

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 Steve M. Mihalchick at 9:00 a.m. on August 25, 1999 in the Pollution Control Agency Boardroom, 520 Lafayette Road, Saint Paul, Minnesota. The hearing continued on August 26, 1999 by video-conference from Saint Paul to hearing sites in Brainerd, Detroit Lakes, Rochester, and Duluth.

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, Gerald Blaha, Dann White, and Gary Kimball, all of the MPCA's Environmental Outcomes Division. Eldon Kaul and Paul Merwin, Assistant Attorneys General, Suite 900, NCL Tower, 445 Minnesota Street, St. Paul, Minnesota 55101, appeared on behalf of the MPCA at the hearing.

Approximately twenty-five persons attended the first day of hearing in Saint Paul. Twenty-three persons signed the hearing register in Saint Paul for the first day of hearing and two for the second day. Twenty-eight persons signed the hearing registers at the remote locations. The 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 September 15, 1999. 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 September 22, 1999, the rulemaking record closed for all purposes. The Administrative Law Judge received thirteen written comments from interested persons during the comment period. 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 June 8, 1999, 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 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).

2. On June 29 and 30, 1999, 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 Water Quality Standards Advisory Committee (WQSAC) mailing list, Mayors of Minnesota cities list, Minnesota township list, County Commissioners list, watershed offices list, Soil and Water Conservation Districts list, county water planners list, and National Pollutant Discharge Elimination System (NPDES) and SDS Permittees with Industrial Wastewater list. 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 in the public notice area (<http://www.pca.state.mn.us/news/publicnotice/index.html>).

3. On July 6, 1999, the Dual Notice of Hearing and proposed rules were published at 24 *State Register* 5.

4. The MPCA received 84 requests for hearing on this matter. The MPCA held an informal meeting on August 13, 1999 to discuss the issues raised by the WQSAC, the Coalition of Greater Minnesota Cities (CGMC), the Minnesota Department of Natural Resources (DNR), the Minnesota Center for Environmental Advocacy (MCEA); Minnesota State Representative Jean Wagenius, and others. The meeting agenda included references to the upcoming hearings and provided a toll-free telephone number for questions.¹ On August 19, 1999, the MPCA issued a press release announcing that the hearing would be held and providing the addresses for all the locations from which interested persons could participate in the hearing. The press release was widely circulated to media outlets throughout the state.

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

- a. Notice to Solicit Outside Information on the proposed rule amendments to Minn. Rules Chapter 7050 and notice of reconvening the Water Quality Standards Advisory Committee as published at 22 *State Register* 1984, May 11, 1998 (Exhibit 11);
- b. Request for Comments on Planned Amendment to Rules Governing State Water Quality Standards as published at 23 *State Register* 1568, January 19, 1999 (Exhibit 13);
- c. the Dual Notice as mailed (Exhibit 101a) and posted on the Agency's website (Exhibit 101b);
- d. the Dual Notice and proposed rules as published in 24 *State Register* 5, on July 6, 1999 (Exhibit 101c);
- e. the proposed rules, with the approval of the Revisor of Statutes (Exhibit 104);
- f. the Statement of Need and Reasonableness (SONAR)(Exhibit 1);
- g. 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 100b);
- h. 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 100a);

¹ Exhibit 107.

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

- i. the comments received in response to the MPCA's Dual Notice (Exhibits 102a-hh);
- j. Certificate of Mailing the Dual Notice and SONAR to Legislators and the Legislative Reference Librarian (Exhibit 103);
- k. modifications to the rules as proposed and published in the State Register (Exhibit 113); and
- l. the news release announcing that a hearing would be held on August 25 and 26, 1999 on the proposed rules (Exhibit 114).

Water Quality Rules Development Process.

6. In response to the concerns of the CGMC, in the fall of 1966 the MPCA formed a group that would examine existing water quality standards, as those standards affected municipal wastewater treatment. The group, WQSAC, was composed of twenty individuals representing cities, industries, consultants, environmental groups, educational institutions, and other governmental entities.³ Seven of the twenty participants have identifiable interests with smaller municipalities in greater Minnesota. The larger urban area was represented on the panel through the Metropolitan Council. The WQSAC met over a period of fifteen months and arrived at consensus positions on fourteen of the twenty-one issues discussed. Consensus on an issue meant that none of the participant expressed even mild opposition to the issue.⁴ The issues upon which consensus was achieved were forwarded to the MPCA, and the proposed rules in this matter were arrived at from the WQSAC discussions.

7. Sharon Sayles-Belton, Mayor of Minneapolis, objected to the lack of prior notice regarding the anticipated rule changes.⁵ Representative Wagenius and MCEA objected to the perceived lack of balance on the WQSAC.⁶ The MPCA responded that the voting process used, the "five-finger process"⁷, allowed each participant to register a more accurate position on each issue rather than a "yes or no" vote. Examples of votes actually taken by the WQSAC were provided as examples of different outcomes under the process.⁸ Whenever a proposed rule change was not the consensus of the WQSAC, the MPCA noted that fact and discussed the reasons for the particular rule language proposed.

8. There are no specific standards that control how an agency must treat input on changing a rule. In this instance, a group of municipal wastewater treatment authorities has organized to seek modifications to a rule that imposes upon them

³ SONAR, at 3 and Appendix B.

⁴ Id., at 4.

⁵ Minneapolis draws its drinking water from the Mississippi River, upstream from the city.

⁶ Exhibit 215 and Tr. Vol. 1, at 86-87.

⁷ Under the five finger process, displaying five fingers (or assigning a score of five) on an issue indicates strong support. A score of one indicates strong opposition.

⁸ Exhibit 117, at 3-4.

significant costs of compliance. There is nothing improper about such an approach. Any agency is free to accept any suggestion from any source and, conversely, to reject suggestions from workgroups the agency itself has organized. Any suggested modifications to rules that arise from the process must be demonstrated to be needed and reasonable and not in conflict with the Agency's statutory authority. Here, MPCA has amply demonstrated that it carefully reviewed the WQSAC suggestions and applied its own scientific and regulatory judgment to develop the rules it now proposes. The formation, membership, and process of the WQSAC do not constitute procedural defects in the proposed rules.

Nature of the Proposed Rules.

9. The proposed rules modify standards for persons discharging pollutants into public waters. Specific standards addressed are those for dissolved metals, fecal coliform, dissolved oxygen, ammonia, chlorine, and phosphorus. Eight additional standards are being modified by using a different method (known as the Tier II method) to assess allowable levels in discharges. For the default classification of public waters (known as Class 2 standards) the MPCA proposes to specify whether human health or affects on aquatic life is the basis for the classification. Lists of public waters that fall within certain classes are being modified and minor editing changes are being undertaken.

Statutory Authority.

10. The general authority of the MPCA is found at Minn. Stat. § 115.03, subd. 1(e), which empowers it. . . .

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

11. The MPCA also cites Minn. Stat. § 115.44 as the source of its authority to adopt these rules. Subpart 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

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

Assessment of Impact and Cost of the Rules.

13. 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. The MPCA devoted fifteen pages in its SONAR to documenting the information required by Minn. Stat. § 14.131.⁹ One purpose of some of the rules is to reduce costs to affected parties. The process used to arrive at the proposed rules was designed to ensure that all reasonable alternatives were explored. Most of the federal regulation in this area consists of guidance rather than requirements. 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

16. 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.

17. Rep. Wagenius argued that in order to establish need, the MPCA must present facts demonstrating the existence of a problem, which it failed to do. She argues that the only need shown was that of the dischargers, represented by CGMC, to make the standards less stringent so that they could save money. The need of the dischargers is not, according to Rep. Wagenius, representative of the interests of the rest of the citizens of Minnesota.¹⁰

18. The "need" for new rules is often demonstrated by the necessity to address an existing problem. But there are many other ways of demonstrating a need for new or changed rules. In this proceeding, the MPCA is proposing numerous changes to existing rules and has explained the need to do so at some length in the SONAR.¹¹ Part of that need arises out of requirements of the Federal Clean Water Act,

⁹ Exhibit 1, at 34-49.

¹⁰ Exhibit 15 at 2-3.

¹¹ SONAR at 12-31.

which requires states to review and revise their water quality standards at least once every three years. Moreover, as cited above, Minn. Stat. § 14.131 and 116.07, subd. 7, specifically require the agency to consider the cost impact of its rules upon the public, including municipalities. Therefore, it can be said that the need to adopt the proposed changes arises in part out of the statutory directives to consider the cost impact of the rules upon the municipalities.

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.¹² 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."¹³ 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 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.¹⁴ 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 through 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. Due to the very large number of noncontroversial changes, 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*.

¹² *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).

¹³ *Manufactured Housing Institute v. Pettersen*, 347 N.W.2d 238, 244 (Minn. 1984).

¹⁴ Minn. Stat. § 14.15, subd. 3.

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 limited impact on farming operations.¹⁵ To ensure compliance with the statute, the MPCA notified the Commissioner of Agriculture that these rules were being proposed.¹⁶ The Administrative Law Judge finds that, to the extent the proposed rule change will impact farming operations in Minnesota, the MPCA has met its burden of notice to the Commissioner of Agriculture.

7050.0210 General Standards for Dischargers to Waters of the State.

23. The overall approach to disposal of liquid wastes from municipal waste water facilities and industrial facilities is to allow discharge of specific wastes in such amounts that the existing water flow will dilute those wastes to acceptable levels. The overall level of control required of dischargers is set out in part 7050.0210. Since water flow is variable, the rule sets standards for how the minimum stream flow is calculated and uses that minimum flow to establish the maximum allowable discharge. The minimum flow standard is important to ensure that the water, at its lowest flow levels, is capable of adequately diluting the wastes being discharged. Subpart 7 requires the water quality standards be maintained at water flows at 90 percent of the seven consecutive daily average flows of record over a ten-year interval (7Q10).

24. In this rulemaking, the MPCA proposes to exempt ammonia as part of certain discharges from the 7Q10 minimum flow calculation. The standard proposed for ammonia is 90 percent of the thirty consecutive daily average flows of record over a ten-year interval (30Q10). Moving to the 30Q10 standard is supported by the MPCA as being consistent with the ammonia criteria published by the U.S. Environmental Protection Agency (EPA).¹⁷ The MPCA noted that the new limits would be applied as permits come up for reissuance. Permittees will only benefit from the change where ammonia treatment can be reduced or is no longer needed, and where the "antibacksliding" standards are met.¹⁸

25. MCEA objected to application of the 30Q10 standard to ammonia as allowing higher levels of discharge of the pollutant.¹⁹ MCEA noted that the EPA criteria for use of the longer averaging period were not accompanied by revised standards for the amounts of ammonia that can be discharged.²⁰ The commentator also indicated that significant limitations in the EPA criteria (limited variability in the amounts of the

¹⁵ SONAR, at 119.

¹⁶ Exhibit 97.

¹⁷ Exhibit 16.

¹⁸ SONAR, at 21.

¹⁹ Tr. Vol. 1, at 89.

²⁰ Exhibit 203.

ammonia, restricting the standard to publicly owned treatment works, and limited concentrations in receiving waters) are absent from the proposed rule.²¹

26. The DNR did not express opposition to the 30Q10 standard, but did note that the lack of EPA revised ammonia amounts "does place some burden on the Agency and permit reviewers to identify those circumstances where local conditions do result in variability that is too great."²² In particular, the DNR noted that the draft EPA ammonia amounts were lower in the winter months (when flows are lower) than would be allowable under the proposed rule. The DNR urged that the MPCA delay adoption of the 30Q10 standard until the EPA criteria regarding ammonia amounts were established. Elle Newman questioned whether the use of 7Q10 would result in "dead zones" in areas where the discharge is mixed with the public water.²³

27. The MPCA has gathered data on ammonia variability and compared the results under 30Q10, 30Q5, and 7Q10 minimum flow standards. The differences encountered under these standards are small.²⁴ The MPCA described its method of setting discharge limits when issuing permits and noted that where local data showed the variability of ammonia is too great, the 7Q10 standard would be applied.²⁵ Dischargers are prohibited from putting acutely toxic wastes into public waters.²⁶ The MPCA anticipates that allowing the 30Q10 standard will reduce costs for some permittees. The record demonstrates that exempting ammonia from the 7Q10 standard is reasonable to allow for reduced costs while protecting water quality. Subpart 7 is needed and reasonable as proposed.

7050.0211 Facility Standards.

28. Part 7050.0211 establishes requirements of secondary treatment for municipal treatment facilities and other point-source dischargers. Subpart 1 sets out the standards for various pollutants such as phosphorus and fecal coliform. For toxic or corrosive pollutants, the whole effluent toxicity test must be met.²⁷ The discharge of pollutants that do not meet the whole effluent toxicity test is prohibited by subpart 1. The Metropolitan Airports Commission (MAC) objected to the prohibition of such discharges and urged the modification of the rule to allow for zones of initial dilution (ZIDs).²⁸ ZIDs rely upon organisms not being exposed to acutely toxic discharge for long periods of time to avoid in-stream mortality. The MPCA declined to make this change due to the lack of any demonstration of the method and the likelihood it would

²¹ Exhibit 214.

²² Exhibit 212, at 2.

²³ Tr. Vol. 2, at 199.

²⁴ SONAR, at 79.

²⁵ SONAR, at 81. Minn. Rule 7050.0210, subp. 9, allows the MPCA to set, on a case-by-case basis, specific limits on particular pollutants to ensure that water quality is preserved.

²⁶ See the discussion on acute toxicity at Finding **25**, below.

²⁷ The test exposes organisms to the effluent to be discharged and measures what percentage are killed. If the resulting mortality is below 50 percent, the effluent is not considered "acutely toxic."

²⁸ Exhibit 102ff.

constitute a substantial change.²⁹ Declining to add ZIDs as an acceptable practice for dischargers does not constitute a defect in the proposed rules.

Fecal Coliform.

29. For Class 2 waters, the MPCA is proposing to modify the starting date of required wastewater disinfection from March 1 to April 1. The primary concern expressed over fecal coliform levels in recreational waters is that persons swimming in the water will ingest contaminated water and suffer adverse health consequences.³⁰ In disinfecting wastewater, dischargers must chlorinate the effluent, and then apply sulfur dioxide to dechlorinate the treated effluent.³¹ The MPCA assessed the benefits of reducing the amounts of chlorine and sulfur dioxide introduced into the environment and the reducing the costs to dischargers. Weighed against these benefits was the potential risk of exposure to persons who do swim in public waters in the month of March. Since the number of persons exposed to the hazard is very low, the MPCA concluded that the modification was both needed and reasonable.

30. Ginny Yingling, Minnesota Director of the Sierra Club, suggested that the benefits thought to be derived from shortening the season on disinfection might be offset by other costs to other affected entities. For example, shortening the treatment season could result in increased costs for municipalities required to chlorinate water to meet the drinking water standards. Sol Simon, Director of the Mississippi River Revival, asserted that more persons are exposed to affected waters in March than the MPCA suggests.

31. In deciding to shorten the season on disinfection, the MPCA considered the levels of fecal coliform found in the colder water typically present in Minnesota during the month of March. The levels are four to ten times lower in March than in the same water during the period of June through September. The desired level of protection sought is present in March due to environmental factors and disinfection in that month is unnecessary to achieve that protection.³² The fecal coliform disinfection standard is needed and reasonable as proposed.

Phosphorus.

32. Another waste listed in subpart 1 is phosphorus. Phosphorus is controlled to prevent the growth of algae on lakes and, to a lesser extent, rivers.³³ The current rule requires dischargers to meet a limit of one milligram of phosphorus per liter (1 mg/L) when the discharge "is directly to or affects a lake or reservoir."³⁴ The rule goes on to

²⁹ Exhibit 117, at 9-10.

³⁰ SONAR, at 58. The rule contains a year-round disinfection requirement when a potable water intake is located within 25 miles downstream of the discharge.

³¹ SONAR, at 59.

³² That is the level of protection for swimmers and other recreational users, not the higher level of protection required near potable water intakes.

³³ SONAR, at 25.

³⁴ Minn. Rule 7050.0211, subp. 1.

explain that compliance is calculated by an arithmetic mean of phosphorus measured monthly. The proposed rule also requires retention of the calendar month limitation where an existing limit is in effect, unless other criteria are met.³⁵ Most phosphorus is removed from wastewater by application of chemicals such as alum or ferric chloride.³⁶ The MPCA has encouraged the use of an alternative approach not using chemicals (known as Bio-P).³⁷ While the overall results from use of Bio-P have been encouraging, the MPCA noted that the treatment is not consistent enough to assure that the 1 mg/L standard is met when phosphorus discharge is averaged over a calendar month. To ensure that the rule does not preclude use of Bio-P as a treatment approach, the MPCA proposed to expand the averaging period to one year or a rolling twelve-month average.³⁸

33. The DNR supports allowing a moving mean to measure phosphorus compliance. They suggested that the permitting process provide a further explanation of when these alternative processes apply.³⁹ Minnesota Corn Processors, Inc. supported the longer averaging period and urged adoption of seasonal discharge limits.⁴⁰ The Metropolitan Council noted that substantial capital and operating costs can be reduced by allowing flexibility.⁴¹

34. Donald Barron, City Councilman and Chair of the Utility Committee for the City of Thief River Falls, described the conditions under which that city's wastewater treatment system operates. Thief River Falls uses settling ponds that reduce phosphorus by allowing algae to bloom in the ponds and particulate settling. The average phosphorus level for Thief River Falls is 2 mg/L.⁴² Thief River Falls only discharges wastes between five and seven months out of the year. As a result, the annual average is approximately 1 mg/L. Thief River Falls suggests that facilities with intermittent releases be allowed to use the annual average and setting the discharge level at 2 mg/L.⁴³

35. The MPCA responded that pond systems are often constructed to allow for chemical treatment in the last holding area prior to discharge to ensure that the applicable limitations are met.⁴⁴ Whether a higher amount of phosphorus discharge can be allowed is determined on a case-by-case basis. Since the trigger for the 1 mg/L standard is when the discharge directly affects a lake or reservoir, the flexibility to allow higher amounts of discharge where conditions permit is already in the rule language.

³⁵ This language is referred to as an "anti-backsliding" provision.

³⁶ SONAR, at 26.

³⁷ *Id.*

³⁸ SONAR, at 26. The rolling average replaces the oldest month in the calculation with the data from the most recent month. As the MPCA explained, this approach means that permittees do not have to wait for the expiration of a calendar year to assess their degree of compliance with the standard.

³⁹ Exhibit 212, at 2.

⁴⁰ Exhibit 211.

⁴¹ Exhibit 102gg.

⁴² Exhibit 205.

⁴³ *Id.*

⁴⁴ Exhibit 117, at 44.

36. The originally proposed Minn. R. 7050.0211 subp. 1a required that existing calendar month effluent limits remain in effect unless an assessment of certain listed criteria indicates a different averaging period would be acceptable. While the rule listed those criteria to be assessed, it provided no clear standards for measuring acceptability. In its post hearing comments, the MPCA proposed a modification to the rule to better define those standards. As modified, the relevant portion of the rule would provide:

A different averaging period is acceptable when:

- A. the effect of phosphorous loading from the facility on the receiving water or downstream water resources is generally not measurable; and
- B. the treatment technologies being considered offer environmental, financial, or other benefits.⁴⁵

As modified, the rule is not necessarily unreasonable and the modification does not constitute a substantial change.

37. The Minnesota Environmental Science and Economic Review Board (MESERB) objected to the anti-backsliding provision in the phosphorus standard. MESERB maintained that the basis for the MPCA's adoption of that standard is the federal Clean Water Act, section 402(o). That provision has been interpreted by the EPA as inapplicable to state technology-based treatment requirements.⁴⁶ The MPCA responded that its anti-backsliding provision in this rulemaking is not tied to federal law.⁴⁷ The anti-backsliding provision is intended to prevent the introduction of additional phosphorus into public waters. The need for further reducing phosphorus discharges is reflected in the intention to add limitations to the Metro facility (serving the Twin Cities metropolitan area) to protect the water quality of Lake Pepin, fifty miles downstream. Each discharger with an existing limit was found to be directly affecting a lake downstream. Allowing flexibility in treatment methodology does not alter the impact of the phosphorus on downstream lakes. The phosphorus standard, including the anti-backsliding provision, is needed and reasonable.

7050.0218 Methods for Protection of Surface Waters from Toxic Pollutants for which Numerical Standards not Promulgated.

38. A number of pollutants have specific criteria for discharge based upon the impacts of those pollutants on aquatic life and human health. These pollutants are known as Tier I. For the other pollutants, the MPCA has used a methodology (known as the Tier II methodology) to determine how much of these other pollutants may be discharged. The MPCA is proposing to modify the Tier II methodology to adopt the

⁴⁵ Exhibit 117, attachment 2.

⁴⁶ Exhibit 209, Memorandum, at 3.

⁴⁷ Exhibit 118, at 5.

assessment process developed by the EPA.⁴⁸ The modified process divides an adjustment factor into the lowest level of acute toxicity to determine a final acute value (FAV). The FAV is then divided by the ratio of acute to chronic toxicities to determine the chronic standard for the pollutant.⁴⁹ The adjustment factor is higher when less data about the pollutant is available.

39. Representative Wagenius objected to the use of the new Tier II methodology due to the resulting less stringent standards for five organic chemicals.⁵⁰ The Sierra Club suggested that the results of the new Tier II methodology are less sound than the prior method.⁵¹ Both commentators maintain that the potential for some of the pollutants to be carcinogenic must be accounted for in the Tier II methodology.

40. The MPCA indicated that the purpose of the new Tier II methodology was to "mimic" the method used for setting Tier I levels.⁵² Ideally, sufficient data would be available to set precise toxicity limits on all pollutants. The approach used by the MPCA accounts for the lack of data by introducing an adjustment factor. As more data (and thereby more certainty on a pollutant's impact) becomes available, the adjustment factor is reduced. Since discharge of Tier II pollutants under the existing methodology is being done in ignorance of many of the environmental impacts of those toxins, a conservative approach is appropriate. When more information becomes available, the limits on those toxins can be adjusted to conform with the added knowledge of the impact of those toxins. The MPCA has demonstrated that the use of the Tier II methodology, and the particular standards set with that methodology, to be needed and reasonable.

7050.0222 Specific Standards of Quality and Purity for Class 2 Waters of the State; Aquatic Life and Recreation.

41. Part 7050.0222 sets out the allowable limits for a variety of substances in waters used for swimming and fishing. The MPCA has proposed adding a clarification as to how metals are treated for effluent limits in Subpart 1. The standards for the various subtypes of Class 2 waters are set out in the subsequent subparts. To the 2B, 2Bd, and 2C Classes, the MPCA is proposing to add language regarding the minimum level of dissolved oxygen (DO) that must be present in warm water. The MPCA is requiring a minimum level of DO in warm water to protect aquatic life, particularly fish in the embryonic and larval stages.⁵³ Because of the wide variety of temperatures experienced throughout the state, the MPCA is proposing that the standard be applied on a site-specific basis.

42. MESERB suggested that the DO minimum standard should not be applied when early life stages of any species of fish are absent, but only where early life stages

⁴⁸ SONAR, at 16.

⁴⁹ *Id.*

⁵⁰ Exhibit 202.

⁵¹ Tr. Vol. 1, at 132-133.

⁵² Exhibit 117, at 13.

⁵³ SONAR, at 83.

of DO-sensitive species of fish are absent.⁵⁴ This approach would allow a discharger to cause a low DO condition whenever the public water is not currently occupied with aquatic life having been identified as DO-sensitive. MCEA, on the other hand, stressed the need to clarify that the absence of sensitive species includes those species that historically occupy the affected water.⁵⁵ The DNR stressed that the available data on species was insufficient to adequately distinguish between sensitive and non-sensitive species.⁵⁶ CGMC and Minnesota Corn Processors suggested that the DO minimum standard be reduced to 3 mg/L.⁵⁷

43. The MPCA responded that introduction of a site-specific standard places the burden of demonstrating suitability on the permit applicant.⁵⁸ The applicant will bear the primary costs of the process. Species historically present will be considered, unless some irreversible change in habitat has occurred.⁵⁹ The suggestion to reduce the minimum to 3 mg/L was rejected by the MPCA as insufficiently protective of aquatic life.⁶⁰ The dissolved oxygen standard has been shown to be needed and reasonable.

7050.0470 Classifications for Waters in Major Surface Water Drainage Basins.

44. The classifications of different types of watercourse is set out in part 7050.0470. Each subpart is devoted to a particular basin and waters including creeks and the ditch system are listed. The MPCA is proposing to change a number of classifications in this rulemaking, but the comments were concerned only with the proposed change of 10 identified watercourses from Class 2B to Class 7. To fall within the Class 7 category the watercourse must have a severely limited aquatic community (limited due to natural conditions), irreversible and severe alterations, and limited recreational opportunities.⁶¹ The MPCA conducted an analysis of each watercourse, including a site visit, to determine if the Class 7 designation is appropriate. The Agency's policy is to classify very few watercourses as Class 7.⁶²

45. Interested persons request that specific watercourses be designated Class 7, because the discharge standards are typically less restrictive for Class 7 than Class 2. This fact is reflected in the assessment of existing or potential dischargers to each watercourse considered for reclassification.⁶³ The MPCA considered a number of watercourses for redesignation. Based on comments received before the hearing, the MPCA modified the rule to remove the Green Isle watercourse from the list to be

⁵⁴ Exhibit 201.

⁵⁵ Exhibit 203, at 2.

⁵⁶ Exhibit 212.

⁵⁷ Exhibit 211.

⁵⁸ Exhibit 117, at 25.

⁵⁹ *Id.*

⁶⁰ Exhibit 118, at 6. By way of comparison, the DO standard that must be maintained for the least protected water, Class 7, is 1 mg/L. See Minn. Rule 7050.0227, subp. 2.

⁶¹ SONAR, at 28-29.

⁶² SONAR, at 29.

⁶³ SONAR, at 92-99.

designated as Class 7 watercourses.⁶⁴ The change does not render the rule substantially different from the rule as published in the *State Register*.

46. Mississippi River Revival questioned whether the MPCA adequately considered existing uses of the watercourses in proposing these changes. Bill Carter of Winona and Paul Tradomski, President of the Minnesota Chapter of the American Fisheries Society (AFS), noted that watercourses not supporting aquatic life flow into waters that do.⁶⁵ AFS and Mississippi River Revival suggested that the MPCA engage in more detailed surveys of the watercourses proposed to determine suitability for Class 7 status. Carter and Joe Morse of Bluff Land Environmental Watch suggested that landowners along these watercourses be notified, either as part of the reclassification or as ongoing warnings about the pollutants likely to be present.

47. The DNR also noted that these watercourses flow into others that provide aquatic habitat. As a matter of policy, the DNR opposes the classification of any water as Class 7 and prefers that economic considerations be addressed through the variance process for individual permits.⁶⁶ Nonetheless, the DNR acknowledged that the MPCA has done the required analysis and the DNR does not challenge any of the proposed changes beyond offering their comments to the MPCA.⁶⁷

48. The MPCA has presented extensive documentation of its study supporting the reclassification of the ditches and streams it has proposed to reclassify as Class 7 waters.⁶⁸ In response to the comments of DNR, the MPCA and DNR came to basic agreement on all but two of the waters proposed for Class 7 reclassification.⁶⁹ Some commentators questioned MPCA staff about the extent of their observations of the waters proposed for reclassification, particularly during periods of low flow. But it is clear from the record that Mr. Blaha not only visited each of the sites, but also collected reliable data from other sources that enabled him to make the recommendations proposed in the rules consistent with the standards for Class 7 designation. The reclassifications proposed in the rules have been shown to be needed and reasonable.

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

CONCLUSIONS

1. The MPCA gave proper notice of this rulemaking hearing.

⁶⁴ Tr. Vol. 1, at 30; Exhibit 113.

⁶⁵ Tr. Vol. 2, at 156-157 and 224-225.

⁶⁶ Exhibit 212, at 4.

⁶⁷ *Id.*

⁶⁸ SONAR at 92-99.

⁶⁹ Exhibit 118, at 8.

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).

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 MPCA's 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. Any Findings, which might properly be termed Conclusions and any Conclusions, which might properly be termed Findings, are hereby adopted as such.

7. 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 as modified by the MPCA be adopted.

Dated this 21st day of October, 1999.

STEVE M. MIHALCHICK
Administrative Law Judge

Reported: Transcript, Two Volumes

Kirby A. Kennedy & Associates
Minneapolis, Minnesota