

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of Proposed
Permanent Rules Governing
Water Quality Standards, Minn.
Rule Chapter 7050.

**REPORT OF THE
ADMINISTRATIVE LAW JUDGE**

The above-entitled matter came on for hearing before Administrative Law Judge Kenneth A. Nickolai at 9:00 a.m. on June 12, 2002 in the Pollution Control Agency Boardroom, 520 Lafayette Road, Saint Paul, Minnesota. The hearing continued on June 13, 2002 in Duluth, on June 14, 2002 in Detroit Lakes, and on June 17, 2002 in Mankato.

This Report is part of a rulemaking proceeding held pursuant to Minn. Stat. §§ 14.131 to 14.20, to hear public comment, to determine whether the Minnesota Pollution Control Agency (MPCA) has fulfilled all relevant substantive and procedural requirements of law applicable to the adoption of the rules, whether the proposed rules are needed and reasonable and whether or not modifications to the rules proposed by the MPCA after initial publication are substantially different.

The agency hearing panel consisted of David Maschwitz, Howard Markus, Stephen Heiskary, Scott Nielmela, and Marvin Hora, all of the MPCA, and Patricia McCann of the Minnesota Department of Health. Robert Roche, Assistant Attorney General, Suite 900, NCL Tower, 445 Minnesota Street, St. Paul, Minnesota 55101, appeared on behalf of the MPCA at the hearing.

Approximately twenty-six persons attended the first day of hearing in Saint Paul. Twenty-seven persons signed the hearing registers at the other locations. Each hearing continued until all interested persons, groups or associations had an opportunity to be heard concerning the adoption of these rules.

The record remained open for the submission of written comments for twenty calendar days following the hearing, to July 8, 2002. Pursuant to Minn. Stat. § 14.15, subd. 1, five working days were allowed for the filing of responsive comments. At the close of business on July 15, 2002, the rulemaking record closed for all purposes. The Administrative Law Judge received twelve written comments from interested persons during the comment period. Two reply comments were received. The MPCA submitted written comments responding to matters discussed at the hearings and proposing modifications to the rules.

NOTICE

This Report must be available for review to all affected individuals upon request for at least five working days before the agency takes any further action on the rules. The agency may then adopt a final rule or modify or withdraw its proposed rule. If the MPCA makes changes in the rule other than those recommended in this report, it must submit the rule with the complete hearing record to the Chief Administrative Law Judge* for a review of the changes prior to final adoption. Upon adoption of a final rule, the agency must submit it to the Revisor of Statutes for a review of the form of the rule. The agency must also give notice to all persons who requested to be informed when the rule is adopted and filed with the Secretary of State.

Based upon all the testimony, exhibits, and written comments, the Administrative Law Judge makes the following:

FINDINGS OF FACT

Procedural Requirements

1. On November 13, 2000, the MPCA received a petition for rulemaking that requested that the MPCA add factors to describe how the narrative standards of Minn. R. Chap. 7050 are applied. The MPCA responded that listing factors should be added to the rule.
2. On June 25, 2001, the MPCA published a Request for Comments regarding the possible addition of listing factors to the narrative standards in Chapter 7050 at 25 *State Register* 1975.
3. On March 26, 2002, the MPCA requested the assignment of an Administrative Law Judge for the proposed rulemaking and filed the following documents with the Chief Administrative Law Judge:
 - (a) a copy of the proposed rules being certified by the Revisor of Statutes;
 - (b) a Dual Notice of Hearing under Minn. Stat. § 14.22, subd. 2, proposed to be issued; and
 - (c) a draft of the Statement of Need and Reasonableness (SONAR).

*For purposes of this proceeding, George A. Beck will perform the duties of Chief Administrative Law Judge.

4. On April 23, 2002, the MPCA mailed the Dual Notice of Hearing to all persons and associations who had registered their names with the MPCA for the purpose of receiving such notice. The MPCA also mailed notice on the same dates to the persons and organizations that the MPCA believed would be interested in the proposed rules. The recipients included those on the Total Maximum Daily Load (TMDL) mailing list, and the TMDL Stakeholder Committee.¹ All of the recipients were informed of how to obtain a free copy of the rule and a copy of the SONAR at nominal cost. The MPCA also posted the Notice of Hearing and proposed rules on the Internet at the Agency's website. After first being posted in the news area, the documents were later posted in the MPCA's TMDL area (<http://www.pca.state.mn.us/water/tmdl.html>).

5. On April 29, 2002, the Dual Notice of Hearing and proposed rules were published at 26 *State Register* 1425.

6. The MPCA received 38 requests for hearing on this matter. On June 4, 2002, the MPCA emailed the TMDL Stakeholder Committee, advising them that the hearings would be held on the proposed rule. On June 6, 2002, the MPCA mailed a notice that the hearing would be held and included the hearing schedule to those on the notice lists.

7. At the hearing in this matter, the Department filed the following documents² with the Administrative Law Judge:

- a. Request for Comments on Plan to Amend Rules Governing the Determination of Water Quality Condition as It Relates to Water Quality Standards as published at 25 *State Register* 1975, June 25, 2001 (Exhibit 5);
- b. notice to the Total Maximum Daily Load (TMDL) contact list that the MPCA is planning to adopt modifications to Minn. Rules Chapter 7050, including a copy of the Request for Comments, and announcing that informational meetings will be convened (Exhibit 6);
- c. notice mailed to persons on the MPCA's mailing list on water quality issues that stakeholder meetings would be held in December 2001, including information on accessing the draft rule on the MPCA's website (Exhibit 17);
- d. a Petition for Rulemaking under Minn. Stat. § 14.09 signed by representatives of the Coalition of Greater Minnesota Cities (CGMC), the League of Minnesota Cities (LMC), the Minnesota Association of Small Cities (MAOSC), and the Minnesota Farm Bureau (MFB) (Exhibit 26);

¹ The TMDL Stakeholder Committee was emailed the Dual Notice, a copy of the proposed rule, and the SONAR.

² Many more documents were filed at the hearing. Those documents recounted here are of particular procedural significance.

- e. the Dual Notice as mailed (Exhibit 105);
- f. the Dual Notice and proposed rules as published in *26 State Register* 1425, on April 29, 2002 (Exhibit 104);
- g. the proposed rules, with the approval of the Revisor of Statutes (Exhibit 101);
- h. the Statement of Need and Reasonableness (SONAR) (Exhibits 1 and 102);
- i. the certificate that the list of persons, associations, and other interested groups who have requested to receive notice of the proposed adoption of rules by the MPCA is accurate and complete (Exhibit 105);
- j. the affidavit of mailing the Dual Notice to all persons, associations, and other interested groups who have requested to receive notice of the proposed adoption of rules by the MPCA and those receiving discretionary notice (Exhibit 105);
- k. the comments received in response to the MPCA's Dual Notice (Exhibits 106a-m);
- l. Certificate of Mailing the Dual Notice and SONAR to Legislators and the Legislative Reference Librarian (Exhibits 103 and 107);
- m. modifications to the SONAR (Exhibit 109); and
- n. the notice announcing that hearings would be held on June 12-14, and 17, 2002 on the proposed rules and list of persons receiving that notice (Exhibit 108).

Nature of the Proposed Rules.

8. The proposed rules modify the narrative standards to be applied when determining the quality of surface water.³ The determination of water quality is made to assure that the water body may be used for all purposes established by its classification and, as necessary, to establish limits for discharging pollutants into the public water. Language is being proposed to describe "factors", information and data to be used by the MPCA in determining whether narrative standards are being met. The other changes to the rules are accurately described as "minor housekeeping changes."⁴

³ Ground water is not included in this rulemaking. SONAR at 2.

⁴ SONAR, at 1.

Statutory Authority

9. Minn. Stat. § 115.03, subd. 1, authorizes the MPCA:

(c) To establish and alter such reasonable pollution standards for any waters of the state in relation to the public use to which they are or may be put as it shall deem necessary for the purposes of this chapter and, with respect to the pollution of waters of the state, chapter 116;

* * *

(e) To adopt, issue, reissue, modify, deny, or revoke, enter into or enforce reasonable orders, permits, variances, standards, rules, schedules of compliance, and stipulation agreements, under such conditions as it may prescribe, in order to prevent, control or abate water pollution, or for the installation or operation of disposal systems or parts thereof, or for other equipment and facilities;

10. The MPCA also cites Minn. Stat. § 115.44 as the source of its authority to adopt these rules. Subdivision 2 directs the MPCA to “group the designated waters of the state into classes, and adopt classifications and standards of purity and quality therefor.”⁵ Subdivision 4 of that statute states:

Subd. 4. **Standards.** The agency, after proper study, and in accordance with chapter 14, shall adopt and design standards of quality and purity for each classification necessary for the public use or benefit contemplated by the classification. The standards shall prescribe what qualities and properties of water indicate a polluted condition of the waters of the state which is actually or potentially deleterious, harmful, detrimental, or injurious to the public health, safety, or welfare; to terrestrial or aquatic life or to its growth and propagation; or to the use of the waters for domestic, commercial and industrial, agricultural, recreational, or other reasonable purposes, with respect to the various classes established pursuant to subdivision 2. The standards may also contain other provisions that the agency deems proper. Wherever practicable and advisable, the agency shall establish standards for effluent of disposal systems entering classified waters.⁶

11. The Administrative Law Judge finds that the MPCA has the statutory authority to adopt the proposed rules.

⁵ Minn. Stat. § 115.44, subd. 2.

⁶ Minn. Stat. § 115.44, subd. 4.

Assessment of Impact and Cost of the Rules.

12. Minn. Stat. § 14.131 makes certain requirements of an agency proposing a rule for adoption. The statute states:

Before the agency orders the publication of a rulemaking notice required by section 14.14, subdivision 1a, the agency must prepare, review, and make available for public review a statement of the need for and reasonableness of the rule. The statement of need and reasonableness must be prepared under rules adopted by the chief administrative law judge and must include the following to the extent the agency, through reasonable effort, can ascertain this information:

(1) a description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule;

(2) the probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues;

(3) a determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule;

(4) a description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule;

(5) the probable costs of complying with the proposed rule; and

(6) an assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference.

14. Minn. Stat. § 116.07, subd. 7, imposes particular requirements on the MPCA when exercising its powers, including rulemaking. It provides:

Subd. 6. Pollution control agency; exercise of powers. In exercising all its powers the pollution control agency shall give due consideration to the establishment, maintenance, operation and expansion of business, commerce, trade, industry, traffic, and other economic factors and other material matters affecting the feasibility and practicability of any proposed

action, including, but not limited to, the burden on a municipality of any tax which may result therefrom, and shall take or provide for such action as may be reasonable, feasible, and practical under the circumstances.

15. In its SONAR, the MPCA set out its assessment as required by Minn. Stat. § 14.131.⁷ The rule benefits go to all Minnesotans, by clarifying the process of assessing surface water quality. All groups involved in the discharge of wastes, oversight of water quality, and interest in surface water quality were identified as benefiting from the clearer statement of the factors used to determine compliance.⁸

16. The MPCA determined that no costs would be imposed by these rules, either to the MPCA or other state agencies. It also determined there would be no additional cost or on others in complying with the rule.⁹ MPCA did identify that municipal dischargers or others may undertake additional water quality monitoring, but that additional monitoring is not required by the rule changes.¹⁰ Christopher Hood, Flaherty & Hood, P.A., submitting comments on behalf of Minnesota Environmental Science and Economic Review Board (MESERB) and the Coalition of Greater Minnesota Cities (CGMC) disputed these conclusions. MESERB and CGMC maintained that, because of these rules, the MPCA will, in the future, apply TMDLs to more bodies of water than in the past. Application of a TMDL results in increased costs to anyone discharging a pollutant, since additional treatment is required of the discharge to meet the TMDL. MESERB and CGMC rely upon their interpretation of the existing rules to assert that the proposed rule affects a change in the standards.¹¹ The MPCA maintains that this rulemaking merely clarifies existing standards.¹² The MPCA concluded that neither the number of water bodies found to be impaired, nor the number of TMDLs required is expected to increase due to these rules.¹³ The agency adopted narrative criteria many years ago to guide the identification of impaired waters. These additional proposed rules seek to more clearly and specifically identify factors to be considered when applying the existing narrative criteria. They do not change the narrative criteria and there was no credible evidence presented to show that either more or fewer water bodies will be listed as impaired in the future because of these proposed additions. In light of the fact that these factors are only intended to provide more specific ways of determining whether the existing narrative standards are being met and are not changing the standard, the MPCA reasonably concluded that it was probable that no additional costs would result from this rule.

⁷ SONAR, at 21-24.

⁸ SONAR, at 21.

⁹ *Id.* at 22-23.

¹⁰ *Id.* at 23.

¹¹ MESERB and CGMC Reply, at 7.

¹² MPCA Reply, at 11-12.

¹³ SONAR, at 20.

17. The MPCA explored alternatives to modifying the narrative standards, but concluded that the petition requesting adoption of rules providing "listing factors" required following this approach. The process used to arrive at the proposed rules was designed to explore all reasonable alternatives. The MPCA described the rules as "consistent with the Code of Federal Regulations (40 CFR part 130)" and "move[ing] toward a more integrated 305(b) and 303(d) assessment and listing process as outlined in new EPA guidance."¹⁴ The proposed rule is consistent with applicable federal regulation and guidance. The MPCA has complied with the statutory mandate to consider alternatives and has met the requirements of Minn. Stat. §§ 14.131 and 116.07, subd. 6.

Analysis of the Proposed Rule

General

18. The Administrative Law Judge must determine, *inter alia*, whether the need for and reasonableness of the proposed rule has been established by the MPCA by an affirmative presentation of facts. The MPCA prepared a Statement of Need and Reasonableness ("SONAR") in support of the adoption of each of the proposed rules. At the hearing, the MPCA relied on the SONAR in making its affirmative presentation of need and reasonableness for each provision. The MPCA also submitted written post-hearing comments including extensive changes to the proposed rule arising from comments received.

19. The question of whether a rule is reasonable focuses on whether it has a rational basis. The Minnesota Court of Appeals has held a rule to be reasonable if it is rationally related to the end sought to be achieved by the statute.¹⁵ The Supreme Court of Minnesota has further defined the burden by requiring that the agency "explain on what evidence it is relying and how the evidence connects rationally with the agency's choice of action to be taken."¹⁶ An agency is entitled to make choices between possible standards as long as the choice it makes is rational. If commentators suggest approaches other than that selected by the agency, it is not the proper role of the Administrative Law Judge to determine which alternative presents the "best" approach. However, the agency is obligated to consider the approaches suggested.

20. This Report is generally limited to the discussion of the portions of the proposed rule that received significant critical comment or otherwise need to be examined. Accordingly, the Report will not discuss each comment or rule part. Persons or groups who do not find their particular comments referenced in this Report should know that each and every submission (including every comment submitted

¹⁴ SONAR, at 23.

¹⁵ *Broen Memorial Home v. Minnesota Department of Human Services*, 364 N.W.2d 436, 440 (Minn. App. 1985); *Blocher Outdoor Advertising Company v. Minnesota Department of Transportation*, 347 N.W.2d 88, 91 (Minn. App. 1984).

¹⁶ *Manufactured Housing Institute v. Petterson*, 347 N.W.2d 238, 244 (Minn. 1984).

before the hearing) has been read and considered. Moreover, because some sections of the proposed rule were not opposed and were adequately supported by the SONAR, a detailed discussion of each section of the proposed rule is unnecessary. The Administrative Law Judge specifically finds that the MPCA has demonstrated the need for and reasonableness of the provisions of the rule that are not discussed in this Report, that such provisions are specifically authorized by statute, and that there are no other problems that prevent their adoption.

21. Where changes are made to the rule after publication in the *State Register*, the Administrative Law Judge must determine if the new language is substantially different from that which was originally proposed.¹⁷ The standards to determine if the new language is substantially different are found in Minn. Rule 1400.1100. The MPCA made modifications to the proposed rule in response to the comments received throughout this rulemaking process. Any substantive language, which differs from the rule as published in the *State Register*, will be assessed to determine whether the language is substantially different. Because some of the changes are not controversial, not all the altered language has been discussed. Any change not discussed is found to be not substantially different from the rule as published in the *State Register*.

Impact on Agricultural Land

22. Minn. Stat. § 14.111, imposes an additional notice requirement when rules are proposed that affect farming operations. The MPCA opined that the proposed rules will have "no direct affect [*sic*]" on farming operations.¹⁸ The MPCA noted that significant contacts were maintained with staff of the Minnesota Department of Agriculture (MDA) throughout the rule development and notice periods.¹⁹ The Administrative Law Judge finds that the proposed rule will have no direct effect on farming operations in Minnesota and no special notice to the Commissioner of Agriculture is required.

Subpart by Subpart Discussion

7050.0150 - Determination of Compliance with Water Quality Standards and Water Quality Condition.

23. Part 7050.1050 sets out the MPCA's existing intent to protect and maintain surface waters in a condition to allow maintenance of all existing beneficial uses. The use of physical, chemical, and biological qualities to determine the condition of the surface water is in the existing rule. The existing rule also sets out the process of comparing the surface water to a comparable water body to determine biological quality

¹⁷ Minn. Stat. § 14.15, subd. 3.

¹⁸ SONAR, at 70.

¹⁹ SONAR, at 70-71.

of the surface water. The proposed rule modifies part of this existing language and codifies that language as subpart 1. Subparts 2 through 7 consist of new language that addresses specific impairment measures. Subpart 8 consists of the remainder of the existing in the rule, with some proposed modifications. Each subpart will be addressed individually.

Subpart 1 – Policy and Scope.

24. Subpart 1 sets out the intent of Minn. Rules, pt. 7050.0150 “to protect and maintain surface waters in a condition which allows for the maintenance of all existing beneficial uses.” The MPCA proposes to add language to this subpart saying that a violation of the narrative standards indicates a polluted condition. Subpart 1 also makes it clear that water quality assessments will be made on a case-by-case basis for each water body. In addition, this new language references the proposed language in subpart 3 providing the narrative standards and new subparts 5 through 7 which list the factors that the Commissioner will use to determine compliance with those narrative standards

25. MESERB and CGMC objected to Subpart 1’s application of the rule to existing beneficial uses as vague.²⁰ Using the example of phosphorous, the commentator asserted that a standard found in the MPCA’s Guidance Manual used to determine suitability for swimming in deep lakes was being applied in shallow lakes that are completely full of vegetation.²¹ Because such a water body is not suitable for swimming by its nature, MESERB and CGMC assert that the application of the rule is arbitrary. Janette Brimmer, Legal Director for the Minnesota Center for Environmental Advocacy, responded that the “fishable/swimmable” standard is federal law, contained in the Clean Water Act.²²

26. In response to these comments the MPCA stated:

The existing beneficial use classification system in Minn. R. ch. 7050 assigns multiple beneficial uses to all surface waters in Minnesota. Except as noted below, all surface waters in Minnesota are protected for aquatic life and recreation, including swimming (Class 2B waters; Minn. R. pt. 7050.0430). The exceptions are limited resource value waters which are individually assessed and promulgated through rulemaking as Class 7 waters, and wetlands (Minn. R. pt. 7050.0425). Wetlands are defined in Minn. R. pt. 7050.0130, and they are protected for aquatic life and “for boating and other forms of aquatic recreation for which the wetland may be usable” (Minn. R. pt. 7050.0222, subp. 6). See SONAR (at 2) and the Guidance (Ex. 2, at 3) for more discussion of beneficial uses. The Agency

²⁰ MESERB Comment, at 2.

²¹ *Id.* at 2-3.

²² Saint Paul Tr., at 138-140.

is not proposing to change this classification system in this rulemaking (see discussion of lake assessment procedures regarding wetlands in Section VII).²³

27. MESERB and CGMC maintained that the rules should be appropriately limited to water bodies larger than 10 acres in size, with an average depth of more than eight feet, and only those portions of the water body having swimming as a "likely use."²⁴ The commentators assert that, since some of the standards are based on swimming as the beneficial use, only those water bodies that could support such a use should be assessed for impairment.²⁵ The Minnesota Farm Bureau Federation submitted similar comments and recommended that the proposed rule specify that the narrative standards do not apply to any lake under 10 acres.

28. The MPCA responded that MESERB's and CGMC's two suggested limitations are contrary to current state law and insufficient to protect water bodies that are currently being used for swimming.²⁶

29. There is no statutory limitation on the surface area or depth of water bodies that are subject to the standards in Chapter 7050. Adopting a rule establishing a jurisdictional limit, such as ten acres, would usurp legislative authority, absent a delegation by the Legislature to the agency. An agency may not adopt a rule limiting its jurisdiction beyond that provided by the Legislature.²⁷ The MPCA currently applies these standards only to water bodies over ten acres in area as an exercise of administrative convenience. The MPCA uses the DNR's Public Waters Inventory (PWI) for identification of water bodies to be assessed for impairment. The PWI contains a specific identifier for each water body over ten acres in size.²⁸ The DNR has expended substantial resources in establishing and maintaining the PWI. Primarily relying upon the DNR's effort is an efficient use of limited resources. The MPCA's decision to assess only water bodies with specific identifiers in the PWI is reasonable. But placing a 10-acre limitation in the rule would require MPCA to administratively narrow the existing statutory authority, foreclosing future application to smaller water bodies. Additionally, as pointed out by MPCA, limiting application of these rules to water bodies with a depth of over eight feet would remove from their protection waters located in the Corn Belt and Glaciated Plains ecoregions which are now used for protected beneficial uses such as swimming.²⁹ Similarly, the proposal to limit application of the rules to water bodies with swimming as a "likely use" would unduly limit the statutory protection

²³ MPCA Comment, at 9.

²⁴ MESERB Comment, at 3.

²⁵ *Id.*

²⁶ MPCA Reply, at 4.

²⁷ *RES Inv. Co. v. County of Dakota*, 494 N.W.2d 64, 66-67 (Minn.App. 1992)

²⁸ Exhibit 2, at 19. While the Public Waters Inventory may include waterbodies less than 10 acres in size, MPCA assessments for the 303(d) list will only consider lakes of 10 acres or greater.

²⁹ MPCA Reply at 4.

for beneficial uses now protected and would constitute a substantial change of the proposed rule.

30. The Minnesota Chamber of Commerce commented that current beneficial use designations for surface waters are not appropriate. Instead, the Chamber urges MPCA to conduct a Use Attainability Analysis (UAA) to establish whether the designated uses are actually attainable.³⁰ The MPCA responded that this is beyond the scope of this rulemaking and their experience indicates such analysis would be very costly and time-consuming. UAAs are now required for every proposed limited resource value water classification. In the last 22 years, 230 stream segments have been reclassified in this manner.³¹ The agency is within its authority to classify waters as required to meet all beneficial uses by means other than a discrete analysis of each use for each water body. In addition, a rule requiring the agency to classify appropriate uses for a water body only after conducting a UAA would be a substantial change from the rule as proposed and is beyond the scope of this proceeding.

Subpart 2 – Other Standards Preserved.

31. The MPCA has numerical water quality standards that establish absolute levels of pollutants allowable in water bodies. Proposed subpart 2 states that such numerical standards are to be applied in addition to the narrative standards in Chapter 7050. The rule clarifies that, where both the narrative and numerical standards apply, the more stringent standard will be used.

32. The Minnesota Crop Production Retailers (MCPR) objected to the language in proposed subpart 2 as allowing use of the narrative standard to impose restrictions on products such as nitrogen fertilizers even though the data levels for the particular product is below the numeric standard. MCPR urged that the subpart be deleted from the rule.³²

33. Similarly, the Minnesota Farm Bureau Federation argued that a water body should never be determined to be impaired solely on the basis of narrative standards. The Federation recommends that the “more stringent standard applies” language be deleted. The Federation further recommends that when narrative standards suggest that a water body may be impaired, the MPUC be required to collect numerical data to determine whether in fact the water is impaired.³³

34. In a written comment dated June 13, 2002, David Flakne, State Government Relations Manager for Syngenta, also objected to narrative standards taking precedence over numeric standards when the narrative standard is more

³⁰ Chamber at 3-4.

³¹ MPCA Final Response at 4-5.

³² July 8, 2002 MCPR comment at 1.

³³ July 8, 2002 MFBF comment at 2.

stringent. The narrative standards found in subpart 3, prohibit “any significant increase in harmful pesticide or other residues in the waters.” Mr. Flakne points out that significant increases in concentrations of pesticides may be observed over time and may be due to nothing more than normal fluctuations in the market share of a given pesticide product. In addition, a specific pesticide being detected may have a lower toxicity and a higher numeric water quality standard than an alternative product. Therefore, according to Mr. Flakne, increased concentrations should not automatically trigger the use of the more conservative narrative standard.

35. The Minnesota Chamber of Commerce (Chamber) pointed out that the toxicity of some metals is dependent on the hardness of water, but that the existing rules on allowable levels of those metals is not conditioned on the level of hardness in the water. In such instances, the Chamber asserts, the narrative standards may not be violated, but the numeric standard would still require the water body to be listed as impaired. The Chamber maintained that retaining subpart 2 would result in undue listing of water bodies.³⁴

36. MPCA responded that retention of the more stringent standard where multiple standards apply is a frequent occurrence in Chapter 7050. The MPCA points out that the numeric and narrative standards complement each other in protecting water bodies.³⁵ The ultimate issue is whether a water body is impaired due to a pollutant. The intent of numerical and narrative standards is to ensure that impaired water bodies are listed, whatever the observation is that supports the listing. The alternative proposed by the commentators would, in effect, require both standards to be violated before a water body is listed as impaired. Such a result is contrary to the intent of the narrative standards. The situation raised by the Chamber in its comments is addressed by the MPCA's reliance on the weight of the evidence approach, discussed below. Subpart 2 is needed and reasonable, as proposed.

Subpart 3 – Narrative Standards.

37. Proposed subpart 3 sets out narrative standards for assessing waters for impairment. The rule requires that aquatic habitat in all Class 2 waters in Minnesota not be materially degraded. No material increase in undesirable slime growths, algae, or aquatic plants is allowed. Significant increases in the levels of harmful pesticides or other residues in the water, sediment, aquatic flora, or aquatic fauna are prohibited. Serious impairment or endangerment of the normal fishery and lower aquatic biota and the use of such fishery is prohibited. Material alteration of species composition is prohibited. Preventing or hindering the normal propagation or migration of aquatic life through the discharge of sewage, industrial waste, or other waste is prohibited.

³⁴ Chamber comment at 9.

³⁵ MPCA comment at 18-19.

38. MESERB and CGMC objected to the narrative standards as set out in subpart 3 as “unconstitutionally vague.”³⁶ The commentators asserted that the rule must specify how much variance constitutes impairment, whether the suspected pollutant is the cause of the impact on water quality, and what constitutes sewage, industrial wastes, or other wastes. MESERB and CGMC also maintain that the terms “pollutant”, “sewage”, “industrial wastes”, and “other wastes” must reflect the definitions given them in Minn. Stat. § 115.01.

39. MCPR asserted that the language “nor shall there be any significant increase in harmful pesticide,” while present in the existing rule, is a problem in subpart 3 due to vagueness as to what is deemed “any significant increase.”³⁷ Similar comments were made by Syngenta, the Minnesota Farm Bureau Federation, MESERB.

40. The MPCA indicated that the use of terms such as “significant” when describing an increase in pollutants is important.³⁸ More pollutant in the water does not necessarily result in a violation of a narrative or numerical standard. The use of the word “significant” clarifies that the increase constitutes a violation of the narrative standard when an assessment shows that the increase exceeds applicable water quality standard or a beneficial use is lost.³⁹

41. In a written comment dated September 15, 2002, Syngenta recommended changing the proposed language in subpart 3 to read as follows: “... nor shall there be any significant increase in a harmful chemical or other residues in water, sediment and aquatic flora and fauna which exceeds a water quality standard, results in the loss of a beneficial use or exceeds tissue contaminant thresholds.” According to Syngenta, this language would clarify MPCA’s intent that a water quality standard or tissue contaminant threshold must be exceeded or a beneficial use be impaired for there to be a determination of impairment.⁴⁰

42. In its final written comments, MPCA maintained that the terms in subpart 3 are sufficiently linked to beneficial uses and use impairment.⁴¹

43. The narrative standards set out in subpart 3 are nearly identical to those found in other portions of existing rules.⁴² Those standards are currently being applied. The descriptive terms are not unduly vague as used in the context of the rule.

44. MESERB commented that the MPCA must specify how much variance constitutes impairment. To a degree, that level of specificity is achieved by the numeric

³⁶ MESERB comment, at 4.

³⁷ MCPR comment at 1-2.

³⁸ MPCA comment, at 19.

³⁹ MPCA comment, at 19. The same analysis applies to the use of the word “material” in subpart 3.

⁴⁰ July 15, 2002 Syngenta comment at 2.

⁴¹ July 15, 2002 MPCA comment at 5.

⁴² See, e.g. Minn. Rule 7050.0222, subp. 7 (“no material increase”, “any significant increase”).

standards for water quality. Specificity in narrative standards is, to a large extent, unattainable, since each determination is made on a case-by-case basis. That variability is recognized in Minn. Stat. § 115.44, subd. 1, which states:

Subdivision 1. **Variable factors.** It is recognized that, due to variable factors, no single standard of quality and purity of the waters is applicable to all waters of the state or to different segments of the same waters.

45. This rule proceeding is not the first time where the MPCA has been called upon to assess impacts that are impossible to quantify. In an action challenging the validity of MPCA's package review regulations, the Minnesota Supreme Court approved the broad assessment procedures proposed, stating:

We are impressed by the need for flexibility in the review process. Section 116F.06 and the MPCA's regulations constitute a unique regulatory scheme designed to help alleviate a problem which has only been recently recognized. In the future, knowledge and evaluation tools are likely to change. Different packages might present different kinds of problems, and it would be unwise to require that the same weight be attached to each factor each time a different type of package is reviewed. The criteria established and the decisionmaking provided in the package review process are broad, but the complexity and sophistication of the solid waste generation problem coupled with the other environmental objectives provided in Minn.St. c. 116F mandate the flexibility contained in the statute and the regulations. It is unlikely that the regulations could be significantly more precise in this kind of regulatory scheme.⁴³

46. MPCA thus has statutory authority to adopt rules that reflect an assessment of individual water bodies on a case-by-case basis. Language such as "material" or "substantial" as related to beneficial uses is therefore permissible. The language proposed by the MPCA clarifies how the narrative standards are applied. Replacing the existing method of narrative standard assessment through the use of numerical targets is beyond the scope of this rulemaking proceeding. No record has been made regarding what particular numerical targets would be needed or reasonable. The new approach suggested by MESERB would constitute a substantial change.

Subpart 4 – Definitions.

47. Subpart 4 sets out the definitions of numerous terms as they are used in the rules. Each definition will be addressed individually, where necessary.

48. **Item C** defines "Hydraulic residence time" as:

⁴³ *Can Manufacturers Institute v. State*, 289 N.W.2d 416, 423 (Minn. 1979).

... the time water resides in a basin, usually a lake or reservoir; or alternatively, the time it would take to fill the basin if it were empty. Hydraulic residence time is often determined over a range of flow conditions.

49. In joint written comments,⁴⁴ MESERB and CGMC argue that this definition should apply only to lakes with at least a six months' hydraulic residence time, as that is the database underlying the rule. According to MESERB and CGMC, MPCA acknowledged that the reference database identified in the Guidance Manual refers to lakes and reservoirs with typical residence times of six months or greater and not rivers and streams. MESERB and CGMC assert that there is thus no basis to apply the database to waters with substantially shorter residence times.

50. In its final written response comments, MPCA contends that MESERB's proposed six-month residence time is under-protective and would exclude some lakes and reservoirs from the potential benefits of funds for study and remediation of pollution problems. MPCA points out that EPA guidance indicates that excess nutrients can result in unacceptable levels of algae in about 14 days.⁴⁵

51. The phrase "usually a lake or reservoir" is not permissible rule language. The language implies that other water bodies may or may not be appropriate for assessing hydraulic residence time. Deleting the phrase is sufficient to remove the vagueness from the standard. The determination as to whether the definition applies can be made on a case-by-case basis without the deleted language.

52. The phrase "often determined over a range of flow conditions" is also not permissible rule language. There is no standard by which the propriety of including or omitting a range of flow conditions to determine hydraulic residence time can be assessed. Similarly, standards to allow the use of any other method to determine hydraulic residence time are absent from the rule.

53. The record in this matter lacks any discussion of what standards are appropriate for inclusion of flow conditions when determining hydraulic residence time. To propose such standards now would constitute a substantially different rule from that proposed in the *State Register*. Since the proposed language does not state an actual rule requirement, deleting that language cures the defect. The determination of hydraulic residence time for a particular water body can be appropriately determined without the deleted language. Item C, with the modifications discussed above, is needed and reasonable. The new language is not substantially different from that published in the *State Register*.

⁴⁴ July 8, 2002 MESERB comment at 6.

⁴⁵ July 15, 2002 MPCA comment at 6-7.

54. **Item D** defines "impaired water" and "impaired condition" as those terms are used in the rule. As originally proposed, the rule defined those terms as meaning a water body that does not meet applicable water quality standards due in whole or in part to pollutants from point or nonpoint sources, or any combination thereof.

55. The MPCA modified the definition to read "a water body that does not meet applicable water quality standards or fully support applicable beneficial uses, due in whole or in part to water pollution from point or nonpoint sources, or any combination thereof." The additional language is intended to clarify that the MPCA's emphasis is on the impairment of beneficial uses as the trigger for a determination of impairment.

56. The Chamber noted that background levels of some identified substances in some water bodies (such as Lake Superior) were already above the numeric standard.⁴⁶

57. In joint written comments, MESERB and CGMC object to MPCA's assumption that exceeding water quality standards necessarily constitutes loss of use. According to MESERB, the MPCA should be focusing on actual loss of use based on site-specific analysis.⁴⁷

58. The MPCA indicated that the new language in item D clarified the agency's intent that "man-caused physical alterations and biological impairment are indicators of 'pollution' ..."⁴⁸ The new language addresses the commentators' concerns. Item D, as modified, is needed and reasonable. The new language is not substantially different from that published in the *State Register*.

59. **Item E** defines "index of biological integrity or IBI" as "an index, usually numeric, that represents the health of aquatic communities." The item also describes how an IBI is developed. The definition suffers from vagueness, insofar as the word "usually" fails to define the term. This vagueness constitutes a defect in the proposed rule. The Administrative Law Judge recommends the following language to correct the defect:

E. "Index of biological integrity" or "IBI" is an index, developed by measuring attributes of an aquatic community that change in quantifiable and predictable ways in response to human disturbance, representing the health of that community.

60. In joint written comments, MESERB and CGMC objected to the use of the IBI as an analytical tool for determining water impairment because it is not specifically restricted to pollutant impact. MESERB and CGMC contend that, unless the IBI is

⁴⁶ Chamber comment at 6.

⁴⁷ July 8, 2002 MESERB comment at 6.

⁴⁸ MPCA comment, at 3.

limited to pollutant impacts, the MPCA will be overstepping its statutory authority and encroaching on DNR's jurisdiction.⁴⁹

61. The MPCA responds that the IBI assessments do not have to be restricted to chemical pollutants. The MPCA points out that it has proposed adding the phrase "water pollution" to the definition of "impaired waters" (subp. 4D) to clarify that man-caused physical alterations and biological impairment are just as much indicators of pollution, as chemical discharges above the level of a water quality standard. "Water pollution" is defined in Minn. Stat. § 115.01, subd. 13 to include the alteration made or induced by human activity of the chemical, physical, biological or radiological integrity of waters of the state.

62. In summary, the suggested language identifies what the IBI measures and how the IBI is developed. The suggested changes cure the vagueness defect and render the rule easier to understand. As modified, the item is needed and reasonable. The new language is not substantially different from that published in the *State Register*.

63. **Item F** defines "lake morphometry" for the purposes of the rule. In joint written comments, MESERB and CGMC argue that the MPCA should be required to consider morphometry in every water body assessment because morphometry is critical to determining whether a designated use is attainable for a specific water body and how phosphorus may affect such uses.⁵⁰ According to MESERB and CGMC, failure to consider morphometry results in overbroad application of the rule to water bodies that do not support attainable designated uses.

64. The definition sets out a description of a term that is applied, where appropriate, in the assessment process. The item purports to "include, for example" the characteristics that make up the definition. The definition is overbroad, since "physical characteristics" go far beyond shape, which is what the MPCA intends to define by the item. The proposed language suffers from the same vagueness defect as item E. The Administrative Law Judge recommends the following language to correct the defect:

F. "Lake morphometry" means the physical characteristics of the lake basin that are reasonably necessary to determine the shape of a lake, such as, maximum length and width, maximum and mean depth, area, volume, and shoreline configuration.

65. The language proposed by the Administrative Law Judge sets out what is being defined ("the shape of a lake"). The means of deriving that shape are set out ("physical characteristics" that are "reasonably necessary" to the determination). Using the phrase "such as" allows for the inclusion of a non-exclusive list of specific elements

⁴⁹ July 8, 2002 MESERB comment at 6-7.

⁵⁰ July 8, 2002 MESERB comment at 7.

that have been determined to be reasonably necessary.⁵¹ The suggested language cures the vagueness defect by actually providing a definition and eliminating non-rule language. The item, with the suggested modification, is needed and reasonable. The new language is not substantially different from that published in the *State Register*.

66. **Item G** defines "mixing status" as:

... the frequency of the complete mixing of the lake water from surface to bottom, which is determined by whether temperature gradients are established and maintained in the water column during the summer season. Mixing is typically a function of the lake's location, morphometry and exposure to wind energy.

67. In joint written comments, MESERB and CGMC oppose use of this factor for determination of impairment because MPUC has failed to show that this factor impacts designated uses.⁵² MESERB and CGMC argue that this factor should be removed from the rule entirely as overbroad and arbitrary.

68. In its final written comments, MPCA asserts that mixing status does impact nutrient levels in lakes. Whether a lake stratifies for the entire summer, stratifies intermittently, or remains mixed from top to bottom throughout the summer season, can have a significant impact on the "internal loading" of phosphorus from bottom sediments into the water column where it is available for algal growth.⁵³

69. The last quoted line of the definition is not rule language. If the MPCA considers the language to be important to determining mixing status, the sentence could be modified to read, "Determination of mixing status must consider the lake's location, morphometry and exposure to wind energy." Otherwise the last sentence should be deleted. Either change eliminates the non-rule language. The item, with either suggested modification, is needed and reasonable. The modification to the language is not substantially different from the rule as published in the *State Register*.

70. **Item H** defines "nuisance algae bloom" for the rules. As finally proposed by the MPCA, the item reads:

H. "Nuisance algae bloom" means an excessive population of algae that causes, for example, obvious green or blue-green pigmentation in the water, floating mats of algae, reduced light transparency, aesthetic degradation, loss of recreational use, possible harm to the aquatic community, or possible toxicity to animals and humans. Algae blooms are measured using reliable data for

⁵¹ The same result can be achieved by beginning a new sentence in the definition with the language, "The following physical characteristics are deemed to be reasonably necessary to determine the shape of the lake" followed by the list of characteristics.

⁵² July 8, 2002 MESERB comment at 7.

⁵³ July 15, 2002 MPCA comment at 7.

relevant factors including, but not limited to, chlorophyll-a, Secchi disk, and impaired recreational and aesthetic conditions observed by the users of the water body.

71. In joint written comments,⁵⁴ MESERB and CGMC object to the definition of "nuisance algae bloom" as unconstitutionally vague. Specifically the terms, "aesthetic degradation" and "reduced light transparency" are referenced without any demonstration that the alteration will significantly impair attainable uses. MESERB and CGMC propose adding language to the definition that would link algae bloom to use and benefit impairment and they suggest deleting references to "aesthetic degradation". In addition, MESERB and CGMC object to MPCA's inclusion of subjective user perception data in defining nuisance conditions. MESERB and CGMC argue that if MPCA wishes to rely on user perception data it must link it to actual use impairments as well as more objective information.

72. In written comments, the Minnesota Chamber of Commerce and the Minnesota Farm Bureau Federation also recommended that references to user perception data be deleted from the proposed rule.⁵⁵

73. In its final response comments, MPCA stated that it will not delete references to "aesthetic degradation" from the proposed definition. The MPCA asserts that aesthetics is a designated beneficial use of surface waters in Minnesota under Minnesota Rule 7050.0225, which governs standards of quality and purity for Class 5 waters of the state.⁵⁶

74. As often repeated by the MPCA, whether a water body is fishable or swimmable are two beneficial uses being assessed by these rules to determine if that water body is impaired. Both of these activities are affected by the aesthetic appeal and light transparency of the water body. "Aesthetic appeal" has been shown to be a sufficient basis to support rule requirements in other rulemaking proceedings.⁵⁷

75. Aesthetic appeal was also asserted to be too subjective to appropriately include in the rule. To some extent, the issue of subjectivity falls within the analysis of aesthetics discussed in the foregoing Finding. But individual perception of conditions apparent to the senses but not readily measured by objective means has been held to

⁵⁴ July 8, 2002 MESERB comment at 7-8.

⁵⁵ Chamber comment at 6; MFBF comment at 4.

⁵⁶ July 15, 2002 MPCA comment at 10.

⁵⁷ See, e.g. *In the Matter of Proposed Adoption of Rules of the Capitol Area Architectural and Planning Board Governing Capitol Area Zoning and Design; Minn. Rule Chapter 2400*, OAH Docket No. 8-4900-12236-1, Finding 77 (ALJ Report issued October 1999).

be a sufficient standard in rulemaking.⁵⁸ Aesthetic appeal and light transparency are needed and reasonable to include in the rule.

76. Item H as proposed has two problems, however. The definition purports to define "nuisance algae bloom", but fails to do so. Where the definition should begin, there is merely a list of examples. This language is neither needed nor reasonable to define the term. The item also has a non-inclusive list of examples for observation methods. To correct these defects, the Administrative Law Judge suggests that the rule be changed to read:

H. "Nuisance algae bloom" means an excessive population of algae that is characterized by obvious green or blue-green pigmentation in the water, floating mats of algae, reduced light transparency, aesthetic degradation, loss of recreational use, possible harm to the aquatic community, or possible toxicity to animals and humans. Algae blooms are measured through tests for chlorophyll-a, observations using a Secchi disk, observations of impaired recreational and aesthetic conditions by the users of the water body, or any other reliable data that identifies the population of algae in an aquatic community.

77. The suggested language cures the defect in the rule by actually providing a definition. The non-inclusive list is also eliminated. The item, with the suggested modifications, is needed and reasonable. The new language is not substantially different from that published in the *State Register*.

78. Item I defines "readily available and reliable data". The MPCA modified the definition to read:

"'Readily available and reliable data and information' means chemical, biological and physical data and information determined by the commissioner to meet the quality assurance and quality control requirements in subpart 8, and are normally not more than ten years old from the time it is used for the assessment. A subset of data in the ten year period, or data more than ten years old can be used if credible scientific evidence shows that these data are representative of current conditions."

79. In joint written comments,⁵⁹ MESERB and CGMC argue that the language in this definition should be changed to ensure that the commissioner only uses the most

⁵⁸ *In the Matter of Proposed Permanent Rules Relating to Infectious Waste Management, Parts 7035.9100 to 7035.9150*, OAH Docket No. 3-2200-4603-1, Finding 16 (ALJ Report issued July 24, 1990). In that rulemaking, the definition of "putrefaction" included the production of "foul-smelling matter." *Id.* In approving the standard, the ALJ stated, "'putrefaction' has a commonly understood meaning which can be applied by most persons without undue risk of subjective results." *Id.*

⁵⁹ July 8, 2002 MESERB comment at 8.

current and up-to-date data available and that data are not used when they do not reflect current conditions in the water body being assessed. MESERB contends that use of "outdated information" allows for arbitrary application of the rule.⁶⁰

80. Syngenta also commented that it is not credible to use five to ten year old data to reflect current conditions without justifying why older data is more representative of a current condition. Syngenta recommends that the proposed language be changed from "ten years" to "five years". Syngenta argues that it is not unrealistic to require MPCA to make water quality determinations based on data not more than five years old.⁶¹

81. In a written response dated July 8, 2002, the MPCA acknowledged the commentators' concern that older data might not reflect current conditions or improvements made in wastewater treatment. MPCA states that it typically reviews the most recent data first to assess water quality conditions, but that older data within a 10-year period still may be the most representative of current conditions. MPCA points out that sometimes the most recent data may be based on samples collected during an atypical high or low flow period. In such a situation, data within a 10-year period would be more representative of current conditions. MPCA believes that the phrase "A subset of data in the ten year period or data more than ten years old" in the last sentence of this definition reflects MPCA's intent to use the best data within a 10-year window to represent current water quality conditions.

82. By using the word "normally," the MPCA has proposed a definition that fails to actually define what data will be included and what data will be excluded. The MPCA has proposed an appropriate standard for assessing subsets of recent data and data that is more than ten years old. The MPCA has shown in the record of this proceeding that data up to ten years old is presumptively representative of current conditions in a water body. The definition should expressly reflect that presumption to avoid vagueness. The use of the "credible scientific evidence shows that these data are representative of current conditions" standard is appropriate for inclusion of data that falls outside the ten-year period. Similarly, that standard is appropriate to consider subsets of data in the ten-year period to avoid misrepresentation of current conditions.

83. To cure the defects in the item, the Administrative Law Judge recommends the following language:

"Readily available and reliable data and information" means chemical, biological and physical data and information determined by the commissioner to meet the quality assurance and quality control requirements in subpart 8; that is not more than ten years old from the time it is used for the assessment. A subset of data in the ten year

⁶⁰ July 15, 2002 MESERB comment at 2.

⁶¹ July 15, 2002 Syngenta comment at 3.

period, or data more than ten years old can be used if credible scientific evidence shows that these data are representative of current conditions.

84. The suggested language cures the defect in the rule. The rule, as modified, is needed and reasonable. The new language is not substantially different from that published in the *State Register*.

85. **Item J** defines "reference water body". The MPCA has modified its original proposed language. The modified definition now reads:

"Reference water body' means a water body least impacted by point or nonpoint sources of pollution that is representative of water bodies in the same ecoregion or watershed. Reference water bodies are used as a base for comparing the quality of other water bodies in the same ecoregion or watershed."

86. In joint written comments,⁶² MESERB and CGMC object to the MPCA making impairment decisions based on a comparison of the water body at issue to the reference water body. MESERB and CGMC contend that instead of conducting site-specific analyses of attainable uses and impairments of water bodies the MPCA will use reference water bodies as an arbitrary threshold to determine impairment regardless of the actual effect on aquatic life or recreational uses. MESERB and CGMC also maintain that MPCA's attempt to use reference water bodies with identical habitat will prove to be unworkable because habitats between water bodies will rarely be the same.⁶³

87. The MPCA believes that by adding the phrase "representative of water bodies in the same ecoregion or watershed" it has clarified that reference water bodies must be representative of water bodies in that ecoregion to be valid.⁶⁴

88. The MPCA is authorized to assess each water body individually. Having a minimally affected water body in the same ecoregion or watershed to use as a comparison for the water body being assessed is needed and reasonable. The new language addresses concerns that the comparison will result in arbitrary results. The new language is not substantially different from that published in the *State Register*.

89. **Item L** defines "summer average". The MPCA has modified this definition as originally proposed. "Summer average" is now defined as "a representative average of concentrations or measurements of nutrient enrichment factors, taken over one summer growing season, usually from June 1 through September 30."

⁶² July 8, 2002 MESERB comment at 8-9.

⁶³ July 15, 2002 MESERB comment at 3.

⁶⁴ July 8, 2002 MPCA comment at 4-5.

90. In joint written comments,⁶⁵ MESERB and CGMC object to “bunching” water quality measurements during three months of the growing season. This definition would allow, for example, a series of phosphorus measurements during one-week low-flow periods in the summer. According to MESERB and CGMC, this would not be truly representative of varying conditions that exist during the growing season. MESERB and CGMC argue that the proposed definition should be changed to include minimum sampling intervals, at least one every 30 days, to ensure a broad-based representative sampling of the entire growing season.

91. In written response comments dated July 8, 2002, MPCA explained that its intent in assessing lakes is to use data averaged over the summer growing season. According to the MPCA, this is a fair and reasonable way to identify lakes that do not support swimming uses. The MPCA recognizes, however, that a lake considered impaired based on summer average values does not mean that the lake will be totally unsuitable for swimming all summer long. The MPCA asserts that by adding the phrase “a representative” to the definition clarifies the data evaluation procedures it uses in assessing lake trophic status.⁶⁶

92. The use of average summer values to determine lake trophic status is appropriate. Requiring representative average concentrations addresses concerns about selective sampling that could skew the results of that testing. But the rule does not actually define the overall range of time when the readings can be taken to determine those average summer values. This is a defect in the proposed rule. The Administrative Law Judge recommends deleting “usually” from the rule to cure the defect. The modification eliminates vagueness in the rule and renders the item needed and reasonable. The new language is not substantially different from that published in the *State Register*.

93. **Item M** defines “transparency tube” in part as a clear plastic tube that is filled with water from a surface water and measures water clarity. It is usually used in rivers and streams.

94. In joint written comments, MESERB and CGMC object to this definition being in the rule because the MPCA has no evidence to support its use as an indicator of impacts, caused by pollutants, on attainable designated uses in rivers or streams. Because transparency does not affect swimming uses in rivers the way it does in lakes, MESERB and CGMC argue that this definition does not belong in the rule.

95. In its final written comments, the MPCA stated that it “is confident that valid relationships can be statistically demonstrated between transparency tube

⁶⁵ July 8, 2002 MESERB comment at 9.

⁶⁶ July 8, 2002 MPCA comment at 9.

readings and other water quality indicators.” MPCA hopes to use the stream assessment data in water quality assessments in 2004.⁶⁷

96. As discussed in Findings 74 and 75, *supra*, transparency is an appropriate factor for determining impairment of a beneficial use of a water body. Item M merely indicates what tool is used to conduct that testing. The Administrative Law Judge finds this item to be needed and reasonable.

Subpart 5 – Impairment of Waters Due to Excess Algae or Plant Growth.

97. Proposed subpart 5 sets out the standards by which the Commissioner determines that an impaired condition exists due to a “material increase in undesirable slime growths or aquatic plants including algae.” Particular types of information that must be considered are identified in the subpart. Five factors relevant to the determination of impairment are identified. The discretion to consider other “scientifically objective, credible, and supportable factors that are not listed in the subpart” is included in the proposed rule. The five factors will be considered initially, followed by the other issues present in the subpart.

98. In a written comment, MCPR urged the adoption of more specific language in item A as to how total phosphorus concentrations will be measured.⁶⁸ In joint written comments, MESERB and CGMC object that this subpart contains a series of unconstitutionally vague terms, invites overbroad and arbitrary application, and encourages the MPCA to overstep its statutory authority to regulate the discharge of pollutants.⁶⁹

99. In written comments dated July 8, 2002, the Minnesota Chamber of Commerce recommended that references to user perception data in subpart 5D be deleted. The Chamber argues that user perception varies with each individual and that no scientific or objective basis exists for making impairment decisions using these criteria. The Chamber maintains that “observed conditions” should never be determined exclusively by water body users.

100. In response to concerns raised about “user perception”, the MPCA pointed out that user perception data is not the sole factor used to determine whether a water body is impaired. The MPCA maintains that it has clarified in the modified language for subpart 5 that required response factors are limited to items B and C. User perception data and the other conditions described in item D are limited to supporting the primary factors of total phosphorus, chlorophyll-a and Secchi disk. MPCA states that user perception does vary regionally, but it believes that the use of

⁶⁷ July 15, 2002 MPCA comment at 7-8.

⁶⁸ July 8, 2002 MCPR comment.

⁶⁹ July 8, 2002 comment at 10.

user perception data in lake assessments is valid to help establish an ecoregion-based impairment threshold that reflects local conditions.⁷⁰

101. The MPCA made changes to subpart 5 in response to comments received throughout the rulemaking process. As finally proposed, subpart 5 reads as follows:

Subp. 5. Impairment of waters due to excess algae or plant growth. In evaluating whether the narrative standards in subpart 3, which prohibit any material increase in undesirable slime growths or aquatic plants including algae is being met, the commissioner will use all readily available and reliable data and information for relevant factors of use impairment including, but not limited to, the factors listed in items A to C. The commissioner may consider other scientifically objective, credible, and supportable factors that are not listed in this subpart, but in all cases a finding of an impaired condition must be supported by data showing elevated levels of nutrients in item A, and at least one factor showing impaired conditions resulting from nutrient over-enrichment in items B and C. The factors listed in item D are used to support the trophic status data described in items A to C.

Assessment of trophic status and the response of a given water body to nutrient enrichment will take into account the trophic status of reference water bodies; and the morphometry, hydraulic residence time, mixing status, watershed size, location, and other factors that affect trophic status, appropriate for that geographic region. The factors in this subpart normally apply to lakes; however, the commissioner may apply them to rivers, streams, and wetlands when the application of the factors is scientifically justified. The factors referred to in this subpart are as follows:

- A. representative summer-average concentrations of total phosphorus and total nitrogen measured in the water body throughout the summer growing season;
- B. representative summer-average concentrations of chlorophyll-a measured in the water body throughout the summer growing season; and
- C. representative measurements of light transparency in the water body, as measured with a Secchi disk in lakes or a transparency tube in rivers and streams, throughout the growing season.
- D. the magnitude, duration, and frequency of nuisance algae blooms in the water body; and documented impaired recreational and aesthetic conditions observed by the users of the water body, due to excess algae or plant growth, reduced transparency, or other deleterious conditions caused by nutrient over-enrichment.

⁷⁰ July 8, 2002 MPCA comment at 8; July 15, 2002 MPCA Comment at 8.

102. The subpart is not defective for the reasons asserted by the commentators. The specific terms used are not unduly vague. There is no inappropriate reliance on purely subjective perceptions.⁷¹ Subpart 5 does suffer from the vagueness defects of non-inclusive lists, as described in Findings 64 and 76, *supra*. Language that does not constitute a rule (e.g., “normally”) is present. Language that would afford the Commissioner the unfettered discretion to disregard application of scientifically justified factors appears twice. In addition, the structure of subpart 5 is confusing. Factors are identified apart from the language that applies to those factors and dissimilar factors are listed together. These problems constitute defects in the subpart.

103. Subpart 5 must be modified to cure the defects in the language proposed. The Administrative Law Judge suggests the following language:

Subp. 5. Impairment of waters due to excess algae or plant growth. In evaluating whether the narrative standards in subpart 3, which prohibit any material increase in undesirable slime growths or aquatic plants including algae, are being met, the commissioner will use all readily available and reliable data and information for the following factors of use impairment:

- A. representative summer-average concentrations of total phosphorus and total nitrogen measured in the water body throughout the summer growing season;
- B. representative summer-average concentrations of chlorophyll-a measured in the water body throughout the summer growing season;
- C. representative measurements of light transparency in the water body, as measured with a Secchi disk in lakes or a transparency tube in rivers and streams, throughout the growing season; and
- D. any other scientifically objective, credible, and supportable factor.

A finding of an impaired condition must be supported by data showing elevated levels of nutrients in item A, and at least one factor showing impaired conditions resulting from nutrient over-enrichment in items B and C.

The trophic status data described in items A to D must be assessed in light of the magnitude, duration, and frequency of nuisance algae blooms in the water body; and documented impaired recreational and aesthetic conditions observed by the users of the water body due to excess algae or plant growth, reduced transparency, or other deleterious conditions caused by nutrient over-enrichment.

⁷¹ See Findings 74 and 75, *supra*.

Assessment of trophic status and the response of a given water body to nutrient enrichment will take into account the trophic status of reference water bodies; and all relevant factors that affect the trophic status of the given water body appropriate for its geographic region, such as the morphometry, hydraulic residence time, mixing status, watershed size, and location. The factors in this subpart apply to lakes and, where scientifically justified, to rivers, streams, and wetlands.

104. Subpart 5, with the suggested modifications, is needed and reasonable. If MPCA considers an exception for the assessment of some lakes is needed, standards for such an exception should be introduced in a subsequent rulemaking. The new language is not substantially different from that published in the *State Register*.

Subpart 6 – Impairment of Waters Due to Excess Algae or Plant Growth.

105. Proposed subpart 6 governs the assessment of waterbodies for impairment of the aquatic community. To determine impairment, the commissioner will consider all readily available and reliable data and the four factors listed in the subpart. The four factors are indexes of biological integrity calculated from measurements of the resident fish, aquatic invertebrate, and aquatic plant communities' attributes, and a habitat quality assessment. The existing biological assessment language in the second paragraph of Minnesota Rule 7050.0150 is incorporated, mostly unchanged, in the proposed second paragraph of this subpart. It states that the index for biological integrity (IBI) measured at a set of reference sites will be used to establish the local IBI threshold against which other sampling sites in the same region will be compared for impairment determination.

106. Steven Colvin, Environmental Management Unit Supervisor for the Minnesota Department of Natural Resources' Ecological Services Division, submitted written comments on July 3, 2002, supporting the use of biological criteria to supplement and expand traditional chemical and physical parameters. Mr. Colvin cautioned, however, that "impaired" biological communities may occur for a variety of reasons that are not associated with excess load of pollutants to the water body. According to Mr. Colvin, careful professional judgment must be exercised to insure that "impaired" status for TMDL listing purposes is appropriately assigned. Mr. Colvin also suggested that MPCA explain in more detail the condition assessment method used to determine the health of fish in subpart 6A.

107. MESERB and CGMC argue that the IBI should be removed from the rule completely because it does not properly link the attainability of a use, an impairment of that use, and the causation of that impairment by pollutants.⁷²

⁷² July 8, 2002 MESERB comment at 11.

108. These objections misstate the purpose of narrative standards. As discussed in reference to subpart 2, the narrative standards are triggered without a specific identification of a particular pollutant, when the effects of such pollutants are observed in a particular water body.⁷³ The MPCA described the "weight of evidence" approach and the role of professional judgment teams in applying these standards.⁷⁴ Subpart 6 is not defective for these reasons.

109. The language in subpart 6 is similar to that in the final proposed version of subpart 5 and shares the same defects. To cure these defects, the Administrative Law Judge suggests modifying subpart 6 to read:

Subp. 6 - Impairment of biological community and aquatic habitat. In evaluating whether the narrative standards in subpart 3, which prohibit serious impairment of the normal fisheries and lower aquatic biota upon which they are dependent and the use thereof, material alteration of the species composition, material degradation of stream beds, and the prevention or hindrance of the propagation and migration of fish and other biota normally present, are being met, the commissioner will consider all readily available and reliable data and information for the following factors of use impairment:

A. An index of biological integrity calculated from measurements of attributes of the resident fish community, including measurements of:

- (1) species diversity and composition;
- (2) feeding and reproduction characteristics; and
- (3) fish abundance and condition.

B. An index of biological integrity calculated from measurements of attributes of the resident aquatic invertebrate community, including measurements of:

- (1) species diversity and composition;
- (2) feeding characteristics; and
- (3) species abundance and condition.

C. An index of biological integrity calculated from measurements of attributes of the resident aquatic plant community, including measurements of:

- (1) species diversity and composition, including algae; and
- (2) species abundance and condition.

D. A quantitative or qualitative assessment of habitat quality, determined by an assessment of:

- (1) stream morphological features that provide spawning, nursery, and refuge areas for fish and invertebrates;
- (2) bottom substrate size and variety;
- (3) variations in water depth;

⁷³ See Finding 36, *supra*.

⁷⁴ See Finding 115, *infra*.

- (4) sinuosity of the stream course;
- (5) physical or hydrological alterations of the stream bed including excessive sedimentation;
- (6) types of land use in the watershed; and
- (7) other scientifically accepted and valid factors of habitat quality.

E. Any other scientifically objective, credible, and supportable factors.

A finding of an impaired condition must be supported by data for the factors listed in at least one of items A to C. The biological quality of any given surface water body will be assessed by comparison to the biological conditions determined for a set of reference water bodies which best represents the most natural condition for that surface water body type within a geographic region.

110. The proposed language clarifies the rule, eliminates unfettered discretion, removes redundant language, and retains all of the habitat quality factors for assessing impairment of water bodies for fisheries and lower aquatic biota. Subpart 6, with the proposed modifications, is needed and reasonable. The new language is not substantially different from that published in the *State Register*.

Subpart 7 – Impairment of Waters Relating to Fish for Human Consumption.

111. Subpart 7 addresses how the narrative standards relating to pesticide or other residues in aquatic flora or fauna are assessed. The Minnesota Department of Health (MDH) recommendations regarding fish consumption are identified as a means of determining that a water body is impaired. The proposed rule deems a water body impaired when the MDH recommendation is that fish from that location be consumed by any member of the population less frequently than one meal per week. The proposed subpart also provides an example of when a water body would not be impaired when MDH recommends that such consumption is appropriate for one or more meals per week.

112. The Chamber maintained that determining water body impairment through fish advisories required the MPCA to perform an analysis of fish by species, size, and actual consumption. The Chamber also objects to the fact that Department of Health advisories and the process for determining advisories are not controlled through rulemaking, yet these advisories will be critical in defining impairment under the proposed rule. The Chamber recommends that this subpart be deleted.⁷⁵

113. The Sierra Club and National Wildlife Federation (NWF) objected to reliance on the fish advisories as inadequate to protect people who fish for subsistence from adverse health effects. The Sierra Club and NWF suggested that the rule be changed to consider a water body impaired if there is any MDH recommendation that

⁷⁵ Chamber comment at 7-8.

restricts consumption for any members of the population. The Sierra Club maintains that it is unreasonable to have a Rule provide that lakes are unimpaired when eating fish from those waters may cause health problems, including nerve toxicity, to children, particularly in Minnesota's ethnic communities. NWF urged deletion of the rule requirement that impairment "must be supported by measured data on the contaminant levels in indigenous fish." NWF asserted that mercury is a "ubiquitous pollutant" and that all lakes in the State and all streams in the Lake Superior Basin are impaired for mercury.⁷⁶ Under such circumstances, NWF asserts that testing individual fish is unnecessary. The Clean Water Action Alliance of Minnesota (CWAA) and the North American Water Office's Indigenous Women's Mercury Investigation Project submitted similar comments.

114. Determining the minimally acceptable level of toxics in fish for consumption is the Department of Health's responsibility. Assessing the level of toxics in the water is the responsibility of the MPCA. The purpose of these rules is to set out factors used to determine if a water body is impaired in a beneficial use, such as swimming or fishing. A correlation exists between the level of toxics in fish and the level of those same toxics in the water. The MPCA's selection of the fewer than one meal per week standard is a reasonable means of identifying water bodies that are impaired. Relying on measured data of the actual amount of the toxic in fish further prevents unnecessary listing of a water body. Subpart 7 is needed and reasonable as proposed. Should the MPCA determine that the "not impaired" description is redundant language, deletion of that language would not result in a rule substantially different from that published in the *State Register*.

Weight of Evidence Approach.

115. The MPCA describes the method of making impairment decisions as the "weight of evidence" approach. Professional judgment teams, comprised of assessment professionals from the MPCA and monitoring entities, assess the evidence regarding a particular water body in comparison to reference water bodies to reach a conclusion as to whether the subject water body is impaired.⁷⁷ MESERB and CGMC assert that the proposed rules substitute the proposed narrative standards for the weight of evidence approach. The MPCA responded that the language requiring the Commissioner to consider relevant data and allowing the Commissioner to consider all "other scientifically objective, credible, and supportable factors that are not listed in this subpart" as demonstrating that approach has not been changed.⁷⁸ With the elimination of discretion to not consider such evidence (see Findings 102-104, and 109-110, *supra*), the weight of evidence approach is maintained.

Use of the Guidance Manual.

⁷⁶ NWF comment, at 2.

⁷⁷ MPCA Exhibit 2, at 23.

⁷⁸ MPCA Comment, at 15.

116. The MPCA has developed the *Guidance Manual for Assessing the Quality of Surface Waters* ("the Guidance Manual") for use in determining whether a water body is impaired. The Guidance Manual contains descriptions of the processes used by the MPCA in performing the testing and assessing the data used in making impairment decisions. The Chamber maintained that the rules require more detail and that this problem could be cured by including the Guidance Manual as part of the rule.⁷⁹ In the SONAR, the Agency discussed its reasoning for not proposing to adopt the Guidance Manual into the rule.⁸⁰ The MPCA's response to the Chamber's suggestion stated:

The Agency feels that the proposed rule amendments plus the Guidance provide the public with a reasonable and workable combination of promulgated regulation and detailed Guidance that allows the flexibility needed to carry out complex, case-by-case and unique water quality assessments.⁸¹

117. MESERB and CGMC asserted that the MPCA's use of the Guidance Manual constitutes "*de facto*" rulemaking.⁸² The Minnesota Farm Bureau Federation (MFBF) also maintains that the Guidance Manual constitutes an unpromulgated rule. The MPCA replied that:

Guidance documents are a widely used and accepted solution to the need for detailed instructions on how to conduct very complex, site-specific analyses. Regulatory agencies at all levels of government rely on them. No amount of detail in rule will eliminate the need for additional guidance outside the rule (SONAR at 36, Response at 10).⁸³

118. The issue in this proceeding is not whether using the Guidance Manual provides needed detail, but whether the manner in which such detail is applied constitutes a rule. Whenever an agency seeks to issue guidelines that will be applied as rules, such guidelines must be adopted as rules.⁸⁴ This standard does not prevent an agency from indicating how it interprets a rule or statute.⁸⁵

119. The approach taken in these rules to making impairment decisions is open-ended. All scientifically supportable evidence is available to the Commissioner in

⁷⁹ MPCA Exhibit 106i, Attach. 2

⁸⁰ MPCA Exhibit 1, at 36.

⁸¹ MPCA Comment, at 10.

⁸² MESERB Comment, at 5.

⁸³ MPCA Reply, at 3 (the MPCA noted that an example of such a manual is the EPA guidance manual "*2002 Integrated Water Quality Monitoring and Assessment Report Guidance*", that accompanied the Chamber's comments).

⁸⁴ *Johnson Bros. Wholesale Liquor Co. v. Novak*, 295 N.W.2d 238 (Minn. 1980).

⁸⁵ *Cable Communications Bd. v. Nor-West Cable Communications Partnership*, 356 N.W.2d 658 667 (Minn. 1984).

making those decisions. There are specific standards in the rule to follow in making those decisions. The contents of the Guidance Manual, by contrast, add detail to standards that are required by the rule. The language of the Guidance Manual does not purport to impose any requirement on any particular assessment of a water body. The Guidance Manual is a description of standard operating practices used by the MPCA in its approach to the testing of water bodies in making impairment decisions. Use of the Guidance Manual in making an impairment decision is subject to thorough review.⁸⁶ The Guidance Manual does not constitute a rule that must be adopted pursuant to Chapter 14.

Delisting Methodology.

120. MCPR urged that the proposed rules have a delisting process. The Minnesota Chamber of Commerce also recommended that the proposed rules include a delisting process. The Chamber suggests that, with the exception of user perception data, the same criteria used for listing impaired waters be used for delisting. The MPCA responded that the Guidance Manual contains references to where conditions have improved and the agency's approach to such situations.⁸⁷

121. The scope of the proposed rules is the clarification of narrative standards used for determining whether a water body is impaired. A consequence of an impairment determination is that the water body is placed on the 303(d) list. The MPCA did not discuss the possibility of establishing a formal delisting process in its Dual Notice of Hearing. Addressing this issue now would result in rules substantially different from that which was originally proposed and interested persons would be precluded from meaningful participation in establishing such a process. However, the Agency may want to consider adding a delisting process when it next revisits this rule.

Rivers and Streams.

122. The DNR proposed revision of the Guidance Manual to apply the data sets already developed for select river reaches in Minnesota. The DNR cites as an example the "chronic eutrophic condition of the Minnesota River," where the existing data on phosphorous concentrations could support a 303(d) listing for parts of that river.⁸⁸ As discussed in a foregoing finding, the Guidance Manual is not a rule, is not being adopted as a rule, and is beyond the scope of this proceeding.

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

⁸⁶ *Mapleton Community Home v. Minnesota Dept. of Human Services*, 391 N.W.2d 798, 802 (Minn. 1986).

⁸⁷ Saint Paul Tr., at 80.

⁸⁸ DNR comment, at 2-3.

CONCLUSIONS


1. The MPCA gave proper notice of this rulemaking hearing.
2. The MPCA has substantially fulfilled the procedural requirements of Minn. Stat. §§ 14.14, subds. 1, 1a and 14.14, subd. 2, and all other procedural requirements of law or rule so as to allow it to adopt the proposed rules.
3. The MPCA has demonstrated its statutory authority to adopt the proposed rules, and has fulfilled all other substantive requirements of law or rule within the meaning of Minn. Stat. §§ 14.05, subd. 1, 14.15, subd. 3 and 14.50 (i) and (ii), except as noted at Findings 51, 52, 59, 64, 69, 76, 82, 92, 102 and 109.
4. The MPCA has demonstrated the need for and reasonableness of the proposed rules by an affirmative presentation of facts in the record within the meaning of Minn. Stat. §§ 14.14, subd. 2 and 14.50 (iii).
5. The additions and amendments to the proposed rules suggested after publication of the proposed rules in the *State Register* do not result in rules which are substantially different from the proposed rules as published in the *State Register* within the meaning of Minn. Stat. § 14.15, subd. 3, and Minn. Rule 1400.1000, subp. 1 and 1400.1100.
6. The Administrative Law Judge has suggested action to correct the defects cited in Conclusion 3 as noted at Findings 51, 52, 59, 64, 69, 76, 82, 92, 102 and 109.
7. Due to Conclusions 3 and 6, this Report has been submitted to Administrative Law Judge George A. Beck, acting as the Chief Administrative Law Judge, for his approval pursuant to Minn. Stat. § 14.15, subd. 3.
8. Any Findings, which might properly be termed Conclusions and any Conclusions, which might properly be termed Findings, are hereby adopted as such.
9. A finding or conclusion of need and reasonableness in regard to any particular rule subsection does not preclude and should not discourage the MPCA from further modification of the proposed rules based upon an examination of the public comments, provided that no substantial change is made from the proposed rules as originally published, and provided that the rule finally adopted is based upon facts appearing in this rule hearing record.

Based upon the foregoing Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATION

IT IS HEREBY RECOMMENDED that the proposed rules be adopted, except where noted above.

Dated this 17 th day of September, 2002.


KENNETH A. NICKOLAI
Administrative Law Judge

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