

FILED

2001 MAY -2 P 11: 54

OFFICE WEST VIRGINIA
SECRETARY OF STATE

WEST VIRGINIA LEGISLATURE

FIRST REGULAR SESSION, 2001

ENROLLED

COMMITTEE SUBSTITUTE
FOR
House Bill No. 2663

(By Delegates Mahan, Wills, Cann,
Kominar, Faircloth and Riggs)

Passed April 14, 2001

In Effect from Passage

H.B. 2663

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(BY DELEGATES MAHAN, WILLS, CANN,
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AN ACT to amend and reenact article three, chapter sixty-four of the code of West Virginia, one thousand nine hundred thirty-one, as amended, all relating generally to the promulgation of administrative rules by the various executive or administrative agencies and the procedures relating thereto; legislative mandate or authorization for the promulgation of certain legislative rules by various executive or administrative agencies of the state; authorizing certain of the agencies to promulgate certain legislative rules in the form that the rules were filed in the state register; authorizing certain of the agencies to promulgate certain legislative rules with various modifications presented to and recommended by the legislative rule-making review committee; authorizing certain of the agencies to promulgate certain legislative rules as amended by the legislature; authorizing certain of the agencies to promulgate

certain legislative rules with various modifications presented to and recommended by the legislative rule-making review committee and as amended by the legislature; authorizing the division of environmental protection to promulgate a legislative rule relating to emission standards for hazardous air pollutants pursuant to 40 CFR Part 61; authorizing the division of environmental protection to promulgate a legislative rule relating to standards of performance for new stationary sources pursuant to 40 CFR Part 60; authorizing the division of environmental protection to promulgate a legislative rule relating to the prevention and control of emissions from municipal solid waste landfills; to authorizing the division of environmental protection to promulgate a legislative rule relating to requirements for operating permits; authorizing the division of environmental protection to promulgate a legislative rule relating to emission standards for hazardous air pollutants for source categories pursuant to 40 CFR Part 63; authorizing the division of environmental protection to promulgate a legislative rule relating to oil and gas wells and other wells; authorizing the division of environmental protection to promulgate a legislative rule relating to hazardous waste management; authorizing the division of environmental protection to promulgate a legislative rule relating to underground storage tanks; authorizing the solid waste management board to promulgate a legislative rule relating to the developing, updating and amending of comprehensive litter and solid waste control plans; authorizing the solid waste management board to promulgate a legislative rule relating to the development of commercial and solid waste facility siting plans; authorizing the division of environmental protection to promulgate a legislative rule relating to the NO_x budget trading program as a means of control and reduction of nitrogen oxides; authorizing the division of environmental protection to promulgate a legislative rule relating to the prevention and control of air pollution from the combustion of refuse; authorizing the division

of environmental protection to promulgate a legislative rule relating to the prevention and control of air pollution from hazardous waste treatment, storage or disposal facilities; authorizing the division of environmental protection to promulgate a legislative rule relating to the awarding of the West Virginia stream partners program grant; authorizing the division of environmental protection to promulgate a legislative rule relating to surface mining blasting; authorizing the division of environmental protection to promulgate a legislative rule relating to surface mining reclamation; authorizing the division of environmental protection to promulgate a legislative rule relating to quarrying and reclamation; authorizing the division of environmental protection to promulgate a legislative rule relating to the certification of gas wells; authorizing the division of environmental protection to promulgate a legislative rule relating to yard waste composting; authorizing the division of environmental protection to promulgate a legislative rule relating to waste tire management; authorizing the environmental quality board to promulgate a legislative rule relating to requirements governing water quality standards.

Be it enacted by the Legislature of West Virginia:

That article three, chapter sixty-four of the code of West Virginia, one thousand nine hundred thirty-one, as amended, be amended and reenacted, all to read as follows:

ARTICLE 3. AUTHORIZATION FOR BUREAU OF ENVIRONMENT TO PROMULGATE LEGISLATIVE RULES.

§64-3-1. Division of environmental protection.

- 1 (a) The legislative rule filed in the state register on the
- 2 twenty-ninth day of August, two thousand, authorized under the
- 3 authority of section four, article five, chapter twenty-two, of
- 4 this code, relating to the division of environmental protection
- 5 (emission standards for hazardous air pollutants pursuant to 40
- 6 CFR Part 61, 45 CSR 15), is authorized.

7 (b) The legislative rule filed in the state register on the
8 twenty-ninth day of August two thousand, authorized under the
9 authority of section four, article five, chapter twenty-two of this
10 code, relating to the division of environmental protection
11 (standards of performance for new stationary sources pursuant
12 to 40 CFR Part 60, 45 CSR 16), is authorized.

13 (c) The legislative rule filed in the state register on the
14 twenty-ninth day of August, two thousand, authorized under the
15 authority of section four, article five, chapter twenty-two of this
16 code, relating to the division of environmental protection (to
17 prevent and control emissions from municipal solid waste
18 landfills, 45 CSR 23), is authorized.

19 (d) The legislative rule filed in the state register on the first
20 day of September, two thousand, authorized under the authority
21 of section four, article five, chapter twenty-two, of this code,
22 relating to the division of environmental protection (require-
23 ments for operating permits, 45 CSR 30), is authorized.

24 (e) The legislative rule filed in the state register on the
25 twenty-ninth day of August, two thousand, authorized under the
26 authority of section four, article five, chapter twenty-two of this
27 code, relating to the division of environmental protection
28 (emission standards for hazardous air pollutants pursuant to 40
29 CFR Part 63, 45 CSR 34), is authorized.

30 (f) The legislative rule filed in the state register on the
31 twenty-third day of August, two thousand, authorized under the
32 authority of section two, article six, chapter twenty-two, of this
33 code, relating to the division of environmental protection (oil
34 and gas wells and other wells, 35 CSR 4), is authorized.

35 (g) The legislative rule filed in the state register on the
36 twenty-third day of August, two thousand, authorized under the

37 authority of section six, article eighteen, chapter twenty-two of
38 this code, relating to the division of environmental protection
39 (hazardous waste management, 33 CSR 20), is authorized.

40 (h) The legislative rule filed in the state register on the
41 twenty-third day of August, two thousand, authorized under the
42 authority of section six, article eighteen, chapter twenty-two, of
43 this code, relating to the division of environmental protection
44 (underground storage tanks, 33 CSR 30), is authorized.

45 (i) The legislative rule filed in the state register on the first
46 day of September, two thousand, authorized under the authority
47 of section four, article five, chapter twenty-two, of this code,
48 modified by the division of environmental protection to meet
49 the objections of the legislative rule-making review committee
50 and refiled in the state register on the thirteenth day of Decem-
51 ber, two thousand, relating to the division of environmental
52 protection (NOx budget trading program as a means of control
53 and reduction of nitrogen oxides, 45 CSR 1), is authorized.

54 (j) The legislative rule filed in the state register on the first
55 day of September, two thousand, authorized under the authority
56 of section four, article five, chapter twenty-two of this code,
57 modified by the division of environmental protection to meet
58 the objections of the legislative rule-making review committee
59 and refiled in the state register on the eighteenth day of January,
60 two thousand one, relating to the division of environmental
61 protection (to prevent and control air pollution from combus-
62 tion of refuse, 45 CSR 6), is authorized.

63 (k) The legislative rule filed in the state register on the
64 thirty-first day of August two thousand, authorized under the
65 authority of section four, article five, chapter twenty-two of this
66 code, modified by the division of environmental protection to
67 meet the objections of the legislative rule-making review
68 committee and refiled in the state register on the fourteenth day

69 of December, two thousand, relating to the division of environ-
70 mental protection (to prevent and control air pollution from
71 hazardous waste treatment, storage or disposal facilities, 45
72 CSR 25), is authorized.

73 (l) The legislative rule filed in the state register on the
74 fourth day of May, two thousand, authorized under the authority
75 of section four, article thirteen, chapter twenty, of this code,
76 modified by the division of environmental protection to meet
77 the objections of the legislative rule-making review committee
78 and refiled in the state register on the twentieth day of July, two
79 thousand, relating to the division of environmental protection
80 (awarding of the West Virginia stream partners program grant,
81 60 CSR 4), is authorized.

82 (m) The legislative rule filed in the state register on the
83 twenty-ninth day of August, two thousand, authorized under the
84 authority of section three, article three-a, chapter twenty-two of
85 this code, modified by the division of environmental protection
86 to meet the objections of the legislative rule-making review
87 committee and refiled in the state register on the twentieth day
88 of February, two thousand one, relating to the division of
89 environmental protection (surface mining blasting, 199 CSR 1),
90 is authorized with the following amendments:

91 On page 2, subsection 2.8, after the word "outermost" by
92 inserting the word "loaded";

93 On page 6, subdivision 3.2.c, by striking out the proposed
94 sentence at the end of the paragraph and inserting in lieu thereof
95 a new sentence to read as follows: For all surface coal extrac-
96 tion operations that will include production blasting, the
97 monitoring procedure shall include provisions for monitoring
98 ground vibrations and air blast.;

99 On pages 8 and 9, subdivision 3.6.a, by striking out the
100 fourth and fifth sentences in their entirety;

101 On page 11, subdivision 3.6.i, by inserting the words “A
102 copy of” at the beginning of the last sentence of the subdivi-
103 sion;

104 On page 13, subdivision 3.8.a, at the end of subdivision, by
105 changing the period to a colon and adding a proviso to read as
106 follows: *Provided*, That once all required preblast surveys have
107 been accepted by the Office of Explosives and Blasting,
108 blasting may commence sooner than 15 days of submittal.;

109 On page 14, subdivision 3.10.a, by striking out the subdivi-
110 sion in its entirety and inserting in lieu thereof a new subdivi-
111 sion 3.10.a to read as follows: The office shall review each
112 preblast survey as to form and completeness only, and notify
113 the operator of any deficiencies. The operator or his designee
114 shall correct deficiencies within 30 days from receipt of notice
115 of deficiencies.;

116 On page 15, subsection 4.1.a., following the words ‘sign the
117 blasting log.’ by inserting the following sentence: ‘Nothing in
118 this rule modifies statutory regulatory authority of the state fire
119 marshal and the state fire commission to regulate blasting and
120 explosives’.;

121 And,

122 On page 25, subsection 6.1 by striking out the words “West
123 Virginia Mining and Reclamation Association” and by inserting
124 the word “Inc.” after the words “West Virginia Coal Associa-
125 tion.”

126 (n) The legislative rule filed in the state register on the
127 thirtieth day of August, two thousand, authorized under the
128 authority of section four, article three, chapter twenty-two of
129 this code, modified by the division of environmental protection
130 to meet the objections of the legislative rule-making review
131 committee and refiled in the state register on the twenty-sixth

132 day of October, two thousand, relating to the division of
133 environmental protection (surface mining and reclamation rule,
134 38 CSR 2), is authorized.

135 On page 34 of the rule, subdivision 3.22.e, by striking out
136 the last sentence and inserting in lieu thereof the following:
137 Material damage to the hydrologic balance outside the permit
138 areas means any long term or permanent change in the
139 hydrologic balance caused by surface mining operations which
140 has a significant adverse impact on the capability of the
141 affected water resources to support existing conditions and
142 uses.;

143 On page 104 of the rule, paragraph 11.3.a.3, after the word
144 "surety" by inserting the words "received after July 1, 2001";

145 On page 135 of the rule, subdivision 12.2.e. after the word
146 "standards" by striking out the words "Measures taken during
147 mining to prevent the formation of waters not in compliance
148 with effluent limitations or water quality standards shall not be
149 considered passive treatment" and inserting in lieu thereof the
150 following: "Measures approved in the permit and taken during
151 mining and reclamation to prevent the formation of acid
152 drainage shall not be considered passive treatment:";

153 On page 206 of the rule, subsection 24.4 at the end of the
154 subsection, after the word "rule", by inserting the words
155 "*Provided*, That there is no evidence of a premature vegetation
156 release."

157 (o) The legislative rule filed in the state register on the
158 twenty-ninth day of August, two thousand, authorized under the
159 authority of section four, article four, chapter twenty-two, of
160 this code, modified by the division of environmental protection
161 to meet the objections of the legislative rule-making review
162 committee and refiled in the state register on the fifteenth day
163 of February, two thousand one, relating to the division of

164 environmental protection (quarrying and reclamation, 38 CSR
165 3), is authorized with the following amendments:

166 “On page 22 of the rule, subsection 8.5., by striking all the
167 language in subsection 8.5 and replacing it with the following
168 language: ‘Backfilling. - - All available spoil material shall be
169 used as necessary to backfill pit areas, to provide positive
170 drainage and to achieve the reclamation as provided for in the
171 approved reclamation plan. Excess spoil shall be placed in
172 controlled fills or spoil piles in accordance with section 9 of this
173 rule. Spoil material that is approved to be placed in permanent
174 excess spoil disposal areas is not required to used as backfill.’

175 And,

176 On page 35 of the rule, subsection 9.4.c.4, following the
177 words ‘professional engineer’ inserting the following sentence
178 ‘The spoil pile shall be considered dormant and shall not need
179 to be certified during periods of inactivity that exceed ninety
180 (90) days in length.’”

181 (p) The legislative rule filed in the state register on the
182 twenty-third day of August, two thousand, authorized under the
183 authority of section two, article six, chapter twenty-two, of this
184 code, modified by the division of environmental protection to
185 meet the objections of the legislative rule-making review
186 committee and refiled in the state register on the twenty-sixth
187 day of October, two thousand, relating to the division of
188 environmental protection (certification of gas wells, 35 CSR 7),
189 is authorized.

190 (q) The legislative rule filed in the state register on the
191 thirty-first day of August, two thousand, authorized under the
192 authority of section eight, article eleven, chapter twenty, of this
193 code, modified by the division of environmental protection to
194 meet the objections of the legislative rule-making review
195 committee and refiled in the state register on the twenty-third

196 day of February, two thousand one, relating to the division of
197 environmental protection (yard waste composting, 33 CSR 3),
198 is authorized.

199 (r) The legislative rule filed in the state register on the
200 thirty-first day of August, two thousand, authorized under the
201 authority of section five, article fifteen, chapter twenty-two, of
202 this code, modified by the division of environmental protection
203 to meet the objections of the legislative rule-making review
204 committee and refiled in the state register on the fifteenth day
205 of December, two thousand, relating to the division of environ-
206 mental protection (waste tire management, 33 CSR 5), is
207 authorized.

§64-3-2. Environmental quality board.

1 The legislative rule filed in the state register on the first day
2 of September, two thousand, authorized under the authority of
3 section four, article three, chapter twenty-two-b, of this code,
4 relating to the environmental quality board (requirements
5 governing water quality standards, 46 CSR 1), is authorized
6 with the amendment set forth below:

7 On page one by striking out the entire rule and inserting in
8 lieu thereof the following:

9 **§46-1-1. General.**

10 1.1. Scope. — These rules establish requirements gov-
11 erning the discharge or deposit of sewage, industrial wastes and
12 other wastes into the waters of the state and establish water quality
13 standards for the waters of the State standing or flowing over the
14 surface of the State. It is declared to be the public policy of the
15 State of West Virginia to maintain reasonable standards of purity
16 and quality of the water of the State consistent with (1) public
17 health and public enjoyment thereof; (2) the propagation and pro-
18 tection of animal, bird, fish, and other aquatic and plant life; and (3)
19 the expansion of employment opportunities, maintenance and ex-

20 pansion of agriculture and the provision of a permanent foundation
21 for healthy industrial development. (See W. Va. Code §22-11-2.)

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

23 1.3. Filing Date. —

24 1.4. Effective Date. —

25 **§46-1-2. Definitions.**

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

30 2.1. “Ambient Concentration” is that measured value or
31 level of water quality downstream of the proposed or existing activ-
32 ity (discharge point for point source, runoff area for nonpoint
33 source) for any parameter of concern determined through EPA-
34 approved, collection and analytical methods in 40 CFR 136 or other
35 methods accepted by the Chief.

36 2.2. “Ambient Water Quality Conditions” (AWQC) are
37 those physical, chemical, biological and radiological conditions of
38 the receiving waters of the state existing at the time of review of a
39 regulated activity.

40 2.3. “Baseline Water Quality” is that ambient concentra-
41 tion established at the time of an initial antidegradation review un-
42 der rules effective (date) for a stream or stream segment or any
43 other water(s) of the state.

44 2.4. “Board” is the Environmental Quality Board.

45 2.5. “Chief” is the Chief of the Office of Water Resources
46 of the West Virginia Division of Environmental Protection.

47 2.6. “Conventional treatment” is the treatment of water as
48 approved by the West Virginia Bureau for Public Health to assure
49 that the water is safe for human consumption.

50 2.7. "Cumulative" means a pollutant which increases in
51 concentration in an organism by successive additions at different
52 times or in different ways (bio-accumulation).

53 2.8. "Designated uses" are those uses specified in water
54 quality standards for each water body or segment whether or not
55 they are being attained. (See sections 6.2 - 6.6, herein)

56 2.9. "Director" is the Director of the West Virginia Divi-
57 sion of Environmental Protection.

58 2.10. "Dissolved metal" is operationally defined as that
59 portion of metal which passes through a 0.45 micron filter.

60 2.11. "Existing uses" are those uses actually attained in a
61 water body on or after November 28, 1975, whether or not they are
62 included in the water quality standards.

63 2.12. The "Federal Act" means the Clean Water Act (also
64 known as the Federal Water Pollution Control Act) 33 U.S.C. §
65 1251 - 1387.

66 2.13. "High quality waters" are those waters whose quality
67 is equal to or better than the minimum levels necessary to achieve
68 the national water quality goal uses.

69 2.14. "Intermittent streams" are streams which have no
70 flow during sustained periods of no precipitation and which do not
71 support aquatic life whose life history requires residence in flowing
72 waters for a continuous period of at least six (6) months.

73 2.15. "Outstanding national resource waters" are those
74 waters whose unique character, ecological or recreational value or
75 pristine nature constitutes a valuable national or State resource.

76 2.16. "Natural" or "naturally occurring" values or "natural
77 temperature" shall mean for all of the waters of the state:

78 2.16.a. Those water quality values which exist
79 unaffected by — or unaffected as a consequence of — any water
80 use by any person; and

81 2.16.b. Those water quality values which exist
82 unaffected by the discharge, or direct or indirect deposit of, any

83 solid, liquid or gaseous substance from any point source or non-
84 point source.

85 2.17. "Non-point source" shall mean any source other than
86 a point source from which pollutants may reach the waters of the
87 state.

88 2.18. "Parameter of concern" means any parameter for
89 which numeric water quality criteria have been adopted in 46 CSR
90 1 and any other parameter for which numeric criteria are not estab-
91 lished but where the discharge of such parameter has a reasonable
92 potential to either cause or contribute to a violation of the narrative
93 criteria outlined under 46 CSR 1, section 3.

94 2.19. "Persistent" shall mean a pollutant and its transfor-
95 mation products which under natural conditions degrade slowly in
96 an aquatic environment.

97 2.20. "Point source" shall mean any discernible, confined
98 and discrete conveyance, including, but not limited to, any pipe,
99 ditch, channel, tunnel, conduit, well, discrete fissure, container,
100 rolling stock or vessel or other floating craft, from which pollutants
101 are or may be discharged. This term does not include agricultural
102 stormwater discharges and return flows from irrigated agriculture.

103 2.21. "Reasonable less-degrading or non-degrading alter-
104 natives" shall be identified based on case specific information (as
105 outlined in section 4C.4.a. of Appendix F, herein). Generally
106 speaking, less-degrading or non-degrading pollution control alterna-
107 tives shall be considered reasonable where the costs of such alterna-
108 tives are less than 110% of the costs of the pollution control mea-
109 sures associated with the proposed activity.

110 2.22. "Regulated activity" includes 1) any activity that
111 requires a permit or a water quality certification pursuant to state or
112 federal law (e.g., Clean Water Act §402 NPDES permits, Clean
113 Water Act §404 dredge and fill permits, or any activity requiring a
114 Clean Water Act §401 certification), 2) any activity subject to
115 nonpoint source control requirements or regulations, and 3) any
116 activity which is otherwise subject to state requirements and regula-
117 tions developed to protect water quality. The term "proposed ac-
118 tivity" means a proposed activity that is also a regulated activity.

119 2.23. "Representative important species of aquatic life"
120 shall mean those species of aquatic life whose protection and propa-
121 gation will assure the sustained presence of a balanced aquatic com-
122 munity. Such species are representative in the sense that mainte-
123 nance of water quality criteria will assure both the natural comple-
124 tion of the species' life cycles and the overall protection and sus-
125 tained propagation of the balanced aquatic community.

126 2.24. The "State Act" or "State Law" shall mean the West
127 Virginia Water Pollution Control Act, W. Va. Code §22-11-1.

128 2.25. "Total recoverable" refers to the digestion procedure
129 for certain heavy metals as referenced in 40 CFR 136, as amended
130 June 15, 1990, Guidelines Establishing Test Procedures for the
131 Analysis of Pollutants Under the Clean Water Act.

132 2.26. "Trading" means establishing upstream controls for
133 a parameter of concern to compensate for new or increased down-
134 stream sources for the same parameter resulting in improved water
135 quality for the parameter traded. More than one parameter of con-
136 cern may be traded on a given stream. Trading may involve point
137 sources, nonpoint sources or a combination of point and nonpoint
138 sources. Unused permitted capacity cannot be traded.

139 2.27. "Trading Assessment Procedure" means methodolo-
140 gies to be used by the Director to document the basis for any trade
141 allowed in sections 4B, 4C and 4D of Appendix F, herein, are
142 EPA's Total Maximum Daily Load Procedures (40 CFR 130.2(i)),
143 wasteload allocation procedures outlined in EPA's Technical Sup-
144 port Document for Water Quality-based Toxics Control
145 (EPA/505/2-90-001 PB91-127415, March 1991), wasteload alloca-
146 tion methodologies outlined in EPA's Draft Framework for
147 Watershed-Based Trading (EPA/800-R-96-001, May 1996) or other
148 EPA approved wasteload allocation methodologies as long as these
149 methodologies are consistent with the trading provisions of this
150 rule.

151 2.28. "Trout waters" are streams or stream segments
152 which sustain year-round trout populations. Excluded are those
153 streams or stream segments which receive annual stockings of trout
154 but which do not support year-round trout populations.

155 2.29. "Water of special concern" are those waters occur-
156 ring in the categories outlined in section 4.1.c. of the
157 antidegradation policy. This designation provides an intermediate
158 level of antidegradation protection between high quality waters and
159 outstanding national resource waters.

160 2.30 "Water quality criteria" shall mean levels of paramete-
161 rs or stream conditions that are required to be maintained by these
162 regulations. Criteria may be expressed as a constituent concentra-
163 tion, levels, or narrative statement, representing a quality of water
164 that supports a designated use or uses.

165 2.31. "Water quality standards" means the combination of
166 water uses to be protected and the water quality criteria to be main-
167 tained by these rules.

168 2.32. "Wetlands" are those areas that are inundated or
169 saturated by surface or groundwater at a frequency and duration
170 sufficient to support, and that under normal circumstances do sup-
171 port, a prevalence of vegetation typically adapted for life in satu-
172 rated soil conditions. Wetlands generally include swamps, marshes,
173 bogs and similar areas.

174 2.33. "Wet weather streams" are streams that flow only in
175 direct response to precipitation or whose channels are at all times
176 above the water table.

177 **§46-1-3. Conditions Not Allowable In State Waters.**

178 3.1. Certain characteristics of sewage, industrial wastes
179 and other wastes cause pollution and are objectionable in all waters
180 of the state. Therefore, the Environmental Quality Board does
181 hereby proclaim that the following general conditions are not to be
182 allowed in any of the waters of the state.

183 3.2. No sewage, industrial wastes or other wastes present
184 in any of the waters of the state shall cause therein or materially
185 contribute to any of the following conditions thereof:

186 3.2.a. Distinctly visible floating or settleable
187 solids, suspended solids, scum, foam or oily slicks;

188 3.2.b. Deposits or sludge banks on the bottom;

- 189 3.2.c. Odors in the vicinity of the waters;
- 190 3.2.d. Taste or odor that would adversely affect
191 the designated uses of the affected waters;
- 192 3.2.e. Materials in concentrations which are
193 harmful, hazardous or toxic to man, animal or aquatic life;
- 194 3.2.f. Distinctly visible color;
- 195 3.2.g. Concentrations of bacteria which may
196 impair or interfere with the designated uses of the affected waters;
- 197 3.2.h. Requiring an unreasonable degree of treat-
198 ment for the production of potable water by modern water treatment
199 processes as commonly employed; and
- 200 3.2.i. Any other condition, including radiological
201 exposure, which adversely alters the integrity of the waters of the
202 State including wetlands; no significant adverse impact to the chem-
203 ical, physical, hydrologic, or biological components of aquatic eco-
204 systems shall be allowed.

205 **§46-1-4. Antidegradation Policy.**

206 4.1. It is the policy of the State of West Virginia that the
207 waters of the state shall be maintained and protected as follows:

208 4.1.a. Tier 1 Protection. Existing water uses and
209 the level of water quality necessary to protect the existing uses shall
210 be maintained and protected. Existing uses are those uses actually
211 attained in the water body on or after November 28, 1975, whether
212 or not they are included as designated uses within these water qual-
213 ity standards.

214 4.1.b. Tier 2 Protection. The existing high qual-
215 ity waters of the state must be maintained at their existing high
216 quality unless it is determined after satisfaction of the intergovern-
217 mental coordination of the state's continuing planning process and
218 opportunity for public comment and hearing that allowing lower
219 water quality is necessary to accommodate important economic or
220 social development in the area in which the waters are located. If
221 limited degradation is allowed, it shall not result in injury or inter-
222 ference with existing stream water uses or in violation of state or

223 federal water quality criteria that describe the base levels necessary
224 to sustain the national water quality goal uses of protection and
225 propagation of fish, shellfish and wildlife and recreating in and on
226 the water.

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

235 4.1.b.1. High quality waters are those
236 waters meeting the definition at section 2.13 herein and section
237 4E.1. of Appendix F, herein.

238 4.1.b.2. High quality waters may include
239 but are not limited to the following:

240 4.1.b.2.A. Streams designated
241 by the West Virginia Legislature under the West Virginia Natural
242 Stream Preservation Act, pursuant to W. Va. Code §22-13-5; and

243 4.1.b.2.B. Streams listed in
244 West Virginia High Quality Streams, Fifth Edition, prepared by the
245 Wildlife Resources Division, Department of Natural Resources
246 (1986).

247 4.1.b.2.C. Streams or stream
248 segments which receive annual stockings of trout but which do not
249 support year-round trout populations.

250 4.1.c. Tier 2.5 Protection. Waters of special con-
251 cern include all of those waters listed in Appendix F-2 herein. Wa-
252 ters of special concern may include, but are not limited to naturally
253 reproducing trout streams, federally designated rivers under the
254 "Wild and Scenic Rivers Act," 16 U. S.C. §§ 1271 et seq., waters in
255 state parks and forests, waters in National parks and forests, waters
256 designated under the "National Parks and Recreation Act of 1978,"
257 and waters with unique or exceptional aesthetic, ecological, or rec-

258 reational value. Waters may be nominated for inclusion in this
259 category by any interested party or by the Board on its own initia-
260 tive.

261 4.1.d. Tier 3 Protection. In all cases, waters
262 which constitute an outstanding national resource shall be main-
263 tained and protected and improved where necessary. Outstanding
264 national resource waters include, but are not limited to, all streams
265 and rivers within the boundaries of Wilderness Areas designated by
266 The Wilderness Act (16 U.S.C. §1131 et seq.) within the State.

267 Additional waters may be nominated for inclusion in that
268 category by any interested party or by the Board on its own initia-
269 tive. To designate a nominated water as an outstanding national
270 resource water, the Board shall follow the public notice and hearing
271 provisions as provided in 46 C.S.R. 6.

272 4.1.e. All applicable requirements of section
273 316(a) of the Federal Act shall apply to modifications of the tem-
274 perature water quality criteria provided for in these rules.

275 **§46-1-5. Mixing Zones.**

276 5.1. In the permit review and planning process or upon the
277 request of a permit applicant or permittee, the Chief may establish
278 on a case-by-case basis an appropriate mixing zone.

279 5.2. The following guidelines and conditions are applica-
280 ble to all mixing zones:

281 5.2.a. The Chief will assign, on a case-by-case
282 basis, definable geometric limits for mixing zones for a discharge or
283 a pollutant or pollutants within a discharge. Applicable limits shall
284 include, but may not be limited to, the linear distances from the
285 point of discharge, surface area involvement, volume of receiving
286 water, and shall take into account other nearby mixing zones. Mix-
287 ing zones shall take into account the mixing conditions in the re-
288 ceiving stream (i.e: whether complete or incomplete mixing condi-
289 tions exist). Mixing zones will not be allowed until applicable lim-
290 its are assigned by the Chief in accordance with this section.

291 5.2.b. Concentrations of pollutants which exceed
292 the acute criteria for protection of aquatic life set forth in Appendix
293 E, Table 1 shall not exist at any point within an assigned mixing
294 zone or in the discharge itself unless a zone of initial dilution is
295 assigned. A zone of initial dilution may be assigned on a case-by-
296 case basis at the discretion of the Chief. The zone of initial dilution
297 is the area within the mixing zone where initial dilution of the efflu-
298 ent with the receiving water occurs, and where the concentration of
299 the effluent will be its greatest in the water column. Where a zone
300 of initial dilution is assigned by the Chief, the size of the zone shall
301 be determined using one of the four alternatives outlined in section
302 4.3.3 of US EPA's Technical Support Document for Water Quality-
303 based Toxics Control (EPA/505/2-90-001 PB91-127415, March
304 1991). Concentrations of pollutants shall not exceed the acute crite-
305 ria at the edge of the assigned zone of initial dilution. Chronic cri-
306 teria for the protection of aquatic life may be exceeded within the
307 mixing zone but shall be met at the edge of the assigned mixing
308 zone.

309 5.2.c. Concentrations of pollutants which exceed
310 the criteria for the protection of human health set forth in Appendix
311 E, Table 1 shall not be allowed at any point unless a mixing zone
312 has been assigned by the Chief after consultation with the Commis-
313 sioner of the West Virginia Bureau of for Public Health. Human
314 health criteria may be exceeded within an assigned mixing zone, but
315 shall be met at the edge of the assigned mixing zone. Mixing zones
316 for human health criteria shall be sized to prevent significant human
317 health risks and shall be developed using reasonable assumptions
318 about exposure pathways. In assessing the potential human health
319 risks of establishing a mixing zone upstream from a drinking water
320 intake, the Chief shall consider the cumulative effects of multiple
321 discharges and mixing zones on the drinking water intake. No mix-
322 ing zone for human health criteria shall be established on a stream
323 which has a seven (7) day, ten (10) year return frequency of 5 cfs or
324 less.

325 5.2.d. Mixing zones, including zones of initial
326 dilution, shall not interfere with fish spawning or nursery areas or
327 fish migration routes; shall not overlap public water supply intakes
328 or bathing areas; cause lethality to or preclude the free passage of
329 fish or other aquatic life; nor harm any threatened or endangered

330 species, as listed in the Federal Endangered Species Act, 15 U.S.C.
331 §1531 et seq.

332 5.2.e. The mixing zone shall not exceed one-third
333 (1/3) of the width of the receiving stream, and in no case shall the
334 mixing zone exceed one-half (2) of the cross-sectional area of the
335 receiving stream.

336 5.2.f. In lakes and other surface impoundments,
337 the volume of a mixing zone shall not affect in excess of ten (10)
338 percent of the volume of that portion of the receiving waters avail-
339 able for mixing.

340 5.2.g. A mixing zone shall be limited to an area
341 or volume which will not adversely alter the existing or designated
342 uses of the receiving water, nor be so large as to adversely affect the
343 integrity of the water body.

344 5.2.h. Mixing zones shall not:

345 5.2.h.1. Be used for, or considered as, a
346 substitute for technology-based requirements of the Act and other
347 applicable state and federal laws.

348 5.2.h.2. Extend downstream at any time
349 a distance more than five times the width of the receiving water-
350 course at the point of discharge.

351 5.2.h.3. Cause or contribute to any of
352 the conditions prohibited in section 3, herein.

353 5.2.h.4. Be granted where instream
354 waste concentration of a discharge is greater than 80%.

355 5.2.h.5. Overlap one another.

356 5.2.h.6. Overlap any 2 mile zone de-
357 scribed in section 7.2.a.2 herein.

358 5.2.i. In the case of thermal discharges, a success-
359 ful demonstration conducted under section 316(a) of the Act shall
360 constitute compliance with all provisions of this section.

361 5.2.j. The Chief may waive the requirements of
362 subsections 5.2.e and 5.2.h.2 above if a discharger provides an ac-
363 ceptable demonstration of:

364 5.2.j.1. Information defining the actual
365 boundaries of the mixing zone in question; and

366 5.2.j.2. Information and data proving no
367 violation of subsections 5.2.d and 5.2.g above by the mixing zone in
368 question.

369 5.2.k. Upon implementation of a mixing zone in
370 a permit, the permittee shall provide documentation that demon-
371 strates to the satisfaction of the Chief that the mixing zone is in
372 compliance with the provisions outlined in subsections 5.2.b, 5.2.c,
373 5.2.e, and 5.2.h.2, herein.

374 5.2.l. In order to facilitate a determination or
375 assessment of a mixing zone pursuant to this section, the Chief may
376 require a permit applicant or permittee to submit such information
377 as deemed necessary.

378 **§46-1-6. Water Use Categories.**

379 6.1. These rules establish general Water Use Categories
380 and Water Quality Standards for the waters of the State. Unless
381 otherwise designated by these rules, at a minimum all waters of the
382 State are designated for the Propagation and Maintenance of Fish
383 and Other Aquatic Life (Category B) and for Water Contact Recre-
384 ation (Category C) consistent with Federal Act goals. Incidental
385 utilization for whatever purpose may or may not constitute a justifi-
386 cation for assignment of a water use category to a particular stream
387 segment.

388 6.1.a. Waste assimilation and transport are not
389 recognized as designated uses. The classification of the waters must
390 take into consideration the use and value of water for public water
391 supplies, protection and propagation of fish, shellfish and wildlife,
392 recreation in and on the water, agricultural, industrial and other
393 purposes including navigation.

394 Subcategories of a use may be adopted and appropriate
395 criteria set to reflect varying needs of such subcategories of

396 uses, for example to differentiate between trout water and
397 other waters.

398 6.1.b. At a minimum, uses are deemed attainable
399 if they can be achieved by the imposition of effluent limits required
400 under section 301(b) and section 306 of the Federal Act and use of
401 cost-effective and reasonable best management practices for
402 non-point source control. Seasonal uses may be adopted as an alter-
403 native to reclassifying a water body or segment thereof to uses re-
404 quiring less stringent water quality criteria. If seasonal uses are
405 adopted, water quality criteria will be adjusted to reflect the sea-
406 sonal uses; however, such criteria shall not preclude the attainment
407 and maintenance of a more protective use in another season. A
408 designated use which is not an existing use may be removed, or
409 subcategories of a use may be established if it can be demonstrated
410 that attaining the designated use is not feasible because:

411 6.1.b.1. Application of effluent limita-
412 tions for existing sources more stringent than those required pursu-
413 ant to section 301 (b) and section 306 of the Federal Act in order to
414 attain the existing designated use would result in substantial and
415 widespread adverse economic and social impact; or

416 6.1.b.2. Naturally-occurring pollutant
417 concentrations prevent the attainment of the use; or

418 6.1.b.3. Natural, ephemeral, intermittent
419 or low flow conditions of water levels prevent the attainment of the
420 use, unless these conditions may be compensated for by the dis-
421 charge of sufficient volume of effluent discharges to enable uses to
422 be met; or

423 6.1.b.4. Human-caused conditions or
424 sources of pollution prevent the attainment of the use and cannot be
425 remedied or would cause more environmental damage to correct
426 than to leave in place; or

427 6.1.b.5. Dams, diversions or other types
428 of hydrologic modifications preclude the attainment of the use, and
429 it is not feasible to restore the water body to its original condition or
430 to operate such modification in a way that would result in the attain-
431 ment of the use; or

467 This category includes:

468 6.3.a. Category B1 — Warm water fishery
469 streams. — Streams or stream segments which contain populations
470 composed of all warm water aquatic life.

471 6.3.b. Category B2 — Trout Waters. — As
472 defined in section 2.28, herein (See Appendix A for a representative
473 list.)

474 6.3.c. Category B4 — Wetlands. — As de-
475 fined in section 2.32, herein; certain numeric stream criteria may
476 not be appropriate for application to wetlands (see Appendix E,
477 Table 1).

478 6.4. Category C — Water contact recreation. — This
479 category includes swimming, fishing, water skiing and certain types
480 of pleasure boating such as sailing in very small craft and outboard
481 motor boats. (See Appendix D for a representative list of category
482 C waters.)

483 6.5. Category D — Agriculture and wildlife uses.

484 6.5.a. Category D1 — Irrigation. — This
485 category includes all stream segments used for irrigation.

486 6.5.b. Category D2 — Livestock watering. —
487 This category includes all stream segments used for livestock water-
488 ing.

489 6.5.c. Category D3 — Wildlife. — This cate-
490 gory includes all stream segments and wetlands used by wildlife.

491 6.6. Category E — Water supply industrial, water trans-
492 port, cooling and power. — This category includes cooling water,
493 industrial water supply, power production, commercial and pleasure
494 vessel activity, except those small craft included in Category C.

495 6.6.a. Category E1 — Water Transport. —
496 This category includes all stream segments modified for water
497 transport and having permanently maintained navigation aides.

498 6.6.b. Category E2 — Cooling Water. — This
499 category includes all stream segments having one (1) or more users
500 for industrial cooling.

501 6.6.c. Category E3 — Power production. —
502 This category includes all stream segments extending from a point
503 500 feet upstream from the intake to a point one half (2) mile be-
504 low the wastewater discharge point. (See Appendix C for represen-
505 tative list.)

506 6.6.d. Category E4 — Industrial. — This cate-
507 gory is used to describe all stream segments with one (1) or more
508 industrial users. It does not include water for cooling.

509 **§46-1-7. West Virginia Waters.**

510 7.1. Major River Basins and their Alphanumeric System.
511 All streams and their tributaries in West Virginia shall be individu-
512 ally identified using an alphanumeric system as identified in the
513 “Key to West Virginia Stream Systems and Major Tributaries”
514 (1956) as published by the Conservation Commission of West Vir-
515 ginia and revised by the West Virginia Department of Natural Re-
516 sources, Division of Wildlife (1985).

517 7.1.a. J - James River Basin. All tributaries to
518 the West Virginia - Virginia State line.

519 7.1.b. P - Potomac River Basin. All tributaries of
520 the main stem of the Potomac River to the West Virginia - Mary-
521 land - Virginia State line to the confluence of the North Branch
522 and the South Branch of the Potomac River and all tributaries aris-
523 ing in West Virginia excluding the major tributaries hereinafter
524 designated:

525 7.1.b.1. S - Shenandoah River and all
526 its tributaries arising in West Virginia to the West Virginia - Vir-
527 ginia State line.

528 7.1.b.2. PC - Cacapon River and all its
529 tributaries.

530 7.1.b.3. PSB - South Branch and all its
531 tributaries.

562 7.1.e.2. K - Kanawha River Zone 1.
563 The main stem of the Kanawha River from mile point 0, at its con-
564 fluence with the Ohio River, to mile point 72 near Diamond, West
565 Virginia.

566 7.1.e.3. K - Kanawha River Zone 2.
567 The main stem of the Kanawha River from mile point 72 near Dia-
568 mond, West Virginia and all its tributaries from mile point 0 to the
569 headwaters excluding the following major tributaries which are
570 designated as follows:

571 7.1.e.3.A. KP - Pocatalico
572 River and all its tributaries.

573 7.1.e.3.B. KC - Coal River and
574 all its tributaries.

575 7.1.e.3.C. KE - Elk River and
576 all its tributaries.

577 7.1.e.3.D. KG - Gauley River.
578 The Gauley River and all its tributaries excluding the following
579 major tributaries which are designated as follows:

580 7.1.e.3.D.1. KG-19 -
581 Meadow River and all its tributaries.

582 7.1.e.3.D.2. KG-34 -
583 Cherry River and all its tributaries.

584 7.1.e.3.D.3. KGC -
585 Cranberry River and all its tributaries.

586 7.1.e.3.D.4. KGW - Wil-
587 liams River and all its tributaries.

588 7.1.e.3.E. KN - New River.
589 The New River from its confluence with the Gauley River to the
590 Virginia - West Virginia State line and all tributaries excluding the
591 following major tributaries which are designated as follows:

592 7.1.e.3.E.1. KNG -
593 Greenbrier River and all its tributaries.

594 7.1.e.3.E.2. KNB -
595 Bluestone River and all its tributaries.

596

597 7.1.e.3.E.3. KN-60 -
598 East River and all its tributaries.

599 7.1.e.3.E.4. K(L)-81-
600 (1) - Bluestone Lake.

601 7.1.e.4. OG - Guyandotte River. The
602 Guyandotte River and all its tributaries excluding the following
603 major tributary which is designated as follows:

604 7.1.e.4.1. OGM - Mud River
605 and all its tributaries.

606 7.1.e.5. BS - Big Sandy River. The Big
607 Sandy River to the Kentucky - Virginia - West Virginia State lines
608 and all its tributaries arising in West Virginia excluding the follow-
609 ing major tributary which is designated as follows:

610 7.1.e.5.1 BST - Tug
611 Fork and all its tributaries.

612 7.2. Applicability of Water Quality Standards. The fol-
613 lowing shall apply at all times unless a specific exception is granted
614 in this section:

615 7.2.a. Water Use Categories as described in sec-
616 tion 6, herein.

617 7.2.a.1. Based on meeting those Section
618 6 definitions, tributaries or stream segments may be classified for
619 one or more Water Use Categories. When more than one use exists,
620 they shall be protected by criteria for the use category requiring the
621 most stringent protection.

622 7.2.a.2. Each segment extending up-
623 stream from the intake of a water supply public (Water Use Cate-
624 gory A), for a distance of one half (2) mile or to the headwater,
625 must be protected by prohibiting the discharge of any pollutants in
626 excess of the concentrations designated for this Water Use Category

627 in section 8, herein. In addition, within that one half (2) mile zone,
628 the Chief may establish for any discharge, effluent limitations for
629 the protection of human health that require additional removal of
630 pollutants than would otherwise be provided by this rule. (If a wa-
631 tershed is not significantly larger than this zone above the intake,
632 the water supply section may include the entire upstream watershed
633 to its headwaters.) Until June 30, 2003, the one-half mile zone
634 described in this section shall not apply to the Ohio River main
635 channel (between Brown's Island and the left descending bank)
636 between river mile points 61.0 and 63.5.

637 7.2.b. In the absence of any special application or
638 contrary provision, water quality standards shall apply at all times
639 when flows are equal to or greater than the minimum mean seven
640 (7) consecutive day drought flow with a ten (10) year return fre-
641 quency (7Q10). NOTE: With the exception of section 7.2.c.5
642 listed herein exceptions do not apply to trout waters nor to the re-
643 quirements of section 3, herein.

644 7.2.c. Exceptions: Numeric water quality stan-
645 dards shall not apply: (See section 7.2.d, herein, for site-specific
646 revisions)

647 7.2.c.1. When the flow is less than
648 7Q10;

649 7.2.c.2. In wet weather streams (or inter-
650 mittent streams, when they are dry or have no measurable flow):
651 Provided, That the existing and designated uses of downstream
652 waters are not adversely affected;

653 7.2.c.3. In any assigned zone of initial
654 dilution of any mixing zone where a zone of initial dilution is re-
655 quired by section 5.2.b herein, or in any assigned mixing zone for
656 human health criteria or aquatic life criteria for which a zone of
657 initial dilution is not assigned; In zones of initial dilution and cer-
658 tain mixing zones: Provided, That all requirements described in
659 section 5 herein shall apply to all zones of initial dilution and all
660 mixing zones;

661 7.2.c.4. Where, on the basis of natural
662 conditions, the Board has established a site-specific aquatic life
663 water quality criterion that modifies a water quality criterion set out

702 7.2.c.4.C. Water quality data for
703 the stream or stream segment. Where adequate data are unavail-
704 able, additional studies may be required by the Board;

705 7.2.c.4.D. General land uses
706 (e.g. mining, agricultural, recreation, residential, commercial, indus-
707 trial, etc.) as well as specific land uses adjacent to the waters for the
708 affected segment or stream;

709 7.2.c.4.E. The existing and des-
710 igned uses of the receiving waters into which the segment in ques-
711 tion discharges and the location where those downstream uses begin
712 to occur;

713 7.2.c.4.F. General physical
714 characteristics of the stream segment, including, but not limited to
715 width, depth, bottom composition and slope;

716 7.2.c.4.G. Conclusive informa-
717 tion and data of the source of the natural condition that causes the
718 stream to exceed the water quality standard for the criterion at issue.

719 7.2.c.4.H. The average flow rate
720 in the segment and the amount of flow at a designated control point
721 and a statement regarding whether the flow of the stream is ephemer-
722 al, intermittent or perennial;

723 7.2.c.4.I. An assessment of
724 aquatic life in the stream or stream segment in question and in the
725 adjacent upstream and downstream segments; and

726 7.2.c.4.J. Any additional infor-
727 mation or data that the Board deems necessary to make a decision
728 on the application.

729 7.2.c.5. For the upper Blackwater River
730 from the mouth of Yellow Creek to a point 5.1 miles upstream,
731 when flow is less than 7Q10. Naturally occurring values for Dis-
732 solved Oxygen as established by data collected by the dischargers
733 within this reach and reviewed by the Board and Division of Envi-
734 ronmental Protection shall be the applicable criteria.

735 7.2.d. Site-specific applicability of water use
736 categories and water quality criteria - State-wide water quality
737 standards shall apply except where site-specific numeric criteria,
738 variances or use removals have been approved following applica-
739 tion and hearing, as provided in 46 C.S.R. 6. (See section 8.3 and
740 section 8.4, herein) The following are approved site-specific crite-
741 ria, variances and use reclassifications:

742 7.2.d.1. James River - (Reserved)

743 7.2.d.2. Potomac River

744 7.2.d.2.1. Except that a site-
745 specific numeric criterion for aluminum, not to exceed 500 ug/l,
746 shall apply to the section of Opequon Creek from Turkey Run to the
747 Potomac River.

748 7.2.d.3. Shenandoah River - (Reserved)

749 7.2.d.4. Cacapon River - (Reserved)

750 7.2.d.5. South Branch - (Reserved)

751 7.2.d.6. North Branch

752 7.2.d.6.1 Except that the Stony
753 River downstream from the limit of the thermal mixing zone (as
754 established by Board Order of 11/20/75) for the Mount Storm Lake
755 wastewater treatment facility to its confluence with the North
756 Branch of the Potomac River is exempt from the 5°F above natural
757 temperature rise; however, the maximum temperature outside the
758 mixing zone shall not exceed 87°F at any time during the months of
759 May through November and not exceed 73°F at any time during the
760 months of December through April. This exception shall apply
761 until the successful completion of a study conducted pursuant to
762 section 316(a) of the Federal Act or December 31, 1998, whichever
763 comes first.

764 7.2.d.7. Monongahela River

765 7.2.d.7.1. Except that flow in
766 the main stem of the Monongahela River, as regulated by the Tygart
767 Reservoir, operated by the U. S. Army Corps of Engineers, is based
768 on a minimum flow of 345 cfs at Lock and Dam No. 8, river mile

769 point 90.8. This exception does not apply to tributaries of the
770 Monongahela River.

771 7.2.d.8. Cheat River

772 7.2.d.8.1. Except that in the
773 unnamed tributary of Daugherty Run, approximately one mile up-
774 stream of Daugherty Run's confluence with the Cheat River, a site-
775 specific numeric criterion for iron of 3.5 mg/l shall apply and the
776 following frequency and duration requirements shall apply to the
777 chronic numeric criterion for selenium (5ug/l): the four-day average
778 concentration shall not be exceeded more than three times every
779 three years (36 months), on average. Further, the following site-
780 specific numeric criteria shall apply to Fly Ash Run of Daugherty
781 Run: acute numeric criterion for aluminum: 888.5 ug/l and manga-
782 nese: 5 mg/l.

783 7.2.d.9. Blackwater River - The Black-
784 water River below Davis, West Virginia shall be classified as a trout
785 water, Category B2.

786 7.2.d.10. West Fork River - (Reserved)

787 7.2.d.11. Tygart River - (Reserved)

788 7.2.d.12. Buckhannon River - (Re-
789 served)

790 7.2.d.13. Middle Fork River - (Re-
791 served)

792 7.2.d.14. Youghiogheny River

793 7.2.d.14.1 Water Use Catego-
794 ries A and E are excluded from the tributaries of the Youghiogheny
795 River in West Virginia which flow into Maryland.

796 7.2.d.15. Ohio River Main Stem - (Re-
797 served)

798 7.2.d.16. Ohio River Tributaries.

799 7.2.d.16.1. Except that site-
800 specific numeric criteria shall apply to the stretch of Conners Run

801 (0-77-A), a tributary of Fish Creek, from its mouth to the discharge
802 from Conner Run impoundment, which shall not have the Water
803 Use Category A and may contain selenium not to exceed 62 ug/l;
804 and iron not to exceed 3.5 mg/l as a monthly average and 7 mg/l as
805 a daily maximum.

806 7.2.d.16.2. Except that a
807 socio-economic variance shall apply to that segment of Harmon
808 Creek (0-97) from its confluence with the Ohio River to a point 2.2
809 miles upstream, which shall not have water use Category A desig-
810 nation, and which shall have the following instream criteria: Lead
811 14 ug/l, Daily Maximum, Zinc 181 ug/l, Daily Maximum, Tempera-
812 ture 100 degree F (monitored per Footnote 12 of the permit); Iron
813 4.0 mg/l, Monthly Average and 8.0 mg/l, Daily Maximum (moni-
814 tored per Footnote 12 of the permit). Provided, however, that the
815 criteria for Lead, Zinc, Temperature and Iron shall not apply, and
816 instead the state-wide criteria for these parameters shall apply, un-
817 less: Weirton Steel Corporation (1) submits to the Office of Water
818 Resources on or before January 31, 2001 a report setting forth the
819 water quality of the discharge from Outlet 004 for these parameters
820 during calendar year 2000; (2) offers further proposals for any ap-
821 propriate reductions in the above excepted levels; (3) provides any
822 appropriate additional engineering analysis of potential alternatives
823 for reducing further the concentrations of said parameters in the
824 discharge toward achieving statewide criteria; and (4) continues to
825 submit to the Office of Water Resources on a semi-annual basis,
826 summary reports on the water quality of the discharge from Outlet
827 004 and the efforts made by Weirton Steel Corporation during the
828 prior six (6) months to improve the quality of said discharge. Addi-
829 tionally Weirton Steel must determine the water quality of Harmon
830 Creek both immediately upstream of and below the discharge of
831 outlet 004 at the Con Rail Bridge by sampling for Flow, pH, Total
832 and Dissolved Lead, Total and Dissolved Zinc, Iron, Fluoride, Tem-
833 perature, Turbidity, Oil and Grease and Hardness on at least a
834 monthly basis and submit the results to the Office of Water Re-
835 sources with the semi-annual report. These exceptions shall be in
836 effect until action by the Environmental Quality Board to revise
837 such exceptions or until June 29, 2004, whichever comes first.

838 7.2.d.17. Little Kanawha River - (Re-
839 served)

840 7.2.d.18. Hughes River - (Reserved)

841 7.2.d.19. Kanawha River Zone 1 - Main
842 Stem

843 7.2.d.19.1 For the Kanawha
844 River main stem, Zone 1, Water Use Category A shall not apply;
845 and

846 7.2.d.19.2. The minimum flow
847 shall be 1,960 cfs at the Charleston gauge.

848 7.2.d.20. Kanawha River Zone 2 and
849 Tributaries.

850 7.2.d.20.1. For the main stem
851 of the Kanawha River only, the minimum flow shall be 1,896 cfs at
852 mile point 72.

853 7.2.d.20.2. Except the stretch
854 between the mouth of Little Scary Creek (K-31) and the Little Scary
855 impoundment shall not have Water Use Category A. The following
856 site-specific numeric criteria shall apply to that section: selenium
857 not to exceed 62 ug/l and copper not to exceed 105 ug/l as a daily
858 maximum nor 49 ug/l as a 4-day average.

859 7.2.d.20.3. Except for Simmons
860 Creek (K-54) from its mouth to a point 1200 feet upstream to which
861 the following site-specific numeric criteria shall apply: a maximum
862 daily temperature not to exceed 38°C (100°F) nor a monthly
863 average temperature to exceed 34°C. This exception shall apply
864 until the successful completion of a study conducted pursuant to
865 section 316(a) of the Federal Act or May 30, 1998, whichever
866 comes first.

867 7.2.d.21. Pocatalico River - (Reserved)

868 7.2.d.22. Coal River - (Reserved)

869 7.2.d.23. Elk River - (Reserved)

870 7.2.d.24. Gauley River - (Reserved)

871 7.2.d.25. Meadow River - (Reserved)

872 7.2.d.26. Cherry River - (Reserved)

- 873 7.2.d.27. Cranberry River - (Reserved)
874 7.2.d.28. Williams River - (Reserved)
875 7.2.d.29. New River - (Reserved)
876 7.2.d.30. Greenbrier River - (Reserved)
877 7.2.d.31. Bluestone River - (Reserved)
878 7.2.d.32. Bluestone Lake
879 7.2.d.33. East River - (Reserved)
880 7.2.d.34. Guyandotte River - (Reserved)
881 7.2.d.35. Mud River - (Reserved)
882 7.2.d.36. Big Sandy River - (Reserved)
883 7.2.d.37. Tug Fork River - (Reserved)

884 **§46-1-8. Specific Water Quality Criteria.**

885 8.1. Charts of specific water quality criteria are included
886 in Appendix E, Table 1.

887 8.1.a. Specific state (i.e. total, total recoverable,
888 dissolved, valence, etc.) of any parameter to be analyzed shall fol-
889 low 40 CFR 136, Guidelines Establishing Test Procedures for Anal-
890 ysis of Pollutants Under the Clean Water Act, as amended, June 15,
891 1990. (See also 47 C.S.R. 10, section 7.3 - National Pollutant Dis-
892 charge Elimination System (NPDES) Program.)

893 8.1.b. Compliance with aquatic life water quality
894 criteria expressed as dissolved metal shall be determined based on
895 dissolved metals concentrations.

896 8.1.b.1. The aquatic life criteria for all
897 metals listed in Appendix E, Table 2 shall be converted to a dis-
898 solved concentration by multiplying each numerical value or crite-
899 rion equation from Appendix E, Table 1 by the appropriate conver-
900 sion factor (CF) from Appendix E, Table 2.

901 8.1.b.2. Permit limits based on dissolved
902 metal water quality criteria shall be prepared in accordance with the
903 U.S. EPA document "The Metals Translator: Guidance For Calcu-

904 lating A Total Recoverable Permit Limit From A Dissolved Crite-
905 rion, EPA 823-B-96-007 June 1996.

906 8.1.b.3. NPDES permit applicants may
907 petition the Office of Water Resources of the Division of Environ-
908 mental Protection (OWR) to develop a site-specific translator con-
909 sistent with the provisions in this section. The OWR may, on a
910 case-by-case basis require an applicant applying for a translator to
911 conduct appropriate sediment monitoring through SEM/AVS ratio,
912 bioassay or other approved methods to evaluate effluent limits that
913 prevent toxicity to aquatic life.

914 8.1.c. An "X" or numerical value in the use col-
915 umns of Appendix E, Table 1 shall represent the applicable criteria.

916 8.1.d. Charts of water quality criteria in Appen-
917 dix E, Table 1 shall be applied in accordance with major stream and
918 use applications, sections 6 and 7, herein.

919 8.2. Criteria for Toxicants

920 8.2.a. Toxicants which are carcinogenic have
921 human health criteria (Water Use Categories A and C) based upon
922 an estimated risk level of one additional cancer case per one mil-
923 lion persons (10^{-6}) and are indicated in Appendix E, Table 1 with
924 an endnote ^(b).

925 8.2.b. A final determination on the critical design flow for
926 carcinogens is not made in this rule, in order to permit further re-
927 view and study of that issue. Following the conclusion of such
928 review and study, the Legislature may again take up the authoriza-
929 tion of this rule for purposes of addressing the critical design flow
930 for carcinogens: Provided, That until such time as the review and
931 study of the issue is concluded or until such time as the Legislature
932 may again take up the authorization of this rule, the regulatory re-
933 quirements for determining effluent limits for carcinogens shall
934 remain as they were on the date this rule was proposed.

935 8.3. Variances from Specific Water Quality Criteria. A
936 variance from numeric criteria may be granted to a discharger if it
937 can be demonstrated that the conditions outlined in subsections
938 6.1.b.A - F, herein, limit the attainment of one or more specific
939 water quality criteria. Variances shall apply only to the discharger

940 to whom they are granted and shall be reviewed by the Board at
941 least every three years. In granting a variance, the requirements for
942 revision of water quality standards in 46 CSR 6 shall be followed.

943 8.4. Site-specific numeric criteria. The Board may estab-
944 lish numeric criteria different from those set forth in Appendix E,
945 Table 1 for a stream or stream segment upon a demonstration that
946 existing numeric criteria are either over-protective or under-protective
947 of the aquatic life residing in the stream or stream segment. A
948 site-specific numeric criterion will be established only where the
949 numeric criterion will be fully protective of the aquatic life and the
950 existing and designated uses in the stream or stream segment. The
951 site-specific numeric criterion may be established by conducting a
952 Water Effect Ratio study pursuant to the procedures outlined in US
953 EPA's "Interim Guidance on the Determination and Use of Water-
954 Effect Ratios for Metals" (February 1994); other methods may be
955 used with prior approval by the Board. In adopting site-specific
956 numeric criteria, the requirements for revision of water quality stan-
957 dards set forth in 46 CSR 6 shall be followed.

958 **§46-1-9. Establishment Of Safe Concentration Values.**

959 When a specific water quality standard has not been estab-
960 lished by these rules and there is a discharge or proposed discharge
961 into waters of the State, the use of which has been designated a
962 Category B1, B2, B3 or B4, such discharge may be regulated by the
963 Chief where necessary to protect State waters through establishment
964 of a safe concentration value as follows:

965 9.1. Establishment of a safe concentration value shall be
966 based upon data obtained from relevant aquatic field studies, stan-
967 dard bioassay test data which exists in substantial available scien-
968 tific literature, or data obtained from specific tests utilizing one (1)
969 or more representative important species of aquatic life designated
970 on a case-by-case basis by the Chief and conducted in a water envi-
971 ronment which is equal to or closely approximates that of the natu-
972 ral quality of the receiving waters.

973 9.2. In those cases where it has been determined that there
974 is insufficient available data to establish a safe concentration value
975 for a pollutant, the safe concentration value shall be determined by
976 applying the appropriate application factor as set forth below to the
977 96-hour LC 50 value. Except where the Chief determines, based
978 upon substantial available scientific data that an alternate applica-

979 tion factor exists for a pollutant, the following appropriate applica-
980 tion factors shall be used in the determination of safe concentration
981 values:

982 9.2.a. Concentrations of pollutants or combina-
983 tions of pollutants that are not persistent and not cumulative shall
984 not exceed 0.10 (1/10) of the 96-hour LC 50.

985 9.2.b. Concentrations of pollutants or combina-
986 tions of pollutants that are persistent or cumulative shall not exceed
987 0.01 (1/100) of the 96-hour LC 50.

988 9.3. Persons seeking issuance of a permit pursuant to
989 these rules authorizing the discharge of a pollutant for which a safe
990 concentration value is to be established using special bioassay tests
991 pursuant to subsection 9.1 of this section shall perform such testing
992 as approved by the Chief and shall submit all of the following in
993 writing to the Chief:

994 9.3.a. A plan proposing the bioassay testing to be
995 performed.

996 9.3.b. Such periodic progress reports of the test-
997 ing as may be required by the Chief.

998 9.3.c. A report of the completed results of such
999 testing including, but not limited to, all data obtained during the
1000 course of testing, and all calculations made in the recording, collec-
1001 tion, interpretation and evaluation of such data.

1002 9.4. Bioassay testing shall be conducted in accordance
1003 with methodologies outlined in the following documents: U.S.
1004 EPA Office of Research and Development Series Publication,
1005 Methods for Measuring the Acute Toxicity (EPA/600/4-90/027F,
1006 August 1993, 4th Edition) or Short Term Methods for Estimating
1007 Chronic Toxicity of Effluents and Receiving Waters to Freshwater
1008 Organisms (EPA/600/4-89/001), March 1989; Standard Methods
1009 for the Examination of Water and Wastewater (18th Edition); or
1010 ASTM Practice E 729-88 for Conducting Acute Toxicity Tests with
1011 Fishes, Macroinvertebrates and Amphibians as published in Volume
1012 11.04 of the 1988 Annual Book of ASTM Standards. Test waters
1013 shall be reconstituted according to recommendations and methodol-
1014 ogies specified in the previously cited references or methodologies
1015 approved in writing by the Chief.

1016 APPENDIX A

1017 CATEGORY B-2 - TROUT WATERS

1018 This list contains known trout waters and is not intended
 1019 to exclude any waters which meet the definition in Section
 1020 2.28.

1021	<u>River Basin</u>	<u>County</u>	<u>Stream</u>
1022	James River		
1023	J	Monroe	South Fork Potts Creek
1024	Potomac River		
1025	P	Jefferson	Town Run
1026	P	"	Rocky Marsh Run
1027	P	Berkeley	Opequon Creek
1028	P	"	Tuscarora Creek
1029			(Above Martinsburg)
1030	P	"	Middle Creek
1031			(Above Route 30 Bridge)
1032	P	"	Mill Creek
1033	P	"	Hartland Run
1034	P	"	Mill Run
1035	P	"	Tillance Creek
1036	P	Morgan	Meadow Branch
1037	PS	Jefferson	Flowing Springs Run
1038			(Above Halltown)
1039	PS	"	Cattail Run
1040	PS	"	Evitt's Run
1041	PS	"	Big Bullskin Run
1042	PS	"	Long Marsh Run
1043	PC	Hampshire	Cold Stream
1044	PC	"	Edwards Run and Impoundment
1045	PC	"	Dillons Run
1046	PC	Hardy	Lost River
1047	PC	"	Camp Branch
1048	PC	"	Lower Cove Run
1049	PC	"	Moores Run
1050	PC	"	North River (Above Rio)
1051	PC	"	Waites Run
1052	PC	"	Trout Run
1053	PC	"	Trout Pond (Impoundment)

1054	PC	“	Warden Lake (Impoundment)
1055	PC	“	Rock Cliff Lake (Impoundment)
1056	PSB	Hampshire	Mill Creek
1057	PSB	“	Mill Run
1058	PSB	Hardy	Dumpling Creek
1059	PSB	Grant-Pendleton	North Fork South Branch
1060	PSB	Grant	North Fork Lunice Creek
1061	PSB	“	South Fork Lunice Creek
1062	PSB	“	South Mill Creek (Above Hiser)
1063	PSB	“	Spring Run
1064	PSB	Pendleton	Hawes Run (Impoundment)
1065	PSB	“	Little Fork
1066	PSB	“	South Branch
1067			(Above North Fork)
1068	PSB	“	Senena Creek
1069	PSB	“	Laurel Fork
1070	PSB	“	Big Run
1071	PNB	Mineral	North Fork Patterson Creek
1072	PNB	“	Fort Ashby (Impoundment)
1073	PNB	“	New Creek
1074	PNB	“	New Creek Dam 14
1075			(Impoundment)
1076	PNB	“	Mill Creek (Above Markwood)
1077	Monongahela River		
1078	M	Monongalia-Marion	Whiteday Creek
1079			(Above Smithtown)
1080	MC	Monongalia	Morgan Run
1081	MC	“	Coopers Rock (Impoundment)
1082	MC	“	Blaney Hollow
1083	MC	Preston	Laurel Run
1084	MC	“	Elsley Run
1085	MC	“	Saltlick Creek
1086	MC	“	Buffalo Creek
1087	MC	“	Wolf Creek
1088	MC	Tucker	Clover Run
1089	MC	“	Elklick Run
1090	MC	“	Horseshoe Run
1091	MC	“	Maxwell Run
1092	MC	“	Red Creek
1093	MC	“	Slip Hill Mill Branch
1094	MC	“	Thomas Park (Impoundment)
1095	MC	“	Blackwater River (Above Davis)

1096	MC	“	Blackwater River (Below Davis)
1097			(insert date adopted)
1098	MC	Randolph	Camp Five Run
1099	MC	“	Dry Fork (Above Otter Creek)
1100	MC	“	Glady Fork
1101	MC	“	Laurel Fork
1102	MC	“	Gandy Creek (Above Whitmer)
1103	MC	“	East Fork Glady Fork (Above
1104			C & P Compressor Station)
1105	MC	Randolph	Shavers Fork
1106			(Above Little Black Fork)
1107	MC	“	Three Spring Run
1108	MC	“	Spruce Knob Lake
1109			(Impoundment)
1110	MW	Harrison	Dog Run (Pond)
1111	MW	Lewis	Stonecoal
1112	MT	Barbour	Brushy Fork
1113			(Above Valley Furnace)
1114	MT	“	Teter Creek Lake
1115			(Impoundment)
1116	MT	“	Mill Run
1117	MT	Taylor-Barbour	Tygart Lake Tailwaters
1118			(Above Route 119 Bridge)
1119	MT	Preston	Roaring Creek
1120			(Above Little Lick Branch)
1121	MT	Randolph	Tygart River
1122			(Above Huttonsville)
1123	MT	“	Elkwater Fork
1124	MT	“	Big Run
1125	MTB	Upshur-Randolph-Lewis	Right Fork Buckhannon River
1126	MTB	Upshur	Buckhannon River
1127			(Above Beans Mill)
1128	MTB	Upshur	French Creek
1129	MTB	Upshur-Randolph	Left Fork Right Fork
1130	MTN	Upshur	Right Fork Middle Fork River
1131	MTM	Randolph	Middle Fork River
1132			(Above Cassity)
1133	MY	Preston	Rhine Creek
1134			Little Kanawha River
1135	LK	Upshur	Left Fork-Right Fork Little
1136			Kanawha River)
1137	LK	Upshur-Lewis	Little Kanawha River
1138			(Above Wildcat)

1139	Kanawha River		
1140	KE	Braxton	Sutton Reservoir
1141	KE	“	Sutton Lake Tailwaters
1142			(Above Route 38/5 Bridge)
1143	KE	Webster	Back Fork
1144	KE	“	Desert Fork
1145	KE	“	Fall Run
1146	KE	“	Laurel Fork
1147	KE	“	Left Fork Holly River
1148	KE	“	Sugar Creek
1149	KE	“	Elk River
1150			(Above Webster Springs)
1151	KC	Raleigh	Stephens Lake (Impoundment)
1152	KC	“	Marsh Fork (Above Sundial)
1153	KG	Nicholas	Summersville Reservoir
1154			(Impoundment)
1155	KG	“	Summersville Tailwaters
1156			(Above Collison Creek)
1157	KG	Nicholas	Deer Creek
1158	KG	Randolph-Webster	Gauley River
1159			(Above Moust Coal Tipple)
1160	KG	Fayette	Glade Creek
1161	KG	Nicholas	Hominy Creek
1162	KG	“	Anglins Creek
1163	KG	Greenbrier	Big Clear Creek
1164	KG	“	Little Clear Creek and Laurel Run
1165	KG	“	Meadow Creek
1166	KG	Fayette	Wolf Creek
1167	KG	Nicholas	Cherry River
1168	KG	Greenbrier-Nicholas	Laurel Creek
1169	KG	“ ”	North Fork Cherry River
1170	KG	Greenbrier	Summit Lake (Impoundment)
1171	KG	Greenbrier-Nicholas	South Fork Cherry River
1172	KGC	Pocahontas-Webster-	Cranberry River
1173	Nicholas		
1174	KGC	Pocahontas	South Fork Cranberry River
1175	KGW	Pocahontas	Tea Creek
1176	KGW	Pocahontas-Webster	Williams River (Above Dyer)
1177	KN	Raleigh	Glade Creek
1178	KN	Summers	Meadow Creek
1179	KN	Fayette	Mill Creek
1180	KN	“	Laurel Creek
1181			(Above Cotton Hill)
1182	KN	Raleigh	Pinch Creek

1183	KN	Monroe	Rich Creek
1184	KN	"	Turkey Creek
1185	KN	Fayette	Dunloup Creek (Downstream from Harvey Sewage Treatment Plant)
1186			
1187			
1188	KN	Mercer	East River (Above Kelleysville)
1189	KN	"	Pigeon Creek
1190	KN	Monroe	Laurel Creek
1191	KNG	Monroe	Kitchen Creek (Above Gap Mills)
1192			
1193	KNG	Greenbrier	Culverson Creek
1194	KNG	"	Milligan Creek
1195	KNG	Greenbrier-Monroe	Second Creek (Rt. 219 Bridge to Nickell's Mill)
1196			
1197	KNG	Greenbrier	North Fork Anthony Creek
1198	KNG	"	Spring Creek
1199	KNG	"	Anthony Creek (Above Big Draft)
1200			
1201	KNG	Pocahontas	Watoga Lake
1202	KNG	"	Beaver Creek
1203	KNG	"	Knapp's Creek
1204	KNG	"	Hills Creek
1205	KNG	"	North Fork Deer Creek (Above Route 28/5)
1206			
1207	KNG	"	Deer Creek
1208	KNG	"	Sitlington Creek
1209	KNG	"	Stoney Creek
1210	KNG	"	Swago Creek
1211	KNG	"	Buffalo Fork (Impoundment)
1212	KNG	"	Seneca (Impoundment)
1213	KNG	"	Greenbrier River (Above Hosterman)
1214			
1215	KNG	"	West Fork-Greenbrier River (Above the impoundment at the tannery)
1216			
1217			
1218	KNG	"	Little River-East Fork
1219	KNG	"	Little River-West Fork
1220	KNG	"	Five Mile Run
1221	KNG	"	Mullenax Run
1222	KNG	"	Abes Run
1223	KNB	Mercer	Marsh Fork
1224	KNB	"	Camp Creek
1225	OG	Wyoming	Pinnacle creek
1226	BST	McDowell	Dry Fork (Above Canebrake)

1227

APPENDIX B

1228 This list contains known waters used as public water supplies
 1229 and is not intended to exclude any waters as described in section
 1230 6.2, herein.

1231	<u>River Basin</u>	<u>County</u>	<u>Operating Company</u>	<u>Source</u>
1232	Shenandoah River			
1233	S	Jefferson	Charlestown Water	
1234			Shenandoah River	
1235	Potomac River			
1236	P	Jefferson	3-M Company	Turkey Run
1237	P	"	Shepherdstown Water	Potomac River
1238	P	"	Harpers Ferry Water	Elk Run
1239	P	Berkeley	DuPont Potomac River	Potomac River
1240			Works	
1241	P	"	Berkeley County PSD	Le Feure Spring
1242	P	"	Opequon PSD	Quarry Spring
1243	P	"	Hedgesville PSD	Speck Spring
1244	P	Morgan	Paw Paw Water	
1245			Potomac River	
1246	PSB	Hampshire	Romney Water	
1247			South Branch	
1248				Potomac River
1249	PSB	"	Peterkin Conference	Mill Run
1250			Center	
1251	PSB	Hardy	Moorefield Municipal	South Fork River
1252			Water	
1253	PSB	Pendleton	U.S. Naval Radio Sta.	South Fork River
1254	PSB	"	Circleville Water Inc.	North Fork of South
1255				Branch, Potomac
1256				River
1257	PSB	Grant	Mountain Top PSD	Mill Creek,
1258				Impoundment
1259	PSB	"	Petersburg Municipal	South Branch,
1260			Water	Potomac
1261				River
1262	PNB	Grant	Island Creek Coal	Impoundment
1263	PNB	Mineral	Piedmont Municipal	Savage River,
1264			Water	Maryland
1265	PNB	"	Keyser Water	New Creek

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1266	PNB	"	Fort Ashby PSD	Lake
1267	Monongahela River			
1268	M	Monongalia	Morgantown Water Comm.	Colburn Creek &
1269				Monongahela River
1270	M	"	Morgantown Ordinance	Monongahela River
1271			Works	
1272	M	Preston	Preston County PSD	Deckers Creek
1273	M	Monongalia	Blacksville # 1 Mine	Impoundment
1274	M	"	Loveridge Mine	Impoundment
1275	M	"	Consolidation Coal Co.	Impoundment
1276	M	Preston	Mason Town Water	Block Run
1277	MC	Preston	Fibair Inc.	Impoundment
1278	MC	Monongalia	Cheat Neck PSD	Cheat Lake
1279	MC	"	Lakeview County Club	Cheat Lake-Lake
1280				Lynn
1281	MC	"	Union Districk PSD	Cheat Lake-Lake
1282				Lynn
1283	MC	"	Cooper's Rock State	Impoundment
1284			Park	
1285	MC	Preston	Kingwood Water	Cheat River
1286	MC	"	Hopemount State Hosp.	Snowy Creek
1287	MC	"	Rowlesburg Water	Keyser Run & Cheat
1288				River
1289	MC	"	Albright	Cheat River
1290	MC	Tucker	Parsons Water	Shavers & Elk Lick
1291				Fork
1292	MC	"	Thomas Municipal	Thomas Reservoir
1293	MC	"	Hamrick PSD	Dry Fork
1294	MC	"	Douglas Water System	Long Run
1295	MC	"	Davis Water	Blackwater River
1296	MC	"	Hambleton Water System	Roaring Creek
1297	MC	"	Canaan Valley State	Blackwater River
1298			Park	
1299	MC	Pocahontas	Cheat Mt. Sewer	Shavers Lake
1300	MC	"	Snowshoe Co. Water	Shavers Fork
1301	MC	Randolph	Womelsdorf Water	Yokum Run
1302	MW	Harrison	Lumberport Water	Jones Run
1303	MW	"	Clarksburg Water Bd.	West Fork River
1304	MW	"	Bridgeport Mun. Water	Deacons & Hinkle
1305				Creek
1306	MW	"	Salem Water Board	Dog Run
1307	MW	"	West Milford Water	West Fork River

1308	MW		Lewis	W.V. Water-Weston	West Fork River
1309				District	
1310	MW		"	Jackson's Mill Camp	Impoundment
1311	MW		"	West Fork River PSD	West Fork River
1312	MW		"	Kennedy Compressor	West Fork River
1313				Station	
1314	MW		"	Jane Lew Water Comm.	Hackers Creek
1315	MW		Harrison	Bel-Meadow Country	Lake
1316				Club	
1317	MW		"	Harrison Power Station	West Fork River
1318	MW		"	Oakdale Portal	Impoundment
1319	MW		"	Robinson Port	Impoundment
1320	MT		Marion	Fairmont Water Comm.	Tygart River
1321	MT		"	Mannington Water	Impoundment
1322	MT		"	Monongah Water Works	Tygart River
1323	MT		"	Eastern Assoc. Coal Corp	Impoundment
1324	MT		"	Four States Water	Impoundment
1325	MT		Harrison	Shinnston Water Dept.	Tygart River
1326	MT		Taylor	Grafton Water	Tygart River-Lake
1327	MT		Barbour	Phillippi Water	Tygart River
1328	MT		"	Bethlehem Mines Corp.	Impoundment
1329	MT		"	Belington Water Works	Tygart River & Mill
1330					Run Lake
1331	MT		Randolph	Elkins Municipal Water	Tygart River
1332	MT		"	Beverly Water	Tygart river
1333	MT		"	Valley Water	Tygart River
1334	MT		"	Huttonsville Medium	Tygart River
1335				Security Prison	
1336	MT		"	Mill Creek Water	Mill Creek
1337	MTB		Upshur	Buckhannon Water Board	Buckhannon River
1338				Ohio River	
1339	O	Zone 1	Hancock	Chester Water & Sewer	Ohio River
1340	O	"	Brooke	City of Weirton	Ohio River
1341	O	"	"	Weirton Steel Division	Ohio River
1342	O	"	Ohio	Wheeling Water	Ohio River
1343	O	"	Tyler	Sistersville Mun. Water	Ohio River
1344	O	"	Pleasants	Pleasants Power Station	Ohio River
1345	O	"	Cabel	Huntington Water Corp.	Ohio River
1346	O	"	Marshall	Mobay Chemical Co.	Ohio River
1347	O	"	Wood	E. I. DuPont	Ohio River
1348	O	Zone 2	Marshall	Cameron Water	Glass House Hollow

1349	O	“	”	New Urindahana Water	Wheeling Creek
1350					System
1351	O	“	Wetzel	Pine Grove Water	North Fork, Fishing
1352					Creek
1353	O	“	Marshall	Consolidated Coal Co.	Impoundment
1354	O	“	Tyler	Middlebourne Water	Middle Island Creek
1355	O	“	Doddridge	West Union Mun. Water	Middle Island Creek
1356	O	“	Mason	Hidden Valley Country	Lake/Impoundment
1357	O	“	Jackson	Ripley Water	Mill Creek
1358	O	“	Wayne	Wayne Municipal Water	Twelve Pole Creek
1359	O	“	”	East Lynn Lake	East Lynn Lake
1360	O	Zone 2	Wayne	Monterey Coal Co.	Impoundment
1361		Little Kanawha			
1362	LK		Wood	Claywood Park PSD	Little Kanawha
1363					River
1364	LK		Calhoun	Grantsville Mun. Water	Little Kanawha
1365					River
1366	LK		Gilmer	Glenville Utility	Little Kanawha
1367					River
1368	LK		“	Consolidated Gas	Steer Creek
1369				Compressor	
1370	LK		Braxton	Burnsville Water Works	Little Kanawha
1371					River
1372	LK		Roane	Spencer Water	Spring Creek Mile
1373					Tree Reservoir
1374	LK		Wirt	Elizabeth Water	Little Kanawha
1375					River
1376	LKH		Ritchie	Cairo Water	North Fork Hughes
1377					River
1378	LKH		“	Harrisville Water	North Fork Hughes
1379					River
1380	LKH		“	Pennsboro Water	North Fork Hughes
1381					River
1382		Kanawha River			
1383	K		Putnam	Buffalo Water	Cross Creek
1384	K		“	Winfield Water	Poplar Fork &
1385					Crooked Creek
1386	K		“	South Putnam PSD	Poplar Fork &
1387					Crooked Creek
1388	K		Kanawha	Cedar Grove Water	Kanawha River
1389	K		“	Pratt Water	Kanawha River

1390	K	Fayette	Armstrong PSD	Kanawha River &
1391			PO-K1-CO-EL	Gum Hollow
1392	K	"	Kanawha Water Co.-	Unnamed Tributary
1393				Kanawha Beards
1394				Fork River
1395	K	Kanawha	Midland Trail School	Impoundment
1396	K	"	Cedar Coal Co.	Impoundment
1397	K	Fayette	Elkem Metals Co.	Kanawha River
1398	K	"	Deepwater PSD	Kanawha River
1399	K	"	Kanawha Falls PSD	Kanawha River
1400	K	"	W.V. Water-Montgomery	Kanawha River
1401				Pocatalico River
1402	KP	Kanawha	Sissonville PSD	Pocatalico River
1403	KP	Roane	Walton PSD	Silcott Fork Dam
1404				Coal River
1405	KC	Kanawha	St. Albans Water	Coal River
1406	KC	"	Washington PSD	Coal River
1407	KC	Lincoln	Lincoln PSD	Coal River
1408	KC	Boone	Coal River PSD	Coal River
1409	KC	"	Whitesville PSD	Coal River
1410	KC	Raleigh	Armco Mine 10	Marsh Fork
1411	KC	"	Armco Steel-Montc.	Coal River
1412				Stickney
1413	KC	Raleigh	Peabody Coal	Coal River
1414	KC	"	Stephens Lake Park	Lake Stephens
1415	KC	Boone	W.V. Water-	Little Coal River
1416			Madison Dist.	
1417	KC	"	Van PSD	Pond Fork
1418	KC	Raleigh	Consol. Coal Co.	Workmans Creek
1419	KC	Boone	Water Ways Park	Coal River
1420				Elk River
1421	KE	Kanawha	Clendenin Water	Elk River
1422	KE	"	W.V. Water-Kanawha	Elk River
1423				Valley District
1424	KE	Kanawha	Pinch PSD	Elk River
1425	KE	Clay	Clay Waterworks	Elk River
1426	KE	"	Prociuous PSD	Elk River
1427	KE	Braxton	Flatwoods-Canoe Run	PSD
1428				Elk River
1429	KE	"	Sugar Creek PSD	Elk River
1430	KE	"	W.V. Water-	Elk River
1431			Gassaway Dist.	

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1432	KE	"	W.V. Water-Sutton Dist.	Elk River
1433	KE	Webster	W.V. Water-	Elk River
1434			Webster Springs	
1435	KE		Holly River State Park	Holly River
1436	Gauley River			
1437	KG	Nicholas	Craigsville PSD	Gauley River
1438	KG	"	Summersville Water	Impoundment/
1439				Muddlety Creek
1440	KG	"	Nettie-Leivasy PSD	Jim Branch
1441	KG	Webster	Cowen PSD	Gauley River
1442	KG	Nicholas	Wilderness PSD	Anglins Creek &
1443				Meadow River
1444	KG	"	Richwood Water	North Fork Cherry
1445				River
1446	New River			
1447	KN	Fayette	Ames Heights Water	Mill Creek
1448	KN	"	Mt. Hope Water	Impounded Mine
1449				(Surface)
1450	KN	"	Ansted Municipal Water	Mill Creek
1451	KN	"	Fayette Co. Park	Impoundment
1452	KN	"	New River Gorge	Impoundment
1453			Campground	
1454	KN	"	Fayetteville Water	Wolfe Creek
1455	KN	Raleigh	Beckley Water	Glade Creek
1456	KN	"	Westmoreland Coal Co.	Farley Branch
1457	Bluestone River			
1458	KNB	Summers	Jumping Branch-Nimitz	Mt. Valley Lake
1459	KNB	"	Bluestone Conf. Center	Bluestone Lake
1460	KNB	"	Pipestem State Park	Impoundment
1461	KNB	Mercer	Town of Athens	Impoundment
1462	KNB	"	Bluewell PSD	Impoundment
1463	KNB	"	Bramwell Water	Impoundment
1464	KNB	"	Green Valley-	Bailey Reservoir
1465			Glenwood PSD	
1466	KNB	"	Kelly's Tank	Spring
1467	KNB	"	W.V. Water Princeton	Impoundment/
1468				Brusch Creek
1469	KNB	"	Lashmeet PSD	Impoundment
1470	KNB	"	Pinnacle Water Assoc.	Mine
1471	KNB	"	W.V. Water Bluefield	Impoundment

1472	Greenbrier River			
1473	KNG	Summers	W.V. Water Hinton	Greenbrier River & New River
1474				
1475	KNG	"	Big Bend PSD	Greenbrier River
1476	KNG	Greenbrier	Alderson Water Dept.	Greenbrier River
1477	KNG	"	Ronceverte Water	Greenbrier River
1478	KNG	"	Lewisburg Water	Greenbrier River
1479	KNG	Pocahontas	Denmar State Hospital	Greenbrier River
1480			Water	
1481	KNG	"	City of Marlinton Water	Knapp Creek
1482	KNG	"	Cass Scenic Railroad	Leatherbark Creek
1483	KNG	"	Upper Greenbrier PSD	Greenbrier River
1484	KNG	"	The Hermitage	Greenbrier
1485			Guyandotte River	
1486	OG	Cabell	Salt Rock PSD	Guyandotte River
1487	OG	Lincoln	West Hamlin Water	Guyandotte River
1488	OG	Logan	Logan Water Board	Guyandotte River
1489	OG	"	Man Water Works	Guyandotte River
1490	OG	"	Buffalo Creek PSD	Buffalo Creek/ Mine/Wells
1491				
1492	OG	Logan	Chapmanville	Guyandotte River
1493	OG	"	Logan PSD	Whitman Creek/ Guyandotte River
1494				
1495	OG	Mingo	Gilbert Water	Guyandotte River
1496	OG	Wyoming	Oceana Water	Laurel Fork
1497	OG	"	Glen Rogers PSD	Impoundment
1498	OG	"	Pineville Water	Pinnacle Creek/ Guyandotte River
1499				
1500	OG	Raleigh	Raleigh Co. PSD-Amigo	Tommy Creek
1501	OMG	Cabell	Milton Water Works	Guyandotte River
1502	OMG	"	Culloden PSD	Indian Fork Creek
1503	OMG	Putnam	Hurricane Municipal	Impoundment
1504			Water	
1505	OMG	"	Lake Washington PSD	Lake Washington
1506				Big Sandy River
1507	BS	Wayne	Kenova Municipal Water	Big Sandy River
1508	BS	"	Fort Gay Water	Tug Fork
1509	BST	Mingo	Kermit Water	Tug Fork
1510	BST	"	Matewan Water	Tug Fork
1511	BST	"	A & H Coal Co., Inc.	Impoundment
1512	BST	"	Williamson Water	Impoundment
1513	BST	McDowell	City of Welch	Impoundment/Wells
1514	BST	"	City of Gary	Impoundment/Mine

1515

APPENDIX C

1516

CATEGORY E-3 - POWER PRODUCTION

1517 This list contains known power production facilities and is
 1518 not intended to exclude any waters as described in section 6.6.c,
 1519 herein.

1520	<u>River Basin</u>	<u>County</u>	<u>Station Name</u>	<u>Operating Company</u>
1521	Monongahela River			
1522	M	Monongalia	Fort Martin Power Station	Monongahela Power
1523	M	Marion	Rivesville Station	Monongahela Power
1524	MC	Preston	Albright Station	Monongahela Power
1525				
1526	Potomac	Grant	Mt. Storm Power Station	Virginia Electric &
1527	Power Company			
1528	Ohio River			
1529	O - Zone 1	Wetzel	Hannibal (Hydro)	Ohio Power
1530	O " "	Marshall	Kammer	Ohio Power
1531	O " "	"	Mitchell	Ohio Power
1532	O " "	Pleasants	Pleasants	Station
1533	Monongahela Power			
1534	O " "	"	Willow Island Station	Monongahela Power
1535	O " "	Mason	Phillip Sporn Plant	Central Operating
1536	(AEP)			
1537	O " "	"	Racine (Hydro)	Ohio Power
1538	O " " "		Mountaineer	Appalachian Power Co.
1539	K	Putnam	Winfield (Hydro)	Appalachian Power Co.
1540	K	Kanawha	Marmet (Hydro)	Appalachian Power Co.
1541	K	"	London (Hydro)	Appalachian Power Co.
1542	K	"	Kanawha River	Appalachian Power Co.
1543	K	"	John E. Amos	Appalachian Power Co.

1544

APPENDIX D**1545 CATEGORY C - WATER CONTACT RECREATION**

1546 This list contains waters known to be used for water con-
 1547 tact recreation and is not intended to exclude any waters as
 1548 described in section 6.4, herein.

1549	<u>River Basin</u>	<u>Stream Code</u>	<u>Stream</u>	<u>County</u>
1550	Shenandoah	S	Shenandoah River	Jefferson
1551	Potomac	P	Potomac River	Jefferson
1552		P	" "	Hampshire
1553		P	" "	Berkeley
1554		P	" "	Morgan
1555		P-9	Sleepy Creek &	Berkeley
1556			Meadow Branch	
1557		P-9-G-1	North Fork of	Morgan
1558			Indian Run	
1559	South Branch	PSB	South Branch of	Hampshire
1560			Potomac River	
1561		PSB	" "	Hardy
1562		PSB	" "	Grant
1563		PSB-21-X	Hawes Run	Pendleton
1564		PSB-25-C-2	Spring Run	Grant
1565		PSB-28	North Fork	Grant
1566			South Branch	
1567	Potomac River			
1568	North Branch	PNB	North Branch of	Mineral
1569			Potomac River	
1570		PNB-4-EE	North Fork	Grant
1571	Patterson Creek			
1572		PNB-7-H	Linton Creek	Grant
1573		PNB-17	Stoney River-	Grant
1574			Mt. Storm Lake	
1575		PC	Cacapon River	Hampshire
1576	Monongalia			
1577	Cheat	MC	Cheat Lake/	Monongalia/
1578			Cheat River	Preston
1579		MC	Alpine Lake	Preston

1580		MC-6	Coopers Rock Lake/	Monongalia
1581			Quarry Run	
1582		MC-12	Big Sandy Creek	Preston
1583		MSC	Shavers Fork	Randolph
1584		MTN	Middle Fork River	Barbour/
1585				Randolph/
1586				Upshur
1587		MW	West Fork River	Harrison
1588				
1589		MW-18	Stonecoal Creek/	Lewis
1590	Stonecoal Lake			
1591	Ohio	O	Ohio River	Brooke/
1592				Cabell/
1593				Hancock/
1594				Jackson/
1595				Marshall/
1596				Mason/
1597				Ohio/
1598				Pleasants/
1599				Tyler/
1600				WayneWood
1601				/Wetzel
1602		O-2-H	Beech Fork of	Wayne
1603			Twelvepole Creek/Beech	
1604	Fork Lake			
1605		O-2-Q	East Fork of	Wayne
1606			Twelvepole Creek/East	
1607	Lynn Lake			
1608		O-3	Fourpole Creek	Cabell
1609		O-21	Old Town Creek/	Mason
1610			McClintic Ponds	
1611		OMI	Middle Island Creek/	Doddridge
1612			Crystal Lake	
1613		OG	Guyandotte River	Cabell
1614		OG	Guyandotte River/	Wyoming
1615			R. D. Bailey Lake	
1616		OGM	Mud River	Cabell
1617				
1618	Little Kanawha	LK	Little Kanawha River/Braxton	
1619			Burnsville Lake	
1620	Kanawha	K	Kanawha River	Fayette/
1621				Kanawha/
1622				Mason/
1623				Putnam

1624		K-1	Unnamed Tributary	Mason
1625	Krodel Lake			
1626		KC	Coal River	Kanawha
1627		KC-45-Q	Stephens Branch/ Lake Stephens	Raleigh
1628				
1629		KE	Elk River	Kanawha/ Clay/ Braxton/ Webster/ Randolph
1630				
1631				
1632				
1633				
1634		KE	Sutton lake	Braxton
1635		KN	New River	Fayette/ Raleigh/ Summers
1636				
1637				
1638		KN-26-F	Little Beaver Creek	Raleigh
1639		KNG	Greenbrier River	Greenbrier/ Pocahontas/ Summers
1640				
1641				
1642		KNG-23-E-1	Little Devil Creek/ Moncove Lake	Monroe
1643				
1644		KNG-28	Anthony Creek	Greenbrier
1645		KNG-28-P	Meadow Creek/ Lake Sherwood	Greenbrier
1646				
1647		KNB	Bluestone River/ Bluestone Lake	Summers
1648				
1649		KG	Gauley River	Webster
1650		KG	Gauley River/ Summersville Lake	Nicholas
1651				
1652		KGW	Williams River	Webster

APPENDIX E, TABLE 1

PARAMETER	USE DESIGNATION						
	AQUATIC LIFE				HUMAN HEALTH		ALL OTHER USES
	B1, B4		B2		C ³	A ⁴	
	ACUTE ¹	CHRON ²	ACUTE ¹	CHRON ²			
8.1 Dissolved Aluminum (ug/l) Not to exceed:	750xCF ⁵	87xCF ⁵	750xCF ⁵	87xCF ⁵			
8.2 Ammonia (ug/l): Un-ionized ammonia (UA) shall be determined from values of total ammonia-N, pH and temperature according to the following equation: $UA = \frac{1.2(\text{total ammonia-N})}{1 + 10^{(pKa-pH)}}$ where pka = 0.0902 + 2730/(273.2 + T) and T = temperature (°C) The concentration of un-ionized ammonia (NH3) shall not exceed 50 ug/l.							50

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			
8.2.1 Acute and chronic aquatic life criteria for ammonia shall be determined using the National Criterion for Ammonia in Fresh Water ^d from USEPA's 1999 Update of Ambient Water Quality Criteria for Ammonia (EPA-822-R-99-014, December 1999)	X	X	X	X			
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			
8.7 Cadmium (ug/l) Hardness Soluble Cd (mg/l CaCO ₃) 0 - 35 1.0 36 - 75 2.0 76 - 150 5.0 > 150 10.0						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			
8.7.1 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: $Cd = e^{(0.7852[\ln(\text{hardness})] - 3.4961)} \times CF^5$		X		X			
8.7.4 The one-hour average concentration of dissolved cadmium shall not exceed the value determined by the following equation: $Cd = e^{(1.128[\ln(\text{hardness})] - 3.828)} \times CF^5$	X		X				
8.8 Chloride (mg/l) Not to exceed:	860	230	860	230	250	250	
8.9.1 Chromium, dissolved hexavalent (ug/l): Not to exceed:	16 x CF ⁵	11 x CF ⁵	16 x CF ⁵	7.2 x CF ⁵		<u>50</u>	

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			
8.9.2 Chromium, trivalent (ug/l) The one-hour average concentration of dissolved trivalent chromium shall not exceed the value determined by the following equation: $\exp\{0.8190[\ln(\text{hardness})]+3.7256\} \times (\text{CF})^5$	X		X				
8.9.3 The four-day average concentration of dissolved trivalent chromium shall not exceed the value determined by the following concentration: $\exp\{0.8190[\ln(\text{hardness})]+0.6848\} \times (\text{CF})^5$.		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 ² : $\text{Cu} = e^{(0.8545[\ln(\text{hardness})]-1.465)} \times \text{CF}^5$		X		X			
8.10.2 The one-hour average concentration of dissolved copper shall not exceed the value determined by the following equation ² : $\text{Cu} = e^{(0.9422[\ln(\text{hardness})]-1.464)} \times \text{CF}^5$	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			
8.11 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						
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				

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			
8.13 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 ⁶ (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 : $P_b = e^{(1.273[\ln(\text{hardness})]-4.705)} \times CF^{0.5}$		X		X			
8.16.2 The one-hour average concentration of dissolved lead shall not exceed the value determined by the following equation ^a : $P_b = e^{(1.273[\ln(\text{hardness})]-1.46)} \times CF^{0.5}$	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 ⁵ : $Ni = e^{(0.846[\ln(\text{hardness})]+1.1645)} \times CF^5$		X		X			
8.19.2 The one-hour average concentration of dissolved nickel shall not exceed the value determined by the following equation ⁵ : $Ni = e^{(0.846[\ln(\text{hardness})]+3.361)} \times CF^5$	X		X				

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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			
8.20 Nitrate (as Nitrate-N) (mg/l)						10	
8.21 Nitrite (as Nitrite-N) (mg/l) Not to exceed:	1.0		.060				
8.22 Organics							
Chlordane ^b (ng/l)	2400	4.3	2400	4.3	0.46	0.46	0.46
DDT ^b (ng/l)	1100	1.0	1100	1.0	0.024	0.024	0.024
Aldrin ^b (ng/l)	3.0		3.0		0.071	0.071	0.071
Dieldrin ^b (ng/l)	2500	1.9	2500	1.9	0.071	0.071	0.071
Endrin (ng/l)	180	2.3	180	2.3	2.3	2.3	2.3
Toxaphene ^b (ng/l)	730	0.2	730	0.2	0.73	0.73	0.73
PCB ^b (ng/l)		14.0		14.0	0.045	0.044	0.045
Methoxychlor (ug/l)		0.03		0.03	0.03	0.03	0.03
Dioxin (2,3,7,8- TCDD) ^b (ng/l)					0.014	0.013	0.014

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			
Acrylonitrile ^b (ug/l)					0.66	0.059	
Benzene ^b (ug/l)					71	0.66	
1,2-dichlorobenzene (mg/l)					17	2.7	
1,3-dichlorobenzene (mg/l)					2.6	0.4	
1,4-dichlorobenzene (mg/l)					2.6	0.4	
2,4-dinitrotoluene ^b (ug/l)					9.1	0.11	
Hexachlorobenzene ^b (ng/l)					0.77	0.72	
Carbon tetrachloride ^b (ug/l)					4.4	0.25	
Chloroform ^b (ug/l)					470	0.19	
Halomethanes (ug/l)					15.7	0.19	
1,2-dichloroethane ^b (ug/l)					99	0.035	
1,1,1- trichloroethane ^b (mg/l)						12	

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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			
1,1,2,2-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	
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	
alpha-BHC (alpha- Hexachloro-cyclohexane) ^b (ug/l)					0.013	.0039	
beta-BHC(beta- Hexachloro-cyclohexane) ^b (ug/l)					0.046	0.014	

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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			
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	
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.							

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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			
8.23 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:	10,200	2,560	10,200	2,560	<u>4,600,000</u>	<u>3.5 mg/l</u> <u>21,000</u>	
8.24.2 2-Chlorophenol (ug/l) Not to exceed:					400	120	
8.24.3 2,4-Dichlorophenol (ug/l) Not to exceed:					790	93	
8.24.4 2,4-Dimethylphenol (ug/l) Not to exceed:					2300	540	
8.24.5 2,4-Dinitrophenol (ug/l) Not to exceed:					14,000	70	
8.24.6 Pentachlorophenol ^b (ug/l)					8.2	0.28	
8.24.6.a The one-hour average concentration of pentachlorophenol shall not exceed the value determined by the following equation: $\exp(1.005(\text{pH})-4.869)$	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			
8.24.6.b The 4-day average concentration of pentachlorophenol shall not exceed the value determined by the following equation: $\exp(1.005(\text{pH})-5.134)$.		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
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;							

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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			
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)							
<u>Hardness</u> <u>Silver</u> 0-50 1 51-100 4 101-200 12 >201 24				X		X	
8.27.1 0-50 1 51-100 4 101-200 12 201-400 24 401-500 30 501-600 43		X					

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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			
8.27.2 The one-hour average concentration of dissolved silver shall not exceed the value determined by the following equation: $Ag=e^{(1.72[\ln(\text{hardness})]-6.52)} \times CF^5$	X		X				
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						

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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														
8.28.1 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																	
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: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th></th> <th>Daily Mean °F</th> <th>Hourly Max °F</th> </tr> </thead> <tbody> <tr> <td>Oct-Apr</td> <td>50</td> <td>55</td> </tr> <tr> <td>Sep-May</td> <td>58</td> <td>62</td> </tr> <tr> <td>Jun-Aug</td> <td>66</td> <td>70</td> </tr> </tbody> </table>		Daily Mean °F	Hourly Max °F	Oct-Apr	50	55	Sep-May	58	62	Jun-Aug	66	70			X			
	Daily Mean °F	Hourly Max °F																
Oct-Apr	50	55																
Sep-May	58	62																
Jun-Aug	66	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			
8.28.4 For Ohio River Main Stem (01)(section 7.1.d, herein):							
Period Inst.							
<u>Dates</u>	<u>Ave.</u>	<u>Max.</u>					
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				

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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			
8.29 Thallium (ug/l)					6.3	1.7	
8.30 Threshold odor ^c Not to exceed a threshold odor number of 8 at 104°F as a daily average.		X		X	X	X	
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.							

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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	

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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 ⁴ : $Zn = e^{(0.8473[\ln(\text{hardness})]+0.7614)} \times CF^5$		X		X			
8.33.1 The one-hour average concentration of dissolved zinc shall not exceed the value determined by the following equation ² : $Zn = e^{(1.8473[\ln(\text{hardness})]+0.8604)} \times CF^5$	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.

1653 a Hardness as calcium carbonate (mg/l). The minimum hardness
 1654 allowed for use in this equation shall not be less than 25 mg/l, even
 1655 if the actual ambient hardness is less than 25 mg/l. The maximum
 1656 hardness value for use in this equation shall not exceed 400 mg/l
 1657 even if the actual hardness is greater than 400 mg/l.

1658 b Known or suspected carcinogen. Human health standards are for
 1659 a risk level of 10^{-6} .

1660 c May not be applicable to wetlands (B4) - site-specific criteria are
 1661 desirable.

1662 d The early life stage equation in the National Criterion shall be
 1663 used to establish chronic criteria throughout the state unless the
 1664 applicant demonstrates that no early life stages of fish occur in the
 1665 affected water(s).

APPENDIX E

TABLE 2

Conversion Factors

1669 Metal	Acute	Chronic
1670 Aluminum	1.000	1.000
1671 Arsenic (III)	1.000	1.000
1672 Cadmium	$1.136672 - [(\ln \text{hardness}) (0.041838)]$	$1.101672 - [(\ln \text{hardness}) (0.041838)]$
1673 Chromium (III)	0.316	0.860
1674 Chromium(VI)	0.982	0.962
1675 Copper	0.960	0.960
1676 Lead	$1.46203 - [(\ln \text{hardness})(0.145712)]$	$1.46203 - [(\ln \text{hardness})(0.145712)]$
1677 Nickel	0.998	0.997
1678 Silver	0.85	N/A
1679 Zinc	0.978	0.986

1680

APPENDIX F

1681

ANTIDegradation Implementation

1682

PROCEDURES

1683 **46-1-4A. Applicability.**

1684 **4A.1.** Except as noted, the antidegradation implementation
1685 procedures herein apply to regulated activities that have the poten-
1686 tial to affect water quality. The level of review required will de-
1687 pend upon the existing uses of the water segment that would be
1688 affected, the level of protection (“tier”) assigned to the applicable
1689 water segment, the nature of the activity, and the extent to which
1690 existing water quality would be degraded.

1691 **4A.2.** Nonpoint source activities will be deemed to be in
1692 compliance with antidegradation requirements with the installation
1693 and maintenance of cost-effective and reasonable best management
1694 practices in accordance with 46 CSR 1-4.1.b. herein. These in-
1695 clude, but are not limited to, best management practice programs
1696 for silviculture administered by the Division of Forestry, programs
1697 for oil and gas operations administered by the Office of Oil and Gas
1698 of the Division of Environmental Protection, nonpoint source con-
1699 struction activities, and reasonable land, soil and water conservation
1700 measures and practices applied to agricultural nonpoint sources.

1701 **4A.3.** Where applicable and practical, the antidegradation
1702 procedure and review shall be integrated into and proceed concur-
1703 rently with existing environmental processes and reviews pursuant
1704 to the National Environmental Policy Act.

1705 **4A.4.** Information contained within existing environmental
1706 processes and reviews, such as environmental assessments, environ-
1707 mental impact statements, facilities plans, and findings of no signif-
1708 icant impact, may be used to provide part or all of the requirements
1709 of the antidegradation procedure and review.

1710 **46-1-4B. Definitions.**

1711 **4B.1.** For purposes of this Subpart (Appendix F) the term
1712 “agency” or “agencies” refers to the Division of Environmental

1713 Protection or other federal, state, or local governmental entities with
1714 regulatory authority over activities that may affect water quality.

1715 **4B.2.** For purposes of this Subpart (Appendix F) the term
1716 “regulated entity” refers generally to any regulated entity that af-
1717 fects or is proposing an activity that will affect water quality. For
1718 example, an applicant for a WV/NPDES permit, a WV/NPDES
1719 permit holder, or an owner or operator of an activity that discharges
1720 pollutants into a water of the state would be a regulated entity.

1721 **4B.3.** For purposes of this Subpart (Appendix F) the term
1722 “minimum uses” refers to recreation and wildlife and the propaga-
1723 tion and maintenance of fish and other aquatic life.

1724 **46-1-4C. Antidegradation Review Process.**

1725 **4C.1.** As set forth in 46 CSR 1-4.1, the State’s
1726 antidegradation policy requires that existing uses and the level of
1727 water quality necessary to protect the existing uses shall be main-
1728 tained and protected. This requirement applies to all waters of the
1729 state.

1730 **4C.2.** Except where a water segment is specifically listed
1731 as a Tier 2.5 or Tier 3 water, the following section outlines how the
1732 agency conducting the antidegradation review will determine the
1733 level of protection (“tier”) assigned to the receiving water body
1734 associated with the activity subject to this rule.

1735 **4C.3.** Uses. The Director, in conducting an
1736 antidegradation review, must determine the existing uses of the
1737 receiving water body associated with the proposed activity. The
1738 Director shall determine the existing uses of the water body by
1739 identifying the uses set forth in 46 CSR 1 Section 6 that the water
1740 body currently supports, or has supported since November 28,
1741 1975. The regulated entity may be required to provide data suffi-
1742 cient for the permitting agency to determine the existing uses of the
1743 water segment.

1744 **4C.4.** Baseline water quality. Where baseline water qual-
1745 ity has not been established for the water segment the regulated
1746 entity proposes to impact or has not been established for a parame-

1747 ter of concern that is reasonably expected to be discharged into the
1748 water segment as a result of the proposed regulated activity, the
1749 Director must determine the baseline water quality for the receiving
1750 water body. The Director may consider data for establishing the
1751 baseline water quality from a federal or state agency, the regulated
1752 entity, the public, or any other source, as long as the data are recent
1753 and reliable. If adequate data are not available, the agency may, in
1754 conjunction with the regulated entity or on its own initiative, estab-
1755 lish a plan for obtaining the necessary data. The regulated entity
1756 may be required to provide baseline water quality for those param-
1757 eters of concern that are reasonably expected to be discharged as a
1758 result of the regulated activity into the affected water segment to
1759 help the permitting agency determine the baseline water quality, the
1760 existing uses, and the applicable tier. The regulated entity may
1761 contact the Director prior to initiating a baseline water quality eval-
1762 uation to seek concurrence with its determination of the parameters
1763 of concern for its proposed activity and its proposed sampling pro-
1764 tocol.

1765 **4C.5.** Determination of tier. If the tier has not already
1766 been determined for the water segment the regulated entity proposes
1767 to impact, then after determining the baseline water quality for pa-
1768 rameters of concern and the existing uses for a water body, the
1769 agency will determine which level of protection (i.e. "tier") applies
1770 to the receiving water body associated with the activity.

1771 **4C.5.a.** Water segments listed in Appendix F-2 of this rule
1772 shall receive Tier 2.5 protection.

1773 **4C.5.b.** Water segments within a federally designated
1774 Wilderness Area, as well as other water segments specifically listed
1775 in this rule as an outstanding national resource water shall receive
1776 Tier 3 protection.

1777 **4C.5.c.** Water segments not within a federally designated
1778 Wilderness Area and not listed in Appendix F-2 of this rule shall
1779 receive Tier 1 protection, and shall receive Tier 2 protection if the
1780 water segment is determined, pursuant to 4E.1.a. through 4E.1.c. of
1781 this rule, to be a high quality water for purposes of antidegradation
1782 review.

1783 **4C.5.d.** Water segments may be determined to receive
1784 only Tier 1 protection, pursuant to 4D.2. through 4D.6. of this rule,
1785 for purposes of antidegradation review.

1786 **4C.5.e.** To the extent practicable, a list of water segments
1787 protected under Tier 2.5 or Tier 3 will be maintained on the West
1788 Virginia Division of Environmental Protection's website.

1789 **4C.6.** Level of review. Once the correct level of protec-
1790 tion ("tier") and water segment use(s) are identified for the receiv-
1791 ing water body, the agency shall document its findings and proceed
1792 with the appropriate level of antidegradation review.

1793 **4C.7.** On or after the effective date of these implementa-
1794 tion procedures, new and reissued WV/NPDES general permits will
1795 be evaluated to consider the potential for significant degradation as
1796 a result of the permitted activity. Regulated activities that are
1797 granted coverage by a WV/NPDES general permit will not be re-
1798 quired to undergo a Tier 2 antidegradation review as part of the
1799 permit registration process. Regulated activities that are granted
1800 coverage by a WV/NPDES permit that will degrade a Tier 2.5 or
1801 Tier 3 water segment must comply with the requirements of 4F and
1802 4G herein.

1803 **4C.8.** Regulated activities that qualify for coverage under
1804 a Corps of Engineers regional or nationwide permit pursuant to
1805 section 404 of the Federal Act that has been certified by the state
1806 pursuant to section 401 of the Federal Act will not be required to
1807 undergo a Tier 2 antidegradation review, provided, however, that
1808 where an individual 401 certification is required, the Director may
1809 require an appropriate antidegradation review. Where an activity
1810 covered by a regional or nationwide permit pursuant to section 404
1811 of the Federal Act and certified pursuant to section 401 of the Fed-
1812 eral Act allows for filling of a water, this exemption only applies to
1813 the site of the fill, and does not apply to activities downstream of
1814 the site of the fill. Regulated activities that are granted section 401
1815 certification that will degrade a Tier 2.5 or Tier 3 water segment
1816 must comply with the requirements of 4F and 4G herein.

1817 **4C.9.** The Director shall develop guidance which ad-
1818 dresses these implementation procedures and provides additional

1819 information to persons conducting regulated activities that are af-
1820 fected by these procedures. Such guidance shall include, but shall
1821 not be limited to, information regarding the following: (a) the de-
1822 termination of baseline water quality; (b) social and economic im-
1823 portance pursuant to section 4E.4; and (c) the reasonable alterna-
1824 tives analysis required by section 4E.3. The Director shall provide
1825 an opportunity for public review and comment before finalizing any
1826 guidance. Within twelve months of the effective date of this rule,
1827 the Director shall report to the advisory committee established pur-
1828 suant to W.Va. Code §22-1-9 regarding the status of its implemen-
1829 tation.

1830 **46-1-4D. Tier 1 Protection.**

1831 **4D.1.** Existing uses and the level of water quality neces-
1832 sary to protect the existing uses shall be maintained and protected.

1833 **4D.2.** Tier 1 protection applies to all waters of the state. A
1834 water segment shall be afforded Tier 1 protection where the level of
1835 water quality is not sufficient to support recreation and wildlife and
1836 the propagation and maintenance of fish and other aquatic life, or
1837 where the water quality meets but does not exceed levels necessary
1838 to support recreation and wildlife and the propagation and mainte-
1839 nance of fish and other aquatic life.

1840 **4D.3.** In determining whether a water segment is afforded
1841 only Tier 1 protection, the agency will focus on whether the water
1842 segment is meeting or failing to meet minimum uses, except that,
1843 notwithstanding any other provision of this rule, the main stems of
1844 the Monongahela River, and the Kanawha River from milepoint 72
1845 to the confluence with the Ohio River shall be afforded Tier 1 pro-
1846 tection only.

1847 **4D.4.** The Director will consider whether a water segment
1848 is listed on the state's 303(d) impaired waters list, but where the
1849 parameter(s) for which the water segment is listed does not result in
1850 that water segment's failure to attain minimum uses and where all
1851 other parameters exceed the quality necessary to support recreation
1852 and wildlife and the propagation and maintenance of fish and other
1853 aquatic life, the water segment will be afforded Tier 2 protection.
1854 Where the parameter(s) for which the water segment is listed does

1855 result in failure to attain minimum uses, such as an acid mine
1856 drainage-impacted water segment, that water segment will be af-
1857 farded only Tier 1 protection.

1858 **4D.5.** All water segments listed on the state's 303(d) im-
1859 paired waters list will be afforded only Tier 1 protection for the
1860 parameter(s) that resulted in the water segment being listed.

1861 **4D.6.** There also may be waters in the state where one or
1862 both of the fishable/swimmable uses are attained, but existing water
1863 quality is not "better than necessary" to support those uses (i.e.,
1864 assimilative capacity does not exist for any of the parameters that
1865 would be affected by the proposed activity). Tier 1 protection is
1866 appropriate for such a water segment.

1867 **4D.7.** Where existing uses of the water body are impaired,
1868 there shall be no lowering of the water quality with respect to the
1869 parameters of concern that are causing the impairment. The agency
1870 shall consider nomination of such water body for the 303(d) list of
1871 water quality-impaired streams.

1872 **4D.8.** Where a proposed activity will result in a new or
1873 expanded discharge that would otherwise prevent attainment of an
1874 existing use in a water subject to Tier 1 protection, the applicant
1875 may be allowed to satisfy antidegradation review requirements by
1876 implementing or financing upstream controls of point or nonpoint
1877 sources sufficient to offset the water quality effects of the proposed
1878 activity from the same parameters and insure an improvement in
1879 water quality as a result of the trade. The basis of the trade will be
1880 documented and will be consistent with the trading assessment pro-
1881 cedure that has been approved by the Director. A trade may be
1882 made between more than one stream segment where removing a
1883 discharge in one stream segment directly results in improved water
1884 quality in another stream segment. In addition, (1) the effluent
1885 trade must be for the same parameter; (2) where uncertainty exists
1886 regarding the effluent trade, an adequate margin of safety will be
1887 required; (3) dischargers cannot claim offsets for water quality im-
1888 provements that are required or will occur irrespective of the pro-
1889 posed new or expanded discharge; and (4) the trade must be en-
1890 forceable.

1891 **46-1-4E. Tier 2 Protection (High Quality Waters).**

1892 **4E.1. Tier 2 protection.**

1893 **4E.1.a.** A water segment shall be considered a Tier 2 high
1894 quality water where the level of water quality exceeds levels neces-
1895 sary to support recreation and wildlife and the propagation and
1896 maintenance of fish and other aquatic life.

1897 **4E.1.b.** Tier 2 waters need not exceed the level of quality
1898 needed to meet or exceed numeric criteria for every parameter.
1899 Water segments that support the minimum fishable/swimmable uses
1900 and have assimilative capacity remaining for some parameters shall
1901 generally be afforded Tier 2 protection. For example, a water seg-
1902 ment listed on the state's 303(d) impaired waters list can qualify for
1903 Tier 2 protection, but where the impairment that caused the water
1904 segment to be listed results in failure to attain minimum uses, that
1905 water segment will be afforded only Tier 1 protection.

1906 **4E.1.c.** Where a water segment does not meet or exceed
1907 applicable water quality criteria for every parameter, the Director
1908 will determine whether the water segment will be afforded Tier 2
1909 protection as part of the antidegradation review process using best
1910 professional judgment. In addition to data available for review, the
1911 Director may consider factors such as (1) existing aquatic life uses,
1912 (2) existing recreational or aesthetic uses, (3) existing water quality
1913 data for upstream segments or comparable segments, (4) biological
1914 score for the water segment, and (5) the overall value of the seg-
1915 ment from an ecological, health and public use perspective.

1916 **4E.1.d.** Where insufficient information is available to
1917 determine which tier should apply, a regulated entity may seek a
1918 determination that a water segment should be afforded only Tier 1
1919 protection by submitting water quality data consistent with guidance
1920 developed pursuant to subdivision 4C.9. of this rule showing that
1921 there is no remaining assimilative capacity for any parameter to be
1922 affected by its activity. In seeking such a determination, the im-
1923 pacts of all of the regulated entity's activities on the water segment
1924 must be considered.

1925 **4E.1.e.** Where there is insufficient information to establish
1926 which tier should apply, it is the intent of these procedures to apply
1927 Tier 2 protection to such waters until such time as sufficient water
1928 quality data is obtained to determine the appropriate level of protec-
1929 tion. No presumption shall be made with regard to the actual qual-
1930 ity of any waters as a result of such initial application.

1931 **4E.2. Tier 2 antidegradation review.**

1932 **4E.2.a.** Any regulated activity in a Tier 2 water segment is
1933 required to go through the Tier 2 antidegradation review process
1934 where:

1935 **4E.2.a.1.** The regulated activity is a new or expanded ac-
1936 tivity that would significantly degrade water quality; or

1937 **4E.2.a.2.** the Director determines, upon renewal of a per-
1938 mit or certification, that other individual circumstances warrant a
1939 full review such as cumulative degradation resulting from multiple
1940 discharges within a watershed, degradation resulting from a single
1941 discharge over time, or degradation caused by a regulated facility's
1942 historic noncompliance with its permit.

1943 **4E.2.b.** In allowing any degradation, the agency shall
1944 assure water quality adequate to protect existing uses fully (i.e., Tier
1945 1 protection).

1946 **4E.2.c.** The Director may determine that certain types or
1947 classes of activities should be exempt from Tier 2 review after bal-
1948 ancing the relative impact of the activities on water quality against
1949 the overall benefit of the activities to public health and welfare or
1950 the environment. The Director's discretion to exempt activities
1951 from review pursuant to this section shall be exercised and con-
1952 strued narrowly. Such types or classes of activities may include, for
1953 example, expansions or improvements to publicly owned
1954 wastewater treatment facilities or activities, public benefit activities
1955 by governmental entities, or discharges related to environmental
1956 remediation activities. Where the agency tentatively determines to
1957 grant an exemption under this provision, notice of this determina-
1958 tion must be included in any required public notice, such as public
1959 notice required prior to issuance of an NPDES permit. The Direc-

1960 tor's final determination is a final decision and subject to appeal to
1961 the Environmental Quality Board.

1962 **4E.2.c.1.** A proposed new or expanded discharge from a
1963 publicly owned or publicly owned and privately operated sanitary
1964 wastewater treatment plant constructed or operated to alleviate a
1965 public health concern associated with failing septic systems or un-
1966 treated or inadequately treated sewage, is exempt from Tier 2 re-
1967 view. This exemption would include combined sewer overflow
1968 elimination or reduction projects affecting one or more water bodies
1969 and applies only where there will be a net decrease in the overall
1970 pollutant loading discharged to the combined receiving waters.

1971 **4E.2.d.** Degradation for Tier 2 shall be deemed significant
1972 if the activity results in a reduction in the water segment's available
1973 assimilative capacity (the difference between the baseline water
1974 quality and the water quality criteria) of ten percent or more at the
1975 appropriate critical flow condition(s) for parameters of concern.
1976 Critical flow conditions for non-precipitation induced discharges
1977 are the 7Q10 flow of the receiving stream, plus either of the follow-
1978 ing: maximum permitted flow or maximum flow specified in the
1979 application, for industrial activities, or the average design flow, for
1980 wastewater treatment activities. Degradation will also be deemed
1981 significant if the proposed activity, together with all other activities
1982 allowed after the baseline water quality is established, results in a
1983 reduction in the water segment's available assimilative capacity of
1984 20% or more at the appropriate critical flow conditions for the pa-
1985 rameters of concern.

1986 **4E.2.e.** Significant degradation will be determined on a
1987 parameter-by-parameter basis for each parameter of concern that
1988 might be affected by the regulated activity.

1989 **4E.2.f.** A proposed activity that will result in a new or
1990 expanded discharge in a water subject to Tier 2 protection may be
1991 allowed where the applicant agrees to implement or finance up-
1992 stream controls of point or nonpoint sources sufficient to offset the
1993 water quality effects of the proposed activity from the same param-
1994 eters and insure an improvement in water quality as a result of the
1995 trade. The basis of the trade will be documented and will be consis-
1996 tent with the trading assessment procedure that has been approved

1997 by the Director. A trade may be made between more than one
 1998 stream segment where removing a discharge in one stream segment
 1999 directly results in improved water quality in another stream seg-
 2000 ment. In addition, (1) the effluent trade must be for the same pa-
 2001 rameter; (2) where uncertainty exists regarding the effluent trade, an
 2002 adequate margin of safety will be required; (3) dischargers cannot
 2003 claim offsets for water quality improvements that are required or
 2004 will occur irrespective of the proposed new or expanded discharge;
 2005 and (4) the trades must be enforceable.

2006 **4E.2.g.** New or expanded activities determined to be sig-
 2007 nificant by the agency shall be subject to the Tier 2 review require-
 2008 ments described in sections 4E.2. through 4E.5. herein. If the
 2009 agency determines that no further Tier 2 review requirements shall
 2010 apply for an activity, the activity must still achieve the highest es-
 2011 tablished statutory and regulatory requirements applicable to them,
 2012 or conditions of the permit, or water quality certification, and that
 2013 determination must be made a part of the public notification, as
 2014 provided in 4H.3.

2015 **4E.3. Review of alternatives.**

2016 **4E.3.a.** If a determination is made that significant degrada-
 2017 tion will occur, the agency shall determine whether reasonable and
 2018 cost effective less-degrading or non-degrading alternatives to the
 2019 proposed activity exist. The agency will evaluate any alternatives
 2020 analysis submitted by the regulated activity for consistency with the
 2021 requirements set forth in Subsection 4E.3.b. herein.

2022 **4E.3.b.** A regulated entity proposing any new or expanded
 2023 regulated activity that would significantly degrade water quality in a
 2024 high quality water is required to prepare an evaluation of alterna-
 2025 tives to the proposed activity. The evaluation must provide substan-
 2026 tive information pertaining to the cost and environmental impacts
 2027 associated with the following alternatives:

2028 **4E.3.b.1.** Pollution prevention measures;

2029 **4E.3.b.2.** Reduction in scale of project;

2030 **4E.3.b.3.** Water recycle or reuse;

- 2031 **4E.3.b.4.** Process changes;
- 2032 **4E.3.b.5.** Innovative treatment technology or technologies;
- 2033 **4E.3.b.6.** Advanced treatment technology or technologies;
- 2034 **4E.3.b.7.** Seasonal or controlled discharge options to avoid
2035 critical water quality periods;
- 2036 **4E.3.b.8.** Improved operation and maintenance of existing
2037 treatment systems; and
- 2038 **4E.3.b.9.** Alternative discharge locations.
- 2039 **4E.3.c.** After alternatives to allowing degradation have
2040 been adequately evaluated, a determination shall be made regarding
2041 whether cost-effective and reasonable non-degrading or less-de-
2042 grading alternatives to the proposed activity shall be required. This
2043 determination will be based primarily on the alternatives analysis
2044 developed by the regulated entity, but may be supplemented with
2045 other information and data. As a rule of thumb, cost effective and
2046 reasonable non-degrading or less-degrading pollution control alter-
2047 natives with costs that are less than 110% of the costs of the pollu-
2048 tion control measures associated with the proposed activity shall be
2049 considered reasonable.
- 2050 **4E.3.d.** If it is determined that reasonable and cost effec-
2051 tive less degrading or non-degrading alternatives to the proposed
2052 activity do exist, the project design may be revised accordingly. In
2053 general, if reasonable alternative(s) exist, the alternative or combi-
2054 nation of alternatives that provide the least amount of degradation
2055 shall be implemented up to the determined reasonable and cost-
2056 effective threshold. If the regulated entity does not agree to adopt
2057 such reasonable and cost-effective alternatives, the alternatives
2058 analysis findings will be documented and the activity will not be
2059 allowed.
- 2060 **4E.4. Review of social and economic importance.**
- 2061 **4E.4.a.** If significant degradation would occur, even after
2062 application of reasonable less-degrading or non-degrading alterna-
2063 tives, a determination shall be made as to whether the proposed

2064 activity is necessary to accommodate important economic or social
2065 development in the area in which the waters are located.

2066 **4E.4.b.** The regulated activity must document the social
2067 and economic importance of the proposed activity.

2068 **4E.4.c.** The factors to be addressed in such documentation
2069 may include, but are not limited to, the following:

2070 **4E.4.c.1.** Employment (e.g., increasing, maintaining or
2071 avoiding a reduction in employment);

2072 **4E.4.c.2.** Increased production;

2073 **4E.4.c.3.** Improved community tax base;

2074 **4E.4.c.4.** Housing;

2075 **4E.4.c.5.** Ancillary community economic benefit; and

2076 **4E.4.c.6.** Correction of an environmental or public health
2077 problem.

2078 **4E.4.d.** In addition to the above, a regulated entity may be
2079 required to submit the following:

2080 **4E.4.d.1.** Information pertaining to current aquatic life,
2081 recreational, or other water uses;

2082 **4E.4.d.2.** Information necessary to determine the environ-
2083 mental impacts that may result from the proposed activity;

2084 **4E.4.d.3.** Facts pertaining to the current state of economic
2085 development in the area (e.g., population, area employment, area
2086 income, major employers, types of businesses);

2087 **4E.4.d.4.** Government fiscal base; and

2088 **4E.4.d.5.** Land use in the areas surrounding the proposed
2089 activity.

2090 **4E.4.e.** Once the available information pertaining to the
2091 socio-economic importance of the proposed activity has been re-

2092 viewed by the agency, a preliminary determination regarding im-
2093 portance shall be made. In evaluating the regulated activity's dem-
2094 onstration of socio-economic importance, the agency may use
2095 EPA's Interim Economic Guidance for Water Quality Standards
2096 Workbook (EPA 823-B-95-002, March, 1995). Where there is a
2097 request for a variance from groundwater standards pursuant to 47
2098 CSR 57 for existing sites where activities on those sites have the
2099 potential to impact surface water from contaminated groundwater
2100 and the activity is otherwise subject to this rule, the socio-economic
2101 justification process required under 47 CSR 57 subdivision 6.2.i
2102 will satisfy the requirements of this section. If the proposed activity
2103 is determined to have social or economic importance in the area in
2104 which the affected waters are located, the substance and basis for
2105 that preliminary determination shall be documented and the Tier 2
2106 review shall continue.

2107 **4E.5. Intergovernmental coordination for Tier 2 reviews.**

2108 **4E.5.a.** The intergovernmental coordination requirements
2109 in 46 CSR 1 Section 4.1.b. will be accomplished by providing no-
2110 tice to those agencies listed in Appendix F-1 that the Director be-
2111 lieves may have regulatory oversight of the regulated activity of the
2112 preliminary determination of the socio-economic review and re-
2113 questing comments from those agencies regarding that review.

2114 **4E.5.b.** The public notice of the proposed activity will be
2115 provided as set forth in section 4H.3. herein.

2116 **4E.5.c.** Once the intergovernmental coordination and
2117 public notice requirements are satisfied, the Director shall make a
2118 final determination concerning the social or economic importance
2119 of the proposed activity. All social and economic importance deter-
2120 minations, including determinations to prohibit the activity, shall be
2121 documented and made a part of the public record.

2122 **46-1-4F. Tier 2.5 Protection Review Procedures (Wa-**
2123 **ters of Special Concern).**

2124 See section 46-1-4.1.c and 46-1-2.29 for a description of
2125 waters of special concern.

2126 **4F.1. Tier 2.5 waters.**

2127 **4F.1.a.** Any proposed activity that would degrade a water
2128 segment listed in Appendix F-2 of this rule as waters of special
2129 concern will go through the Tier 2.5 antidegradation review pro-
2130 cess. Discharges from publicly-owned or publicly-owned and pri-
2131 vately operated sanitary wastewater treatment plants that expand to
2132 alleviate a public health concern associated with failing septic sys-
2133 tems or untreated or inadequately treated sewage, shall be permissi-
2134 ble in a Tier 2.5 water segment where there will be a net decrease in
2135 the overall pollutant loading discharged to the combined receiving
2136 waters: *Provided*, That less degrading alternative treatment tech-
2137 nologies are considered and used where costs for such technologies
2138 are within budgets and rates approved for such expansion project.
2139 This provision may extend to combined sewer overflow elimination
2140 or reduction projects. Except as provided in 4F.1.b. of this rule, the
2141 listing procedure for Tier 2.5 waters is set forth in section 4H.1.
2142 herein. Currently listed Tier 2.5 waters are included in Appendix F-
2143 2 to this rule.

2144 **4F.1.b. Initial Presumptive Listing for Tier 2.5.**

2145 **4F.1.b.1.** The stream or stream segments that appear on
2146 Appendix F-3 shall be presumed to qualify as Tier 2.5 waters. Be-
2147 fore any such stream or stream segment is protected as Tier 2.5
2148 waters (and listed on Appendix F-2) the Director shall do the fol-
2149 lowing:

2150 (a) Assure compliance with all provisions of article one-a
2151 of chapter twenty-two; and

2152 (b) No sooner than six months and no later than twelve
2153 months from the effective date of this rule, provide, where practica-
2154 ble, individual notice to property owners along such stream or
2155 stream segment. In addition, notice by publication shall be pro-
2156 vided to all property owners and others with a legal interest in the
2157 property. The notice shall include at a minimum, the information
2158 set forth in paragraphs 4H.1.a.1.a. through 4H.1.a.1.d. of this rule.
2159 The notice shall indicate that a property owner or holder of legal
2160 interest in the property shall have thirty days to file an objection to
2161 the inclusion of the stream or stream segment as a Tier 2.5 water.

2162 **4F.1.b.2.** Should an objection be received from an owner
2163 or holder of a legal interest in property adjoining any stream on
2164 Appendix F-3, the Director shall provide written justification for the
2165 inclusion of the stream as a Tier 2.5 stream with reference to the
2166 criteria set out in 4H.1.a.2. of this rule. The Director shall then
2167 provide a thirty-day comment period on the proposed action.

2168 **4F.1.b.3.** Where no objection is made to the inclusion of a
2169 stream or stream segment as a Tier 2.5 water, the stream shall be
2170 included by the Director on Appendix F-2 without further justifica-
2171 tion.

2172 **4F.1.b.4.** Any final decision by the Director with regard to
2173 the inclusion of a stream in Tier 2.5 made following the procedure
2174 set forth in this paragraph, may be appealed to the EQB.

2175 **4F.1.c.** Following the initial listing for Tier 2.5 waters, as
2176 described in paragraph 4F.1.b. above, subsequent additions or dele-
2177 tions from Appendix F-2 shall be in accordance with section 4H.1.,
2178 herein.

2179 **4F.2. Tier 2.5 antidegradation review.**

2180 **4F.2.a.** No significant degradation of Tier 2.5 waters will
2181 be allowed. For Tier 2.5 waters, degradation will be deemed signif-
2182 icant if it exceeds the baseline water quality plus ten percent of
2183 available assimilative capacity (the difference between the baseline
2184 water quality and the water quality criteria), whether from a single
2185 activity or cumulatively, except that discharges affecting dissolved
2186 oxygen, pH, fecal coliform or temperature will be deemed insignifi-
2187 cant provided that:

2188 **4F.2.a.1.** For dissolved oxygen, the maximum DO sag
2189 will not be greater than 0.4 ppm based on an appropriate wasteload
2190 allocation model, unless that reduction is projected to cause a viola-
2191 tion of sections 8.12 through 8.12.3 in Appendix E, Table 1 herein;

2192 **4F.2.a.2.** pH is maintained within the 6.0 to 9.0 range;

2193 **4F.2.a.3.** Thermal discharges will be consistent with
2194 316(a) of the Federal Act or will not increase the temperature more

2195 than two degrees Fahrenheit at any time or cause other violations of
2196 applicable criteria in sections 8.28 through 8.28.4 in Appendix E,
2197 Table 1, herein.

2198 **4F.2.a.4.** For fecal coliform, necessary and appropriate
2199 treatment (disinfection) or control is required and the fecal coliform
2200 concentrations are established as 200/100 ml monthly average and
2201 400/100 ml daily maximum.

2202 **4F.2.b.** Where a Tier 2.5 water has one or more param-
2203 eters that fail to meet water quality criteria, the Director shall use
2204 best professional judgment in setting appropriate limitations for
2205 such parameters, with the goal of improving baseline water quality
2206 for such parameters over time.

2207 **4F.2.c.** Where baseline water quality has not been estab-
2208 lished for the Tier 2.5 water segment for a parameter of concern that
2209 is reasonably expected to be discharged into the water segment as a
2210 result of a new or expanded regulated activity, a determination of
2211 the baseline water quality for the receiving water segment must be
2212 established for that parameter of concern prior to allowing any new
2213 or expanded discharge.

2214 **4F.2.d.** The Director may consider data for establishing
2215 the baseline water quality from a federal or state agency, the regu-
2216 lated entity, the public, or any other source, as long as the data are
2217 recent and reliable. The regulated entity may be required to provide
2218 baseline water quality for those parameters of concern that are rea-
2219 sonably expected to be discharged as a result of the regulated activ-
2220 ity into the affected water segment.

2221 **4F.2.e.** After the baseline water quality has been estab-
2222 lished for the parameters of concern reasonably expected to be dis-
2223 charged by the proposed activity, the *de facto* criteria for those pa-
2224 rameters of concern will equal the established baseline water quality
2225 plus ten percent of available assimilative capacity.

2226 **4F.2.f.** Regulated entities with discharges existing on or
2227 before the effective date of this rule that discharge into a Tier 2.5

2228 water may be required to submit an alternatives analysis upon re-
2229 newal of its application or upon the written request of the Director
2230 to evaluate reasonable and cost-effective alternatives that would
2231 reduce the activity's impact to a Tier 2.5 water.

2232 **4F.2.g.** Discharges from activities in waters upstream of a
2233 water of special concern shall not result in the ambient water quality
2234 within the Tier 2.5 water exceeding the *de facto* criteria.

2235 **4F.2.h.** A proposed activity that will result in a new or
2236 expanded discharge in a water subject to Tier 2.5 protection may be
2237 allowed where the applicant agrees to implement or finance up-
2238 stream controls of point or nonpoint sources sufficient to offset the
2239 water quality effects of the proposed activity from the same param-
2240 eters and insure an improvement in water quality as a result of the
2241 trade. The basis of the trade will be documented and will be consis-
2242 tent with the trading assessment procedure that has been approved
2243 by the Director. A trade may be made between more than one
2244 stream segment where removing a discharge in one stream segment
2245 directly results in improved water quality in another stream seg-
2246 ment. In addition, (1) the effluent trade must be for the same pa-
2247 rameter; (2) where uncertainty exists regarding the effluent trade, an
2248 adequate margin of safety will be required; (3) dischargers cannot
2249 claim offsets for water quality improvements that are required or
2250 will occur irrespective of the proposed new or expanded discharge;
2251 and (4) the trades must be enforceable.

2252 **4F.2.i.** If a determination is made that the activity will
2253 result in significant degradation of a Tier 2.5 water, the activity
2254 shall not be allowed.

2255 **4F.2.j.** If the activity is determined not to result in signifi-
2256 cant degradation of a Tier 2.5 water, the activity may be allowed.
2257 In such case the antidegradation review findings will be docu-
2258 mented in writing and public notice activities will be initiated con-
2259 sistent with section 4H.3. herein.

2260 **4F.2.k.** Short-term water quality impacts. The Director
2261 shall determine whether a proposed activity is short term in nature
2262 and the resulting changes in water quality will be temporary and

2263 have limited effects. Notwithstanding sections 4F.2.a. and 4F.2.e.
2264 herein, short-term activities which result in less than a 10% change
2265 in the available assimilative capacity may be deemed to have lim-
2266 ited effects. Determinations will be made on a case-by-case basis
2267 and shall be made after consideration of the following factors:

2268 **4F.2.k.1.** The length of time during which the water qual-
2269 ity will be lowered;

2270 **4F.2.k.2.** The percent change in ambient concentrations;

2271 **4F.2.k.3.** The parameters affected;

2272 **4F.2.k.4.** The likelihood for long-term water quality bene-
2273 fits to the segment (e.g., as may result from dredging of contami-
2274 nated sediments);

2275 **4F.2.k.5.** The degree to which achieving applicable water
2276 quality standards during the proposed activity may be at risk;

2277 **4F.2.k.6.** The potential for any residual long-term influ-
2278 ences on existing uses; and

2279 **4F.2.k.7.** The cumulative impacts from all sources for the
2280 parameters affected.

2281 **46-1-4G. Tier 3 Protection Review Procedures (Outstanding**
2282 **National Resource Waters).** See subdivisions 46-1-
2283 4.1.d and 46-1-2.15 for a description of Outstanding
2284 National Resource Waters (ONRW).

2285 **4G.1. Tier 3 waters.** ONRWs are to be maintained, pro-
2286 tected and improved where necessary. Any proposed new or ex-
2287 panded regulated activity that would degrade (result in a lowering
2288 of water quality) a water body that has been approved as an ONRW,
2289 other than temporary lowering of water quality, is prohibited.

2290 **4G.2. Tier 3 antidegradation review.** The agency shall
2291 use the following antidegradation implementation procedures for
2292 evaluating new or expanded regulated activities that have the poten-
2293 tial to affect Outstanding National Resource Waters (ONRWs), as

2294 described in subdivision 46-1-4.1.c. and as nominated and approved
2295 in accordance with the provisions of Appendix F.

2296 **4G.2.a.** Determine whether the proposed activity is short
2297 term in nature and the resulting changes in water quality will be
2298 temporary. Such determination will be made on a case-by-case
2299 basis and shall be made after consideration of the following factors:

2300 **4G.2.a.1.** The length of time during which the water qual-
2301 ity will be lowered;

2302 **4G.2.a.2.** The percent change in ambient concentrations;

2303 **4G.2.a.3.** The parameters affected;

2304 **4G.2.a.4.** The likelihood for long-term water quality bene-
2305 fits to the segment (e.g., as may result from dredging of contami-
2306 nated sediments);

2307 **4G.2.a.5.** The degree to which achieving applicable water
2308 quality standards during the proposed activity may be at risk; and

2309 **4G.2.a.6.** The potential for any residual long-term influ-
2310 ences on existing uses.

2311 **4G.2.b.** If after review of the factors in 4G.2.a.1-6, the
2312 agency determines that the proposed activity will be short term in
2313 nature and the changes in water quality will be temporary and lim-
2314 ited, the proposed activity may be authorized. In such case the
2315 antidegradation review findings shall be documented and public
2316 notice activities shall be initiated. If after review of the factors in
2317 4G.2.a.1 through 4G.2.a.6. the agency determines that the proposed
2318 activity will not be short term in nature or that changes in water
2319 quality will not be temporary and limited, the proposed activity
2320 shall be denied.

2321 **4G.3. Sources upstream from an ONRW.** Any pro-
2322 posed activity that would result in a permanent new or expanded
2323 discharge upstream of an ONRW segment is prohibited except
2324 where such source would improve or not degrade the existing water
2325 quality of the downstream ONRW segment.

2326 **4G.3.a.** To determine whether the proposed activity will
2327 result in the lowering of water quality in the downstream ONRW
2328 segment, the following factors, when applicable, shall be consid-
2329 ered:

2330 **4G.3.a.1.** Change in ambient concentrations predicted at
2331 the appropriate critical condition(s);

2332 **4G.3.a.2.** Change in loadings (i.e., the new or expanded
2333 loadings compared to total existing loadings to the segment);

2334 **4G.3.a.3.** Reduction in available assimilative capacity;

2335 **4G.3.a.4.** Nature, persistence and potential effects of the
2336 parameter;

2337 **4G.3.a.5.** Potential for cumulative effects;

2338 **4G.3.a.6.** Degree of confidence in the various components
2339 of any modeling technique utilized (e.g., degree of confidence asso-
2340 ciated with the predicted effluent variability); and

2341 **4G.3.a.7.** Other factors determined by the Director, when
2342 appropriate.

2343 **4G.3.b.** If a preliminary determination is made that the
2344 applicable criteria in 4G.3.a.1. through 4G.3.a.7. will be met, the
2345 antidegradation review findings shall be documented and the appli-
2346 cable public notice activities shall be initiated. If after review of the
2347 factors in 4G.3.a.1. through 4G.3.a.7., the Director determines that
2348 the proposed activity will result in the lowering of water quality in
2349 the downstream ONRW stream segment, the proposed activity shall
2350 be denied.

2351 **4G.4.** For ONRWs in areas designated as federal Wilder-
2352 ness, nothing in this rule is intended to authorize activities not au-
2353 thorized by the Wilderness Act.

2354 **4G.5.** A proposed activity that will result in a new or ex-
2355 panded discharge in a water subject to Tier 3 protection may be
2356 allowed where the applicant agrees to implement or finance up-
2357 stream controls of point or nonpoint sources sufficient to offset the

2358 water quality effects of the proposed activity from the same param-
2359 eters and insure an improvement in water quality as a result of the
2360 trade. The basis of the trade will be documented and will be consis-
2361 tent with the trading assessment procedure that has been approved
2362 by the Director. A trade may be made between more than one
2363 stream segment where removing a discharge in one stream segment
2364 directly results in improved water quality in another stream seg-
2365 ment. In addition, (1) the effluent trade must be for the same pa-
2366 rameter; (2) where uncertainty exists regarding the effluent trade, an
2367 adequate margin of safety will be required; (3) dischargers cannot
2368 claim offsets for water quality improvements that are required or
2369 will occur irrespective of the proposed new or expanded discharge;
2370 and (4) the trade must be enforceable.

2371 **46-1-4H. Designation of Tier 2.5 and Tier 3 waters; public par-**
2372 **ticipation in antidegradation reviews; appeals.**

2373 **4H.1. Listing process for Tier 2.5 waters.**

2374 **4H.1.a. Tier 2.5 Nomination Procedures.** Any inter-
2375 ested party or the Board may nominate a water to be listed as a
2376 Water of Special Concern. After reviewing the nomination the
2377 Board shall consider the qualification criteria and may designate the
2378 nominated water as a Tier 2.5 water in accordance with the notice
2379 and comment provisions of 46 CSR 6, Procedural Rules Governing
2380 Site Specific Revisions to Water Quality Standards. The address for
2381 filing such petitions is West Virginia Environmental Quality Board,
2382 1615 Washington Street, East, Room 301, Charleston, West Vir-
2383 ginia 25311-2126. The nominating party has the burden of estab-
2384 lishing a basis for listing of a water segment as a Tier 2.5 water.
2385 The Board shall return insufficient nominations to the nominating
2386 party. Generally, nominations that fail to address at least three of
2387 the qualification criteria shall be considered insufficient.

2388 **4H.1.a.1.** Upon receiving a sufficient nomination of a
2389 water or segment of a water for designation as a Tier 2.5 water pur-
2390 suant to the Board's antidegradation policy, the Board shall, within
2391 180 days of receipt of the nomination, notify each locality in which
2392 the water or segment lies and shall provide individual notice to

2393 property owners on the nominated segment. Where individual no-
2394 tice to property owners is impracticable, constructive notice by
2395 publication shall be provided. The written notice shall include, at a
2396 minimum:

2397 **4H.1.a.1.a.** A description of the location of the waters or
2398 segment;

2399 **4H.1.a.1.b.** The procedures and criteria for designation as
2400 well as the impact of the designation;

2401 **4H.1.a.1.c.** The name of the person(s) making the nomi-
2402 nation; and

2403 **4H.1.a.1.d.** The name of a contact person at the Environ-
2404 mental Quality Board who is knowledgeable about the nomination
2405 of the waters or segment. After receipt of the notice of the nomina-
2406 tion, landowners, the public and localities shall be provided 60 days
2407 to comment.

2408 **4H.1.a.2. Qualification Criteria.** Factors to be consid-
2409 ered in determining whether to assign a Water of Special Concern
2410 designation to a water from another category shall include the fol-
2411 lowing:

2412 **4H.1.a.2.a.** Impact on private property owners;

2413 **4H.1.a.2.b.** Whether the interests of all affected parties
2414 have been adequately represented during the nomination and desig-
2415 nation process;

2416 **4H.1.a.2.c.** The location of the water;

2417 **4H.1.a.2.d.** Any previous special designations;

2418 **4H.1.a.2.e.** Existing water quality;

2419 **4H.1.a.2.f.** Factors that indicate unique or exceptional
2420 ecological, recreational or aesthetic resource value;

2421 **4H.1.a.2.g.** Impact on economic development in the area,
2422 including development of demonstrated natural resources; and

2423 **4H.1.a.2.h.** Other factors determined by the Board, when
2424 applicable.

2425 **4H.1.a.3. Reclassification of a Water of Special Con-**
2426 **cern.** The Board may on its own, or at the request of an interested
2427 party, consider reclassifying a Water of Special Concern to another
2428 antidegradation tier. In considering a reclassification, the Board
2429 shall review the criteria outlined in subparagraphs 4H.1.a.2.a.
2430 through 4H.1.a.2.h. above. After such consideration, the Board
2431 may reclassify a Tier 2.5 water in accordance with the notice and
2432 comment provisions of 46 CSR 6, Procedural Rules Governing Site
2433 Specific Revisions to Water Quality Standards.

2434 **4H.2. Listing process for Tier 3 waters.**

2435 **4H.2.a. Tier 3 Nomination Procedures.** Any interested
2436 party or the Board may nominate a water as an ONRW. After re-
2437 viewing the nomination the Board shall consider the qualification
2438 criteria and may classify the nominated water as a Tier 3 water in
2439 accordance with the notice and comment provisions of 46 CSR 6,
2440 Procedural Rules Governing Site Specific Revisions to Water Qual-
2441 ity Standards. The address for filing such petitions is West Virginia
2442 Environmental Quality Board, 1615 Washington Street, East, Room
2443 301, Charleston, West Virginia 25311-2126. The nominating party
2444 has the burden of establishing a basis for listing of a water segment
2445 as a Tier 3 water. The Board shall return insufficient nominations
2446 to the nominating party. Generally, nominations that fail to address
2447 at least three of the qualification criteria set out in paragraph
2448 4H.2.a.2. of this rule shall be considered insufficient.

2449 **4H.2.a.1.** Upon receiving a sufficient nomination of a
2450 water or segment of a water for designation as a Tier 3 water pursu-
2451 ant to the Board's antidegradation policy, the Board shall notify
2452 each locality in which the water or segment lies and shall provide
2453 individual notice to property owners on the nominated segment.
2454 Where individual notice to property owners is impracticable, con-

2455 structive notice by publication shall be provided. The written notice
2456 shall include, at a minimum:

2457 **4H.2.a.1.a.** A description of the location of the waters or
2458 segment;

2459 **4H.2.a.1.b.** The procedures and criteria for designation as
2460 well as the impact of the designation;

2461 **4H.2.a.1.c.** The name of the person(s) making the nomi-
2462 nation; and

2463 **4H.2.a.1.d.** The name of a contact person at the Environ-
2464 mental Quality Board who is knowledgeable about the nomination
2465 of the waters or segment. After receipt of the notice of the nomina-
2466 tion, landowners, the public and localities shall be provided 60 days
2467 to comment.

2468 **4H.2.a.2. Qualification Criteria.** Factors to be consid-
2469 ered in determining whether to assign an ONRW designation to a
2470 water from another category shall include the following:

2471 **4H.2.a.2.a.** Impact on private property owners;

2472 **4H.2.a.2.b.** Whether the interests of all affected parties
2473 have been adequately represented during the nomination and desig-
2474 nation process;

2475 **4H.2.a.2.c.** The location of the water;

2476 **4H.2.a.2.d.** Any previous special designations;

2477 **4H.2.a.2.e.** Existing water quality;

2478 **4H.2.a.2.f.** Outstanding ecological value;

2479 **4H.2.a.2.g.** Outstanding recreational or aesthetic value;
2480 and

2481 **4H.2.a.2.h.** Other factors determined by the Board, when
2482 applicable.

2483 **4H.3. Public participation in antidegradation reviews.**

2484 **4H.3.a.** All antidegradation review findings shall be docu-
2485 mented by the Director and made part of the public record. The
2486 findings, including the baseline water quality, the existing uses, and
2487 the tier assigned to the water body are to be available to the public.

2488 **4H.3.b.** Any required public notice will be provided
2489 through the appropriate Class I or Class II legal advertisement in a
2490 qualified newspaper with the largest circulation for the county
2491 where the activity will occur. The notice will identify the action
2492 being considered, list all existing uses identified of the water, and
2493 call for comments from the public regarding the proposed activity.
2494 The cost of such publication will be borne by the applicant.

2495 **4H.3.c.** Public notice, opportunity for public comment,
2496 and opportunity for a public hearing, consistent with the require-
2497 ments of 47 CSR 10 section 12, will be provided of all activities
2498 proposed to be allowed after a Tier 1, 2, 2.5, or 3 antidegradation
2499 review. Such public notice may be combined with other required
2500 notifications, such as notification to agencies as part of required
2501 intergovernmental coordination or notification of a proposed permit
2502 decision.

2503 **4H.3.d.** Public notice is not required to be provided for
2504 proposed activities on Tier 1 or Tier 2 waters for which a review
2505 process has not been required, such as activities covered by a
2506 WV/NPDES general permit, except that any trading approved by
2507 the Director for antidegradation purposes will require public notice
2508 consistent with the requirements of 47 CSR 10-12.

2509 **4H.3.e.** Public notice of Tier 2 antidegradation reviews.
2510 After a full Tier 2 review has been completed for a proposed activ-
2511 ity, the public notice shall include notice of the availability of the
2512 following:

2513 **4H.3.e.1.** The decision as to whether the proposed activity
2514 has been determined to comply with the antidegradation implemen-
2515 tation rule;

- 2516 **4H.3.e.2.** Findings from the alternatives analysis;
- 2517 **4H.3.e.3.** A determination of the impact of the activity to
2518 ambient concentrations and baseline water quality;
- 2519 **4H.3.e.4.** The results of the socio-economic evaluation of
2520 the activity;
- 2521 **4H.3.e.5.** The determination regarding existence of rea-
2522 sonable and cost effective non-degrading or less degrading alterna-
2523 tives; and
- 2524 **4H.3.e.6.** A description of the water segment that is sub-
2525 ject to the antidegradation review.
- 2526 **4H.3.f.** Once the intergovernmental coordination and
2527 public notice requirements of Subpart 4H.3. are satisfied, the Direc-
2528 tor shall make a determination concerning the social or economic
2529 importance in the area in which the affected water bodies are lo-
2530 cated. All determinations, including determinations to prohibit the
2531 activity, shall be documented and made a part of the public record.
- 2532 **4H.4. Appeals.**
- 2533 **4H.4.a.** Final agency decisions, made after public com-
2534 ment, that identify applicable uses, designate tiers, or that find regu-
2535 lated activities to be allowed or prohibited, are final actions that are
2536 appealable as set forth in the Administrative Procedures Act. Final
2537 agency actions made by the Director are appealable to the Board.

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2538

APPENDIX F-1

2539 **ANTIDegradation Implementation Procedures**

2540 **INTERGOVERNMENTAL COORDINATION AGENCIES**

2541

STATE AGENCIES

2542 **Bureau of Commerce**

2543 Division of Natural Resources

2544 Division of Forestry

2545 Development Office

2546 **Department of Health and Human Resources**

2547 Bureau for Public Health

2548 **Bureau of the Environment**

2549 Division of Environmental Protection - all offices

2550 **Department of Agriculture**

2551 Soil Conservation Agency

2552 **Department of Transportation**

2553 Division of Highways

2554 **FEDERAL AGENCIES**

2555 US Environmental Protection Agency, Region III

2556 US Fish and Wildlife Service

2557 US Army Corps of Engineers

2558 US Forest Service

2559 US Office of Surface Mining

2560

APPENDIX F-2

2561

WV DNR and WV DEP - Waters of Special Concern

2562

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APPENDIX F-3

2564

Initial Presumptive Listing for Tier 2.5

2565	<u>DNR CODE</u>	<u>STREAM NAME</u>	<u>LENGTH (miles)</u>	<u>LENGTH (miles)</u>
2566	Tug Fork Watershed			
2567	BST-60-D	CUB BRANCH	0.72	0.72
2568	BST-60-E	GEORGE BRANCH	3.79	3.79
2569	BST-60-F	CRANE CREEK	1.22	1.22
2570	BST-60-G	HURRICANE BRANCH	2.99	2.99
2571	BST-60-H-2	WHITE OAK BRANCH	1.78	1.78
2572	BST-70-N	LITTLE SLATE CREEK	3.42	3.42
2573	BST-70-U-1	BIG BRANCH	1.86	1.86
2574	BST-70-W	JACOBS FORK	10.50	10.50
2575	BST-70-Z	VALL CREEK	2.31	2.31
2576	BST-76-E	DAYCAMP BRANCH	1.67	1.67
2577	BST-99	ELKHORN CREEK	8.41	8.41
2578			38.68	
2579	James River Watershed			
2580	J-1-A	EWIN RUN	2.64	2.64
2581	J-1-C	NORTH FORK	5.88	5.88
2582	J-2	SWEET SPRINGS CREEK	6.10	6.10
2583	J-3	COVE CREEK	6.66	6.66
2584			21.27	
2585	Kanawha River Watershed (Upper & Lower)			
2586	K-13	LITTLE SIXTEENMILE CREEK	4.45	4.45
2587	K-14-B-1	UNT OF FIVEFORK BRANCH	1.87	1.87
2588	K-39-E-3	BAYS BRANCH	1.89	1.89
2589	K-39-M-1	HOFFMAN HOLLOW	2.32	2.32
2590	K-39-O	SHREWSBURY HOLLOW	1.54	1.54
2591	K-76	LOOP CREEK	19.98	19.98
2592			32.06	
2593	Coal River Watershed			
2594	KC-10-22	WHITE OAK BRANCH	2.08	2.08
2595	KC-31-B	HOPKINS FORK	8.95	8.95
2596			11.03	
2597	Elk River Watershed			
2598	KE	ELK RIVER	5.00	5.00
2599	KE-102-A	CAMP CREEK	14.19	14.19
2600	KE-111-K	SUGAR CREEK	10.51	10.51
2601	KE-111-K-2	LITTLE SUGAR CREEK	7.61	7.61
2602	KE-117-B	RIGHT FORK	13.60	13.60
2603	KE-118	BERGOO CREEK	8.19	8.19

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2604	KE-127	BIG RUN	2.53	2.53
2605	KE-129	VALLEY FORK	2.68	2.68
2606	KE-133	DRY FORK	3.80	3.80
2607	KE-135	BIG RUN	1.94	1.94
2608	KE-136	PROPS RUN	1.38	1.38
2609	KE-137	LAUREL RUN	2.63	2.63
2610	KE-138	BIG SPRING FORK	9.67	9.67
2611	KE-138-B	CUP RUN	2.02	2.02
2612	KE-139-5A	SLATY FORK	4.79	4.79
2613	KE-139-B	CROOKED FORK	2.51	2.51
2614	KE-14-P	PANTHER HOLLOW	1.55	1.55
2615	KE-50-B-10	IKE FORK	1.88	1.88
2616	KE-50-I	ROCKCAMP RUN	6.66	6.66
2617	KE-76-L-5	TUG FORK	3.83	3.83
2618	KE-76-O	POPLAR CREEK	6.29	6.29
2619	KE-76-U	JOHNSON BRANCH	2.44	2.44
2620	KE-98-B-16	DESERT FORK	4.97	4.97
2621	KE-98-C	LEFT FORK	5.73	5.73
2622	KE-98-C-1	LAURELPATCH RUN	1.51	1.51
2623	KE-98-C-11	LAUREL FORK	5.59	5.59
2624	KE-98-C-14	FALL RUN	6.06	6.06
2625	KE-98-C-15	BIG RUN	3.79	3.79
2626	KE-98-C-1-A	LONG FORK	2.56	2.56
2627			145.90	
2628	Gauley River Watershed			
2629	KG GAULEY RIVER		26.56	26.56
2630	KG-19-A	DOGWOOD CREEK	5.08	5.08
2631	KG-19-G	ANGLINS CREEK	12.77	12.77
2632	KG-19-J	BRACKENS CREEK	6.55	6.55
2633	KG-19-U-1	BROWN CREEK	3.19	3.19
2634	KG-19-U-2-C	OLD FIELD BRANCH	2.88	2.88
2635	KG-19-U-2-D	JOB KNOB BRANCH	3.85	3.85
2636	KG-19-V-5	LAUREL CREEK	3.61	3.61
2637	KG-19-V-7	KUHN BRANCH	1.91	1.91
2638	KG-20	COLLISON CREEK	4.98	4.98
2639	KG-24	HOMINY CREEK	23.40	23.40
2640	KG-24-E	GRASSY CREEK	5.68	5.68
2641	KG-24-E-2	BRUSHY MEADOW CREEK	5.23	5.23
2642	KG-24-J	PRICE FORK	2.83	2.83
2643	KG-26-K	BRUSHY FORK	5.53	5.53
2644	KG-32-J	CRANES NEST RUN	2.26	2.26
2645	KG-34-B	COAL SIDING RUN	1.50	1.50
2646	KG-34-E	LAUREL CREEK	9.18	9.18
2647	KG-34-E-11	MIDDLE BRANCH	3.34	3.34
2648	KG-34-E-13	COLD SPRING BRANCH	1.71	1.71
2649	KG-34-E-3	SPRING RUN	1.52	1.52

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2650	KG-34-E-8	BEECH RUN	3.08	3.08
2651	KG-34-E-9	HOGCAMP RUN	2.55	2.55
2652	KG-34-F	LITTLE LAUREL CREEK	9.87	9.87
2653	KG-34-F-2	IMPROVEMENT BRANCH	1.86	1.86
2654	KG-34-G	SOUTH FORK	7.21	7.21
2655	KG-34-G-10	COLD KNOB FORK	5.60	5.60
2656	KG-34-G-13	BIG RUN	1.44	1.44
2657	KG-34-G-5	ELKLICK RUN	2.10	2.10
2658	KG-34-G-6	ROCKY RUN	3.54	3.54
2659	KG-34-G-8	BECKY RUN	2.56	2.56
2660	KG-34-H	NORTH FORK	16.37	16.37
2661	KG-34-H-14	BEAR RUN	2.21	2.21
2662	KG-34-H-4	HUNTERS RUN	3.09	3.09
2663	KG-34-H-5	COATS RUN	1.08	1.08
2664	KG-34-H-9	ARMSTRONG RUN	1.24	1.24
2665	KG-45	BIG LAUREL CREEK	6.56	6.56
2666	KG-57	MILLER MILL RUN	4.37	4.37
2667	KG-58	LAUREL CREEK	2.07	2.07
2668	KG-59	BIG RUN	1.32	1.32
2669	KG-5-F-3	BEARPEN FORK	1.27	1.27
2670	KG-5-H	ASH FORK	3.09	3.09
2671	KG-5-J	NEIL BRANCH	2.65	2.65
2672	KG-6	RICH CREEK	6.74	6.74
2673	KG-60	TURKEY CREEK	4.86	4.86
2674	KG-61	HUGHES RUN	2.79	2.79
2675	KG-65	WILLIAMS CAMP RUN	1.66	1.66
2676	KG-67	STRAIGHT CREEK	1.83	1.83
2677	KG-70	BIG RUN	3.22	3.22
2678	KG-72	MIDDLE FORK	1.96	1.96
2679	KG-73	NORTH FORK	3.29	3.29
2680	KGC	CRANBERRY RIVER	38.39	38.39
2681	KGC-14	LICK BRANCH	1.22	1.22
2682	KGC-15	HANGING ROCK BRANCH	1.24	1.24
2683	KGC-19	DOGWAY FORK	8.75	8.75
2684	KGC-21	BIRCHLONG RUN	2.18	2.18
2685	KGC-23-E	CHARLES CREEK	2.59	2.59
2686	KGC-24-C	LEFT FORK	1.52	1.52
2687	KGC-3	JAKEMAN RUN	2.06	2.06
2688	KGC-4	BARRENSHE RUN	4.59	4.59
2689	KGC-7	BEE RUN	1.57	1.57
2690	KGC-8	FOXTREE RUN	1.56	1.56
2691	KGC-9	ALDRICH BRANCH	1.25	1.25
2692	KGW	WILLIAMS RIVER	34.70	34.70
2693	KGW-1	CRAIG RUN	2.00	2.00
2694	KGW-19	UPPER BANNOCK SHOALS RUN	1.83	1.83
2695	KGW-2	JONATHAN RUN	1.38	1.38

2696	KGW-20	TEA CREEK	5.96	5.96
2697	KGW-20-A	LICK CREEK	1.82	1.82
2698	KGW-21	SUGAR CREEK	3.63	3.63
2699	KGW-22	LITTLE LAUREL CREEK	2.47	2.47
2700	KGW-25	DAY RUN	3.08	3.08
2701	KGW-26	BLACK MOUNTAIN RUN	1.65	1.65
2702	KGW-27	MOUNTAIN LICK RUN	2.11	2.11
2703	KGW-3	SAWYER RUN	1.33	1.33
2704	KGW-4	SPICE RUN	1.81	1.81
2705	KGW-8	WHITE OAK FORK	2.14	2.14
2706	KGW-9	LICK BRANCH	1.43	1.43
2707			379.30	
2708	New River Watershed (Upper & Lower)			
2709	KN-17	MANNS CREEK	3.37	3.37
2710	KN-18	EPHRAIM CREEK	4.22	4.22
2711	KN-23	BUFFALO CREEK	2.41	2.41
2712	KN-24	SLATER CREEK	5.08	5.08
2713	KN-26	PINEY CREEK	16.91	16.91
2714	KN-26-B	FAT CREEK	6.56	6.56
2715	KN-27	LAUREL CREEK	12.37	12.37
2716	KN-27-C	CHESTNUT KNOB FORK	3.54	3.54
2717	KN-29	GLADE CREEK	5.76	5.76
2718	KN-29-E	PINCH CREEK	5.71	5.71
2719	KN-32	MEADOW CREEK	2.59	2.59
2720	KN-37	FALL BRANCH	1.93	1.93
2721	KN-51-O	TURKEY CREEK	9.19	9.19
2722	KN-61	RICH CREEK	2.85	2.85
2723	KNB-12-B	LAUREL CREEK	4.86	4.86
2724	KNB-13	CAMP CREEK	9.29	9.29
2725	KNB-13-D	MASH FORK	2.91	2.91
2726	KNB-13-G	SENG BRANCH	1.48	1.48
2727	KNB-3	LITTLE BLUESTONE RIVER	4.73	4.73
2728	KNB-30	CRANE CREEK	5.40	5.40
2729			111.16	
2730	Greenbrier River Watershed			
2731	KNG	GREENBRIER RIVER	25.30	25.30
2732	KNG(S)-1	MILLIGAN CREEK	5.71	5.71
2733	KNG(S)-2-B	FLYNN CREEK	4.27	4.27
2734	KNG(S)-3-A	BURNS RUN	4.08	4.08
2735	KNG-23	SECOND CREEK	6.06	6.06
2736	KNG-28	ANTHONY CREEK	15.70	15.70
2737	KNG-28-D	LITTLE CREEK	8.08	8.08
2738	KNG-28-P-1	LAUREL RUN	4.20	4.20
2739	KNG-28-Q-2	TWOMILE RUN	1.55	1.55
2740	KNG-47	BEAVER CREEK	8.18	8.18
2741	KNG-49	SWAGO CREEK	3.77	3.77

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2742	KNG-53-G	BARCLAY RUN	1.71	1.71
2743	KNG-53-H	DOUTHAT CREEK	9.02	9.02
2744	KNG-60	LAUREL RUN	3.00	3.00
2745	KNG-66-D	SHOCK RUN	4.46	4.46
2746	KNG-66-H-2	LEFT PRONG	3.29	3.29
2747	KNG-68	DEER CREEK	8.75	8.75
2748	KNG-68-A	NORTH FORK	10.73	10.73
2749	KNG-68-A-3	SUTTON RUN	1.60	1.60
2750	KNG-68-A-4	TACKER FORK	2.46	2.46
2751	KNG-68-A-5	BLACK RUN	2.43	2.43
2752	KNG-68-A-6	ELLEBER RUN	3.08	3.08
2753	KNG-68-A-6-A	GRIFFIN RUN	1.69	1.69
2754	KNG-70	LEATHERBARK RUN	4.69	4.69
2755	KNG-74	TROUT RUN	1.14	1.14
2756	KNG-75	ALLEGHENY RUN	5.33	5.33
2757	KNG-77	ELK CREEK	2.56	2.56
2758	KNG-78	EAST FORK	19.87	19.87
2759	KNG-78-A	JOHNS RUN	2.21	2.21
2760	KNG-78-C	LITTLE RIVER	6.28	6.28
2761	KNG-78-G	FIVEMILE HOLLOW	2.29	2.29
2762	KNG-78-H	POCA RUN	2.73	2.73
2763	KNG-78-H-1	LONG RUN	2.85	2.85
2764	KNG-78-K	MULLENAX RUN	2.92	2.92
2765	KNG-78-L	ABES RUN	2.65	2.65
2766	KNG-79	WEST FORK	17.68	17.68
2767	KNG-79-B	FILL RUN	1.91	1.91
2768	KNG-79-C	LITTLE RIVER	7.59	7.59
2769	KNG-79-C-1	SPAN OAK RUN	2.32	2.32
2770	KNG-79-C-2	CLUBHOUSE RUN	11.02	11.02
2771	KNG-79-C-3	HINKLE RUN	10.41	10.41
2772			245.59	
2773	Little Kanawha River Watershed			
2774	LK-111	LAUREL RUN	6.04	6.04
2775	LK-131	GETOUT RUN	3.01	3.01
2776	LK-86-E-4	PINE RUN	1.57	1.57
2777	LK-95-L	CARPENTER FORK	5.04	5.04
2778			15.66	
2779	Cheat River Watershed			
2780	MC-12-A	LAUREL RUN	6.13	6.13
2781	MC-12-B-3	HOG RUN	4.42	4.42
2782	MC-12-B-6	MILL RUN	3.95	3.95
2783	MC-18	ROARING CREEK	8.03	8.03
2784	MC-1-A	RYAN HOLLOW	2.33	2.33
2785	MC-20	ELSEY RUN	3.40	3.40
2786	MC-2-A	DARNELL RUN	2.08	2.08
2787	MC-33-A	FLAG RUN	5.51	5.51

2788	MC-36	WOLF CREEK	6.90	6.90
2789	MC-41	LONG RUN	1.22	1.22
2790	MC-45	TOBES RUN	1.16	1.16
2791	MC-46-B	RIGHT FORK	3.80	3.80
2792	MC-47	JOHNATHAN RUN	1.86	1.86
2793	MC-50	UPPER JOHNATHAN RUN	2.53	2.53
2794	MC-51	CLOVER RUN	1.34	1.34
2795	MC-51-	LEFT FORK	9.16	9.16
2796	MC-51-A	RIGHT FORK	5.45	5.45
2797	MC-51-B	INDIAN FORK	4.16	4.16
2798	MC-52	MINEAR RUN	6.63	6.63
2799	MC-52-0.7	BRIDGE RUN	1.12	1.12
2800	MC-52-A	ROARING RUN	2.12	2.12
2801	MC-53	DRY RUN	2.73	2.73
2802	MC-54	HORSESHOE RUN	15.55	15.55
2803	MC-54-A	MIKE RUN	3.86	3.86
2804	MC-54-C	MAXWELL RUN	2.92	2.92
2805	MC-54-D	HYLE RUN	3.92	3.92
2806	MC-54-E	LICK DRAIN	1.79	1.79
2807	MC-54-F	LAUREL RUN	2.87	2.87
2808	MC-54-G	LYNN RUN	1.33	1.33
2809	MC-54-H	THUNDERSTRUCK RUN	3.89	3.89
2810	MC-54-I	LEADMINE RUN	4.81	4.81
2811	MC-54-I-1	LIME HOLLOW RUN	1.14	1.14
2812	MC-54-J	WOLF RUN	1.80	1.80
2813	MC-54-K	TWELVEMILE RUN	2.25	2.25
2814	MC-55	DRY RUN	3.19	3.19
2815	MC-56	MILL RUN	4.77	4.77
2816	MC-57	WOLF RUN	1.90	1.90
2817	MC-60	DRY FORK	3.76	3.76
2818	MC-60-A	ROARING RUN	0.77	0.77
2819	MC-60-C	ELKLICK RUN	4.52	4.52
2820	MC-60-C-3	JOHN B. HOLLOW	1.12	1.12
2821	MC-60-D-10	SAND RUN	3.19	3.19
2822	MC-60-D-11	YOAKUM RUN	2.48	2.48
2823	MC-60-D-LOWER	BLACKWATER RIVER	2.62	2.62
2824	MC-60-G	RED RUN	5.56	5.56
2825	MC-60-I	MILL RUN	2.92	2.92
2826	MC-60-J	ELKLICK RUN	2.59	2.59
2827	MC-60-K	GLADY FORK	31.31	31.31
2828	MC-60-K-1	THREE SPRING RUN	1.25	1.25
2829	MC-60-K-11	MCCRAY CREEK	2.41	2.41
2830	MC-60-K-15	DANIELS CREEK	3.18	3.18
2831	MC-60-K-16	WEST FORK GLADY FORK	6.13	6.13
2832	MC-60-K-16	WEST FORK GLADY FORK	4.27	4.27
2833	MC-60-K-17	EAST FORK GLADY FORK	7.28	7.28

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2834	MC-60-K-17-A	LOUK RUN	1.19	1.19
2835	MC-60-K-2	PANTHER CAMP RUN	1.73	1.73
2836	MC-60-K-2-A	HOG RUN	1.17	1.17
2837	MC-60-K-4	FIVE LICK CREEK	1.71	1.71
2838	MC-60-K-5	WOODFORD RUN	1.14	1.14
2839	MC-60-K-6	BAKER CAMP RUN	1.19	1.19
2840	MC-60-L	BIG RUN	3.69	3.69
2841	MC-60-N	LAUREL FORK	21.52	21.52
2842	MC-60-N-4	BEAVERDAM RUN	2.12	2.12
2843	MC-60-N-8	FIVE LICK RUN	2.45	2.45
2844	MC-60-O	RED CREEK	6.77	6.77
2845	MC-60-O-1	BIG RUN	3.47	3.47
2846	MC-60-O-2	FLATROCK RUN	2.89	2.89
2847	MC-60-O-3	GANDY RUN	2.26	2.26
2848	MC-60-P	SPRUCE RUN	3.25	3.25
2849	MC-60-Q	HORSECAMP RUN	4.59	4.59
2850	MC-60-R	TORY CAMP RUN	2.43	2.43
2851	MC-60-T	GANDY CREEK	15.68	15.68
2852	MC-60-T-1	LOWER TWO SPRING RUN	2.29	2.29
2853	MC-60-T-10	NARROW RIDGE RUN	2.16	2.16
2854	MC-60-T-11	WARNER RUN	2.21	2.21
2855	MC-60-T-2	UPPER TWO SPRING RUN	2.53	2.53
2856	MC-60-T-3	SWALLOW ROCK RUN	1.82	1.82
2857	MC-60-T-6	TAYLOR RUN	0.87	0.87
2858	MC-60-T-8	BIG RUN	3.75	3.75
2859	MC-60-T-9	GRANTS BRANCH	2.80	2.80
2860	MCS	SHAVERS FORK	7.26	7.26
2861	MCS-12	LITTLE LAUREL RUN	1.31	1.31
2862	MCS-13	LITTLE BLACK RUN	4.74	4.74
2863	MCS-14	CLIFTON RUN	2.11	2.11
2864	MCS-15	RATTLESNAKE RUN	5.03	5.03
2865	MCS-16	JOHNS RUN	2.70	2.70
2866	MCS-2	HAWK RUN	1.09	1.09
2867	MCS-22	TAYLOR RUN	2.97	2.97
2868	MCS-22-A	STALNAKER RUN	1.61	1.61
2869	MCS-28	UPPER POND LICK	6.29	6.29
2870	MCS-3	HADDIT RUN	2.68	2.68
2871	MCS-33	FISHING HAWK CREEK	3.60	3.60
2872	MCS-3-A	SOUTH BRANCH	3.56	3.56
2873	MCS-4	JOBS RUN	1.72	1.72
2874	MCS-40	YOKUM RUN	2.56	2.56
2875	MCS-43	GLADE RUN	2.67	2.67
2876	MCS-46	RED RUN	2.75	2.75
2877	MCS-47	BLISTER RUN	1.95	1.95
2878	MCS-48	FISH HATCHERY RUN	2.66	2.66
2879	MCS-49	LAMBERT RUN	3.23	3.23

2880	MCS-5	LAUREL RUN	3.48	3.48
2881	MCS-50	FIRST FORK	5.42	5.42
2882	MCS-54	BEAVER CREEK	1.74	1.74
2883	MCS-55	SECOND FORK	4.15	4.15
2884	MCS-57	BLACK RUN	2.28	2.28
2885	MCS-6	PLEASANT RUN	3.52	3.52
2886	MCS-6-B	AARONS RUN	2.35	2.35
2887	MCS-7	STONELICK RUN	1.68	1.68
2888	MCS-8	LAUREL RUN	1.18	1.18
2889	MCS-9	NAIL RUN	1.74	1.74
2890			415.11	
2891	Tygart River Watershed			
2892	MT-18-E-5-B	FROG RUN	2.36	2.36
2893	MT-23-F	MILL RUN	4.03	4.03
2894	MT-23-H	MILL RUN	3.72	3.72
2895	MT-38	ZEBBS CREEK	4.04	4.04
2896	MT-44	MATHEUS RUN	1.66	1.66
2897	MT-45-C	RIGHT FORK	3.24	3.24
2898	MT-47	BEAVER CREEK	6.20	6.20
2899	MT-50-A	RIGHT FORK OF FILES CREEK	8.33	8.33
2900	MT-50-A-1	LIMEKILN RUN	2.12	2.12
2901	MT-50-B	LEFT FORK FILES CREEK	2.84	2.84
2902	MT-61	SHAVERS RUN	6.95	6.95
2903	MT-64	MILL CREEK	10.69	10.69
2904	MT-64-C	GLADE RUN	1.59	1.59
2905	MT-64-E	MEATBOX RUN	1.19	1.19
2906	MT-64-F	POTATOHOLE FORK	1.84	1.84
2907	MT-66	RIFFLE CREEK	1.91	1.91
2908	MT-66-B	MCGEE RUN	3.40	3.40
2909	MT-66-C	BACK FORK	2.01	2.01
2910	MT-67	RAFE RUN	1.54	1.54
2911	MT-68	BECKY CREEK	9.41	9.41
2912	MT-68-A	BIG BRANCH	2.25	2.25
2913	MT-72	HAMILTON RUN	2.49	2.49
2914	MT-73	CLAY RUN	2.61	2.61
2915	MT-74	ELKWATER FORK	5.20	5.20
2916	MT-74-A	MOWRY RUN	2.34	2.34
2917	MT-74-B	LIMEKILN RUN	1.93	1.93
2918	MT-75	STEWART RUN	8.08	8.08
2919	MT-77	CONLEY RUN	7.10	7.10
2920	MT-78	RALSTON RUN	6.99	6.99
2921	MT-79	WINDY RUN	4.60	4.60
2922	MT-80	LOGAN RUN	2.49	2.49
2923	MT-81	BIG RUN	5.14	5.14
2924	MTB-25-A	RIGHT FORK	3.88	3.88
2925	MTB-27	PANTHER FORK	4.08	4.08

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2926	MTB-28	BIG RUN	3.03	3.03
2927	MTB-31	RIGHT FORK	2.24	2.24
2928	MTB-31-B	REGER RUN	1.13	1.13
2929	MTB-31-C	ALEC RUN	1.93	1.93
2930	MTB-31-D	MILLSITE RUN	3.76	3.76
2931	MTB-32	LEFT FORK	6.85	6.85
2932	MTB-32-D	BEARCAMP RUN	5.00	5.00
2933	MTB-32-H	BEECH RUN	4.62	4.62
2934	MTM	MIDDLE FORK RIVER	7.32	7.32
2935	MTM-1	HANGING RUN	4.68	4.68
2936	MTM-11	RIGHT FORK MIDDLE FORK RIVER	7.42	7.42
2937	MTM-11-D	JACKSON FORK	3.88	3.88
2938	MTM-11-E	JENKS FORK	3.70	3.70
2939	MTM-13	LONG RUN	7.66	7.66
2940	MTM-16	CASSITY FORK	4.25	4.25
2941	MTM-16-A	PANTHER RUN	4.43	4.43
2942	MTM-21	PLEASANT RUN	1.82	1.82
2943	MTM-22	LAUREL RUN	2.57	2.57
2944	MTM-23	LAUREL BRANCH	4.00	4.00
2945	MTM-24	SUGAR RUN	2.30	2.30
2946	MTM-25	SCHOOLCRAFT RUN	3.08	3.08
2947	MTM-25-A	BIRCH FORK	1.48	1.48
2948	MTM-26	BIRCH FORK	3.56	3.56
2949	MTM-27	MITCHELL LICK FORK	2.52	2.52
2950			231.49	
2951	Upper Ohio North			
2952	O-102-A	WHITEOAK RUN	0.48	0.48
2953	Twelvepole Creek Watershed			
2954	O-2-H-2-A	STOWERS BRANCH	0.46	0.46
2955	O-2-P-23	ARKANSAS BRANCH	0.75	0.75
2956	O-2-P-25	SWEETWATER BRANCH	2.00	2.00
2957	O-2-P-26	LONG BRANCH	2.59	2.59
2958	O-2-P-27	SPRUCE FORK	1.84	1.84
2959	O-2-Q-14	RICH CREEK	1.32	1.32
2960	O-2-Q-16	BLUELICK BRANCH	2.28	2.28
2961	O-2-Q-18-A	LITTLE LAUREL CREEK	2.09	2.09
2962			13.33	
2963	Upper Ohio South			
2964	O-77-B	LONG RUN	4.51	4.51
2965	Guyandotte River Watershed			
2966	OG-102	BRICKLE BRANCH	1.64	1.64
2967	OG-29-C	HORSESHOE BRANCH	1.98	1.98
2968	OG-32-F	PLUM BRANCH	2.35	2.35
2969	OG-34-E	STEER FORK	1.64	1.64

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2970	OG-37	LITTLE UGLY CREEK	1.42	1.42
2971	OG-38	BIG UGLY CREEK	8.49	8.49
2972	OG-38-A	PIGEONROOST CREEK	3.62	3.62
2973	OG-38-D	LAUREL CREEK	2.60	2.60
2974	OG-61	BUFFALO CREEK	3.01	3.01
2975	OG-96-A	STURGEON BRANCH	1.57	1.57
2976	OGM-8-B	LEFT FORK	2.75	2.75
2977			31.06	
2978 Potomac Direct Drains Watershed				
2979	P-16	ROCKWELL RUN	10.39	10.39
2980	P-9-G-1	NORTH FORK INDIAN RUN	1.49	1.49
2981	P-9-G-2	SOUTH FORK INDIAN RUN	3.76	3.76
2982			15.63	
2983 Cacapon River Watershed				
2984	PC-0.9	CONOR HOLLOW	7.73	7.73
2985	PC-1	CONSTANT RUN	5.23	5.23
2986	PC-10	EDWARDS RUN	7.00	7.00
2987	PC-17	HAWK RUN	4.62	4.62
2988	PC-23	TROUT RUN	16.62	16.62
2989	PC-24-H	LOWER COVE RUN	4.63	4.63
2990			45.83	
2991				
2992 North Branch / Potomac River Watershed				
2993	PNB-14	HOWELL RUN	3.83	3.83
2994	PNB-15	DEEP RUN	4.75	4.75
2995	PNB-15-A	CRANBERRY RUN	2.66	2.66
2996	PNB-16-B	WYCKOFF RUN	2.43	2.43
2997	PNB-18	DIFFICULT CREEK	5.17	5.17
2998	PNB-18-B-1	JOHNNYCAKE RUN	3.28	3.28
2999			22.11	
3000 South Branch / Potomac River Watershed				
3001	PSB-13	MILL RUN	8.95	8.95
3002	PSB-21-F	DUMPLING RUN	2.60	2.60
3003	PSB-21-K	ROUGH RUN	6.92	6.92
3004	PSB-25-C-2	SPRING RUN	2.98	2.98
3005	PSB-28-A-1	BIG RUN	2.61	2.61
3006	PSB-28-A-2	LAUREL RUN	3.17	3.17
3007	PSB-28-B	SAMUEL RUN	2.85	2.85
3008	PSB-28-C	BROAD RUN	2.39	2.39
3009	PSB-28-D	MOYER FORK	7.92	7.92
3010	PSB-28-E	HIGH RIDGE RUN	2.28	2.28
3011	PSB-28-EE	BIG RUN	12.84	12.84
3012	PSB-28-EE-2	SAWMILL BRANCH	3.22	3.22
3013	PSB-28-EE-2-A	BACK RUN	3.39	3.39

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3014	PSB-28-EE-3	TEETER CAMP RUN	3.71	3.71
3015	PSB-28-EE-3-A	HEMLOCK RUN	1.91	1.91
3016	PSB-28-EE-3-B	LEONARD SPRING HOLLOW	4.64	4.64
3017	PSB-28-EE-3-C	MIDDLE RIDGE HOLLOW	4.81	4.81
3018	PSB-28-EE-3-D	BUD HOLLOW	3.54	3.54
3019	PSB-28-EE-4	ELK RUN	3.93	3.93
3020	PSB-28-G	ZEKE RUN	3.70	3.70
3021	PSB-28-GG-1	VANCE RUN	3.27	3.27
3022	PSB-28-GG-2	SAMS RUN	1.10	1.10
3023	PSB-28-GG-2-A	LITTLE LOW PLACE HOLLOW	1.10	1.10
3024	PSB-28-I	POWDERMILL RUN	2.84	2.84
3025	PSB-28-K	SENECA CREEK	20.26	20.26
3026	PSB-28-K-1	BRUSHY RUN	7.79	7.79
3027	PSB-28-K-2	ROARING CREEK	6.13	6.13
3028	PSB-28-K-2-B	LONG RUN	2.23	2.23
3029	PSB-28-K-3	HORSECAMP RUN	4.06	4.06
3030	PSB-28-K-3-B	WAMSLEY RUN	1.52	1.52
3031	PSB-28-K-4	STRADER RUN	2.56	2.56
3032	PSB-28-K-5	GULF RUN	1.46	1.46
3033	PSB-28-K-6	WHITES RUN	3.86	3.86
3034	PSB-28-K-6-A	LOWER GULF RUN	4.67	4.67
3035	PSB-28-K-6-B	UPPER GULF RUN	2.67	2.67
3036	PSB-28-R	BLIZZARD RUN	3.60	3.60
3037	PSB-28-S	BRIERY GAP RUN	2.65	2.65
3038	PSB-28-T	LAUREL RUN	2.74	2.74
3039	PSB-29	REDMAN RUN	3.41	3.41
3040	PSB-30	LONG RUN	2.88	2.88
3041	PSB-32	BRIGGS RUN	4.57	4.57
3042	PSB-33	REEDS CREEK	11.16	11.16
3043	PSB-40	PETERS RUN	5.08	5.08
3044	PSB-47	THORN CREEK	9.08	9.08
3045	PSB-9	MILL CREEK	25.38	25.38
3046			224.40	
3047	Shenandoah River Watershed (Hardy County)			
3048	S-9-A	CAPON RUN	2.19	2.19
3049	Total number of streams			444
3050	Total Miles			2006.80

§64-3-3. Solid waste management board.

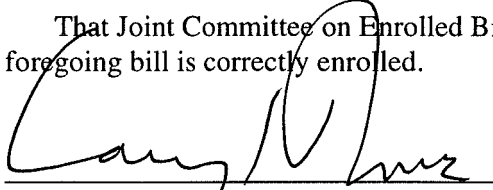
- 1 (a) The legislative rule filed in the state register on the
- 2 twenty-ninth day of August, two thousand, authorized under
- 3 the authority of section twenty-three, article four, chapter

4 twenty-two-c, of this code, relating to the solid waste man-
5 agement board (developing, updating and amending of com-
6 prehensive litter and solid waste control plans, 54 CSR 3), is
7 authorized.

8 (b) The legislative rule filed in the state register on the
9 twenty-ninth day of August, two thousand, authorized under
10 the authority of section twenty-three, article four, chapter
11 twenty-two-c, of this code, relating to the solid waste man-
12 agement board (development of commercial and solid waste
13 facility siting plans, 54 CSR 4), is authorized.

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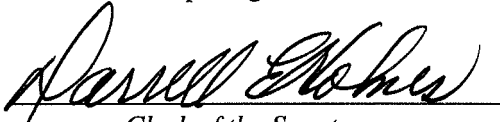
That Joint Committee on Enrolled Bills hereby certifies that the foregoing bill is correctly enrolled.

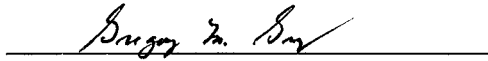

Chairman Senate Committee

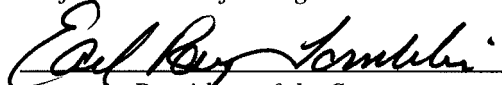

Chairman House Committee

Originating in the House.

In effect from passage.

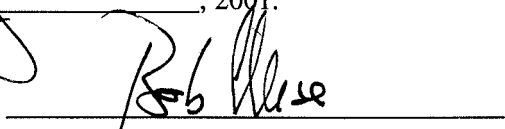

Clerk of the Senate


Clerk of the House of Delegates


President of the Senate


Speaker of the House of Delegates

The within is approved this the 2
day of May, 2001.


Governor

PRESENTED TO THE
GOVERNOR

Date 5/1/01

Time 2:40 pm