

**BUREAU OF THE ENVIRONMENT
ENVIRONMENTAL QUALITY BOARD**

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**MINUTES
WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD
FEBRUARY 15, 2001**

I. General

On February 15, 2001, a quorum of the members of the Environmental Quality Board (hereinafter referred to as the "Board") met at its offices located at 1615 Washington St. E., Charleston, West Virginia. Chairman Snyder called the meeting to order at 9:00 a.m.

Board members present were as follows:

Ed Snyder, Chair
Betsy Dulin
David Samuel
Cameron Hackney

Absent were Board members:

Charles Jenkins

Staff members present were as follows:

Libby Chatfield
Becky Charles
Melissa Carte
Kathy Coleman

Whereupon, the Board addressed the issues set forth in the Agenda as follows:

II. Rulemaking

1. Consideration of Pritchard Remining Variance Application:

The Environmental Quality Board may grant a variance from water quality standards for remining activities if after a review of the variance application, the NPDES remining permit application and any other pertinent information it finds that all of the requirements of 46CSR6 have been met and that the variance is warranted. The Board is currently reviewing an application for a variance from water quality standards for remining activities filed by Pritchard in October 2000.

The Board members were provided with a copy of the letter from the U.S. Environmental Protection Agency (USEPA) regarding the preliminary proposal for a pH water quality variance submitted by Pritchard Mining Company for a remining operation in West Virginia. After a review of the application, the USEPA determined that the application is in compliance with the Clean Water Act.

The USEPA stated that they did not provide a detailed technical review of the mining application, materials handling plan, best management practices and reclamation but instead relied on the expertise and judgment of the WV Division of Environmental Protection (WV DEP). A copy of this letter is attached to and made a part of these minutes as "Exhibit A".

Ken Politan, of the WV DEP Office of Mining and Reclamation, informed the Board that the DEP is currently reviewing updated water quality information submitted by the applicant. At the conclusion of that review, the application will be deemed complete and the draft permit will be written. Mr. Politan anticipates that the draft permit will be completed within the next week.

After discussion, Ms. Dulin moved and Dr. Samuel seconded, that once the Board receives the draft NPDES permit from the Office of Mining and Reclamation, the Board proceed with the remining variance request by publishing a public notice, holding a public hearing, and accepting written comments on the matter, and the motion passed unanimously 4 to 0.

The public hearing will be held on Wednesday, March 28, 2001, at 7:00 p.m. at 1615 Washington Street, East, Charleston, WV, in the hearing room located on the second floor.

2. 46 CSR 1 - Requirements Governing Water Quality Standards

A. Drinking Water Use Category (Category A):

The current application of Category A, Public Drinking Water Supply use designation is to all streams in the state unless the use has been specifically removed by the Board through the legislative rulemaking process. This application is under review by the Board. During this review, the Board considered the Bureau for Public Health's development of the Zones of Critical Concern and the application of public drinking water use category utilized by surrounding states. Ms. Chatfield provided the Board members with an updated memo that outlines the application of the drinking water use category in surrounding states. That memo is attached to and made a part of these minutes as "Exhibit B".

Randy Sovic, Office of Water Resources of the WV DEP, provided the Board with a historical overview of how the public drinking water use category has been applied throughout the state. Mr. Sovic also made several recommendations for the Board to consider: 1.) Undertake a complete review of the basis for its current criteria particularly those criteria applicable to Human Health Use consistent with a review of the corresponding groundwater criteria; 2.) Review EPA's revisions to the methodology for deriving ambient water quality criteria for the protection of human health; 3.) Reconsider allowing the use of harmonic mean flow for human health carcinogen criteria and in relation to that, the use of 1Q10 flow for aquatic life acute criteria. Both of these methods are scientifically supported design flows to be used in the permitting process; 4.) Pursue a review and formal interpretation of the applicability of the human health criteria to the recreation use protection categories; 5.) Develop a streamline process for Public A Use Designation changes and/or site specific criterion changes which is consistent with the requirements of the Clean Water Act.

B. Update on the status of proposed revisions to 46CSR1 filed the Legislative Rulemaking Review Committee in September 2000:

The Board members discussed the current status of the proposed revisions to 46CSR1 filed with the Legislative Rulemaking Review Committee. In January,

the Legislative Rulemaking Review Committee met but declined to act on the proposed rule. Instead they suggested that the interested parties meet to try to resolve their differences. The USEPA submitted a letter to the Board which outlined their proposed solution to the development of workable antidegradation implementation procedures. A copy of the letter is attached to and made a part of these minutes as "Exhibit D". In addition, two meetings were held between some of the interested parties but no agreements or compromises were reached.

The Legislative Rulemaking Review Committee then met on February 13, 2001, and voted to amend the Board's proposed rule by adopting the Clean Water/Good Jobs proposal submitted by some members of the regulated community. That proposed rule will now continue through the legislative process. Dave Yaussy, representing the Clean Water Good Jobs Coalition, provided the Board with a brief overview of the proposal.

Don Garvin, a representative of the environmental community, provided the Board with a summary of the various Stakeholder's positions on major antidegradation issues. A copy of the summary is attached to and made a part of these minutes as "Exhibit E".

The Board authorized Ms. Chatfield, if questioned by members of the Legislature, to provide an overview of the evolution of the Board's proposed rule; explain the differences between the Board's rule and any other proposal before the Legislature; and to provide any additional information as requested by the members of the legislature. Ms. Chatfield was not authorized to negotiate on behalf of the Board regarding any proposed changes to the Board's proposed rule.

C. Water Quality Standards review issues:

A triennial review of water quality standards by the Board is mandated by the Clean Water Act. The USEPA determined that the proposed rule pending before the legislature during this current legislative session would qualify as a triennial review. However, the Board may propose changes to the rule outside of the triennial review process.

Ms. Chatfield provided the Board members with a memo that outlines outstanding issues which need to be addressed by the Environmental Quality Board. A copy of that memo is attached to and made a part of these minutes as "Exhibit C". In

order to address these outstanding issues during the 2002 Legislative session, the Board must file a proposed rule by May 29, 2001.

After discussion, the Board agreed to limit its focus to the Category A Use Designation issue for the next Legislative session (2002). The Board will consider the other outstanding issues over a longer period of time and address them during the next triennial review.

II. Administrative Matters

1. Review and approval of the January 18th, 2001 meeting minutes:

Whereupon, the minutes of the January 18, 2001, EQB meeting were presented to the Board for consideration. After review, Dr. Hackney moved and Dr. Samuel seconded that the minutes of the January 18, 2001, Board meeting, as written, be adopted, and the motion passed unanimously 4 to 0.

2. Meeting Dates:

The Board set meeting dates for March 29th, April 19th, and May 17th.

3. Budget Report:

Ms. Coleman informed the Board members that the Memorandum of Understanding between the Board and the WV Bureau of the Environment has finally been completed and that the Board should be receiving the “bridge” loan money soon. These funds should carry the Board through the end of the fiscal year. In addition, the dates of the Legislative budget hearings have been set and the Chairs of both the Environmental Quality Board and the Air Quality Board have been added to the list of attendees.

IV. Appeals

1. Appeal #00-09-EQB (Barazi) – Appellee’s Motion for Leave to Supplement the Record:

Ms. Charles presented the Appellee’s Motion for Leave to Supplement the Record in Appeal #00-09-EQB (Barazi). After discussion, Dr. Hackney moved and Dr.

Jenkins seconded that the Board deny the Appellee's Motion for Leave to Supplement the Record, and the motion passed unanimously 3 to 0.

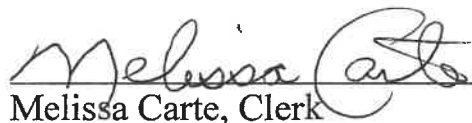
2. Appeal #00-09-EQB (Barazi) – Final Decision:

Appeal #00-09-EQB (Barazi) was filed on July 25, 2000. The Board conducted a hearing on this appeal on September 25, 2000, with Board members Dr. Snyder, Dr. Jenkins and Dr. Hackney in attendance. The parties were provided with the opportunity to submit proposed Findings of Fact and Conclusions of Law for the Board members consideration. The Board members reviewed these proposed findings and a draft Final Order as prepared by staff. Only those Board members present at the hearing participated in the decision making process.

The draft Final Order was amended to provide that "The Board encourages the DEP to work to ensure the closure of the other two tanks on the site. Perhaps DEP could work jointly with the Appellant so that all five tanks could be properly closed when the Appellant closes the three for which he is responsible."

Whereupon, Dr. Hackney moved and Dr. Jenkins seconded that the Board approve the draft Final Order, as amended, and the motion passed unanimously 3 to 0.

I hereby certify that the forgoing is a true and correct record of the proceedings of the meeting held on February 15, 2001, by the West Virginia Environmental Quality Board. The minutes were approved by the Environmental Quality Board on March 29, 2001.


Melissa Carte, Clerk



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MEMORANDUM

TO: Board Members
FROM: Libby Chatfield
DATE: February 6, 2001
RE: Update on triennial review issues

This memo provides an update of a memo dated May ⁴/~~3~~, 2000, which outlined comments received regarding triennial review issues from the public. The list below includes issues identified by the public in April 2000 as well as some identified by USEPA, that were not addressed in the package that is currently being considered in the legislature. A copy of the May 3, 2000 memo is also attached.

Comments received from WV DEP are not addressed in this memo, and are attached separately for your review. I hope that Randy Sovic will be at the meeting next week to provide updates and explanations of the agency's comments.

COMMENT SUMMARY

GENERAL ISSUES

Endangered Species. Comments suggested review of the Board's inter-agency consultation with the proper federal and state agencies to assure that the impacts of any activities and their permits on endangered species be adequately considered according to the Endangered Species Act (ESA), Section 7; that any activities that result in impacts to listed species or its habitat be prohibited (ESA, Section 9) and that the protection or improvement of habitat on state and private land may be suitably addressed through the development and implementation of Habitat Conservation Plans (ESA, Section 10)

Definition of an Exceedence. Clarification of what constitutes a violation of water quality criteria specified in Appendix E was suggested. Specifically, are the standards meant to be applied as written - i.e., that chronic criteria apply as "four-day average concentrations not to be exceeded more than once every three years on the average, unless otherwise noted as provided in footnote 2 of Appendix E."

5.1.14 '01

§5 MIXING ZONES

5.2.c. Mixing Zones for Human Health Criteria. One commenter recommended the removal of the provision in this section, which prohibits mixing zones for human health criteria in streams with flows of 5 cfs or less. The commenter states that this provision sets an arbitrary standard and is inconsistent with EPA's recommendation of the use of harmonic mean flow and 30Q5 to protect human health. Commenter further maintains that the 5 cfs cutoff fails to recognize that the assimilative capacity of a stream is not dependent solely on the flow, but also on the relative volume of the discharge. The commenter indicates that this limit arbitrarily penalizes a discharger simply because they happen to be located on a smaller stream.

5.2.j. Waivers of mixing zone provisions. One commenter suggested changes to clarify the intent of this section, including correction of one of the references and removal of one subsection which they believe is redundant.

§6 WATER USE CATEGORIES

6.2. Category A, Water Supply, Public. Several commenters requested that in reviewing the application of the Category A Use, that the Board clarify that the category does not apply to all stream segments, but only to those segments that are actually used as public water supplies. Commenters noted that the Water Pollution Control Act requires that the Board adopt rules consistent with 1) public health and public enjoyment of the state's waters; 2) the propagation and protection of animal, bird, fish 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.

Another commenter expressed their belief that the Category A use was not meant to be applied state-wide and further that it was not OWR's original intent to apply it that way based on the General Permit No. WV0113506 for Stripper Oil Well Wastes, which prohibits use of the permit for discharges to any stream that is designated as Category A.

Another commenter indicated that they are pleased by the Board's decision to apply the public drinking water supply category to all waters of the state, indicating that it is vitally important that this use category stand without any exemptions.

6.4. Category A, Water Contact Recreation. Commenter urged the Board to expand the existing Category C to include all types of water-based recreation that take place both in and on the water.

§7 WEST VIRGINIA WATERS

7.2.b. (See also 8.2.b.) Critical Stream Flow.

Comments suggested revising the critical stream flow requirements to be employed in developing effluent limits. One commenter urged the Board to adopt harmonic mean flow as the critical flow for determining compliance with criteria for carcinogens. The basis for their suggestion is language in EPA's Technical Support Document for Water Quality Based Toxics Control and EPA's Water Quality Standards Handbook. Those documents recommend the use of harmonic mean flow. The commenter cites the following language from the WQS Handbook:

The concept of a harmonic mean is a standard statistical data analysis technique. EPA's model for human 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 70 years). To estimate the concentration of the 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.

One commenter urged the Board to propose the use of the harmonic mean flow for carcinogens in accordance with EPA guidance, or alternatively, allow the OWR the option to do so on a case-by-case basis when writing NPDES permits and for purposes of developing the state's 303(d) list. The other commenter urged the use of the harmonic mean flow for carcinogens and the 30Q5 flow for noncarcinogens.

One commenter expressed concern about the note at the end of section 7.2.b, which provides:

With the exception of section 7.2.5.c listed herein exceptions do not apply to trout waters not to the requirements of Section 3.

The commenter believes that a mixing zone policy that bans mixing zones in trout waters is unreasonable, and unnecessary to maintain high water quality. A ban on mixing zones in trout waters ignores the fact that sensitive cold-water species such as trout were considered in the development of most water quality criteria. The commenter further states that the toxicity of any pollutant to trout is, as with other warm water fishes, dependent on the dose, and frequency and duration of exposure. Therefore, mixing zones consistent with those allowed in non-trout streams are protective for trout in trout streams.

§8 SPECIFIC WATER QUALITY CRITERIA

8.1.b. Metals. One commenter questioned the scientific underpinning of EPA's conversion factors for metals. They further suggested that if the Board intends to retain the conversion factors, they should authorize DEP to use a default chemical translator in each permit where an actual chemical translator has not been developed.

8.3. Variances from Specific Water Quality Criteria. Commenters urge the Board to deny

further exemptions from the West Virginia Water Quality Standards.

APPENDIX C

Commenters suggested several technical cleanups of this appendix.

APPENDIX E

8.4. Arsenic. One commenter indicated that the criterion of 100 ug/l currently in the "All other uses" category should be identified as applying only to crop irrigation - Use Category D1.

8.6 Beryllium. Commenters suggested that the Board delete the acute aquatic life criterion because EPA has not developed one, and update the Public a criterion to reflect the 4ug/l value recommended by EPA.

8.7 Cadmium. Commenters indicated that the equations for calculating the aquatic life criteria need to be updated to reflect the current federal criteria. One commenter also indicated that in Table 2, the first acute number listed for cadmium should be revised from 1.136672 to 1.138672 to reflect then current federal number.

8.8 Chloride. Commenter suggested deletion of the human health criterion to reflect current federal criteria.

8.9 Copper. Commenter indicated that the Category A criterion of 1,000 ug/l should be updated to the 1,300 ug/l criterion recommended by EPA and that the aquatic life criteria be updated to reflect the federal criteria.

8.10. Cyanide. Commenters suggested that the chronic aquatic life criterion should be revised from 5.0 to 5.2; the human health criteria from 5.0 to 220,000 ug/l (Category C) and 200 ug/l (Category A) to reflect current federal criteria.

8.11. Dissolved Oxygen. Commenter suggested removal of the DO criterion of 5 from Category A, C and the "All other uses" category as it is intended as a criterion to protect aquatic life.

8.12. Fecal Coliform. One commenter urged the Board to prioritize the revision of the current fecal coliform criteria. The commenter generally supports the use of the enterococci / *E.coli* as proposed by EPA in its Ambient Water Quality Criteria for Bacteria - 1986. The commenter urges the Board to keep the bacterial standard broad enough and flexible enough to easily accommodate waters impaired at a variety of flow conditions. Further, the commenter urges the use of the fecal coliform standard concurrently with the enterococci / *E.coli* standard because most bacterial stream evidence is based on fecal coliform.

Another commenter believes the WQS should include seasonal limits for fecal coliform such that the winter limits will be less stringent than the limits during the primary contact recreation season. Commenter indicates that this is the practice in most other states and would make sense., and would ensure that waters are not listed as being impaired for bacteria levels that occur only in the winter season.

EPA is encouraging states to adopt it's *Ambient Water Quality Criteria for Bacteria – 1986*, which uses *E.coli* and enterococci indicators rather than total or fecal coliforms, by the year 2003. Further, EPA has developed a *Draft Implementation Guidance for Ambient Water Quality Criteria for Bacteria – 1986* to assist states in addressing implementation issues regarding EPAs recommended water quality criteria for bacteria.

8.15. Iron. Several parties commented that EPA's recommended 304(a) aquatic life criterion for iron is not scientifically defensible and support the Board's preliminary decision not to adopt it. Commenters suggest that a rationale for retaining the current criterion be developed and submitted to EPA. If that document is determined not to support the current criteria, commenters suggest removing the criteria until the national iron criterion can be revised such that the underlying science satisfies the procedures for developing criteria outlined in "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses" (EPA, 1985)

8.16. Lead. Commenter urges the Board to review Virginia's recent work in recalculating the national lead standard and update the lead standards accordingly. Commenter indicates that Region III EPA has approved this change in Virginia.

8.19 Nickel. Commenters suggested that the Category A criterion should be revised from 510 to 610 ug/l to reflect current federal human health criteria. The further suggest revision of the aquatic life criteria to reflect current federal criteria.

8.20 Nitrite. Commenters suggested that the Board provide a justification for the nitrite criteria or remove it from the standards because no federal criteria for nitrite have been developed.

8.27. Silver. Commenters suggest deletion of the hardness based aquatic life criterion from the Public A Use Category.

8.32. Turbidity. Commenters indicated that EPA has not developed recommended numeric criteria for turbidity for the protection of human health or aquatic life, and that criteria corresponding to WV's are not found in other state's water quality standards regulations. They request the Board to review the rationale used to develop the criteria against EPAs published methodologies for deriving criteria. If the rationales for the Board's criteria are not consistent with those methodologies they should be deleted.

8.33 Zinc. Commenters suggest that the equations for deriving aquatic life criteria need to be

updated to reflect the federal criteria.



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MEMORANDUM

TO: BOARD MEMBERS
FROM: LIBBY CHATFIELD
DATE: MAY 4, 2000
RE: SUMMARY OF TRIENNIAL REVIEW COMMENTS

The following is a summary of issues identified in comments received in response to our Notice of Triennial Review of the Water Quality Standards. I have included some preliminary responses and comments, but these are limited. Please let me know as soon as possible if you have questions or need more specific information about these issues so that we can be prepared to address these comments as efficiently as possible. **NOTE THAT JUNE 30 WILL BE THE LAST MEETING DATE TO FINALIZE ALL PROPOSED RULE CHANGES TO BE SENT OUT TO NOTICE AND HEARING.**

You have received copies of all comments in prior mailings. References to the commenters are included in this summary. Note that (with one exception) WVDEPs comments are not included in this summary. They are extensive, I urge you to review those comments separately. We have also received comments from a few additional parties since the close of the submission deadline. They are not included here, in my brief review of them, it appears that no new issues were raised in those comments. You have received copies of those comments as well.

A copy of the current Water Quality Standards rule is attached to assist your review of these comments.

COMMENT SUMMARY

General Issues

Blackwater River. Commenters urged that the Board maintain the cold water use designation (B2) on the Upper Blackwater River and further to reclassify the Lower Blackwater River from a warm water fishery (B1) to a cold water fishery. (WV Rivers, Janes)

Endangered Species. One commenter suggested that the Board enhance its inter-agency consultation with the proper federal and state agencies to assure that the impacts of any activities and their permits on endangered species be adequately considered according to the Endangered Species Act (ESA), Section 7; that any activities that result in impacts to listed species or its

submit "C"

habitat be prohibited (ESA, Section 9) and that the protection or improvement of habitat on state and private land may be suitably addressed through the development and implementation of Habitat Conservation Plans (ESA, Section 10) (WV Rivers)

Unresolved USEPA Disapprovals. One commenter urged the Board to resolve the outstanding EPA disapprovals as expeditiously as possible. Another commenter urged the Board to take action on these disapproved items by promulgating the changes through the State's Emergency Rulemaking procedures.

Definition of an Exceedence. Commenter asked the Board to clarify what constitutes a violation of water quality criteria specified in Appendix E. Seek confirmation that standards are meant to be applied as written - i.e., that chronic criteria apply as "four-day average concentrations not to be exceeded more than once every three years on the average, unless otherwise noted as provided in footnote 2 of Appendix E. (WVMA)

§4 Antidegradation Policy

Implementation Procedures:

One commenter suggested that the Board promulgate the antidegradation implementation procedures by emergency rule to meet the April 1, 2000 deadline established by USEPA for correction of disapproved portions of the WQS rule. (WV Rivers, Janes)

4.1.b. High Quality Waters.

Commenter suggested changing the first paragraph in this section to provide as follows:

Where the quality of waters exceed levels necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water, the quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully.

The source of the proposed language is 40 CFR 131.12(a)(2), the federal regulation outlining the required elements of State water quality standards - this section specifically addresses the antidegradation policy. Note that the existing language varies from, but is consistent with the federal language. The current language has been in the rule for some time, it may be the original language proposed when the antidegradation policy was developed. The language is acceptable to EPA. I will do some research identify the basis for the variations from the federal language.

Another commenter urged the Board to base determinations regarding the need for antidegradation review on the assimilative capacity of the water body for which a new discharge is planned.(AEP, WVOGNA, IOGA)

4.1.c. Tier 2.5, Waters of Special Concern.

This antidegradation tier applies to Wild and Scenic Rivers, naturally reproducing trout streams, streams in State and National Forests and Recreation Areas and National Rivers. All of these waters were originally classified as Tier 3, Outstanding National Resource Waters (ONRW). They were reclassified as Tier 2.5 waters in 1995 based on the recognition of the “no new or increased discharge” requirement that protects ONRWs would restrict many activities in these streams. The protection level provided for Waters of Special Concern is that no activities which result in the reduction of ambient water quality will be allowed in them. Discharges are allowed in these waters, as long as they do not result in “reduction” of existing water quality.

These waters were originally classified as ONRW’s based on prior special designations - either based on the designation of the river itself (Wild and Scenic, National Rivers), or its occurrence in specially designated areas of the state. Such designation is consistent with EPA guidance and recommendations. (Region 8 Antidegradation Implementation Guidance, WQS Handbook)

Commenters expressed concern that application of this protection level will prohibit future growth and economic development within communities in these areas regardless of the socio-economic importance or costs. (Note, specific examples of tier 2.5 waters of concern are outlined in AEP’s comments, and others.) The commenters indicate that no assessment of the water quality has been made of these streams and further that a small portion of these Tier 2.5 streams may be listed on the State’s 303(d) list of streams with impaired water quality. They suggest that the Board adopt a nomination procedure and public hearing process to identify waters to be included in the Tier 2.5 category, rather than retaining the current list of Tier 2.5 waters. They suggest the use of a nomination process similar to that for Tier 3, ONRWs for this purpose.

The antidegradation stakeholder group discussed this issue and has made a recommendation that a the Board develop a nomination process for the addition of new waters to be designated as Tier 2.5 waters. Agreement was not reached regarding revisiting the waters currently classified as Tier 2.5.

(AEP, WVOGNA, IOGA, WVMA, WV Chamber)

§ 4.1.e. Commenters suggested rewording this section as follows:

Any person seeking a variance or modification to the temperature water quality criteria provided in these rules shall comply with all applicable requirements of

Section 316 of the Federal Act.

No further explanation was provided. (AEP, WVMA)

§5 Mixing Zones

5.2.c. **Mixing Zones for Human Health Criteria.** One commenter recommended the removal of the provision in this section which prohibits mixing zones for human health criteria in streams with flows of 5 cfs or less. The commenter states that this provision sets an arbitrary standard and is inconsistent with EPA's recommendation of the use of harmonic mean flow and 30Q5 to protect human health. They maintain further that the 5 cfs cutoff fails to recognize that the assimilative capacity of a stream is not dependent solely on the flow, but also on the relative volume of the discharge. The commenter indicates that this limit arbitrarily penalizes a discharger simply because they happen to be located on a smaller stream. (VA Power)

5.2.j. **Waivers of mixing zone provisions.** One commenter suggested changes to clarify the intent of this section, including correction of one of the references and removal of one subsection which they believe is redundant. (VA Power)

§6 Water Use Categories

6.2. Category A, Water Supply, Public. Several commenters requested that in reviewing the application of the Category A Use, that it clarify that the category does not apply to all stream segments, but only to those segments that are actually used as public water supplies. Commenters noted that the Water Pollution Control Act requires that the Board adopt rules consistent with 1) public health and public enjoyment of the state's waters; 2) the propagation and protection of animal, bird, fish 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.

Another commenter expressed their belief that the Category A use was not meant to be applied state-wide and further that it was not OWR's original intent to apply it that way based on the General Permit No. WV0113506 for Stripper Oil Well Wastes which prohibits use of the permit for discharges to any stream that is designated as Category A.

Another commenter indicated that they are pleased by the Board's decision to apply the public drinking water supply category to all waters of the state, indicating that it is vitally important that this use category stand without any exemptions.

(WVONGA, IOGA, AEP, WVMA, WV Chamber, WV Rivers)

6.4. Category C, Water contact recreation. Commenter urges the Board to expand the existing Category C to include all types of water-based recreation that take place both in and on

the water. (WV Rivers)

§7 West Virginia Waters

7.2.b. (See also 8.2.b.) Critical Stream Flow.

Two commenters suggested revising the critical stream flow requirements to be employed in developing effluent limits. One commenter urged the Board to adopt harmonic mean flow as the critical flow for determining compliance with criteria for carcinogens. The basis for their suggestion is language in EPAs Technical Support Document for Water Quality Based Toxics Control and EPAs Water Quality Standards Handbook. Those documents recommend the use of harmonic mean flow. The commenter cites the following language from the WQS Handbook:

The concept of a harmonic mean is a standard statistical data analysis technique. EPA's model for human 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 70 years). To estimate the concentration of the 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.

One of the commenters urged the Board to propose the use of the harmonic mean flow for carcinogens in accordance with EPA guidance, or alternatively, allow the OWR the option to do so on a case-by-case basis when writing NPDES permits and for purposes of developing the state's 303(d) list. The other commenter urged the use of the harmonic mean flow for carcinogens and the 30Q5 flow for noncarcinogens.

One of the commenters on this issue further suggested that the note at the end of section 7.2.b, which provides "With the exception of section 7.2.5.c listed herein exceptions do not apply to trout waters not to the requirements of Section 3. The commenter's basis is their belief that a mixing zone policy that bans mixing zones in trout waters is unreasonable, and unnecessary to maintain high water quality. A ban on mixing zones in trout waters ignores the fact that sensitive cold-water species such as trout were considered in the development of most water quality criteria. Further, the commenter notes, the toxicity of any pollutant to trout is, as with other warm water fishes, dependent on the dose, and frequency and duration of exposure. Therefore, mixing zones consistent with those allowed in non-trout streams are protective for trout in trout streams. (VA Power, WVMA)

§8 Specific Water Quality Criteria

8.1.b. Metals. Commenter continues to question the scientific underpinning of EPAs conversion factors for metals. Further, suggests that if the Board intends to retain the conversion factors, they should authorize DEP to use a default chemical translator in each permit where an

actual chemical translator has not been developed. (WVMQA/Calamita)

8.3. Variances from Specific Water Quality Criteria. Commenters urge the Board to deny further exemptions from the West Virginia Water Quality Standards. (WV Rivers Coalition, Janes)

Appendix C.

Commenters suggested several technical cleanups of this appendix. (WVMA, AEP)

Appendix E.

8.1. Aluminum. Several commenters express concern that the current aluminum criterion and EPAs recommended acute aluminum criterion are not technically justified and need to be revised. Several commenters suggested amending the aluminum criterion from a total (recoverable) to a dissolved concentration. Some commenters indicated support for readoption of the 87 ug/l acute criterion (dissolved basis), some advocate 750 ug/l (dissolved) for both acute and chronic aquatic life protection. One commenter suggests correction of the reference in this section from 7.2.d.B(b) to 7/2/d/2/1. (AEP, WV Chamber, WVMA, VA Power, WV ONGA, IOGA, DEP)

8.2. Ammonia. Several commenters indicated that EPA has issued revised aquatic life criteria for ammonia on December 22, 1999, and suggested that the Board update the ammonia criteria to reflect this revision. (AEP, VA Power, WVMA, WV Chamber MWQA/Calamita)

8.4. Arsenic. One commenter indicated that the criterion of 100 ug/l currently in the "All other uses" category should be identified as applying only to crop irrigation - Use Category D1. (WVMA, AEP)

8.6 Beryllium. Commenters suggested that the Board delete the acute aquatic life criterion because EPA has not developed on, and update the Public a criterion to reflect the 4ug/l value recommended by EPA. (WVMA, AEP)

8.7 Cadmium. Commenters indicated that the equations for calculating the aquatic life criteria need to be updated to reflect the current federal criteria. One commenter also indicated that in Table 2, the first acute number listed for cadmium should be revised from 1.136672 to 1.138672 to reflect then current federal number. (AEP, WVMA)

8.8 Chloride. Commenter suggested deletion of the human health criterion to reflect current federal criteria. (AEP, WVMA)

8.9 Copper. Commenter indicated that the Category A criterion of 1,000 ug/l should be updated to the 1,300 ug/l criterion recommended by EPA and that the aquatic life criteria be updated to

reflect the federal criteria. (AEP, WVMA)

8.10. Cyanide. Commenters suggested that the chronic aquatic life criterion should be revised from 5.0 to 5.2; the human health criteria from 5.0 to 220,000 ug/l (Category C) and 200 ug/l (Category A) to reflect current federal criteria. (AEP, WVMA)

8.11. Dissolved Oxygen. Commenter suggested removal of the DO criterion of 5 from Category A, C and the "All other uses" category as it is intended as a criterion to protect aquatic life. (AEP, WVMA)

8.12. Fecal Coliform. One commenter urged the Board to prioritize the revision of the current fecal coliform criteria. The commenter generally supports the use of the enterococci / E.coli as proposed by EPA in its Ambient Water Quality Criteria for Bacteria - 1986. The commenter urges the Board to keep the bacterial standard broad enough and flexible enough to easily accommodate waters impaired at a variety of flow conditions. Further, the commenter urges the use of the fecal coliform standard concurrently with the enterococci / E.coli standard because most bacterial stream evidence is based on fecal coliform.

Another commenter believes the WQS should include seasonal limits for fecal coliform such that the winter limits will be less stringent than the limits during the primary contact recreation season. Commenter indicates that this is the practice in most other states and would make sense., and would ensure that waters are not listed as being impaired for bacteria levels that occur only in the winter season. (Janes, WV Rivers, WVMWQA/Calamita)

8.14. Dissolved Hexavalent Chromium. Commenter suggested that the chronic B2 criterion should be revised from 7.2 to 11 ug/l and the criterion should be deleted from Category A to reflect current federal criteria. (AEP, WVMA)

8.15. Iron. Several parties commented that EPA's recommended 304(a) aquatic life criterion for iron is not scientifically defensible and support the Board's preliminary decision not to adopt it. Commenters suggest that a rationale for retaining the current criterion be developed and submitted to EPA. If that document is determined not to support the current criteria, commenters suggest removing the criteria until the national iron criterion can be revised such that the underlying science satisfies the procedures for developing criteria outlined in "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses" (EPA, 1985) (AEP, WVOGNA, IOGA, WVMA)

8.16. Lead. Commenter urges the Board to review Virginia's recent work in recalculating the national lead standard and update the lead standards accordingly. Commenter indicates that Region III EPA has approved this change in Virginia. (MWQA/Calamita)

8.17. Manganese. Commenter urged the Board to retain the manganese standard consistent with that for public health and that no exemptions be given. (WV Rivers)

8.19 Nickel. Commenters suggested that the Category A criterion should be revised from 510 to 610 ug/l to reflect current federal human health criteria. The further suggest revision of the aquatic life criteria to reflect current federal criteria. (AEP, WVMA)

8.20 Nitrite. Commenters suggested that the Board provide a justification for the nitrite criteria or remove it from the standards because no federal criteria for nitrite has been developed. (AEP, WVMA)

8.27. Silver. Commenters suggest deletion of the hardness based aquatic life criterion from the Public A Use Category. (AEP, WVMA)

8.32. Turbidity. Commenters indicated that EPA has not developed recommended numeric criteria for turbidity for the protection of human health or aquatic life, and that criteria corresponding to WV's are not found in other state's water quality standards regulations. They request the Board to review the rationale used to develop the criteria against EPAs published methodologies for deriving criteria. If the rationales for the Board's criteria are not consistent with those methodologies they should be deleted. (AEP, WVMA, WV Chamber)

8.33 Zinc. Commenters suggest that the equations for deriving aquatic life criteria need to be updated to reflect the federal criteria. (AEP, WVMA)