90	

Gauley River Watershed

KG-GAULEY RIVER	26.56	26.56
KG-19-A DOGWOOD CREEK	5.08	5.08
KG-19-G ANGLINS CREEK	12.77	12.77
KG-19-J BRACKENS CREEK	6.55	6.55
KG-19-U-1 BROWN CREEK	3.19	3.19
KG-19-U-2-C OLD FIELD BRANCH	2.88	2.88
KG-19-U-2-D JOB KNOB BRANCH	3.85	3.85
KG-19-V-5 LAUREL CREEK	3.61	3.61
KG-19-V-7 KUHN BRANCH	1.91	1.91
KG-20 COLLISON CREEK	4.98	4.98
KG-24 HOMINY CREEK	23.40	23.40
KG-24-E GRASSY CREEK	5.68	5.68
KG-24-E-2 BRUSHY MEADOW CREEK	5.23	5.23
KG-24-J PRICE FORK	2.83	2.83
KG-26-K BRUSHY FORK	5.53	5.53
KG-32-J CRANES NEST RUN	2.26	2.26
KG-34-B COAL SIDING RUN	1.50	1.50
KG-34-E LAUREL CREEK	9.18	9.18
KG-34-E-11 MIDDLE BRANCH	3.34	3.34
KG-34-E-13 COLD SPRING BRANCH	1.71	1.71
KG-34-E-3 SPRING RUN	1.52	1.52
KG-34-E-8 BEECH RUN	3.08	3.08
KG-34-E-9 HOGCAMP RUN	2.55	2.55
KG-34-F LITTLE LAUREL CREEK	9.87	9.87
KG-34-F-2 IMPROVEMENT BRANCH	1.86	1.86
KG-34-G SOUTH FORK	7.21	7.21
KG-34-G-10 COLD KNOB FORK	5.60	5.60
KG-34-G-13 BIG RUN	1.44	1.44
KG-34-G-5 ELKLICK RUN	2.10	2.10
KG-34-G-6 ROCKY RUN	3.54	3.54
KG-34-G-8 BECKY RUN	2.56	2.56
KG-34-H NORTH FORK	16.37	16.37
KG-34-H-14 BEAR RUN	2.21	2.21
KG-34-H-4 HUNTERS RUN	3.09	3.09

KG-34-H-5	COATS RUN	1.08	1.08
KG-34-H-9	ARMSTRONG RUN	1.24	1.24
KG-45	BIG LAUREL CREEK	6.56	6.56
KG-57	MILLER MILL RUN	4.37	4.37
KG-58	LAUREL CREEK	2.07	2.07
KG-59	BIG RUN	1.32	1.32
KG-5-F-3	BEARPEN FORK	1.27	1.27
KG-5-H	ASH FORK	3.09	3.09
KG-5-J	NEIL BRANCH	2.65	2.65
KG-6	RICH CREEK	6.74	6.74
KG-60	TURKEY CREEK	4.86	4.86
KG-61	HUGHES RUN	2.79	2.79
KG-65	WILLIAMS CAMP RUN	1.66	1.66
KG-67	STRAIGHT CREEK	1.83	1.83
KG-70	BIG RUN	3.22	3.22
KG-72	MIDDLE FORK	1.96	1.96
KG-73	NORTH FORK	3.29	3.29
KGC	CRANBERRY RIVER	38.39	38.39
KGC-14	LICK BRANCH	1.22	1.22
KGC-15	HANGING ROCK BRANCH	1.24	1.24
KGC-19	DOGWAY FORK	8.75	8.75
KGC-21	BIRCHLONG RUN	2.18	2.18
KGC-23-E	CHARLES CREEK	2.59	2.59
KGC-24-C	LEFT FORK	1.52	1.52
KGC-3	JAKEMAN RUN	2.06	2.06
KGC-4	DARRENSHE RUN	4.59	4.59
KGC-7	BEE RUN	1.57	1.57
KGC-8	FOXTREE RUN	1.56	1.56
KGC-9	ALDRICH BRANCH	1.25	1.25
KGW	WILLIAMS RIVER	34.70	34.70
KGW-1	CRAIG RUN	2.00	2.00
KGW-19	UPPER BANNOCK SHOALS RUN	1.83	1.83
KGW-2	JONATHAN RUN	1.38	1.38
KGW-20	TEA CREEK	5.96	5.96
KGW-20-A	LICK CREEK	1.82	1.82
KGW-21	SUGAR CREEK	3.63	3.63
KGW-22	LITTLE LAUREL CREEK	2.47	2.47
KGW-25	DAY RUN	3.08	3.08
KGW-26	BLACK MOUNTAIN RUN	1.65	1.65
KGW-27	MOUNTAIN LICK RUN	2.11	2.11
KGW-3	SAWYER RUN	1.33	1.33
KGW-4	SPICE RUN	1.81	1.81
KGW-8	WHITE OAK FORK	2.14	2.14
KGW-9	LICK BRANCH	1.43	1.43
		379.30	
New River Watershed (Upper & Lower)			
KN-17	MANNS CREEK	3.37	3.37
KN-18	EPHRAIM CREEK	4.22	4.22
KN-23	BUFFALO CREEK	2.41	2.41
KN-24	SLATER CREEK	5.08	5.08
KN-26	PINEY CREEK	16.91	16.91

KN-26-B	FAT CREEK	6.56	6.56
KN-27	LAUREL CREEK	12.37	12.37
KN-27-C	CHESTNUT KNOB FORK	3.54	3.54
KN-29	GLADE CREEK	5.76	5.76
KN-29-E	PINCH CREEK	5.71	5.71
KN-32	MEADOW CREEK	2.59	2.59
KN-37	FALL BRANCH	1.93	1.93
KN-51-O	TURKEY CREEK	9.19	9.19
KN-61	RICH CREEK	2.85	2.85
KNB-12-B	LAUREL CREEK	4.86	4.86
KNB-13	CAMP CREEK	9.29	9.29
KNB-13-D	MASH FORK	2.91	2.91
KNB-13-G	SENG BRANCH	1.48	1.48
KNB-3	LITTLE BLUESTONE RIVER	4.73	4.73
KNB-30	CRANE CREEK	5.40	5.40
		111.16	

Greenbrier River Watershed

KNG	GREENBRIER RIVER	25.30	25.30
KNG(S)-1	MILLIGAN CREEK	5.71	5.71
KNG(S)-2-B	FLYNN CREEK	4.27	4.27
KNG(S)-3-A	BURNS RUN	4.08	4.08
KNG-23	SECOND CREEK	6.06	6.06
KNG-28	ANTHONY CREEK	15.70	15.70
KNG-28-D	LITTLE CREEK	8.08	8.08
KNG-28-P-1	LAUREL RUN	4.20	4.20
KNG-28-Q-2	TWOMILE RUN	1.55	1.55
KNG-47	BEAVER CREEK	8.18	8.18
KNG-49	SWAGO CREEK	3.77	3.77
KNG-53-G	BARCLAY RUN	1.71	1.71
KNG-53-H	DOUTHAT CREEK	9.02	9.02
KNG-60	LAUREL RUN	3.00	3.00
KNG-66-D	SHOCK RUN	4.46	4.46
KNG-66-H-2	LEFT PRONG	3.29	3.29
KNG-68	DEER CREEK	8.75	8.75
KNG-68-A	NORTH FORK	10.73	10.73
KNG-68-A-3	SUTTON RUN	1.60	1.60
KNG-68-A-4	TACKER FORK	2.46	2.46
KNG-68-A-5	BLACK RUN	2.43	2.43
KNG-68-A-6	ELLEBER RUN	3.08	3.08
KNG-68-A-6-A	GRIFFIN RUN	1.69	1.69
KNG-70	LEATHERBARK RUN	4.69	4.69
KNG-74	TROUT RUN	1.14	1.14
KNG-75	ALLEGHENY RUN	5.33	5.33
KNG-77	ELK CREEK	2.56	2.56
KNG-78	EAST FORK	19.87	19.87
KNG-78-A	JOHNS RUN	2.21	2.21
KNG-78-C	LITTLE RIVER	6.28	6.28
KNG-78-G	FIVEMILE HOLLOW	2.29	2.29
KNG-78-H	POCA RUN	2.73	2.73
KNG-78-H-1	LONG RUN	2.85	2.85
KNG-78-K	MULLENAX RUN	2.92	2.92

KNG-78-L	ABES RUN	2.65	2.65
KNG-79	WEST FORK	17.68	17.68
KNG-79-B	FILL RUN	1.91	1.91
KNG-79-C	LITTLE RIVER	7.59	7.59
KNG-79-C-1	SPAN OAK RUN	2.32	2.32
KNG-79-C-2	CLUBHOUSE RUN	11.02	11.02
KNG-79-C-3	HINKLE RUN	10.41	10.41
		245.59	

Little Kanawha River Watershed

LK-111	LAUREL RUN	6.04	6.04
LK-131	GETOUT RUN	3.01	3.01
LK-86-E-4	PINE RUN	1.57	1.57
LK-95-L	CARPENTER FORK	5.04	5.04
		15.66	

Cheat River Watershed

MC-12-A	LAUREL RUN	6.13	6.13
MC-12-B-3	HOG RUN	4.42	4.42
MC-12-B-6	MILL RUN	3.95	3.95
MC-18	ROARING CREEK	8.03	8.03
MC-1-A	RYAN HOLLOW	2.33	2.33
MC-20	ELSEY RUN	3.40	3.40
MC-2-A	DARNELL RUN	2.08	2.08
MC-33-A	FLAG RUN	5.51	5.51
MC-36	WOLF CREEK	6.90	6.90
MC-41	LONG RUN	1.22	1.22
MC-45	TOBES RUN	1.16	1.16
MC-46-B	RIGHT FORK	3.80	3.80
MC-47	JOHNATHAN RUN	1.86	1.86
MC-50	UPPER JOHNATHAN RUN	2.53	2.53
MC-51	CLOVER RUN	1.34	1.34
MC-51	LEFT FORK	9.16	9.16
MC-51-A	RIGHT FORK	5.45	5.45
MC-51-B	INDIAN FORK	4.16	4.16
MC-52	MINEAR RUN	6.63	6.63
MC-52-0.7	BRIDGE RUN	1.12	1.12
MC-52-A	ROARING RUN	2.12	2.12
MC-53	DRY RUN	2.73	2.73
MC-54	HORSESHOE RUN	15.55	15.55
MC-54-A	MIKE RUN	3.86	3.86
MC-54-C	MAXWELL RUN	2.92	2.92
MC-54-D	HYLE RUN	3.92	3.92
MC-54-E	LICK DRAIN	1.79	1.79
MC-54-F	LAUREL RUN	2.87	2.87
MC-54-G	LYNN RUN	1.33	1.33
MC-54-H	THUNDERSTRUCK RUN	3.89	3.89
MC-54-I	LEADMINE RUN	4.81	4.81
MC-54-I-1	LIME HOLLOW RUN	1.14	1.14
MC-54-J	WOLF RUN	1.80	1.80
MC-54-K	TWELVEMILE RUN	2.25	2.25
MC-55	DRY RUN	3.19	3.19
MC-56	MILL RUN	4.77	4.77

MC-57	WOLF RUN	1.90	1.90
MC-60	DRY FORK	3.76	3.76
MC-60-A	ROARING RUN	0.77	0.77
MC-60-C	ELKLICK RUN	4.52	4.52
MC-60-C-3	JOHN B. HOLLOW	1.12	1.12
MC-60-D-10	SAND RUN	3.19	3.19
MC-60-D-11	YOAKUM RUN	2.48	2.48
MC-60-D	LOWER BLACKWATER RIVER	2.62	2.62
MC-60-G	RED RUN	5.56	5.56
MC-60-I	MILL RUN	2.92	2.92
MC-60-J	ELKLICK RUN	2.59	2.59
MC-60-K	GLADY FORK	31.31	31.31
MC-60-K-1	THREE SPRING RUN	1.25	1.25
MC-60-K-11	MCCRAY CREEK	2.41	2.41
MC-60-K-15	DANIELS CREEK	3.18	3.18
MC-60-K-16	WEST FORK GLADY FORK	6.13	6.13
MC-60-K-16	WEST FORK GLADY FORK	4.27	4.27
MC-60-K-17	EAST FORK GLADY FORK	7.28	7.28
MC-60-K-17-A	LOUK RUN	1.19	1.19
MC-60-K-2	PANTHER CAMP RUN	1.73	1.73
MC-60-K-2-A	HOG RUN	1.17	1.17
MC-60-K-4	FIVE LICK CREEK	1.71	1.71
MC-60-K-5	WOODFORD RUN	1.14	1.14
MC-60-K-6	BAKER CAMP RUN	1.19	1.19
MC-60-L	BIG RUN	3.69	3.69
MC-60-N	LAUREL FORK	21.52	21.52
MC-60-N-4	BEAVERDAM RUN	2.12	2.12
MC-60-N-8	FIVE LICK RUN	2.45	2.45
MC-60-O	RED CREEK	6.77	6.77
MC-60-O-1	BIG RUN	3.47	3.47
MC-60-O-2	FLATROCK RUN	2.89	2.89
MC-60-O-3	GANDY RUN	2.26	2.26
MC-60-P	SPRUCE RUN	3.25	3.25
MC-60-Q	HORSECAMP RUN	4.59	4.59
MC-60-R	TORY CAMP RUN	2.43	2.43
MC-60-T	GANDY CREEK	15.68	15.68
MC-60-T-1	LOWER TWO SPRING RUN	2.29	2.29
MC-60-T-10	NARROW RIDGE RUN	2.16	2.16
MC-60-T-11	WARNER RUN	2.21	2.21
MC-60-T-2	UPPER TWO SPRING RUN	2.53	2.53
MC-60-T-3	SWALLOW ROCK RUN	1.82	1.82
MC-60-T-6	TAYLOR RUN	0.87	0.87
MC-60-T-8	BIG RUN	3.75	3.75
MC-60-T-9	GRANTS BRANCH	2.80	2.80
MCS	SHAVERS FORK	7.26	7.26
MCS-12	LITTLE LAUREL RUN	1.31	1.31
MCS-13	LITTLE BLACK RUN	4.74	4.74
MCS-14	CLIFTON RUN	2.11	2.11
MCS-15	RATTLESNAKE RUN	5.03	5.03
MCS-16	JOHNS RUN	2.70	2.70
MCS-2	HAWK RUN	1.09	1.09

MCS-22	TAYLOR RUN	2.97	2.97
MCS-22-A	STALNAKER RUN	1.61	1.61
MCS-28	UPPER POND LICK	6.29	6.29
MCS-3	HADDIT RUN	2.68	2.68
MCS-33	FISHING HAWK CREEK	3.60	3.60
MCS-3-A	SOUTH BRANCH	3.56	3.56
MCS-4	JOBS RUN	1.72	1.72
MCS-40	YOKUM RUN	2.56	2.56
MCS-43	GLADE RUN	2.67	2.67
MCS-46	RED RUN	2.75	2.75
MCS-47	BLISTER RUN	1.95	1.95
MCS-48	FISH HATCHERY RUN	2.66	2.66
MCS-49	LAMBERT RUN	3.23	3.23
MCS-5	LAUREL RUN	3.48	3.48
MCS-50	FIRST FORK	5.42	5.42
MCS-54	BEAVER CREEK	1.74	1.74
MCS-55	SECOND FORK	4.15	4.15
MCS-57	BLACK RUN	2.28	2.28
MCS-6	PLEASANT RUN	3.52	3.52
MCS-6-B	AARONS RUN	2.35	2.35
MCS-7	STONELICK RUN	1.68	1.68
MCS-8	LAUREL RUN	1.18	1.18
MCS-9	NAIL RUN	1.74	1.74
		415.11	

Tygart River Watershed

MT-18-E-5-B	FROG RUN	2.36	2.36
MT-23-F	MILL RUN	4.03	4.03
MT-23-H	MILL RUN	3.72	3.72
MT-38	ZEBB CREEK	4.04	4.04
MT-44	MATHEUS RUN	1.66	1.66
MT-45-C	RIGHT FORK	3.24	3.24
MT-47	BEAVER CREEK	6.20	6.20
MT-50-A	RIGHT FORK OF FILES CREEK	8.33	8.33
MT-50-A-1	LIMEKILN RUN	2.12	2.12
MT-50-B	LEFT FORK FILES CREEK	2.84	2.84
MT-61	SHAVERS RUN	6.95	6.95
MT-64	MILL CREEK	10.69	10.69
MT-64-C	GLADE RUN	1.59	1.59
MT-64-E	MEATBOX RUN	1.19	1.19
MT-64-F	POTATOHOLE FORK	1.84	1.84
MT-66	RIFFLE CREEK	1.91	1.91
MT-66-B	MCGEE RUN	3.40	3.40
MT-66-C	BACK FORK	2.01	2.01
MT-67	RAFE RUN	1.54	1.54
MT-68	BECKY CREEK	9.41	9.41
MT-68-A	BIG BRANCH	2.25	2.25
MT-72	HAMILTON RUN	2.49	2.49
MT-73	CLAY RUN	2.61	2.61
MT-74	ELKWATER FORK	5.20	5.20
MT-74-A	MOWRY RUN	2.34	2.34
MT-74-B	LIMEKILN RUN	1.93	1.93

MT-75	STEWART RUN	8.08	8.08
MT-77	CONLEY RUN	7.10	7.10
MT-78	RALSTON RUN	6.99	6.99
MT-79	WINDY RUN	4.60	4.60
MT-80	LOGAN RUN	2.49	2.49
MT-81	BIG RUN	5.14	5.14
MTB-25-A	RIGHT FORK	3.88	3.88
MTB-27	PANTHER FORK	4.08	4.08
MTB-28	BIG RUN	3.03	3.03
MTB-31	RIGHT FORK	2.24	2.24
MTB-31-B	REGER RUN	1.13	1.13
MTB-31-C	ALEC RUN	1.93	1.93
MTB-31-D	MILLSITE RUN	3.76	3.76
MTB-32	LEFT FORK	6.85	6.85
MTB-32-D	BEARCAMP RUN	5.00	5.00
MTB-32-H	BEECH RUN	4.62	4.62
MTM	MIDDLE FORK RIVER	7.32	7.32
MTM-1	HANGING RUN	4.68	4.68
MTM-11	RIGHT FORK MIDDLE FORK RIVER	7.42	7.42
MTM-11-D	JACKSON FORK	3.88	3.88
MTM-11-E	JENKS FORK	3.70	3.70
MTM-13	LONG RUN	7.66	7.66
MTM-16	CASSITY FORK	4.25	4.25
MTM-16-A	PANTHER RUN	4.43	4.43
MTM-21	PLEASANT RUN	1.82	1.82
MTM-22	LAUREL RUN	2.57	2.57
MTM-23	LAUREL BRANCH	4.00	4.00
MTM-24	SUGAR RUN	2.30	2.30
MTM-25	SCHOOLCRAFT RUN	3.08	3.08
MTM-25-A	BIRCH FORK	1.48	1.48
MTM-26	BIRCH FORK	3.56	3.56
MTM-27	MITCHELL LICK FORK	2.52	2.52
		231.49	

Upper Ohio North

O-102-A	WHITEOAK RUN	0.48	0.48
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Twelvepole Creek Watershed

O-2-H-2-A	STOWERS BRANCH	0.46	0.46
O-2-P-23	ARKANSAS BRANCH	0.75	0.75
O-2-P-25	SWEETWATER BRANCH	2.00	2.00
O-2-P-26	LONG BRANCH	2.59	2.59
O-2-P-27	SPRUCE FORK	1.84	1.84
O-2-Q-14	RICH CREEK	1.32	1.32
O-2-Q-16	BLUELICK BRANCH	2.28	2.28
O-2-Q-18-A	LITTLE LAUREL CREEK	2.09	2.09
		13.33	

Upper Ohio South

O-77-B	LONG RUN	4.51	4.51
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Guyandotte River Watershed

OG-102	BRICKLE BRANCH	1.64	1.64
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OG-29-C	HORSESHOE BRANCH	1.98	1.98
OG-32-F	PLUM BRANCH	2.35	2.35
OG-34-E	STEER FORK	1.64	1.64
OG-37	LITTLE UGLY CREEK	1.42	1.42
OG-38	BIG UGLY CREEK	8.49	8.49
OG-38-A	PIGEONROOST CREEK	3.62	3.62
OG-38-D	LAUREL CREEK	2.60	2.60
OG-61	BUFFALO CREEK	3.01	3.01
OG-96-A	STURGEON BRANCH	1.57	1.57
OGM-8-B	LEFT FORK	2.75	2.75
		31.06	

Potomac Direct Drains Watershed

P-16	ROCKWELL RUN	10.39	10.39
P-9-G-1	NORTH FORK INDIAN RUN	1.49	1.49
P-9-G-2	SOUTH FORK INDIAN RUN	3.76	3.76
		15.63	

Cacapon River Watershed

PC-0.9	CONOR HOLLOW	7.73	7.73
PC-1	CONSTANT RUN	5.23	5.23
PC-10	EDWARDS RUN	7.00	7.00
PC-17	HAWK RUN	4.62	4.62
PC-23	TROUT RUN	16.62	16.62
PC-24-H	LOWER COVE RUN	4.63	4.63
		45.83	

North Branch / Potomac River Watershed

PNB-14	HOWELL RUN	3.83	3.83
PNB-15	DEEP RUN	4.75	4.75
PNB-15-A	CRANBERRY RUN	2.66	2.66
PNB-16-B	WYCKOFF RUN	2.43	2.43
PNB-18	DIFFICULT CREEK	5.17	5.17
PNB-18-B-1	JOHNNYCAKE RUN	3.28	3.28
		22.11	

South Branch / Potomac River Watershed

PSB-13	MILL RUN	8.95	8.95
PSB-21-F	DUMPLING RUN	2.60	2.60
PSB-21-K	ROUGH RUN	6.92	6.92
PSB-25-C-2	SPRING RUN	2.98	2.98
PSB-28-A-1	BIG RUN	2.61	2.61
PSB-28-A-2	LAUREL RUN	3.17	3.17
PSB-28-B	SAMUEL RUN	2.85	2.85
PSB-28-C	BROAD RUN	2.39	2.39
PSB-28-D	MOYER FORK	7.92	7.92
PSB-28-E	HIGH RIDGE RUN	2.28	2.28
PSB-28-EE	BIG RUN	12.84	12.84
PSB-28-EE-2	SAWMILL BRANCH	3.22	3.22
PSB-28-EE-2-A	BACK RUN	3.39	3.39
PSB-28-EE-3	TEETER CAMP RUN	3.71	3.71
PSB-28-EE-3-A	HEMLOCK RUN	1.91	1.91

PSB-28-EE-3-B LEONARD SPRING HOLLOW	4.64	4.64
PSB-28-EE-3-C MIDDLE RIDGE HOLLOW	4.81	4.81
PSB-28-EE-3-D BUD HOLLOW	3.54	3.54
PSB-28-EE-4 ELK RUN	3.93	3.93
PSB-28-G ZEKE RUN	3.70	3.70
PSB-28-GG-1 VANCE RUN	3.27	3.27
PSB-28-GG-2 SAMS RUN	1.10	1.10
PSB-28-GG-2-A LITTLE LOW PLACE HOLLOW	1.10	1.10
PSB-28-I POWDERMILL RUN	2.84	2.84
PSB-28-K SENECA CREEK	20.26	20.26
PSB-28-K-1 BRUSHY RUN	7.79	7.79
PSB-28-K-2 ROARING CREEK	6.13	6.13
PSB-28-K-2-B LONG RUN	2.23	2.23
PSB-28-K-3 HORSECAMP RUN	4.06	4.06
PSB-28-K-3-B WAMSLEY RUN	1.52	1.52
PSB-28-K-4 STRADER RUN	2.56	2.56
PSB-28-K-5 GULF RUN	1.46	1.46
PSB-28-K-6 WHITES RUN	3.86	3.86
PSB-28-K-6-A LOWER GULF RUN	4.67	4.67
PSB-28-K-6-B UPPER GULF RUN	2.67	2.67
PSB-28-R BLIZZARD RUN	3.60	3.60
PSB-28-S BRIERY GAP RUN	2.65	2.65
PSB-28-T LAUREL RUN	2.74	2.74
PSB-29 REDMAN RUN	3.41	3.41
PSB-30 LONG RUN	2.88	2.88
PSB-32 BRIGGS RUN	4.57	4.57
PSB-33 REEDS CREEK	11.16	11.16
PSB-40 PETERS RUN	5.08	5.08
PSB-47 THORN CREEK	9.08	9.08
PSB-9 MILL CREEK	25.38	25.38
	224.40	

Shenandoah River Watershed (Hardy County)

S-9-A CAPON RUN	2.19	2.19
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Total number of streams	444
Total Miles	2006.80

WV Environmental Quality Board

PUBLIC HEARING

JUNE 28, 2001 AT 7:00 P.M.

Sign-In Sheet

NAME:

SPEAKING:

- | | |
|----------------------------|----------------|
| 1.) Nathan Felty | Yes |
| 2.) Cindy Roch | ~~Yes~~ |
| 3.) Deana Smith | No |
| 4.) Ker Ward | No |
| 5.) Dave Yaussey | No |
| 6.) ~~Karen Price~~ | ~~Yes~~ |
| 7.) Scott D. Goldman | Yes |
| 8.) Gretchen Taylor | Yes ? |

- 9.) TAM Rodd Yes.
- 10.) Karen Price Yes-
- 11.) STEVE HANNAH YES
- 12.) Tim Mallon No
- 13.) Doyde Coakley yes
- 14.) Jennie Henthorn No
- 15.) _____
- 16.) _____
- 17.) _____
- 18.) _____
- 19.) _____
- 20.) _____
- 21.) _____
- 22.) _____
- 23.) _____
- 24.) _____
- 25.) _____
- 26.) _____

BEFORE THE WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD

CHARLESTON, WEST VIRGINIA

REQUIREMENTS GOVERNING GROUNDWATER STANDARDS

CITE AUTHORITY 22B-3-4

AND

REQUIREMENTS GOVERNING GROUNDWATER STANDARDS

CITE AUTHORITY 22-12-4 and 22B-3-4

The following is a transcript of a hearing held in the above-entitled action, on the 28th day of June, 2001, commencing at approximately 7:00 a.m. and concluding at approximately 7:55 a.m., at 1615 Washington Street, East, 2nd Floor Conference Room, Charleston, West Virginia, before Karen D. King, Certified Court Reporter and Notary Public.

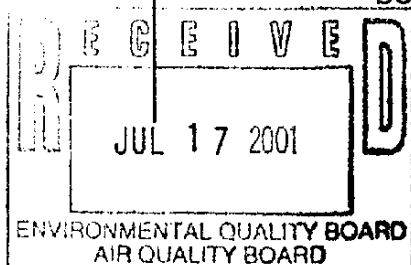
JANET T. SURFACE COURT REPORTERS

Attending Reporter: Karen D. King

145 Belle Acres

Scott Depot, West Virginia 25560-9432

(304) 757-0622



APPEARANCES:Board Members:

Edward Snyder, Chairman
Cameron Hackney, Board Member
Dr. David Samuel, Board Member

Staff Members:

Libby Chatfield, Chairperson
Melissa Carte, Clerk
Becky Charles, Staff Member

Speakers:

Mr. Nathan Fetty
Ms. Cindy Rank
Mr. Scott Goldman
Mr. Tom Rodd
Ms. Karen Price
Mr. Steve Hannah
Mr. Doyle Coakley
Mr. Lewis Baker
Ms. Gretchen Taylor
Mr. Tim Mallan

EXHIBITS:

Sign-In Sheet
Statement by Scott D. Goldman

Reporter's Certificate.....55

1 June 28, 2001 - 7:00 p.m.

2 PROCEEDINGS

3 CHAIRMAN SNYDER: Well, good evening. It
4 still looks like day. We're going to be getting
5 started with the West Virginia Environmental Quality
6 Board public hearing on the proposed rules for
7 categorizing groundwater.

8 We have Board Members here this evening,
9 Dr. Cameron Hackney from West Virginia University,
10 Dr. David Samuel from West Virginia University,
11 emeritus and from around the globe lately. I'm Ed
12 Snyder here from Shepard College, and Chair. To my
13 immediate left is Libby Chatfield. Melissa Carte,
14 Clerk of the Board, and Rebecca Charles. And I think
15 most of you recognize most of us.

16 What we would like to start out with this
17 evening then is a brief summary of where we are with
18 Category A. First, I believe Libby. I think that's
19 where we should go first. And Libby will give a
20 synopsis and then we will open up for comment.

21 MS. CHATFIELD: Yes, we have two rules
22 tonight that we are going to take comments on:

1 46 C.S.R. 1 is requirements governing water quality
2 standards.

3 Notice of both of these hearings was filed
4 in the Secretary of State's office on May 29th, 2001,
5 and those filings included the requisite summaries,
6 and statement of circumstances, and fiscal notes.
7 And those are available if anybody would like them.

8 We will be taking oral comments tonight.
9 You can submit written comments if you have them.
10 The deadline for written comments is tomorrow at
11 five o'clock. So if you can get them in by fax or
12 e-mail or hand delivery by five o'clock, we will
13 accept them.

14 We will take comments on the water quality
15 standards first. And there are actually two issues
16 that we have proposed changes to in the water quality
17 standards. One, as Dr. Snyder said, is the public
18 drinking water designated use, Category A.

19 And what the Board has proposed in the rule
20 is to clarify that the drinking water use applies to
21 all waters of the State unless it's been removed.
22 There are certain waters from which Category A has

1 already been removed, and they are outlined in
2 Section 7 of the rule.

3 We are also considering developing a
4 procedural rule to remove -- in the future, to remove
5 the Category A use on a case-by-case basis. And,
6 obviously, we don't have that rule -- the text of
7 that rule proposed yet, but we will be working on
8 that over the next several months and hope to
9 coordinate the completion of that rule with the
10 legislative process where these changes will occur.

11 We've changed two or three sections of the
12 rule to reflect the fact that Category A will apply
13 to all waters, and this is consistent with the way
14 DEP, the West Virginia Department of Environmental
15 Protection, has been implementing the rule for a
16 number of years.

17 The other change that we've proposed in
18 this rule is to remove the appendices F through F3.
19 Those appendices include the antidegradation
20 implementation procedures that were recently passed
21 in the 2001 legislative session.

22 We're removing those because, also, in the

1 2002 legislative session, Senate Bill 3240 passed.
2 That bill shifted the authority for promulgating the
3 antidegradation implementation procedures from the
4 Board to the DEP.

5 We're proposing to remove these provisions
6 from our rule, obviously, that won't become effective
7 until after the legislative session. We understand
8 and believe that DEP is going to be filing those same
9 provisions, the exact provisions that we have in our
10 rule, as an emergency rule after the 1st of July when
11 that authority shifts. So we're anticipating that
12 shift in authority and proposing to remove them from
13 our rule at this time.

14 So with that, do you want to open it up for
15 comments?

16 CHAIRMAN SNYDER: Yes. And the first
17 speaker will be Nathan Fetty.

18 THEREUPON came,

19 NATHAN FETTY,

20 MR. FETTY: Is there a time limit? I'm
21 just curious.

22 CHAIRMAN SNYDER: The answer is, of course

1 there is a time limit. What do we do about -- Well,
2 we'll just see how long he goes on.

3 MR. FETTY: I don't have that much. I
4 promise.

5 CHAIRMAN SNYDER: I think we -- Was it ten
6 minutes maximum, and if we had a large group, we kept
7 it at five?

8 BOARD MEMBER SAMUEL: Last year, when there
9 was 3,400 million people, we --

10 MS. CHATFIELD: (Interrupting.) It was
11 three minutes.

12 BOARD MEMBER SAMUEL: -- it was three
13 minutes.

14 CHAIRMAN SNYDER: Five minutes, I think,
15 sounds very controllable.

16 MR. FETTY: I'm Nathan Fetty with the West
17 Virginia Rivers Coalition. On the Category A, issue
18 we're happy to see that the EQB wants to apply the
19 Category A standard to all of the states surface
20 waters.

21 We're glad that the Board and the DEP and
22 the Bureau for Public Health realize that protections

1 like these are an asset to the quality of life in the
2 state. And we're glad that these entities realize
3 that the State's fortunate to have so many waters
4 that, with relatively little treatment, can be and
5 are used as drinking water sources.

6 The State needs to continue accounting for
7 those households and small communities that aren't
8 served by municipal providers or public service
9 districts, but who do use the surface waters for
10 drinking water.

11 We have concerns about EQB's proposal for
12 Category A and that exemptions to the standard
13 wouldn't go through the legislative process. We
14 realize that the legislature has asked each of you to
15 re-examine how Category A is applied, but we believe
16 that there has been no problem with how the standard
17 has been applied for decades in West Virginia.

18 We hope this proposal won't be an avenue by
19 which exemptions to the Category A standard are given
20 more frequently and in greater numbers. In some
21 ways, it feels like we're being asked to come in on a
22 proposal that's incomplete, since we have yet to see

1 a procedural rule that would dictate exactly how
2 exemptions would or would not be given.

3 We're hopeful that the Board will allow for
4 full public review and comment, not only in the
5 development of this procedural rule, but also in each
6 and every exemption the Board is asked to give.

7 Now, on the groundwater/arsenic issue, I
8 have a couple of points I wanted to make. We're
9 encouraged that the Board is examining the State's
10 arsenic standard for groundwater and is concerned
11 about the public health effects of arsenic.

12 Long-term exposure to low concentrations of
13 arsenic in drinking water can lead to skin, bladder,
14 lung, and prostate cancer. Noncancerous effects of
15 ingesting arsenic at low levels include,
16 cardiovascular disease, diabetes, anemia, as well as
17 reproductive developmental immunological and
18 neurological effects.

19 The 50 parts per billion standard for
20 arsenic in drinking water is based on a 1942 study by
21 the Public Health Service, and that is science that
22 is nearly 60 years old. The PHS, itself, in 1962

1 recommended lowering the arsenic standard to 10 parts
2 per billion, but over the decades the Federal
3 Government has repeatedly missed deadlines for a new,
4 more protective standard.

5 We understand that the Board is looking at
6 EPA to enact a new arsenic standard within the next
7 year, and we ask that the Board propose an arsenic
8 standard that is much more protective than 50 parts
9 per billion.

10 Further, we're hopeful that the Board will
11 propose a more protective arsenic standard for West
12 Virginia even if EPA continues to fail to do so.

13 A 1999 study by the National Academy of
14 Sciences states that the current EPA arsenic standard
15 at 50 parts per billion could easily result in a
16 cancer risk of 1 in a hundred, which is about 10,000
17 times higher a cancer risk than EPA would allow for
18 carcinogens in food.

19 The report concludes: (Reading.) "Upon
20 assessing the available evidence, it is the
21 subcommittee's consensus that the current EPA maximum
22 contaminant level for arsenic in drinking water of 50

1 ppb does not achieve EPA's goal for public health
2 protection, and, therefore, requires downward
3 revision as promptly as possible.

4 It would seem to Rivers Coalition that the
5 arsenic level of 50 parts per billion is not
6 scientifically supportable, and the justification for
7 establishing an arsenic level at 50 would be to avoid
8 the cost of clean up.

9 In light of these facts, we hope that EQB
10 will consider a more protective arsenic standard, and
11 we recommend that the EQB adopt an arsenic level of
12 at least 10 parts per billion if not a standard
13 that's more protective.

14 Thank you for the opportunity to comment.

15 CHAIRMAN SNYDER: Thank you, Mr. Fetty.

16 MR. FETTY: Oh, and I also have some
17 comments to submit.

18 CHAIRMAN SNYDER: Okay.

19 MR. FETTY: Thank you.

20 CHAIRMAN SNYDER: Thank you. The next
21 speaker, Cindy Rank.

22 MS. CHATFIELD: And I'm sorry if I didn't

1 make clear, we will be separating the comments for
2 the water quality standards and the groundwater
3 standards. Mostly so that we can have the transcript
4 separated for submission to the legislature. So
5 we're doing water quality standards now, and we'll
6 move to groundwater after.

7 CHAIRMAN SNYDER: We won't forget what
8 you've said though.

9 MR. FETTY: Does that mean I get to say it
10 again?

11 MS. CHATFIELD: We'll photo copy your page.

12 MS. RANK: I'm Cindy Rank, and I'm here on
13 behalf of the West Virginia Highlands Conservancy and
14 our smaller community group, Friends of the Little
15 Kanawha, as well as myself as a user -- a direct user
16 of surface water and someone who knows other people
17 in our area who use service water and spring water
18 directly connected with service water with very
19 little, minimum treatment of settling chlorination
20 and things like that.

21 As in the past, since the late -- well,
22 since the early 80's, I come here in support of the

1 designation of all waters of the State, at least the
2 fall back designation as drinking water, because
3 those standards are most protective or contain most
4 protections or met a lot of chemical parameters,
5 which we have to be very careful of.

6 We support the whole proposal with some
7 trepidation about the procedural rule that has yet to
8 be developed. We would hope that it is at least as
9 strong as the Board is now in terms of accepting
10 comments and proposing changes in use for whatever
11 stream segments that you are talking about.

12 Our support of the proposal is based on the
13 fact, even though I understand the Manufacturers
14 Association is going to disagree wholeheartedly with
15 that in the comments that they have submitted, that
16 it is indeed, at least my understanding, for the past
17 20 years of coming to the Board meetings, it has been
18 the historic practice of applying this as the minimum
19 standard for all waters of the State.

20 We also have the belief that the future
21 well-being of West Virginia is directly tied to our
22 ability to provide the best water quality for future

1 growth and development, whether that be industrial,
2 residential, and so the most protective standards are
3 most important for that development, and, also, on
4 the recognition that the state agencies will never
5 have sufficient, at least not in our opinion, a
6 sufficient amount of monies, time, or personnel, to
7 go out and adequately assess every stream segment
8 that we're talking about or will come up for
9 discussion at this Board, especially the small head
10 water stream areas that I come from and am most
11 familiar with as opposed to the Ohio river, which
12 friends in the audience frequently talk about.

13 Unless there is an affirmative
14 demonstration to the contrary, we believe that the
15 Board is correct to assume that most protective use
16 categories and to apply them to all waters of the
17 State.

18 And we think that it's important to include
19 Category A as well as B and C here mainly because of
20 the protection levels for those metals and other
21 chemical compounds that aren't applicable to those
22 other categories -- use categories B, C or A or the

1 others.

2 Whether or not -- I truly believe because
3 if my water wasn't considered accurate for drinking
4 water when I moved here, I wouldn't be able to use it
5 in -- with as little treatment as we do at this point
6 in time.

7 And I think that it is important for us,
8 whether we're going to have technology based effluent
9 limits or water quality based effluent limits, that
10 we adequately assess the true nature of those streams
11 before either of those effluent limits are applied in
12 whatever NPDES permits that we're talking about,
13 because we're protecting for the future -- the
14 ability of these water sources to support, you know,
15 other uses other than whatever industry might propose
16 with them today.

17 Our main concerns, of course, with the
18 proposal are two fold, and that's the addition of
19 this abbreviated process for changing the use
20 designation and the underdescribed or unspecified
21 process that will be used.

22 Our greatest fear, of course, is that the

1 process itself will go the same way that the
2 antidegradation implementation policy has gone, and
3 in many ways, to me anyway, maintaining -- it will be
4 as detrimental to maintaining Category A use as the
5 recently enacted antidegradation implementation
6 policy perhaps will be to maintain the high quality
7 of some of the waters I'm most concerned about and
8 are least paid attention to in some of the NPDES
9 permitting processes that go on.

10 We are also concerned about the
11 eliminations of current language in 6.2 that
12 specifically include and recognizes the private
13 domestic water systems and all other surface water
14 intakes used as human consumption as well as larger
15 community and municipal sources are recognized as
16 truly drinking water sources and adequate protection
17 measures then can be afforded to them.

18 And without that specific recognition,
19 again, some of my friends in the audience will
20 certainly say that that's not something that we have
21 to pay attention to in some of these smaller areas,
22 that people don't believe that it's used for human

1 consumption.

2 Of course, we continue to object to the
3 elimination of manganese, and I will have to keep
4 repeating that, from the human health criteria. And
5 certainly I still think that the five-mile rule for
6 manganese in drinking water -- around drinking water
7 sources, is inadequate. And I would hope that
8 sometime in the next 20 years, we can see that
9 reversed and put back in.

10 In brief, I guess, we would have to say
11 that we support the proposal, generally, although we
12 have great reservations about the unknowns with the
13 process that is being proposed.

14 And we thank you for trying to put into the
15 regs what we have known for 20 years, that indeed
16 Category A was one of the basic assumptions in the
17 minimum levels that we have accepted for all of these
18 years for all waters.

19 Thank you.

20 CHAIRMAN SNYDER: Thank you, Ms. Rank. The
21 next speaker, Scott Goldman.

22 MR. GOLDMAN: Good evening. My name is

1 Scott Goldman, and I am an attorney with the law firm
2 of Jackson & Kelly. I am here this evening to
3 present a brief statement on behalf of the West
4 Virginia Chamber of Commerce. In addition to this
5 oral statement, the Chamber will be providing written
6 comments to the Board by tomorrow's deadline.

7 The Environmental Quality Board has once
8 again proposed to amend the State water quality
9 standards by designating all waters of the State as
10 Category A drinking waters even though a conservative
11 estimate has suggested that only 2 percent of surface
12 streams are used as sources for public drinking
13 water.

14 Although the Board historically has
15 received lengthy comments from the Chamber, as well
16 as from other trade organizations and individual
17 companies describing the inherent regulatory
18 difficulties of designating all of the state's waters
19 as Category A waters, the Board has elected to adopt
20 the statewide designation.

21 However, the Board, acknowledging the
22 difficulty the regulated community will have if all

1 waters of the State are considered Category A, also
2 voted to develop an "expedited use removal process"
3 as outlined by Libby Chatfield in a March 28, 2001,
4 memorandum to the Board.

5 The Chamber is disturbed by the Board's
6 proposal to move forward on part of the Board's
7 May 16, 2001, vote that has designated all State
8 waters as Category A without moving forward on the
9 remaining portion of the Board's May 16, 2001, vote
10 developing an expedited use removal procedure.

11 The Board has acknowledged the numerous
12 difficulties a statewide designation of public
13 drinking water will cause but has refused to address
14 the problem until a later date.

15 Further, the Chamber questions whether the
16 federal water quality standards even authorize the
17 Board to develop such an expedited use removal
18 procedure. The Chamber urges the Board to not
19 designate all waters of the State as Category A.

20 Regardless of the "expedited use removal"
21 question, though, this broad-brush approach of
22 developing a statewide Category A use designation

1 creates a legal generalization that takes reality and
2 turns it on its head.

3 Waters upon which there are no drinking
4 water uses will now be designated as such without
5 having undergone even the first analytical assessment
6 of actual uses.

7 In fact, such a designation is specifically
8 prohibited by the federal water quality standards.
9 As the Chamber will further elaborate in its written
10 comments, the federal water quality standards
11 specifically require a State to perform a formal use
12 attainability analysis if the State designates uses
13 other than, quote, fishable or swimmable.

14 Even if the Board is legally authorized to
15 declare all waters of the State as public drinking
16 water supplies without performing a use attainability
17 analysis, which the Chamber does not concede,
18 addition of the overly broad use designation to the
19 entire state will result in increased regulation, but
20 not increased protection.

21 With increased regulation will come
22 increased operational costs for both the State and

1 the regulated community. Ultimately, this will
2 result in an unwarranted expense to the public at
3 large. West Virginia and it's residents are not so
4 well-endowed with extra finances as to justify
5 unnecessary regulation.

6 One specific example of how the State will
7 be significantly and negatively impacted by a
8 statewide Category A designation is the increased
9 number of streams which will be placed on the State's
10 303(d) list as not meeting the current water quality
11 standards.

12 In addition, by removing the qualifying
13 phrase "after conventional treatment" from
14 Section 6.2 of the water quality standards, the Board
15 has provided the public with a false sense of
16 security that the waters of the State may be consumed
17 simply by dipping your cup in the local stream.

18 What the Board would do by removing the
19 phrase "after conventional treatment" is tell the
20 general public that all waters of the State which are
21 meeting Category A water quality standards would be
22 acceptable to drink without further treatment.

1 The Safe Drinking Water Act and its
2 implementing regulations require extensive and
3 thorough treatment of surface waters to reduce and/or
4 eliminate the public's exposure to these contaminants
5 before the water treatment system can deliver the
6 treated water to the public.

7 However, neither the state water quality
8 standards nor the Clean Water Act and its
9 implementing regulations were designed to ensure that
10 raw surface water is free from the naturally
11 occurring microbes referenced -- or that it is
12 otherwise safe for human consumption prior to
13 conventional treatment.

14 For the Board or anyone else to imply that
15 after designating all State waters as Category A all
16 waters can be consumed without additional treatment
17 would be misleading to the public and may
18 inadvertently result in a continuation of a number of
19 people drinking untreated surface water because the
20 individuals engaging in the activity may falsely
21 perceive they are not placing themselves at risk.

22 In the end, the Board's decision to either

1 keep or remove the Public A use will do little to
2 protect the health and welfare of the individuals
3 drinking untreated surface water.

4 With regard to the Board's proposed use
5 designation, the Chamber would finally like to
6 request the Board to answer a question posed by one
7 of the Board's own members.

8 On April 19, 2001, Betsy Dulin posed the
9 question as to why the State has more than one use
10 category if the State proposes to apply only one use
11 across the State. The Chamber feels that this is an
12 important question which must be addressed before
13 passing such a drastic measure as it is proposing to
14 do.

15 The Chamber strongly urges the Board to
16 withdraw the current rule in favor of allocating
17 appropriate time for all Board members to thoroughly
18 study this issue and arrive at a public policy
19 decision that will create a regulation that is
20 well-founded in law, as well as fact.

21 Finally, the Chamber would like to request
22 that the Board amend the State water quality standard

1 for chloroform to conform to the current federal
2 chloroform standards.

3 The current State water quality standard
4 for the public water supplies for chloroform of
5 .19 ug/l is causing regulatory problems for
6 facilities which discharge water treated with
7 chlorine.

8 The EPA's recommended human health
9 criterion for chloroform is 5.7 ug/l, greater than
10 the .19 current standard. By leaving in place a
11 criterion that has been revised by EPA, the Board
12 leaves the State open to increased and unnecessary
13 risk of non-compliance with federal permitting
14 requirements for both industrial facilities as well
15 as municipalities.

16 The Chamber urges the Board to include in
17 its current rule making an update to this standard.
18 The Chamber provides this comment to put the Board on
19 notice that it is an issue of increasing importance
20 which the regulated community will be pursuing as
21 timely a resolution as can be developed to include
22 coordination with the Department of Water Resources

1 to promote revision thereto.

2 Thank you for this opportunity to present
3 these comments, and as previously stated, the Chamber
4 will provide a copy of this oral statement this
5 evening and a more detailed written comment tomorrow.

6 CHAIRMAN SNYDER: Thank you, Mr. Goldman.
7 Next speaker, Gretchen Taylor.

8 MS. TAYLOR: I pass at this time?

9 CHAIRMAN SNYDER: You certainly can,
10 Ms. Taylor. Next speaker, Tom Rodd.

11 MR. RODD: Thank you. And to the extent
12 that anything I say has something to do with the
13 groundwater issue, I hope you will remember it
14 because I've got to go in a minute.

15 CHAIRMAN SNYDER: We won't have our ears
16 plugged to either. Okay?

17 MR. RODD: And I want to echo what Cindy
18 Rank and Nathan Fetty said and just simply state that
19 I think that was very well taken. And while I
20 appreciate what the gentleman from the Chamber of
21 Commerce said, I think that this Board and too often
22 people in the regulatory world are accustomed to

1 hearing folks cry wolf a little bit in western
2 civilization -- as we know -- going to fall apart if
3 we adhere to some particularly high -- but it never
4 seems to. We seem to carry on and the costs of
5 adhering to very high standards are spread very
6 widely, most to our economy.

7 My suggestion is that since the vast
8 majority of West Virginians, at least those who vote
9 in poll after poll after poll, identify themselves as
10 strong environmentalists. The vast majority of
11 people in very recent polls -- They're strong --
12 People will pay the incremental slight costs of
13 adhering to the tougher standards.

14 They're happy to do it, as a matter of
15 fact. That's why people -- That's why they have
16 organic food sections in super markets and those are
17 growing broadly. People want to, with their purses,
18 in the best ways they can, support very strong
19 environmental regulations.

20 And I think that's one of the reasons I
21 think this Board has been willing to take good steps
22 in that direction because of the sense that this is

1 something that is very important to folks, including
2 folks who work at the factories that are run by --
3 and businesses that are run by people whose
4 executives and owners belong to the Chamber of
5 Commerce.

6 I live in rural Preston County. I get my
7 water from a spring and don't treat it at all, but
8 maybe when some of the mud settles out of the spring
9 box. And my neighbors get their water from that
10 source, a lot of them, some of them from drilled
11 wells, but the spring water is much better quality.

12 We have a high quality stream that runs
13 through our property. My neighbors water their
14 cattle from it. And at times of a drought and low
15 water, people use it for household water as well.

16 There are thousands of miles of such
17 streams just in my immediate area and it would be, as
18 Cindy Rank said, just literally impossible to
19 quantify the drinking water or uses that people have
20 that require high quality water.

21 Therefore, a presumptive standard of
22 drinking standards makes a lot of sense for people.

1 I want to just say that protecting -- Using the
2 highest quality for stream water and groundwater,
3 highest standards, is really an extremely
4 conservative position.

5 In my county, you can just look on the map
6 where the streams are degraded, property values are
7 weak. People who have money and who can afford to
8 move out of those communities where the streams are
9 degraded, often time from mining, do so.

10 People who have got money who are looking
11 for someplace to live, don't go to those areas. And
12 so degraded streams is a recipe for creating rural
13 slums. And it's consistent, you can see that
14 everywhere we go.

15 So to support property values and the
16 highest and best use of property protecting water is
17 probably one of the single most important things you
18 can do, that and transportation, and access to jobs,
19 and those sorts of things.

20 But, I mean, it's just remarkable and
21 anybody in the real estate business around the
22 Morgantown and north central West Virginia area will

1 tell you, that where the water is good, that is where
2 people are going to go, and where the water is bad,
3 that's where people are going to get out of if they
4 can afford to. It really makes a big difference.

5 Frankly, it was when the real estate people
6 started realizing this sort of stuff that we started
7 developing some even stronger coalitions for clean
8 water in north central West Virginia where I'm from.

9 The other thing I want to say is that high
10 environmental standards are an extremely important
11 economic development tool. To locate the kinds of
12 industries and jobs that are really the long-term
13 future of economic development means that you have to
14 have attractive areas for people to settle.

15 People want good schools. They want clean
16 streams. I mean, these is the things that people
17 want. These are the things that executives want who
18 are going to manage these kinds of factories and who
19 are going to come here looking for people to work in
20 their factories and invest their capitol here.

21 So high environmental standards -- The
22 perception is almost as important as the reality,

1 frankly. But if you can't sustain that perception
2 with facts, it's not going to hold up.

3 But if you can advertise yourself and show
4 yourself as a place that fights fiercely for the
5 environment, people are going to say, "Okay." But if
6 you're a place where you are just a bunch of -- where
7 there is a lot of people that see there is a lot of
8 pollution it's a down-hill thing.

9 So from a very conservative economic
10 development point of view, I think the highest
11 possible water quality standards make a lot of sense.
12 And that supports what the Board is largely doing.

13 The other thing, of course, is that it's
14 the absolute duty of the government to support
15 people's property rights. And I have a clean stream.
16 And I have a right to have a clean. That's the way
17 that nature delivers it.

18 And for anybody upstream to degrade that is
19 something that I demand the assistance of the
20 government in protecting. I shouldn't have to do it
21 myself. I shouldn't have to be suing them. It's not
22 my job to prove that I've been injured. It's the job

1 of the government to enact standards that protect my
2 property values to the extent that is feasible.

3 So I commend the Board for what they are
4 doing, and I support what other people were saying.

5 CHAIRMAN SNYDER: Thank you, Mr. Rodd.

6 Next on our list of speakers, Karen Price.

7 MS. PRICE: Thank you. My name is Karen
8 Price, and I'm president of the West Virginia
9 Manufacturers' Association. The WVMA has provided
10 the Board with written comments about the Board's
11 proposed changes to West Virginia's water quality
12 standards, but I would like to emphasize two
13 particular concerns in those standards, the statewide
14 application of Category A public water use and the
15 change in the definition of that use.

16 The purpose of the Category A use is to
17 protect water supplies. We believe that this is most
18 logically done by identifying public water supply
19 intakes and setting permit limits so that the water
20 drawn into those intakes meet water quality
21 standards.

22 We do not understand why the criteria for

1 protecting water supplies would apply anywhere other
2 than where a stream is used as a water supply. We
3 believe the Board should specify that the Category A
4 use must be protected at a public water supply intake
5 and let the DEP set permit limits accordingly.

6 The Board is proposing that the Category A
7 criteria applied throughout the State that would make
8 removing the use easier. While this is attractive in
9 concept, we have not seen the statutory language that
10 would shorten the use removal process, the rule that
11 would explain how the use removal occurs, or any
12 commitment from EPA to support such statutory or
13 regulatory changes.

14 Until we can review the details of the
15 Board's proposal for removing the Category A use, we
16 cannot support the Board's application of the
17 Category A use throughout the State.

18 We also oppose deletion of the term "after
19 conventional treatment" in the definition of public
20 water supply in Section 6.2. Without that language,
21 each stream in the State must be drinkable without
22 boiling, settling, or any other conventional

1 treatment.

2 We believe that this is impractical. The
3 Board is effectively asking industrial and municipal
4 dischargers to produce drinkable effluent, but this
5 is not an issue that effects only them. Roads run
6 beside the streams and from them pollutants such as
7 oil, grease, and salt run-off.

8 Homeowners have septic tanks and apply lawn
9 care chemicals that impact water bodies. The Board
10 cannot expect to keep each stream in the State in
11 pristine condition in light of these and other
12 activities and should not attempt to do so by
13 changing the Category A definition.

14 The WVMA also urges the Board to adopt
15 EPA's recommended human health criterion for
16 chloroform and to adopt harmonic mean flow as a
17 design flow for carcinogens. These changes are
18 consistent with EPA guidance and are long overdue.

19 We thank you for the opportunity to
20 comment, on behalf of the West Virginia
21 Manufacturers' Association.

22 CHAIRMAN SNYDER: Thank you, Ms. Price.

1 Our next speaker is Steve Hannah.

2 MR. HANNAH: Thank you, Mr. Chairman and
3 members of the Board. My name is Steve Hannah,
4 deputy commissioner of the West Virginia Department
5 of Agriculture. I will certainly stay within my time
6 limit and keep the comments very brief, and the
7 commission will have the written comments to you-all
8 by 5 o'clock tomorrow evening.

9 The major concern that we have, and I think
10 it's good public policy that people understand what
11 they are hearing and understand it clearly, and we
12 are very concerned that with removing the words
13 "after conventional treatment," people are assuming
14 that they can go to any stream in the State since
15 they are all most -- or will all be in Category A,
16 that they can drink that. That certainly isn't the
17 case, and I certainly would hope that we are not
18 encouraging people to do that.

19 One thing that we have seen in the last few
20 years and the Department of Agriculture has done
21 extensive testing for fecal chloroform using a DNA
22 process in the south branch valley and there is

1 mobile sources of fecal chloroform, wildlife, humans,
2 livestock.

3 We're not sure where all it's coming from,
4 but there is many sources. I think, again, we would
5 be doing a disservice to the public to invite them to
6 assume that they could drink any of that water.

7 Also concerned with that process that the
8 303(d) list would be enormous. Just most larger than
9 anyone could handle. Making the presumption that all
10 streams are Class A, I think is kind of misleading as
11 well. In that you use the procedural rules to make
12 those exceptions.

13 None of us in state government or out of
14 state government, I don't think, like the legislative
15 rule process, but it is very transparent and lets
16 everyone to have an opportunity to say how that's
17 going to effect them, not only for you, here, sitting
18 as a Board, but through the legislative process as
19 well.

20 So we have great concerns about the
21 procedural process as, I think, both sides that have
22 previously spoken, have. I'm not sure that that's

1 good public policy to go that route. Easier,
2 granted, and we would all kind of like to that, but
3 I'm not sure that that achieves the objective that we
4 are all trying to do.

5 Those are our major concerns and, again, we
6 will provide you with written comments tomorrow.
7 Thank you, Mr. Chairman.

8 CHAIRMAN SNYDER: Thank you, Mr. Hannah.
9 The next speaker would be Doyle Coakley.

10 MR. COAKLEY: I'm Doyle Coakley from
11 Webster County, and I'll be very brief. I would hate
12 to see the drinking water designation dropped or
13 permits made easier to get. Quite frankly, I can't
14 think of a stream in the state of West Virginia that
15 I would want to take a drink of water out of without
16 some chlorine, but it always seems like when these
17 changes come about, the citizens lose a little more,
18 and I'm afraid that's what might happen here. And I
19 know it's a problem to get permits for companies, but
20 I also know what companies do to people.

21 A few years ago I had calves dropping dead
22 in Amos Run. Thanks to you people, that stream is

1 much better now. Things are a lot better. But don't
2 make the system easier. The system has been failing
3 for the past -- All you've got to do -- In my
4 lifetime -- I can go out and look at the rivers and
5 you can see them, they are dirtier. Don't make them
6 -- We should be tightening it up, not making it
7 easier.

8 I do remember when I was a boy, I had a
9 little cup that I folded up and put in my pocket.
10 Maybe you-all have seen one, like an accordion? And
11 we could really take a drink of water out of the
12 stream. I would like to see it that way again
13 someday. I don't think I'll live that long.
14 Thank you.

15 CHAIRMAN SNYDER: Thank you, Mr. Coakley.
16 We've gone through the list of people signed up.
17 Would anyone else like to speak?

18 MR. BAKER: I'm Lewis Baker from Cabell
19 County, and I would like touch on three different
20 issues I have noticed and submit written comments
21 tomorrow. Those can be e-mailed, I assume, or should
22 they be written?

1 MS. CHATFIELD: If they get them by 5:00.

2 MR. BAKER: Okay. One issue is arsenic,
3 and that's one that EPA's kicking around like a
4 political football on the drinking water side of
5 things right now. And so you've got your arsenic
6 standard for groundwater kind of on hold until that's
7 settles out, and that's understandable.

8 Most of the groundwater standards, or maybe
9 all of them, I don't know, they are kind of tied to
10 the drinking water standards. So that makes sense.
11 But I've been looking into arsenic. Where I work,
12 it's an issue because I work for an association that
13 represents most of the water supplies in the state.
14 And we want to know how much of an issue arsenic is
15 going to be in West Virginia.

16 Well, it's not going to be near as bad as
17 in some of the other states, in western states where
18 there is a lot of naturally occurring arsenic, it's a
19 bigger problem. But in this part of the country, it
20 seems to be associated with organic geological
21 formations.

22 In other words, black organic shales seem

1 to be a source. It's in coal. So you see high
2 concentrations in coal ash. You see elevated levels
3 in acid mine drainage. It's in the ash from burning
4 of petroleum, and it's high levels in discharges from
5 refineries.

6 Looking at the STORET data base, I noticed
7 that historically the Ohio River sometimes goes up
8 above -- or has gone above a hundred parts per
9 billion at, I think, the northern-most end of the
10 Ohio in West Virginia. So it's coming out of
11 Pennsylvania on occasion.

12 We don't know the source, but if the water
13 quality standard is not met at that point, it might
14 become a sticky issue for us to go to Pennsylvania
15 and say who did it. We would all be investigated.
16 And maybe EPA in Pennsylvania can help us do that
17 when it crosses state boundaries.

18 But arsenic is peculiar. There is more
19 than one state of arsenic. Arsenic 3, I think, is
20 maybe more soluble and toxic, and when it becomes
21 oxidized to arsenic 5, it can precipitate out. But
22 the standard, I think, is going to be total arsenic.

1 You can have more wash off of the landscape
2 when you've got kind of wet weather. It makes sense,
3 but I mean, just humid weather maybe makes it more
4 available to move off landscape than when it's been
5 dry a while and then you have a rain.

6 But the chemistry of it is strange. Being
7 an organic matter, a geologic organic matter, makes
8 me wonder if it's not biocumulative, but I haven't
9 found that yet. Some research says it's an endocrine
10 disrupter, so maybe we should just look at it from a
11 cancer standpoint like EPA is.

12 If it's an endocrine disrupter, maybe the
13 standard ought to be a lot tighter, I don't know.
14 That would make it tougher on water systems, but, you
15 know, if it's more toxic than we thought, we have to
16 deal with it.

17 I noticed that Pennsylvania's water quality
18 standard for their streams have been 50 parts per
19 billion. No, it had been two one hundredths of a
20 part per billion in the past decade, but they moved
21 it up to 50 to meet the water quality standard that
22 EPA had.

1 Now, after taking comments from industry
2 the State made the change based on the reasoning that
3 there was no good science to leave it at .02 parts
4 per billion. But that's ironic, because at the same
5 point in time, EPA's Iris data base placed the human
6 cancer risk at .02 parts per billion.

7 So it's a contaminant that is tricky. It's
8 going to be hard to figure out what's naturally
9 occurring levels, what's, you know, when you have
10 elevated levels, where is it coming from? It can
11 vary quite a bit seasonally and from different
12 weather conditions.

13 But if the standard becomes tighter for
14 drinking water standard, then I assume that our
15 standard for our streams would also become tighter.
16 And then that may become another political fight in
17 the State.

18 We may be fighting over which streams are
19 designated drinking water or not, based on arsenic.
20 So I guess that leads to the second set of comments.

21 We should try to keep the tightest
22 standards on any stream or designated use that we

1 can. We shouldn't allow standards to slip. However,
2 I do realize that the streams are not of drinking
3 quality in the untreated condition.

4 Like Mr. Coakley said, unless you disinfect
5 the water or otherwise treat it, it's not healthy
6 even in a pristine stream. So that's just a sticky
7 situation. I'm not sure what is the best way to deal
8 with that.

9 Should the EQB make those decisions alone
10 or should the legislature have a hand in it? And,
11 you know, it's good to have checks and balances in
12 more than one agency, having veto power over another,
13 but it seems that, in general, anytime a legislature
14 has had hand in our regulations, it's been for the
15 worst.

16 So on balance, it might be better if the
17 EQB plays that role and the legislature was not in on
18 it. But, again, that's another difficult one to make
19 a call.

20 And the last thing I would like to comment
21 on is a contaminant that I don't think was on your
22 agenda, but it's one I've been here for an awful lot.

1 And that's dioxin and some of the other most toxic
2 organic compounds.

3 From the way I read the proposed rule, no
4 longer will any measure of background levels of the
5 contaminant be used. In other words, the only
6 numbers that anybody is going to look at from a
7 regulatory agency are going to be what comes out of
8 the end of a pipe and what you calculate the stream
9 line to be from what comes out of the end of a pipe.

10 For dioxin, there has been an awful lot of
11 samples taken in the Kanawha river, of fish, hundreds
12 of different fish. An awful lot of samples of
13 sediment. You can calculate or estimate water
14 concentrations from both of those from what's in the
15 fish, lipids or the sediment load.

16 Also, there has been quite a few samples of
17 water taken where the dioxin has been measured
18 directly, but because it's below EPA's detection
19 method for the method they accept, it looks like
20 nobody wants to look at any of that data. So, in
21 other words, the new improved sampling method for
22 water for dioxin is not going to be admitted as

1 evidence.

2 The only discharge that I know of where
3 dioxin was measured, and the discharge was Monsanto's
4 outfall back in the 1980's, and there it exceeded, by
5 a wide margin, the detection limit that was used in
6 the acceptable method back then.

7 It's the same method. They haven't
8 improved the method any. But the permit never did
9 include, even though it was in the discharge, the
10 permit never did include -- or never has included
11 dioxin in the permit. It excludes it.

12 So it just seems that, once again, we have
13 an effort by different entities, whether it was
14 people in the EQB or in the legislature, I don't
15 know, that made this decision to apparently exempt
16 all samples of dioxin except what comes out of
17 somebody's pipe, if they are forced to take a sample
18 of what comes out of the pipe.

19 So I'd like to have a response, I guess, to
20 my written comments as to where that decision for
21 that change came from. Was it from the EQB, or was
22 it from the legislature? And if it was from either

1 body, you know, maybe a committee in the
2 legislature -- I don't know, whatever body -- Who are
3 the people that made the decision, and how did they
4 vote on it? I think that would be important to know.
5 Thanks.

6 CHAIRMAN SNYDER: Okay. Thank you,
7 Mr. Baker. Did anyone else want to comment on the
8 Category A? Yes. You are Ms. Taylor?

9 MS. TAYLOR: Gretchen Taylor.

10 CHAIRMAN SNYDER: Gretchen Taylor?

11 MS. TAYLOR: Yes.

12 CHAIRMAN SNYDER: Okay.

13 MS. TAYLOR: I'm a resident of South
14 Charleston, and I've never been to one of these
15 before. So I wasn't really prepared to speak. So, I
16 just wanted to touch on a couple of points that have
17 been talked about already today.

18 I believe that the phrase "after
19 conventional treatment" does need to remain in the
20 language, as several folks have spoken to, that, you
21 know, the definition of "conventional treatment" is
22 still part of the water quality standard.

1 And it defines it as treatment of water
2 approved by the Bureau of Public Health to assure
3 that the water is safe for human consumption. And I
4 think that's an important thing.

5 We don't want to mislead the public. We
6 don't, certainly, want to have people, you know,
7 getting sick by drinking directly from the river --
8 rivers, I should say, or streams.

9 And as it applies to POTW's or, you know,
10 municipal discharges, I know that we're working
11 towards the elimination of using mixing zones, but
12 I'm not sure where that stands in the process. But
13 if the elimination of mixing zones goes through then
14 theoretically the end of the pipe of any municipal
15 POTW would have to be drinkable unless you keep in
16 the phrase "after conventional treatment" and all
17 that.

18 And if you are forcing the POTW's to have,
19 you know, drinkable effluent, then you've got, you
20 know, not only primary and secondary treatment, but
21 probably some other treatments as well. And I know
22 that would, you know, pretty much send most

1 municipalities belly up in terms of, you know, sewer
2 rate increases and things like that.

3 And I don't think that people moving into
4 those communities would be willing to pay for those
5 increased rates. And so you are going to see a
6 general decline, you know, in population. You know,
7 people just aren't going to settle in those areas.

8 And it appears that this proposal seems to
9 be much more restrictive than most other states
10 around here that all streams would be designated as
11 public water supply. And, also, in terms of the
12 proposed procedural rules, it does sound like a
13 reasonable and workable compromise, but again, you
14 know, there is nothing out there yet.

15 And, you know, it seems like, you know, the
16 EPA would have to buy into it or concur with it until
17 the whole process gets worked out and both sides --
18 you know, everyone gets to take a look at it.

19 I'm not sure if it's something that anyone
20 can support or agree to yet, but it seems that that
21 would be a more reasonable approach than doing some,
22 you know, legislative exception. You know, that

1 procedural rule would be, you know, easier for folks
2 to pursue if there is going to be a con -- broad band
3 or designation with everything being Category A.

4 You know, but again, you know, we do have a
5 Category C that applies to so many areas of the
6 state. You've got water contact, recreation, you
7 know, where most people out there, you know,
8 swimming, water skiing, boating, and things like
9 that.

10 And you would think that would protect
11 most, you know, folks from the casual contact of
12 water and all that, but, you know, I don't understand
13 or see why -- I understand folks who live near head
14 waters and have, you know, fresh streams bubbling up
15 from their back yards, they would want to keep them
16 clean, and I certainly respect that and understand
17 that.

18 And perhaps this can be a workable
19 compromise where, you know, the streams, the pure
20 small streams that have those conditions, we can
21 ensure that those stay pure, but for the general
22 public water supplies, I think we need to have a more

1 rational reasonable approach for some of the larger
2 water bodies of this state. That's all I have.
3 Thank you.

4 CHAIRMAN SNYDER: Thank you, Ms. Taylor.
5 Would anyone else like to speak at this time? Yes?

6 MR. MALLAN: Good evening. I'm Tim Mallan,
7 Environmental Affairs Manager for American Electric
8 Power in the state of West Virginia. I would like
9 to, if I could, just emphasize a little bit of a
10 point that was made by Mr. Goldman before, and a
11 couple of others, and that is about the question of a
12 moving a designated use.

13 The Board has obviously, I think, decided
14 that the designation of all the waters of the state
15 as Public A can have significant impacts. And the
16 Board is investigating how to lessen those impacts,
17 how, if we can come up with a procedural rule, that
18 will make it somewhat more quicker, somewhat easier
19 to run and to get a designated use.

20 The question that many of us have is can
21 the Board really do that? And we don't think, in
22 looking at the regulations, that the Board has the

1 authority to come up with a less restricted method of
2 removing a designated use.

3 And we look at, and it's in the Chamber
4 comments, the section of federal regulations of 40
5 C.F.R. 131-10-G. States may remove a designated use
6 which is not an existing use, as defined in 131-3, or
7 establish subcategories of a use if the state can
8 demonstrate that obtaining the designated is not
9 feasible.

10 It's not that the designated use is not
11 there; it's that the designated use cannot occur. It
12 lists six different tests, four of which relate
13 specifically to the physical characteristics of the
14 stream, and two of which relate to either natural
15 conditions of pollutants or the fact that controls
16 that are so expensive that they have widespread
17 social and economic impact, would be required to meet
18 the designated use.

19 So there is no simple way that EPA will
20 recognize that you can remove a designated use. This
21 is why we are concerned that if the Board goes
22 through now and establishes this use for all the

1 State, you may find out that you simply can't come up
2 with a process, that there is no way that EPA will
3 allow you to remove those unless you go through and
4 meet one or more of these six characteristics.

5 If you will look at these six
6 characteristics, you will find out that indeed,
7 almost every stream in the state of West Virginia
8 will meet those six characteristics, at least some of
9 them, that there is not a way to remove those
10 existing uses.

11 We simply ask the Board to review this, to
12 think about whether or not there does exist some kind
13 of a process before you take this action. Thank you,
14 very much.

15 CHAIRMAN SNYDER: Thank you, Mr. Mallan.
16 Any additional Category A comments? We're going to
17 take separate comments on groundwater. This is
18 probably a good time for those who may want to come
19 up and comment on the proposed rules for groundwater.

20 MS. CHATFIELD: Yes.

21 CHAIRMAN SNYDER: Libby, why don't you do a
22 lead-in?

1 MS. CHATFIELD: To give a real quick
2 summary, what we propose to do in 46 C.S.R. 12, which
3 is our requirements governing groundwater standards,
4 is to add the constituent arsenic and add it at a
5 concentration of .050 milligrams per liter, and this
6 value reflects EPA's currently effective drinking
7 water standard under the Federal Safe Drinking Water
8 Act.

9 We're aware that this constituent is
10 undergoing review currently by EPA, and we understand
11 that that process -- I think there is an expectation
12 that that process will be completed in the next year
13 or so, and we recognize that there may be a need
14 after EPA finalizes their review and establishes a
15 value, that we may have to go back and look at this
16 again, but at this point what the Board is proposing
17 is what is currently effective under the Safe
18 Drinking Water Act.

19 CHAIRMAN SNYDER: Very good. Would anyone
20 like to comment on groundwater? Mr. Goldman.

21 MR. GOLDMAN: Just very briefly. Again, my
22 name is Scott Goldman. I'm with Jackson & Kelly.

1 I'm here on behalf of the West Virginia Chamber of
2 Commerce.

3 The Chamber does not oppose the Board's
4 addition of an arsenic standard, however, the Chamber
5 does question the timing, given the Board's
6 acknowledgement of EPA's current study of the arsenic
7 standard. That's all I have.

8 CHAIRMAN SNYDER: Okay. Thank you,
9 Mr. Goldman. Any additional comments? Well, I wish
10 to -- Any from -- Libby? Anything from the Board?
11 We're done? We're done.

12 I wish to thank you all for coming. We
13 really appreciate your comments, both oral and
14 written. The written comments are always very nice
15 because it gives us time to review and go over things
16 that have been presented here. Libby has a little
17 bit of deadline. We will be getting back together on
18 July 6th to address these at again, a hearing in this
19 room.

20 MS. CHATFIELD: A meeting. Regularly
21 scheduled meeting.

22 CHAIRMAN SNYDER: Or meeting. Regularly

1 scheduled meeting. We will not be having a meeting
2 tomorrow, though. That meeting is cancelled
3 tomorrow.

4 BOARD MEMBER SAMUEL: Right.

5 CHAIRMAN SNYDER: The meeting will be July
6 6th.

7 BOARD MEMBER SAMUEL: Why was it cancelled?
8 Everything was settled. Any other details on those?

9 MS. CHATFIELD: No. I'll have a summary of
10 all the comments for you-all, and we'll go through
11 that and discuss the comments, and then you will make
12 a final decision on that day about what goes forward
13 and gets filed with the legislature.

14 CHAIRMAN SNYDER: Okay. Thank you very
15 much. And, again, thank you all for coming.

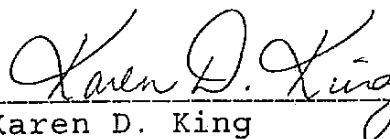
16 (WHEREUPON, the hearing was concluded at
17 7:55 p.m.)

REPORTER'S CERTIFICATE

STATE OF WEST VIRGINIA

COUNTY AT LARGE, to wit:

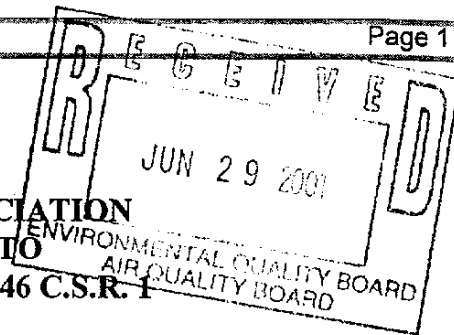
I, Karen D. King, a Certified Court Reporter and Notary Public within and for the County and State aforesaid, duly commissioned and qualified, do hereby certify that the foregoing proceedings were duly reported by and before me at the time and place and for the purpose specified in the caption hereof, the witnesses having been first duly sworn by me to testify the whole truth and nothing but the truth concerning the matter in controversy.



Karen D. King
Certified Court Reporter
Notary Public



**COMMENTS OF THE
WEST VIRGINIA OIL AND NATURAL GAS ASSOCIATION
WITH REGARD TO PROPOSED CHANGES TO
WEST VIRGINIA WATER QUALITY STANDARDS, 46 C.S.R. 1**



The West Virginia Oil and Natural Gas Association (WVONGA) joins in the West Virginia Manufacturers Association's comments regarding the Environmental Quality Board's (the Board's) proposed changes to West Virginia Water Quality Standards, 46 C.S.R. 1. In addition, WVONGA offers the following comments to emphasize its objection to changes in the application of the public water supply use to all streams in the State.

WVONGA is very concerned about the Board's intention to apply the Category A use to all water bodies in the State. This would be inconsistent with how the rule has been interpreted in the past. For example, in 1993 the DEP issued a stripper well general NPDES permit that is not effective in Category A waters. If the Category A use has always been applied state-wide, as the DEP contends, it would not have imposed that limitation on the effectiveness of the permit.

WVONGA is concerned because application of the Category A use throughout the state forces our members to expend resources unnecessarily to protect a use that is not present. This will likely only become more difficult in the future. For example, if the recommended arsenic criterion for human health in drinking water is reduced, as EPA has discussed, the Category A criterion for arsenic will likely be reduced. The lower criterion would have an effect on all persons, including WVONGA members, who disturb soil (which naturally contains arsenic) near a stream, even those streams not used as water supplies. In addition, the lower Category A criterion will result in numerous water bodies being added to the 303(d) list of impaired streams, even where the use is not present and the impairment is caused by natural conditions.

There is no need for a state-wide public water supply use to protect public water supply intakes. The Bureau of Public Health knows where public surface water intakes are located, and the Division of Water Resources permit writers can require NPDES dischargers to show, through modeling or otherwise, that their discharges do not affect an intake at critical flows, even assuming a margin safety. Further, public water suppliers are quite capable of evaluating the

quality of their intake water and advising the Bureau of Public Health and the DWR of problems posed by upstream discharges. In that regard, we are not aware of any stated concerns by those public water suppliers. In the last several years, while the applicability of Category A has been debated, public water supply operators have not been present at Board meetings asking the Board for application of the Category A criteria. They have not needed to do so because everyone, including industrial and municipal dischargers, has conceded that public surface water supply intakes must be protected against the presence of pollutants in excess of the Board's human health standards. It is only the protection of waters that are **not** used as potable water supplies that WVONGA objects to, and those are not of concern to public water suppliers.

Because public water supplies are not in jeopardy, nor will they be in the future, supporters of universal application of Category A fall back on the argument that the Category A protection is needed for individual water supplies - i.e., persons who drink directly from streams in the state, without providing any kind of treatment such as settling or disinfection. Other than anecdotal assertions that there are persons who drink from state streams, there has been no effort to determine the extent to which this occurs. Nor has there been any consideration given to the question of whether this practice should be encouraged, given the natural conditions that militate in favor of conventional treatment.

Leaving aside the question of the advisability of drinking untreated water, as a practical matter the state-wide applicability of Category A is not needed to protect individuals' surface water supplies. A simple expedient such as requiring dischargers to survey stream-side homeowners for a mile or so downstream of their operations, to verify that there is no public water surface intake, nor anyone using a stream as a potable water source, would suffice to determine if there is a drinking water source that needs Category A protection.

WVONGA also opposes the deletion of the language that would define public water supplies as those water bodies used as drinking water "after conventional treatment." The conventional treatment, which is required in order to meet Safe Drinking Water Act requirements, is a common sense acknowledgment that state streams receive runoff of salt, septic tank discharges, oil and grease, lawn care chemicals and other pollutants associated with modern

life. It is unrealistic to ignore those conditions, and to change the standard so that the water can be drunk in any location at any time in complete safety.

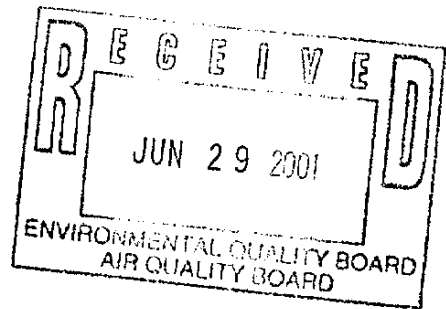
We urge the Board to withdraw the changes it has proposed with regard to the Category A use and instead amend Sections 6.2 and 7.2 to provide that the Category A use must be met at the point of intake of any public water supply.

Respectfully submitted this 29th day of June, 2001.

West Virginia Oil and Natural Gas
Association

Ray I. Joseph

From: Lew Baker <lab1@ezwv.com>
To: AQBEQB CLERK <clerk@aqbeqb.state.wv.us>
Date: Fri, Jun 29, 2001 4:29 PM
Subject: Re: Proposed Rule



Comments to WV EQB, regarding proposed Water Quality Standards:

From Lewis Baker, Huntington June 29, 2001

These comments are presented to the Board, as a supplement to my oral comments at the EQB evening meeting June 28, 2001. Like my oral comments, they are in regards to three areas:

- (1) Drinking Water Use Designation. The EQB has been considering removing the drinking water designated use from many of our stream segments, as a general policy. This would be a poor policy, and should be avoided. Removal of the drinking water use designation may be defensible, in a case by case basis, after careful consideration of ample site specific data, costs and benefits. In regards to whether the EQB should make changes to use designations, without the approval of the legislature, this could be considered permissible, and perhaps preferable, but only if the EQB has carefully considered ample site specific data in each case.
- (2) Arsenic Standard for Ground Water. WV's Ground Water Standards are based on drinking water standards (MCLs), which are set by EPA. As the EPA is in the process of adopting a new standard for arsenic, the EQB's proposal to adopt that new standard rather than the old one (50 ppb) seems logical. However, WV's WQS for arsenic in surface waters is already set at the old drinking water standard. The state of Pennsylvania, and I assume WV and other states, replaced the pre-existing surface water WQS (0.02 ppb) with the much less stringent 50 ppb MCL in the 1990s. This was questionable, because EPA was at the same time looking at making the MCL much lower. My question for the EQB is this: if the MCL becomes more stringent, will the GW standard and the WQS also become more stringent?
- (3) Instream concentrations of dioxin. The language for dioxin and other highly toxic organics seems to suggest background levels will not be determined in an honest scientific manner. The proposed language for 8.22.1 reads: "The organic chemicals listed in §8.22 shall not exceed the specified water quality criteria. When the specified criteria are less than the practical laboratory quantification level, instream values will be calculated from discharge concentrations and flow rates, where applicable." This language does not allow for any actual instream (background) measurements, which may be gained from new methods already employed in WV by ORSANCO, USEPA, and USGS. These agencies have found dioxin concentrations in the lower Kanawha to typically be about 5000% of the WQS, which should certainly NOT be ignored by rule or regulators any longer. This proposed language would provide for an essential exemption for the need to determine background levels of dioxin, prior

to setting discharge concentrations and flow rates in an NPDES permits under the Clean Water Act. The largest pulp mill proposed for North America (at Apple Grove, WV) was not built because the state had ignored its responsibility to include dioxin background concentrations in its permit. My question to the EQB is this: when was the quoted language inserted into the proposed rule, who suggested the change, and who approved it?

AQBEQB CLERK wrote:

>

> The Environmental Quality Board filed the proposed rule (46 CSR 12 - Groundwater) on May 29th, 2001. The Public Hearing will be held at 7:00 p.m. on June 28th, 2001, at 1615 Washington St., E., Second Floor Conference Room. The deadline for the submission of written comments to the Board is 5:00 p.m. on June 29, 2001.

>

> Attached is the Statement of Circumstances, the Summary of Proposed Changes, and the proposed rule. (If you don't open this in wordperfect, the formatting may be off.)

>

> -----

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> Name: 46CSR12circumstances5-01wp.doc
> 46CSR12circumstances5-01wp.doc Type: Microsoft Word Document (application/msword)
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> Name: 46CSR12summary5-01WP.doc
> 46CSR12summary5-01WP.doc Type: Microsoft Word Document (application/msword)
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> Name: Groundwater Series 12 for 2002.wpd
> Groundwater Series 12 for 2002.wpd Type: WordPerfect Document (application/wordperfect5.1)
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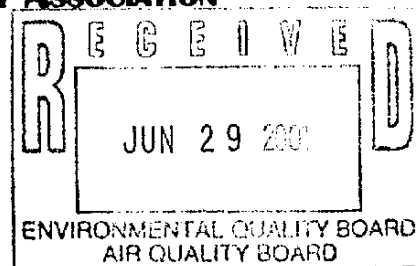


WEST VIRGINIA MUNICIPAL WATER QUALITY ASSOCIATION

P. O. Box 3780

CHARLESTON, WEST VIRGINIA 25337

June 29, 2001



Dr. Edward Snyder, Chair
Environmental Quality Board
1615 Washington Street, East
Charleston, WV 25311

RE: Revisions to 46 C.S.R. 1
West Virginia Water Quality Standards

Dear Dr. Snyder:

The West Virginia Municipal Water Quality Association ("MWQA") is a coalition of over 25 municipal and public service district utilities. These utilities provide sanitary sewer service in every large city in our state. Many of our members also provide water service for their customers/constituents.

We write to convey our objection to the proposed change to 46 C.S.R. 1-7.2. contemplated by the Board. State-wide application of Category A criteria is an inadvisable policy. Enactment of such a standard would have significant adverse effects upon our municipalities and the water quality program in West Virginia. Please consider the following in support of this conclusion:

1. ***The Proposed Change is Unnecessary.***

We see no reason for the proposed change. Rather than designated every water in the State for Public A - an approach that is indisputably incorrect both legally and practically - why can't the EQB simply add additional waters to the existing list of stream segments used for public water supply? We believe the Board, DEP and those interested in identifying or designated additional waters as Public A should do the modest work of identifying the candidate waters. We are simply unaware of any compelling public impact or concern that justifies a knowingly over broad statewide designation as the Board proposes.

Put another way, which waters does the EQB believe may be used for public water supply but have not been listed by the EQB in the Water Quality Standards Regulation? Why can't those waters be added to the list instead of adding every water? Why haven't they been included by the EQB before now?

Telephone: (304) 344-8603

Facsimile: (304) 344-8604

June 29, 2001

Page 2

We believe the EQB should solicit public comment on waters used for public water supply and add waters that meet the EQB's criteria rather than adding all waters through this proposed rule.

2. *The impact of universal Category A use designation upon our municipal utilities would be significant, with no corresponding improvement in water quality.*

To meet the Category A bacteria standard in accordance with DEP's traditional approach to Public A implementation, our cities would be required to eliminate all combined sewer and stormwater discharges. As you may know, our CSO communities are currently working under DEP/EPA oversight to bring these facilities into compliance with recent statutory and regulatory guidance. This guidance does not require the complete elimination of CSO discharges, as would be required under the proposal before the Board.

Most of our CSO communities can not afford to meet the Category A standard. For example, Morgantown estimates that it will cost over \$100 Million to take CSO discharges from the receiving waters around the city. Even if this could be accomplished, testing indicates that there would continue to be bacteria in the streams (from urban and rural non-point source runoff) that would render those streams non-compliant with Category A standards. Virtually all of our MWQA members face similar challenges and conditions.

We do not, however, suggest that water quality standards should be set based on the ability to pay for the necessary improvements. Yet, any comprehensive public policy review must reject the proposed broad sweeping assignment of Category A. It is not remotely possible to bring all of our streams to this standard. Moreover, there are broad categories of waters that we know should not be included as Public A waters.

This leaves two alternatives: Spend precious public money toward an unreasonable and unnecessary (see below) standard; and/or, force regulated entities to spend time, effort and resources to negotiate exemptions for the inappropriate standard. The MWQA finds both of these options unacceptable.

If Public A is extended to all waters in the state, public facilities will face more monitoring and permit limits for four or five key parameters. We may also face TMDLs to meet Public A criteria - all when there are few actual instances where public water supply intakes are located in the proximity of our outfalls.

3. *Category A use designation would render the West Virginia TMDL program useless.*

The TMDL program currently being developed at DEP/OWR is a paradigm shift in water quality regulation and improvement. This program focuses on improving the condition of waters as measured by the attainment of designated uses. In other words, the central characteristic and

June 29, 2001

Page 3

challenge of this program is a change from effluent-based water quality standards to ambient-based standards. These standards will be inappropriate if the designated use is not appropriate.

In a recent report prepared for Congress by the National Research Council (*Assessing the TMDL Approach to Water Quality Management, National Research Council 2001 (ISBN: 0-309-07579-3)*), the Authors state that "Clean Water Act goals of fishable and swimmable waters are too broad to be operational as statements of designated uses. Thus, there should be greater stratification of designated uses at the state level (such as primary and secondary contact recreation)." *Id.* at 3.

Obviously, the proposed change to a statewide designated use for public water supply moves in the opposite direction from that recommended in the NRC report. If we are without the stratification that can be provided by meaningful and accurate use designations, we are also missing the sorting and prioritization necessary to make the TMDL process work.

4. ***Universal Category A designation is unnecessary to protect the public health.***

The MWQA agrees that a buffer zone above public water supply intakes should be established as an additional safeguard. However, we think the buffer zone should be carefully crafted so as not to be overly restrictive for upstream dischargers.

That said, we disagree with the argument that the EQB needs this standard to protect those who are drinking directly from our streams. West Virginia (along with the rest of the developed world) has acknowledged that it is unsafe to drink untreated waters, and has invested hundreds of millions of dollars in water treatment facilities. What possible reason would we have to spend public money to allow for or encourage contrary behavior?

Thank you for your kind consideration of these comments on behalf of the MWQA. We are available at the convenience of the Board to assist in its deliberations.

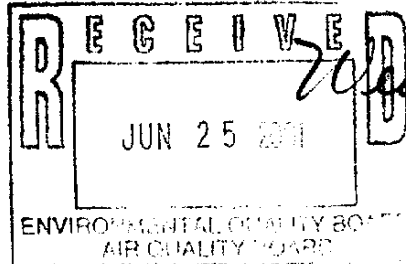
Sincerely,

Paul Calamita, m.w.

F. Paul Calamita

cc: Mr. David Sago
MWQA Board

Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

On behalf of {your organization}, I ask that you please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

We advocate that all of the state's surface waters be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

Category A must be applied to all West Virginia surface waters to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and to account for future development and the need for future clean drinking water supplies. West Virginia is fortunate to have so many streams that are clean enough to be used as drinking water supplies and we are encouraged that EQB recognizes this. Rather than viewing protections for clean streams as an impediment to development, we hope the state will continue to realize the economic and quality-of-life asset these clean streams are to West Virginia, and we hope the state will continue to apply such good protections to West Virginia's exceptional rivers and streams.

We understand that regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied. For the record, we are satisfied with how the standard has been historically applied in West Virginia. We hope the EQB's proposal will not be an avenue by which exemptions are given more frequently. In particular, we will be interested in how EQB develops the procedural rule for implementing the proposed rule for drinking water, and hope that EQB allows for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard.

Arsenic/Groundwater

We are encouraged that EQB is examining the state's arsenic standard for groundwater and is concerned about the public health effects of arsenic. According to the National Academy of Sciences, long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, immunological and neurological effects.

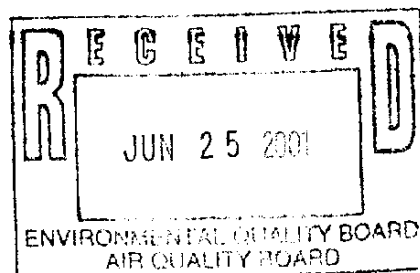
The 50 parts per billion (ppb) standard for arsenic in drinking water is based on a 1942 study by the Public Health Service, and is based on science that is nearly 60 years old. The PHS itself, in 1962, recommended lowering the arsenic standard to 10 ppb, but over the decades the federal government repeatedly has missed deadlines for a new standard. We understand that EQB is waiting for EPA to enact a new arsenic standard within the next year, and we hope that EQB will propose an arsenic standard that is much more protective than 50 ppb. Further, we hope EQB will propose a more protective arsenic standard for West Virginia even if EPA continues to fail to do so.

A 1999 study by the National Academy of Sciences states that the current EPA arsenic standard at 50 ppb "could easily" result in a cancer risk of 1 in 100, which is about 10,000 times higher a cancer risk than EPA would allow for carcinogens in food. The report concludes, "Upon assessing the available evidence, it is the subcommittee's consensus that the current EPA MCL (maximum contaminant level) for arsenic in drinking water of 50 [ppb] does not achieve EPA's goal for public health protection and therefore requires downward revision as promptly as possible." It would seem that an arsenic level of 50 ppb is not scientifically supportable, and the justification for establishing an arsenic level of 50 ppb would be to avoid the cost of cleanup, not adequately protect public health. In light of these facts, we hope that EQB will consider a more protective arsenic standard than the proposed 50 ppb, and we recommend that EQB adopt an arsenic level of at least 10 ppb, if not a level that is even more protective.

We thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

Trudy L. Conover



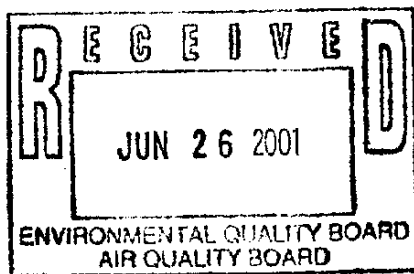
TO: W. Va. EQB

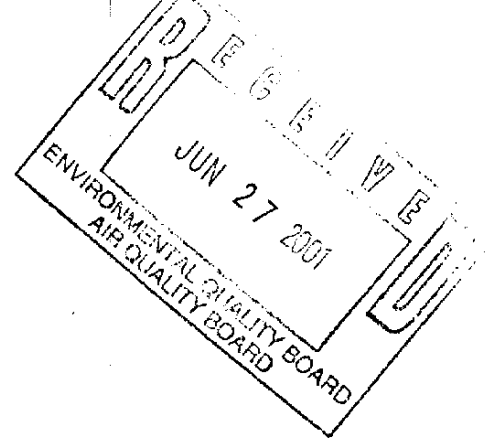
I strongly support applying Category A to all West Virginia waters. As a resident in a rural area who lives on a stream - I know that many people need high-quality water. These streams are a cornerstone of property values. Do not remove any class A protections, insist on full procedural notice & comment for every exemption - including legislative approval.

And for goodness' sake do not allow the 50 ppb limit on arsenic to stand. We need to tighten carcinogen standards, not loosen them!

Thomas Rodd
Pte 2 Box 78
Moatsville WV 26405

Thomasrodd@hotmail.com





June 26, 2001

Dr. Ed Snyder
W. Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311

Dear Dr. Snyder:

Please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

I ask that all of the state's surface waters be designated Category A, as they have been for decades. I applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

Category A must be applied to all West Virginia surface waters to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and to account for future development and the need for future clean drinking water supplies. West Virginia is fortunate to have so many streams that are clean enough to be used as drinking water supplies and we are encouraged that EQB recognizes this. Rather than viewing protections for clean streams as an impediment to development, I hope the state will continue to realize the economic and quality-of-life asset these clean streams are to West Virginia, and we hope the state will continue to apply such good protections to West Virginia's exceptional rivers and streams.

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I am encouraged that EQB is examining the state's arsenic standard for groundwater and is concerned about the public health effects of arsenic. According to the National Academy of Sciences, long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, immunological and neurological effects.

The 50 parts per billion (ppb) standard for arsenic in drinking water is based on a 1942 study by the Public Health Service, and is based on science that is nearly 60 years old. The PHS itself, in 1962, recommended lowering the arsenic standard to 10 ppb, but over the decades the federal government repeatedly has missed deadlines for a new standard. I understand that EQB is waiting for EPA to enact a new arsenic standard within the next year, and we hope that EQB will propose an arsenic standard that is much more protective than 50 ppb. Further, I hope EQB will propose a more protective arsenic standard for West Virginia even if EPA continues to fail to do so.

A 1999 study by the National Academy of Sciences states that the current EPA arsenic standard at 50 ppb "could easily" result in a cancer risk of 1 in 100, which is about 10,000 times higher a cancer risk than EPA would allow for carcinogens in food. The report concludes, "Upon assessing the available evidence, it is the subcommittee's consensus that the current EPA MCL (maximum contaminant level) for arsenic in drinking water of 50 [ppb] does not achieve EPA's goal for public health protection and therefore requires downward revision as promptly as possible." It would seem that an arsenic level of 50 ppb is not scientifically supportable, and the justification for establishing an arsenic level of 50 ppb would be to avoid the cost of cleanup, not adequately protect public health. In light of these facts, I hope that EQB will consider a more protective arsenic standard than the proposed 50 ppb, and I recommend that EQB adopt an arsenic level of at least 10 ppb, if not a level that is even more protective.

Thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

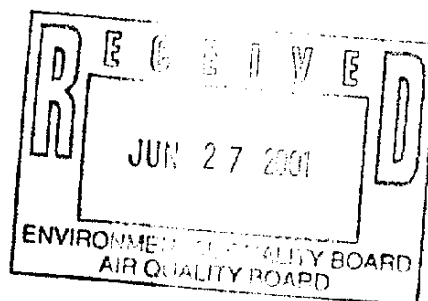
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Norman Steenstra
Executive Director, WV Citizen Action Group



LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA, INC.

Dr. Ed Snyder
WV Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



June 25, 2001

Dear Dr. Snyder,

On behalf of the League of Women Voters of West Virginia we wish to make comments about Water Quality standards for surface and groundwater.

We favor the Category A designation for the surface waters of the state with site specific exemptions; however, we urge the Environmental Quality Board to be careful when it issues exemptions so that our waters are protected from unacceptable practices. We support full public participation in the exemption process.

As to the arsenic standard for groundwater, we are troubled by the proposed 50 ppb designation. We believe water treatment operators and their customers should not have to bear the costs of treating the water to the degree necessary to protect public health from arsenic.

Scientists have found that arsenic in drinking water causes bladder, lung, and skin cancer and may cause kidney and liver cancer. Also arsenic is harmful to the central and peripheral nervous systems, heart and blood vessels, and skin. It may cause birth defects and reproductive problems.

The U. S. 50 ppb maximum contaminant level is a 1942 value, designated before human health data were gathered and analyzed. A 1999 report by the National Academy of Science estimates that in a 25 state EPA study more than 56 million Americans drank tap water that posed an unacceptable risk. The NAS recommended an MCL no higher than 3 ppb. Industry pressured the Clinton administration to raise that to 10 ppb.

We realize the Bush administration has put on hold the proposed MCL for arsenic in drinking water; but we believe West Virginians' health should not be compromised by the lack of action at the national level. Not allowing groundwater to have unacceptable levels of arsenic in the first place will be a step towards protecting public health as well as saving the costs of cleaning up drinking water sources to protective levels.

Thank you for our opportunity to comment on the proposed rules.

Sincerely,

SR/HG

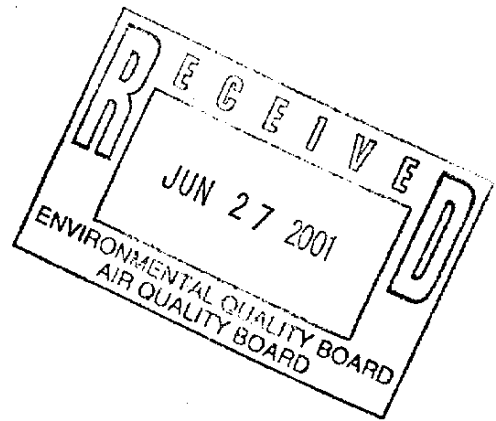
Helen Gibbins

Sharon Rowe, President
31 Poplar Grove Estates
Princeton, WV 24740

Helen Gibbins, Natural Resources Director
6128 Gideon Rd.
Huntington, WV 25705

June 25, 2001

Dr. Ed Snyder
WV Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder,

The standards of quality drinking water that West Virginians have enjoyed for the past 20 years is a valuable heritage. The Environmental Quality Board has been successful in maintaining Category A drinking water and hopefully will continue its diligence in protecting the states waters.

Communities frequently use surface waters for their supply, just as individual homes use springs, wells and river water. The health of West Virginia neighborhoods is directly affected by its water supply. The expansion of the infrastructure for future development is also directly proportionate to the quality of its waters.

Category A must continue to be applied to all West Virginia surface waters. Exemptions to the standard need to continue to go through the legislative rulemaking process. A public hearing on changes to Category A would be beneficial to the West Virginia community.

The Environmental Quality Board's consideration of the states's arsenic standard for groundwater is timely. The public health effects from continual low concentrations of arsenic is well documented. The 50 parts per billion standard is too high and needs to be lowered to 10 parts per billion or less.

Thank you.

Sincerely,

Deana Smith
HC 78 Box 99A1
Rock Cave, WV 26234



Ohio Valley Environmental Coalition

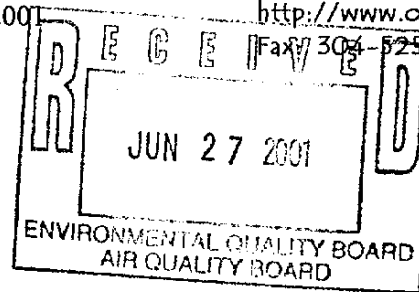
P.O. Box 6753
Huntington, WV 25773-6753
Phone: 304-522-0246

25 June 2001

<http://www.ohvec.org>

Fax 304-525-6984

Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

On behalf of the Ohio Valley Environmental Coalition (OVEC), please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater:

Category A Drinking Water

- **OVEC requests that all the state's surface waters be designated Category A, as in the past decades.** We commend EQB's proposal to retain this designation as applying to all West Virginia surface waters. OVEC requests that Category A be applied to all West Virginia surface waters to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and to account for future development and the need for future clean drinking water supplies.
- **OVEC believes that exemptions to the Category A standard should go through the legislative rulemaking process.**
- **West Virginia is fortunate to have so many streams that are clean enough to be used as drinking water supplies and we are encouraged that EQB recognizes this. Clean streams are an asset to economic development and quality-of-life in West Virginia, and OVEC hopes the state will continue to apply such good protections to West Virginia's exceptional rivers and streams.**
- **Although the regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied, OVEC is satisfied with how the standard has been historically applied in West Virginia. We hope that the EQB's proposal will not provide an avenue by which exemptions are given more frequently.**
- **In particular, OVEC believes that full public comment and review should be part of the process for implementing the proposed rule for drinking water as well as for any and all exemptions from the Category A standard.**

Arsenic/Groundwater

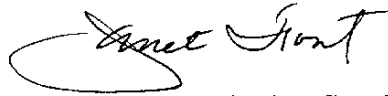
- **OVEC commends the EQB for examining the state's arsenic standard for groundwater and is concerned about the public health effects of arsenic.** According to the National Academy of Sciences, long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels

include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, and adverse effects to the immune and neurological systems.

- In 1962, the Public Health Service recommended lowering the science based standard for arsenic in drinking water from 50 parts per billion (ppb) to 10 ppb, yet for decades the federal government repeatedly has missed deadlines for a new standard. OVEC is aware that EQB is waiting for EPA to enact a new arsenic standard within the next year, **and we strongly recommend that EQB will propose an arsenic standard for West Virginia that is much more protective than 50 ppb even if EPA fails to do so.**
- OVEC contends that based on a 1999 study by the National Academy of Sciences, the current EPA arsenic standard at 50 ppb poses an unacceptable cancer risk (1 in 100), which is about 10,000 times higher a cancer risk than EPA would allow for carcinogens in food and would not achieve EPA's goal for public health protection and should be set below 50 ppb. **Therefore, OVEC supports EQB in establishing an arsenic standard at 10 ppb or lower, to protect human health, not industry's bottom line.**

Thank you for the opportunity to provide comments on these proposed rules.

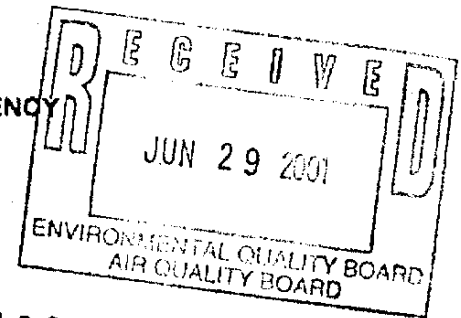
Sincerely,

A handwritten signature in cursive script, appearing to read "Janet Fout", enclosed within a large, loopy circular flourish.

Janet Fout, Project Coordinator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029



JUN 28 2001

Dr. Edward M. Snyder
Chair
Environmental Quality Board
1615 Washington Street East, Suite 301
Charleston, WV 25311-2126

Dear Dr. Snyder:

The Environmental Protection Agency (EPA) has received the May 29, 2001 Proposed Amendments to the West Virginia Water Quality Standards (WQS). The proposed changes designate all waters of West Virginia as source of drinking water (Category A), and delete Appendix B and F from the WQS. EPA has been asked by the West Virginia Environmental Quality Board (EQB) to provide comments on the proposed changes. EPA appreciates the opportunity to provide comments and offers the following comments.

Section 6.2.b. of the proposed changes, states that the Category A use designation will be removed in accordance with procedures outlined in a procedural rule to be developed by the EQB. Federal regulations, as provided in 40 CFR §131.10 (g), require a Use of Attainability Analysis (UAA) to be done when removing a designating use from the WQS. We advise the EQB to take the federal requirements into consideration when developing its procedures to remove the Category A use designation. Special consideration should also be given to cases where people withdraw water directly from the stream for consumption. EPA is available to assist the EQB in developing acceptable procedures. Also, the procedures should be finalized before the new regulation is adopted by West Virginia and submitted to EPA for review.

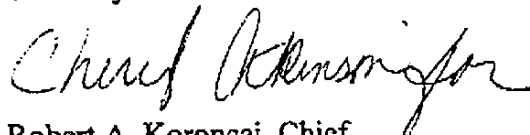
Regarding the removal of Appendix B (list of state waters used as drinking water) from the WQS, EPA agrees with this decision since all waters of the state will be considered sources of drinking water. But we recommend that an appendix be included in the WQS for waters that have been removed from the Category A use designation.

The removal from the WQS of the Antidegradation implementation procedures is not acceptable since they are required by federal regulations (40 CFR §131.12). However, due to the fact that the West Virginia Department of Environmental Protection is now taking the responsibility to develop, adopt and submit to EPA the Antidegradation Procedures, the EQB can delete Appendix F from their developed documents. However when documents are submitted to EPA for approval as part of a triennial review, the antidegradation procedures should be included in the package.



Once again we appreciate the opportunity to comment on these Proposed Amendments to the West Virginia WQS. If you have any question please feel free to call me or Pedro J. Gonzalez at (215)814-5730 or (215)814-2127 respectively.

Sincerely

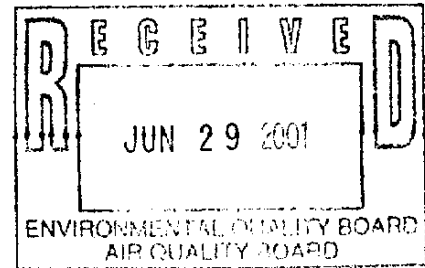
A handwritten signature in cursive script, appearing to read "Chief Koroncai".

Robert A. Koroncai, Chief
VA/WV Branch

GE Specialty Chemicals, Inc.

GE Specialty Chemicals, Inc.
General Electric Company
1000 Morgantown Industrial Park
Morgantown, WV 26501
304 296-2554

June 28, 2001



Dr. Edward Snyder, Chairman
Environmental Quality Board
1615 Washington Street, East
Charleston, WV 25311

Re: Proposed West Virginia Water Quality Standards,
46 C.S.R. 1

Dear Dr. Snyder:

G.E. Specialty Chemicals, Inc. (G.E.) supports the comments of the West Virginia Manufacturers Association and the Chamber of Commerce regarding the application of the Category A (public water supply) use to all state streams. G.E. believes that the Category A use, and the associated criteria, are appropriate where a discharger could affect a drinking water source. It makes no sense to apply that use where the discharge is not impacting a potable supply.

Application of the Category A criteria on a statewide basis adversely affects G.E. G.E. has shown through a mixing zone study that its discharge does not impact a known public water supply intake, yet it will be required to meet NPDES permit limits at its Morgantown facility based on the more stringent water quality criteria associated with Category A. That in turn has led to the imposition of a permit limit on chloroform, which is based on a criterion that is inconsistent with EPA guidance.

G.E. discovered that the chloroform criterion for public water supplies was more stringent than EPA's recommended human health criterion in the course of discussing a draft NPDES permit for its Morgantown North facility. The Division of Water Resources has informed G.E. that a chloroform limit of approximately 0.98 ug/l will be imposed in its draft permit, based on the Category A criterion for chloroform of .19 ug/l and a mixing zone. The EPA recommends a human health criterion of 5.7 ug/l, 30 times greater than West Virginia's criterion. *National Recommended Water Quality Criteria*, EPA 822-Z-99-01 (April 1999). This criterion, while still low, probably would be achievable with a mixing zone.

Dr. Edward Snyder, Chairman

June 28, 2001

Page 2

G.E.'s position is made even more difficult because it does not use chlorine in its processes. The chloroform is coming from the Morgantown water supply, which is chlorinated to destroy pathogens. G.E. actually reduces chloroform 65% from the time water enters the plant until it is discharged, but that discharge level is still too high to meet the permit limits. The only relief available to G.E. is adoption by the Board of EPA's recommended criterion.

It is an anomaly that G.E. anticipates receiving a permit limit for a substance it does not introduce into the wastewater, that is set at a level below that recommended by EPA, and that is required in order to protect a use that is not even present. This is a problem likely to recur throughout the state, wherever municipalities are chlorinating their water supplies or POTWs are chlorinating their treated effluents. We urge the Board to address this situation by revising the chloroform criterion for public water supplies, and by withdrawing its proposal to apply Category A on a state-wide basis.

If you should have any questions regarding this, please contact me at (304) 284-2269.

Sincerely yours,

A handwritten signature in cursive script that reads "Michael Bush".

Michael Bush

MB:shb

**Comments of the
West Virginia Manufacturers Association
regarding
West Virginia Water Quality Standards
46 C.S.R.1**

June 28, 2001

I. Introduction.

The Environmental Quality Board (the Board) has proposed two significant changes to the West Virginia water quality standards providing for the protection of public water supplies. The first, in Section 6.2, is to drop the phrase "after conventional treatment" from the description of the waters that are included within the public water supply use (Category A). The second, in Sections 6.1 and 6.2, is to apply the public water supply use to all water bodies throughout the state.

The West Virginia Manufacturers Association (the WVMA) adamantly opposes the deletion of the phrase "after conventional treatment" from the description of a public water supply. The WVMA also opposes application of Category A on a statewide basis, but believes that a reasonable compromise would involve a statutory change to allow easier removal of the Category A use. As the Board has not proposed such a legislative change, and has not explained how the use can be easily removed, the WVMA opposes the Board's current proposal.

The WVMA also offers comments on some aspects of water quality standards that it believes should be considered by the Board. These changes – adoption of a revised chloroform criterion for public water supplies and use of harmonic mean flow for setting permit limits – are consistent with EPA guidance and should be incorporated in West Virginia water quality standards.

II. Changes to Water Quality Standards

A. Statewide Application of Category A.

At the Board's May meeting, the West Virginia Department of Environmental Protection (DEP) resubmitted to the Board a document summarizing its historical perspective on the public water supply use. The DEP contends that Category A (or its former designation) has always been a state-wide use, not limited to areas where the water was actually used as drinking water. The WVMA believes that the DEP's historical view of the Category A use is incorrect, because it is only

recently that Category A became relevant to NPDES permits or that the Category A criteria differed significantly from other criteria. In addition, the Board's own statements on the subject reveal that the Board never intended the public water supply criteria to apply where they were unneeded.

Although the DEP's history of the application of the public water supply use begins in 1967, it was only much later that the use became important in a practical sense, and the issue of how the use should be applied was debated in earnest. As we believe the DEP would readily admit, water quality-based permit limits were not common until the late 1980's, and the WVMA would assert that permit limits based on Category A have not been consistently applied thereafter. Even today, the DEP does not apply its policy uniformly. For example, the general NPDES permit (WV/NPDES WV0113506) for stripper oil wells is expressly inapplicable in Category A waters. If all waters are Category A, where is the general permit meant to be used?

As late as 1984 most of the criteria were established by watershed or water body type, not use, so that, for example, the Kanawha River Basin, Zone Two, had a chloride limit of 150 mg/l, while the Bluestone River and nearby watersheds had a limit of 100 mg/l. This made it difficult to tell what was the limiting use, and accordingly the importance of individual uses and their effect on permitting decisions was negligible. In 1985 the Board changed its approach to designate criteria according to use, but there was still no reason to believe that the DEP was applying the use universally. A review of the criteria proposed in 1985 and adopted in 1986 show that there were few substances in the Water Resources Board's Series I rule (the predecessor to 46 C.S.R. 1) for which the public water supply use (Category B at that time) criteria were more stringent than the national goal uses found in Categories D (aquatic life) or A (water contact recreation). Only arsenic, chlorides, fecal coliform, fluoride, nitrate and selenium had lower criteria established for the public waters supply use than for the other uses, and then only marginally so. Before this began to change with the adoption of new criteria in the early- to-mid 1990's there would have been no reason for anyone to be on notice of the DEP's alleged state-wide application of the public water supply use, because it would have affected very few dischargers.

There were other, more concrete reasons for dischargers to conclude, prior to the early 1990's, that the Board did not intend the public water supply use criteria to apply to every water body in the state. In the revisions to the water quality standards submitted to the Legislature in 1993 the

Water Resources Board adopted changes to the water quality standards that specifically identified the aquatic life (Category B) and water contact recreation (Category C) uses as state-wide uses. Category A was notable by its absence. If all uses have applied at all times, as the DEP contends, there would have been no need to specify that Categories B and C were state-wide uses. Similarly, at some point after 1986 the Water Resources Board adopted a list of public drinking water suppliers and put it in Appendix B, which it designated as drinking water supplies where Category A criteria applied. If all waters are Category A, and always have been, a list of water intakes was unneeded.

The WVMA is not relying solely on circumstantial evidence in concluding that the Board did not originally conceive of applying the public water supply use to all state water bodies. The Board responded to public comments with regard to public water supply use designation during the 1985-1986 review of water quality standards and specifically stated that the public water supply use was limited in application.

The Board responded to the first group of comments by agreeing that all waters actually used for human consumption should be included in the definition and therefore protected. They further agreed that defining where the criteria are to apply as part of the definition might be improper. *Above all, they agreed that the category and criteria for public water supply should not be applied to streams or stream segments where no one is using the water for drinking.*

State Water Resources Board of West Virginia Rationale Document for Revision of Legislative Rules Series I, II, III and IX, January 6, 1986, at pages 19-20 (italics added). It is hard to imagine a clearer statement that the Board did not intend streams that are not used as public water supplies to be protected as public water supplies.

The WVMA provides the foregoing history because it does not believe that the Board has always intended to apply Category A on state-wide basis even if that is how the Board interprets its rule now. However, our opposition to the application of Category A throughout the state is motivated by our concern about the present-day effects of that designation. Making Category A a state-wide designation will continue to produce problems that are difficult to anticipate now, but will arise in the future. For example, mixing zones are not allowed on streams with a 7Q10 flow of 5 cfs

or less. What will be done if a mixing zone is needed to meet the 230 ppm chlorides criteria for chronic effects on aquatic life, but such a mixing zone would inadvertently allow discharges in excess of the 250 mg/l criteria for Category A? What additional streams will be placed on the 303(d) list of impaired streams, when the more stringent Category A criteria apply throughout the state? What of a human health criterion like chloroform (see discussion below) which should be changed, but would not be as great an issue if the criterion did not have universal application?

The WVMA has repeatedly urged the Board to adopt a system whereby it would protect all public water suppliers by requiring that dischargers prevent exceedances of the water quality criteria for Category A at the point of intake. One such proposal is set out in the May 15, 2001 letter to the Board, attached. An alternative that the Board appears inclined to consider, and one the WVMA could support in concept, is an expedited process for removing the Category A use where it is not an existing use. The Board proposes doing this through a procedural rule, but the WVMA is not convinced that this can be done. The water quality standards are a legislative rule, and removal of a use is a change to a legislative rule that must be made in accordance with *W. Va. Code* §29A-3-9. The WVMA is not sure how the use could be removed through a procedural rule, absent some sort of statutory change.

The WVMA believes that a statutory change not unlike that allowing the Board to establish remaining variances would be needed if the Board is to remove the Category A use without legislative review. See *W. Va. Code* §22B-3-4(c). The WVMA asks that the Board commit to asking the Legislature for the statutory changes needed for removal of designated uses that are not existing uses. Such a change might be made by adding, as *W. Va. Code* §22B-3-4(e), the following (or similar) language:

The board may remove the public water supply use on a water body, where removal of the use will not result in the criteria for that use being violated at the intake for a public water supply, prior to the issuance of a national pollutant discharge elimination system (NPDES) permit by the department of environmental protection in accordance with 33 USC Section 1311(p) of the federal Water Pollution Control Act. Such removal is not subject to review by the legislative rule-making review committee or approval by the legislature required by sections nine and eleven, article three, chapter twenty-nine of the code.

If this statutory change were adopted, the Board would be able to propose use removals without having to go through the time-consuming process of obtaining Legislative approval, and the removals could be accomplished in time for prompt permit action.

The statutory change would greatly reduce the time involved in the use removal, but would not detail how the use removal would be done, or what must be demonstrated to the Board. Therefore, the content of the rule describing how the Category A use can be removed is an important factor in evaluating the Board's proposal. The WVMA anticipates that the rule would allow removal of the use upon a showing that there is no downstream use of a stream as a potable water source that would be affected by a discharge. The WVMA would oppose as unworkable any use removal procedure that involved significantly more data, such as socio-economic studies or other involved methods. We urge the Board to develop the use-removal rule, if only in draft, before assigning Category A throughout the State, so all parties can evaluate the extent and effect of the Board's proposal.

A further concern the WVMA has about the Board's proposal is the lack of commitment from EPA to support removal of the Category A use without the need to follow the EPA's full use removal procedures in 40 C.F.R. 131.10. If EPA will oppose adoption of a simple method of Category A use removal, the WVMA questions whether the Board should proceed with its proposal. An involved use removal procedure, meeting EPA's most stringent requirements, is unworkable.

Absent confirmation that the Board will ask for a statutory change, some clarification of the effort and expense that will be required for removal of the public water supply use, and an indication of whether EPA will support and approve the Board's action, the WVMA cannot support the proposed designation of Category A as a state-wide use. We urge the Board to withdraw its proposed change, and spend the coming year drafting the rule that will set forth the requirements for Category A removal, advocating the needed statutory changes, and confirming EPA's support for this course of action.

B. Change in the Definition of the Category A Use.

While the expedited removal of Category A would alleviate most of the concerns felt by WVMA members about state-wide application of the Category A use, there is no similar relief that

would address the concerns about the changes to the definition of the Category A use. Currently, the standards (Section 6.2) provide that the public water supply use applies to waters that, "after conventional treatment," are used for human consumption. The Board proposes to radically alter the nature of water quality standard protection in West Virginia by deleting the "after conventional treatment" language. By doing so, the Board would be mandating that each stream in West Virginia should be pure enough to be drunk without any kind of preliminary treatment. Such an approach is unworkable. The DEP should not be encouraging people to believe that they can drink directly from state streams without any kind of conventional treatment, such as filtration, settling, or destruction of pathogens.

Other states recognize the need to require conventional treatment for public water supplies. The Chamber of Commerce has done a survey of public water supplies in our neighboring states, and those states specify that public water supply criteria apply where conventional treatment is provided. There is no reason for West Virginia to be different on that score.

The ramifications of the Board's proposal are too great to ignore. To implement the new definition of Category A, the Board would have to reconsider its criteria. One criterion that would have to be changed if citizens are to be encouraged to drink directly from state streams would be the Category A fecal coliform criterion, as fecal coliform is not allowed in treated drinking water. Because of fecal coliform contributions from wildlife alone, the revised standard could not be met in most streams of the state. A new fecal coliform criterion would have implications for the agricultural industry, as well as require homeowners to close septic tanks that were contributing to violations of the criterion. Municipalities would have to produce an effluent from their sewage plants that was about as clean as the drinking water that they provide to their citizens. It is unrealistic to expect the degree of wastewater treatment that the Board is requiring by its change of the public water supply definition.

In extending the Category A use state-wide, and changing the definition of the public water supply use, the Board is also increasing the number of streams that will qualify for the 303(d) list of impaired water bodies. The list consists of streams and lakes that are not attaining designated and existing uses. Presumably there are few state streams, even in rural areas, that are currently safe for drinking without any treatment. The Board's change will expand the number of streams on the

303(d) list, without there being any reasonable expectation that a total maximum daily load could be developed that would make the streams drinkable, without treatment.

The Board should continue to define public water supplies as those waters used for drinking after conventional treatment. It should also require that, if individuals wish to be afforded the protections of the Category A use, they give fair notice of their use of a water body for potable water. If persons want to drink directly from a stream, they should let those who are affected by that decision know of their choice, and they should be required to justify that decision. In some rural areas, drinking from a stream may be a reasonable choice. In other places, where an adequate water supply is otherwise readily available, the need to protect the use is called into question.

C. Chloroform Criterion.

The EPA's most stringent recommended human health criterion for chloroform is 5.7 ug/l. See *National Recommended Water Quality Criteria*, EPA 822-Z-99-001 (April 1999); 62 Fed. Reg. 42160. The chloroform criterion for public water supplies in West Virginia is .19 ug/l. This criterion could cause significant problems for any discharger that uses water that has been chlorinated. Many manufacturers obtain water for their processes from municipalities that treat their drinking water with chlorine. These manufacturers could end up with levels of chloroform in their discharges that exceed the standard, even though they do not use chlorine in their processes. In the same way, municipalities that meet the Safe Drinking Water Act limits for trihalomethanes in their drinking water could be violating water quality standards for chloroform when the water ends up in the POTW.

The WVMA suggests that the Board avoid problems inherent in its chloroform standard by adopting the EPA-recommended criterion for public water supplies in its final rule. In the alternative, the Board could acknowledge the need for the change in the chloroform criterion, so that those who wish to petition the legislature to make the change would have the Board's position on the record.

D. Antidegradation Implementation.

The Board has proposed deletion of Appendices F, F1, F2, and F3, relating to the Board's previously promulgated antidegradation implementation procedures and associated lists. The

language in Section 4 referring to Appendix F has not been proposed for deletion, however. Since the DEP would not be placing its implementation plan in the Board's rule, we assume this is an oversight, and the Board intends to remove all references to Appendix F in Sections 4.1.b.1 and 4.1.c. In addition, the Board may consider changing Section 4.1.d to remove the sentence describing the method for nominating streams for outstanding national resource water status, as the DWR will be setting procedures for that review.

To clarify the role of the Board on the issue of antidegradation implementation, we recommend a statement be included in Section 4 of the rule to read as follows:

Note: For the procedures for implementation of this policy, see regulations of the Department of Environmental Protection.

E. Harmonic Mean Flow.

The WVMA provided the Board with a letter dated May 15, 2001 setting forth its reasons for believing that the Board should authorize the use of harmonic mean flow for setting permit limits for carcinogens. The DEP appears to support the use of that design flow. The WVMA has attached that letter and incorporates it into these comments.

III. Conclusion

On behalf of its member companies, the WVMA thanks the Board for this opportunity to comment on the draft changes to the West Virginia water quality standards.

Respectfully submitted this 28th day of June, 2001

Karen S. Price, President

West Virginia Manufacturers Association



WEST VIRGINIA MANUFACTURERS ASSOCIATION

2001 Quarrier Street, Charleston, WV 25311

Telephone: (304) 342-2123

FAX: (304) 342-4552

wwma@citynet.net

May 15, 2001

Dr. Edward Snyder, Chairman
Environmental Quality Board
1615 Washington Street, East
Charleston, WV 25311

Re: Revisions to 46 C.S.R. 1, West Virginia's
Water Quality Standards

Dear Dr. Snyder:

The West Virginia Manufacturers Association understands that the Environmental Quality Board will be considering changes to the West Virginia water quality standards, 46 C.S.R. 1, at its meeting on May 16, 2001. We urge the Board to consider two changes dealing with the application of Category A, for protection of public water supplies, and the use of harmonic mean flow as the design flow for establishing permit limits for carcinogens.

We would propose that 46 C.S.R. 1-7.2.a.2 be amended to provide as follows:

7.2.a.2. Category A criteria must be met at the point of intake for each surface water intake described in Section 6.2. herein, assuming that conventional treatment of the water shall occur. Any or all of the following methods may be required to assure that the Category A criteria will be met at the point of an intake described in Section 6.2:

7.2.a.2.1. A survey by a discharger to determine that the Category A criteria will not be exceeded as a result of the discharge;

7.2.a.2.2. A mixing zone study, modeling or other method approved by the Chief to demonstrate that a discharge will not cause exceedance of the Category A criteria at the intake; or

7.2.a.2.3. Application of the Category A criteria throughout a stream segment extending up to one-half mile above an intake, and permit limits set accordingly, as an additional margin of safety, except that such a half-mile zone shall not apply to the Ohio River

Board of Directors

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Dr. Edward Snyder, Chairman

May 15, 2001

Page 2

main channel between Brown's Island and the left descending bank) between river mile points 61.0 and 63.5 until June 30, 2003.

Not all waterbodies in the state are used as public water supplies, nor should they be designated as such. For those streams that are used as drinking water sources, the water quality standards should require compliance with the water quality criteria where it will be used (the point of intake), or a short distance upstream as a margin of safety. The language we have proposed puts the burden on a discharger to confirm that surface water intakes will be receiving water that satisfies the Category A criteria.

We are aware that the question was raised as to whether the Category A use must be removed in order to adopt this definition. We do not believe any use removal is required. Section 6.1 of the water quality standards specifically states that Categories B (aquatic life) and C (water contact recreation) are the only state-wide uses, unless others are designated. No other uses are identified as state-wide uses in the water quality standards. If the Board wishes to designate other uses, such as Category A, as having state-wide application, it must do so through rulemaking, not administrative fiat. In addition, if Category A has been designated a state-wide use, it is a designated use that is not an existing use in most areas of the state. As such, it should have been subject to a use analysis pursuant to 40 C.F.R. §131.10(j), which requires a use attainability analysis whenever designating a use that is not an existing use.

Designating all water bodies as Category A does nothing more to protect water supplies than the language proposed above, and it increases the likelihood that the waterbody will be added to the 303(d) list of impaired streams because of violations of the Category A criteria, even though such streams are not used as a public water supply. This would mean that total maximum daily loads (TMDLs) would be developed for protection of a use that is not even present, a complete waste of resources.

The problems that universal application of Category A criteria causes for the coal industry because of manganese discharges are well documented. Those problems could be avoided by applying Category A in those cases where water is taken from a stream for potable use, rather than in every area of the state.

We would also ask the Board to allow the use of harmonic mean flow for setting permit limits for carcinogens. Harmonic mean flow remains the design flow for setting discharge limits for carcinogens that is recommended by the EPA. In its *Water Quality Standards Handbook - Second Edition*, EPA - 823-B-93-002 (September 1993) EPA stated it

is recommending the harmonic mean flow to be applied with human health criteria for carcinogens. The concept of a harmonic mean is a standard statistical data analysis technique. EPA's model for human health effects assumes that such effects occur because of a long-term exposure to low concentration of a toxic pollutant (for example, 2 liters of water per day for

Dr. Edward Snyder, Chairman
May 15, 2001
Page 3

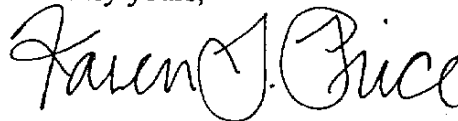
70 years). To estimate the concentrations of a toxic pollutant in those 2 liters per day by withdrawal from streams with a high daily variation in flow, EPA believes the harmonic mean flow is the correct statistic to use in computing such design flows rather than other averaging techniques.

Water Quality Standards Handbook at 5-10. In its *Technical Support Document for Water Quality-based Toxics Control*, EPA/505/2-90-001 (March 1991) at page 88 EPA made clear that "[t]he long-term harmonic mean flow is recommended as the design flow for carcinogens." Criteria for carcinogens are set at extremely low levels based on an assumption of average exposure over many years, and using the harmonic mean flow to develop permit limits accurately implements the criteria. It provides protection to human health without unduly burdening regulated industry. Without harmonic mean flow, dischargers are faced with permit limits that may be too small to measure, and require inordinate effort to reduce, without significant environmental improvement.

We encourage the Board to propose a change in the water quality standards to allow use of harmonic mean flow to set permit limits for carcinogens. The appropriate way to accomplish that would be deletion of the text at Section 8.2.b. and replacing it with "Harmonic mean flow is the appropriate design flow for calculating permit limits for carcinogens." By doing so the Board would allow comment on this important issue by the Office of Water Resources, EPA, and the public.

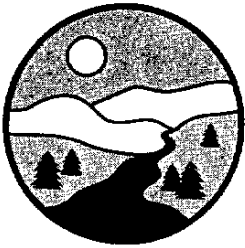
Thank you for the opportunity to present these arguments on behalf of the West Virginia Manufacturers Association. We believe they represent the thoughts of many in the regulated community, and hope they will be given careful consideration by the Board.

Sincerely yours,

A handwritten signature in cursive script that reads "Karen S. Price". The signature is written in dark ink and is positioned above the printed name.

Karen S. Price

KSP:shb



WEST VIRGINIA RIVERS COALITION

801 N. Randolph Avenue • Elkins, West Virginia 26241 • (304) 637-7201 • www.wvrivers.org

June 28, 2001

Dr. Ed Snyder, Chairman
West Virginia Environmental Quality Board
1615 Washington St.
Charleston, WV 25311

Dear Dr. Snyder:

On behalf of the West Virginia Rivers Coalition (WVRC), I respectfully submit the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation (46 CSR 1) and proposed rules for groundwater (46 CSR 12).

Category A

We have been involved in the Category A issue for a number of years, and continue to advocate that all of the state's surface waters be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. We also applaud the positions of the West Virginia Department of Environmental Protection – Division of Water Resources and the West Virginia Bureau for Public Health (BPH) that all surface waters should retain the Category A designation. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

WVRC holds the position that Category A must be applied to all West Virginia surface waters for two principal reasons: 1) to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and who are not identified by surveys of surface water users in inventories such as BPH's Zones of Critical Concern; and, 2) to account for future development and the need for clean drinking water supplies when new intakes are installed, including new uses by individual households and small communities who will take water directly from the stream for use as drinking water supplies.

West Virginia is fortunate to have so many streams that are indeed clean enough to be used as drinking water supplies, with conventional treatment, and we are encouraged that EQB



and state regulatory agencies recognize this fact. Rather than viewing protections for clean streams as an impediment to industry, we hope the state will continue to realize the economic and quality-of-life asset these clean streams are to West Virginia, and we hope the state will continue to apply such good protections to West Virginia's exceptional rivers and streams.

We understand that regulated industry and West Virginia Legislature have requested that the EQB review the Category A application. WVRC would note for the record that we are satisfied with how the standard has been historically applied in West Virginia, and see no need for changes. We hope the EQB's proposed rule will not be an avenue by which the number of exemptions to the standard is greater than if such exemptions were to go through the legislative rulemaking process.

In particular, we will be interested and involved in how EQB develops the procedural rule for implementing the proposed rule for Category A, and hope that EQB allows for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard. We will be particularly interested in how EQB proposes to grant such exemptions, especially the extent to which parties seeking variances will be required to account for all surface water users likely or potentially to be affected. We also will be curious to learn how EQB intends to account for future uses and drinking water needs should those needs arise – from direct stream use to municipal intakes – downstream of a facility that has been granted an exemption from the Category A standard. How will the EQB propose to ratchet up such exempted dischargers to properly protect new downstream drinking water supplies?

Arsenic/Groundwater

WVRC is encouraged that EQB is examining the state's arsenic standard for groundwater and is concerned about the public health effects of arsenic. According to the National Academy of Sciences, long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, immunological and neurological effects.

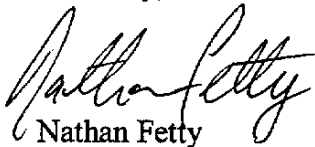
The 50 ppb standard for arsenic in drinking water is based on a 1942 study by the Public Health Service, science that is nearly 60 years old. The PHS itself, in 1962, recommended lowering the arsenic standard to 10 ppb, but over the decades the federal government repeatedly has missed deadlines for a new, more protective standard. We understand that EQB is looking to EPA to enact a new arsenic standard within the next year, and WVRC asks that EQB propose an arsenic standard that is much more protective than 50 ppb. Further, we ask that EQB propose a more protective arsenic standard for West Virginia even if EPA continues to fail to do so.

A 1999 study by the National Academy of Sciences states that the current EPA arsenic standard at 50 parts per billion (ppb) "could easily" result in a cancer risk of 1 in 100,

which is about 10,000 times higher a cancer risk than EPA would allow for carcinogens in food. The report concludes, "Upon assessing the available evidence, it is the subcommittee's consensus that the current EPA MCL (maximum contaminant level) for arsenic in drinking water of 50 [ppb] does not achieve EPA's goal for public health protection and therefore requires downward revision as promptly as possible." It would seem that an arsenic level of 50 ppb is not scientifically supportable, and the justification for establishing an arsenic level of 50 ppb would be to avoid the cost of cleanup. WVRC realizes that arsenic is naturally occurring in some West Virginia soils, and a default to natural background may be appropriate in those strata if the natural background is higher than the arsenic standard. In light of these facts, we hope that EQB will consider a more protective arsenic standard than the proposed 50 ppb, and WVRC recommends that EQB adopt an arsenic level of at least 10 ppb, if not a standard that is more protective.

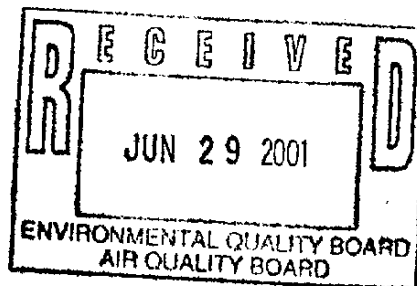
Please feel free to contact me should you have any questions regarding these comments. We thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

A handwritten signature in cursive script, appearing to read "Nathan Fetty".

Nathan Fetty
Issues Coordinator

American Electric Power
1 Riverside Plaza
Columbus, OH 43215 2373
614 223 1000



Edward M. Snyder, Chairman
Environmental Quality Board
1655 Washington Street, East
Charleston, West Virginia 25311

June 28, 2001

RE: Comments on the Proposed Changes to 46 CSR 1 and 46 CSR 12

Dear Chairman Snyder:

American Electric Power Company (AEP) respectfully submits to the West Virginia Environmental Quality Board (the "Board") comments on the proposed modifications to 46 CSR 1 (Water Quality Standards) and 46 CSR 12 (Groundwater Quality Standards).

After reviewing the proposed modifications of 46 CSR 1 and 46 CSR 12, AEP agrees with and supports the comments submitted by the West Virginia Chamber of Commerce (the "Chamber") and West Virginia Manufacturers Association (WVMA). To summarize key points of the Chamber's and WVMA's comments:

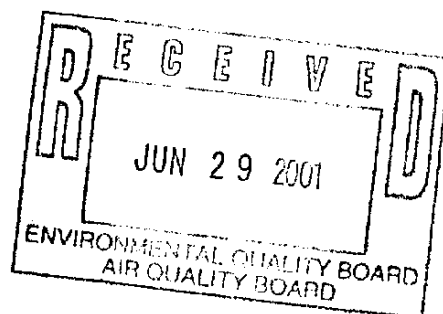
- 46 CSR 1:
 - The Board is urged not to apply the public water supply use Category A to all state waters, and instead, either continue to apply it to specifically qualified waters, or undertake a statutory change to allow easier removal of Category A use.
 - The Board is urged not to change the definition of public water supply by deletion of the phrase "after conventional treatment," as this would create an unworkable regulatory approach.
- 46 CSR 12: The Board has proposed the addition of an arsenic standard to the state groundwater quality standards. AEP is in agreement with the Board's promulgation of the arsenic standard at a level of 0.05 mg/L.

With the exception of the listed concerns in the Chamber's and WVMA's comments, AEP is currently satisfied with the language and looks forward to the final rule. We appreciate this opportunity to comment. If you have any questions concerning these comments, please call me at 614/223-1233.

Sincerely,

Alan R. Wood, P.E.
Manager, Water and Ecological Resource Services

LEGAL SERVICES

**Allegheny Energy**

1310 Fairmont Avenue
P.O. Box 1392
Fairmont, WV 26565-1392
Phone: (304) 366-3000
FAX: (304) 367-3157
gjack@alleghenyenergy.com

Writer's Direct Dial No. (304) 367-3423

June 29, 2001

VIA FAX & U.S. MAIL

W.Va. Environmental Quality Board
1615 Washington Street, East
Charleston, WV 25311-2126

**RE: Rule Revisions to Requirements Governing
Water Quality Standards 46CSR-1**

Dear Board:

Allegheny Energy is a diversified S&P 500 company headquartered in Hagerstown, Maryland, which has extensive business activities in West Virginia through its subsidiaries, predominately Allegheny Energy Supply, which generates and trades primarily electric power as well as other commodities, and Allegheny Power, which delivers electricity and natural gas in five states, including West Virginia. In West Virginia, Monongahela Power Company, the energy delivery company to approximately 680,000 customers, also continues to own approximately 2000 megawatts of electric generation.

Allegheny Energy opposes the amendment of the rules that states that Public Drinking Water Supply designated use Category A applies to all waters of the state. Allegheny believes that all waters of the state should be classified in accordance with their actual uses and not, as proposed by these rules, to classify them all as public waters subject to further amendments.

In the Statement of Circumstances Requiring Proposed Amendments, which is part of the proposed rule, it is stated in the first paragraph that the Board supports the revisions to clarify that all waters are to be protected by use designation. We agree with this statement. However, the rules then deviate dramatically from that in mandating that all waters will be designated as Category A - public water supply. This is directly contrary to the statement that the waters are to be protected by use designation. Most of the waters of the state are not in any way used for public water supply and, therefore, should not be classified as such. Any procedure in which the waters are then removed from that list does not reflect the initial proper use designation of the waters of the State of West Virginia. In other words, it makes it extremely difficult to start with an initial premise that is known to be untrue and unrealistic. Allegheny objects to this proposed classification change as being unreasonable and unlawful.

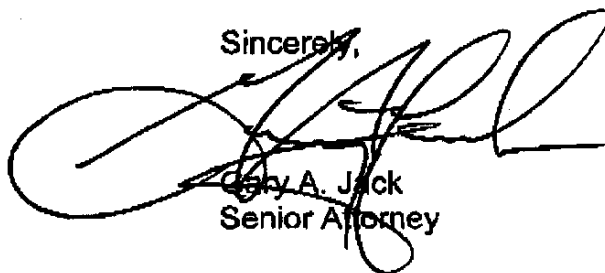
Page Two

June 29, 2001

In summary, the Board should classify waters of the state based on their actual use and not arbitrarily assign a given designation to all waters of the state that is known to be incorrect for many of the waters of the State of West Virginia. Allegheny pledges its efforts and support in assisting to properly classify and designate usage of the waters of the State of West Virginia.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary A. Jack", is written over the typed name and title.

Gary A. Jack
Senior Attorney

GAJ:tmw

cc: Richard S. Herd - Greensburg

From: Brad Taylor <btaylor1@mindspring.com>
To: <clerk@aqbeqb.state.wv.us>
Date: Fri, Jun 29, 2001 11:54 AM
Subject: WV Water Quality



Dear EQB:

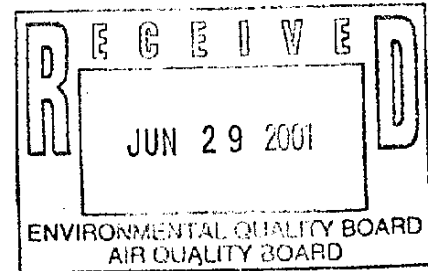
The EQB is currently developing water quality standards for streams and groundwater in West Virginia. I want to strongly urge the Board to implement the sort of stringent standards that will insure the protection of both. Our water must remain safe for drinking, for the sake of our state's (and our children's) future.

Please develop strong standards that will provide maximum protection for this essential West Virginia resource.

Sincerely,
Brad Taylor
P.O. Box 1190
Keyser, WV 26726

WEIRTON
STEEL CORPORATION

June 29, 2001



Mr. Edward M. Snyder
Chairman
West Virginia Environmental Quality Board
1615 Washington Street, East
Suite 301
Charleston, West Virginia 25311

RE: Comments on Proposed Changes to 46CSR1 and 46CSR12

Dear Mr. Snyder:

Weirton Steel Corporation ("WSC") is pleased to submit the following comments on proposed amendments to the Surface Water Quality Standards, 46 CSR 1, and the Groundwater Quality Standards, 46 CSR 12, filed on May 29, 2001.

Surface Water Quality Standards (46CSR1)

Statewide Category A Designation. WSC has commented previously on the Board's decision to designate all waters of the state as Category A and would like to emphasize those comments again. Designating all surface waters as appropriate for public water supply use may at first blush seem an environmentally proactive thing to do, however, upon careful review is simply bad public policy. A blanket approach to the Category A designation without corresponding factual basis results is the most restrictive method for protecting the state's drinking water supplies. This approach has an adverse impact on West Virginia's regulated entities in several ways. First, to the extent a permittee has to comply with drinking water criteria on a stream that is not a drinking water source and existing treatment on its discharge does not achieve the criteria, the permittee must either install additional treatment for protecting a non-existing use, or obtain a variance to demonstrate that the receiving water does not constitute a drinking water source - an expensive and protracted process. Second, the mere designation of all state streams as drinking water sources, with the resultant application of different and frequently lower water quality criteria to all state waters, will cause more streams to be added to the state's list of impaired streams under Sec. 303(d) of the Clean Water Act. The enormous commitment of resources both by the state and the regulated community that results from such a listing should compel the adoption of policies that assure that streams will be added to the list only where there is a practical justification for doing so. The EQB's proposal runs counter to this common sense principle.

Other options considered by the Board are less restrictive yet ensure full protection of actual uses occurring in the surface waters of the state. These options should be revisited. WSC

incorporates by reference and supports the comments of the West Virginia Manufacturers Association and the West Virginia Chamber of Commerce for 46 CSR 1 and strongly urges the Board to not designate all surface waters of the state as Category A.

Removal of "after conventional treatment" language. The Board proposes to remove the portion of the definition of public water supply in Sec. 6.2 that requires treatment before surface water is actually used as a drinking water source. This provision has appeared in the surface water quality standards for decades for good reason. The EQB should not do anything to encourage the use of the state's surface waters for human consumption without first requiring some treatment. Again, WSC incorporates the comments of the Manufacturers Association and the Chamber of Commerce on this important public health and policy issue.

Groundwater Quality Standards (46CSR12)

WSC supports the Board's proposal to institute an arsenic limit at 50 ppb, the current drinking water standard used by the EPA. Although the EPA is presently considering a lower limit for arsenic, an interim limit at the current standard is appropriate.

We thank the Board for the opportunity to provide these comments.

Sincerely yours,



Mark Vignovic
Director, Environmental Control

**Statement by Scott D. Goldman
on Behalf of the
West Virginia Chamber of Commerce
46 C.S.R. 1 and 46 C.S.R. 12
June 28, 2001**

Good evening. My name is Scott Goldman, and I am an attorney with the law firm of Jackson & Kelly PLLC. I am here this evening to present a brief statement on behalf of the West Virginia Chamber of Commerce. In addition to this oral statement, the Chamber will be providing written comments to the Board by tomorrow's deadline.

The Environmental Quality Board has once again proposed to amend the State water quality standards by designating all waters of the State as Category A drinking waters - even though, a conservative estimate has suggested that only 2% of surface streams are used as sources for public drinking water. Although the Board historically has received lengthy comments from the Chamber, as well as from other trade organizations and individual companies describing the inherent regulatory difficulties of designating all of the state's waters as Category A waters, the Board has elected to adopt the statewide designation. However, the Board, acknowledging the difficulty the regulated community will have if all waters of the State are considered Category A, also voted to develop an "expedited use removal process" as outlined by Libby Chatfield in a March 28, 2001 memorandum to the Board. The Chamber is disturbed by the Board's proposal to move forward on part of the Board's May 16, 2001 vote - designating all State waters as Category A - without moving forward on the remaining portion of the Board's May 16, 2001 vote - developing an expedited use removal procedure.

regulated community. Ultimately this will result in an unwarranted expense to the public at large. West Virginia and its residents are not so well endowed with extra finances as to justify unnecessary regulation.

One specific example of how the State will be significantly and negatively impacted by a statewide Category A designation is the increased number of streams which will be placed on the State's §303(d) list as not meeting the current water quality standards.

In addition, by removing the qualifying phrase "after conventional treatment" from §6.2, the Board has provided the public with a false sense of security that the waters of the State may be consumed simply by dipping your cup in the local stream. What the Board would do by removing the phrase "after conventional treatment" from 46 C.S.R. 1 §6.2 is tell the general public that all waters of the State which are meeting Category A water quality standards would be acceptable to drink without further treatment. The Safe Drinking Water Act and its implementing regulations require extensive and thorough treatment of surface waters to reduce and/or eliminate the public's exposure to these contaminants before the water treatment system can deliver the treated water to the public. However, neither the state water quality standards nor the Clean Water Act and its implementing regulations were designed to ensure that raw surface water is free from the naturally occurring microbes referenced above, or that it is otherwise safe for human consumption prior to conventional treatment. For the Board or anyone else to imply that after designating

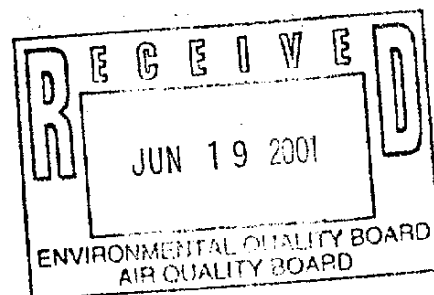
With regard to the Board's proposed changes to the State Groundwater Standards, the Chamber does not oppose the Board's addition of an arsenic standard. However, the Chamber does question the timing of such provision given USEPA's recent and well-publicized efforts to evaluate the arsenic standard.

Finally, the Chamber would like to request that the Board amend the State water quality standard for chloroform to conform to the current federal chloroform standard. The current State water quality standard for public water supplies for chloroform of .19 ug/l is causing regulatory problems for facilities which discharge water treated with chlorine. The EPA's recommended human health criterion for chloroform is 5.7 ug/l. By leaving in place a criterion that has been revised by EPA, the Board leaves the state open to increased and unnecessary risk of non-compliance with federal permitting requirements for both industrial facilities as well as municipalities. The Chamber urges the Board to include in its current rulemaking an update to this standard. The Chamber provides this comment to put the Board on notice that this is an issue of increasing importance which the regulated community will be pursuing for as timely a resolution as can be developed to include coordination with the Department of Water Resources to promote revision thereto.

Charles & Sandra Walbridge
Rt. 1, Box A43B
Bruceton Mills, WV 26525

June 15, 2001

Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

We are writing to request that you accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

We believe that all of the state's surface waters should be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have grave concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

Category A must be applied to all West Virginia surface waters to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and to account for future development and the need for future clean drinking water supplies. West Virginia is fortunate to have many streams that are clean enough to be used as drinking water supplies and we are encouraged that EQB recognizes this. Rather than viewing protection for clean streams as an impediment to development, we hope the state will continue to realize the economic and quality-of-life benefits these clean streams provide. We hope the state will continue to protect West Virginia's rivers and streams.

We understand that regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied. For the record, we are satisfied with how the standard has been historically applied in West Virginia. We hope the EQB's proposal will not be an avenue by which exemptions are given more frequently. In particular, we will be interested in how EQB develops the procedural rule for implementing the proposed rule for drinking water, and hope that EQB allows for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard.

We are also encouraged that EQB is examining the state's arsenic standard for groundwater and is concerned about the public health effects of arsenic. According to the National Academy of Sciences, long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, and neurological effects.

The 50 parts per billion (ppb) standard for arsenic in drinking water is based on a 1942 study by the Public Health Service, and is based on science that is nearly 60 years old. The PHS itself, in 1962, recommended lowering the arsenic standard to 10 ppb, but over the decades the federal government repeatedly has missed deadlines for a new standard. We understand that EQB is waiting for EPA to enact a new arsenic standard within the next year, and we hope that EQB will propose an arsenic standard that is much more protective than 50 ppb. Further, we hope EQB will propose a more protective arsenic standard for West Virginia even if EPA continues to fail to do so.

A 1999 study by the National Academy of Sciences states that the current EPA arsenic standard at 50 ppb "could easily" result in a cancer risk of 1 in 100, which is about 10,000 times higher a cancer risk than EPA would allow for carcinogens in food. The report concludes, "Upon assessing the available evidence, it is the subcommittee's consensus that the current EPA MCL(maximum contaminant level) for arsenic in drinking water of 50 ppb does not achieve EPA's goal for public health protection and therefore requires downward revision as promptly as possible." It would seem that the justification for establishing an arsenic level of 50 ppb would be to avoid the cost of cleanup, not adequately protect public health. In light of these facts, we hope that EQB will consider a more protective arsenic standard than the proposed 50 ppb, and we recommend that EQB adopt an arsenic level of at least 10 ppb, if not a level that is even more protective.

We thank you for the opportunity to provide comments on these proposed rules. Like many West Virginians, we depend on the purity of our personal water supply every day.

Sincerely,

A handwritten signature in cursive script that reads "Charlie & Sandy Walbridge". The signature is written in dark ink and is positioned above the printed name.

Charlie & Sandy Walbridge



STATE OF WEST VIRGINIA
DEPARTMENT OF HEALTH AND HUMAN RESOURCES

Bob Wise
Governor

Paul L. Nusbaum
Secretary

June 18, 2001

Dr. Edward Synder, Chairperson
Environmental Quality Board
1615 Washington Street, East, Suite 301
Charleston, West Virginia 25311-2126

Re: Category "A" Designated Use for
Waters of the State of West Virginia

Dear Dr. Snyder:

The West Virginia Bureau for Public Health (WVBPH) supports the Board's determination to retain the Category "A" designated use for all waters to ensure adequate protection for surface water used to supply drinking water. The BPH also expresses interest in participating in the process of developing a procedural rule for removing Category "A" designated use on a site-specific case-by-case basis.

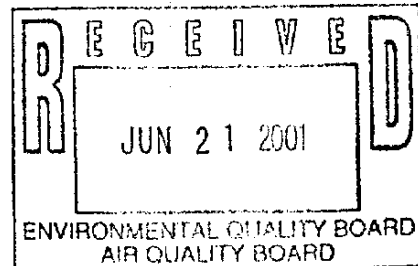
If you have questions or need additional information, please do not hesitate to contact this office.

Sincerely,

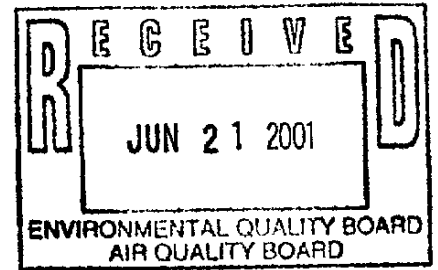
Barbara S. Taylor, Director
Office of Environmental Health Services

BST/cjj

TAWp8\CJ\LETTERS\Cat_A_EQB.061301.wpd



BUREAU FOR PUBLIC HEALTH
Office of Environmental Health Services
815 Quarrier Street, Suite 418
Charleston, West Virginia 25301-2616
Telephone: (304) 558-2981 FAX: (304) 558-0691



Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311

Dear Dr. Snyder:

Please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

We advocate that all of the state's surface waters be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

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We understand that regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied. For the record, we are satisfied with how the standard has been historically applied in West Virginia. We hope the EQB's proposal will not be an avenue by which exemptions are given more frequently. In particular, we will be interested in how EQB develops the procedural rule for implementing the proposed rule for drinking water, and hope that EQB allows for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard.

Arsenic/Groundwater

We are encouraged that EQB is examining the state's arsenic standard for groundwater and is concerned about the public health effects of arsenic. According to the National Academy of Sciences, long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, immunological and neurological effects.

The 50 parts per billion (ppb) standard for arsenic in drinking water is based on a 1942 study by the

Public Health Service, and is based on science that is nearly 60 years old. The PHS itself, in 1962, recommended lowering the arsenic standard to 10 ppb, but over the decades the federal government repeatedly has missed deadlines for a new standard. We understand that EQB is waiting for EPA to enact a new arsenic standard within the next year, and we hope that EQB will propose an arsenic standard that is much more protective than 50 ppb. Further, we hope EQB will propose a more protective arsenic standard for West Virginia even if EPA continues to fail to do so.

A 1999 study by the National Academy of Sciences states that the current EPA arsenic standard at 50 ppb "could easily" result in a cancer risk of 1 in 100, which is about 10,000 times higher a cancer risk than EPA would allow for carcinogens in food. The report concludes, "Upon assessing the available evidence, it is the subcommittee's consensus that the current EPA MCL (maximum contaminant level) for arsenic in drinking water of 50 [ppb] does not achieve EPA's goal for public health protection and therefore requires downward revision as promptly as possible." It would seem that an arsenic level of 50 ppb is not scientifically supportable, and the justification for establishing an arsenic level of 50 ppb would be to avoid the cost of cleanup, not adequately protect public health. In light of these facts, we hope that EQB will consider a more protective arsenic standard than the proposed 50 ppb, and we recommend that EQB adopt an arsenic level of at least 10 ppb, if not a level that is even more protective.

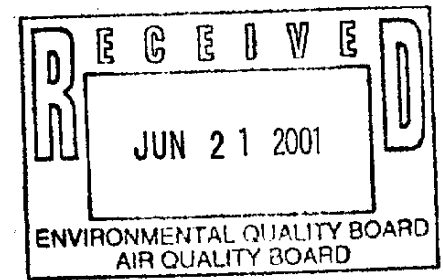
We thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

Carol L. Reuther
The Wheeling Environmentalists

Friday, June 15, 2001

Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

On behalf of myself and the Blue Heron Environmental Network, I ask that you please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

We advocate that all of the state's surface waters be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

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We understand that regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied. For the record, we are satisfied with how the standard has been historically applied in West Virginia. We hope the EQB's proposal will not be an avenue by which exemptions are given more frequently. In particular, we will be interested in how EQB develops the procedural rule for implementing the proposed rule for drinking water, and hope that EQB allows for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard.

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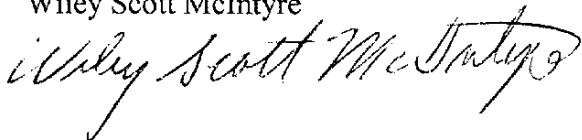
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We thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

Wiley Scott McIntyre

A handwritten signature in cursive script, reading "Wiley Scott McIntyre". The signature is written in dark ink and is positioned below the printed name.

CRANDALL PYLES HAVILAND & TURNER, LLP

ATTORNEYS AT LAW

206 W. RANDOLPH STREET
LEWISBURG, WEST VIRGINIA 24901
TELEPHONE (304) 645-6400 / FAX (304) 645-6419
E-MAIL: wturner@crandallpyles.com

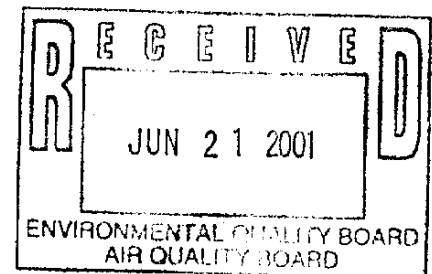
GRANT CRANDALL
BRADLEY J. PYLES
JAMES M. HAVILAND
WILLIAM D. TURNER
TODD A. TWYMAN
HENRY M. HILLS, III

CHARLESTON OFFICE
TEL. (304) 345-3080
FAX (304) 345-3083

LOGAN OFFICE
TEL. (304) 752-6000
FAX (304) 756-3123

June 20, 2001

Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

On behalf of the West Virginia Rivers Coalition and Greenbrier River Watershed Association, I ask that you please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

We advocate that all of the state's surface waters be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

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Dr. Ed Snyder

June 20, 2001

Page 3

quality-of-life asset these clean streams are to West Virginia, and we hope the state will continue to apply such good protections to West Virginia's exceptional rivers and streams.

We understand that regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied. For the record, we are satisfied with how the standard has been historically applied in West Virginia. We hope the EQB's proposal will not be an avenue by which exemptions are given more frequently. In particular, we will be interested in how EQB develops the procedural rule for implementing the proposed rule for drinking water, and hope that EQB allows for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard.

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We are encouraged that EQB is examining the state's arsenic standard for groundwater and is concerned about the public health effects of arsenic. According to the National Academy of Sciences, long-term exposure to low concentrations of arsenic in drinking water can lead to skin, bladder, lung and prostate cancer. Non-cancerous effects of ingesting arsenic at low levels include cardiovascular disease, diabetes, and anemia, as well as reproductive, developmental, immunological and neurological effects.

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Dr. Ed Snyder

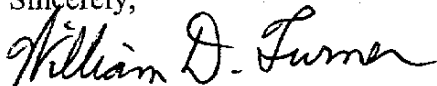
June 20, 2001

Page 3

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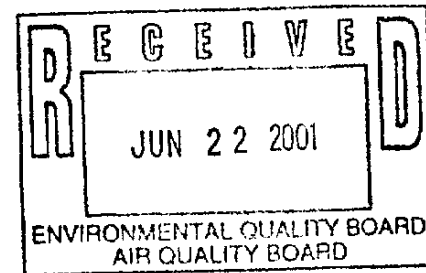
I thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

A handwritten signature in cursive script that reads "William D. Turner". The signature is written in dark ink and is positioned below the word "Sincerely,".

William D. Turner

Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

On behalf of River & Trail Outfitters, I ask that you please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

We advocate that all of the state's surface waters be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

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Arsenic/Groundwater

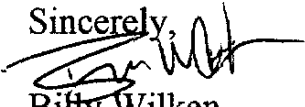
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We thank you for the opportunity to provide comments on these proposed rules.

Sincerely,



Biffy Wilken

River & Trail Outfitters

June 20, 2001

Dr. Ed Snyder
W. Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311

Dear Dr. Snyder:

On behalf of all West Virginians, I ask that you please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

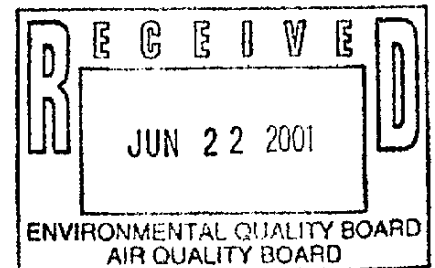
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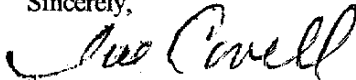
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We thank you for the opportunity to provide comments on these proposed rules.

Sincerely,



Sue Covell
Rt1-Bx 245
Harrisville, WV 26362
(304) 628-3743

Kathryn Allen Stone
26 Birch Tree Lane
Charleston, WV 25314

June 20, 2001

Dr. Ed Snyder
W.V. Environmental Quality Board
1615 Washington Street East
Charleston, WV 25311

Dear Dr. Snyder:

I would like to submit the following comments for your consideration with respect to your organization's proposed rules for the Category A drinking water designation and proposed rules for groundwater. These are as follows:

Category A Drinking Water:

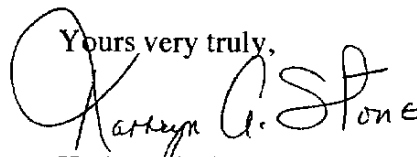
- designate all surface water in the state of West Virginia Category A without exemptions
- recognize the importance of clean streams for both economic reasons and quality of life reasons
- allow full public comment and review for any proposed exemptions from Category A exemption

Arsenic/Groundwater:

- maintain the arsenic standards commensurate with that proposed by the National Academy of Sciences, irrespective of whether EPA proposes a more protective arsenic standard. (arsenic level of 50 ppb is not scientifically supportable for a good public health standard; recommended arsenic level of at least 10 ppb or less is desirable)

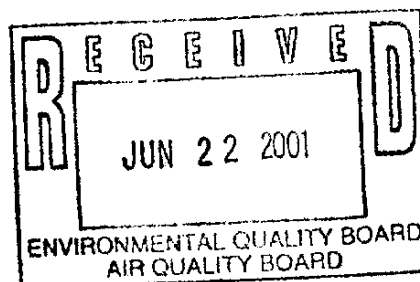
Thank you for your consideration of this serious matter. If you watched Bill Moyers' 'Earth on the Edge' on television last night, you would realize the 'gold-like value' of potable water everywhere on earth. We are so fortunate here in West Virginia to have wonderful streams, relatively unpolluted. We must look on these as treasures, not only for ourselves but for our heirs.

Yours very truly,

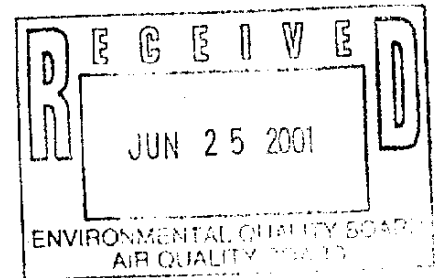


Kathryn A. Stone
Interfaith Global Climate Change
Committee of West Virginia

cc: M. Leitch



Greenbrier River Watershed Association
P.O. Box 1419
Lewisburg, West Virginia
www.greenbrierriver.org



June 20, 2001

Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311

Dear Dr. Snyder:

On behalf of the two hundred and fifty members of the Greenbrier River Watershed Association, I ask that you please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater. Our organization is dedicated to preserving the quality of the environment in the beautiful Greenbrier River watershed and we could use some assistance from regulators to do it!

Category A Drinking Water

We advocate that all of the state's surface waters be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

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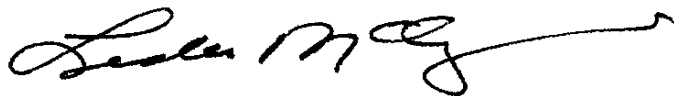
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We thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

A handwritten signature in black ink, appearing to read "Leslee McCarty", with a long, sweeping horizontal line extending to the right.

Leslee McCarty, Coordinator, GRWA

Stewards of the Potomac Highlands

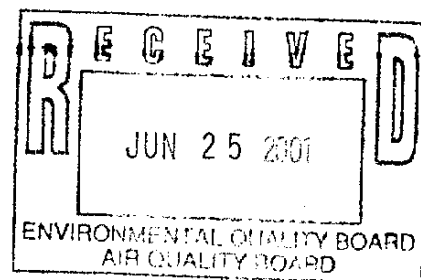
P.O. Box 455

Wardensville WV 26851



June 22 2001

Dr. Ed Snyder
W. Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

We are a nonprofit citizens advocacy group, Stewards of the Potomac Highlands. We advocate for the protection and preservation of nature, history and community in the eastern eight counties of West Virginia and in surrounding areas.

Please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water: We ask that all of the state's surface waters be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

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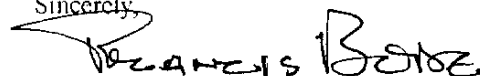
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Thank you for the opportunity to provide comments on these proposed rules.

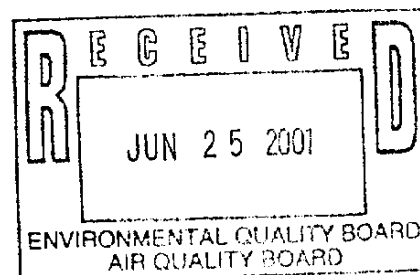
Sincerely,

A handwritten signature in dark ink, appearing to read "Francis Bode". The signature is fluid and cursive, with the first name "Francis" and last name "Bode" clearly distinguishable.

Francis Bode, Secretary
Stewards of the Potomac Highlands

June 18, 2001

Dr. Ed Snyder
W. Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

On behalf of {your organization}, I ask that you please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

We advocate that all of the state's surface waters be designated Category A, as they have been for decades. We uphold the EQB proposal to retain this designation as applying to all West Virginia surface waters. We do have concerns about the exemptions to Category A standards not going through the legislative rulemaking process.

Category A must be applied to all West Virginia surface waters to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and to account for future development and the need for future clean drinking water supplies. West Virginia is fortunate to have so many streams that are clean enough to be used as drinking water supplies and we are encouraged that EQB recognizes this. Rather than viewing protections for clean streams as an impediment to development, we hope the state will continue to realize the economic and quality-of-life asset these clean streams are to West Virginia, and we hope the state will continue to apply such good protections to West Virginia's exceptional rivers and streams.

We understand that regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied. For the record, we are satisfied with how the standard has been historically applied in West Virginia. We hope the EQB's proposal will not be an avenue by which exemptions are given more frequently. In particular, we will be interested in how EQB develops the procedural rule for implementing the proposed rule for drinking water, and hope that EQB allows for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard.

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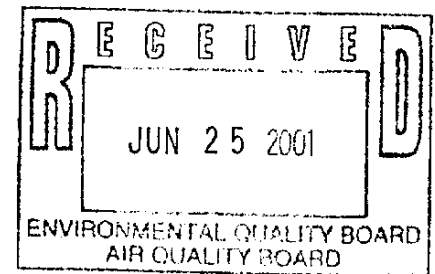
We thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

A handwritten signature in cursive script, appearing to read "James & Cheryl Long".

James & Cheryl Long
2290 Eagle School Road
Martinsburg, WV 25401

Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

On behalf of {your organization}, I ask that you please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

We advocate that all of the state's surface waters be designated Category A, as they have been for decades. We applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

Category A must be applied to all West Virginia surface waters to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and to account for future development and the need for future clean drinking water supplies. West Virginia is fortunate to have so many streams that are clean enough to be used as drinking water supplies and we are encouraged that EQB recognizes this. Rather than viewing protections for clean streams as an impediment to development, we hope the state will continue to realize the economic and quality-of-life asset these clean streams are to West Virginia, and we hope the state will continue to apply such good protections to West Virginia's exceptional rivers and streams.

We understand that regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied. For the record, we are satisfied with how the standard has been historically applied in West Virginia. We hope the EQB's proposal will not be an avenue by which exemptions are granted more frequently. In particular, we will be interested in how EQB develops the procedural rule for implementing the proposed rule for drinking water, and hope that EQB allows for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard.

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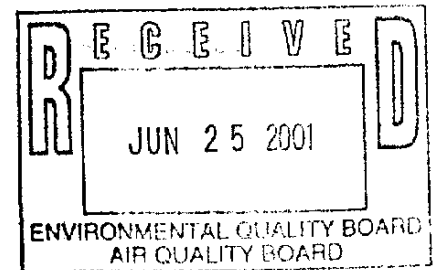
We thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

Dan Burnham
35 Poplar Ave
Wheeling WV
26003

June 21, 2001

Dr. Ed Snyder
W. Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

Please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and proposed rules for groundwater.

Category A Drinking Water

I ask that all of the state's surface waters be designated Category A, as they have been for decades. I applaud EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, we have concerns about exemptions to the Category A standard not going through the legislative rulemaking process.

Category A must be applied to all West Virginia surface waters to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and to account for future development and the need for future clean drinking water supplies. West Virginia is fortunate to have so many streams that are clean enough to be used as drinking water supplies and we are encouraged that EQB recognizes this. Rather than viewing protections for clean streams as an impediment to development, I hope the state will continue to realize the economic and quality-of-life asset these clean streams are to West Virginia, and we hope the state will continue to apply such good protections to West Virginia's exceptional rivers and streams.

I understand that regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied. For the record, I am satisfied with how the standard has been historically applied in West Virginia. I hope the EQB's proposal will not be an avenue by which exemptions are given more frequently. In particular, I will be interested in how EQB develops the procedural rule for implementing the proposed rule for drinking water, and hope that EQB allows for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard.

Arsenic/Groundwater

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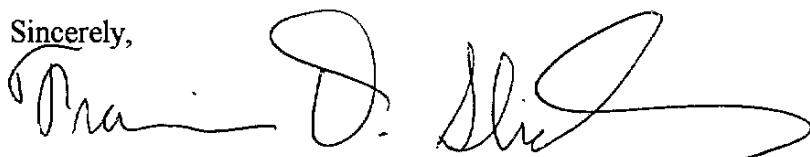
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Thank you for the opportunity to provide comments on these proposed rules.

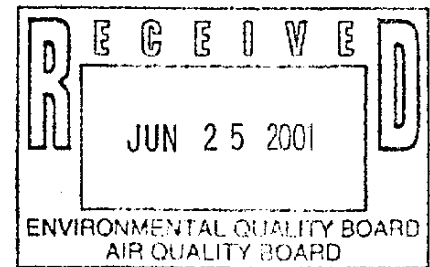
Sincerely,

A handwritten signature in black ink, appearing to read "Francis D. Slider", with a long, sweeping horizontal line extending to the right.

Mr. Francis D. Slider
Rt 1 Box 163-A2
Middlebourne, WV 26149
304-758-2500

6/22/01

Dr. Ed Snyder
W.Va. Environmental Quality Board
1615 Washington St., East
Charleston, WV 25311



Dear Dr. Snyder:

Please accept the following comments pertaining to the West Virginia Environmental Quality Board's (EQB) proposed rules for the Category A drinking water designation and rules for groundwater.

Category A Drinking Water

All of the state's surface waters should be designated Category A, as they have been for decades. I support EQB's proposal to retain this designation as applying to all West Virginia surface waters. However, I have concerns about exemptions to the Category A standard being dropped from the legislative rulemaking process.

Category A must be applied to all West Virginia surface waters to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and to account for future development and the need for future clean drinking water supplies. West Virginia is fortunate to have so many streams that are clean enough to be used as drinking water supplies and I am encouraged that EQB recognizes this.

I understand that regulated industry and the West Virginia Legislature have requested the EQB review how Category A is applied. **For the record, I am satisfied with how the standard has been historically applied in West Virginia.** I hope the EQB's proposal will not be an avenue by which exemptions are given more frequently. In particular, I will be interested in how EQB develops the procedural rule for implementing the proposed rule for drinking water, **and request EQB allow for full public comment and review not only in the procedural rule, but also in each and every exemption it proposes to grant from the Category A standard.**

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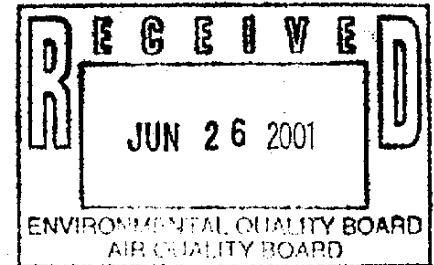
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Thank you for the opportunity to provide comments on these proposed rules.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary Zuckett", with a long horizontal line extending to the right.

Gary Zuckett
POB 144
Pullman, WV 26421



June 25, 2001

Dr. Edward M. Snyder, Chairman
Environmental Quality Board
1655 Washington Street, East
Charleston, West Virginia 25311

Re: Proposed changes to 46 CSR 1 and 46 CSR 12

Dear Chairman Snyder:

The following comments are provided on behalf of the Independent Oil and Gas Association of West Virginia (IOGA) to the proposed modifications to 46 CSR 1 (Water Quality Standards) and 46 CSR 12 (Groundwater Quality Standards).

A. Comments on the modifications to the Water Quality Standards (46 CSR 1)

Statewide Category A Designation. IOGA strongly opposes the Board's decision to designate all waters of the state as Category A. Designating all surface waters as public water supply use is inappropriate because it does not take into account the actual uses that are being made of surface waters, and therefore, has no basis in fact. This blanket approach to the Category A designation without corresponding factual basis results in the most restrictive method for protecting the state's drinking water supplies. Moreover, by classifying waters that historically have not been suitable for public water supply, the designation will have the unintended result of significantly expanding the states list of impacted streams under section 303(d) of the federal Clean Water Act. In light of the enormous commitment of resources by both the state and the regulated community that will result from such expanded listings, the Board should consider adoption of an alternative policy that will not result in this inclusion of streams on the state's impaired waters list without a legitimate scientific basis.

Other options considered by the Board are less restrictive yet ensure full protection of actual uses occurring in the surface waters of the state. These options should be revisited. IOGA incorporates by reference and supports the comments of the West Virginia Manufacturers Association and the West Virginia Chamber of Commerce for 46 CSR 1 and strongly urges the Board to not designate all surface waters of the state as Category A.

Lastly, if the Board adopts its proposal to designate all waters of the state as Category A, IOGA requests that the Board only apply the Category A designation to surface waters. As proposed, section 6.2. applies Category A to all waters. Under the West Virginia Water Pollution Control Act, water is defined as "any and all water on or beneath the surface of the ground . . ." W.Va. Code § 22-11-3(23). As this rule only applies to surface waters, section 6.2 should be revised read "all surface waters."

Removal of "after conventional treatment" language. The Board proposes to remove the portion of the definition of public water supply in Sec. 6.2 that requires treatment before surface water is actually used as a drinking water source. This provision has appeared in the surface water quality standards for decades for good reason. The Board should not do anything to encourage the use of the state's surface waters for human consumption without first requiring some treatment. Again, IOGA incorporates the comments of the West Virginia Manufacturers Association and the Chamber of Commerce on this important public health and policy issue.

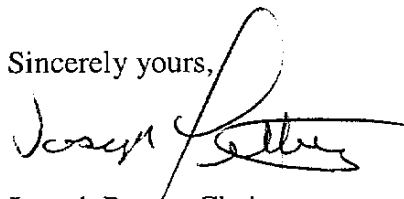
Deletion of Antidegradation Implementation Procedures. IOGA supports the Board's deletion of the Antidegradation Implementation Procedures set forth in Appendices F, F-1 and F-2. However, to implement the Legislative intent of House Bill 3240 (2001 Session), the Association recommends that all references to Appendices F, F-1, and F-2 be deleted from 46 CSR 1, e.g. sections 4.1.b.1 and 4.1.c., because these appendices reference subject matter under the regulatory jurisdiction of the Department of Environmental Protection ("DEP") and the Board has no authority to incorporate by reference DEP regulations.

B. Comments on the modification to the Groundwater Quality Standards (46CSR12)

IOGA supports the Board's proposal to institute an arsenic limit at 50 ppb, the current drinking water standard used by the EPA. Although the EPA is presently considering a lower limit for arsenic, an interim limit at the current standard is appropriate and provides certainty to the regulated community.

We thank the Board for the opportunity to provide these comments.

Sincerely yours,

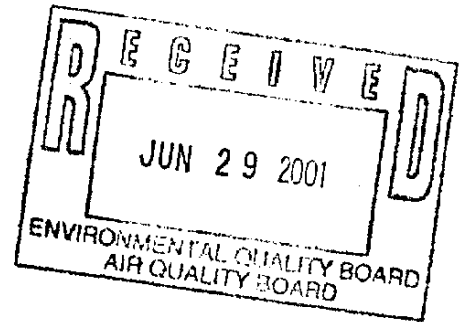


Joseph Pettey, Chair
IOGA Environmental and Safety Committee

cc: Michael D. Herron
Executive Director
Independent Oil & Gas Association of West Virginia



STATE OF WEST VIRGINIA
DEPARTMENT OF AGRICULTURE
CHARLESTON 25305
June 29, 2001



GUS R. DOUGLASS
COMMISSIONER

Dr. Ed Snyder
Chairman, Environmental Quality Board
1615 Washington Street East
Suite 301
Charleston, WV 25311

Dear Chairman Snyder:

In addition to, and in support of, the comments provided by Deputy Commissioner Hannah at the public hearing last evening I would like to submit my thoughts and recommendations. I thank you in advance for this opportunity to do so.

At the outset let me say the West Virginia Department of Agriculture (WVDA) believes all water sources used for domestic purposes should be protected to the fullest. But we also believe the public should not be led to think all surface water in the state might someday be suitable for drinking water without treatment. The public policy goal should be to protect the waters upstream of known or designated drinking water intakes from contaminants (or levels thereof) that cannot easily be removed by conventional treatment.

To change the definition of Category A use, as proposed, by deleting the "after conventional treatment" is tantamount to assuring the public we will one day be able to drink directly from our streams. We in the WVDA can attest, through our work to identify sources of fecal coliform bacteria, that pollutant source identification alone is a monumental task. In fact, unknown or uncontrollable sources of bacteria can often dominate the bacteria levels found in some streams. We certainly do not want people drinking directly from those streams.

Making Category A a state-wide designation will also surely lead to a significant, if not exponential, increase in the 303(d) list of impaired streams for drinking water use. As the Board is well aware, DEP is already on overload in terms of developing TMDL's for the already listed 303(d) streams.

We recommend the Board leave the list alone and develop guidelines for public comment on how streams might easily be added or subtracted from Category A use. Specifically identifying some streams for drinking water uses certainly highlights the need to provide special public health protections for those sources and encourages the

Dr. Ed Snyder
Page 2

DEP to provide an added level of attention to those sources upstream of an intake. The idea of presumptively applying standards, implying there are no health risks after the standards are made into a rule, and requiring the public to justify changing a standard, is in our judgment a poor way to set public policy and negates what we believe is the duty of the Board itself. In any event, profound and potentially far reaching changes in policy such as the proposal at hand, should at a minimum be undertaken with the approval of the legislature and not procedurally as the Board recommends. The devil could well be in the details on this one.

On the anti-degradation front, we assume the Board is proposing deletion at this time of all references to the antidegradation plan which is required to be developed by the DEP. If we are correct, we would like to bring anti-degradation references found in Sections 4.1.b.1, 4.1c and 4.1d to the Board's attention.

Again, thank you for the opportunity to offer the Department's comments on the implementation of this important proposal. We stand ready to assist you in any way possible as you fulfill your environmental protection responsibilities.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gus R. Douglass".

Gus R. Douglass
Commissioner

333 West Vine Street, Suite 1200
Lexington, Kentucky 40507
Telephone (859) 225-8700

101 South Queen Street
Martinsburg, West Virginia 25401
Telephone (304) 263-0836

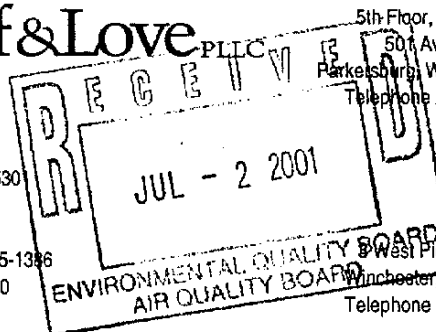
7000 Hampton Center, Suite K
Morgantown, West Virginia 26505
Telephone (304) 599-1390

Bowles Rice McDavid Graff & Love PLLC

ATTORNEYS AT LAW

600 Quarrier Street
Charleston, West Virginia 25301

Post Office Box 1386
Charleston, West Virginia 25325-1386
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5th Floor, United Square
501 Avery Street
Parkersburg, West Virginia 26101
Telephone (304) 485-8500

8 West Piccadilly Street
Winchester, Virginia 22601
Telephone (540) 723-8877

June 29, 2001

Leonard Knee
Telephone — (304) 347-1726
Facsimile — (304) 347-1196

E-mail Address:
lknee@bowlesrice.com

Dr. Edward M. Snyder, Chair
West Virginia Environmental Quality Board
1615 Washington Street, East
Charleston, West Virginia 25311

Via Facsimile and Mail

Re: 46 CSR § 1 - Water Quality Standards
Comments on Proposed Rule

Dear Dr. Snyder:

On behalf of Century Aluminum of West Virginia, Inc. ("CAWV"), I offer the following comments on the proposed changes to 46 CSR § 1 - "Requirements Governing Water Quality Standards." CAWV joins in the written comments of the West Virginia Chamber of Commerce and West Virginia Manufacturers Association and incorporates their comments herein by reference.

CAWV looks forward to working with the Board as it reassesses this important issue in the future. Thank you for the opportunity to provide these comments. Should you have any questions, please do not hesitate to contact me.

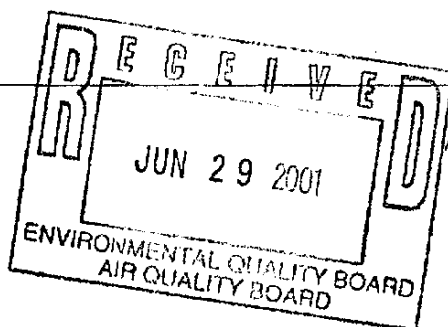
Very truly yours,

Leonard Knee

LK/jlh

cc: Jeff Van Matre
Richard Thomas

ENV.ENV.0010836



Union Carbide Corporation
A Subsidiary of The Dow Chemical Company
P.O. Box 8004
437 MacCorkle Avenue SW
South Charleston, WV 25303
U.S.A.

June 29, 2001

Edward M. Snyder, Chairman
Environmental Quality Board
1615 Washington Street, East
Charleston, West Virginia 25311

RE: Proposed Changes to 46 CSR 1 WV Water Quality Standards

Dear Chairman Snyder:

Below are our comments to the proposed modifications to 46 CSR 1 Water Quality Standards:

Proposed Change to Category A Public Water Supply Use Designation.

- In general, we support the West Virginia Chamber of Commerce and West Virginia Manufacturers Association comments submitted to the Environmental Quality Board.
- Specifically, there are several points to emphasize:
 - The phrase "after conventional treatment" should not be deleted from the regulations, as it infers that any stream identified as a Category A use is then suitable for public consumption directly from the stream or water body
 - Category A should not be a default classification applied state-wide, as not all state waters are public drinking water sources, and this use is not attainable in all state waters
 - The concept of "declassifying" certain streams out of Category A through a procedural rule is at face value a reasonable compromise, but it is unclear if the State or EQB has the legal authority to do so under 40CFR131.10(g) (see attachment).
 - Therefore, a default classification of Category A use for all streams of the State at this time may render them permanently designated for that use, regardless of the Board's good intentions to allow for an exception-based declassification process.

We respectfully submit these comments to the Environmental Quality Board for your consideration, and thank you for the opportunity to comment.

Sincerely,

J. A. Amos

Joseph A. Amos
WVO EH&S Regulatory Affairs Leader

Attachment

ATTACHMENT (*emphasis added*)

TITLE 40 PART 131 – Water Quality Standards, Subpart B – Establishment of Water Quality Standards

Section 131.10 Designation of Uses.

- (a) Each State must specify appropriate water uses to be achieved and protected. The classification of the waters of the State must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.
- (b) In designating uses of a water body and the appropriate criteria for those uses, the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.
- (c) States may adopt sub-categories of a use and set the appropriate criteria to reflect varying needs of such sub-categories of uses, for instance, to differentiate between cold water and warm water fisheries.
- (d) At a minimum, uses are deemed attainable if they can be achieved by the imposition of effluent limits required under sections 301(b) and 306 of the Act and cost-effective and reasonable best management practices for nonpoint source control.
- (e) Prior to adding or removing any use, or establishing sub-categories for a use, the State shall provide notice and an opportunity for a public hearing under Section 131.20(b) of this regulation.
- (f) States may adopt seasonal uses as an alternative to reclassifying a water body or segment thereof to uses requiring less stringent water quality criteria. If seasonal uses are adopted, water quality criteria should be adjusted to reflect the seasonal uses, however, such criteria shall not preclude the attainment and maintenance of a more protective use in another season.
- (g) States *may remove a designated use* which is not an existing use, as defined in Sec. 131.3, or establish sub-categories of a use *if the State can demonstrate that attaining the designated use is not feasible* because:
 - (1) Naturally occurring pollutant concentration *prevent the attainment of the use*; or
 - (2) Natural, ephemeral, intermittent or low flow conditions or water levels *prevent the attainment of the use*, unless the conditions may be compensated for by the discharge of sufficient volume or effluent discharges without violating State water conservation requirements to enable uses to be met; or
 - (3) Human caused conditions or sources of pollution *prevent the attainment of the use* and cannot be remedied or would cause more environmental damage to correct than to leave in place; or
 - (4) Dams, diversions or other types of hydrologic modifications *preclude the attainment of the use*, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; or
 - (5) Physical conditions related to the natural features of the water body, such as lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, *preclude attainment* of aquatic life protection uses; or
 - (6) Controls more stringent than those required by sections 301(b) and 306 of the Act would result in *substantial and widespread economic and social impact*.
- (h) States *may not remove designated uses* if:
 - (1) *They are existing uses*, as defined in Sec. 131.3, unless a use requiring more stringent criteria is added; or
 - (2) *Such uses will be attained by implementing effluent limits* required under sections 301(b) and 306 of the Act *and by implementing cost-effective and reasonable best management practices* for nonpoint source control.
- (i) Where existing water quality standards specify designated uses less than those which are presently being attained, the State shall revise its standards to reflect the uses actually being attained.
- (j) A State must conduct a use attainability analysis as described in Sect. 131.1(g) whenever:
 - (1) The State designates or has designated uses that do not include the uses specified in section 101(a)(2) of the Act which require less stringent criteria.
- (k) A State is not required to conduct a use attainability analysis under this regulation whenever designating uses which include those specified in section 101(a)(2) of the Act.

Facsimile Cover Sheet

TO: DR. EDWARD SNYDER,
CHAIRMAN

COMPANY: ENVIRONMENTAL QUALITY BOARD

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FROM: JOSEPH A. AMOS

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DATE: 6/29/01

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COMMENTS: COMMENTS ON PROPOSED 46 CSR1
WATER QUALITY STANDARDS CHARGES

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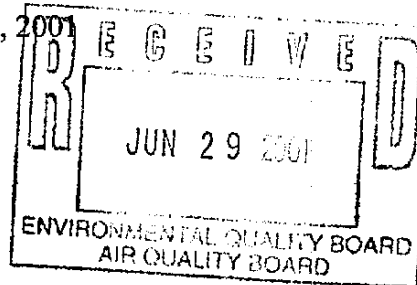
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MEMBER OF LEX MUNDI,
THE WORLD'S LEADING ASSOCIATION
OF INDEPENDENT LAW FIRMS.

Dr. Edward M. Snyder, Chairman
Environmental Quality Board
1655 Washington Street, East
Charleston, West Virginia 25311

June 29, 2001



Re: Proposed Changes to 46 C.S.R. 1 and 46 C.S.R. 12

Dear Chairman Snyder:

The following comments are provided on behalf of the West Virginia Chamber of Commerce to the proposed modifications to the Water Quality Standards (46 C.S.R. 1) and Groundwater Standards (46 C.S.R. 12.) Thank you for the opportunity to provide these comments.

Should you have any questions, please feel free to contact me.

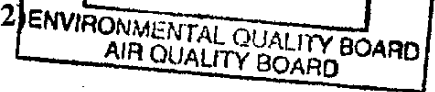
Very truly yours,

Scott D. Goldman

On behalf of West Virginia Chamber of Commerce

cc: Melissa Carte, Clerk
Libby Chatfield, Esq.
Betsy Dulin, Esq.
Dr. Cameron Hackney
Dr. Charles Jenkins
Dr. David Samuel

**WRITTEN COMMENTS SUBMITTED BY
THE WEST VIRGINIA CHAMBER OF COMMERCE
IN RESPONSE TO THE PROPOSED CHANGES TO
WATER QUALITY STANDARDS (46 C.S.R. 1) AND
GROUNDWATER STANDARDS (46 C.S.R. 12)**



June 29, 2001

Water Quality Standards - 46 C.S.R. 1

Public Water Supply Use Designation Across the State. The Environmental Quality Board ("Board") has proposed changes to 46 C.S.R. 1, §6.2 to provide that Category A – Water Supply, Public shall apply to all waters of the state. Modification to the provision addressing public water supplies has been on the Board's agenda for a number of years. Each time modification is proposed the comments and suggestions indicate that there is no justification for revising the regulatory program. Public water supplies are well protected under the current program. Addition of the overly broad use designation to the entire state will result in increased regulation, but not increased protection. With increased regulation will come increased operational costs for both the state and the regulated community. Ultimately this will result in an unwarranted expense to the public at large. West Virginia and its residents are not so well endowed with extra finances as to justify unnecessary regulation.

For example, listing all streams in the state as Category A will greatly impact the number of streams that will become water quality limited streams under the Clean Water Act, §303(d). The Board is reminded that the state TMDL program already has a significant TMDL development task ahead of it with the current §303(d) list. As will be discussed in detail below, the creation of a statewide-designated use will also result in significant public and private costs for the removal of that designation where necessary. The Board is reminded that the WV Division of Water Resources is currently underfunded and under-staffed. The Board is urged to give careful consideration to the impacts of its rulemakings on its sister agencies and the public. One of the primary sources of concern about the Board's rulemaking authority is its impact on other agency's regulatory programs. The Chamber membership must take into consideration all environmental regulatory programs and the state budget to implement those programs.

Finally, but most importantly, the Board is **legally prohibited** from declaring that all waters of the State should be designated as Category A without performing additional work. The federal water quality standards declare that "[a] State must conduct a use attainability analysis . . . whenever . . . [t]he State designated or has designated uses that do not include the uses specified in" §101(a)(2) of the federal Clean Water Act. 40 C.F.R. 131.10(j)(1). (A copy of 40 C.F.R. 131.10 is attached.) Section 101(a)(2) of the federal Clean Water Act provides that, wherever attainable, the country should strive for a goal "which provides for the protection and propagation of fish, shellfish, and wildlife [i.e., fishable] and provides for recreation in and on the water [i.e., swimmable.]" 33 U.S.C. §1251(a)(2). Section 101(a)(2) of the federal Clean Water Act is silent on "drinking

water" as a use. Thus, read together, the federal Clean Water Act and the federal water quality standards specifically prohibit States from designating water uses other than "fishable" or "swimmable" unless the State first conducts a use attainability analysis. Accordingly, and until the Board performs a use attainability analysis¹ for every water body in the State of West Virginia, the Board may not designate all waters of the State, "by default," as Category A.

It has been argued that the Board's proposed action is simply a "clarification" because both the Division of Water Resources and the Board have always "assumed" that all waters of the State were Category A - even though such waters were never formally or informally designated Category A. That is, the Board is essentially stating that Category A is an "existing use." Both the State and federal water quality standards identically² define "existing uses" as "those uses actually attained in a water body on or after November 28, 1975, whether or not they are included in the water quality standards." 46 C.S.R. 1 § 2.7³ and 40 C.F.R. § 131.3(e). Although the Division of Water Resources may have "always assumed" that the waters of the State were designated Category A for the purpose of NPDES permit issuance, the State waters have neither been officially "designated" as Category A nor have all waters of the State been "existing" sources of public drinking water, as less than 2% of all West Virginia streams are existing, current sources of public drinking water.⁴

We strongly urge the Board to share in that responsibility by not applying the public water supply use category across the state to all waters.

¹ The federal water quality standards define "use attainability analysis" as "a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological, and economic factors described in [40 C.F.R.] § 131.10(g)." 40 C.F.R. § 131.3(g).

² The State definition of "existing uses" refers to "uses actually attained in a water body" while the federal definition refers to "uses actually attained in the water body."

³ The 2001 Legislature made revisions to 46 C.S.R. 1 and, on July 2, 2001, the definition of "existing uses" will be renumbered as 46 C.S.R. 1 § 2.11.

⁴ According to information within the West Virginia DEP's manual entitled, "West Virginia Watershed Management Framework Manual," (May 15, 1997), and other readily available DEP information, West Virginia waters make up 32 hydrologic regions, 344 major sub-watersheds, and 9000 different streams totaling more than 28,000 miles. In contrast, based upon Don Koontz' March 26, 1999 comments to the Board, there are approximately 675 public water supply systems in West Virginia (including surface water, groundwater and non-transient, non-community systems). Of this total, approximately 141 systems have surface water intakes, and the remaining 530+ systems secure their potable water from groundwater wells. Based on these Bureau of Public Health numbers, even if each of the 141 public water supply systems were located individually on one of the state's 9000 streams, less than 2% of all streams within the state would actually qualify for the Category A use. In reality, many of the large streams (the Ohio, Kanawha, Elk Rivers, etc.) have multiple public water supply intakes; therefore, the number of West Virginia streams with public water supply intakes is probably less than 1% of all West Virginia streams. When a Board member inquired about the number of West Virginians who consume directly from a stream, Don Koontz estimated that a very small number of families, most of whom may be living in abject poverty, actually secured untreated or inadequately treated drinking water directly from a stream.

Elimination of "after conventional treatment" language. The Board has proposed in §6.2 elimination of the qualifier that would provide that Category A would describe "waters which, after conventional treatment, are used for public consumption." As proposed all waters of the state would be required to meet the drinking water standards, prior to any treatment. The Chamber has reviewed other Region III states and determined the following with regard to the applicability and definition for "public waters." **It should be noted that the Region III states of Pennsylvania, Maryland, and Delaware all define public water supply as waters which, after treatment are used for public consumption. This is also the case for the Ohio River Sanitary Commission (ORSANCO).**

Pennsylvania: "Potable Water Supply – Used by the public as defined by the Federal Safe Drinking Water Act, 42 U.S.C.A. § 300F, or by other water users that require a permit from the Department under the Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1 – 721.18), or the act of June 24, 1939 (P.L. 842, No. 365) (32 P.S. §§ 631 – 641), after conventional treatment, for drinking, culinary and other domestic purposes, such as inclusion into foods, either directly or indirectly. §93.3, Table 1.

Delaware: "Public Water Supply – Streams with a designated use of public water supply shall provide waters of acceptable quality for use for drinking, culinary or food processing purposes after application of approved treatment equivalent to coagulation, filtration, and disinfection (with additional treatment as necessary to remove naturally occurring impurities). The untreated waters are subject to the following limitations: (i) Waters shall be free from substances (except natural impurities) that, alone or in combination with other substances, result in: (A) unacceptable levels of taste or odor in the treated water; (B) significant disruption of the treatment processes at the treatment facility; or (C) concentrations of toxic substances in the treated water that may be harmful to human health. §11.2.a

Maryland: "Public water supply" means any water of this State with the designated use of public water supply and which is suitable for human consumption when treated to meet the requirements of COMAR 26.04.01. §26.08.01.01 (72).

Virginia: The term is not defined in the regulations. As pointed out by Libby Chatfield in her February 6, 2001 memorandum, the drinking water use category is designated on a stream-by-stream basis, rather than statewide as proposed by the Board.

ORSANCO. The Compact authorizes ORSANCO to develop standards for the treatment of sewage and industrial wastes discharged to the Ohio River. The purpose of these standards is to ensure that the water quality of the river is suitable for the uses designated by the Compact; public and industrial water supply (after reasonable treatment), recreational use, and warm water aquatic habitat, as well as other legitimate uses. The standards recommend stream criteria to assure that these uses will be achieved, and set waste water discharge requirements to attain these criteria.

The Chamber also recommends that the Board not eliminate the language that qualifies public water supplies as waters which after conventional treatment, are used for public consumption.

Removal of Use Categories. The Board has proposed addition of section 6.2.b which would allow request for relief from a state-wide public use designation by removal of a use. Such a procedural rule would be required by EPA to comply with the requirements set forth in 40 CFR §131.10(g) and (h) which provide as follows:

- (g) States may remove a designated use which is not an existing use, as defined in §131.3, or establish sub-categories of a sue if the State can demonstrate that attaining the designated use is not feasible because:
 - (1) Naturally occurring pollutant concentrations prevent the attainment or the use:
or
 - (2) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or
 - (3) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or
 - (4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; or
 - (5) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses;
or
 - (6) Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact.
- (h) States may not remove designated uses if:
 - (1) They are existing uses, as defined in §131.3, unless a use requiring more stringent criteria is added; or
 - (2) Such uses will be attained by implementing effluent limits required under sections 301(b) and 306 of the Act and by implementing cost-effective and reasonable best management practices for nonpoint source control.

Accordingly, the "relief" that would be offered by a provision to address the over application of the public use designation is a detailed use attainability analysis. Again,

the Board has proposed a regulatory hurdle that will result in extensive public and private administration costs.

It should also be noted that the removal of a designated use presents a very high hurdle. The fact that the designated use is not an existing use, which appears to be the basis being considered by the Board for such an action, is not even one of the factors EPA allows for consideration.

As stated above, there are 6 conditions that EPA allows to be considered in removing a designated use that is not an existing use (note that, of course, an existing use designation can not be removed). Of these 6, four are directly related to the actual physical makeup of the water body. For the public drinking water category any stream that has sufficient flow and the depth to accommodate a water intake could not make this showing. The other two, require a demonstration that conditions already exist making attainment of the use so expensive or socially and economically devastating that attainment can not be justified. It is obvious that the vast majority of streams in West Virginia that will be newly moved into Category A by the Board's proposal will not meet the criteria for a use removal. The Board has no discretion in making such a determination. EPA must approve any use designation change. Unless a demonstration can be made to the satisfaction of EPA that the stream in question meets one or more of the above criteria the Board can not make such a change.

Thus the Board's proposal will result in placing all of West Virginia's stream irrevocably into the Public Drinking Water category, leading to the imposition of increased treatment requirements to protect a use that does not, and in the great majority of cases, will not exist. There is no possibility of a streamlined or expedited use removal process.

Although the Board, during its May 16, 2001 meeting, voted to adopt "relaxed" use removal standards in order to satisfy the argument that use attainability analyses are burdensome and expensive. However, the Board has stated that it does not have time to adopt a relaxed use removal standard until 2002. Thus, the Board would be placed with the curious position of requiring all waters of the State to be Category A – regardless of whether the water is being used as a public drinking water supply – while not providing any relief to potential dischargers who wish to prove that the water is not meeting the use. That is, even though the Board has specifically acknowledged that if all waters of the State are designated Category A there needs to be an administratively acceptable method to remove such use, the Board will not provide that "relaxed" use removal method until one year after all waters are declared Category A.

The Chamber urges the Board not to apply the public use category across the state, and instead, continue to apply it on a case-by-case basis. There is no current data that suggests that the state's water resources for public use are being compromised as the

result of the case-by-case designation and permitting process. The Board's proposal suggests that in exchange for an across the state application of the use it would provide a escape hatch for those stream segments that should not be so designated. The regulatory escape hatch is far more expensive that a case-by-case application of the use designation.

Mangangese. The Chamber supports the Board's conclusion that the manganese human health criteria should not be applied more than five miles upstream from a known drinking water source. The Board has acknowledged the regulatory burden caused by applying the public water supply use category across the state with regard to this parameter. In its proposal for manganese, the Board would have the permit writer consult the very list of public water supplies that it is proposing for removal from the regulation. If such a list is appropriate for manganese it stands to reason it would work for all other public health water quality criteria. The Chamber urges the Board to apply a similar reasonableness approach to application of the public use category generally.

Removal of the List of Public Water Supplies. The Chamber does not support the removal of the list of public water supplies in exchange for application of Category A across the entire state. In this instance the Board is trading the task of creating an appropriate list (a list that principally already exists between the resources of the DEP and the DOH), in exchange for an overly broad designation of all streams as public use category streams. The Board's proposal shifts the workload and expenses of administering the program from the simplified list concept to the highly complex regulatory use removal process. The Chamber objects to this proposal.

Chloroform. The Chamber requests that the Board amend the State water quality standards for Chloroform for the following reasons. Membership in the Chamber have determined that the state water quality standard for protection of human health (based on consumption of water and fish consumption) for chloroform of 0.19 ug/l is causing regulatory problems for facilities which discharge water treated with chlorine, including water obtained from municipalities. The EPA's recommended human health criterion for chloroform is 5.7 ug/l. See *National Recommended Water Quality Criteria*, EPA 822-Z-99-001 (April 1999); 62 Fed. Reg. 42160. The Chamber urges the Board to update its standard for chloroform. It is important that the state have a current and effective water quality program. By leaving in place a standard that has been revised by EPA, the Board leaves the state open to increased and unnecessary risk of non-compliance with federal permitting requirements for both industrial facilities as well as municipalities. The Chamber urges the Board to include in its current rulemaking an update to this standard. The Chamber provides this comment to put the Board on notice that this is an issue of increasing importance which the regulated community will be pursuing for as timely a resolution as can be developed to include coordination with the Department of Water Resources to promote revision thereto

Groundwater Standards - 45 C.S.R 12

The Board has proposed the addition of an arsenic standard to the state groundwater quality standards. The Chamber does not object to the adoption of an arsenic standard, but cautions against adoption of rules in the face of EPA's own action on the matter. The federal EPA has not finalized its arsenic rulemaking for drinking water standards but expects to do so at any time. The Chamber does not object to the Board's promulgation of the arsenic standards.

Respectfully submitted this 29th day of June, 2001.

(iii) An identification of the surface waters for which the Tribe proposes to establish water quality standards.

(4) A narrative statement describing the capability of the Indian Tribe to administer an effective water quality standards program. The narrative statement should include:

(i) A description of the Indian Tribe's previous management experience which may include the administration of programs and services authorized by the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450 *et seq.*), the Indian Mineral Development Act (25 U.S.C. 2101 *et seq.*), or the Indian Sanitation Facility Construction Activity Act (42 U.S.C. 2004a);

(ii) A list of existing environmental or public health programs administered by the Tribal governing body and copies of related Tribal laws, policies, and regulations;

(iii) A description of the entity (or entities) which exercise the executive, legislative, and judicial functions of the Tribal government;

(iv) A description of the existing, or proposed, agency of the Indian Tribe which will assume primary responsibility for establishing, reviewing, implementing and revising water quality standards;

(v) A description of the technical and administrative capabilities of the staff to administer and manage an effective water quality standards program or a plan which proposes how the Tribe will acquire additional administrative and technical expertise. The plan must address how the Tribe will obtain the funds to acquire the administrative and technical expertise.

(5) Additional documentation required by the Regional Administrator which, in the judgment of the Regional Administrator, is necessary to support a Tribal application.

(6) Where the Tribe has previously qualified for eligibility or "treatment as a state" under a Clean Water Act or Safe Drinking Water Act program, the Tribe need only provide the required information which has not been submitted in a previous application.

(c) Procedure for processing an Indian Tribe's application.

(1) The Regional Administrator shall process an application of an Indian

Tribe submitted pursuant to § 131.8(b) in a timely manner. He shall promptly notify the Indian Tribe of receipt of the application.

(2) Within 30 days after receipt of the Indian Tribe's application the Regional Administrator shall provide appropriate notice. Notice shall:

(i) Include information on the substance and basis of the Tribe's assertion of authority to regulate the quality of reservation waters; and

(ii) Be provided to all appropriate governmental entities.

(3) The Regional Administrator shall provide 30 days for comments to be submitted on the Tribal application. Comments shall be limited to the Tribe's assertion of authority.

(4) If a Tribe's asserted authority is subject to a competing or conflicting claim, the Regional Administrator, after due consideration, and in consideration of other comments received, shall determine whether the Tribe has adequately demonstrated that it meets the requirements of § 131.8(a)(3).

(5) Where the Regional Administrator determines that a Tribe meets the requirements of this section, he shall promptly provide written notification to the Indian Tribe that the Tribe is authorized to administer the Water Quality Standards program.

[56 FR 64895, Dec. 12, 1991, as amended at 59 FR 64344, Dec. 14, 1994]

Subpart B—Establishment of Water Quality Standards

§ 131.10 Designation of uses.

(a) Each State must specify appropriate water uses to be achieved and protected. The classification of the waters of the State must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

(b) In designating uses of a water body and the appropriate criteria for those uses, the State shall take into

Environmental Protection Agency

§ 131.11

consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.

(c) States may adopt sub-categories of a use and set the appropriate criteria to reflect varying needs of such sub-categories of uses, for instance, to differentiate between cold water and warm water fisheries.

(d) At a minimum, uses are deemed attainable if they can be achieved by the imposition of effluent limits required under sections 301(b) and 306 of the Act and cost-effective and reasonable best management practices for nonpoint source control.

(e) Prior to adding or removing any use, or establishing sub-categories of a use, the State shall provide notice and an opportunity for a public hearing under § 131.20(b) of this regulation.

(f) States may adopt seasonal uses as an alternative to reclassifying a water body or segment thereof to uses requiring less stringent water quality criteria. If seasonal uses are adopted, water quality criteria should be adjusted to reflect the seasonal uses, however, such criteria shall not preclude the attainment and maintenance of a more protective use in another season.

(g) States may remove a designated use which is *not* an existing use, as defined in § 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible because:

(1) Naturally occurring pollutant concentrations prevent the attainment of the use; or

(2) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or

(3) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

(4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; or

(5) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses; or

(6) Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact.

(h) States may not remove designated uses if:

(1) They are existing uses, as defined in § 131.3, unless a use requiring more stringent criteria is added; or

(2) Such uses will be attained by implementing effluent limits required under sections 301(b) and 306 of the Act and by implementing cost-effective and reasonable best management practices for nonpoint source control.

(i) Where existing water quality standards specify designated uses less than those which are presently being attained, the State shall revise its standards to reflect the uses actually being attained.

(j) A State must conduct a use attainability analysis as described in § 131.3(g) whenever:

(1) The State designates or has designated uses that do not include the uses specified in section 101(a)(2) of the Act, or

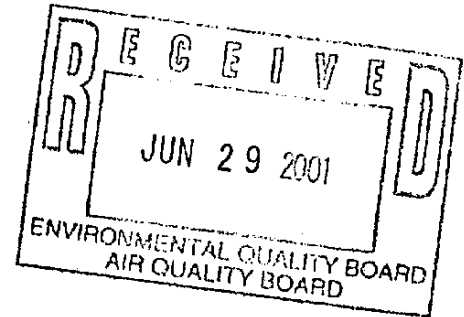
(2) The State wishes to remove a designated use that is specified in section 101(a)(2) of the Act or to adopt subcategories of uses specified in section 101(a)(2) of the Act which require less stringent criteria.

(k) A State is not required to conduct a use attainability analysis under this regulation whenever designating uses which include those specified in section 101(a)(2) of the Act.

§ 131.11 Criteria.

(a) *Inclusion of pollutants:* (1) States must adopt those water quality criteria that protect the designated use.

From: Deana Smith <dsphoto@msys.net>
To: <clerk@aqbeqb.state.wv.us>
Date: Fri, Jun 29, 2001 3:13 PM
Subject: Category A & arsenic standards



Dear Dr. Snyder,

On June 25th I wrote you a letter and last night I attended the EQB public hearing. I am becoming increasingly concerned about the fate of West Virginia's waters.

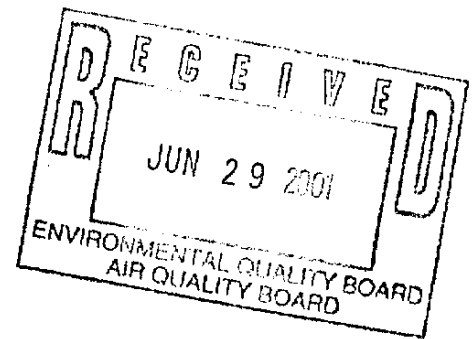
I live on the headwaters of the Little Kanawha River. I regularly enjoy swimming and wading in the river, and yes, sometimes even having a drink. It's not pristine but darn close. By the time the Little Kanawha River gets to Parkersberg, it is filthy. Residents cannot even go swimming. The degradation of this river even with the strong controls of Category A has not stopped its destruction. To weaken the existing laws could possibly lead to the demise of the Little Kanawha headwaters. There are people in this rural community who use the headwaters of this river as their source of drinking and household water, fishing and general pleasure.

I again urge you to maintain Category A drinking water and to take this opportunity of revision to lower the arsenic levels to 10 parts per billion or lower.

Thank you.

Deana Smith
HC 78 Box 99A1
Rock Cave, WV
26234

June 29, 2001



Dr. Edward M. Snyder, Chairman
Environmental Quality Board
1615 Washington Street, East
Charleston, West Virginia 25311

Re: Proposed Changes to Water Quality Standards - 46 C.S.R. 1

Dear Chairman Snyder:

The West Virginia Coal Association ("Association") would like to briefly comment on the Board's proposed changes to the West Virginia Water Quality Standards.

The Association is concerned that the Board is once again proposing to designate all waters of the state as Category A - Water Supply, Public, even though only a small percentage of state waters are actually used for drinking water supply. There are three components of our concern:

1. First, the Board has articulated no rational basis for declaring all waters of the State as Category A, and we view this proposed action solely as a means of avoiding the Board's obligation to make designations based on actual uses.
2. As has been demonstrated to the Board on numerous occasions, a statewide application of Category A will add a significant number of streams to the § 303(d) list of impaired waters, regardless of whether such stream is actually being used as a public drinking water supply. Each discharger of substances for which there is a criterion associated with Category A into such waters will likely have to decrease its pollutant level for no good reason. In addition, the recently adopted Antidegradation Implementation Procedures will reduce the increment of pollutant loading allowed to dischargers if their receiving waters are designated Category A.

3. Third and finally, the Fiscal Note attached to the proposed rule states that neither the state government nor political subdivisions and industry will be economically impacted by the change of use designation. The Board offers no analysis as to how it came to such a conclusion, and the Association specifically challenges the Board to explain how neither the State nor the regulated community will NOT be adversely impacted by the change, given that the criteria for Category A waters are significantly lower than they are for all other water use categories.

The Association is appreciative of the Board's recognition and concern that a statewide application of a Category A standard for manganese would pose an unnecessary burden on the coal industry. As the Board is well aware and as the Association will not again re-address the issue, the treatment of manganese to a Category A standard poses more environmental problems than the release of manganese itself. Accordingly, the Association wants to confirm that 46 C.S.R. 1 § 6.2.c, as proposed, will exempt the Category A standard for manganese throughout the State unless the discharge is within five miles upstream of a known drinking water source.

The Association appreciates the opportunity to comment on this matter.

Very truly yours,

William Raney
West Virginia Coal Association



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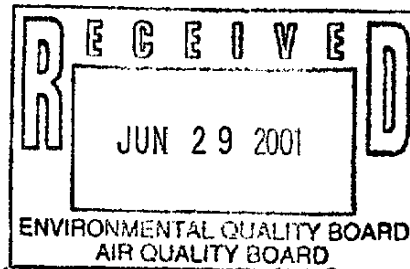
West Virginia Department of Environmental Protection

Bob Wise
Governor

Michael O. Callaghan
Secretary

June 28, 2001

Environmental Quality Board
1615 Washington Street, East
Charleston, West Virginia 25311-2126



RE: Proposed Revisions to the Code of
State Regulations, Title 46 Series 1,
Requirements Governing Water
Quality Standards

Dear Board Members:

The West Virginia Department of Environmental Protection (DEP) and the Division of Water Resources (DWR) appreciates the opportunity to comment on the Environmental Quality Board's (EQB or Board) proposed changes to 46 CSR Series 1 filed with the Secretary of State's Office on May 29, 2001.

As the Board may be aware, the DWR has previously forwarded comments by letters 3/31/00 and 8/16/00 relating to the recent triennial review and other proposed Water Quality Standard (WQS) revisions. We remind the Board that a number of those previously raised issues yet require investigation and consideration. As a result, the following comments are principally limited to those proposed revisions subject to the May 29 filing as they relate to the 7/1/99 effective rule with expectation that the Board will address the remaining issues in the future.

Reference Sections 2.1, 2.2, 2.3, 2.18, 2.21, 2.22, 2.26 and 2.27

Board may seek to remove these new definitions that all relate to Appendix F, which is concurrently being removed as a result of the requirements of HB3240.

Reference Section 4.1.b.2.B.

It is this Agency's understanding that a 2001 6th Edition of the "High Quality Streams" list is available from the Wildlife Resource Section of DNR. You may wish to reflect this in this segment of the rule.

Reference Section 4.1.d.

Reference to "that" category in the second paragraph should be "this".

"To use all available resources to protect and restore West Virginia's
environment in concert with the needs of present and future generations."



West Virginia
Department of
Environmental Protection

Reference Section 6.1

With the recognition that specified criteria are yet absent from the rule, should reference to "wildlife" not also be incorporated in minimum designated uses? Note that the reference to wildlife is reflected in 4.1.b. of the Antidegradation Policy as well as in the language of 6.1.a.

Reference Section 6.1.a.

The first sentence in the first paragraph should be divorced from the remainder of this section. Additionally, the second sentence of the first paragraph, if the Board seeks to continue its inclusion in the rule, should be separately delineated as new Section 6.1.e. However, the intent of this language has always been unclear and the DWR requests the Board's basis or rationale to clarify the intent of this language. For example, does this language reflect requirements on the DEP or Board to justify or determine "existing" uses and if so, this language may now have meaning as the requirements resulting from HB3240 will delegate the authority of determining "existing uses" to DEP as of 7/1/01. Alternately, was the intent of this language to reflect consideration of the "future" use of waters for the use categories specified? Clarification and explanation of the intent behind this language is suggested.

Reference Section 6.2.c.

Does the reference to Section 7.2.a.2. reflect that the half-mile rule does apply to discharges of Mn.? The meaning of this reference in this section is unclear and should therefore be clarified.

Reference Section 7.2.c.4.

It appears that the sixth and eighth sentences in the first paragraph are somewhat redundant and could be combined. Also, the term "continuing" in the last sentence of the second paragraph should be "continued". Further, note that historically, the DWR has applied the existing language in 7.2.c.4. when making decisions regarding a stream's health for 305(b) reporting or 303(d) listing activities. For example, occasionally natural sulfur bearing springs, or photosynthetic activity may cause pH violations (either above or below standard) in a stream. The Agency would not report these apparent violations of water quality standards as true violations relying on the former language in 7.2.c.4 (Where lesser quality is due to natural conditions...the naturally occurring values shall be the applicable criteria). The new expanded language targets point source activity and eliminates DWR's ability to qualify a stream's data when natural geologic or biologic conditions prevent a stream from attaining water quality standards. In that regard, the DWR again encourages the Board to add the following language to the end of paragraph one of 7.2.c.4: *"Provided, that the Chief may still consider natural background concentrations when making decisions regarding a stream's health for 305(b) reporting and 303(d) listing purposes, absent a formal criteria change by the Board"*.

Reference Section 7.2.c.4.A.

The DEP suggests revising "proposed discharge point" to read "any" proposed discharge point.

Reference Section 7.2.d.32.

Appears the wording "(Reserved)" must now be included, as the previously listed variances have been removed.

Reference Section 8.2. and 8.2.1 in Appendix E

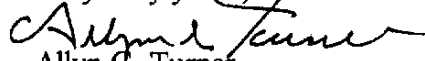
The DEP recognizes and agrees with the inclusion of the revised aquatic life criteria for ammonia. However, recognition of the specified early life stage present (March 1 – October 31) and absent (November 1 to the last day of February) periods now additionally need to be reflected for the Main Stem of the Ohio River as ORSANCO claims data to support the relaxed criteria and has promulgated such in their 200 Revisions to their Pollution Control Standards. Additionally, Footnote 'd' needs to reflect the term early life state "present" equation as this was the intent of the DWR when the proposal was offered to the EQB. This footnote would therefore apply to all other state waters except the Main Stem of the Ohio River.

Further, note that the formula in 8.2. is suspected to be a divisional function, which does not appear in the equation.

Again, this Agency yet has a number of additional issues raised in previous communications to the Board and requests that these issues be addressed at the Board's earliest convenience.

This office continues to appreciate the opportunity to be an active participant in the Board's process of standards revisions.

Very truly yours,


Allyn G. Turner
Director

AGT:rsr

RESPONSES TO COMMENTS and EXPLANATION OF PROPOSED AMENDMENTS

46 CSR 1

Requirements Governing Water Quality Standards

July 27, 2001

This document describes the changes proposed in the Water Quality Standards rule. For each proposed change, the following are provided: a description of the existing rule; the amendment proposed by the Board in its May 29, 2001 Notice of Public Hearing; a summary of the comments received on the proposed amendment, the Board's response to the comments and the final action taken by the Board on the proposed amendment.

A note on revisions to Category A (sections 6.1, 6.2 and Appendix B):

The Board proposed a clarification to the rule regarding the application of the Public Drinking Water Supply designated use (Category A). The clarification would have stated that Category A applies to all waters of the state, unless that use is specifically removed, either as identified in section 7.2.a or through a procedural rule to be developed by the Board. A number of commenters expressed concern about the proposal to develop a procedural rule to remove Category A. One concern articulated was that the US Environmental Protection Agency, the agency authorized by the federal Clean Water Act to review and approve state's water quality standards, might not approve such a protocol. The Board acknowledges this concern, and has decided to pursue the procedural rule before taking further action on the clarification of the application of Category A. Therefore, all of the proposed changes to sections 6.1, 6.2 and Appendix B are being withdrawn at this time. The Board intends to continue our efforts to develop a procedural rule in a timely fashion. We will continue to work with US EPA, and all other interested parties to develop an appropriate protocol for addressing the removal of the Category A use designation on a site-specific basis.

Please note that all of the comments received on the changes to Category A have been included in this document. However, because of the narrow basis of the Board's decision, responses to many of the issues raised have not been addressed in this document. The Board appreciates the public input received on this important issue and if similar revisions are proposed in the future, we will provide responses to all comments submitted.

SECTION 46-1-6

This section outlines the Water Use Categories for the waters of the State.

Proposed Changes

SECTION 6.1. The existing language in this section states that two designated use categories, Propagation and Maintenance of Fish and Other Aquatic Life (Category B)

and Water Contact Recreation (Category C), apply to all waters of the state. New language proposed adds the Public Water Supply (Category A) to the list designated uses that apply to all waters. As amended the first paragraph of this section provides:

6.1. These rules establish general Water Use Categories and Water Quality Standards for the waters of the State. Unless otherwise designated by these rules, at a minimum all waters of the State are designated for Public Water Supply, (Category A), the Propagation and Maintenance of Fish and Other Aquatic Life (Category B) and for Water Contact Recreation (Category C) consistent with Federal Act goals.

Comments Received

1. Numerous commenters expressed support for the continued application of Category A to all waters. These commenters further requested that Category A be applied to all West Virginia surface waters to account for individual households and small communities that use surface waters for drinking (after conventional treatment) who are not serviced by a municipal provider or public service district, and to account for future development and the need for future clean drinking water supplies.

2. Commenter addressed the historical application of the Category A use, indicating disagreement with the "Historical Perspective" document submitted to the Board by staff of the Department of Environmental Protection. The commenter indicated that the practical implications of the statewide application of Category A have been more important since the expansion of the numeric criteria in the early 1990's. In 1986, only the numeric criteria for arsenic chlorides, fecal coliform, fluoride, nitrate and selenium had lower criteria for Category A than other uses. The commenter suggests that it was in the early to mid-1990's with the adoption of new criteria (presumably for organics) that the issue became more important.

The commenter also provided information demonstrating the Board's intent that Category A should apply to all waters. Language was provided from the WQS Rationale Document from the 1986 rule proposal, stating that the Board agreed that the category and criteria should not be applied to streams or stream segments where no one is using the water for drinking.

3. Commenter indicated that a revisions to the WQS submitted to the Legislature in 1993 specifically identifying Categories B and C as state-wide uses, and not including Category A, would not have been necessary if DEPs contention that all uses applied at all times was true.

4. Commenter expressed concern about effects of applying use designation to all waters. Issues of concern include violations of the human health criteria in mixing zones developed for discharges based on protection of aquatic life; increased 303(d) listings resulting from waters not meeting Category A criteria; and addressing revisions to Category A criteria such as chloroform.

5. Commenter suggested alternative protocol for protection of drinking water - requiring dischargers to prevent exceedences of WQS for Category A at the point of intake.
6. Commenter urged Board to withdraw proposed change and spend the coming year drafting the rule that will set for the requirements for Category A removal, advocating the needed statutory changes and confirming EPAs support for use of procedural rule.
7. Comments in opposition to the continued statewide application of Category A indicated that such designation of all waters is inappropriate because it does not take into account the actual uses made of the surface water, and without coresponding factual basis, results in the most restrictive method for the application of Category A.
8. Several commenters expressed concern that the application of Category A to all waters will significantly expand the states list of impacted streams under section 303(d) of the federal Clean Water Act.
9. Commenter indicated TMDL program forcing narrower definition of designated uses to ensure appropriate standards applied for TMDL purposes. Cites recent report by National Research Council of National Academy of Sciences (Assessing the TMDL Approach to Water Quality Management, National Research Council 2001 (ISBN:0-309-07579-3). Commenter indicates that application of Category A to all streams takes an opposite approach.
10. Commenter questioned the need to designate every water in the State for Pulic A – and questioned why the Board couldn't simply add additional waters to the existing list of stream segments used for public water supply.
11. Commenter expressed concern that combined sewer overflow (CSO) communities would not cannot afford to fully comply with the Category A bacteria standards. Current efforts to comply with statutory and regulatory guidance do not require the complete elimination of CSO discharges – commenter indicated that such elimination would be required under the Board's proposal. Alternatives articulated by commenter are unacceptable to them ie: 1) spend public money toward unreasonable/unnecessary standard and/or 2) force regulated entities to spend resources to negotiate exemptions for the standard.
12. Commenters indicated disagreement that EQB needs this standard to protect those who are drinking directly from our streams. Not safe, and costly – what reason to spend public money to allow for, or encourage, contrary behavior?
13. Board legally prohibited from designating all waters as category A without performing additional work. "A state must conduct a use attainability analysis whenever the state designated or has designated uses that do not include the uses specified in 101(a)(2) of the CWA 40 CFR 131.10(j)(1). . This read together, the CWA and standards specifically prohibit states from designating water uses other than fishable or

swimmable unless first conducting a Use Attainability Analysis. Must do UAA before can designate water as Category A..

14. Application to all streams and requiring removal on case by case basis will result in public and private administration costs. Board may be moving streams into Category A which do not meet the criteria for a use removal.

Board Response

Upon review of all of these comments, including those regarding section 6.2, which are outlined below, the Board has determined that establishing a procedural rule to expedite the process for removing Category A on a case-by-case basis should be completed before clarifying that the Category A use applies to all waters of the state. See introductory response above and additional responses in Section 6.2, below.

Board Action

Proposed amendments withdrawn.

SECTION 6.2. The proposal removes most of the existing language in sections 6.2 – 6.2.c, and adds language stating that Category A shall apply to all water of the State. As revised, the section provides:

“6.2. Category A – Water Supply, Public. - - This use category shall apply to all waters of the state, unless:

6.2.a. The use category is specifically removed as indicated in section 7.2.d herein; or 6.2.b. The use category is removed in accordance with the process outlined in the procedural rule to be developed by the Board.

6.2.c. The manganese human health criteria shall not apply where the discharge point of the manganese is located more than five miles upstream from a known drinking water source. (see section 7.2.a.2, herein for additional requirements for Category A waters.)

Comments Received

1. Numerous commenters expressed concern about the change in the definition of Category A waters, particularly the removal of existing language describing Category A waters as those used for public drinking water “after conventional treatment”. Commenters indicated that removal of that clause significantly changes the meaning of the use category and will result in encouraging the use of surface waters for human consumption without first requiring some treatment.

2. Commenter requested that the rule be clarified to state that the category A use designation apply to surface waters, rather than all waters of the state. Citing the WV Water Pollution Control Act the commenter indicated that section 6.2 be revised to read "all surface waters."
3. Commenter sought clarification of the language in parentheses in 6.2.c. Does it's placement in that section mean that the ½ mile zone applies to discharges for manganese?
4. Commenter suggested that approach used for manganese in section 6.1 would work for Category A generally.
5. Commenters expressed concerns about the possibility of removing the Category A use through a procedural rule rather than a legislative rule. Suggested requesting a change in the Board's authorizing language in the WV Code similar to language for remining variance to ensure that the Board has the authority to remove the use through procedural rulemaking. Also expressed concern that EPA would require full use removal procedures in 40 CFR 131.10 – which they consider unworkable.
6. Commenters expressed concerns about the use of procedural rule for removing Category A – sought assurance that such procedure would be as rigorous as doing so through legislative rulemaking process. Also believes that full public comment and review should be part of the process.
7. Commenters expressed concerns about the use of procedural rule for removing Category A use – indicated that Board has stated that it does not have time to adopt a relaxed use removal standard until 2002. Will apply use statewide, but not be able to provide relief to discharges who wish to prove the water is not meeting the use. Concern that there won't be a procedure for "relaxed" use removal until one year after all waters are declared Category A.. Further indicated that the Board's proposal suggests that in exchange for an across the state application of the use it would provide a escape hatch for those stream segments that would not be so designated. The regulatory escape hatch is far more expensive than a case-by-case application of the use designation.

Board Response

The Board acknowledges the concerns articulated in comments 5 – 7 in this section. The Board intended to develop the procedural rule over the next several months, with the goal of completing it by the end of the 2002 Legislative Session. That schedule would have ensured that the proposed revision to 46 CSR 1, clarifying that Category A applies to all waters of the state, and the procedural rule, which will provide the process for removing the use on a case-by-case basis, would take effect simultaneously. However, upon review of the comments, the Board is persuaded that the removal of Category A through procedural rulemaking, rather than the legislative rulemaking process should be reviewed by US EPA prior to clarification of the state-wide application of Category A. Therefore, the Board has determined that withdrawing the proposed

changes until after we develop of a procedure for removing the Category A use designation is the prudent course of action at this time. Additional comments on this action are provided in the introductory paragraph one page 1, herein.

Board Action

Proposed amendments withdrawn.

APPENDIX B

This Appendix lists known waters used as public water supplies.

Proposed Change

The Board proposes to delete this Appendix. Because of the clarification that Category A applies to all waters, this Appendix is no longer needed.

Comments Received

1. Commenter (USEPA) suggested that an appendix be used to identify the waters from which Category A has been removed.
2. Commenter does not support removal of list of public water supplies in exchange for application of Category A across the entire state. Believes that this shifts the workload and expense of administering the program from the simplified list concept to the highly complex regulatory use removal process.

Board Response

The removal of this section was included as part of the Board's proposed clarification of the application of Category A to all waters. Based on the Board's decision to focus on the development of the procedural rule for removing Category A on a case-by-case basis before pursuing the revisions to the rule which clarify that Category A applies to all waters, removal of this appendix is not needed at this time. See Board's responses elsewhere herein for additional comments on our proposed actions.

Board Action

Proposed revision withdrawn.

APPENDICES F, F1, F2 and F3

These Appendices outline implementation procedures for the Antidegradation Policy in section 4 of the rule.

Proposed Change

The Board proposes deleting these appendices, which outline the Antidegradation Implementation Procedures that were adopted in the rule in the 2001 Legislative Session. The justification for removing these provisions is found in HB 3240, which also passed in the 2001 session. That bill provides for the transfer of authority for establishing the Antidegradation Implementation Procedures from the Environmental Quality Board to the WV Department of Environmental Protection (DEP) on July 1, 2001. The WV DEP promulgated the provisions in these appendices through the emergency rulemaking process on July 2, 2001. We are proposing to remove them from our rule consistent with the transfer of authority to the DEP.

Comments Received

1. Comments were submitted in support of the removal of the antidegradation implementation procedures; citing HB 3240 for support. A suggestion was made to remove references to Appendices F – F2 in sections 4.1.b1. and 4.1.c of the rule. Further suggestions were made regarding the removal of the definitions in sections 2.1, 2.2, 2.3, 2.18, 2.21, 2.22, 2.26 and 2.27 – all of which relate solely to the provisions of Appendix F.
2. A commenter suggested that to clarify the role of the Board on the issue of antidegradation implementation that language be included in the antidegradation policy in section 4 of the rule referring to the DEP's regulation on implementation procedures.

Board Response

The Board agrees with the revisions suggested by the commenters.

Board Action

Revisions adopted as proposed.