WEST VIRGINIA
SECRETARY OF STATE
JOE MANCHIN, III
ADMINISTRATIVE LAW DIVISION

Form #3

Do Not Mark In This Box

FILED

2004 AUG 20 P 2:51

OFFICE WEST VIRGINIA SECRETARY OF STATE

NOTICE OF AGENCY APPROVAL OF A PROPOSED RULE
AND
FILING WITH THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

AGENCY: WV Environmental Quality Board TITLE NUMBER: 46

CITE AUTHORITY: 22B-3-4

AMENDMENT TO AN EXISTING RULE: YES X NO ____

IF YES, SERIES NUMBER OF RULE BEING AMENDED: ONE

TITLE OF RULE BEING AMENDED: Requirements Governing Water Quality Standards

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: ____

TITLE OF RULE BEING PROPOSED: ____

THE ABOVE PROPOSED LEGISLATIVE RULE HAVING GONE TO A PUBLIC HEARING OR A PUBLIC COMMENT PERIOD IS HEREBY APPROVED BY THE PROMULGATING AGENCY FOR FILING WITH THE SECRETARY OF STATE AND THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE FOR THEIR REVIEW.

Stephanie P. Timmermeyer
Authorized Signature

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: August 20, 2004

TO: LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

FROM:(*Agency Name, Address & Phone No.*) WV Environmental Quality Board
1615 Washington St., E., Suite 301
Charleston, WV 25311-2126

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:

June 22, 2004

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

Legal Ads were published in the Charleston Gazette on July 7, 2004, the Charleston Daily Mail on July 12, 2004, the Dominion Post on July 20, 2004, and a general press release was issued.

The Board notified by US mail 56 individual area landowners, posted the information on the Board's website and also distributed the notice to our internal email mailing list of approximately 135 people and/or organizations.

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

Public Hearing - July 22, 2004. Public Comment Period ended August 6, 2004.

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)

August 20, 2004

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 St., E., Suite 301
Charleston, WV 25311-2126

558-4002 (phone)
558-4116 (fax)
lchatfield@wvaqbeqb.org

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)

Edward M. Snyder, Ph.D
Chairman of the WV Environmental Quality Board
1615 Washington St., E., Suite 301

Charleston, WV 25311-2126

558-4002 (phone)
558-4116 (fax)

3. If the statute under which you promulgated the submitted rules requires certain findings and determinations 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
August 20, 2004

Summary of Proposed Changes

Section 46 – 4. Antidegradation Policy.

Subsection 4.1.c of the rule, titled "Tier 2.5 Protection" is amended to add two streams as Waters of Special Concern, also known as Tier 2.5 streams. The amendment adds the following language after the last sentence in the subsection:

> "In addition to the Waters of Special Concern outlined in 60 CSR 5 – "Antidegradation Implementation Procedures", Appendix A, the following streams are classified as Waters of Special Concern:
>
> 4.1.c.1. Watkins Run (Preston County) and;
> 4.1.c.2. Fill Hollow Creek – both forks (Preston County)"

46 CSR 1
Requirements Governing Water Quality Standards
August 20, 2004

Statement of Circumstances Requiring Proposed Amendments

The West Virginia Environmental Quality Board received a nomination in November 2002 for reclassification of two streams in Preston County from Tier 2 – High Quality Waters, to Tier 2.5 – Waters of Special Concern. In reviewing the application, the Board considered the qualification criteria outlined in 60 CSR 5 – "Antidegradation Implementation Procedures", conducted a site visit to observe the two streams and held a public hearing in Preston County. Upon completion of the review, the Board determined that both of the nominated streams - Fill Hollow Creek (both forks) and Watkins Run - warrant classification as Waters of Special Concern, or Tier 2.5 streams.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: 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

(304)558-4002

1. Effect of Proposed rule:

N/A

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

2. Explanation of Above Estimates:

This type of information is not available for the revisions proposed.

3. Objectives of These Rules:

To respond to a nomination to classify two streams in Preston County as Waters of Special Concern.

Rule Title: Requirements Governing Water Quality Standards

4. Explanation of Overall Economic Impact of Proposed Rule:

   A. Economic Impact on State Government:

      See Attachment

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

      See Attachment

   C. Economic Impact on Citizens/Public at Large.

      See Attachment

Date: August 20, 2004

Signature of Agency Head or Authorized Representative:

Edward M. Snyder (EMS)
Chairman

Attachment – Responses to Fiscal Note Questions 4A, 4B and 4C.
(46 CSR 1- Requirements Governing Water Quality Standards)

4.A. Economic Impact on State Government:

The proposed amendment is not anticipated to have an economic impact to State Government.

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

This revision is not anticipated to have a negative fiscal impact with regard to nonpoint source activities such as logging and farming, which may occur near these streams. As long as the nonpoint source activities are employing applicable Best Management Practices, they will be considered to be in compliance with all antidegradation requirements. Activities that result in point source discharges will be required to meet a higher standard if the streams are reclassified from Tier 2 to Tier 2.5. This reclassification will not prohibit the activities, but could result in more stringent permit limits. Specific costs associated with these revisions are not quantifiable without additional information about the activities which may affect the streams.

4.C. Economic Impact on Citizens/Public At Large:

Local citizens consider these streams, and the surrounding area, valuable for recreation. The potential for development for recreational purposes and tourism is a possible avenue to be pursued for economic development of the area. Classifying these streams as Tier 2.5 – and ensuring the protection of the streams as Waters of Special Concern - could enhance such recreational and tourism opportunities.

COPY

ENVIRONMENTAL QUALITY BOARD

IN RE: APPLICATION FOR WATKINS RUN AND FILL HOLLOW CREEK AS TIER 2.5, WATERS OF SPECIAL CONCERN

JULY 22, 2004
PUBLIC HEARING

CHARLESTON, WEST VIRGINIA

Transcript of the proceedings had in the public hearing before the said Environmental Quality Board on the 22nd day of July, 2004, commencing at 6:04 p.m., EST, at Charleston, West Virginia, and reported by Lisa K. Okes, Court Reporter.

BEFORE: EDWARD SNYDER, Chairman
EDWARD C. ARMBRECHT, JR.
CAMERON HACKNEY
SCOTT SIMONTON

ALSO PRESENT: ELIZABETH M. CHATFIELD, Technical Advisor
REBECCA CHARLES, Esquire
MELISSA CARTE, Clerk

P.O. Box 1928
Beckley, West Virginia 25802-1928

(304) 253-4095
1-800-866-3500
Fax (304) 253-4096

COURT REPORTING

CHAIRMAN ED SNYDER: Good evening. We're meeting today -- or this evening regarding the review of some Tier 2.5 applications for Fill Hollow and Watkins Run. I'll introduce the Board members and staff, and then we'll -- I'll do just kind of a brief introduction, and then we'll hear from you and hear what you have to say and get some good input.

To my far right is Ted Armbrecht from Charleston; Dean Cameron Hackney from West Virginia University; Scott Simonton, finally here, from Huntington, from Marshall; Rebecca Charles, our attorney; Melissa Carte, our clerk; Libby Chatfield, our -- well, let's see, our technical adviser; and I'm Ed Snyder from Sheperdstown.

This evening, we're going to be, again, dealing with the 2.5 issue. The Board has followed the procedures for receipt and review of an application for nomination of two streams in Preston County, Fill Hollow and Watkins Run, as Waters of Special Concern. This is also known as Tier 2.5 according to the Board's antidegradation policy and WVDEP's antidegradation implementation procedures.

The steps we followed to get where we are, are these. First, receipt of application, November 12th, 2002, with updates received on December 16th, 2002 and January 3rd, 2002. Next, review of application and initial determination

that it was, indeed, complete. Third, notice to landowners of receipt of application and explanation of the Board's review procedures. This was mailed June 27th, 2003.

Fourth, review and discussion of the qualification criteria outlined in section 8.2.a.2 of DEP's antidegradation implementation rule. Note, the review of these criteria has continued throughout the process and has been the basis for the Board's proposal to reclassify the streams. We did have a site visit to view Fill Hollow Creek and Watkins Run, and a public hearing in Rowlesburg, November 20th, 2003.

And, finally, the decision on June 11th, 2004, at that meeting to approve the reclassification and propose it as a revision of the Water Quality Standards Rule for consideration in the 2005 legislative session.

The proposal we are considering would amend the antidegradation section of the Water Quality Standards rule at section 4.1.c to list Watkins Run and both forks of Fill Hollow Creek to be reclassified as Waters of Special Concern.

We're here tonight to hear from all of those interested in commenting. And what we're going to do is take comments from people in the order that you have signed in. And it appears we have four people who would like to speak at this

point. If you would, when you present, we're going to try to keep the presentations down to ten minutes or less. If you would state your name for the record and, if you would like to use the podium or, I guess, if you would like to remain seated and present, that should be all right as well, it's a small group.

And the first person on the list is Homer Sweeney.

MR. HOMER SWEENEY: I'd like to pass.

CHAIRMAN SNYDER: You'd like to pass, okay. The next person on the list is Donna Reckart. Yeah, it's better you stand, we couldn't see you back there, Donna.

MS. DONNA RECKART: Thank you. I think you've known how we feel as a company, Allegheny Wood, about the designation on Fill Hollow. We have submitted written comments. Of course, I did write those written comments prior to the last public hearing, but -- and there are a couple of other issues in the future I may be commenting on before the comment period is over.

However, just to reiterate some things is the impact on private property. If we ever want to change the use of our land, we would not be able to do so if it has any more of a discharge than 10 percent above.

At one point, I thought it was a social-economic study that had to be prepared by that landowner in order to delist

it. According to a letter that you received from DEP on April the -- or dated April 24th, that clearly says, under Tier 2.5, a landowner does not have the option of proving a social and economic benefit. Tier 2.5 does not allow any new discharges, either singly or collectively, that will use more than 10 percent of the remaining assimilative capacity of the stream. And that's even a bigger concern now if we don't even have that option.

Now, of course, we are in the forest business. That is our business. But it takes away a lot of our private property rights if we want to do something different or if we want to sell the land in the future. Three large landowners that own along Fill Hollow, Coastal, Allegheny Wood and the Clark family are all against this designation.

It's my suggestion to go ahead and list Watkins Run, but don't list Fill Hollow. If this one is approved and even is approved at the legislative process next year, I can see where private landowners will really be in an uproar in this state in the future.

I do still feel that some of the application was incorrect. It was flawed. Mr. Williams kept referring to the extractive and timber in the same sentence, that's not correct. We do use best management practices. But he also stated in the public hearing, which was held in Preston

County, that he is still very concerned about timber. He wanted timbering really regulated. Timbering is regulated. So I do still feel that application shouldn't even be considered.

So that's all. Thank you.

CHAIRMAN SNYDER: Thank you very much.

Next presenter, Guy Alan Clark, please

MR. GUY ALAN CLARK: I'm here representing my family's interests on the fork of Fill Hollow. And I don't feel that any of my family's concerns concerning what we view as a water quality easement, that has no consideration for the landowner, have been addressed. I'm still worried about every phase of this Tier 2.5 business.

But as the reluctant host for one of the presumptive streams of special concern, I feel like I'm on a trip that I didn't sign up for to an unknown destination.

And I'm a little unclear if it's one stream or half a stream because you talk about two streams, but then one of the streams is both forks of Fill Hollow, so is it -- I'm just unclear if I'm representing a stream or half a stream. Once again, put down that the fork of Fill Hollow I'm concerned with is Kyres Run.

And, finally, I want to say that should my family's property be so encumbered, I hope that one result would be a

means to deal with the perpetrators responsible for the historic dumps along this stream, all two or three of them. And I would also hope that some means for the landowner to unwanted ATV use on their land might result from what I see as a -- almost a done-deal as far as these two little streams in Preston County are concerned.

Thank you.

CHAIRMAN SNYDER: Thank you, Mr. Clark.

Liz Garland, next presenter.

MS. LIZ GARLAND: I am Liz Garland with West Virginia Rivers Coalition. West Virginia Rivers Coalition supports the designation of Watkins Run and, as presented, both forks of Fill Hollow in the Cheat River drainage to be Waters of Special Concern, Tier 2.5, as defined by 60 CSR 5, the antideg implementation procedures.

To address a couple of concerns that have been brought up since the last public hearing, I'd like to first say that the status of the presumptive 2.5 list should not be relevant to these -- to nomination of these particular streams. I don't think it really matters whether we're adding to an empty list or a full list or a list with a whole list with asterisks. There's no harm in these streams being the first on the list. And having talked with John Wirts today, I know DEP is well immersed in the process of

continuing to work with that list.

Additionally, there was some questions about the status of antidegradation law as it is. Antideg law is 99.9 percent, more or less, probably less, implemented at this point, and it is being used by DEP in practice. As you know, there are four outstanding pieces of that particular law that are still being reviewed by DEP. My understanding, from Bill Brannon, is we're a couple of weeks away from having that finished and back to EPA. So by the time this gets to the '05 legislature, all that issue will be resolved.

So that's simply a way of saying that those -- those are the only concerns I've heard since the last hearing and, if those are the only additional concerns, I don't see those being any reason to hold this up. I think that gets us back to looking at the provisions as stated in the nomination process, and w have seen pretty carefully that those criteria are all being met by these creeks, particularly those dealing with the water quality.

I won't go into too much detail on that, but they've been in my written comments and my oral comments in the past. We need to show that the stream has unique or exceptional ecological, recreational and aesthetic values. Those have been well demonstrated.

We need to show some indication that there were previous special designations in relation to water quality. West Virginia DNR has classified Watkins Run in the past as a reproducing native trout stream, the water is a special concern. And DNR has acknowledged that Fill Hollow, also, supports native-reproducing trout.

Additionally, just general water quality characteristics need to be shown in the nomination process, and they were done. As well, there's extensive Save Our Stream monitoring data from '96 through 2001 that supports that. So water quality, we don't think is debatable. We certainly have seen that we've met this criteria.

The criteria related to landowners, one is the impact of economic development. There have been some issues raised of concern from some of the landowners. Those landowners, as we know, are timbering -- are operating timbering activities, which are not affected by this particular piece of legislation, this particular law.

Additionally, we also had some discussion -- or have to meet nomination criteria about impact of the private property owners. Designation is not going to change the character of the water, nor will it change the impact, one way or another, of the landowners' relationship to that water. So I see things as unchanged in that respect by

moving to a 2.5 designation.

The remaining criteria are simply things of logistics, I think is the best way to put it. The notification process with public participation has been followed very carefully, very closely by EQB. Location of actual waterway, we've had visual inspection of the waterway, detailed maps were provided. I think it is fair to say that we do need some clarification of the naming of the waterway so that, certainly, when things are written and listed, maps meet what we're actually anticipating. So I do think that's a legitimate concern.

And so all the criteria for nomination have been pretty clearly met. I think the Board has already agreed that these creeks are worthy of nomination, and West Virginia Rivers Coalition, once again, supports that we move forward with the nomination.

CHAIRMAN SNYDER: Thank you, Ms. Garland.

I don't have anyone else who has indicated they would like to speak, but if anyone would at this point, you certainly have an opportunity.

MR. TIM CRADDOCK: Doctor Snyder, I don't want to really speak, just to say that I support both nominations. I'm Tim Craddock, by the way, West Virginia Save Our Streams coordinator.

CHAIRMAN SNYDER: Hi, Tim. Thank you.

DOCTOR CAMERON HACKNEY: West Virginia what? I'm sorry. What was the organization?

MR. CRADDOCK: West Virginia Save Our Streams.

CHAIRMAN SNYDER: Well, I appreciate everyone coming and presenting before us. Are we going to set a schedule? When is the last time for -- last date for written response? We have until --

MS. ELIZABETH CHATFIELD: August --

MR. SWEENEY: Sixth.

MS. CHATFIELD: -- 6th.

CHAIRMAN SNYDER: August 6th, so we do have some time for written response. Please feel free to add to or follow up or get things to us in written format.

MS. CHATFIELD: Then the filing deadline to get it to the legislature is August 27th, so sometime between the 6th and the 27th, you all will have to consider the comments and make a final decision. And we're hoping that will be sometime before your meeting on the 26th. So I think we had talked before about maybe having a conference call sometime. You don't really have to schedule that now, but maybe before you leave tomorrow look at your schedules.

CHAIRMAN SNYDER: Very good.

MS. CHATFIELD: So the process will be, we'll get the

comments all compiled, you all will discuss them at a meeting, make a decision, and then if the decision is to move forward, the rule will be filed by the legislative deadline.

CHAIRMAN SNYDER: Very good. So that's the process, where we are and, again, thank you very much for coming. And we will go off the record.

* * * * *

REPORTER'S CERTIFICATE

STATE OF WEST VIRGINIA

COUNTY OF KANAWHA, to-wit:

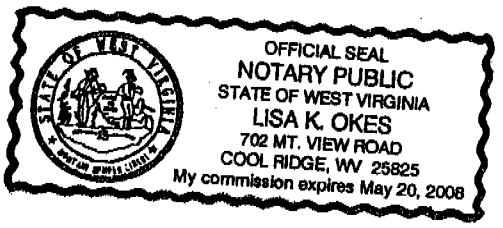
I, Lisa K. Okes, Court Reporter and Notary Public within and for the State aforesaid, duly commissioned and qualified, do hereby certify that the foregoing is, to the best of my skill and ability, a true and accurate transcript of the public meeting held on the 22nd day of July, 2004.

Given under my hand this 29th day of July, 2004.

LISA K. OKES, COURT REPORTER

NOTARY PUBLIC FOR STATE OF WEST VIRGINIA

My commission expires: May 20, 2008.



KRM

WV Environmental Quality Board
JULY 22, 2004
PUBLIC HEARING
6:00 P.M.
Sign-In Sheet

	NAME:	SPEAKING: (Y/N)
1)	Hope Sweeney	~~Yes~~ ✓
2)	Donna Reckart	yes ✓
3)	DOUG HUDSON. (Dept AG)	NOT SPEAKING -
4)	Guy Alan Clark	yes ✓
5)	Liz Garland	yes ✓
6)	Tim Craddock	-
7)	Connie Gatys/Lewis	-
8)		
9)		

Robert & Denise Casteel
Rt. 1, Box 36B
Tunnelton, WV 26444

August 3, 2004

WV Environmental Quality Board
1615 Washington STreet, East
Suite 301
Charleston, WV 25311

Ref: 46CSR 1, Requirements governing water quality standards

To Whom It May Concern:

I would like to again comment on the nomination of Watkins Run and both forks of Fill Hollow Creek as Waters of Special Concern ("Tier 2.5").

I have lived in this watershed my entire life. I have been monitoring Watkins Run since 1995 for the Save Our Streams program. I know first hand that these streams are high quality streams with a diversity of macroinvertebrate life that supports these native brook trout streams. I think that it is wonderful that the Board has reviewed this application and has determined that both streams qualify for reclassification.

West Virginia is known as Wild, Wonderful, West Virginia. We must continue to hold up to that classification and those characteristics. Much of Preston County is marked by orange streams. This is one of a few pristine watersheds in Preston County that adds to the natural beauty of our state.

Thank you for all of your hard work on these nominations. Our watersheds are worth protecting.

Respectfully yours,

Robert & Denise Casteel

"To restore, preserve, and promote the outstanding natural qualities of the Cheat River Watershed."

Friends of the Cheat

August 6, 2004

West Virginia Environmental Quality Board
1615 Washington Street, East
Suite 301
Charleston, WV 2531

Members of the Board:

On behalf of the Board of Directors of Friends of the Cheat, I wish to commend the EQB's approval of the nomination of two streams in Preston County as Waters of Special Concern (Tier 2.5). It is unfortunate that rule change is the current process for protection of particular streams that make up a state treasure, that of our native brook trout streams. Friends of the Cheat fully supports this nomination and will follow it through the legislative process.

Sincerely,

Keith Pitzer
Executive Director

Phone: 304/329-3621 • Fax: 304/329-3622 • Email: foc@cheat.org • www.cheat.org

119 South Price Street, Suite 206 • Kingwood, WV 26537

Don Ridenour
Rt. 1
Tunnelton, WV 26444
August 3, 2004

WV Environmental Quality Board
1615 Washington St. E, Suite 301
Charleston, WV 25311-2126

Dear Board Members,

I would like to take this opportunity to thank you for reviewing the nomination of Watkins Run and Fill Hollow Creek.

I was born and raised on this mountain. I moved away for years but when it came time to retire I returned to West Virginia. These mountains and streams here are beautiful and worth protecting.

Thank you for deciding to reclass these streams to Waters of Special Concern. I know that this was a lot of work but I also know that these streams are worth the effort.

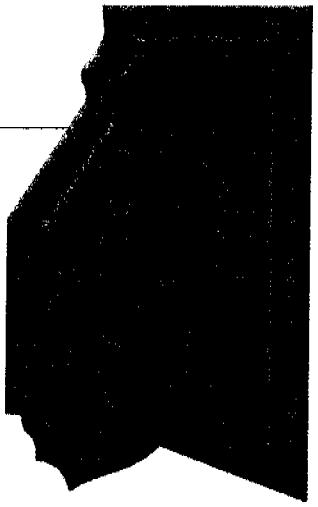
Thank you,

Don Ridenour

Don Ridenour

Preston County Commission

Room 101
101 W. Main Street
Kingwood, West Virginia 26537
Phone (304) 329-1805
Fax (304) 329-3192
TDD (304) 329-0652



July 27, 2004

WV Environmental Water Quality Board
1615 Washington Street, East
Room 301
Charleston, WV 25311

The Preston County Commission fully endorses the proposal to classify both forks of Fill Hollow Creek and Watkins Run as Tier 2.5 waters. All of these streams are clean water and support native trout.

Sincerely,

L Darwin Wolfe

L. Darwin Wolfe
President

LDW:dh

July 23, 2004

Environmental Quality Board
1615 Washington Street East, Suite 301
Charleston, WV 25311-2126

To whom it may concern:

I am writing to you to voice my support for the nomination of Watkins Run and Fill Hollow Creek to the state's proposed Tier 2.5 list. These streams are native brook trout streams of the highest quality and deserve protection.

In the past, as the coordinator of the WV Save Our Streams Program, I worked with the Friends of Laurel Mountain citizens group in helping them to monitor Watkins Run. Since I have monitored that stream with them I know it contains very sensitive macro-invertebrate species and native brook trout. Therefore the criterion for inclusion in the Tier 2.5 list is there.

Now, as the Coordinator of the state's Nonpoint Source Program, I know we are spending hundreds of thousands of dollars trying to restore the Cheat River. Undisturbed high quality streams in the Cheat watershed are rare and need to be protected.

Thank you for this opportunity to comment.

Sincerely,

Alvan D. Gale
(home address)
317 Eureka Rd.
Charleston, WV. 25314

(work address)
WVDEP
414 Summers St.
Charleston, WV. 25301

AQBEQB CLERK - Supporting Tier 2.5 Nomination of Watkins Run and Fill Hollow

From: "JENNIFER PAUER" <JPAUER@wvdep.org>
To: <clerk@wvaqbeqb.org>
Date: 7/26/2004 10:02 AM
Subject: Supporting Tier 2.5 Nomination of Watkins Run and Fill Hollow

To Whom It May Concern,

I support the nomination of Watkins Run and Fill Hollow Creek to be added to the proposed Tier 2.5 list. Please read the attached PDF file. Thank you for your time and consideration.

Jennifer Pauer
WV Department of Environmental Protection
Watershed Management Framework
414 Summers Street
Charleston, WV 25301
(304) 558-3614

AQBEQB CLERK - Tier 2.5 for Watkins Run and Fill Hollow Creek

From: "burke" <burke@mountain.net>
To: <clerk@wvaqbeqb.org>
Date: 7/23/2004 5:52 PM
Subject: Tier 2.5 for Watkins Run and Fill Hollow Creek
CC: "Tim Craddock" <tcraddock@wvdep.org>

Sir/Madam:

I want to express support for adding Watkins Run and Fill Hollow Creek to the proposed tier 2.5 Anti Degradation list.
Tim Craddock has presented strong evidence for designating these two streams as Tier 2.5.

I believe it is imperative that we protect the few remaining WV streams where natural reproduction of trout can occur.
There is such a stream on my land and right now I'm fighting a difficult battle to protect it from ruination.
A number of the brook trout streams of my youth in western Randolph County no longer support trout. We must work to
assure that more streams do not go the same route.

Jerry Burke
9 Point Drive
Petersburg, WV 26847

AQBEQB CLERK - Waters of Special Concern

From: Aaron Miller <milleram@mail.ab.edu>
To: <clerk@wvaqbeqb.org>
Date: 7/30/2004 2:33 PM
Subject: Waters of Special Concern

EQB,

I am a resident of Preston County writing in support of the naming of Fill Hollow and Watkins Run as waters of special concern.

Preston County is a county that has been severely impacted by acid mine drainage. Due to AMD and other problems there are few streams left here in which native brook trout still thrive. However there are still a few hidden gems like Fill Hollow and Watkins Run. Additionally, Watkins Run flows into Buffalo Creek, a stream which provides cool clear water to the Cheat River. It is at the mouth of Buffalo Creek that many of the trout stocked in the Cheat River congregate for the influx of highly oxygenated water and abundance of insects. If Watkins Run was degraded, the trout in the Cheat could suffer. I hope that these streams can be afforded the protection they deserve so that they aren't rendered lifeless like so many other streams throughout the county.

Hopefully my comments are useful in your decision to apply Tier 2.5 protection to these streams.

Thank you,
Aaron Miller

AQBEQB CLERK - Supporting Watkins Run and Fill Hollow Nominations

From: "Tim Craddock" <tcraddock@wvdep.org>
To: <clerk@wvaqbeqb.org>
Date: 7/22/2004 11:45 AM
Subject: Supporting Watkins Run and Fill Hollow Nominations

To Whom It May Concern,

I support the nomination of Watkins Run and Fill Hollow Creek to be added to the proposed Tier 2.5 list. Please read the attached PDF file. Thank you for your time and consideration.

Tim Craddock, Citizens Monitoring Coordinator
West Virginia Save Our Streams
WV DEP Division of Water & Waste Management
414 Summers Street, 2nd Floor
Charleston, WV 25301
Phone: (304) 558-3614
E-mail: tcraddock@wvdep.org

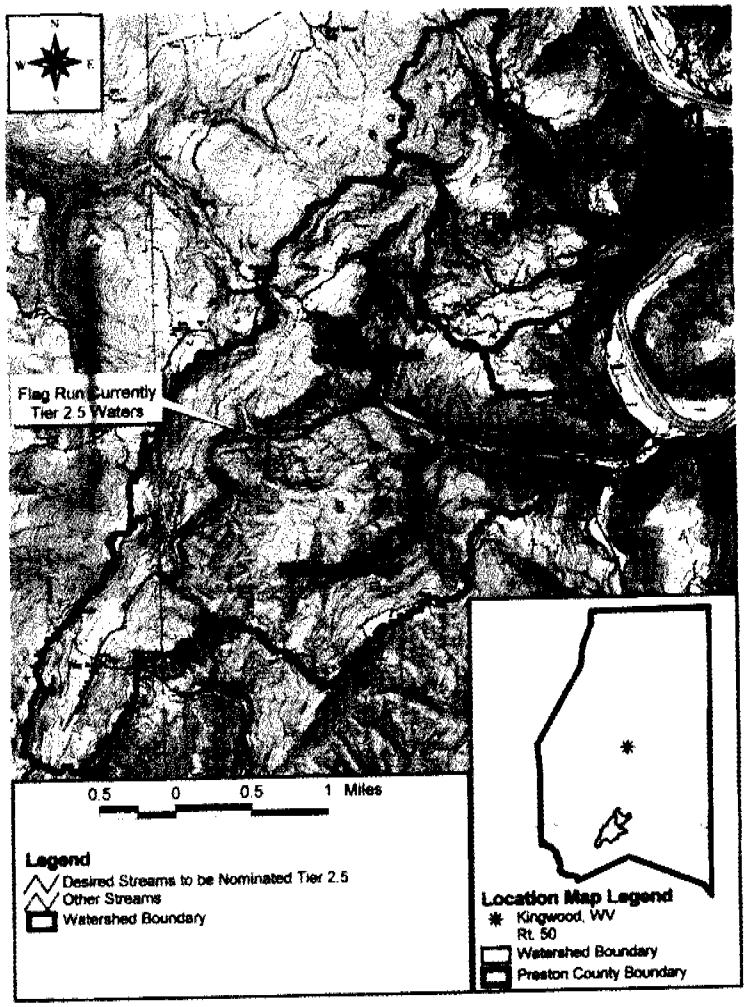
"Preserving our streams and rivers is a cause worth fighting for." - Pete Seeger
http://www.dep.state.wv.us/item.cfm?ssid=11&ss1id=202

Watkins Run and Fill Hollow Creek
A Tier 2.5 Nomination

Over the past several years there has been much debate over the state's "new" Antidegradation Policy and Tier Level designations of our state's waters. This document will not attempt to shed any new light on this controversial topic. However, it is worth noting that Antidegradation has been around since the inception of the Federal Clean Water Act in 1972. Antidegration, simply put, is a management plan to help protect all of our state's water and gives special consideration to waters that may be of higher quality. Citizen's can nominate a stream for a particular status (Tier Level) by following the criteria set forth in the West Virginia Water Pollution Control Act.

The Friends of Laurel Mountain, Friends of the Cheat and several local residents, Mr. Ladd Williams in particular, have made the first attempt at nominated several streams for the Tier 2.5 List. The information below is a brief summary from the nomination letter of Watkins Run. Figure 1 shows a map of Watkins Run and Fill Hollow Creek Watersheds.

Figure 1. The Watkins and Fill Hollow Creek Watersheds



A letter submitted to West Virginia's Environmental Quality Board in August of 2002 laid out the reasons why Watkins Run should be considered a Tier 2.5 stream. Some of the most important reasons are its high quality cool clean constant flowing water, and its diversity of macroinvertebrate life. Watkins Run is also a native brook trout stream and its watershed still remains relatively undisturbed.

Friends of Laurel Mountain have been monitoring this high quality stream since 1995 and through their in depth knowledge of its characteristics were able to stave off a proposed quarry operation by Laurel Aggregates several years ago.

However, there are still threats to this pristine watershed by quarry development, logging etc. and even though a tier designation does not stop development, it does afford a better opportunity to protect this prime natural jewel.

Tim Craddock, Citizen's Monitoring Coordinator
WV Save Our Streams

Photographs by Tim Craddock

RESPONSES TO COMMENTS and EXPLANATION OF PROPOSED AMENDMENTS
46 CSR 1
Requirements Governing Water Quality Standards
August 20, 2004

This document describes a revision to the rule to reclassify two streams in Preston County as waters of special concern. Included are a description of the proposed revision which was sent to public notice on June 22, 2004, a summary of comments received on the revision during the public hearing on July 22, 2004 and during the public comment period (which closed on August 6, 2004), the Board's responses to those comments, and the final action taken by the Board on the proposed amendment.

Section 46 – 4. Antidegradation Policy. Section 4.1.c. of the Antidegradation Policy currently provides:

> "Tier 2.5 Protection. Waters of special concern include all of those waters listed in 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."

Proposed Revision

This proposal would revise section 4.1.c. by adding the following language as a second paragraph after the words "or by the Board on its own initiative":

> "In addition to the Waters of Special Concern outlined in 60 CSR 5 – "Antidegradation Implementation Procedures", Appendix A, the following streams are classified as Waters of Special Concern:
>
> 4.1.c.1. Watkins Run (Preston County) and;
> 4.1.c.2. Fill Hollow Creek – both forks (Preston County)"

Comments Received

Four people spoke at the public hearing. Two were local landowners who spoke against the reclassification - one a representative of Allegheny Wood Products Company, and the other was a local landowner. The two other speakers at the hearing supported the

reclassification – one was a West Virginia Department of Environmental Protection (WVDEP) employee and the other was a representative of the West Virginia Rivers Coalition. In addition to the comments at the hearing, 8 written comments were received by the August 6th deadline. All of the written comments were in support of the reclassification. Written commenters included Friends of the Cheat, 2 employees of WVDEP (not the same as the person at the hearing), the Preston County Commission, three Preston County residents and a resident of Petersburg, West Virginia.

The following is a brief summary of the substance of the comments provided on the rule. A transcript of the hearing and copies of all written comments received by the Board are attached to this filing.

1. Four residents of Preston County expressed support for the nomination, as did the Preston County Commission. One resident indicated that the county has been severely impacted by acid mine drainage. He indicated that many stocked trout congregate at the Mouth of Buffalo Creek (which Watkins Run flows into) because of the influx of highly oxygenated water and an abundance of insects coming from Watkins Run. Other commenters indicated that they have monitored the steams as Save Our Streams program volunteers, and based their support of the reclassification on first-hand knowledge from the data collected in the streams.

Board Response: The Board agrees with these commenters that the reclassification is warranted. In forming its decision, the Board reviewed the Tier 2.5 qualification criterion in the WVDEP's legislative rule 60 CSR 5, Antidegradation Implementation Procedures, section 8.1.a.2 (pertinent portion attached).

2. Two residents of Preston County who own land adjacent to the streams, objected to the reclassification, citing concerns about how the reclassification will affect their ability to use their land in the future. One of those two expressed concern that new use of their land would not be allowed if the resulting discharge is more than 10% above the remaining assimilative capacity of the stream. The commenter noted that this is more restrictive than limits on discharges into Tier 2 waters. The commenter suggested reclassifying Watkins Run, but retaining Tier 2 classification for Fill Hollow, noting that "three large landowners that own along Fill Hollow, Coastal, Allegheny Wood and the Clark family are all against this designation." The other commenter owns land on the fork of Fill Hollow known as Kyres Run. He indicated that he views this reclassification as a water quality easement, which is being placed on the stream without consideration of the landowner. The commenter also suggested clarification of which portion of Fill Hollow Creek is being proposed for reclassification.

Board Response: The Board acknowledges the concerns of these landowners as well as their long term efforts which have resulted in maintaining the high quality of these streams. However, in reviewing the qualification criteria, the Board has determined that the fact that the reclassification may result in more restrictive discharge limits is not a basis for denial of the application for reclassification. The Board notes that the two forks

of Fill Hollow to be reclassified are those indicated on the map submitted with the application, which is attached.

3. Several employees of the WVDEP commented in favor of the reclassification of the two streams. One person submitted a written document that included photographs as well as a map of the steams. The document indicated support for the reasons for the reclassification which were outlined in the application - including the high quality cool, clean constant flowing water, diversity of macroinvertebrate life, and Watkins Run's classification as a trout stream. The comments indicated that even though Tier 2.5 designation does not stop development, it does afford a better opportunity to protect this "prime natural jewel".

Board Response: The Board appreciates the perspective of these commenters, and their willingness to become involved in this issue – and agrees with them that the reclassification is warranted. Note that the Board did not consider these comments necessarily as an official position of the agency on the matter.

4. An environmental organization which provided comments indicated support for the Board's decision to reclassify, and addressed several concerns raised during the Board's discussions on the reclassifications. The commenter believes that the status of the WVDEP's "initial presumptive list" of Tier 2.5 streams is not relevant to the Board's decision on this nomination. WVDEP's work on that list is ongoing, but should not hinder the Boards reclassification action. The commenter also indicated that the qualification criteria outlined in section 8.1.a.2 of 60 CSR 5 have all been met. This commenter reiterated the need to clarify, with specificity, which streams are to be reclassified.

Board Response: The Board has acknowledged and engaged in extensive discussion of the issue of these streams being listed before completion of the "initial presumptive list" of Tier 2.5 waters currently being developed by the WVDEP. We understand that the WVDEP is prepared to address implementation issues in these streams if they are classified before completion of the "initial presumptive list". Based on that, and the Board's separate authority in section 4.1.c regarding nominations of Tier 2.5 waters, a majority of the Board was persuaded that this timing issue is not sufficient grounds for denial of the reclassification nomination.

The Board also agrees with the commenter that the qualification criteria outlined in 60 CSR 5 have been met. The Board notes that the two forks of Fill Hollow to be reclassified are those indicated on the map submitted with the application, which is attached.

5. The Preston County Commission filed a written comment indicating that the Commission fully endorses the proposal to classify both forks of Fill Hollow Creek and Watkins Run as Tier 2.5 waters, indicating that all of the streams are clean water and support native trout.

Board Response: The Board agrees with the Commission's assessment of the quality of the two streams. (See comments above regarding the basis for the Boards decision.) The Board appreciates the Commission's efforts and its willingness to engage in the public comment process on this matter.

Board Action

Upon review of the comments received, the Board agrees to adopt the amendment to section 4.1.c as proposed.

of an ONRW segment is prohibited except where such source would improve or not degrade the existing water quality of the downstream ONRW segment.

7.3.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:

7.3.a.1. Change in ambient concentrations predicted at the appropriate critical condition(s);

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

7.3.a.3. Reduction in available assimilative capacity;

7.3.a.4. Nature, persistence and potential effects of the parameter;

7.3.a.5. Potential for cumulative effects;

7.3.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

7.3.a.7. Other factors determined by the Secretary, when appropriate.

7.3.b. If a preliminary determination is made that the applicable criteria in paragraphs 7.3.a.1. through 7.3.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 paragraphs 7.3.a.1. through 7.3.a.7., the Secretary 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.

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

7.5. 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 Secretary. 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.

§60-5-8. Designation of Tier 2.5 and Tier 3 Waters.

8.1. Listing process for Tier 2.5.

8.1.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.

8.1.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:

8.1.a.1.A. A description of the location of the waters or segment;

8.1.a.1.B. The procedures and criteria for designation as well as the impact of the designation;

8.1.a.1.C. The name of the person(s) making the nomination; and

8.1.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.

8.1.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:

8.1.a.2.A. Impact on private property owners;

8.1.a.2.B. Whether the interests of all affected parties have been adequately represented during the nomination and designation process;

8.1.a.2.C. The location of the water;

8.1.a.2.D. Any previous special designations;

8.1.a.2.E. Existing water quality;

8.1.a.2.F. Factors that indicate unique or exceptional ecological, recreational or aesthetic resource value;

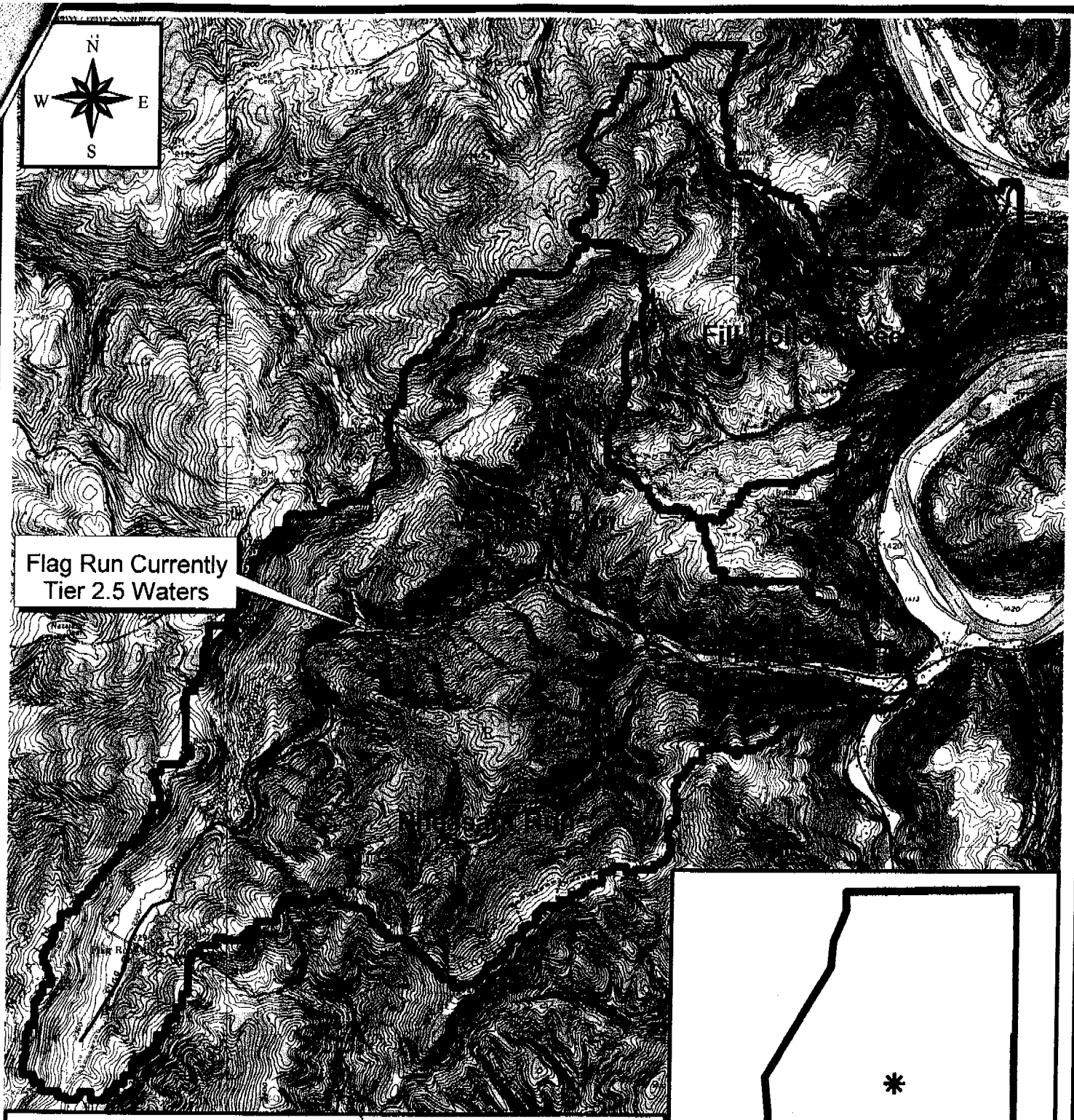
8.1.a.2.G. Impact on economic development in the area, including development of demonstrated natural resources; and

8.1.a.2.H. Other factors determined by the Board, when applicable.

8.1.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 8.1.a.2.A. through 8.1.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.

8.2. Listing process for Tier 3 waters.

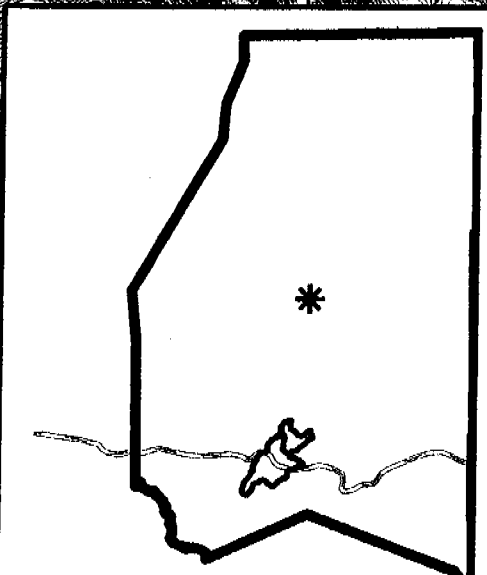
8.2.a. Tier 3 Nomination Procedures. Any interested party or the Board may nominate a water as an ONRW. After reviewing the nomination the Board shall consider the qualification criteria and may



0.5 0 0.5 1 Miles

Legend

- Desired Streams to be Nominated Tier 2.5
- Other Streams
- Watershed Boundary



Location Map Legend

- Kingwood, WV
- Rt. 50
- Watershed Boundary
- Preston County Boundary

Figure 1

TITLE 46
LEGISLATIVE RULES
ENVIRONMENTAL QUALITY BOARD
SERIES 1
REQUIREMENTS GOVERNING WATER QUALITY STANDARDS

§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. "Board" is the Environmental Quality Board.

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

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.

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

2.5. "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)

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

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

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.

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

2.10. "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.

2.11. "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.

2.12. "Outstanding national resource waters" are those waters whose unique character, ecological or recreational value or pristine nature constitutes a valuable national or State resource.

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

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

2.13.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.

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

state.

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

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.

2.17. "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.

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

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.

2.20. "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.

2.21. "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.

2.22. "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.

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

2.24. "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.

2.25. "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 2.10 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 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.

In addition to the Waters of Special Concern outlined in 60 CSR 5 - "Antidegradation Implementation Procedures", Appendix A, the following streams are classified as Waters of Special Concern:

4.1.c.1. Watkins Run (Preston County) and;

4.1.c.2. Fill Hollow Creek - both forks (Preston County).

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 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.

§46-1-6. 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 criterion shall only apply within the five-mile zone immediately upstream above a known public or private water supply used for human consumption.

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, herein (See Appendix A for a

representative list.)

6.3.c. Category B4 -- Wetlands. -- As defined in section 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 September 1, 2010, or until action by the Environmental Quality Board to revise this provision, whichever comes first, the one-half (1/2) 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 for the Category A criterion for iron as set forth in §8 herein. Weirton Steel Corporation shall conduct monthly monitoring of the treated water at its drinking water plant for iron and submit the results of such monitoring to the West Virginia Bureau for Public Health and the Office of Water Resources of the West Virginia Department of Environmental Protection. In addition, Weirton Steel Corporation shall submit a written report regarding the status of its drinking water plant and the issues pertaining thereto to the Environmental Quality Board on or before March 1, 2007.

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, 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). Weirton Steel Corporation shall continue to submit to the Office of Water Resources of West Virginia Department of Environmental Protection, on an annual basis summary reports on the water quality of the discharge from Outlet 004 and the efforts made by Weirton Steel Corporation during the previous year to improve the quality of the discharge. These exceptions shall be in effect until action by the Environmental Quality Board to revise the exceptions or until July 1, 2007, 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.19.3. Except that in Ward Hollow of Davis Creek, the following site-specific numeric criterion for chloride shall apply for Category A and Category B1 (chronic aquatic life protection): 310,000 ug/L.;

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/1 and copper not to exceed 105 ug/1 as a daily maximum nor 49 ug/1 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.

River Basin	County	Stream
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	Monongalia-Marion	Whiteday Creek (Above Smithtown)
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) (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)
MC	"	Three Spring Run
MC	"	Spruce Knob Lake (Impoundment)
MW	Harrison	Dog Run (Pond)
MW	Lewis	Stonecoal
MT	Barbour	Brushy Fork (Above Valley Furnace)
MT	"	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 Kelleysville)
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 Monongahela	Morgantown Water Comm.	Colburn Creek & 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 Compresssor 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 Hollow
O	"	"	New Urindahana Water	Wheeling Creek System
O	"	Wetzel	Pine Grove Water	North Fork, Fishing Creek
O	"	Marshall	Consolidated Coal Co.	Impoundment
O	"	Tyler	Middlebourne Water	Middle Island Creek
O	"	Doddridge	West Union Mun. Water	Middle Island Creek
O	"	Mason	Hidden Valley Country	Lake/Impoundment
O	"	Jackson	Ripley Water	Mill Creek
O	"	Wayne	Wayne Municipal Water	Twelve Pole Creek
O	"	"	East Lynn Lake	East Lynn Lake
O	Zone 2	Wayne	Monterey Coal Co.	Impoundment
Little Kanawha				
	LK	Wood	Claywood Park PSD	Little Kanawha River
	LK	Calhoun	Grantsville Mun. Water	Little Kanawha River
	LK	Gilmer	Glenville Utility	Little Kanawha River
	LK	"	Consolidated Gas Compressor	Steer Creek
	LK	Braxton	Burnsville Water Works	Little Kanawha River
	LK	Roane	Spencer Water	Spring Creek Mile Tree Reservoir
	LK	Wirt	Elizabeth Water	Little Kanawha River
	LKH	Ritchie	Cairo Water	North Fork Hughes River
	LKH	"	Harrisville Water	North Fork Hughes River
	LKH	"	Pennsboro Water	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	"	Procious 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
KG	"	Summersville Water	Impoundment/Muddle ty 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/Brusch 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 Water	Greenbrier River
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 Rriver

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.

River Basin	County	Station Name	Operating Company
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.

River Basin	Stream Code	Stream	County
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	OhioRiver	Brooke/ Cabell/

			Hancock/ Jackson/ Marshall/ Mason/Ohio/Pleasants/ Tyler/Wayne/Wood/Wetzel
	O-2-H	Beech Fork of Twelvepole Creek/Beech Fork Lake	Wayne
	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
	K-1	Unnamed Tributary Krodel Lake	Mason
	KC	Coal River	Kanawha
	KC-45-Q	Stephens Branch/ Lake Stephens	Raleigh
	KE	Elk River	Kanawha/ Clay/ Braxton/ Webster/ Randolph
	KE	Sutton lake	Braxton
	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/	Greenbrier

	Lake Sherwood	
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. 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			
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	

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]			
8.7 Cadmium (ug/l) Hardness (mg/l $CaCO_3$) Soluble Cd 0 - 35 1.0 36 - 75 2.0 76 - 150 5.0 > 150 10.0						X	
8.7.1 Not to exceed 10 ug/l in the Ohio River (O Zone 1) main stem (see section 7.1.d, herein)						X	
8.7.3 The four-day average concentration of dissolved cadmium shall not exceed the value determined by the following equation: $Cd = e^{(0.7852[\ln(hardness)]-3.490)} \times CF$[5]		X		X			
8.7.4 The one-hour average concentration of dissolved cadmium shall not exceed the value determined by the following equation: $Cd = e^{(1.128[\ln(hardness)]-3.828)} \times CF$[5]	X		X				
8.8 Chloride (mg/l) Not to exceed:	860	230	860	230	250	250	

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]			
8.9.1 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(hardness)]+3.7256} x (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(hardness)]+0.6848}x (CF[5]).		X		X			
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]: $Cu = e^{(0.8545[\ln(\text{hardness})]-1.465)} \times CF^5$		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]			
8.10.2 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:	22	5.0	22	5.0	5.0	5.0	
8.12 Dissolved Oxygen[c]: not less than 5 mg/l at any time.	X				X	X	X
8.12.1 Kanawha River main stem, Zone 1 - Not less than 4.0 mg/l at any time.	X						
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						

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]			
8.12.3 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	
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	

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]			
8.14.1 Not to exceed 2.0 for category D uses.							X
8.15 Iron[c] (mg/l) Not to exceed:		1.5		0.5		1.5	
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]: $Pb = e^{(1.273[\ln(\text{hardness})]-4.705)} \times CF^5$		X		X			
8.16.2 The one-hour average concentration of dissolved lead shall not exceed the value determined by the following equation[a]: $Pb = e^{(1.273[\ln(\text{hardness})]-1.46)} \times CF^5$	X		X				
8.17 Manganese (mg/l) (see §6.2.d) Not to exceed:						1.0	

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]			
8.18 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			
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	

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]			
8.21 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
Acrylonitrile[b] (ug/l)					0.66	0.059	
Benzene[b] (ug/l)					71	0.66	
1,2-dichlorobenzene (mg/l)					17	2.7	

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]			
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	5.7	
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	
Toluene[b] (mg/l)					200	6.8	

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]			
Polynuclear Aromatic Hydrocarbons (PAH)[b] (ug/l)					0.031	.0028	
Phthalate esters (ug/l)		3.0		3.0			
Vinyl chloride[b] (chloroethene)(ug/l)					525	2.0	
alpa-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	0.08	0.063	0.019	
Chlorobenzene (mg/l)					21	0.68	
Ethylbenzene (mg/l)					29	3.1	
Heptachlor[b] (ng/l)	520	3.8	520	3.8	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	

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 Pentachlorophenol[b] (ug/l)					8.2	0.28	
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	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	X
8.26 Selenium (ug/l) Not to exceed:	20	5	20	5		10	
8.27 Silver (ug/l) Hardness / Silver 0-50 / 1 51-100 / 4 101-200 / 12 >201 / 24				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]			
8.27.1 0-50 1 51-100 4 101-200 12 201-400 24 401-500 30 501-600 43		X					
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		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 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]			
8.28.2 For the Bluestone R (KNB), Bluestone Lake (KN-60) East River (KNE), New River (KN), Gauley R. (KG) and Greenbrier River (KNG): Temperature rise shall be limited to no more than 5°F above natural temperature, not to exceed 81°F at any time during the months of May through November and not to exceed 73°F at any time during December through April.			X				
8.28.3 No heated effluents will be discharged in the vicinity of spawning areas. The maximum temperatures for cold waters are expressed in the following table: Daily Mean °F / Hourly Max °F Oct-Apr 50 / 55 Sep-May 58 / 62 Jun-Aug 66 / 70			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):							
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						
8.29 Thallium (ug/l)					6.3	1.7	

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]			
8.30 Threshold odor[c] Not to exceed a threshold odor number of 8 at 104°F as a daily average.		X		X	X	X	
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.							

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]			
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	
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	

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]			
8.33 Zinc (ug/l) The four-day average concentration of dissolved zinc shall not exceed the value determined by the following equation[a]: $Zn = e^{(0.8473[\ln(\text{hardness})]+0.7614)} \times CF^5$		X		X			
8.33.1 The one-hour average concentration of dissolved zinc shall not exceed the value determined by the following equation[a]: $Zn = e^{(0.8473[\ln(\text{hardness})]+0.8604)} \times CF^5$	X		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 is 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 hardness)(0.041838)]	1.101672-[(ln hardness)(0.041838)]
Chromium (III)	0.316	0.860
Chromium(VI)	0.982	0.962
Copper	0.960	0.960
Lead	1.46203-[(ln hardness)(0.145712)]	1.46203-[(ln hardness)(0.145712)]
Nickel	0.998	0.997
Silver	0.85	N/A
Zinc	0.978	0.986